

APPENDIX 1.1:

APPROVED TRAFFIC STUDY SCOPING AGREEMENT

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MINAGAR & ASSOCIATES, INC.

Traffic Engineering – Transportation Planning – Intelligent Transportation Systems (ITS) – Civil/Electrical Engineering & CEM Consultants



April 30, 2020

Mr. Jeff Hart, PE
Director of Public Works/City Engineer
City of Beaumont
550 E. Sixth Street
Beaumont, CA 92223

Subject: TO#52 – PW2020-0456 2nd Review of TIA Scoping Agreement for JN:12396 Jack Rabbit Trail (aka JRT) Traffic Impact Analysis Scoping Agreement, Beaumont, CA

Dear Mr. Hart,

We have completed our 2nd review of **TO#52 – PW2020-0456 TIA Scoping Agreement for JN:12396 Jack Rabbit Trail Traffic Impact Analysis Scoping Agreement, Beaumont, CA Prepared by Urban Crossroads dated April 8, 2020.**

The April 8, 2020 Scoping Agreement as revised and stated is acceptable. The consultant can proceed with the preparation of the Traffic Impact Analysis.

Should you have any questions, I can be contacted conveniently via e-mail at minagarf@minagrinc.com.

Thank you.

Sincerely,

MINAGAR & ASSOCIATES, INC.
(A California Corporation)

Fred Minagar, MS, RCE, PE, FITE
President/Contract City Traffic Engineer





MINAGAR & ASSOCIATES, INC.

Traffic Engineering – Transportation Planning – Intelligent Transportation Systems (ITS) – Civil/Electrical Engineering & CEM Consultants



March 10, 2020

Mr. Jeff Hart, PE
Director of Public Works/City Engineer
City of Beaumont
550 E. Sixth Street
Beaumont, CA 92223

Subject: TO#52 – PW2020-0456 1st Review of TIA Scoping Agreement for JN:12396 Jack Rabbit Trail (aka JRT) Traffic Impact Analysis Scoping Agreement, Beaumont, CA

Dear Mr. Hart,

We have completed our 1st review of **TO#52 – PW2020-0456 TIA Scoping Agreement for JN:12396 Jack Rabbit Trail Traffic Impact Analysis Scoping Agreement, Beaumont, CA Prepared by Urban Crossroads dated February 20, 2020.**

With regard to the Scoping Agreement, we have the following comments:

1. The proposed 12 analysis scenarios are acceptable, however for the Horizon Year 2040 With and Without the Project Conditions, it is recommended that 2045 to be used since the SCAG's RTP/SCS is for 2020-2045 time frame. Therefore, all the computer demand forecasting models to be for the ultimate year of 2045.
2. Why aren't the following intersections a part of the TMC counts and subsequent analyses under the existing conditions as well as the future when the new interchange is built? Exhibit 2 to be modified to reflect the following intersections.
 - Jack Rabbit Trail at SR 60
 - Jack Rabbit Trail at SR 60 EB Off-Ramp
 - Jack Rabbit Trail at SR 60 EB On-Ramp
 - Jack Rabbit Trail at Frontage Road
3. Trip Distribution, Page 4, why is it assumed that no project traffic is assumed to utilize SR-60 Freeway/Jack Rabbit Trail interchange? Exhibit 3 to be modified.
4. Preliminary Site Plan, a more detailed project site plan is required to visualize internal and external access points (ingress & egress) for the proposed 11 different land uses.
5. The project applicant to update Table 4 and Exhibit 7 regarding the most up dated cumulative development projects from the Cities of Beaumont and Banning Planning Departments.



MINAGAR & ASSOCIATES, INC.

Traffic Engineering – Transportation Planning – Intelligent Transportation Systems (ITS) – Civil/Electrical Engineering & CEM Consultants



6. Due to big size of the contemplated land use plans and potential impacts on the State's infrastructure, will the project applicant prepare another TIA based upon the Caltrans District 8 methodology? Have they been contacted yet?

7. Will the project applicant utilize the WRCOG's TUMF Calculation Handbook?

Should you have any questions, I can be contacted conveniently via e-mail at minagarf@minagrinc.com.

Thank you.

Sincerely,

MINAGAR & ASSOCIATES, INC.
(A California Corporation)

Fred Minagar, MS, RCE, PE, FITE
President/Contract City Traffic Engineer



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April 8, 2020

Mr. Jeff Hart
City of Beaumont Public Works
550 E. Sixth Street
Beaumont, CA 92223

SUBJECT: JACK RABBIT TRAIL TRAFFIC IMPACT ANALYSIS SCOPING AGREEMENT

Dear Mr. Jeff Hart:

Urban Crossroads, Inc. is pleased to submit this letter documenting the recommended scoping / assumptions for the proposed Jack Rabbit Trail development ("Project"), which is located south of the SR-60 Freeway and west of Jack Rabbit Trail, in the County of Riverside in the sphere of influence of City of Beaumont. Our goal is to obtain comments from City of Beaumont staff, to ensure that the traffic study fully addresses the potential impacts of the proposed Project. The remainder of this letter describes the proposed analysis methodology, Project trip generation, and trip distribution, which have been used to establish the proposed Project study area and analysis locations.

The Project is to consist of 4,500,000 square feet of high-cube fulfillment center use and 500,000 square feet of general light industrial use. In addition, there is commercial component that includes a 125 room hotel, 77,000 square foot indoor go-kart facility, 26,000 square foot rock climbing facility, 24,000 square foot trampoline park, 40,000 square foot bowling alley, 36 hole miniature golf, 15,000 square feet of quality restaurant use, and 15,000 square feet of high turnover (sit-down) restaurant use. The Project is proposed to be developed in three phases as follows:

- Phase 1 = 1,379,191 square feet of high-cube fulfillment center warehouse use (Opening Year 2023)
- Phase 1 + Phase 2 = 4,500,000 square feet of high-cube fulfillment center warehouse use and 500,000 square feet of general light industrial use (Opening Year 2025)
- Project Buildout = 4,500,000 square feet of high-cube fulfillment center warehouse use, 500,000 square feet of general light industrial use, and all uses within the general commercial area (Opening Year 2027)

The preliminary land use plan for the proposed Project is shown on Exhibit 1. As indicated on Exhibit 1, access to the Project site will be provided via the future extension of 4th Street to Potrero Boulevard. No access to the SR-60 Freeway/Jack Rabbit Trail interchange is proposed (to be utilized as secondary emergency access only). Exhibit 2 depicts the location of the proposed Project in relation to the existing roadway network and the study area intersections.

ANALYSIS SCENARIOS

Peak hour operations at each of the study area intersections and site access driveways will be assessed based on the HCM 6th Edition methodology for the following analysis scenarios:

- Existing (2020) Conditions
- Existing plus Project (E+P) Conditions – Phase 1
- Existing plus Project (E+P) Conditions – Phase 1 + Phase 2
- Existing plus Project (E+P) Conditions – Project Buildout
- Opening Year Cumulative (2023) Without Project Conditions
- Opening Year Cumulative (2023) With Project Conditions
- Opening Year Cumulative (2025) Without Project Conditions
- Opening Year Cumulative (2025) With Project Conditions
- Opening Year Cumulative (2027) Without Project Conditions
- Opening Year Cumulative (2027) With Project Conditions
- Horizon Year (2045) Without Project Conditions
- Horizon Year (2045) With Project Conditions

TRIP GENERATION

In order to develop the traffic characteristics of the proposed Project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition, 2017) and the TUMF High-Cube Warehouse Trip Generation Study (WSP, January 29, 2019) have been used. For purposes of this analysis, the following ITE land use codes and vehicle mixes have been utilized:

- High-Cube Fulfillment Center Warehouse has been used to derive site specific trip generation estimates for up to 4,500,000 square feet of the proposed Project. The ITE Trip Generation Manual (2017) has trip generation rates for high-cube fulfillment center use (ITE land use code 155), however, these rates are unreliable because they are based on limited data (i.e., one to two surveyed sites) and the ITE Trip Generation Manual recommends the use of local data sources where available. The recent (February 2020) ITE Trip Generation Manual Supplement includes trip generation rates for high-cube fulfillment center warehouse (non-sort) and (sort) facilities, however, it is unclear at this time the type of operation for the proposed speculative buildings. As such, the trip-generation statistics published in the TUMF High-Cube Warehouse Trip Generation Study (WSP, January 29, 2019) which was commissioned by the Western Riverside Council of Governments (WRCOG) in support of the Transportation Uniform Mitigation Fee (TUMF) update, has been utilized for the high-cube fulfillment center use. The WSP trip generation rates were published in January 2019 and are based on data collected at 11 local high-cube fulfillment center sites. However, the WSP study does not include a split for inbound and outbound vehicles, as such, the inbound and outbound splits per the ITE High-Cube Warehouse Vehicle Trip Generation Analysis (October 2016) have been utilized.

- ITE land use code 110 (General Light Industrial) has been used to derive site specific trip generation estimates for up to 500,000 square feet of the proposed Project. The ITE Trip Generation Manual includes very limited data regarding the types of vehicles that are generated for general light industrial uses (passenger cars and various sizes of trucks). As such, data regarding the vehicle mix has been obtained from a separate report; the City of Fontana's Truck Trip Generation Study (August 2003) for the general light industrial uses proposed as part of the Project. The "Light Industrial" vehicle mix data has been utilized: 8.0% 2-axle trucks, 3.9% 3-axle trucks, and 9.5% 4+-axle trucks (total of 21.4% trucks).
- Other land uses assumed within the General Commercial area (Planning Areas 1-3):
 - Hotel – ITE Land Use Code 310
 - Shopping Center – ITE Land Use Code 820
 - Rock Climbing – ITE Land Use Code 434
 - Trampoline Park – ITE Land Use Code 436
 - Bowling Alley – ITE Land Use Code 437
 - Athletic Club – ITE Land Use Code 493
 - Miniature Golf Course – ITE Land Use Code 432
 - Quality Restaurant – ITE Land Use Code 931
 - High Turnover Sit-Down Restaurant – ITE Land Use Code 932
 - Indoor Car Racing (Alternative Source, See Table 1)

Internal capture is a percentage reduction that can be applied to the trip generation estimates for individual land uses to account for trips internal to the site. In other words, trips may be made between individual retail uses on-site or between the retail and industrial uses (employees) and can be made either by walking or using internal roadways without using external streets (e.g., restaurant to retail). Internal capture reductions between the proposed land uses have been considered based on the ITE Trip Generation Handbook, 3rd Edition (2017).

Pass-by trips are defined as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the generator. These types of trips are many times associated with retail uses. As the Project is proposed to include restaurant uses, applicable pass-by reduction percentages have been obtained and applied from the ITE Trip Generation Handbook, 3rd Edition (2017).

Table 1 presents the trip generation rates for each of the land uses above. A summary of the Project's trip generation, by phase, is shown on Table 2 in actual vehicles and on Table 3 in passenger car equivalent (PCE). PCE trip generation will be utilized for the purposes of the operations analysis. As

shown on Table 2, the proposed development is anticipated to generate a net total of approximately 16,266 trip-ends per day on a typical weekday with 1,060 vehicles per hour (VPH) during the weekday AM peak hour and 1,466 VPH during the weekday PM peak hour.

TRIP DISTRIBUTION

All Project traffic will access Potrero Boulevard via an extension of 4th Street to the west. No Project traffic is assumed to utilize the SR-60 Freeway/Jack Rabbit Trail interchange. E+P traffic conditions will assume the existing roadway infrastructure only, which includes the interim Potrero Boulevard bridge and connection to SR-60 Freeway Westbound at Western Knolls Road. Opening Year Cumulative and Horizon Year traffic conditions assume the completion of the SR-60/Potrero Boulevard interchange. No trucks are assumed to use Oak Valley Parkway (trucks to use Beaumont Avenue in the interim condition and Potrero Boulevard interchange once completed). Project trip distribution patterns for passenger cars and trucks are shown on Exhibits 3 through 6 for without and with Potrero Boulevard interchange conditions.

LEVEL OF SERVICE (LOS) CRITERIA

The **City of Beaumont** has established LOS D as the minimum level of service for all roadways/intersections within the City (Policy 10 of the General Plan Circulation Element). Therefore, any intersection operating at LOS E or F will be considered deficient for the purposes of this analysis.

DEFICIENCY CRITERIA

To determine whether the addition of project traffic at a study intersection results in a deficiency, the following thresholds of significance will be utilized:

- A significant project-related impact occurs at a study intersection if the addition of project-generated trips reduces the peak hour level of service of the study intersection to change from acceptable level of service (LOS A, B, C or D) to an unacceptable level of service (LOS E or F);
- A significant cumulative impact occurs at a study intersection if the Project contributes 50 or more peak hour trips to an intersection that is anticipated to operate at a deficient LOS without the Project (LOS E or F).

EXISTING COUNT DATA

Traffic counts for the study area intersections were collected in November 2019 and January 2020. Traffic counts were conducted on a typical Tuesday, Wednesday, or Thursday while local schools were in session and operating on normal bell schedules. There were no unusual traffic conditions that would affect the accuracy of counts, such as lane blockage, diverted traffic, or roadway construction.

AMBIENT GROWTH

Consistent with other studies performed in the area, an ambient growth rate of 2% per year is proposed for the study area intersections to approximate background traffic growth not identified by nearby cumulative development projects. The rate will be calculated based on the following:

Year 2023 = Three-year period (i.e., $1.02^3 \text{ years} = 1.0612$ or 6.12%)

Year 2025 = Five-year period (i.e., $1.02^5 \text{ years} = 1.1041$ or 10.41%)

Year 2027 = Seven-year period (i.e., $1.02^7 \text{ years} = 1.1487$ or 14.87%)

SPECIAL ISSUES

The following special issues will also be addressed as part of the TIA:

- Provide a Traffic Signal Warrant assessment at all unsignalized intersections based on either the CA MUTCD peak-hour volume-based or planning-level daily volume-based traffic signal warrants.
- Traffic Study will evaluate the freeway facilities where project-related traffic is proposed to enter the State Highway System. Freeway facilities to be evaluated would include basic freeway segments and merge/diverge ramp junctions at the I-10 Freeway at Oak Valley Parkway, I-10 Freeway at Beaumont Avenue (near-term conditions only), and SR-60 Freeway at future Potrero Boulevard interchange.
- Vehicle Miles Traveled (VMT) analysis will be prepared under separate cover.

OPEN ITEMS – CUMULATIVE DEVELOPMENT PROJECTS

Exhibit 7 shows cumulative development projects which are listed on Table 4. It is requested that the City of Beaumont provide an updated list of cumulative development projects for inclusion in the traffic study.

If you have any questions, please contact me directly at (949) 336-5982.

Respectfully submitted,

URBAN CROSSROADS, INC.



Charlene So, PE
Associate Principal

EXHIBIT 1: PRELIMINARY SITE PLAN

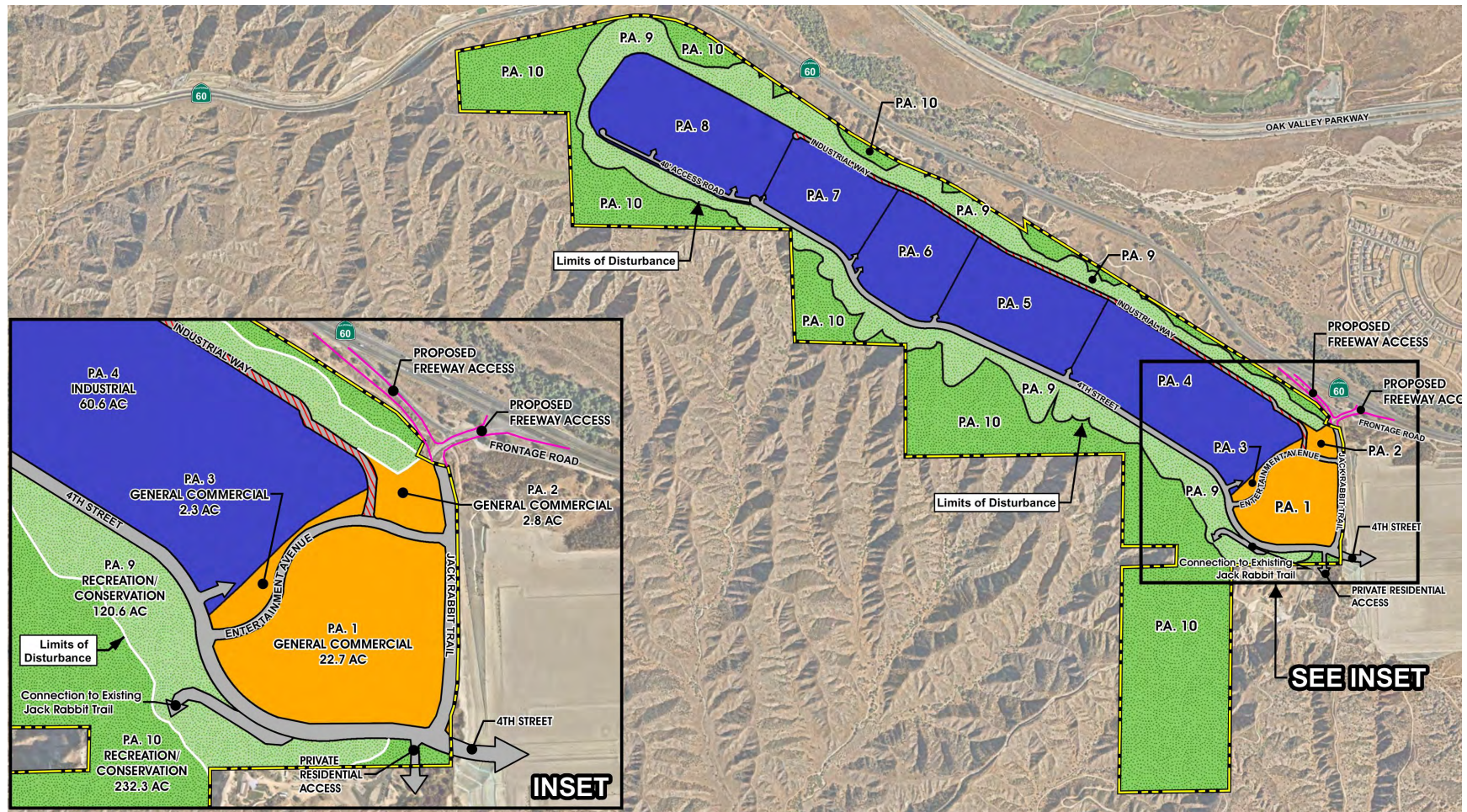


EXHIBIT 2: LOCATION MAP

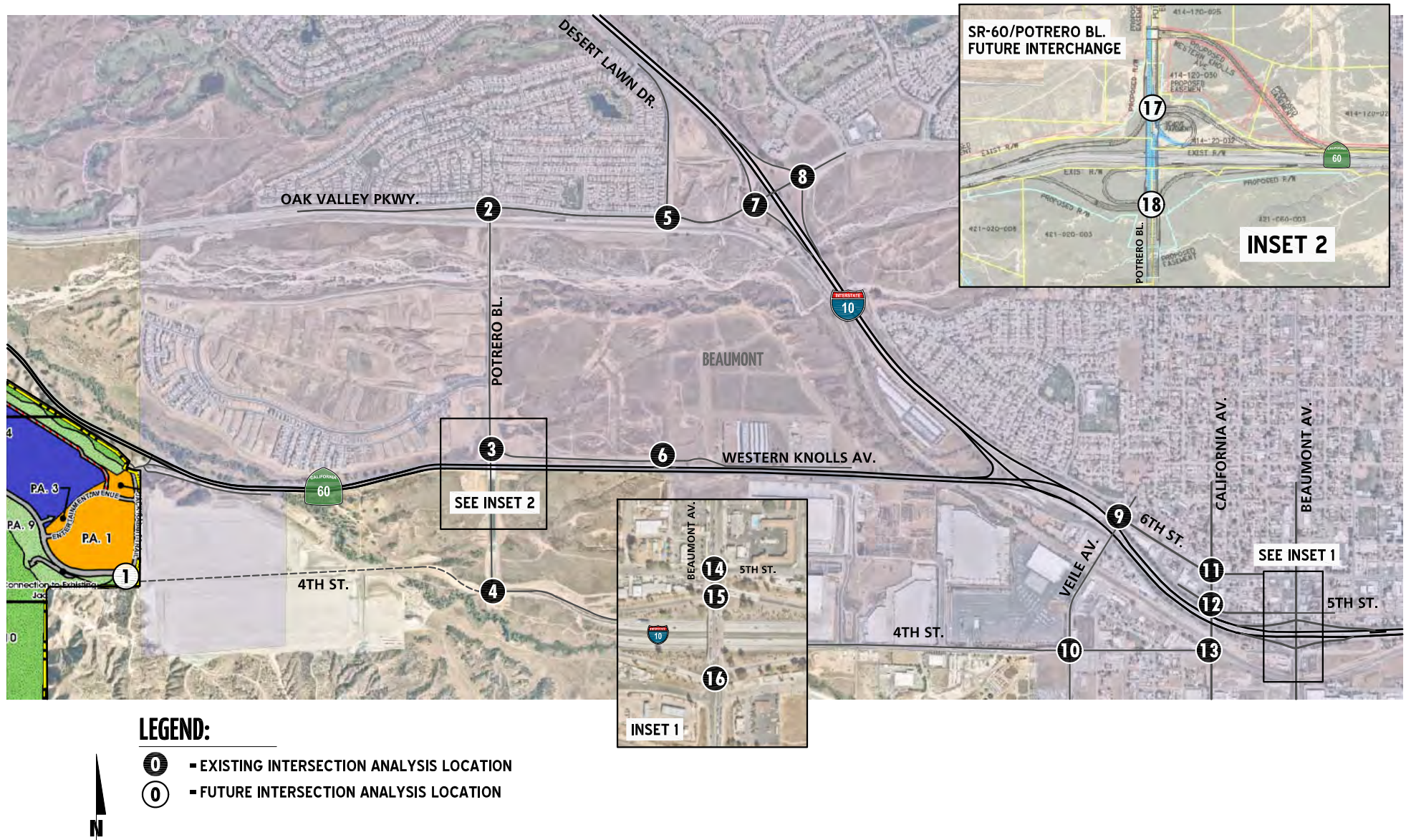
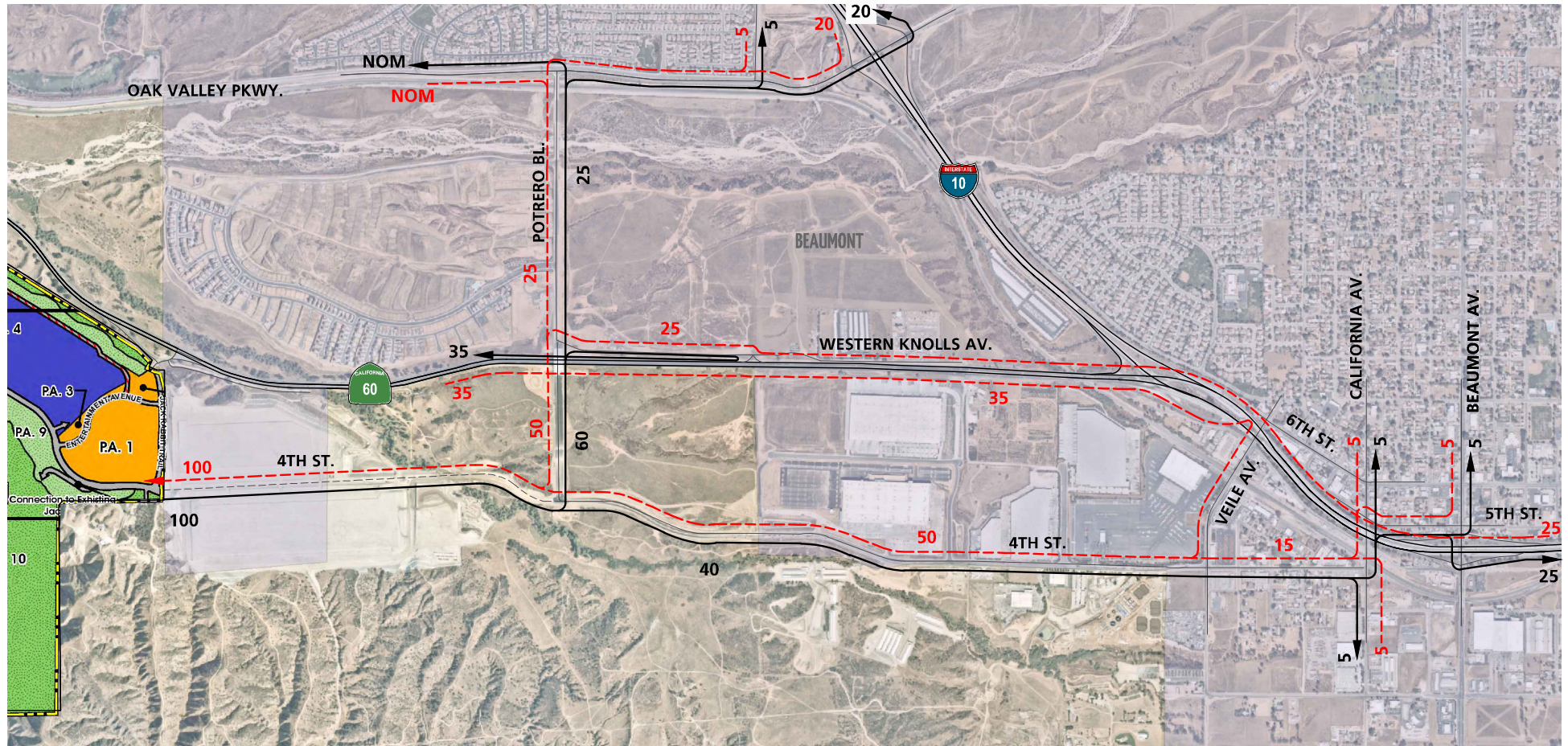


EXHIBIT 3: PROJECT (INTERIM PASSENGER CAR) TRIP DISTRIBUTION



LEGEND:

- 10 = PERCENT TO/FROM PROJECT
- ← = OUTBOUND
- = INBOUND



EXHIBIT 5: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION WITH POTRERO INTERCHANGE

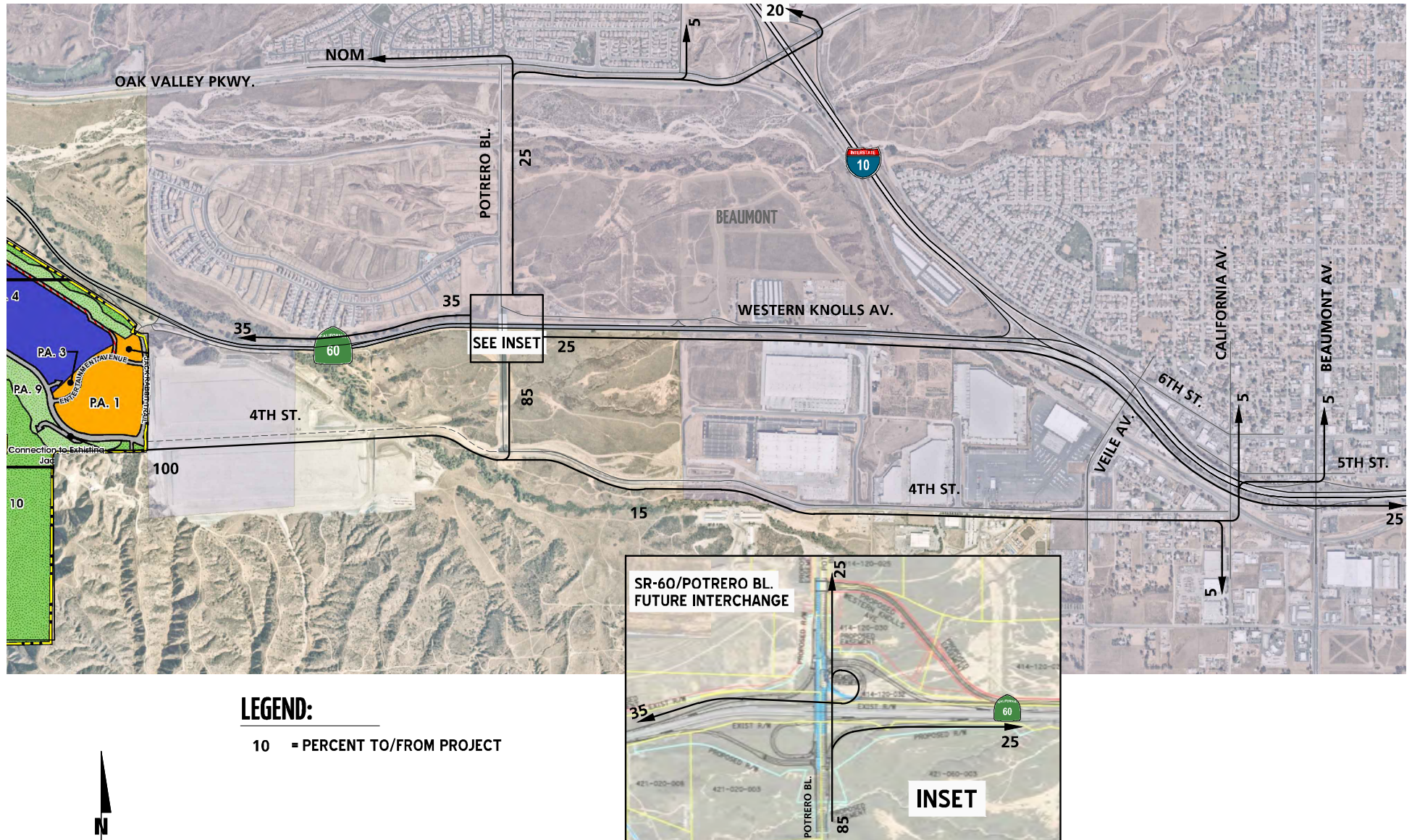


EXHIBIT 6: PROJECT (TRUCK) TRIP DISTRIBUTION WITH POTRERO INTERCHANGE

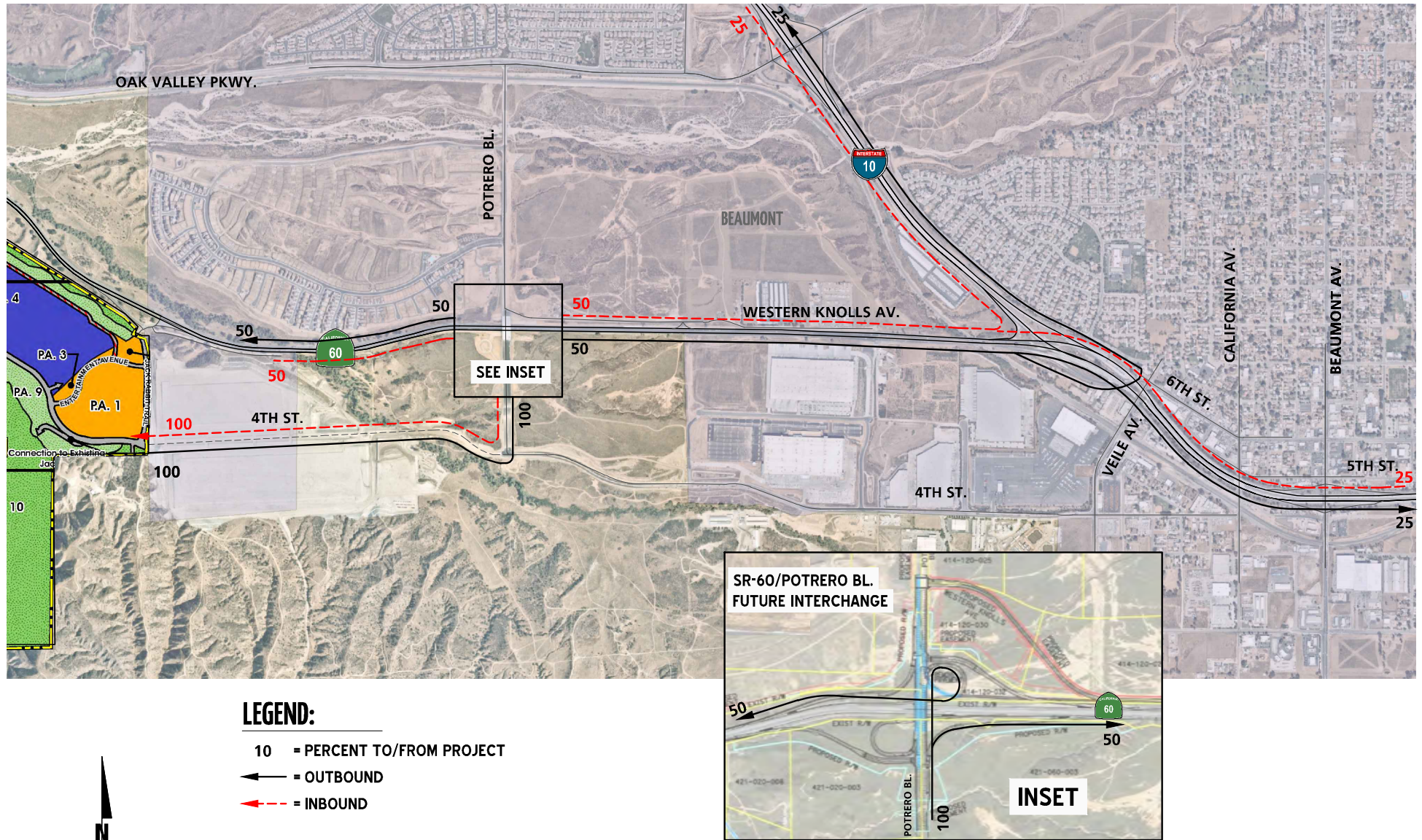


EXHIBIT 7: CUMULATIVE DEVELOPMENT PROJECTS LOCATION MAP

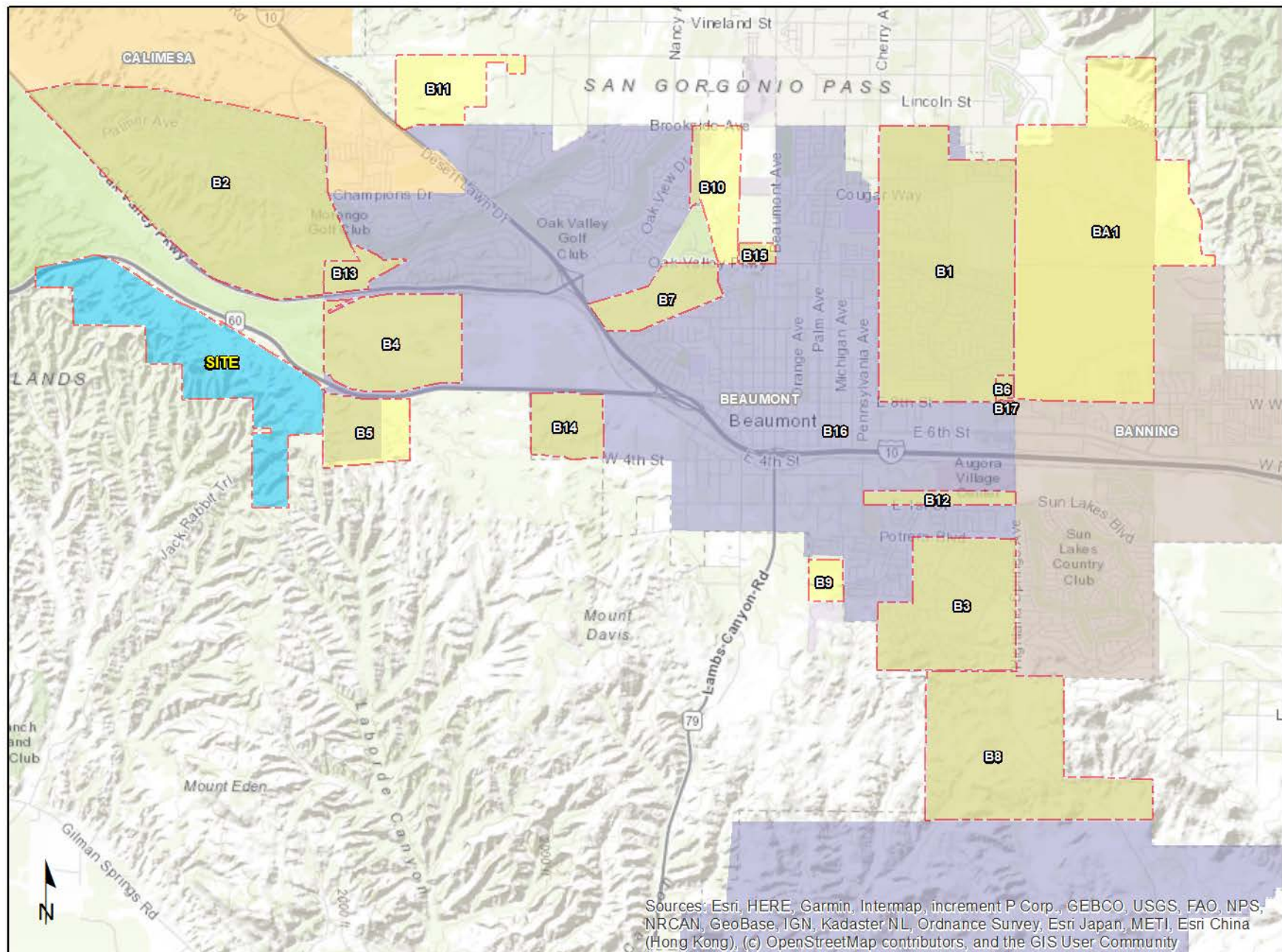


Table 1

Trip Generation Rates

Land Use ¹	Units ²	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Actual Vehicle Rates									
General Light Industrial ³	TSF	110	0.616	0.084	0.700	0.082	0.548	0.630	4.960
Passenger Cars (78.6%)			0.484	0.066	0.550	0.064	0.431	0.495	3.899
2-Axle Trucks (8.0%)			0.049	0.007	0.056	0.007	0.044	0.050	0.397
3-Axle Trucks (3.9%)			0.024	0.003	0.027	0.003	0.021	0.025	0.193
4-Axle+ Trucks (9.5%)			0.059	0.008	0.067	0.008	0.052	0.060	0.471
High-Cube Fulfillment Center	TSF	-- ⁴	0.094	0.028	0.122	0.046	0.119	0.165	2.129
Passenger Cars			0.079	0.024	0.103	0.040	0.104	0.144	1.750
2-4 Axle Trucks			0.006	0.002	0.008	0.003	0.008	0.011	0.162
5+-Axle Trucks			0.008	0.003	0.011	0.003	0.007	0.010	0.217
Hotel	RM	310	0.28	0.19	0.47	0.31	0.29	0.60	8.36
Shopping Center ⁵	TSF	820	0.73	0.45	1.18	2.11	2.29	4.40	46.38
K-1 Kart Racing ⁷	TSF	--	N/A	N/A	N/A	0.36	0.27	0.63	6.76
Rock Climing ⁶	TSF	434	0.46	0.94	1.40	0.93	0.71	1.64	16.40
Trampoline Park ⁶	TSF	436	N/A	N/A	N/A	0.72	0.78	1.50	15.00
Bowling Alley ⁶	TSF	437	0.77	0.04	0.81	0.75	0.41	1.16	11.60
Athletic Club ⁶	TSF	493	1.93	1.23	3.16	3.90	2.39	6.29	62.90
Miniature Golf Course ⁶	Holes	432	N/A	N/A	N/A	0.11	0.22	0.33	3.30
Quality Restaurant	TSF	931	0.37	0.36	0.73	5.23	2.57	7.80	83.84
High Turnover Sit-Down Restaurant	TSF	932	5.47	4.47	9.94	6.06	3.71	9.77	112.18
Passenger Car Equivalent (PCE) Rates									
General Light Industrial ³	TSF	110	0.616	0.084	0.700	0.082	0.548	0.630	4.960
Passenger Cars			0.484	0.066	0.550	0.064	0.431	0.495	3.899
2-Axle Trucks (PCE = 1.5)			0.074	0.010	0.084	0.010	0.066	0.076	0.595
3-Axle Trucks (PCE = 2.0)			0.048	0.007	0.055	0.006	0.043	0.049	0.387
4-Axle+ Trucks (PCE = 3.0)			0.176	0.024	0.200	0.023	0.156	0.180	1.414
High-Cube Fulfillment Center	TSF	-- ⁴	0.094	0.028	0.122	0.046	0.119	0.165	2.129
Passenger Cars			0.079	0.024	0.103	0.040	0.104	0.144	1.750
2-4 Axle Trucks (PCE = 2.0)			0.012	0.004	0.016	0.006	0.016	0.022	0.324
5+-Axle Trucks (PCE = 3.0)			0.025	0.008	0.033	0.008	0.022	0.030	0.651

¹ Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).

² RM = Room; TSF = Thousand Square Feet

³ Vehicle Mix Source: Truck mix (by axle type) source from City of Fontana Truck Trip Generation Study (August 2003). PCE rates are per SBCTA.

⁴ Vehicle Mix Source: TUMF High Cube Warehouse Trip Generation Study, WSP, November January 29, 2019.

Inbound and outbound split source: High Cube Warehouse Vehicle Trip Generation Analysis, October 2016, ITE. PCE rates are per SBCTA.

⁵ Trip generation rates based on regression equation.

⁶ No weekday daily value provided in ITE. Estimated based on 10 times the PM peak hour.

⁷ Source: Trip Generation and Parking Rate Analysis for the proposed K-1 Speed Indoor Kart Track, Linscott Law & Greenspan Engineers, June 20, 2005.

Table 2
Page 1 of 2

Project Trip Generation Summary (Actual Vehicles)

Land Use	Quantity	Units ¹	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Phase 1									
High-Cube Fulfillment Center (Building 1)	1,379.191	TSF							
Passenger Cars:			109	33	142	56	143	199	2,414
Truck Trips:									
2-4-axle:			8	3	11	4	11	15	224
5+-axle:			12	3	15	4	10	14	300
- Truck Trips (Actual Vehicles)			20	6	26	8	21	29	524
Phase 1 Total:			129	39	168	64	164	228	2,938
Phase 2									
High-Cube Fulfillment Center	4,500.000	TSF							
Passenger Cars:			357	107	464	181	467	648	7,876
Truck Trips:									
2-4-axle:			28	8	36	14	36	50	730
5+-axle:			38	11	49	13	32	45	978
- Truck Trips (Actual Vehicles)			66	19	85	27	68	95	1,708
Subtotal			423	126	549	208	535	743	9,584
General Light Industrial	500.000	TSF							
Passenger Cars:			242	33	275	32	215	247	1,950
Truck Trips:									
2-axle:			25	3	28	3	22	25	198
3-axle:			12	2	14	2	11	13	98
4+-axle:			29	4	33	4	26	30	236
- Truck Trips (Actual Vehicles)			66	9	75	9	59	68	532
Subtotal			308	42	350	41	274	315	2,482
Phase 2 Passenger Cars:			599	140	739	213	682	895	9,826
Phase 2 Trucks:			132	28	160	36	127	163	2,240
Phase 2 Total:			731	168	899	249	809	1,058	12,066
Project Buildout									
High-Cube Fulfillment Center	4,500.000	TSF							
Passenger Cars:			357	107	464	181	467	648	7,876
Truck Trips:									
2-4-axle:			28	8	36	14	36	50	730
5+-axle:			38	11	49	13	32	45	978
- Truck Trips (Actual Vehicles)			66	19	85	27	68	95	1,708
Internal Trip Reduction (Office - Employees only)			-10	-5	-15	-1	-1	-2	-20
Subtotal			413	121	534	207	534	742	9,564

Table 2
Page 2 of 2

Project Trip Generation Summary (Actual Vehicles)

Land Use	Quantity	Units ¹	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
General Light Industrial	500.000	TSF							
Passenger Cars:			242	33	275	32	215	247	1,950
Truck Trips:									
2-axle:			25	3	28	3	22	25	198
3-axle:			12	2	14	2	11	13	98
4+-axle:			29	4	33	4	26	30	236
- Truck Trips (Actual Vehicles)			66	9	75	9	59	68	532
Internal Trip Reduction (Office - Employees only)			-30	-15	-45	-2	-2	-5	-36
Subtotal			278	27	305	39	272	311	2,446
Hotel	125	RM	35	24	59	38	37	75	1,046
Internal Trip Reduction (Hotel)			-1	-20	-21	-7	-8	-15	-210
Go Kart	77.000	TSF	0	0	0	28	21	49	522
Rock Climbing	26.000	TSF	12	24	36	24	18	42	426
Trampoline Park	24.000	TSF	0	0	0	17	19	36	360
Bowling Alley	40.000	TSF	31	2	33	30	16	46	464
Miniature Golf	36	Holes	0	0	0	4	8	12	120
Quality Restaurant	15.000	TSF	5	5	10	78	39	117	1,258
Internal Trip Reduction (Restaurant)			-9	-9	-18	-4	-4	-8	-92
Pass-by Reductions (PM/Daily = 44%) ³			0	0	0	-15	-15	-31	-514
High Turnover Sit-Down Restaurant	15.000	TSF	82	67	149	91	56	147	1,684
Internal Trip Reduction (Restaurant)			-13	-14	-27	-7	-6	-13	-146
Pass-by Reductions (PM/Daily = 43%) ³			0	0	0	-22	-22	-43	-662
Total Industrial Passenger Cars:			559	120	679	210	679	889	9,770
Total Trucks:			132	28	160	36	127	163	2,240
Total Commercial Passenger Cars:			142	79	221	255	159	414	4,256
TOTAL TRIPS (Actual Vehicles)²			833	227	1,060	501	965	1,466	16,266

¹ RM = Room; TSF = Thousand Square Feet

² TOTAL TRIPS = Passenger Cars + Truck Trips.

³ Source: ITE Trip Generation Handbook, 3rd Edition, 2017.

Table 3
Page 1 of 2

Project Trip Generation Summary (Passenger Car Equivalent)

Land Use	Quantity	Units ¹	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Phase 1									
High-Cube Fulfillment Center	1,379.191	TSF							
Passenger Cars:			109	33	142	56	143	199	2,414
Truck Trips:									
2-4-axle:			17	5	22	8	22	30	448
5+-axle:			35	10	45	12	30	42	898
- Truck Trips (PCE) ²			52	15	67	20	52	72	1,346
Phase 1 Total (PCE):			161	48	209	76	195	271	3,760
Phase 2									
High-Cube Fulfillment Center	4,500.000	TSF							
Passenger Cars:			357	107	464	181	467	648	7,876
Truck Trips:									
2-4-axle:			55	17	72	28	71	99	1,458
5+-axle:			114	34	148	38	97	135	2,930
- Truck Trips (PCE) ²			169	51	220	66	168	234	4,388
Subtotal			526	158	684	247	635	882	12,264
General Light Industrial	500.000	TSF							
Passenger Cars:			242	33	275	32	215	247	1,950
Truck Trips:									
2-axle:			37	5	42	5	33	38	298
3-axle:			24	3	27	3	21	24	194
4+-axle:			88	12	100	12	78	90	708
- Truck Trips (PCE) ²			149	20	169	20	132	152	1,200
Subtotal			391	53	444	52	347	399	3,150
Phase 2 Passenger Cars:			599	140	739	213	682	895	9,826
Phase 2 Trucks (PCE):			318	71	389	86	300	386	5,588
Phase 2 Total (PCE):			917	211	1,128	299	982	1,281	15,414
Project Buildout									
High-Cube Fulfillment Center	4,500.000	TSF							
Passenger Cars:			357	107	464	181	467	648	7,876
Truck Trips:									
2-4-axle:			55	17	72	28	71	99	1,458
5+-axle:			114	34	148	38	97	135	2,930
- Truck Trips (PCE) ²			169	51	220	66	168	234	4,388
Internal Trip Reduction (Office - Employees only)			-10	-5	-15	-1	-1	-2	-20
Subtotal			516	153	669	246	634	881	12,244

Table 3
Page 2 of 2

Project Trip Generation Summary (Passenger Car Equivalent)

Land Use	Quantity	Units ¹	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
General Light Industrial	500.000	TSF							
Passenger Cars:			242	33	275	32	215	247	1,950
Truck Trips:									
2-axle:			37	5	42	5	33	38	298
3-axle:			24	3	27	3	21	24	194
4+-axle:			88	12	100	12	78	90	708
- Truck Trips (PCE) ²			149	20	169	20	132	152	1,200
Internal Trip Reduction (Office - Employees only)			-30	-15	-45	-2	-2	-5	-36
Subtotal			361	38	399	50	345	395	3,114
Hotel	125	RM	35	24	59	38	37	75	1,046
Internal Trip Reduction (Hotel)			-1	-20	-21	-7	-8	-15	-210
Go Kart	77.000	TSF	0	0	0	28	21	49	522
Rock Climbing	26.000	TSF	12	24	36	24	18	42	426
Trampoline Park	24.000	TSF	0	0	0	17	19	36	360
Bowling Alley	40.000	TSF	31	2	33	30	16	46	464
Miniature Golf	36	Holes	0	0	0	4	8	12	120
Quality Restaurant	15.000	TSF	5	5	10	78	39	117	1,258
Internal Trip Reduction (Restaurant)			-9	-9	-18	-4	-4	-8	-92
Pass-by Reductions (PM/Daily = 44%) ³			0	0	0	-15	-15	-31	-514
High Turnover Sit-Down Restaurant	15.000	TSF	82	67	149	91	56	147	1,684
Internal Trip Reduction (Restaurant)			-13	-14	-27	-7	-6	-13	-146
Pass-by Reductions (PM/Daily = 43%) ³			0	0	0	-22	-22	-43	-662
Total Industrial Passenger Cars:			559	120	679	210	679	889	9,770
Total Trucks (PCE):			318	71	389	86	300	386	5,588
Total Commercial Passenger Cars:			142	79	221	255	159	414	4,256
TOTAL TRIPS (PCE)³			1,019	270	1,289	551	1,138	1,689	19,614

¹ RM = Room; TSF = Thousand Square Feet

² TOTAL TRIPS = Passenger Cars + Truck Trips.

³ Source: ITE Trip Generation Handbook, 3rd Edition, 2017.

Table 4

Cumulative Development Land Use Summary

TAZ	Project	Land Use	Quantity ¹
City of Beaumont			
B1	Sundance	Residential	4,450 DU
B2	Fairway Canyon SCPGA	Residential	3,300 DU
B3	Four Seasons Tract No. 32260 & 33096	Residential	1,890 DU
B4	Heartland (Olivewood)	Residential	981 DU
B5	Hidden Canyon Industrial	Industrial	2,890.000 TSF
B6	Sundance Corporate Center	Commercial/Industrial	13.60 AC
B7	Kirkwood Ranch	Residential	403 DU
B8	Potrero Creek Estates	Residential	700 DU
B9	Tract No. 32850	Residential	95 DU
B10	Noble Creek Vistas	Residential	648 DU
B11	Sunny-Cal Specific Plan	Residential	571 DU
B12	San Gorgonio Village Phase 2	Commercial	22.50 AC
B13	Tournament Hills 3, TM 36307	Residential	279 DU
B14	Rolling Hills Ranch Industrial Phase 2	Industrial	2,850.000 TSF
B15	Beaumont Village	Commercial	50.810 TSF
B16	Beyond Beaumont	Commercial	6.589 TSF
B17	Highland & 8th Retail	Fast-Food w/ Drive-Thru	3.500 TSF
		Super Con. Mkt. w/ Gas Station	12 VFP
City of Banning			
BA1	Butterfield Specific Plan	Residential	5,387 DU
		Commercial	549.000 TSF
		Golf Course	253.9 AC
		School	23.0 AC
BA2	7-11 NWC Ramsey St. & Sunset Ave.	Gasoline/Service Station w/Conven. Mkt.	10.0 VFP
BA3	Nourish	Commercial	1.07 AC
BA4	The Alley Barber & Hair Styling	Commercial	0.16 AC

1

AC = Acres; DU = Dwelling Units; RM = Rooms; TSF = Thousand Square Feet; VFP = Vehicle Fueling Positions

APPENDIX 1.2:

SITE ADJACENT QUEUES

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Queuing and Blocking Report

Jack Rabbit Trail (JN 12396)

Horizon Year (2045) With Project Conditions With Improvements - AM Peak Hour

07/16/2020

Intersection: 1: 4th St. & Jack Rabbit Trail

Movement	EB	WB	WB	SB
Directions Served	T	T	R	L
Maximum Queue (ft)	70	194	58	97
Average Queue (ft)	23	99	32	45
95th Queue (ft)	59	176	55	84
Link Distance (ft)	918	1018		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)			200	200
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Network Summary

Network wide Queuing Penalty: 0

Queuing and Blocking Report

Jack Rabbit Trail (JN 12396)

Horizon Year (2045) With Project Conditions With Improvements - PM Peak Hour

07/16/2020

Intersection: 1: 4th St. & Jack Rabbit Trail

Movement	EB	WB	WB	SB	SB
Directions Served	T	T	R	L	R
Maximum Queue (ft)	361	105	67	212	60
Average Queue (ft)	169	49	38	119	5
95th Queue (ft)	298	94	63	195	66
Link Distance (ft)	918	1018			1595
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			200	200	
Storage Blk Time (%)	4			1	
Queuing Penalty (veh)	0			0	

Network Summary

Network wide Queuing Penalty: 0

APPENDIX 1.3:

CALTRANS APPROVAL OF THE JACK RABBIT TRAIL CLOSURE

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From: Clark, Rosa F@DOT <rosa.f.clark@dot.ca.gov>
Sent: Wednesday, August 3, 2022 2:04 PM
To: tharris@calstrat.com; Jose Alire <jalire@urbanxroads.com>; Christina Taylor <Ctaylor@beaumontca.gov>
Cc: Dennis, Talvin L@DOT <talvin.L.dennis@dot.ca.gov>; Vergara, Rena@DOT <Rena.Vergara@dot.ca.gov>; Desselle, Ray I@DOT <ray.desselle@dot.ca.gov>; Rogers, Jim A@DOT <jim.a.rogers@dot.ca.gov>; Berkebile, Mark A@DOT <mark.berkebile@dot.ca.gov>
Subject: SR-60 at Jack Rabbit Trail, Fence and Emergency Access Gates

Good afternoon, All:

We have completed our evaluation of the Beaumont Pointe Specific Plan, Jack Rabbit Trail Closure Letter prepared by Urban Crossroads and dated December 22, 2021. This Letter outlines a proposal to construct a fence across Jack Rabbit Trail, which is expected to be realigned in the future as part of the Beaumont Pointe Specific Plan.

Although this Letter outlines many procedural requirements for overall Specific Plan development, our attention was limited to possible impacts of fence construction to the SR-60/Jack Rabbit Trail Interchange. As this fence is proposed at a location well beyond the existing State right-of-way, no adverse impacts were identified that might otherwise require mitigation measures. We therefore have no comments to offer with regard to the proposed fence.

In the event this fence proposal is modified, or if additional Specific Plan review is desired, please send appropriate documents to this Office for our consideration. Please also let us know if you have any questions or concerns with this response.

Thank you so much for your incredible patience as we work our way through a heavy workload compounded by a serious staff shortage. We anticipate more timely results with future requests for our District's review or assistance.

Take care!

Rosa F. Clark
LDR Office
Transportation Planning
Office: 909.806.3923
Cell: 909.501.9251

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APPENDIX 3.1:

EXISTING TRAFFIC COUNTS – NOVEMBER 2019 & JANUARY 2020

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City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

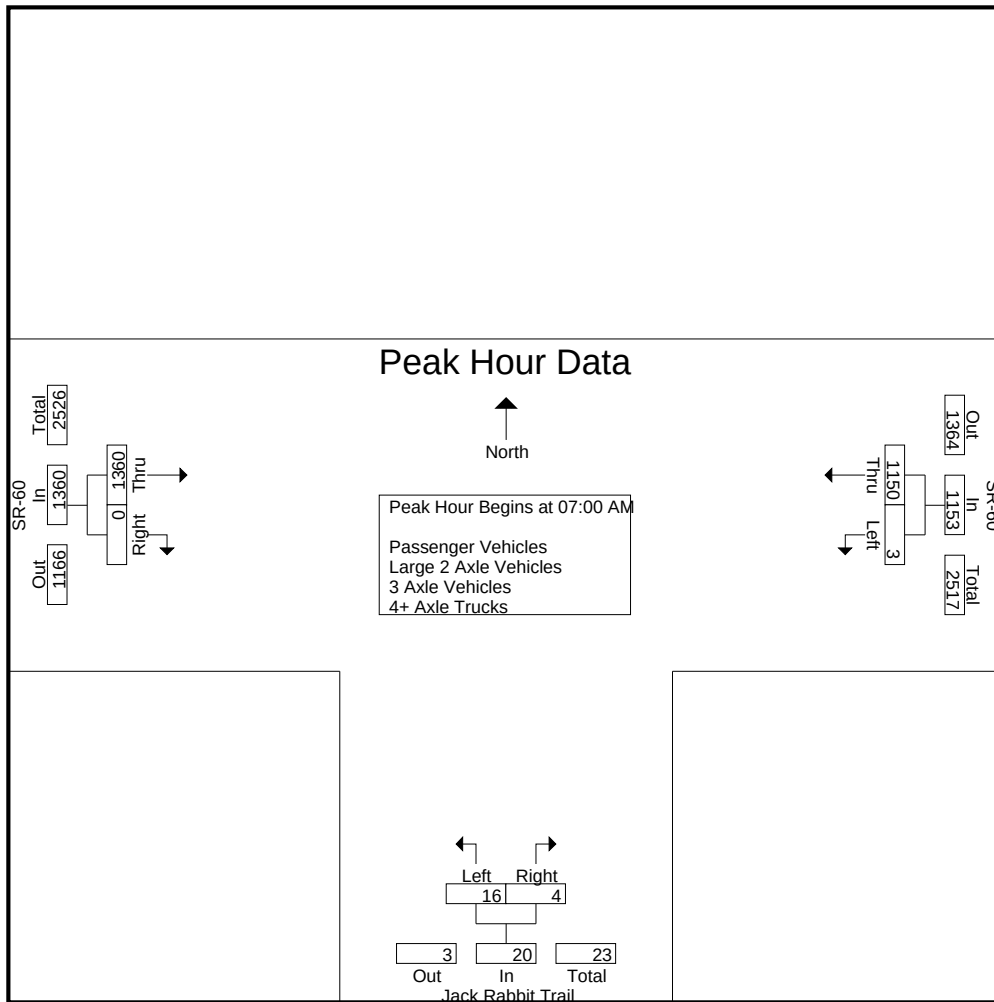
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	2	349	351	2	2	4	371	0	371	726
07:15 AM	1	277	278	1	1	2	314	0	314	594
07:30 AM	0	285	285	5	0	5	335	0	335	625
07:45 AM	0	239	239	8	1	9	340	0	340	588
Total	3	1150	1153	16	4	20	1360	0	1360	2533
08:00 AM	0	240	240	9	1	10	288	0	288	538
08:15 AM	1	258	259	3	1	4	328	0	328	591
08:30 AM	1	258	259	5	1	6	399	0	399	664
08:45 AM	0	247	247	1	2	3	302	0	302	552
Total	2	1003	1005	18	5	23	1317	0	1317	2345
Grand Total	5	2153	2158	34	9	43	2677	0	2677	4878
Apprch %	0.2	99.8		79.1	20.9		100	0		
Total %	0.1	44.1	44.2	0.7	0.2	0.9	54.9	0	54.9	
Passenger Vehicles	4	1936	1940	2	6	8	2306	0	2306	4254
% Passenger Vehicles	80	89.9	89.9	5.9	66.7	18.6	86.1	0	86.1	87.2
Large 2 Axle Vehicles	1	49	50	6	3	9	125	0	125	184
% Large 2 Axle Vehicles	20	2.3	2.3	17.6	33.3	20.9	4.7	0	4.7	3.8
3 Axle Vehicles	0	3	3	1	0	1	19	0	19	23
% 3 Axle Vehicles	0	0.1	0.1	2.9	0	2.3	0.7	0	0.7	0.5
4+ Axle Trucks	0	165	165	25	0	25	227	0	227	417
% 4+ Axle Trucks	0	7.7	7.6	73.5	0	58.1	8.5	0	8.5	8.5

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	2	349	351	2	2	4	371	0	371	726
07:15 AM	1	277	278	1	1	2	314	0	314	594
07:30 AM	0	285	285	5	0	5	335	0	335	625
07:45 AM	0	239	239	8	1	9	340	0	340	588
Total Volume	3	1150	1153	16	4	20	1360	0	1360	2533
% App. Total	0.3	99.7		80	20		100	0		
PHF	.375	.824	.821	.500	.500	.556	.916	.000	.916	.872

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:45 AM			07:00 AM		
+0 mins.	2	349	351	8	1	9	371	0	371
+15 mins.	1	277	278	9	1	10	314	0	314
+30 mins.	0	285	285	3	1	4	335	0	335
+45 mins.	0	239	239	5	1	6	340	0	340
Total Volume	3	1150	1153	25	4	29	1360	0	1360
% App. Total	0.3	99.7		86.2	13.8		100	0	
PHF	.375	.824	.821	.694	1.000	.725	.916	.000	.916

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

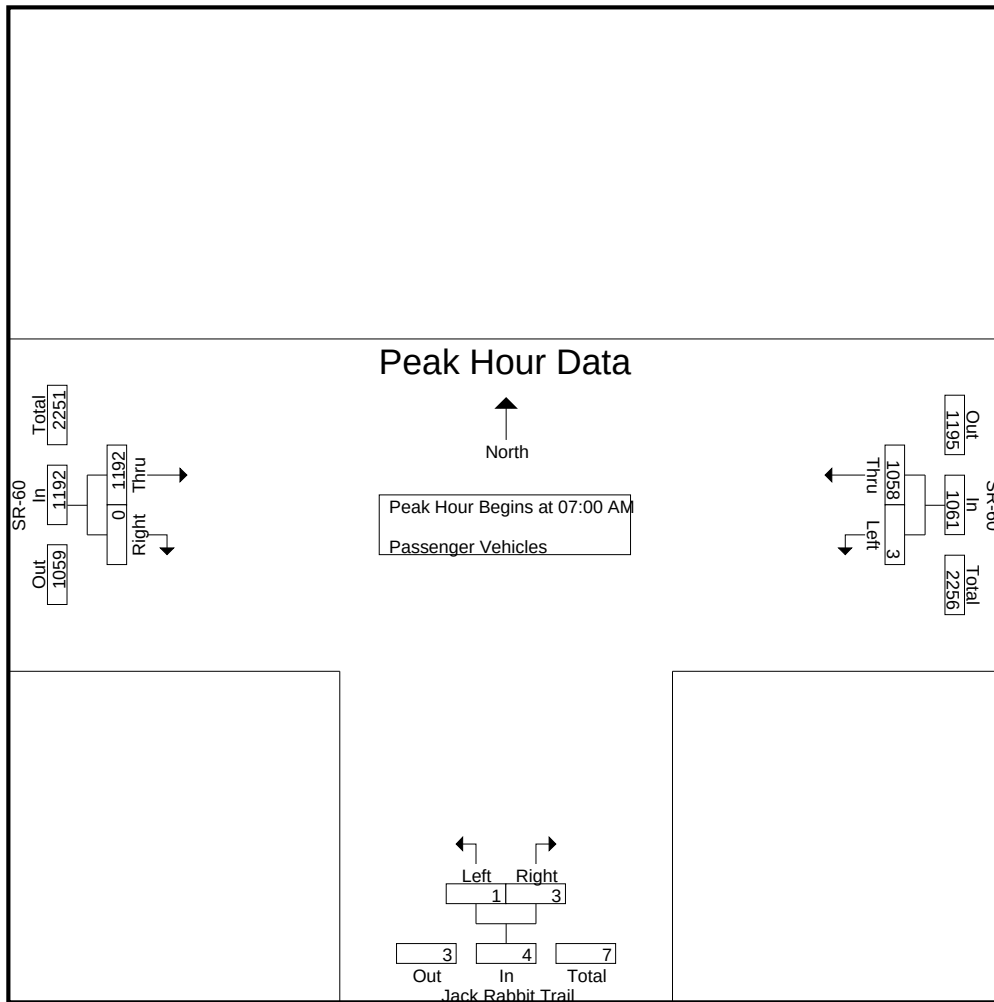
Groups Printed- Passenger Vehicles

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	2	327	329	0	2	2	325	0	325	656
07:15 AM	1	256	257	1	1	2	280	0	280	539
07:30 AM	0	261	261	0	0	0	294	0	294	555
07:45 AM	0	214	214	0	0	0	293	0	293	507
Total	3	1058	1061	1	3	4	1192	0	1192	2257
08:00 AM	0	202	202	1	0	1	255	0	255	458
08:15 AM	0	229	229	0	0	0	271	0	271	500
08:30 AM	1	228	229	0	1	1	338	0	338	568
08:45 AM	0	219	219	0	2	2	250	0	250	471
Total	1	878	879	1	3	4	1114	0	1114	1997
Grand Total	4	1936	1940	2	6	8	2306	0	2306	4254
Apprch %	0.2	99.8		25	75		100	0		
Total %	0.1	45.5	45.6	0	0.1	0.2	54.2	0	54.2	

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	2	327	329	0	2	2	325	0	325	656
07:15 AM	1	256	257	1	1	2	280	0	280	539
07:30 AM	0	261	261	0	0	0	294	0	294	555
07:45 AM	0	214	214	0	0	0	293	0	293	507
Total Volume	3	1058	1061	1	3	4	1192	0	1192	2257
% App. Total	0.3	99.7		25	75		100	0		
PHF	.375	.809	.806	.250	.375	.500	.917	.000	.917	.860

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	2	327	329	0	2	2	325	0	325
+15 mins.	1	256	257	1	1	2	280	0	280
+30 mins.	0	261	261	0	0	0	294	0	294
+45 mins.	0	214	214	0	0	0	293	0	293
Total Volume	3	1058	1061	1	3	4	1192	0	1192
% App. Total	0.3	99.7		25	75		100	0	
PHF	.375	.809	.806	.250	.375	.500	.917	.000	.917

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

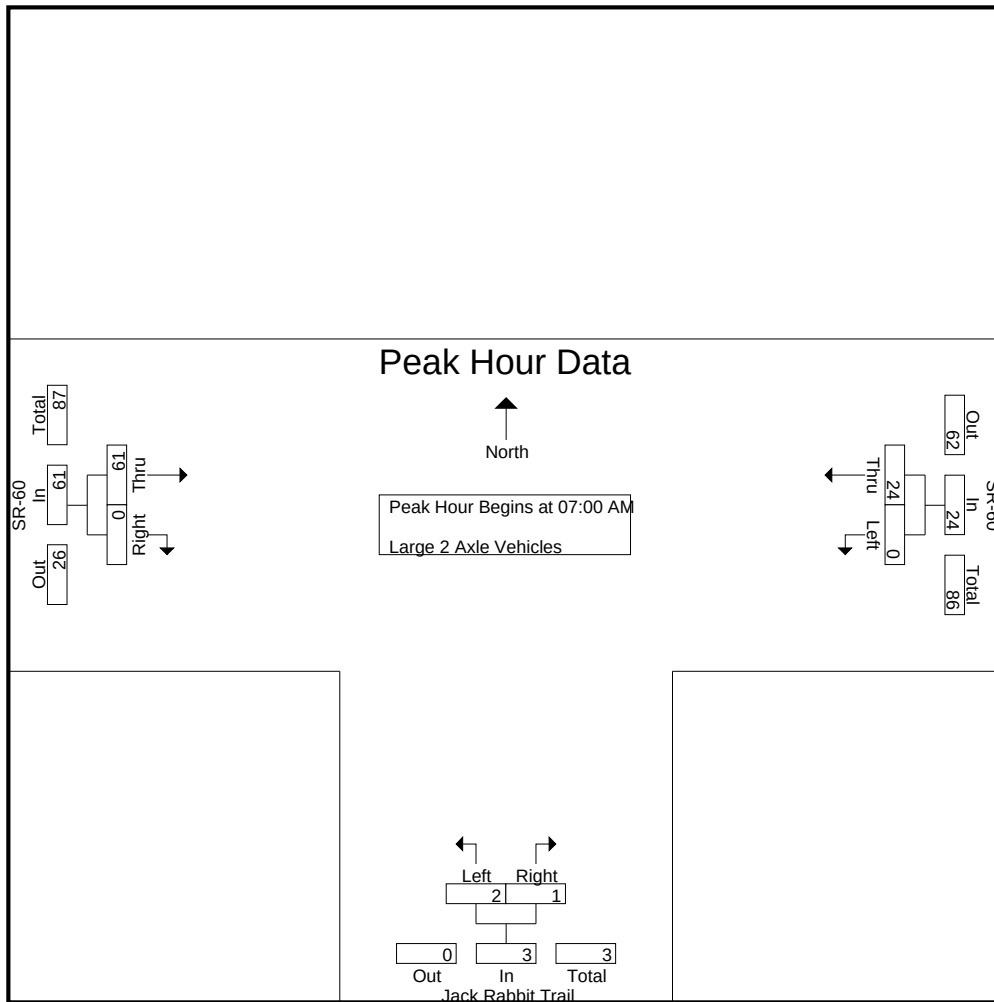
Groups Printed- Large 2 Axle Vehicles

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	5	5	1	0	1	14	0	14	20
07:15 AM	0	6	6	0	0	0	7	0	7	13
07:30 AM	0	8	8	1	0	1	18	0	18	27
07:45 AM	0	5	5	0	1	1	22	0	22	28
Total	0	24	24	2	1	3	61	0	61	88
08:00 AM	0	7	7	3	1	4	13	0	13	24
08:15 AM	1	7	8	0	1	1	25	0	25	34
08:30 AM	0	7	7	1	0	1	17	0	17	25
08:45 AM	0	4	4	0	0	0	9	0	9	13
Total	1	25	26	4	2	6	64	0	64	96
Grand Total	1	49	50	6	3	9	125	0	125	184
Apprch %	2	98		66.7	33.3		100	0		
Total %	0.5	26.6	27.2	3.3	1.6	4.9	67.9	0	67.9	

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	5	5	1	0	1	14	0	14	20
07:15 AM	0	6	6	0	0	0	7	0	7	13
07:30 AM	0	8	8	1	0	1	18	0	18	27
07:45 AM	0	5	5	0	1	1	22	0	22	28
Total Volume	0	24	24	2	1	3	61	0	61	88
% App. Total	0	100		66.7	33.3		100	0		
PHF	.000	.750	.750	.500	.250	.750	.693	.000	.693	.786

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	5	5	1	0	1	14	0	14
+15 mins.	0	6	6	0	0	0	7	0	7
+30 mins.	0	8	8	1	0	1	18	0	18
+45 mins.	0	5	5	0	1	1	22	0	22
Total Volume	0	24	24	2	1	3	61	0	61
% App. Total	0	100		66.7	33.3		100	0	
PHF	.000	.750	.750	.500	.250	.750	.693	.000	.693

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

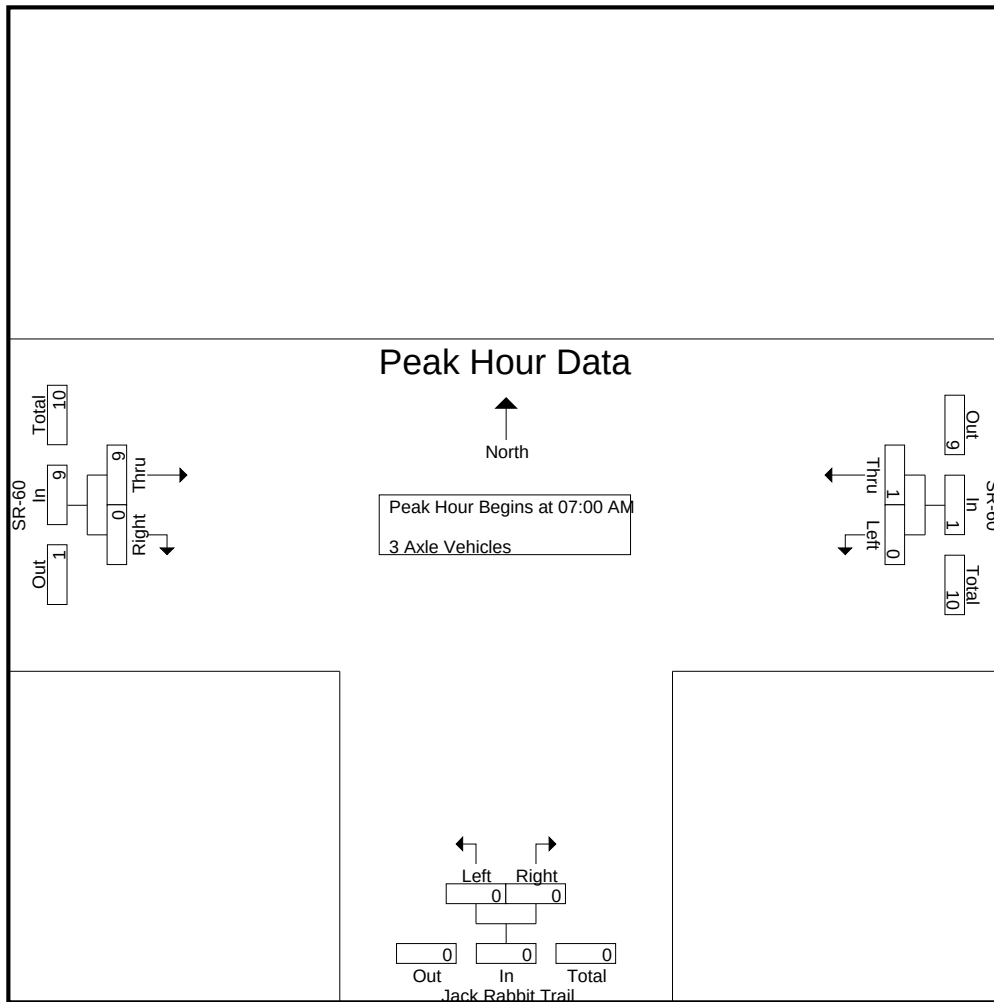
Groups Printed- 3 Axle Vehicles

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	3	0	3	3
07:15 AM	0	0	0	0	0	0	3	0	3	3
07:30 AM	0	1	1	0	0	0	3	0	3	4
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	0	0	9	0	9	10
08:00 AM	0	0	0	1	0	1	0	0	0	1
08:15 AM	0	1	1	0	0	0	3	0	3	4
08:30 AM	0	1	1	0	0	0	1	0	1	2
08:45 AM	0	0	0	0	0	0	6	0	6	6
Total	0	2	2	1	0	1	10	0	10	13
Grand Total	0	3	3	1	0	1	19	0	19	23
Apprch %	0	100		100	0		100	0		
Total %	0	13	13	4.3	0	4.3	82.6	0	82.6	

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	3	0	3	3
07:15 AM	0	0	0	0	0	0	3	0	3	3
07:30 AM	0	1	1	0	0	0	3	0	3	4
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	0	0	9	0	9	10
% App. Total	0	100		0	0		100	0		
PHF	.000	.250	.250	.000	.000	.000	.750	.000	.750	.625

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	3	0	3
+15 mins.	0	0	0	0	0	0	3	0	3
+30 mins.	0	1	1	0	0	0	3	0	3
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	0	0	9	0	9
% App. Total	0	100		0	0		100	0	
PHF	.000	.250	.250	.000	.000	.000	.750	.000	.750

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

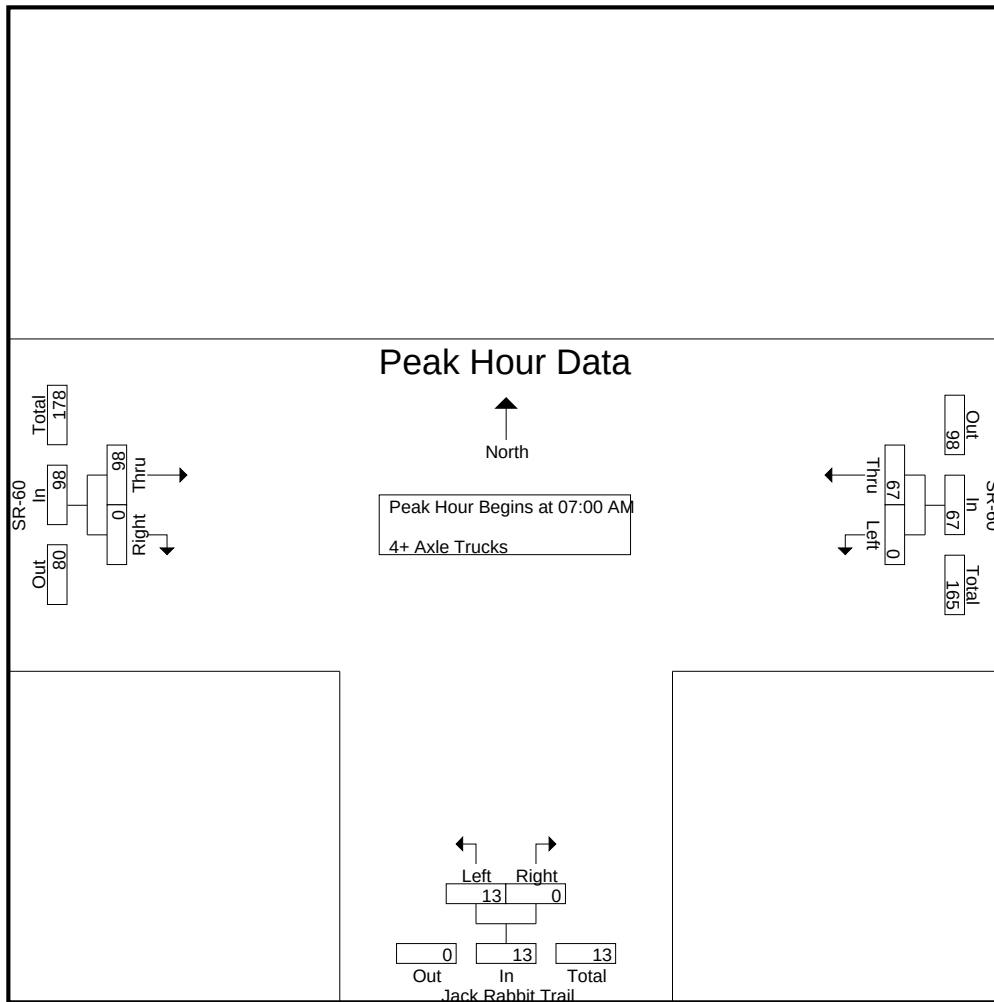
Groups Printed- 4+ Axle Trucks

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	17	17	1	0	1	29	0	29	47
07:15 AM	0	15	15	0	0	0	24	0	24	39
07:30 AM	0	15	15	4	0	4	20	0	20	39
07:45 AM	0	20	20	8	0	8	25	0	25	53
Total	0	67	67	13	0	13	98	0	98	178
08:00 AM	0	31	31	4	0	4	20	0	20	55
08:15 AM	0	21	21	3	0	3	29	0	29	53
08:30 AM	0	22	22	4	0	4	43	0	43	69
08:45 AM	0	24	24	1	0	1	37	0	37	62
Total	0	98	98	12	0	12	129	0	129	239
Grand Total	0	165	165	25	0	25	227	0	227	417
Apprch %	0	100		100	0		100	0		
Total %	0	39.6	39.6	6	0	6	54.4	0	54.4	

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	17	17	1	0	1	29	0	29	47
07:15 AM	0	15	15	0	0	0	24	0	24	39
07:30 AM	0	15	15	4	0	4	20	0	20	39
07:45 AM	0	20	20	8	0	8	25	0	25	53
Total Volume	0	67	67	13	0	13	98	0	98	178
% App. Total	0	100		100	0		100	0		
PHF	.000	.838	.838	.406	.000	.406	.845	.000	.845	.840

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	17	17	1	0	1	29	0	29
+15 mins.	0	15	15	0	0	0	24	0	24
+30 mins.	0	15	15	4	0	4	20	0	20
+45 mins.	0	20	20	8	0	8	25	0	25
Total Volume	0	67	67	13	0	13	98	0	98
% App. Total	0	100		100	0		100	0	
PHF	.000	.838	.838	.406	.000	.406	.845	.000	.845

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

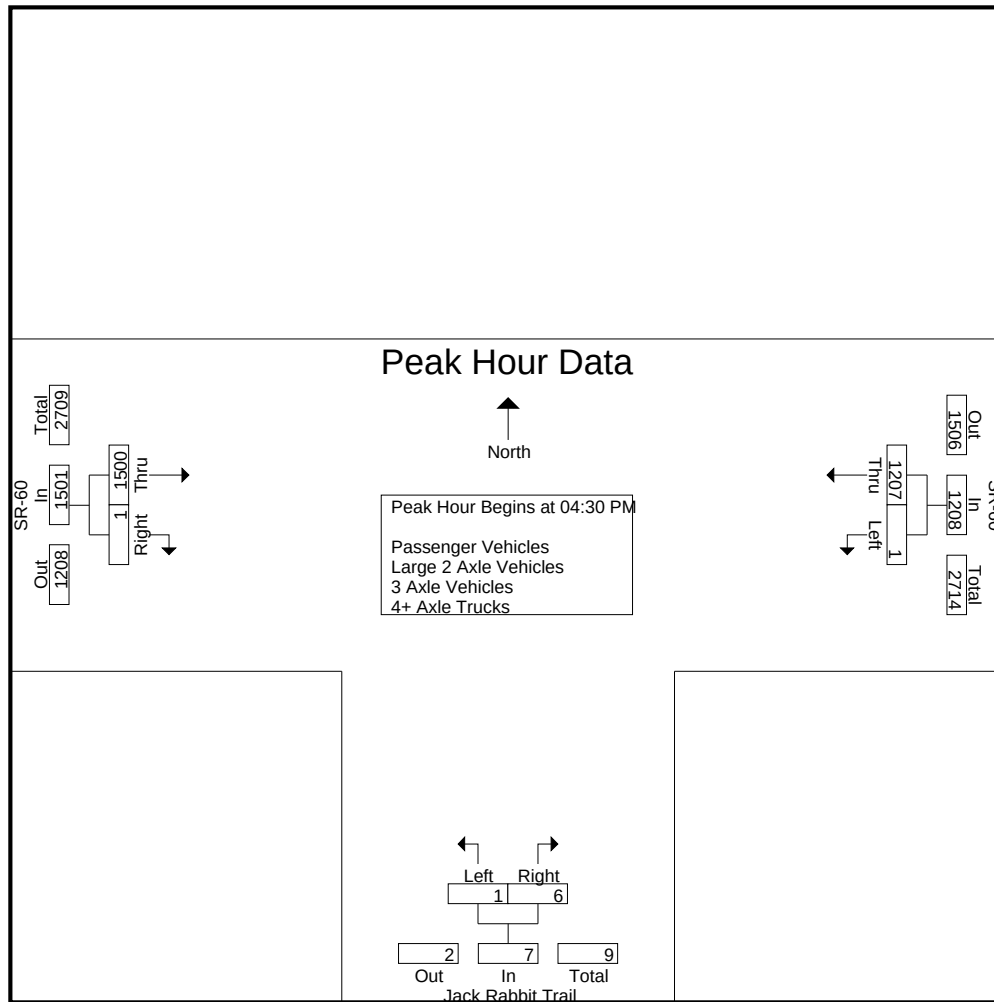
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	1	284	285	1	3	4	360	0	360	649
04:15 PM	3	269	272	1	5	6	342	0	342	620
04:30 PM	0	279	279	0	3	3	382	1	383	665
04:45 PM	0	329	329	1	0	1	398	0	398	728
Total	4	1161	1165	3	11	14	1482	1	1483	2662
05:00 PM	0	306	306	0	1	1	317	0	317	624
05:15 PM	1	293	294	0	2	2	403	0	403	699
05:30 PM	0	276	276	1	4	5	380	0	380	661
05:45 PM	0	247	247	0	0	0	361	0	361	608
Total	1	1122	1123	1	7	8	1461	0	1461	2592
Grand Total	5	2283	2288	4	18	22	2943	1	2944	5254
Apprch %	0.2	99.8		18.2	81.8		100	0		
Total %	0.1	43.5	43.5	0.1	0.3	0.4	56	0	56	
Passenger Vehicles	5	1981	1986	3	18	21	2621	1	2622	4629
% Passenger Vehicles	100	86.8	86.8	75	100	95.5	89.1	100	89.1	88.1
Large 2 Axle Vehicles	0	40	40	0	0	0	41	0	41	81
% Large 2 Axle Vehicles	0	1.8	1.7	0	0	0	1.4	0	1.4	1.5
3 Axle Vehicles	0	17	17	1	0	1	10	0	10	28
% 3 Axle Vehicles	0	0.7	0.7	25	0	4.5	0.3	0	0.3	0.5
4+ Axle Trucks	0	245	245	0	0	0	271	0	271	516
% 4+ Axle Trucks	0	10.7	10.7	0	0	0	9.2	0	9.2	9.8

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	279	279	0	3	3	382	1	383	665
04:45 PM	0	329	329	1	0	1	398	0	398	728
05:00 PM	0	306	306	0	1	1	317	0	317	624
05:15 PM	1	293	294	0	2	2	403	0	403	699
Total Volume	1	1207	1208	1	6	7	1500	1	1501	2716
% App. Total	0.1	99.9		14.3	85.7		99.9	0.1		
PHF	.250	.917	.918	.250	.500	.583	.931	.250	.931	.933

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:00 PM			04:30 PM		
+0 mins.	0	279	279	1	3	4	382	1	383
+15 mins.	0	329	329	1	5	6	398	0	398
+30 mins.	0	306	306	0	3	3	317	0	317
+45 mins.	1	293	294	1	0	1	403	0	403
Total Volume	1	1207	1208	3	11	14	1500	1	1501
% App. Total	0.1	99.9		21.4	78.6		99.9	0.1	
PHF	.250	.917	.918	.750	.550	.583	.931	.250	.931

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

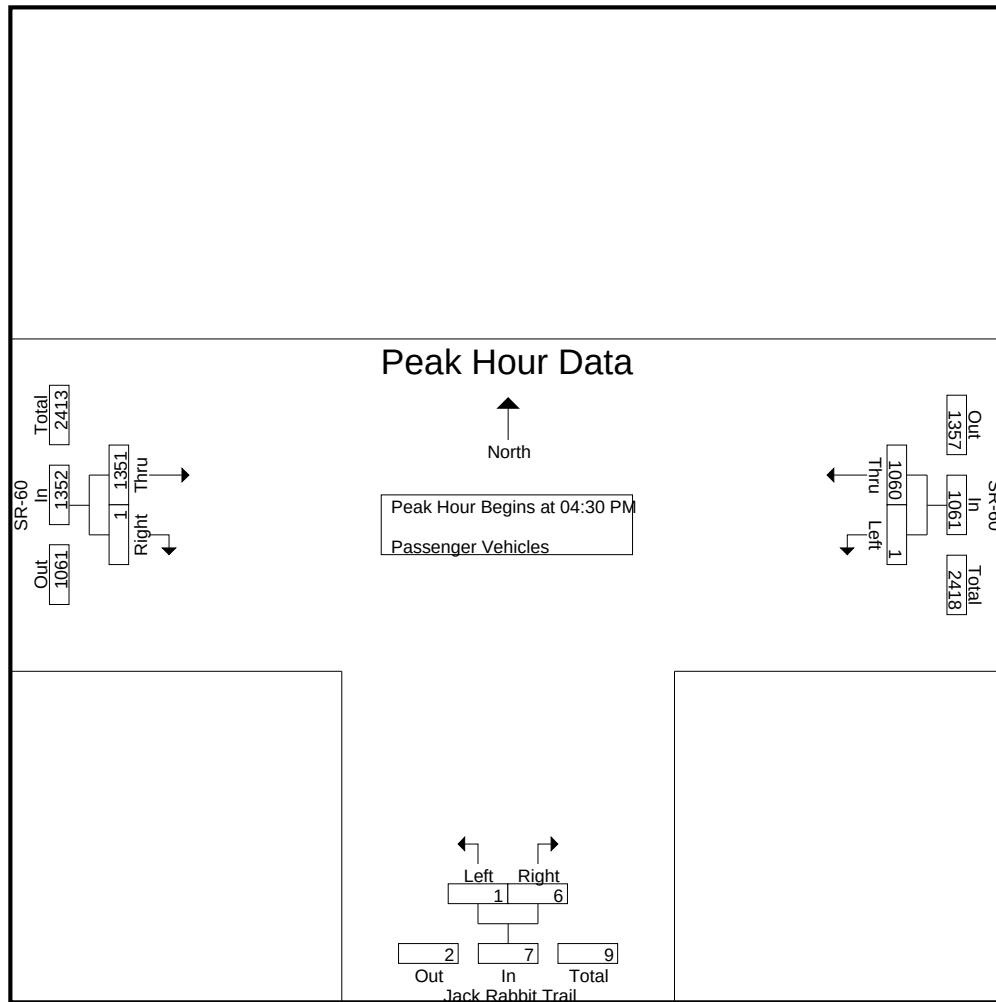
Groups Printed- Passenger Vehicles

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	1	239	240	0	3	3	329	0	329	572
04:15 PM	3	235	238	1	5	6	291	0	291	535
04:30 PM	0	243	243	0	3	3	345	1	346	592
04:45 PM	0	293	293	1	0	1	360	0	360	654
Total	4	1010	1014	2	11	13	1325	1	1326	2353
05:00 PM	0	271	271	0	1	1	283	0	283	555
05:15 PM	1	253	254	0	2	2	363	0	363	619
05:30 PM	0	233	233	1	4	5	333	0	333	571
05:45 PM	0	214	214	0	0	0	317	0	317	531
Total	1	971	972	1	7	8	1296	0	1296	2276
Grand Total	5	1981	1986	3	18	21	2621	1	2622	4629
Apprch %	0.3	99.7		14.3	85.7		100	0		
Total %	0.1	42.8	42.9	0.1	0.4	0.5	56.6	0	56.6	

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	243	243	0	3	3	345	1	346	592
04:45 PM	0	293	293	1	0	1	360	0	360	654
05:00 PM	0	271	271	0	1	1	283	0	283	555
05:15 PM	1	253	254	0	2	2	363	0	363	619
Total Volume	1	1060	1061	1	6	7	1351	1	1352	2420
% App. Total	0.1	99.9		14.3	85.7		99.9	0.1		
PHF	.250	.904	.905	.250	.500	.583	.930	.250	.931	.925

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	243	243	0	3	3	345	1	346
+15 mins.	0	293	293	1	0	1	360	0	360
+30 mins.	0	271	271	0	1	1	283	0	283
+45 mins.	1	253	254	0	2	2	363	0	363
Total Volume	1	1060	1061	1	6	7	1351	1	1352
% App. Total	0.1	99.9		14.3	85.7		99.9	0.1	
PHF	.250	.904	.905	.250	.500	.583	.930	.250	.931

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

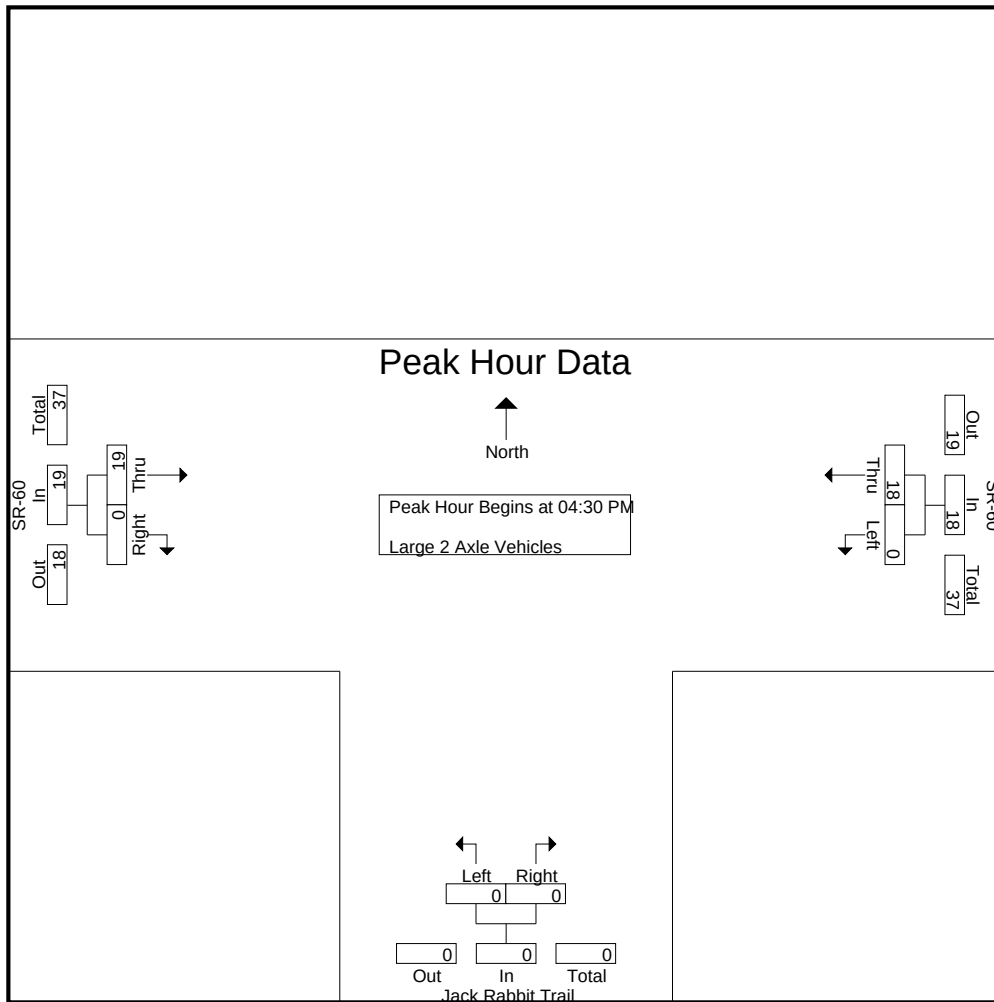
Groups Printed- Large 2 Axle Vehicles

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	7	7	0	0	0	4	0	4	11
04:15 PM	0	4	4	0	0	0	6	0	6	10
04:30 PM	0	5	5	0	0	0	6	0	6	11
04:45 PM	0	6	6	0	0	0	5	0	5	11
Total	0	22	22	0	0	0	21	0	21	43
05:00 PM	0	3	3	0	0	0	5	0	5	8
05:15 PM	0	4	4	0	0	0	3	0	3	7
05:30 PM	0	6	6	0	0	0	7	0	7	13
05:45 PM	0	5	5	0	0	0	5	0	5	10
Total	0	18	18	0	0	0	20	0	20	38
Grand Total	0	40	40	0	0	0	41	0	41	81
Apprch %	0	100		0	0		100	0		
Total %	0	49.4	49.4	0	0	0	50.6	0	50.6	

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	5	5	0	0	0	6	0	6	11
04:45 PM	0	6	6	0	0	0	5	0	5	11
05:00 PM	0	3	3	0	0	0	5	0	5	8
05:15 PM	0	4	4	0	0	0	3	0	3	7
Total Volume	0	18	18	0	0	0	19	0	19	37
% App. Total	0	100		0	0		100	0		
PHF	.000	.750	.750	.000	.000	.000	.792	.000	.792	.841

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	5	5	0	0	0	6	0	6
+15 mins.	0	6	6	0	0	0	5	0	5
+30 mins.	0	3	3	0	0	0	5	0	5
+45 mins.	0	4	4	0	0	0	3	0	3
Total Volume	0	18	18	0	0	0	19	0	19
% App. Total	0	100		0	0		100	0	
PHF	.000	.750	.750	.000	.000	.000	.792	.000	.792

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

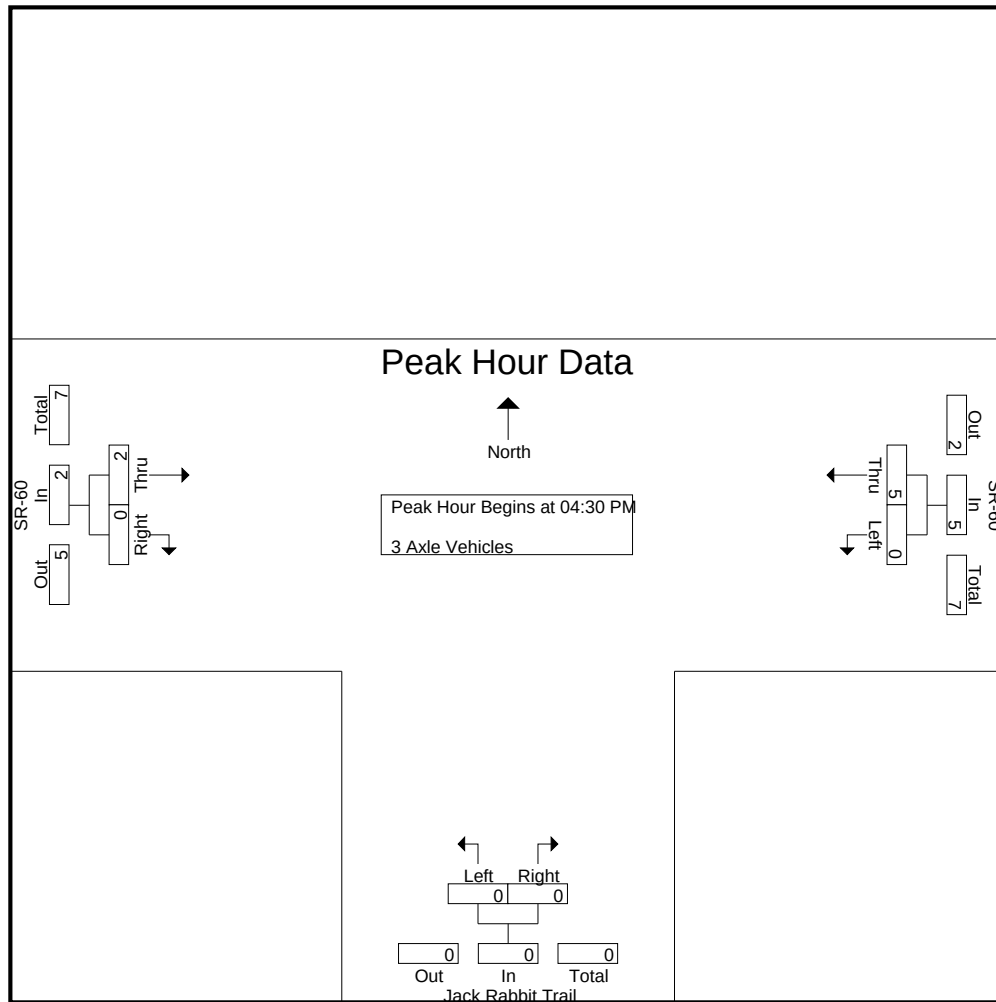
Groups Printed- 3 Axle Vehicles

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	6	6	1	0	1	3	0	3	10
04:15 PM	0	4	4	0	0	0	3	0	3	7
04:30 PM	0	2	2	0	0	0	1	0	1	3
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	12	12	1	0	1	7	0	7	20
05:00 PM	0	1	1	0	0	0	0	0	0	1
05:15 PM	0	2	2	0	0	0	1	0	1	3
05:30 PM	0	2	2	0	0	0	1	0	1	3
05:45 PM	0	0	0	0	0	0	1	0	1	1
Total	0	5	5	0	0	0	3	0	3	8
Grand Total	0	17	17	1	0	1	10	0	10	28
Apprch %	0	100		100	0		100	0		
Total %	0	60.7	60.7	3.6	0	3.6	35.7	0	35.7	

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	2	2	0	0	0	1	0	1	3
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	1	1	0	0	0	0	0	0	1
05:15 PM	0	2	2	0	0	0	1	0	1	3
Total Volume	0	5	5	0	0	0	2	0	2	7
% App. Total	0	100		0	0		100	0		
PHF	.000	.625	.625	.000	.000	.000	.500	.000	.500	.583

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	2	2	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	0	2	2	0	0	0	1	0	1
Total Volume	0	5	5	0	0	0	2	0	2
% App. Total	0	100		0	0		100	0	
PHF	.000	.625	.625	.000	.000	.000	.500	.000	.500

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

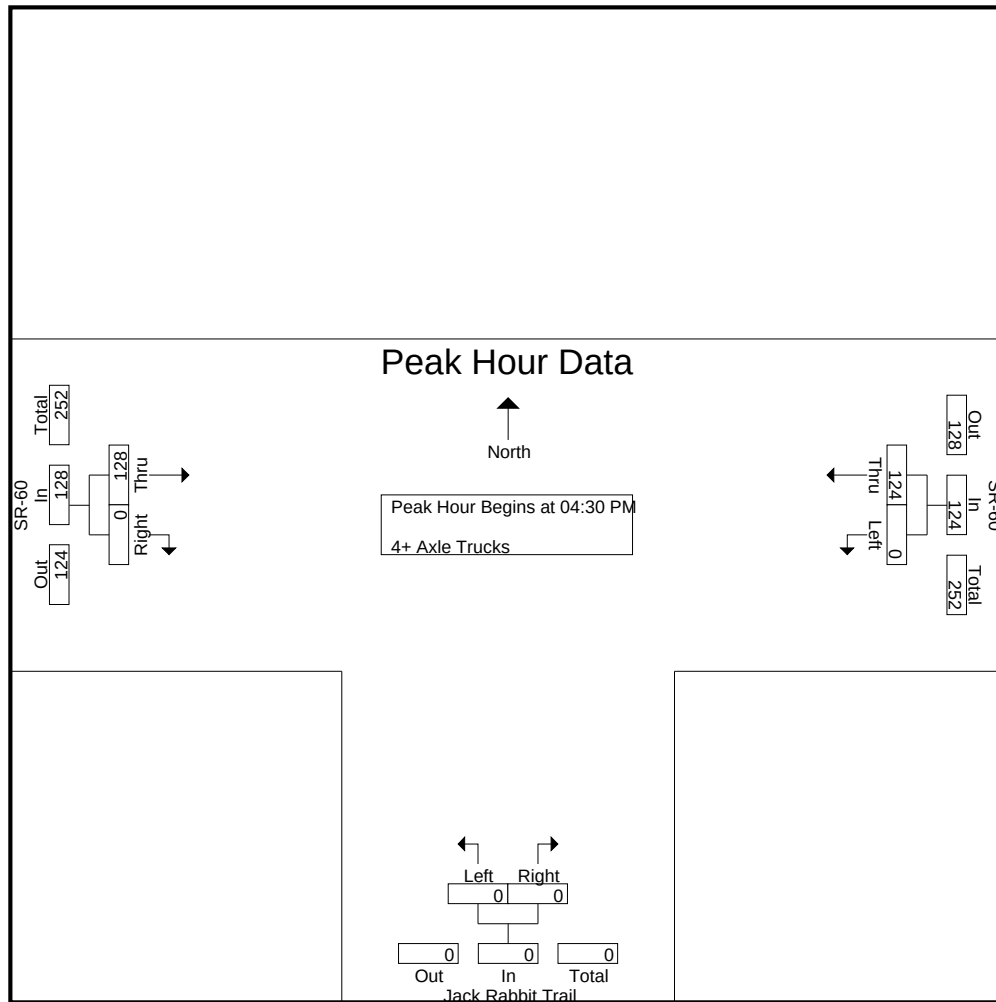
Groups Printed- 4+ Axle Trucks

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	32	32	0	0	0	24	0	24	56
04:15 PM	0	26	26	0	0	0	42	0	42	68
04:30 PM	0	29	29	0	0	0	30	0	30	59
04:45 PM	0	30	30	0	0	0	33	0	33	63
Total	0	117	117	0	0	0	129	0	129	246
05:00 PM	0	31	31	0	0	0	29	0	29	60
05:15 PM	0	34	34	0	0	0	36	0	36	70
05:30 PM	0	35	35	0	0	0	39	0	39	74
05:45 PM	0	28	28	0	0	0	38	0	38	66
Total	0	128	128	0	0	0	142	0	142	270
Grand Total	0	245	245	0	0	0	271	0	271	516
Apprch %	0	100		0	0		100	0		
Total %	0	47.5	47.5	0	0	0	52.5	0	52.5	

	SR-60 Westbound			Jack Rabbit Trail Northbound			SR-60 Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	0	29	29	0	0	0	30	0	30	59
04:45 PM	0	30	30	0	0	0	33	0	33	63
05:00 PM	0	31	31	0	0	0	29	0	29	60
05:15 PM	0	34	34	0	0	0	36	0	36	70
Total Volume	0	124	124	0	0	0	128	0	128	252
% App. Total	0	100		0	0		100	0		
PHF	.000	.912	.912	.000	.000	.000	.889	.000	.889	.900

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60
Weather: Clear

File Name : 01_BMT_Jack Rabbit_60 PM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM			04:30 PM			04:30 PM		
+0 mins.	0	29	29	0	0	0	30	0	30
+15 mins.	0	30	30	0	0	0	33	0	33
+30 mins.	0	31	31	0	0	0	29	0	29
+45 mins.	0	34	34	0	0	0	36	0	36
Total Volume	0	124	124	0	0	0	128	0	128
% App. Total	0	100		0	0		100	0	
PHF	.000	.912	.912	.000	.000	.000	.889	.000	.889

Location: Beaumont
 N/S: Jack Rabbit Trail
 E/W: SR-60



Date: 11/19/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Dead End	East Leg SR-60	South Leg Jack Rabbit Trail	West Leg SR-60	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Dead End	East Leg SR-60	South Leg Jack Rabbit Trail	West Leg SR-60	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Beaumont
 N/S: Jack Rabbit Trail
 E/W: SR-60



Date: 11/19/2019
 Day: Tuesday

BICYCLES

		Southbound Dead End			Westbound SR-60			Northbound Jack Rabbit Trail			Eastbound SR-60			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	2	0	0	0	0	0	1	0	3

		Southbound Dead End			Westbound SR-60			Northbound Jack Rabbit Trail			Eastbound SR-60			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	4	0	0	0	0	0	1	0	5
	4:30 PM	0	0	0	0	2	0	0	0	0	0	1	0	3
	4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	2	0	0	0	0	0	2	0	4
	5:30 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
	5:45 PM	0	0	0	0	2	0	0	0	0	0	1	0	3
TOTAL VOLUMES:		0	0	0	0	12	0	0	0	0	0	6	0	18

City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

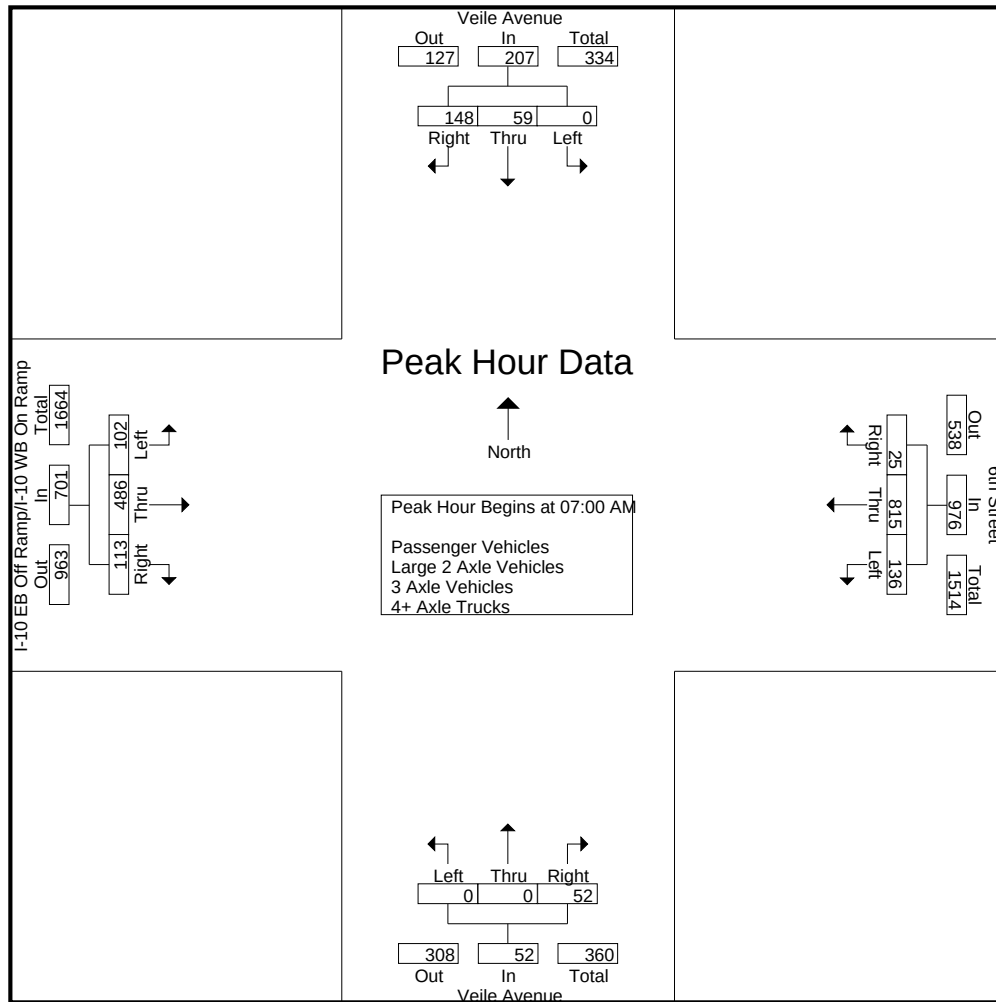
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	19	42	61	35	253	7	295	0	0	13	13	26	100	36	162	531
07:15 AM	0	15	53	68	34	207	9	250	0	0	6	6	26	113	26	165	489
07:30 AM	0	15	26	41	32	181	4	217	0	0	16	16	30	119	18	167	441
07:45 AM	0	10	27	37	35	174	5	214	0	0	17	17	20	154	33	207	475
Total	0	59	148	207	136	815	25	976	0	0	52	52	102	486	113	701	1936
08:00 AM	0	15	17	32	28	166	3	197	0	0	8	8	16	75	31	122	359
08:15 AM	0	4	18	22	30	155	0	185	0	0	9	9	21	85	15	121	337
08:30 AM	0	4	15	19	29	159	1	189	0	0	10	10	8	81	24	113	331
08:45 AM	0	4	16	20	20	171	1	192	0	0	6	6	19	81	28	128	346
Total	0	27	66	93	107	651	5	763	0	0	33	33	64	322	98	484	1373
Grand Total	0	86	214	300	243	1466	30	1739	0	0	85	85	166	808	211	1185	3309
Apprch %	0	28.7	71.3		14	84.3	1.7		0	0	100		14	68.2	17.8		
Total %	0	2.6	6.5	9.1	7.3	44.3	0.9	52.6	0	0	2.6	2.6	5	24.4	6.4	35.8	
Passenger Vehicles	0	84	208	292	224	1404	30	1658	0	0	78	78	157	771	176	1104	3132
% Passenger Vehicles	0	97.7	97.2	97.3	92.2	95.8	100	95.3	0	0	91.8	91.8	94.6	95.4	83.4	93.2	94.7
Large 2 Axle Vehicles	0	1	6	7	8	26	0	34	0	0	1	1	7	22	3	32	74
% Large 2 Axle Vehicles	0	1.2	2.8	2.3	3.3	1.8	0	2	0	0	1.2	1.2	4.2	2.7	1.4	2.7	2.2
3 Axle Vehicles	0	0	0	0	4	15	0	19	0	0	1	1	2	10	8	20	40
% 3 Axle Vehicles	0	0	0	0	1.6	1	0	1.1	0	0	1.2	1.2	1.2	1.2	3.8	1.7	1.2
4+ Axle Trucks	0	1	0	1	7	21	0	28	0	0	5	5	0	5	24	29	63
% 4+ Axle Trucks	0	1.2	0	0.3	2.9	1.4	0	1.6	0	0	5.9	5.9	0	0.6	11.4	2.4	1.9

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	19	42	61	35	253	7	295	0	0	13	13	26	100	36	162	531
07:15 AM	0	15	53	68	34	207	9	250	0	0	6	6	26	113	26	165	489
07:30 AM	0	15	26	41	32	181	4	217	0	0	16	16	30	119	18	167	441
07:45 AM	0	10	27	37	35	174	5	214	0	0	17	17	20	154	33	207	475
Total Volume	0	59	148	207	136	815	25	976	0	0	52	52	102	486	113	701	1936
% App. Total	0	28.5	71.5		13.9	83.5	2.6		0	0	100		14.6	69.3	16.1		
PHF	.000	.776	.698	.761	.971	.805	.694	.827	.000	.000	.765	.765	.850	.789	.785	.847	.911

City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	19	42	61	35	253	7	295	0	0	13	13	26	100	36	162
+15 mins.	0	15	53	68	34	207	9	250	0	0	6	6	26	113	26	165
+30 mins.	0	15	26	41	32	181	4	217	0	0	16	16	30	119	18	167
+45 mins.	0	10	27	37	35	174	5	214	0	0	17	17	20	154	33	207
Total Volume	0	59	148	207	136	815	25	976	0	0	52	52	102	486	113	701
% App. Total	0	28.5	71.5		13.9	83.5	2.6		0	0	100		14.6	69.3	16.1	
PHF	.000	.776	.698	.761	.971	.805	.694	.827	.000	.000	.765	.765	.850	.789	.785	.847

City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

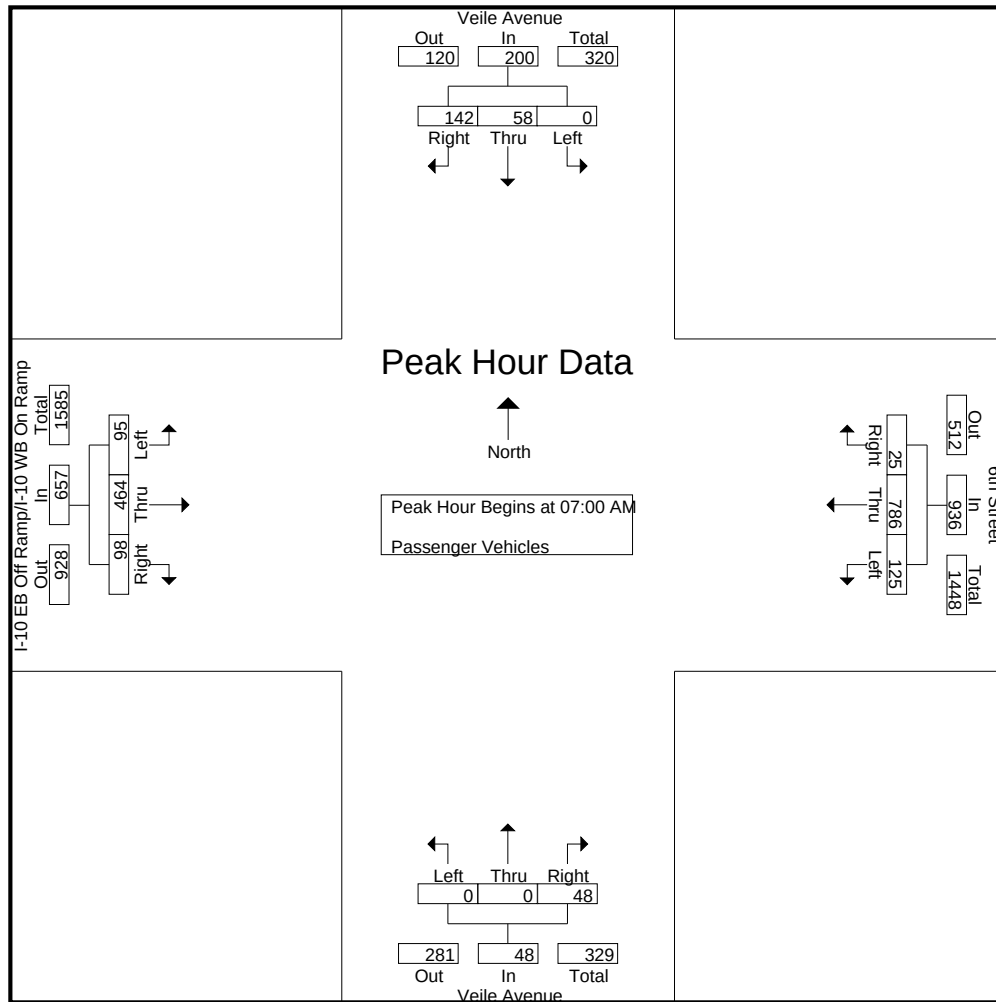
Groups Printed- Passenger Vehicles

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	19	38	57	30	246	7	283	0	0	11	11	25	93	31	149	500
07:15 AM	0	15	52	67	33	200	9	242	0	0	5	5	25	110	23	158	472
07:30 AM	0	14	26	40	31	173	4	208	0	0	15	15	25	112	15	152	415
07:45 AM	0	10	26	36	31	167	5	203	0	0	17	17	20	149	29	198	454
Total	0	58	142	200	125	786	25	936	0	0	48	48	95	464	98	657	1841
08:00 AM	0	15	17	32	26	160	3	189	0	0	8	8	16	71	25	112	341
08:15 AM	0	4	18	22	29	149	0	178	0	0	8	8	21	83	11	115	323
08:30 AM	0	3	15	18	26	148	1	175	0	0	8	8	8	75	20	103	304
08:45 AM	0	4	16	20	18	161	1	180	0	0	6	6	17	78	22	117	323
Total	0	26	66	92	99	618	5	722	0	0	30	30	62	307	78	447	1291
Grand Total	0	84	208	292	224	1404	30	1658	0	0	78	78	157	771	176	1104	3132
Apprch %	0	28.8	71.2		13.5	84.7	1.8		0	0	100		14.2	69.8	15.9		
Total %	0	2.7	6.6	9.3	7.2	44.8	1	52.9	0	0	2.5	2.5	5	24.6	5.6	35.2	

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	19	38	57	30	246	7	283	0	0	11	11	25	93	31	149	500
07:15 AM	0	15	52	67	33	200	9	242	0	0	5	5	25	110	23	158	472
07:30 AM	0	14	26	40	31	173	4	208	0	0	15	15	25	112	15	152	415
07:45 AM	0	10	26	36	31	167	5	203	0	0	17	17	20	149	29	198	454
Total Volume	0	58	142	200	125	786	25	936	0	0	48	48	95	464	98	657	1841
% App. Total	0	29	71		13.4	84	2.7		0	0	100		14.5	70.6	14.9		
PHF	.000	.763	.683	.746	.947	.799	.694	.827	.000	.000	.706	.706	.950	.779	.790	.830	.921

City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	19	38	57	30	246	7	283	0	0	11	11	25	93	31	149
+15 mins.	0	15	52	67	33	200	9	242	0	0	5	5	25	110	23	158
+30 mins.	0	14	26	40	31	173	4	208	0	0	15	15	25	112	15	152
+45 mins.	0	10	26	36	31	167	5	203	0	0	17	17	20	149	29	198
Total Volume	0	58	142	200	125	786	25	936	0	0	48	48	95	464	98	657
% App. Total	0	29	71		13.4	84	2.7		0	0	100		14.5	70.6	14.9	
PHF	.000	.763	.683	.746	.947	.799	.694	.827	.000	.000	.706	.706	.950	.779	.790	.830

City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

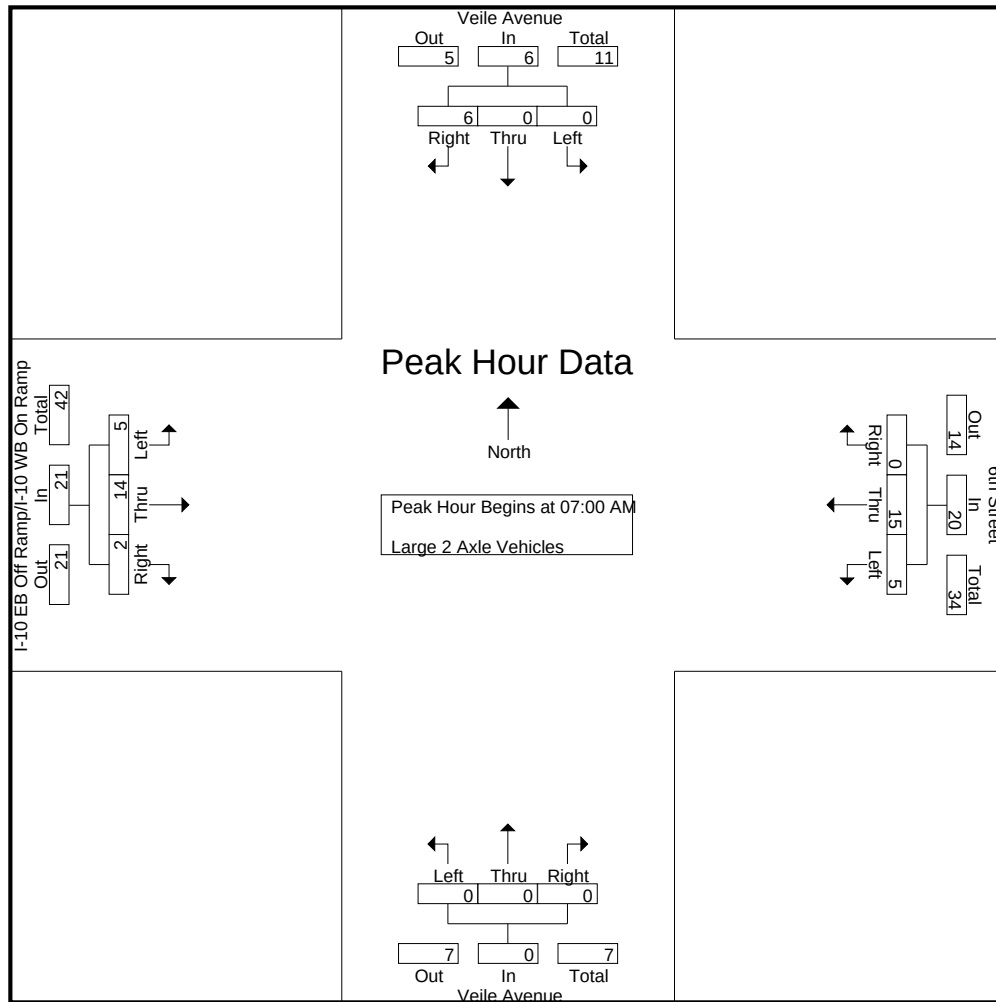
Groups Printed- Large 2 Axle Vehicles

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	4	4	1	4	0	5	0	0	0	0	1	7	1	9	18
07:15 AM	0	0	1	1	0	4	0	4	0	0	0	0	1	0	0	1	6
07:30 AM	0	0	0	0	0	4	0	4	0	0	0	0	3	5	0	8	12
07:45 AM	0	0	1	1	4	3	0	7	0	0	0	0	0	2	1	3	11
Total	0	0	6	6	5	15	0	20	0	0	0	0	5	14	2	21	47
08:00 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	2	1	3	6
08:15 AM	0	0	0	0	1	1	0	2	0	0	0	0	0	1	0	1	3
08:30 AM	0	1	0	1	1	5	0	6	0	0	1	1	0	3	0	3	11
08:45 AM	0	0	0	0	1	2	0	3	0	0	0	0	2	2	0	4	7
Total	0	1	0	1	3	11	0	14	0	0	1	1	2	8	1	11	27
Grand Total	0	1	6	7	8	26	0	34	0	0	1	1	7	22	3	32	74
Apprch %	0	14.3	85.7		23.5	76.5	0		0	0	100		21.9	68.8	9.4		
Total %	0	1.4	8.1	9.5	10.8	35.1	0	45.9	0	0	1.4	1.4	9.5	29.7	4.1	43.2	

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	4	4	1	4	0	5	0	0	0	0	1	7	1	9	18
07:15 AM	0	0	1	1	0	4	0	4	0	0	0	0	1	0	0	1	6
07:30 AM	0	0	0	0	0	4	0	4	0	0	0	0	3	5	0	8	12
07:45 AM	0	0	1	1	4	3	0	7	0	0	0	0	0	2	1	3	11
Total Volume	0	0	6	6	5	15	0	20	0	0	0	0	5	14	2	21	47
% App. Total	0	0	100		25	75	0		0	0	0		23.8	66.7	9.5		
PHF	.000	.000	.375	.375	.313	.938	.000	.714	.000	.000	.000	.000	.417	.500	.500	.583	.653

City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	4	4	1	4	0	5	0	0	0	0	1	7	1	9
+15 mins.	0	0	1	1	0	4	0	4	0	0	0	0	1	0	0	1
+30 mins.	0	0	0	0	0	4	0	4	0	0	0	0	3	5	0	8
+45 mins.	0	0	1	1	4	3	0	7	0	0	0	0	0	2	1	3
Total Volume	0	0	6	6	5	15	0	20	0	0	0	0	5	14	2	21
% App. Total	0	0	100		25	75	0		0	0	0		23.8	66.7	9.5	
PHF	.000	.000	.375	.375	.313	.938	.000	.714	.000	.000	.000	.000	.417	.500	.500	.583

City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020
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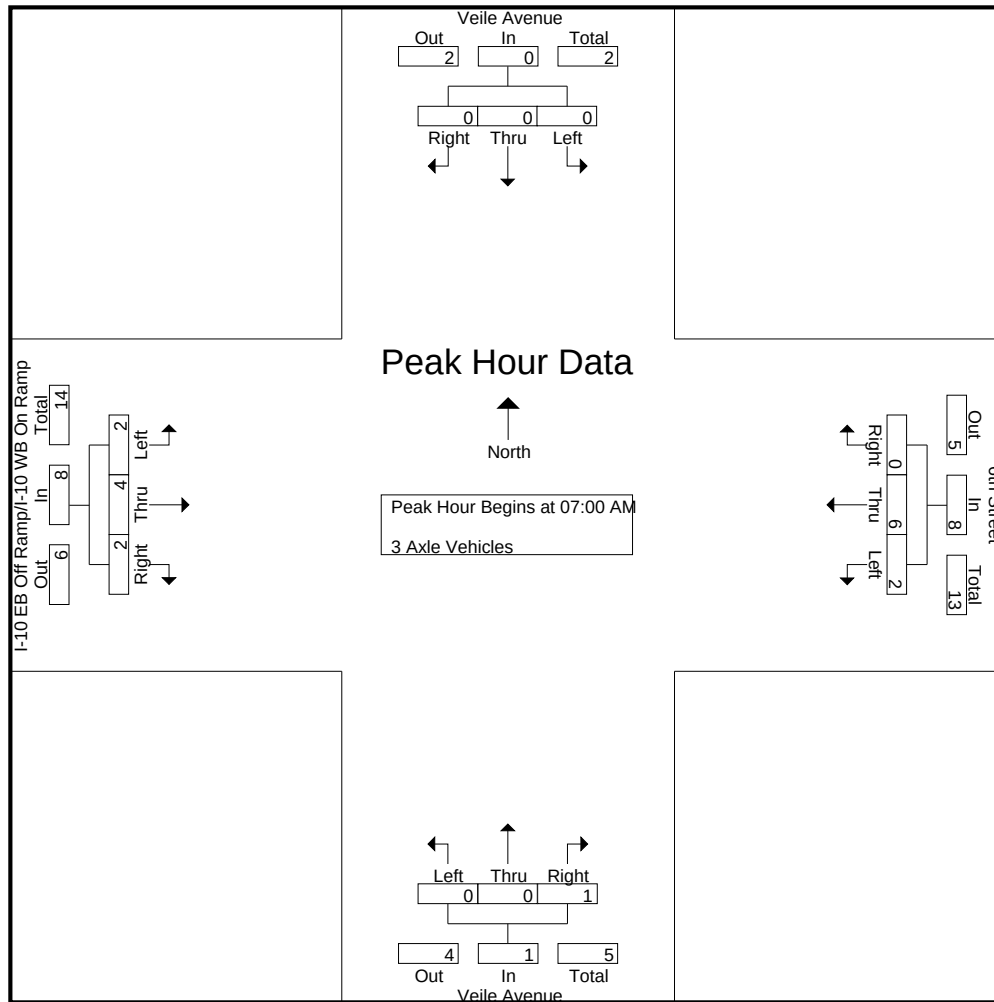
Groups Printed- 3 Axle Vehicles

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	1	1	0	2	0	0	1	1	0	0	1	1	4
07:15 AM	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	3	0	3	0	0	0	0	2	1	0	3	6
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	1	4	5
Total	0	0	0	0	2	6	0	8	0	0	1	1	2	4	2	8	17
08:00 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
08:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	2	3	4
08:30 AM	0	0	0	0	1	3	0	4	0	0	0	0	0	3	2	5	9
08:45 AM	0	0	0	0	0	5	0	5	0	0	0	0	0	1	2	3	8
Total	0	0	0	0	2	9	0	11	0	0	0	0	0	6	6	12	23
Grand Total	0	0	0	0	4	15	0	19	0	0	1	1	2	10	8	20	40
Apprch %	0	0	0		21.1	78.9	0		0	0	100		10	50	40		
Total %	0	0	0	0	10	37.5	0	47.5	0	0	2.5	2.5	5	25	20	50	

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	1	1	0	2	0	0	1	1	0	0	1	1	4
07:15 AM	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	2
07:30 AM	0	0	0	0	0	3	0	3	0	0	0	0	2	1	0	3	6
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	3	1	4	5
Total Volume	0	0	0	0	2	6	0	8	0	0	1	1	2	4	2	8	17
% App. Total	0	0	0		25	75	0		0	0	100		25	50	25		
PHF	.000	.000	.000	.000	.500	.500	.000	.667	.000	.000	.250	.250	.250	.333	.500	.500	.708

City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	1	1	0	2	0	0	1	1	0	0	1	1
+15 mins.	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	3	0	3	0	0	0	0	2	1	0	3
+45 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	3	1	4
Total Volume	0	0	0	0	2	6	0	8	0	0	1	1	2	4	2	8
% App. Total	0	0	0	0	25	75	0		0	0	100		25	50	25	
PHF	.000	.000	.000	.000	.500	.500	.000	.667	.000	.000	.250	.250	.250	.333	.500	.500

City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

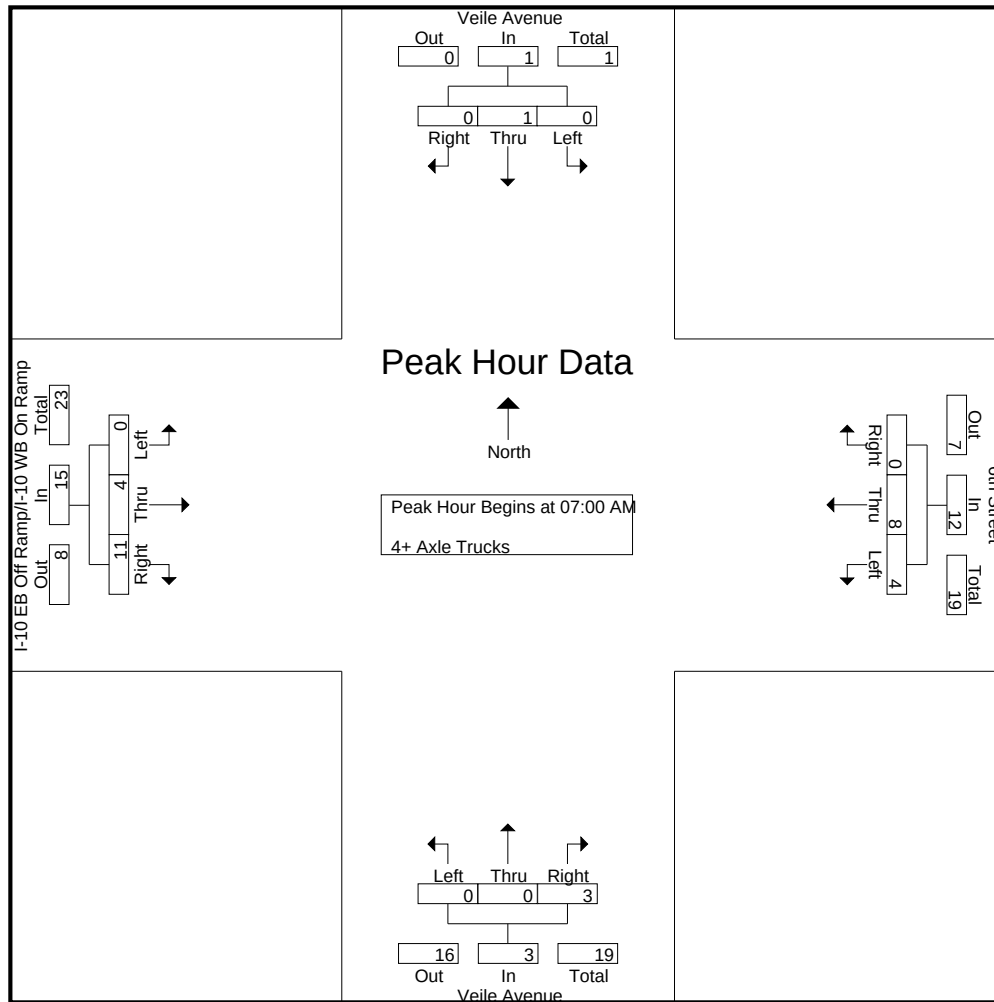
Groups Printed- 4+ Axle Trucks

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	3	2	0	5	0	0	1	1	0	0	3	3	9
07:15 AM	0	0	0	0	0	2	0	2	0	0	1	1	0	3	3	6	9
07:30 AM	0	1	0	1	1	1	0	2	0	0	1	1	0	1	3	4	8
07:45 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	2	2	5
Total	0	1	0	1	4	8	0	12	0	0	3	3	0	4	11	15	31
08:00 AM	0	0	0	0	1	3	0	4	0	0	0	0	0	1	5	6	10
08:15 AM	0	0	0	0	0	4	0	4	0	0	1	1	0	0	2	2	7
08:30 AM	0	0	0	0	1	3	0	4	0	0	1	1	0	0	2	2	7
08:45 AM	0	0	0	0	1	3	0	4	0	0	0	0	0	0	4	4	8
Total	0	0	0	0	3	13	0	16	0	0	2	2	0	1	13	14	32
Grand Total	0	1	0	1	7	21	0	28	0	0	5	5	0	5	24	29	63
Apprch %	0	100	0		25	75	0		0	0	100		0	17.2	82.8		
Total %	0	1.6	0	1.6	11.1	33.3	0	44.4	0	0	7.9	7.9	0	7.9	38.1	46	

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	3	2	0	5	0	0	1	1	0	0	3	3	9
07:15 AM	0	0	0	0	0	2	0	2	0	0	1	1	0	3	3	6	9
07:30 AM	0	1	0	1	1	1	0	2	0	0	1	1	0	1	3	4	8
07:45 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	0	2	2	5
Total Volume	0	1	0	1	4	8	0	12	0	0	3	3	0	4	11	15	31
% App. Total	0	100	0		33.3	66.7	0		0	0	100		0	26.7	73.3		
PHF	.000	.250	.000	.250	.333	.667	.000	.600	.000	.000	.750	.750	.000	.333	.917	.625	.861

City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th AM
Site Code : 05120026
Start Date : 1/14/2020
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	3	2	0	5	0	0	1	1	0	0	3	3
+15 mins.	0	0	0	0	0	2	0	2	0	0	1	1	0	3	3	6
+30 mins.	0	1	0	1	1	1	0	2	0	0	1	1	0	1	3	4
+45 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	0	2	2
Total Volume	0	1	0	1	4	8	0	12	0	0	3	3	0	4	11	15
% App. Total	0	100	0		33.3	66.7	0		0	0	100		0	26.7	73.3	
PHF	.000	.250	.000	.250	.333	.667	.000	.600	.000	.000	.750	.750	.000	.333	.917	.625

City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th PM
Site Code : 05120026
Start Date : 1/14/2020
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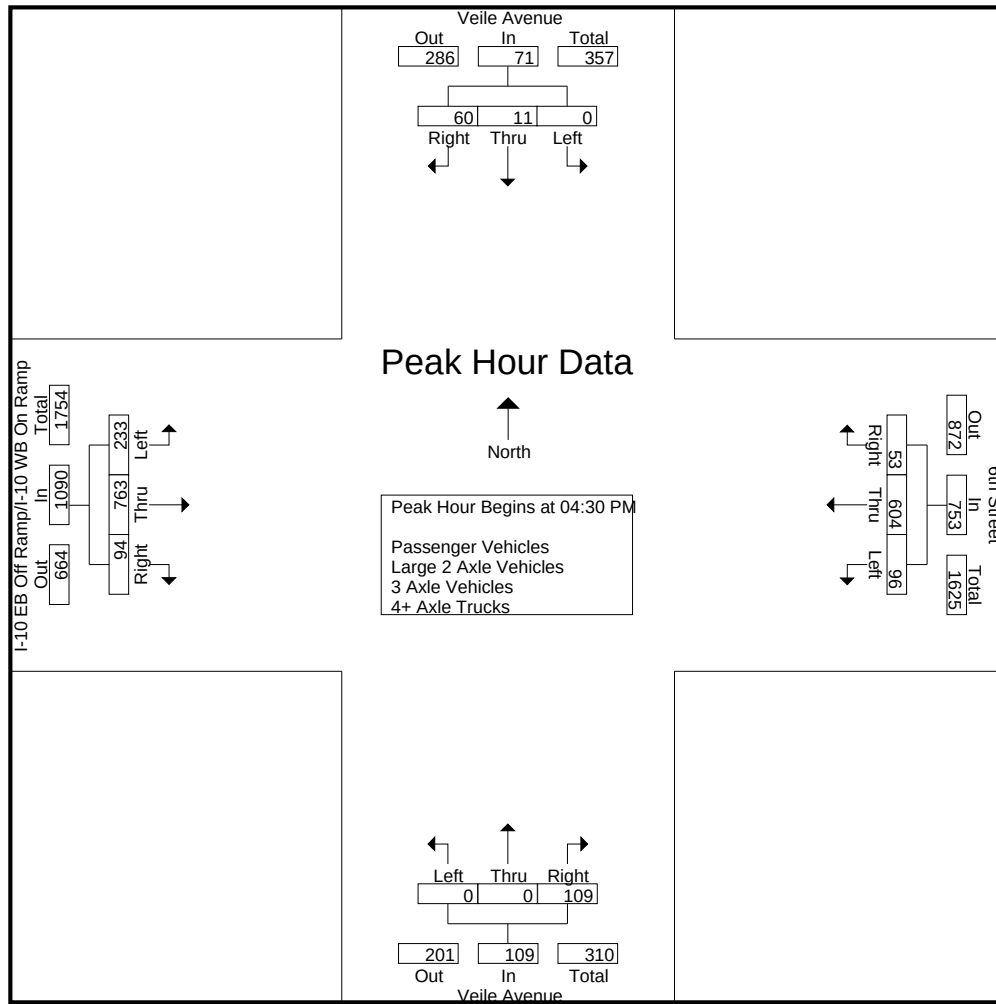
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	4	15	19	18	134	13	165	0	0	21	21	29	173	33	235	440
04:15 PM	0	7	15	22	15	148	9	172	0	0	40	40	57	194	25	276	510
04:30 PM	0	3	19	22	14	152	16	182	0	0	40	40	37	194	24	255	499
04:45 PM	0	2	14	16	25	131	17	173	0	0	14	14	64	190	24	278	481
Total	0	16	63	79	72	565	55	692	0	0	115	115	187	751	106	1044	1930
05:00 PM	0	3	14	17	24	132	8	164	0	0	28	28	70	192	25	287	496
05:15 PM	0	3	13	16	33	189	12	234	0	0	27	27	62	187	21	270	547
05:30 PM	0	1	15	16	18	142	17	177	0	0	20	20	63	202	21	286	499
05:45 PM	0	3	18	21	8	112	21	141	0	0	25	25	54	205	15	274	461
Total	0	10	60	70	83	575	58	716	0	0	100	100	249	786	82	1117	2003
Grand Total	0	26	123	149	155	1140	113	1408	0	0	215	215	436	1537	188	2161	3933
Apprch %	0	17.4	82.6		11	81	8		0	0	100		20.2	71.1	8.7		
Total %	0	0.7	3.1	3.8	3.9	29	2.9	35.8	0	0	5.5	5.5	11.1	39.1	4.8	54.9	
Passenger Vehicles	0	25	121	146	143	1106	113	1362	0	0	205	205	431	1522	159	2112	3825
% Passenger Vehicles	0	96.2	98.4	98	92.3	97	100	96.7	0	0	95.3	95.3	98.9	99	84.6	97.7	97.3
Large 2 Axle Vehicles	0	1	1	2	6	21	0	27	0	0	5	5	4	11	7	22	56
% Large 2 Axle Vehicles	0	3.8	0.8	1.3	3.9	1.8	0	1.9	0	0	2.3	2.3	0.9	0.7	3.7	1	1.4
3 Axle Vehicles	0	0	0	0	1	3	0	4	0	0	2	2	0	1	2	3	9
% 3 Axle Vehicles	0	0	0	0	0.6	0.3	0	0.3	0	0	0.9	0.9	0	0.1	1.1	0.1	0.2
4+ Axle Trucks	0	0	1	1	5	10	0	15	0	0	3	3	1	3	20	24	43
% 4+ Axle Trucks	0	0	0.8	0.7	3.2	0.9	0	1.1	0	0	1.4	1.4	0.2	0.2	10.6	1.1	1.1

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	3	19	22	14	152	16	182	0	0	40	40	37	194	24	255	499
04:45 PM	0	2	14	16	25	131	17	173	0	0	14	14	64	190	24	278	481
05:00 PM	0	3	14	17	24	132	8	164	0	0	28	28	70	192	25	287	496
05:15 PM	0	3	13	16	33	189	12	234	0	0	27	27	62	187	21	270	547
Total Volume	0	11	60	71	96	604	53	753	0	0	109	109	233	763	94	1090	2023
% App. Total	0	15.5	84.5		12.7	80.2	7		0	0	100		21.4	70	8.6		
PHF	.000	.917	.789	.807	.727	.799	.779	.804	.000	.000	.681	.681	.832	.983	.940	.949	.925

City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th PM
Site Code : 05120026
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:30 PM				04:15 PM				04:45 PM			
+0 mins.	0	4	15	19	14	152	16	182	0	0	40	40	64	190	24	278
+15 mins.	0	7	15	22	25	131	17	173	0	0	40	40	70	192	25	287
+30 mins.	0	3	19	22	24	132	8	164	0	0	14	14	62	187	21	270
+45 mins.	0	2	14	16	33	189	12	234	0	0	28	28	63	202	21	286
Total Volume	0	16	63	79	96	604	53	753	0	0	122	122	259	771	91	1121
% App. Total	0	20.3	79.7		12.7	80.2	7		0	0	100		23.1	68.8	8.1	
PHF	.000	.571	.829	.898	.727	.799	.779	.804	.000	.000	.763	.763	.925	.954	.910	.976

City of Beaumont
N/S: Veile Avenue
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Start Date : 1/14/2020
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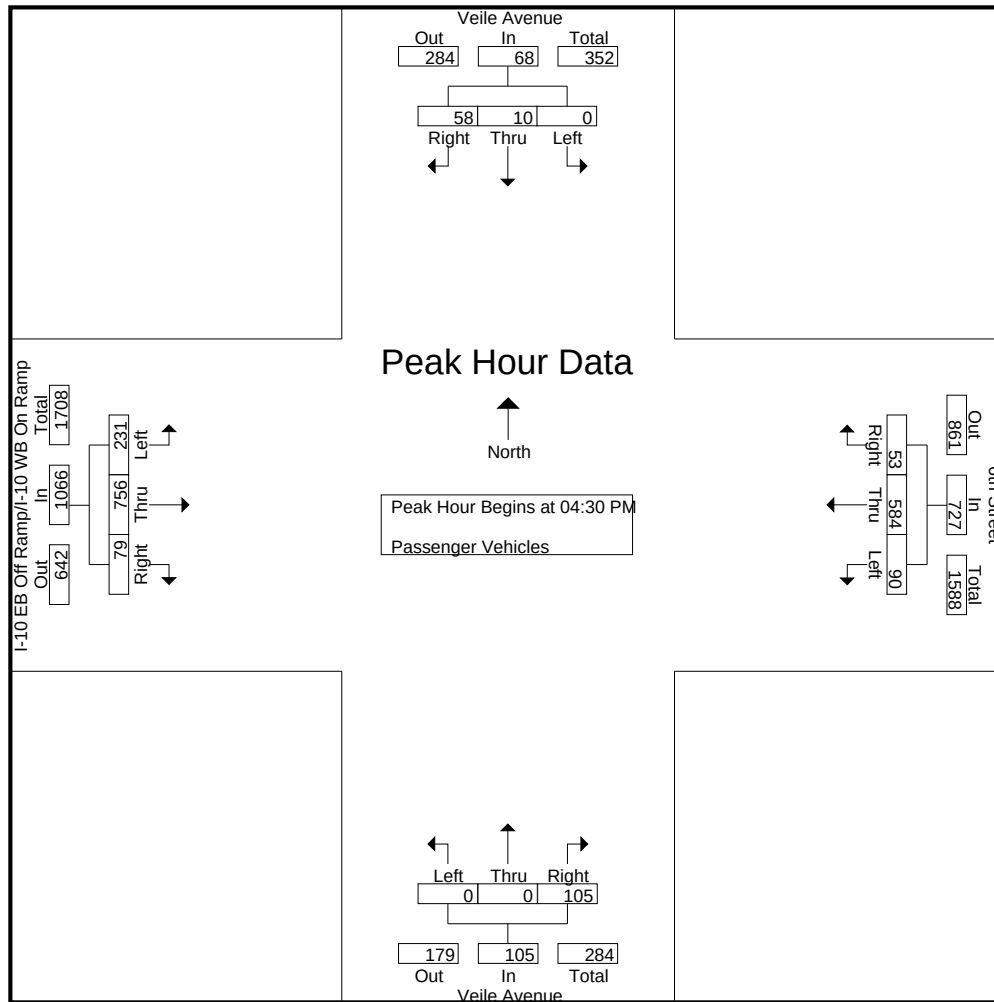
Groups Printed- Passenger Vehicles

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	4	15	19	17	129	13	159	0	0	18	18	29	169	30	228	424
04:15 PM	0	7	15	22	15	145	9	169	0	0	39	39	55	191	20	266	496
04:30 PM	0	3	18	21	13	149	16	178	0	0	40	40	37	191	21	249	488
04:45 PM	0	2	14	16	24	122	17	163	0	0	13	13	64	188	18	270	462
Total	0	16	62	78	69	545	55	669	0	0	110	110	185	739	89	1013	1870
05:00 PM	0	2	13	15	21	128	8	157	0	0	27	27	69	190	20	279	478
05:15 PM	0	3	13	16	32	185	12	229	0	0	25	25	61	187	20	268	538
05:30 PM	0	1	15	16	14	139	17	170	0	0	19	19	62	201	18	281	486
05:45 PM	0	3	18	21	7	109	21	137	0	0	24	24	54	205	12	271	453
Total	0	9	59	68	74	561	58	693	0	0	95	95	246	783	70	1099	1955
Grand Total	0	25	121	146	143	1106	113	1362	0	0	205	205	431	1522	159	2112	3825
Apprch %	0	17.1	82.9		10.5	81.2	8.3		0	0	100		20.4	72.1	7.5		
Total %	0	0.7	3.2	3.8	3.7	28.9	3	35.6	0	0	5.4	5.4	11.3	39.8	4.2	55.2	

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	3	18	21	13	149	16	178	0	0	40	40	37	191	21	249	488
04:45 PM	0	2	14	16	24	122	17	163	0	0	13	13	64	188	18	270	462
05:00 PM	0	2	13	15	21	128	8	157	0	0	27	27	69	190	20	279	478
05:15 PM	0	3	13	16	32	185	12	229	0	0	25	25	61	187	20	268	538
Total Volume	0	10	58	68	90	584	53	727	0	0	105	105	231	756	79	1066	1966
% App. Total	0	14.7	85.3		12.4	80.3	7.3		0	0	100		21.7	70.9	7.4		
PHF	.000	.833	.806	.810	.703	.789	.779	.794	.000	.000	.656	.656	.837	.990	.940	.955	.914

City of Beaumont
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Weather: Clear

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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	3	18	21	13	149	16	178	0	0	40	40	37	191	21	249
+15 mins.	0	2	14	16	24	122	17	163	0	0	13	13	64	188	18	270
+30 mins.	0	2	13	15	21	128	8	157	0	0	27	27	69	190	20	279
+45 mins.	0	3	13	16	32	185	12	229	0	0	25	25	61	187	20	268
Total Volume	0	10	58	68	90	584	53	727	0	0	105	105	231	756	79	1066
% App. Total	0	14.7	85.3		12.4	80.3	7.3		0	0	100		21.7	70.9	7.4	
PHF	.000	.833	.806	.810	.703	.789	.779	.794	.000	.000	.656	.656	.837	.990	.940	.955

City of Beaumont
N/S: Veile Avenue
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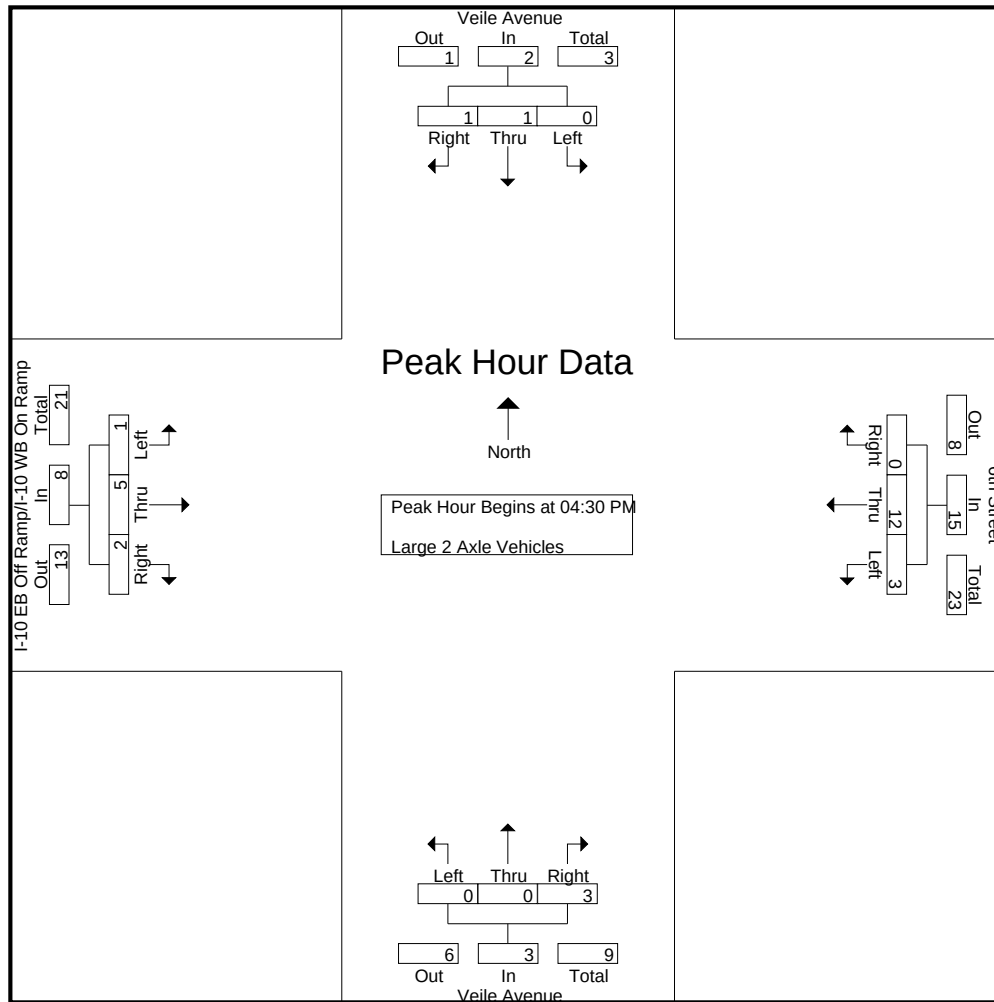
Groups Printed- Large 2 Axle Vehicles

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	4	0	4	0	0	1	1	0	3	3	6	11
04:15 PM	0	0	0	0	0	2	0	2	0	0	0	0	2	2	2	6	8
04:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	1	4	6
04:45 PM	0	0	0	0	0	6	0	6	0	0	1	1	0	1	1	2	9
Total	0	0	0	0	0	14	0	14	0	0	2	2	2	9	7	18	34
05:00 PM	0	1	1	2	3	3	0	6	0	0	1	1	0	1	0	1	10
05:15 PM	0	0	0	0	0	1	0	1	0	0	1	1	1	0	0	1	3
05:30 PM	0	0	0	0	2	2	0	4	0	0	0	0	1	1	0	2	6
05:45 PM	0	0	0	0	1	1	0	2	0	0	1	1	0	0	0	0	3
Total	0	1	1	2	6	7	0	13	0	0	3	3	2	2	0	4	22
Grand Total	0	1	1	2	6	21	0	27	0	0	5	5	4	11	7	22	56
Apprch %	0	50	50		22.2	77.8	0		0	0	100		18.2	50	31.8		
Total %	0	1.8	1.8	3.6	10.7	37.5	0	48.2	0	0	8.9	8.9	7.1	19.6	12.5	39.3	

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	1	4	6
04:45 PM	0	0	0	0	0	6	0	6	0	0	1	1	0	1	1	2	9
05:00 PM	0	1	1	2	3	3	0	6	0	0	1	1	0	1	0	1	10
05:15 PM	0	0	0	0	0	1	0	1	0	0	1	1	1	0	0	1	3
Total Volume	0	1	1	2	3	12	0	15	0	0	3	3	1	5	2	8	28
% App. Total	0	50	50		20	80	0		0	0	100		12.5	62.5	25		
PHF	.000	.250	.250	.250	.250	.500	.000	.625	.000	.000	.750	.750	.250	.417	.500	.500	.700

City of Beaumont
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	3	1	4
+15 mins.	0	0	0	0	0	6	0	6	0	0	1	1	0	1	1	2
+30 mins.	0	1	1	2	3	3	0	6	0	0	1	1	0	1	0	1
+45 mins.	0	0	0	0	0	1	0	1	0	0	1	1	1	0	0	1
Total Volume	0	1	1	2	3	12	0	15	0	0	3	3	1	5	2	8
% App. Total	0	50	50		20	80	0		0	0	100		12.5	62.5	25	
PHF	.000	.250	.250	.250	.250	.500	.000	.625	.000	.000	.750	.750	.250	.417	.500	.500

City of Beaumont
N/S: Veile Avenue
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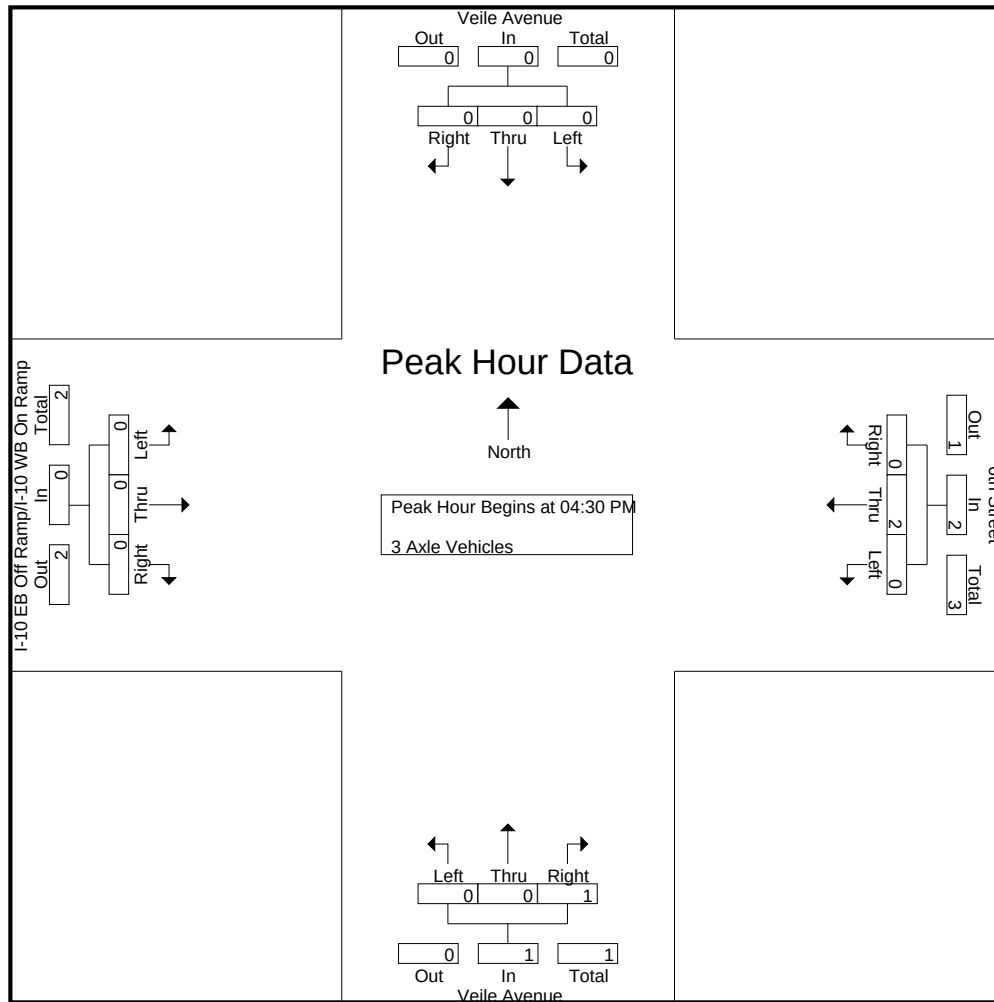
Groups Printed- 3 Axle Vehicles

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	1	0	1	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	2	0	2	0	0	1	1	0	1	1	2	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
05:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
Total	0	0	0	0	1	1	0	2	0	0	1	1	0	0	1	1	4
Grand Total	0	0	0	0	1	3	0	4	0	0	2	2	0	1	2	3	9
Apprch %	0	0	0		25	75	0		0	0	100		0	33.3	66.7		
Total %	0	0	0		11.1	33.3	0	44.4	0	0	22.2	22.2	0	11.1	22.2	33.3	

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
Total Volume	0	0	0	0	0	2	0	2	0	0	1	1	0	0	0	0	3
% App. Total	0	0	0		0	100	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.250	.250	.000	.000	.000	.000	.375

City of Beaumont
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Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0
Total Volume	0	0	0	0	0	2	0	2	0	0	1	1	0	0	0	0
% App. Total	0	0	0	0	0	100	0	0	0	0	100	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.250	.250	.000	.000	.000	.000

City of Beaumont
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E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th PM
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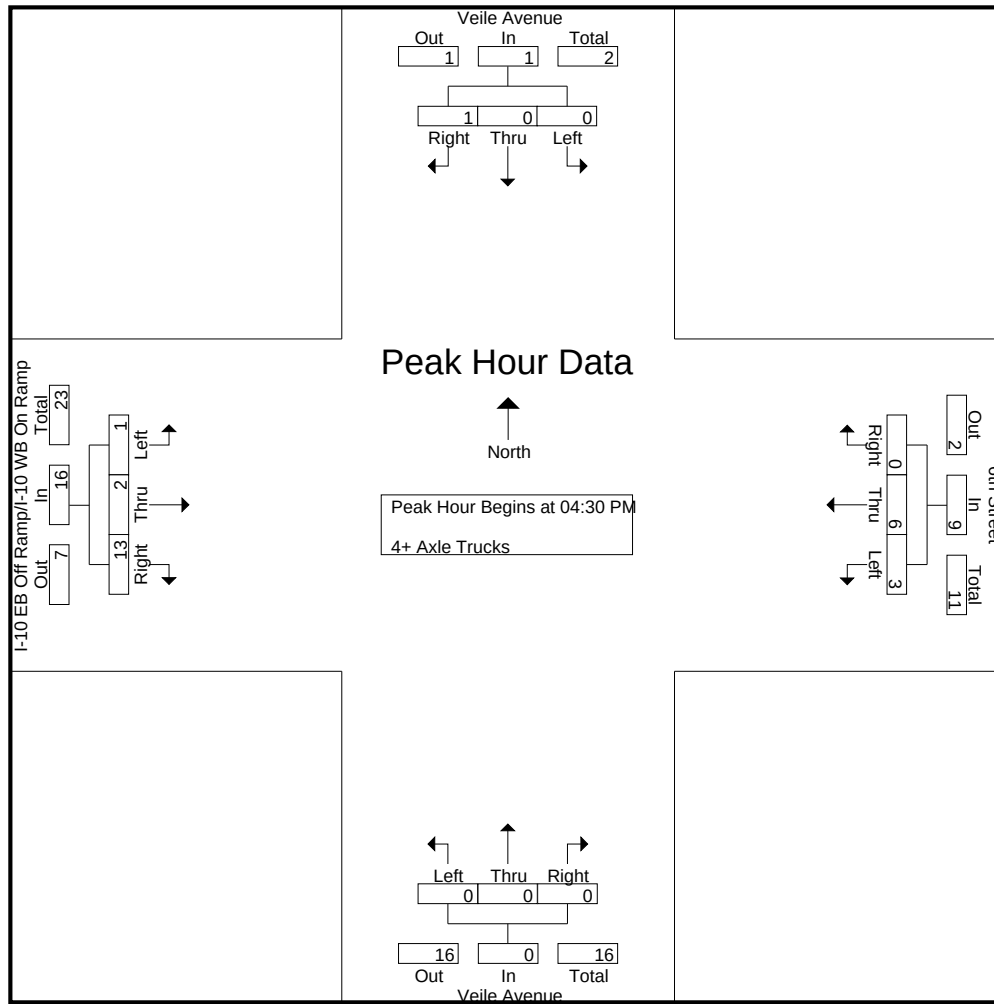
Groups Printed- 4+ Axle Trucks

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
04:15 PM	0	0	0	0	0	1	0	1	0	0	1	1	0	1	2	3	5
04:30 PM	0	0	1	1	1	1	0	2	0	0	0	0	0	0	2	2	5
04:45 PM	0	0	0	0	1	2	0	3	0	0	0	0	0	1	5	6	9
Total	0	0	1	1	3	4	0	7	0	0	2	2	0	2	9	11	21
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	1	1	5	7	8
05:15 PM	0	0	0	0	1	2	0	3	0	0	0	0	0	0	1	1	4
05:30 PM	0	0	0	0	1	1	0	2	0	0	1	1	0	0	3	3	6
05:45 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	2	2	4
Total	0	0	0	0	2	6	0	8	0	0	1	1	1	1	11	13	22
Grand Total	0	0	1	1	5	10	0	15	0	0	3	3	1	3	20	24	43
Apprch %	0	0	100		33.3	66.7	0		0	0	100		4.2	12.5	83.3		
Total %	0	0	2.3	2.3	11.6	23.3	0	34.9	0	0	7	7	2.3	7	46.5	55.8	

	Veile Avenue Southbound				6th Street Westbound				Veile Avenue Northbound				I-10 EB Off Ramp/I-10 WB On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	1	1	1	1	0	2	0	0	0	0	0	0	2	2	5
04:45 PM	0	0	0	0	1	2	0	3	0	0	0	0	0	1	5	6	9
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	1	1	5	7	8
05:15 PM	0	0	0	0	1	2	0	3	0	0	0	0	0	0	1	1	4
Total Volume	0	0	1	1	3	6	0	9	0	0	0	0	1	2	13	16	26
% App. Total	0	0	100		33.3	66.7	0		0	0	0		6.2	12.5	81.2		
PHF	.000	.000	.250	.250	.750	.750	.000	.750	.000	.000	.000	.000	.250	.500	.650	.571	.722

City of Beaumont
N/S: Veile Avenue
E/W: I-10 EB Off & WB On Ramps/6th St
Weather: Clear

File Name : 01_BMT_Veile_6th PM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 2



Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:30 PM				04:30 PM				04:30 PM			
+0 mins.	0	0	1	1	1	1	0	2	0	0	0	0	0	0	2	2
+15 mins.	0	0	0	0	1	2	0	3	0	0	0	0	0	1	5	6
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	1	1	5	7
+45 mins.	0	0	0	0	1	2	0	3	0	0	0	0	0	0	1	1
Total Volume	0	0	1	1	3	6	0	9	0	0	0	0	1	2	13	16
% App. Total	0	0	100		33.3	66.7	0		0	0	0		6.2	12.5	81.2	
PHF	.000	.000	.250	.250	.750	.750	.000	.750	.000	.000	.000	.000	.250	.500	.650	.571

Location: Beaumont
 N/S: Veile Avenue
 E/W: I-10 EB Off & WB On Ramps/6th St



Date: 1/14/2020
 Day: Tuesday

PEDESTRIANS

	North Leg Veile Avenue	East Leg 6th Street	South Leg Veile Avenue	West Leg I-10 EB Off/WB On Ramps	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Veile Avenue	East Leg 6th Street	South Leg Veile Avenue	West Leg I-10 EB Off/WB On Ramps	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	1	0	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

Location: Beaumont
 N/S: Veile Avenue
 E/W: I-10 EB Off & WB On Ramps/6th St



Date: 1/14/2020
 Day: Tuesday

BICYCLES

	Southbound Veile Avenue			Westbound 6th Street			Northbound Veile Avenue			Eastbound I-10 EB Off/WB On Ramps			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Veile Avenue			Westbound 6th Street			Northbound Veile Avenue			Eastbound I-10 EB Off/WB On Ramps			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	0	0	0	0	1	0	0	0	2

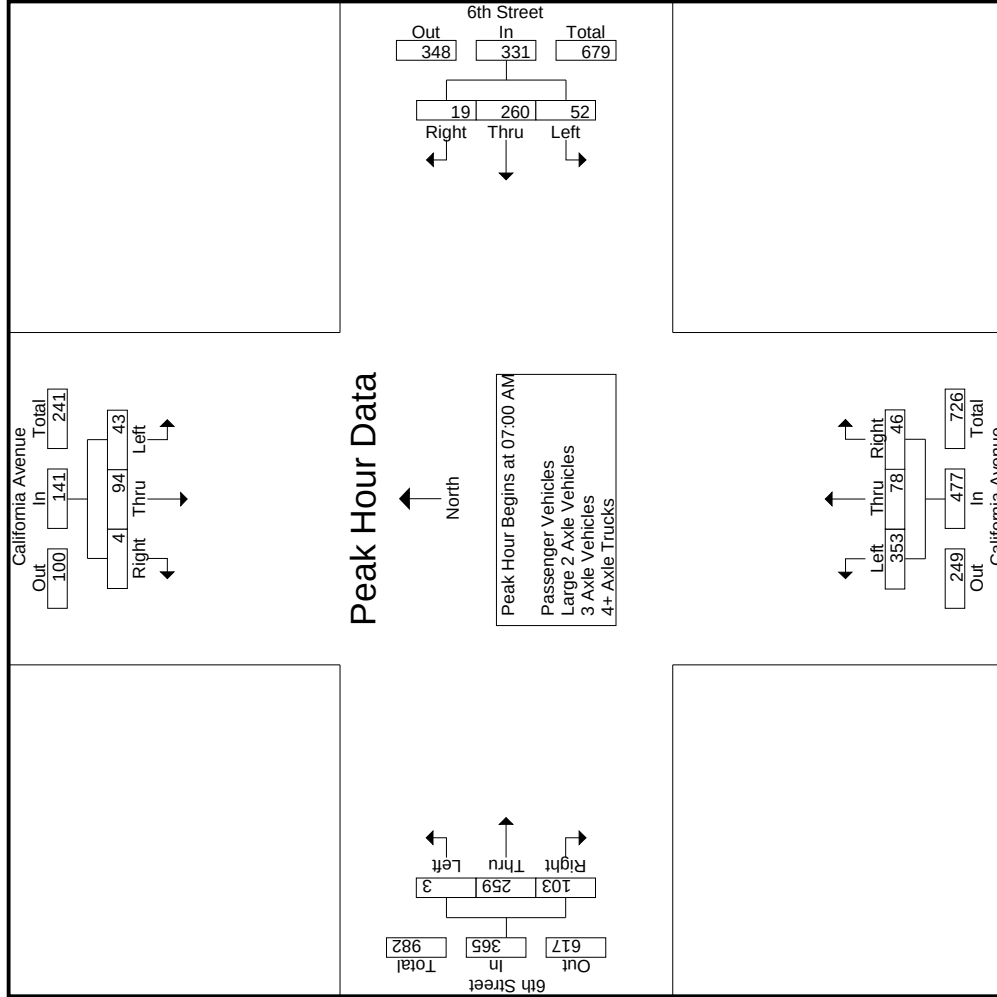
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

		California Avenue Southbound						6th Street Westbound						California Avenue Northbound						6th Street Eastbound					
Start Time		Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total	
07:00 AM		8	19	0	0	27	10	64	2	1	76	108	33	14	4	155	0	43	30	0	73	5	331	336	
07:15 AM		6	28	0	0	34	23	78	7	3	108	91	13	11	5	115	0	67	21	0	88	8	345	353	
07:30 AM		21	24	3	2	48	5	41	5	1	51	73	15	6	3	94	3	56	27	1	86	7	279	286	
07:45 AM		8	23	1	0	32	14	77	5	3	96	81	17	15	8	113	0	93	25	0	118	11	359	370	
Total		43	94	4	2	141	52	260	19	8	331	353	78	46	20	477	3	259	103	1	365	31	1314	1345	
08:00 AM		4	7	2	1	13	13	73	2	0	88	76	7	6	2	89	1	62	20	0	83	3	273	276	
08:15 AM		9	5	0	0	14	12	63	0	0	75	73	2	8	4	83	2	63	15	0	80	4	252	256	
08:30 AM		3	8	0	0	11	11	65	6	3	82	81	4	11	4	96	2	53	26	0	81	7	270	277	
08:45 AM		3	9	1	1	13	10	57	2	0	69	84	7	14	4	105	1	60	16	1	77	6	264	270	
Total		19	29	3	2	51	46	258	10	3	314	314	20	39	14	373	6	238	77	1	321	20	1059	1079	
Grand Total		62	123	7	4	192	98	518	29	11	645	667	98	85	34	850	9	497	180	2	686	51	2373	2424	
Approch %		32.3	64.1	3.6			15.2	80.3	4.5			78.5	11.5	10			1.3	72.4	26.2						
Total %		2.6	5.2	0.3		8.1	4.1	21.8	1.2		27.2	28.1	4.1	3.6		35.8	0.4	20.9	7.6		28.9	2.1	97.9		
Passenger Vehicles		62	119	6		191	91	504	28		634	613	97	76		817	7	483	160		652	0	0	2294	
% Large Passenger Vehicles		100	96.7	85.7	100	97.4	92.9	97.3	96.6	100	96.6	91.9	99	89.4	91.2	92.4	77.8	97.2	88.9	100	94.8	0	0	94.6	
Large 2 Axle Vehicles		0	4	1		5	0	7	1		8	15	1	2		20	2	6	8		16	0	0	49	
% Large 2 Axle Vehicles		0	3.3	14.3	0	2.6	0	1.4	3.4	0	1.2	2.2	1	2.4	5.9	2.3	22.2	1.2	4.4	0	2.3	0	0	2	
3 Axle Vehicles		0	0	0	0	0	6	0	0		6	18	0	2		20	0	3	8		11	0	0	37	
% 3 Axle Vehicles		0	0	0	0	0	6.1	0	0	0	0.9	2.7	0	2.4	0	2.3	0	0.6	4.4	0	1.6	0	0	1.5	
4+ Axle Trucks		0	0	0	0	0	1	7	0		8	21	0	5		27	0	5	4		9	0	0	44	
% 4+ Axle Trucks		0	0	0	0	0	1	1.4	0	0	1.2	3.1	0	5.9	2.9	3.1	0	1	2.2	0	1.3	0	0	1.8	

		California Avenue Southbound						6th Street Westbound						California Avenue Northbound						6th Street Eastbound					
Start Time		Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1		8	19	0		27	10	64	2		76	108	33	14		155	0	43	30		73	5	331	331	
Peak Hour for Entire Intersection Begins at 07:00 AM		6	28	0		34	23	78	7		108	91	13	11		115	0	67	21		88	8	345	345	
07:00 AM		21	24	3		48	5	41	5		94	73	15	6		94	3	56	27		86	7	279	279	
07:15 AM		8	23	1		32	14	77	5		96	81	17	15		113	0	93	25		118	11	359	359	
07:30 AM		43	94	4		141	52	260	19		331	353	78	46		477	3	259	103		365	31	1314	1314	
07:45 AM		4	7	2		13	13	73	2		88	76	7	6		89	1	62	20		83	3	273	273	
Total Volume		30.5	66.7	2.8			15.7	78.5	5.7			74	16.4	9.6			0.8	71	28.2						
% App. Total		.512	.839	.333		.734	.565	.833	.679		.766	.817	.591	.767		.769	.250	.696	.858		.773			.915	
PHF																									

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: California Avenue
EW: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 3

Start Time	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
+0 mins.	8	19	0	27	07:15 AM				07:00 AM				07:15 AM			
+15 mins.	6	28	0	34	23	5	78	7	108	51	14	155	0	67	21	88
+30 mins.	21	24	3	48	14	77	41	5	96	73	6	115	3	56	27	86
+45 mins.	8	23	1	32	13	73	73	2	88	81	15	113	0	93	25	118
Total Volume	43	94	4	141	55	269	19	343	353	78	46	477	4	278	93	375
% App. Total	30.5	66.7	2.8		16	78.4	5.5		74	16.4	9.6		1.1	74.1	24.8	
PHF	.512	.839	.333	.734	.598	.862	.679	.794	.817	.591	.767	.769	.333	.747	.861	.794

City of Beaumont
N/S: California Avenue
EW: 6th Street
Weather: Clear

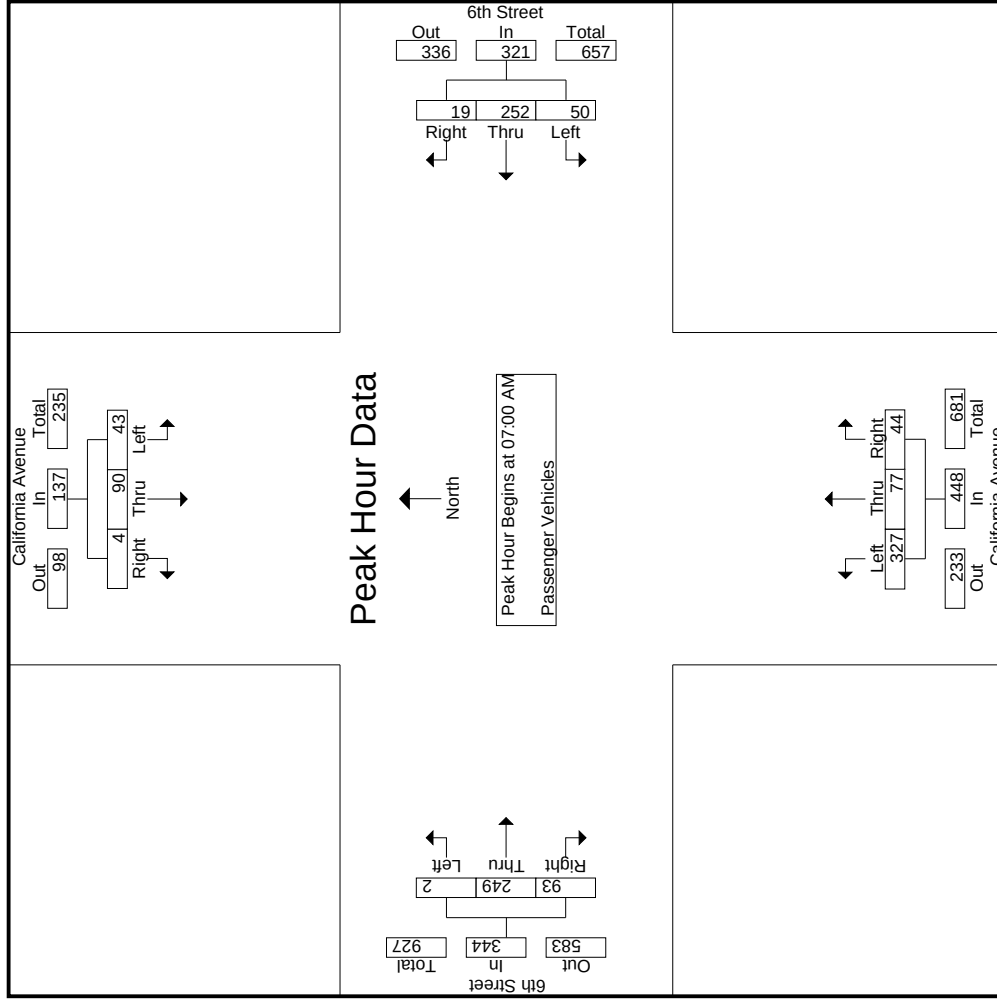
File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

Groups Printed- Passenger Vehicles

		California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	8	18	0	0	26	10	61	2	1	73	100	33	14	4	147	0	39	26	0	65	5	311	316
07:15 AM	6	26	0	0	32	23	77	7	3	107	85	12	9	4	106	0	65	20	0	85	7	330	337
07:30 AM	21	24	3	2	48	5	39	5	1	49	68	15	6	3	89	2	52	25	1	79	7	265	272
07:45 AM	8	22	1	0	31	12	75	5	3	92	74	17	15	8	106	0	93	22	0	115	11	344	355
Total	43	90	4	2	137	50	252	19	8	321	327	77	44	19	448	2	249	93	1	344	30	1250	1280
08:00 AM	4	7	1	1	12	10	70	2	0	82	68	7	6	2	81	0	61	15	0	76	3	251	254
08:15 AM	9	5	0	0	14	12	62	0	0	74	70	2	8	4	80	2	62	15	0	79	4	247	251
08:30 AM	3	8	0	0	11	9	63	5	3	77	72	4	7	2	83	2	52	22	0	76	5	247	252
08:45 AM	3	9	1	1	13	10	57	2	0	69	76	7	11	4	94	1	59	15	1	75	6	251	257
Total	19	29	2	2	50	41	252	9	3	302	286	20	32	12	338	5	234	67	1	306	18	996	1014
Grand Total	62	119	6	4	187	91	504	28	11	623	613	97	76	31	786	7	483	160	2	650	48	2246	2294
Apprch %	33.2	63.6	3.2			14.6	80.9	4.5			78	12.3	9.7			1.1	74.3	24.6					
Total %	2.8	5.3	0.3		8.3	4.1	22.4	1.2		27.7	27.3	4.3	3.4		35	0.3	21.5	7.1		28.9	2.1	97.9	

3.1-48

		California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total		Left	Thru	Right	App. Total		Left	Thru	Right	App. Total		Left	Thru	Right	App. Total		Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	8	18	0	26		10	61	2	73		100	33	14	147		0	39	26	65		311
07:15 AM	6	26	0	32		23	77	7	107		85	12	9	106		0	65	20	85		330
07:30 AM	21	24	3	48		5	39	5	49		68	15	6	89		2	52	25	79		265
07:45 AM	8	22	1	31		12	75	5	92		74	17	15	106		0	93	22	115		344
Total Volume	43	90	4	137		50	252	19	321		327	77	44	448		2	249	93	344		1250
% App. Total	31.4	65.7	2.9			15.6	78.5	5.9			73	17.2	9.8			0.6	72.4	27			
PHF	.512	.865	.333	.714		.543	.818	.679	.750		.818	.583	.733	.762		.250	.669	.894	.748		.908



Counts Unlimited
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Corona, CA 92878
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City of Beaumont
N/S: California Avenue
EW: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 3

Start Time	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
+0 mins.	8	18	0	26	07:00 AM				07:00 AM				07:00 AM			
+15 mins.	6	26	0	32	10	23	7	107	73	107	14	147	0	39	26	65
+30 mins.	21	24	3	48	5	39	5	49	85	12	9	106	0	65	20	85
+45 mins.	8	22	1	31	12	75	5	92	68	15	6	89	2	52	25	79
Total Volume	43	90	4	137	50	252	19	321	74	17	15	106	0	93	22	115
% App. Total	31.4	65.7	2.9		15.6	78.5	5.9		327	77	44	448	2	249	93	344
PHF	.512	.865	.333	.714	.543	.818	.679	.750	.818	.583	.733	.762	.250	.669	.894	.748

City of Beaumont
N/S: California Avenue
EW: 6th Street
Weather: Clear

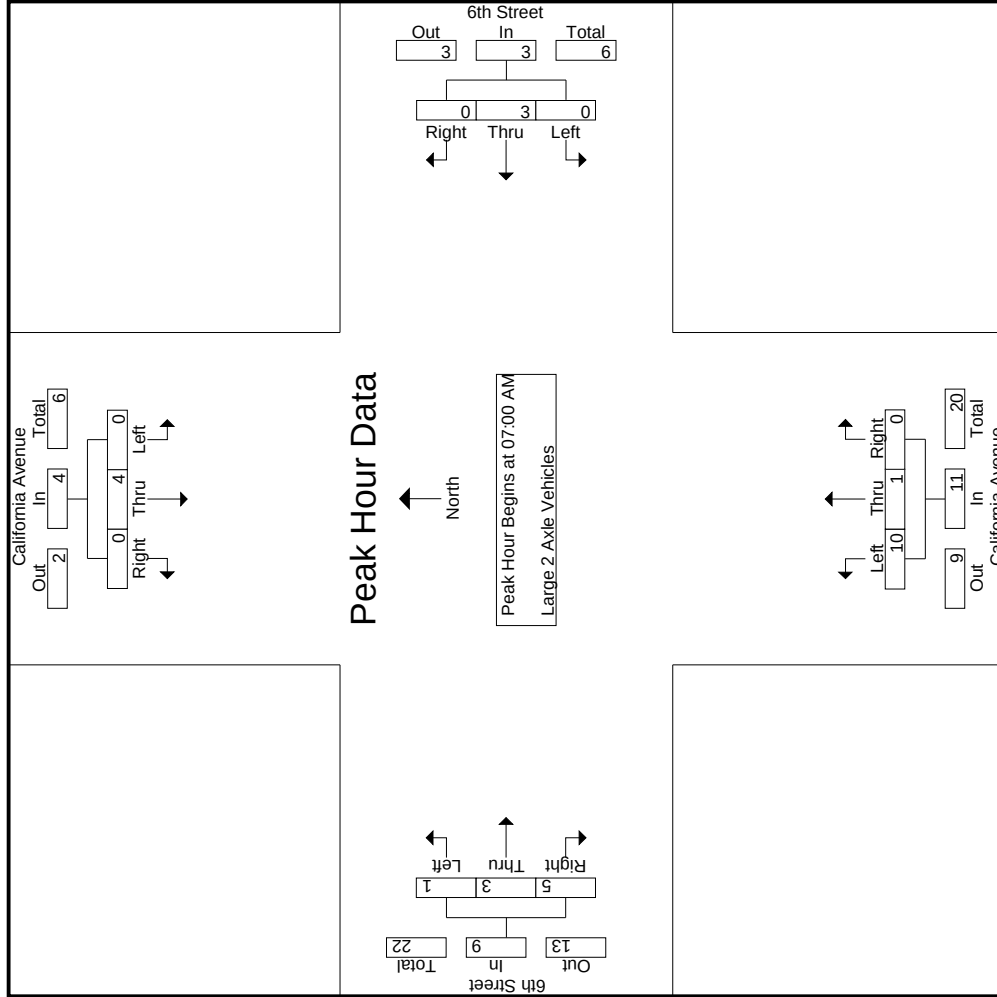
File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

Groups Printed - Large 2 Axle Vehicles

		California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total					
07:00 AM	0	1	0	0	1	0	2	0	0	2	2	0	0	0	2	0	1	4	0	5	0	10	10
07:15 AM	0	2	0	0	2	0	0	0	0	0	3	1	0	0	4	0	1	0	0	1	0	7	7
07:30 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	1	1	0	3	0	5	5
07:45 AM	0	1	0	0	1	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	5	5
Total	0	4	0	0	4	0	3	0	0	3	10	1	0	0	11	1	3	5	0	9	0	27	27
08:00 AM	0	0	1	0	1	0	2	0	0	2	3	0	0	0	3	1	1	2	0	4	0	10	10
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
08:30 AM	0	0	0	0	0	0	2	1	0	3	2	0	2	2	4	0	0	1	0	1	2	8	10
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1
Total	0	0	1	0	1	0	4	1	0	5	5	0	2	2	7	1	3	3	0	7	2	20	22
Grand Total	0	4	1	0	5	0	7	1	0	8	15	1	2	2	18	2	6	8	0	16	2	47	49
Apprch %	0	80	20			0	87.5	12.5			83.3	5.6	11.1			12.5	37.5	50					
Total %	0	8.5	2.1		10.6	0	14.9	2.1		17	31.9	2.1	4.3		38.3	4.3	12.8	17		34	4.1	95.9	

3.1-51

	California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total		Left	Thru	Right	App. Total		Left	Thru	Right	App. Total		Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 07:00 AM																				
07:00 AM	0	1	0	1		0	2	0	2		2	0	0	2		0	1	4	5	10
07:15 AM	0	2	0	2		0	0	0	0		3	1	0	4		0	1	0	1	7
07:30 AM	0	0	0	0		0	1	0	1		1	0	0	1		1	1	1	3	5
07:45 AM	0	1	0	1		0	0	0	0		4	0	0	4		0	0	0	0	5
Total Volume	0	4	0	4		0	3	0	3		10	1	0	11		1	3	5	9	27
% App. Total	0	100	0			0	100	0			90.9	9.1	0			11.1	33.3	55.6		
PHF	.000	.500	.000	.500		.000	.375	.000	.375		.625	.250	.000	.688		.250	.750	.313	.450	.675



Start Time	California Avenue Southbound			6th Street Westbound			California Avenue Northbound			6th Street Eastbound		
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1												
Peak Hour for Each Approach Begins at:												
+0 mins.	0	1	0	1	07:00 AM	0	2	0	2	07:00 AM	0	1
+15 mins.	0	2	0	2	0	0	0	0	2	0	1	4
+30 mins.	0	0	0	0	0	1	0	1	4	1	0	1
+45 mins.	0	1	0	1	0	0	0	0	1	1	1	3
Total Volume	0	4	0	4	0	3	0	3	11	3	5	9
% App. Total	0	100	0		0	100	0		90.9	33.3	55.6	
PHF	.000	.500	.000	.500	.000	.375	.000	.375	.625	.750	.313	.450

City of Beaumont
N/S: California Avenue
EW: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
Start Date : 1/14/2020
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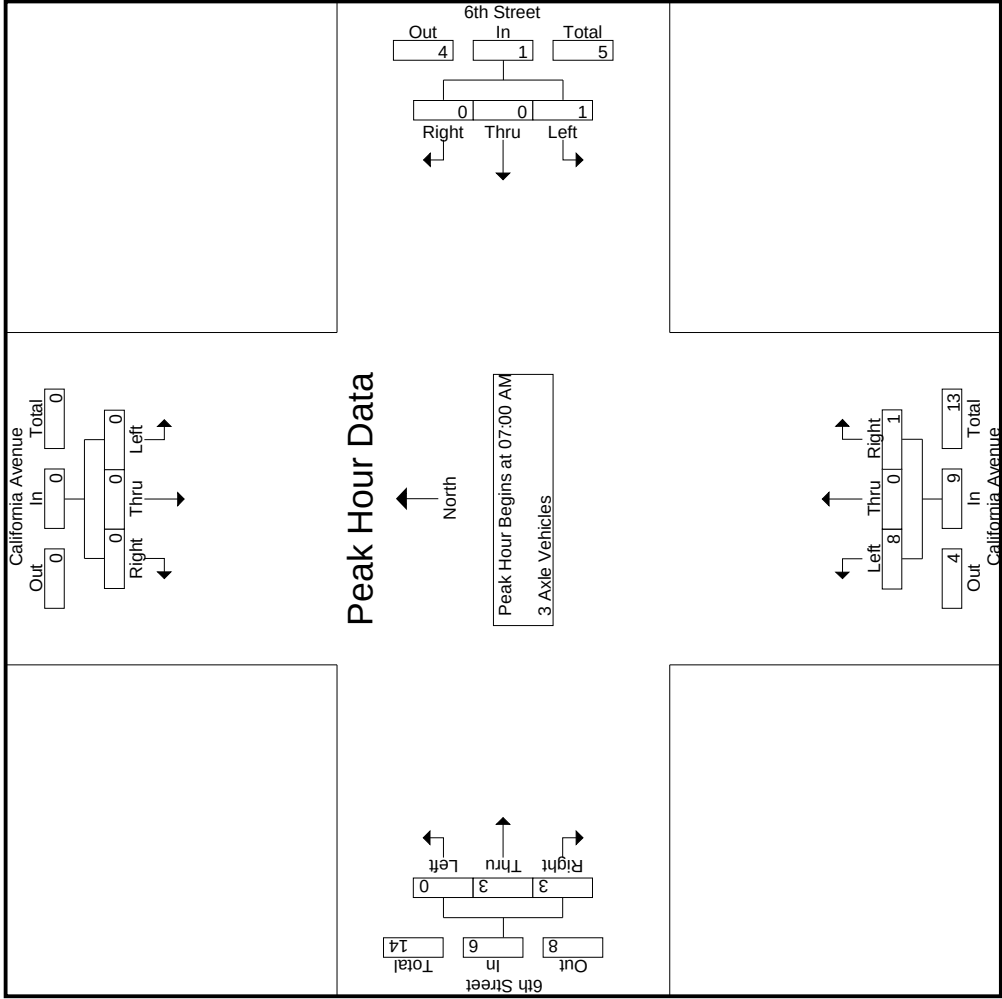
Groups Printed- 3 Axle Vehicles

		California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound				
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total			
07:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	2	0	4	4		
07:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	3	0	3	3		
07:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	4	4		
07:45 AM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	5	5		
Total	0	0	0	0	0	1	0	0	0	1	8	0	1	0	0	9	0	16	16		
08:00 AM	0	0	0	0	0	3	0	0	0	3	1	0	0	0	1	1	0	5	5		
08:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1		
08:30 AM	0	0	0	0	0	2	0	0	0	2	3	0	0	0	3	0	0	8	8		
08:45 AM	0	0	0	0	0	0	0	0	0	0	5	0	1	0	6	0	0	7	7		
Total	0	0	0	0	0	5	0	0	0	5	10	0	1	0	11	0	0	21	21		
Grand Total	0	0	0	0	0	6	0	0	0	6	18	0	2	0	20	0	3	37	37		
Apprch %	0	0	0			100	0	0			90	0	10			0	27.3	72.7			
Total %	0	0	0			16.2	0	0			48.6	0	5.4		54.1	0	8.1	21.6			
																		29.7	0		
																		100			

3.1-54

	California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound					
Start Time	Left	Thru	Right	App. Total		Left	Thru	Right	App. Total		Left	Thru	Right	App. Total		Left	Thru	Right	App. Total		Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	0	0		0	0	0	0		2	0	0	2		0	2	0	2		4
07:15 AM	0	0	0	0		0	0	0	0		2	0	1	3		0	0	0	0		3
07:30 AM	0	0	0	0		0	0	0	0		3	0	0	3		0	1	0	1		4
07:45 AM	0	0	0	0		1	0	0	1		1	0	0	1		0	0	3	3		5
Total Volume	0	0	0	0		1	0	0	1		8	0	1	9		0	3	3	6		16
% App. Total	0	0	0	0		100	0	0	0		88.9	0	11.1	0		0	50	50	0		0
PHF	.000	.000	.000	.000		.250	.000	.000	.250		.667	.000	.250	.750		.000	.375	.250	.500		.800

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 07:00 AM



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City of Beaumont
N/S: California Avenue
E/W: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
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Start Time	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
+0 mins.	0	0	0	0	07:00 AM	0	0	0	0	07:00 AM	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	07:00 AM	2	0	0	2	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	07:00 AM	2	0	0	0	0	0
+45 mins.	0	0	0	0	1	0	0	0	0	07:00 AM	3	0	0	1	0	1
Total Volume	0	0	0	0	1	0	0	0	1	07:00 AM	8	0	0	3	0	3
% App. Total	0	0	0	0	100	0	0	0	11.1	07:00 AM	88.9	0	0	50	50	50
PHF	.000	.000	.000	.000	.250	.000	.000	.000	.250	.667	.000	.250	.000	.375	.250	.500

City of Beaumont
N/S: California Avenue
EW: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th AM
Site Code : 05120026
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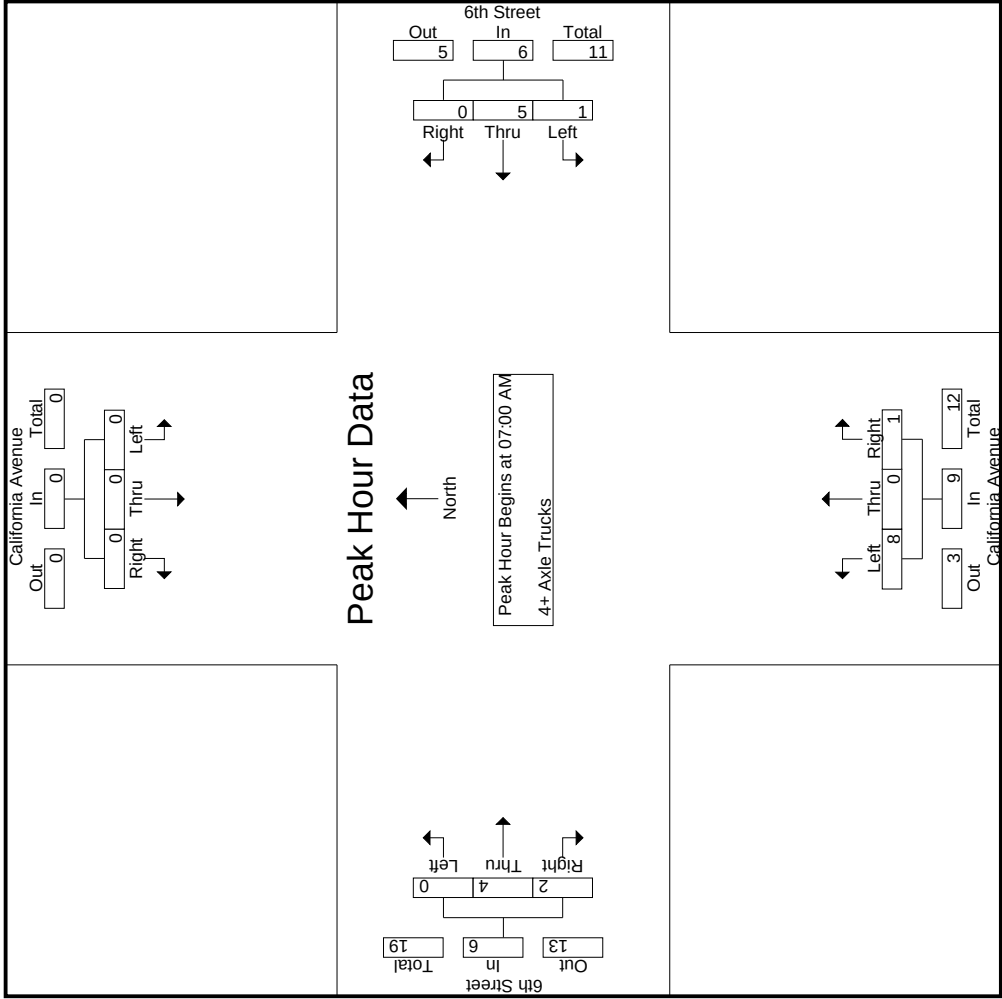
Groups Printed- 4+ Axle Trucks

	California Avenue Southbound						6th Street Westbound						California Avenue Northbound						6th Street Eastbound					
Start Time	Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total					
07:00 AM	0	0	0	0	0		0	1	0	0	1	4	0	1	0	0	1	0	6	6				
07:15 AM	0	0	0	0	0		0	1	0	0	1	1	0	1	1	0	2	1	5	6				
07:30 AM	0	0	0	0	0		0	1	0	0	1	1	0	0	1	0	3	0	5	5				
07:45 AM	0	0	0	0	0		1	2	0	0	3	2	0	0	0	0	0	0	5	5				
Total	0	0	0	0	0		1	5	0	0	6	8	0	1	1	0	6	1	21	22				
08:00 AM	0	0	0	0	0		0	1	0	0	1	4	0	0	2	0	2	0	7	7				
08:15 AM	0	0	0	0	0		0	1	0	0	1	2	0	0	0	0	0	0	3	3				
08:30 AM	0	0	0	0	0		0	0	0	0	0	4	0	0	2	0	6	1	0	7				
08:45 AM	0	0	0	0	0		0	0	0	0	0	3	0	2	0	0	5	0	5	5				
Total	0	0	0	0	0		0	2	0	0	2	13	0	1	2	0	3	0	22	22				
Grand Total	0	0	0	0	0		1	7	0	0	8	21	0	5	4	0	9	1	43	44				
Apprch %	0	0	0				12.5	87.5	0			80.8	0	19.2										
Total %	0	0	0				2.3	16.3	0		18.6	48.8	0	11.6		60.5	0	11.6	9.3	20.9				
																	2.3		97.7					

3.1-57

Start Time	California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound				
	Left	Thru	Right	App. Total		Left	Thru	Right	App. Total		Left	Thru	Right	App. Total		Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 07:00 AM																				
07:00 AM	0	0	0	0		0	0	1	0	0	1	0	0	0		0	1	0	0	1
07:15 AM	0	0	0	0		0	0	1	0	0	1	0	0	1		0	1	1	2	2
07:30 AM	0	0	0	0		0	0	1	0	0	1	0	0	1		0	2	1	3	5
07:45 AM	0	0	0	0		1	2	0	0	3	2	0	0	2		0	0	0	0	5
Total Volume	0	0	0	0		1	5	0	0	6	8	0	1	9		0	4	2	6	21
% App. Total	0	0	0			16.7	83.3	0			88.9	0	11.1			0	66.7	33.3		
PHF	.000	.000	.000	.000		.250	.625	.000		.500	.500	.000	.250	.563		.000	.500	.500	.500	.875

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 07:00 AM



Start Time	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
+0 mins.	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+15 mins.	0	0	0	0	0	1	0	1	4	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	1	0	1	1	1	0	1	0	1	1	2
+45 mins.	0	0	0	0	0	1	0	1	1	0	0	0	0	2	1	3
Total Volume	0	0	0	0	1	2	0	3	2	0	0	0	0	0	0	0
% App. Total	0	0	0	0	16.7	83.3	0	6	88.9	0	11.1	1	0	66.7	33.3	6
PHF	.000	.000	.000	.000	.250	.625	.000	.500	.500	.000	.250	.563	.000	.500	.500	.500

City of Beaumont
N/S: California Avenue
EW: 6th Street
Weather: Clear

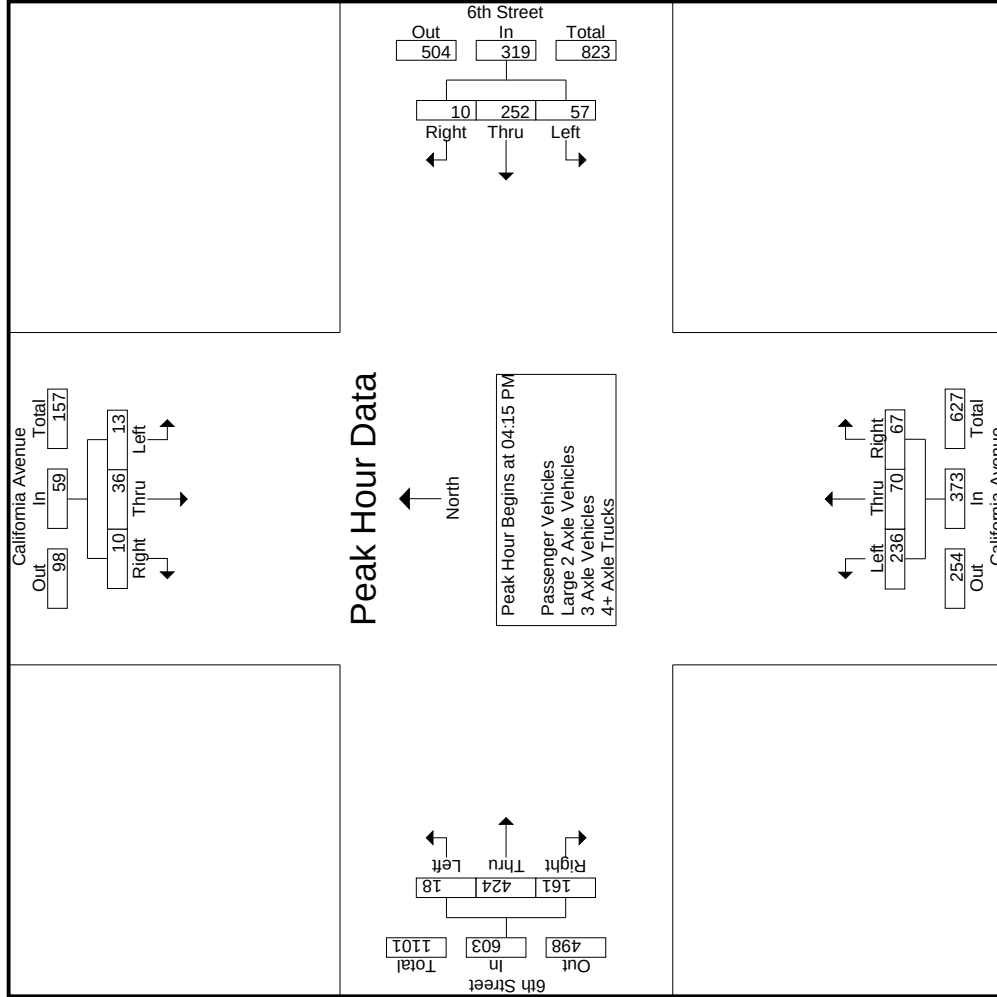
File Name : 02_BMT_California_6th PM
Site Code : 05120026
Start Date : 1/14/2020
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	California Avenue Southbound										6th Street Westbound										California Avenue Northbound										6th Street Eastbound									
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total																	
04:00 PM	4	12	2	1	18	21	71	0	0	92	71	14	21	11	106	2	96	33	0	131	12	347	359																	
04:15 PM	2	9	1	1	12	16	52	5	4	73	57	17	23	11	97	3	121	36	0	160	16	342	358																	
04:30 PM	5	11	1	1	17	18	60	4	1	82	58	16	16	8	90	5	107	55	2	167	12	356	368																	
04:45 PM	4	4	4	2	12	11	65	0	0	76	59	11	14	3	84	5	97	34	1	136	6	308	314																	
Total	15	36	8	5	59	66	248	9	5	323	245	58	74	33	377	15	421	158	3	594	46	1353	1399																	
05:00 PM	2	12	4	2	18	12	75	1	0	88	62	26	14	7	102	5	99	36	1	140	10	348	358																	
05:15 PM	1	9	2	2	12	12	89	6	3	107	65	8	10	8	83	1	93	44	1	138	14	340	354																	
05:30 PM	3	6	3	3	12	7	74	6	3	87	74	11	10	5	95	3	89	43	0	135	11	329	340																	
05:45 PM	5	5	1	0	11	9	49	4	1	62	44	7	11	6	62	0	122	41	0	163	7	298	305																	
Total	11	32	10	7	53	40	287	17	7	344	245	52	45	26	342	9	403	164	2	576	42	1315	1357																	
Grand Total	26	68	18	12	112	106	535	26	12	667	490	110	119	59	719	24	824	322	5	1170	88	2668	2756																	
Approch %	23.2	60.7	16.1			15.9	80.2	3.9			68.2	15.3	16.6			2.1	70.4	27.5																						
Total %	1	2.5	0.7		4.2	4	20.1	1		25	18.4	4.1	4.5		26.9	0.9	30.9	12.1		43.9	3.2	96.8																		
% Passenger Vehicles	26	68	15		119	104	525	26		667	469	108	118		754	22	815	317		1159	0	0	2699																	
% Large Passenger Vehicles	100	100	83.3	83.3	96	98.1	98.1	100	100	98.2	95.7	98.2	99.2	100	96.9	91.7	98.9	98.4	100	98.6	0	0	97.9																	
% Large 2 Axle Vehicles	0	0	3		5	1	7	0	0	8	9	2	1		12	2	6	3		11	0	0	36																	
% Large 2 Axle Vehicles	0	0	16.7	16.7	4	0.9	1.3	0	0	1.2	1.8	1.8	0.8	0	1.5	8.3	0.7	0.9	0	0.9	0	0	1.3																	
3 Axle Vehicles	0	0	0		0	0	0	0	0	0	3	0	0		3	0	0	1		1	0	0	4																	
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0.6	0	0	0	0.4	0	0	0.3	0	0.1	0	0	0.1																	
4+ Axle Trucks	0	0	0		0	1	3	0		4	9	0	0		9	0	3	1		4	0	0	17																	
% 4+ Axle Trucks	0	0	0	0	0	0.9	0.6	0	0	0.6	1.8	0	0	0	1.2	0	0.4	0.3	0	0.3	0	0	0.6																	

	California Avenue Southbound										6th Street Westbound										California Avenue Northbound										6th Street Eastbound									
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total																	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																								
Peak Hour for Entire Intersection Begins at 04:15 PM																																								
04:15 PM	2	9	1		12	16	52	5		73	57	17		23	97	3	121	36		160			342																	
04:30 PM	5	11	1	1	17	18	60	4		82	58	16		16	90	5	107	55		167			356																	
04:45 PM	4	4	4	2	12	11	65	0		76	59	11		14	84	5	97	34		136			308																	
05:00 PM	2	12	4		18	12	75	1		88	62	26		14	102	5	99	36		140			348																	
Total Volume	13	36	10		59	57	252	10		319	236	70		67	373	18	424	161		603			1354																	
% App. Total	22	61	16.9			17.9	79	3.1			63.3	18.8		18		3	70.3	26.7																						
PHF	.650	.750	.625		.819	.792	.840	.500		.906	.952	.673		.728	.914	.900	.876	.732		.903			.951																	

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:15 PM



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City of Beaumont
N/S: California Avenue
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Start Time	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
+0 mins.	4	12	2	18	04:45 PM				04:00 PM				04:15 PM			
+15 mins.	2	9	1	12	11	65	0	76	71	14	21	106	3	121	36	160
+30 mins.	5	11	1	17	12	75	1	88	57	17	23	97	5	107	55	167
+45 mins.	4	4	4	12	12	89	6	107	58	16	16	90	5	97	34	136
Total Volume	15	36	8	59	42	303	13	358	245	58	74	377	18	424	161	603
% App. Total	25.4	61	13.6		11.7	84.6	3.6		65	15.4	19.6		3	70.3	26.7	
PHF	.750	.750	.500	.819	.875	.851	.542	.836	.863	.853	.804	.889	.900	.876	.732	.903

City of Beaumont
N/S: California Avenue
EW: 6th Street
Weather: Clear

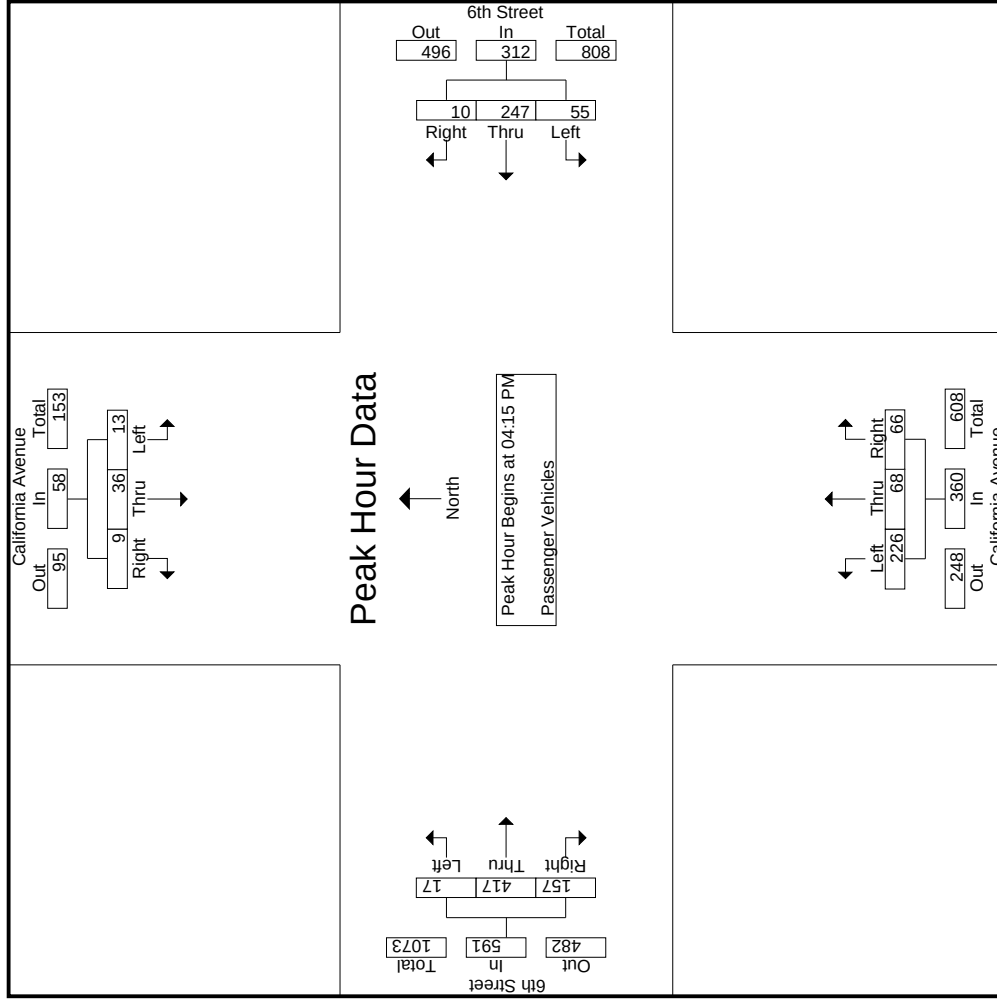
File Name : 02_BMT_California_6th PM
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Page No : 1

Groups Printed- Passenger Vehicles

		California Avenue Southbound						6th Street Westbound						California Avenue Northbound						6th Street Eastbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total		
04:00 PM	4	12	2	1	18	21	70	0	0	91	69	14	21	11	104	2	94	33	0	129	12	342	354		
04:15 PM	2	9	1	1	12	16	50	5	4	71	56	17	23	11	96	3	118	33	0	154	16	333	349		
04:30 PM	5	11	1	1	17	17	60	4	1	81	56	14	16	8	86	5	105	54	2	164	12	348	360		
04:45 PM	4	4	3	1	11	10	62	0	0	72	54	11	13	3	78	5	95	34	1	134	5	295	300		
Total	15	36	7	4	58	64	242	9	5	315	235	56	73	33	364	15	412	154	3	581	45	1318	1363		
05:00 PM	2	12	4	2	18	12	75	1	0	88	60	26	14	7	100	4	99	36	1	139	10	345	355		
05:15 PM	1	9	2	2	12	12	87	6	3	105	61	8	10	8	79	1	93	43	1	137	14	333	347		
05:30 PM	3	6	2	2	11	7	73	6	3	86	70	11	10	5	91	2	89	43	0	134	10	322	332		
05:45 PM	5	5	0	0	10	9	48	4	1	61	43	7	11	6	61	0	122	41	0	163	7	295	302		
Total	11	32	8	6	51	40	283	17	7	340	234	52	45	26	331	7	403	163	2	573	41	1295	1336		
Grand Total	26	68	15	10	109	104	525	26	12	655	469	108	118	59	695	22	815	317	5	1154	86	2613	2699		
Apprch %	23.9	62.4	13.8			15.9	80.2	4		25.1	67.5	15.5	17		26.6	1.9	70.6	27.5		44.2					
Total %	1	2.6	0.6		4.2	4	20.1	1			17.9	4.1	4.5			0.8	31.2	12.1			3.2	96.8			

3.1-63

Start Time	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	2	9	1	12	16	50	5	71	56	17	23	96	3	118	33	154	333
04:30 PM	5	11	1	17	17	60	4	81	56	14	16	86	5	105	54	164	348
04:45 PM	4	4	3	11	10	62	0	72	54	11	13	78	5	95	34	134	295
05:00 PM	2	12	4	18	12	75	1	88	60	26	14	100	4	99	36	139	345
Total Volume	13	36	9	58	55	247	10	312	226	68	66	360	17	417	157	591	1321
% App. Total	22.4	62.1	15.5		17.6	79.2	3.2		62.8	18.9	18.3		2.9	70.6	26.6		
PHF	.650	.750	.563	.806	.809	.823	.500	.886	.942	.654	.717	.900	.850	.883	.727	.901	.949



Start Time	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
+0 mins.	2	9	1	12	04:15 PM				04:15 PM				04:15 PM			
+15 mins.	5	11	1	17	16	50	5	71	56	17	23	96	3	118	33	154
+30 mins.	4	4	3	11	17	60	4	81	56	14	16	86	5	105	54	164
+45 mins.	2	12	4	18	10	62	0	72	54	11	13	78	5	95	34	134
Total Volume	13	36	9	58	12	75	1	88	60	26	14	100	4	99	36	139
% App. Total	22.4	62.1	15.5		55	247	10	312	226	68	66	360	17	417	157	591
PHF	.650	.750	.563	.806	17.6	79.2	3.2	.886	62.8	18.9	18.3	.900	2.9	70.6	26.6	.901

City of Beaumont
N/S: California Avenue
EW: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th PM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

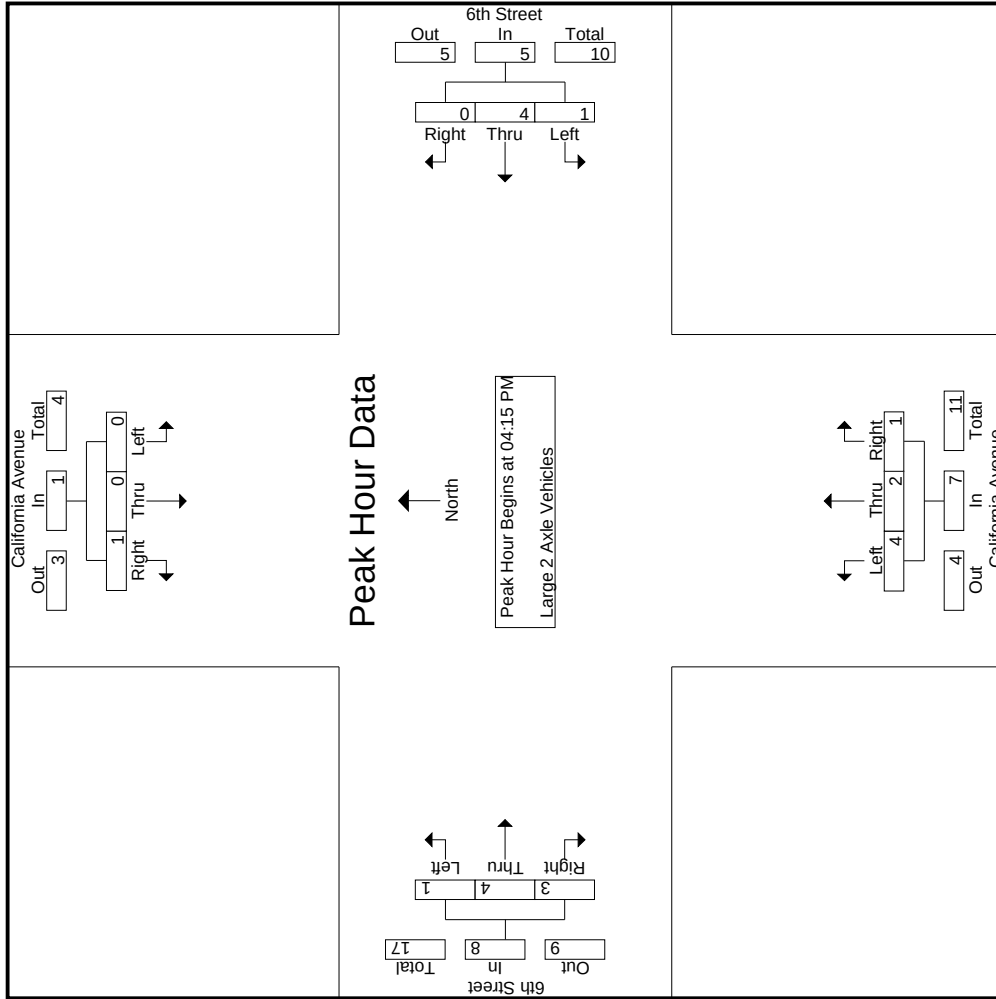
Groups Printed - Large 2 Axle Vehicles

		California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	0	2	0	2	0	0	2	0	5	5
04:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	2	0	3	0	5	5
04:30 PM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	2	1	0	3	0	6	6
04:45 PM	0	0	1	1	1	1	2	0	0	3	2	0	1	0	3	0	1	0	0	1	1	8	9
Total	0	0	1	1	1	1	5	0	0	6	5	2	1	0	8	0	6	3	0	9	1	24	25
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	2	2
05:15 PM	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	0	0	0	0	0	3	3
05:30 PM	0	0	1	1	1	0	0	0	0	1	1	0	0	0	1	1	0	0	0	1	1	4	5
05:45 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	2	1	2	0	2	0	0	2	4	0	0	0	4	2	0	0	0	2	1	10	11
Grand Total	0	0	3	2	3	1	7	0	0	8	9	2	1	0	12	2	6	3	0	11	2	34	36
Apprch %	0	0	100			12.5	87.5	0			75	16.7	8.3			18.2	54.5	27.3					
Total %	0	0	8.8		8.8	2.9	20.6	0		0	23.5	5.9	2.9		35.3	5.9	17.6	8.8		32.4	5.6	94.4	

3.1-66

Start Time	California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound				
	Left	Thru	Right	App. Total		Left	Thru	Right	App. Total		Left	Thru	Right	App. Total		Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 04:15 PM																				
04:15 PM	0	0	0	0		0	2	0	2		0	0	0	0		0	1	2	3	5
04:30 PM	0	0	0	0		0	0	0	0		1	2	0	3		0	2	1	3	6
04:45 PM	0	0	1	1		1	2	0	3		2	0	1	3		0	1	0	1	8
05:00 PM	0	0	0	0		0	0	0	0		1	0	0	1		1	0	0	1	2
Total Volume	0	0	1	1		1	4	0	5		4	2	1	7		1	4	3	8	21
% App. Total	0	0	100			20	80	0			57.1	28.6	14.3			12.5	50	37.5		
PHF	.000	.000	.250	.250		.250	.500	.000	.417		.500	.250	.250	.583		.250	.500	.375	.667	.656

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:15 PM



Counts Unlimited
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City of Beaumont
N/S: California Avenue
EW: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th PM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 3

Start Time	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
+0 mins.	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+15 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	1	2	3
+30 mins.	0	0	0	0	0	0	0	0	1	2	0	3	0	2	1	3
+45 mins.	0	0	1	1	1	2	0	3	2	0	1	3	0	1	0	1
Total Volume	0	0	1	1	1	4	0	5	4	2	1	7	1	4	3	8
% App. Total	0	0	100	.250	20	80	0	57.1	57.1	28.6	14.3	50	12.5	50	37.5	66.7
PHF	.000	.000	.250	.250	.250	.500	.000	.417	.500	.250	.250	.583	.250	.500	.375	.667

City of Beaumont
N/S: California Avenue
EW: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th PM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

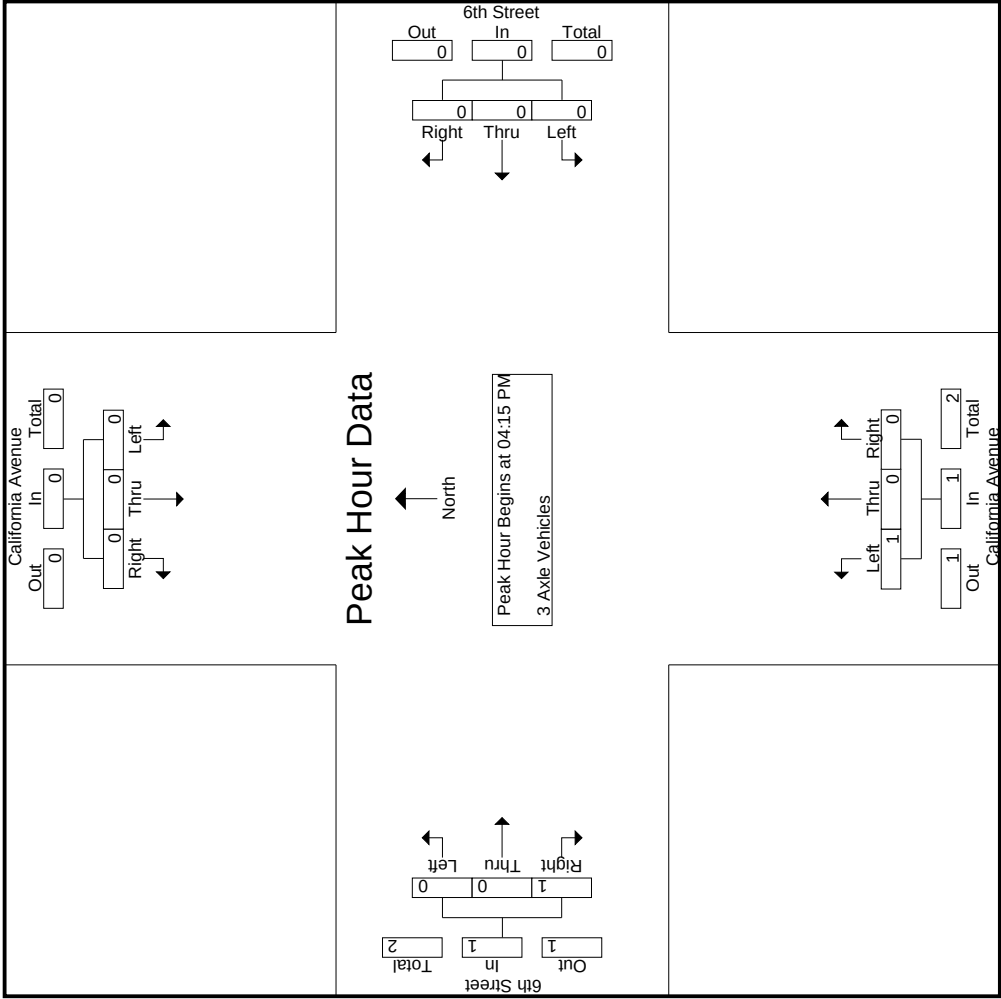
Groups Printed - 3 Axle Vehicles

		California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	2	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	2	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	2	2
Grand Total	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	1	0	0	0	4	4
Apprch %	0	0	0	0		0	0	0	0		100	0	0			0	0	100			0	100	
Total %	0	0	0	0		0	0	0	0		75	0	0			0	0	25			0	100	

3.1-69

	California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound				
Start Time	Left	Thru	Right	App. Total		Left	Thru	Right	App. Total		Left	Thru	Right	App. Total		Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 04:15 PM																				
04:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	1	
04:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:45 PM	0	0	0	0		0	0	0	0		1	0	0	1		0	0	0	0	
05:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
Total Volume	0	0	0	0		0	0	0	0		1	0	0	1		0	0	1	1	
% App. Total	0	0	0	0		0	0	0	0		100	0	0	100		0	0	100	2	
PHF	.000	.000	.000	.000		.000	.000	.000	.000		.250	.000	.000	.250		.000	.000	.250	.250	

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:15 PM



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City of Beaumont
N/S: California Avenue
EW: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th PM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 3

Start Time	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	1
% App. Total	0	0	0	0	0	0	0	0	100	0	0	100	0	0	100	100
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.250	.250

City of Beaumont
N/S: California Avenue
EW: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th PM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 1

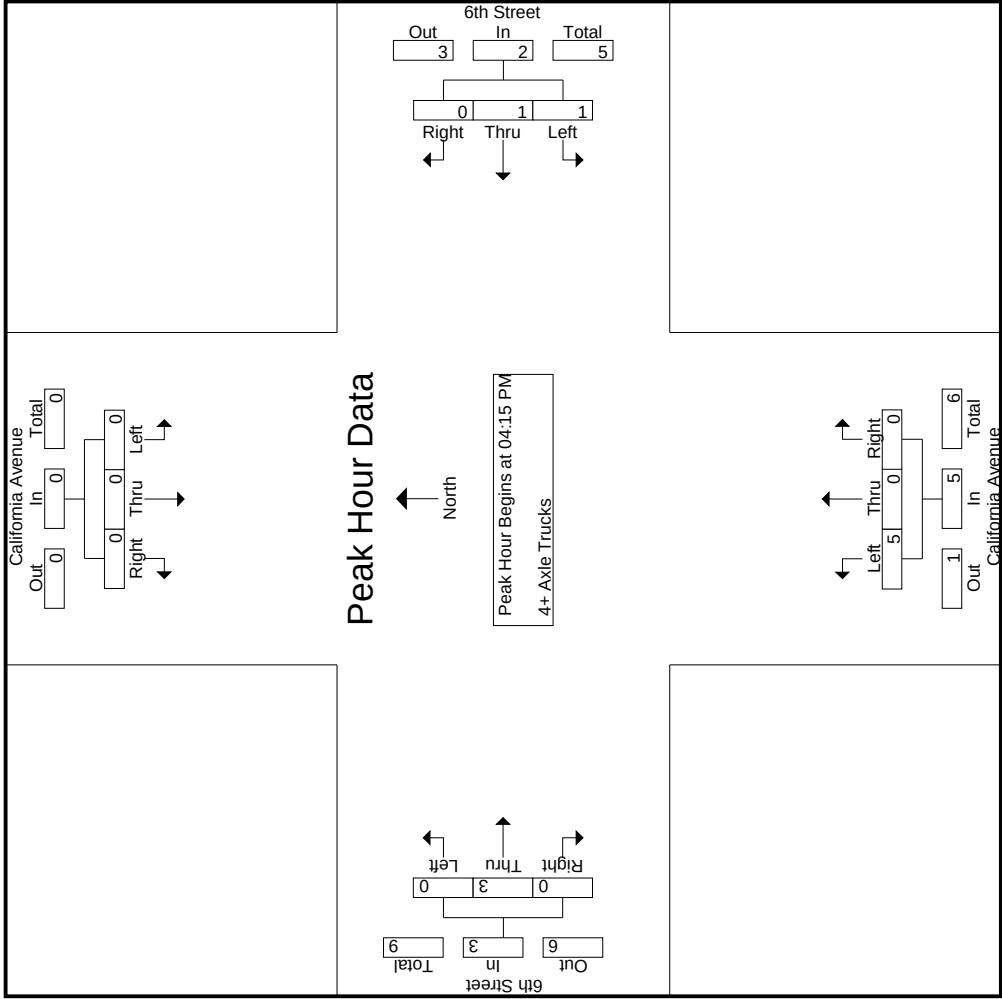
Groups Printed- 4+ Axle Trucks

Start Time	California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2
04:30 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	1	0	0	1
Total	0	0	0	0	0	1	1	0	0	2	4	0	0	0	4	0	3	0	0	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	0	1	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0
Total	0	0	0	0	0	0	2	0	0	2	5	0	0	0	5	0	0	1	0	1
Grand Total	0	0	0	0	0	1	3	0	0	4	9	0	0	0	9	0	3	1	0	4
Apprch %	0	0	0			25	75	0			100	0	0			0	75	25		
Total %	0	0	0			5.9	17.6	0		23.5	52.9	0	0		52.9	0	17.6	5.9		23.5

3.1-72

Start Time	California Avenue Southbound					6th Street Westbound					California Avenue Northbound					6th Street Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	0	0	2
04:30 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	1	0	1	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	1	1	0	0	2	5	0	0	0	5	0	3	0	0	3
% App. Total	0	0	0	0	0	50	50	0	0	0	100	0	0	0	100	0	100	0	0	0
PHF	.000	.000	.000	.000	.000	.250	.250	.000	.000	.500	.625	.000	.000	.000	.625	.000	.375	.000	.000	.375
																				.625

Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:15 PM



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City of Beaumont
N/S: California Avenue
EW: 6th Street
Weather: Clear

File Name : 02_BMT_California_6th PM
Site Code : 05120026
Start Date : 1/14/2020
Page No : 3

Start Time	California Avenue Southbound				6th Street Westbound				California Avenue Northbound				6th Street Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
+0 mins.	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
+30 mins.	0	0	0	0	1	0	0	1	1	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	1	0	1	2	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	1	0	2	5	0	0	0	0	3	0	3
% App. Total	0	0	0	0	50	50	0	100	625	0	0	0	0	100	0	375
PHF	.000	.000	.000	.000	.250	.250	.000	.500	.625	.000	.000	.000	.000	.375	.000	.375

Location: Beaumont
 N/S: California Avenue
 E/W: 6th Street



Date: 1/14/2020
 Day: Tuesday

PEDESTRIANS

	North Leg California Avenue Pedestrians	East Leg 6th Street Pedestrians	South Leg California Avenue Pedestrians	West Leg 6th Street Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	1	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

	North Leg California Avenue Pedestrians	East Leg 6th Street Pedestrians	South Leg California Avenue Pedestrians	West Leg 6th Street Pedestrians	
4:00 PM	0	1	0	1	2
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	1	0	1
5:30 PM	0	0	0	1	1
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	1	1	2	4

Location: Beaumont
N/S: California Avenue
E/W: 6th Street



Date: 1/14/2020
Day: Tuesday

BICYCLES

		Southbound California Avenue			Westbound 6th Street			Northbound California Avenue			Eastbound 6th Street			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:		0	1	0	0	0	0	0	0	0	0	0	0	1

		Southbound California Avenue			Westbound 6th Street			Northbound California Avenue			Eastbound 6th Street			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0	0	0	0	0	0	0	0	0

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

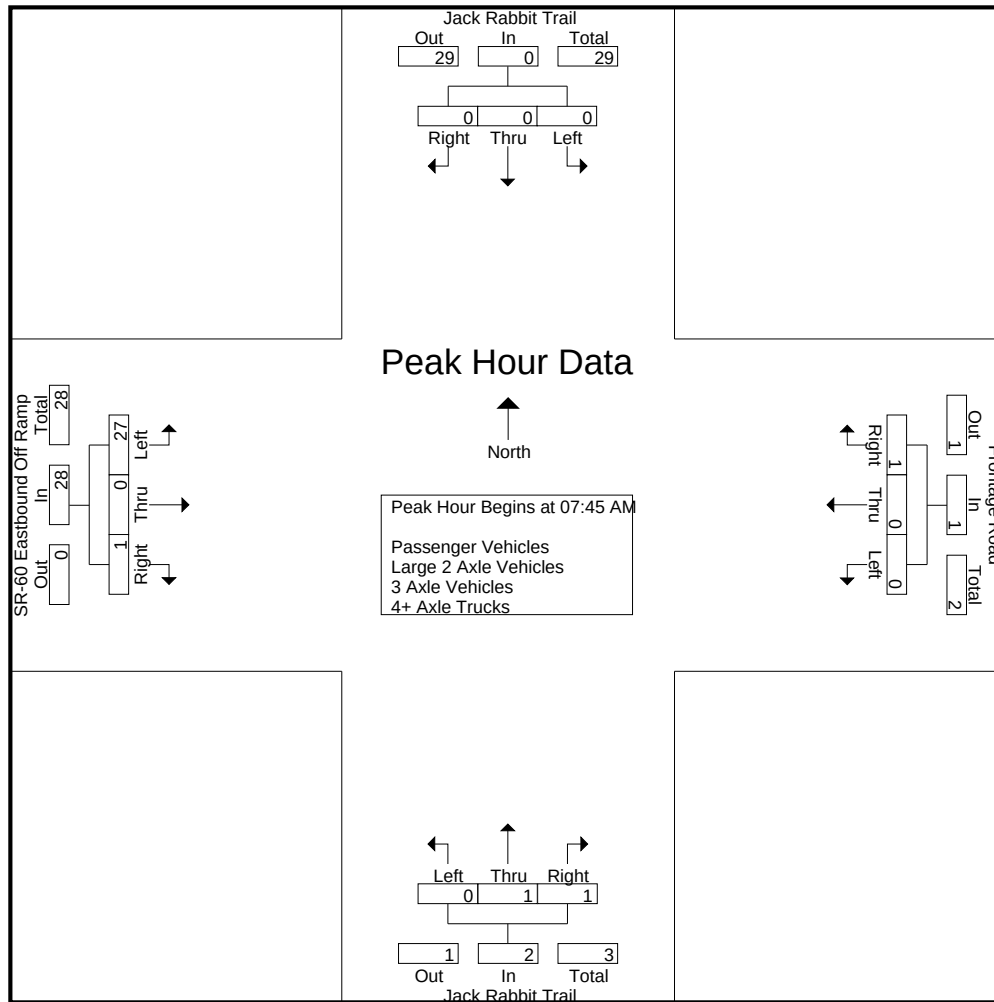
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	4	0	0	4	5
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
07:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	13	0	0	13	14
Total	0	1	0	1	0	0	0	0	0	0	1	1	25	0	0	25	27
08:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	6	0	0	6	7
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	4	0	1	5	6
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	1	1	0	1	0	1	15	0	1	16	18
Grand Total	0	1	0	1	0	0	1	1	0	1	1	2	40	0	1	41	45
Apprch %	0	100	0		0	0	100		0	50	50		97.6	0	2.4		
Total %	0	2.2	0	2.2	0	0	2.2	2.2	0	2.2	2.2	4.4	88.9	0	2.2	91.1	
Passenger Vehicles	0	1	0	1	0	0	1	1	0	1	1	2	8	0	1	9	13
% Passenger Vehicles	0	100	0	100	0	0	100	100	0	100	100	100	20	0	100	22	28.9
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	9.8	8.9
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	4.9	4.4
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	26	0	0	26	26
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	65	0	0	63.4	57.8

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	13	0	0	13	14
08:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	6	0	0	6	7
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	4	0	1	5	6
Total Volume	0	0	0	0	0	0	1	1	0	1	1	2	27	0	1	28	31
% App. Total	0	0	0		0	0	100		0	50	50		96.4	0	3.6		
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.250	.250	.500	.519	.000	.250	.538	.554

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:45 AM				07:45 AM			
+0 mins.	0	1	0	1	0	0	0	0	0	0	1	1	13	0	0	13
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
+45 mins.	0	0	0	0	0	0	1	1	0	1	0	1	4	0	1	5
Total Volume	0	1	0	1	0	0	1	1	0	1	1	2	27	0	1	28
% App. Total	0	100	0		0	0	100		0	50	50		96.4	0	3.6	
PHF	.000	.250	.000	.250	.000	.000	.250	.250	.000	.250	.250	.500	.519	.000	.250	.538

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

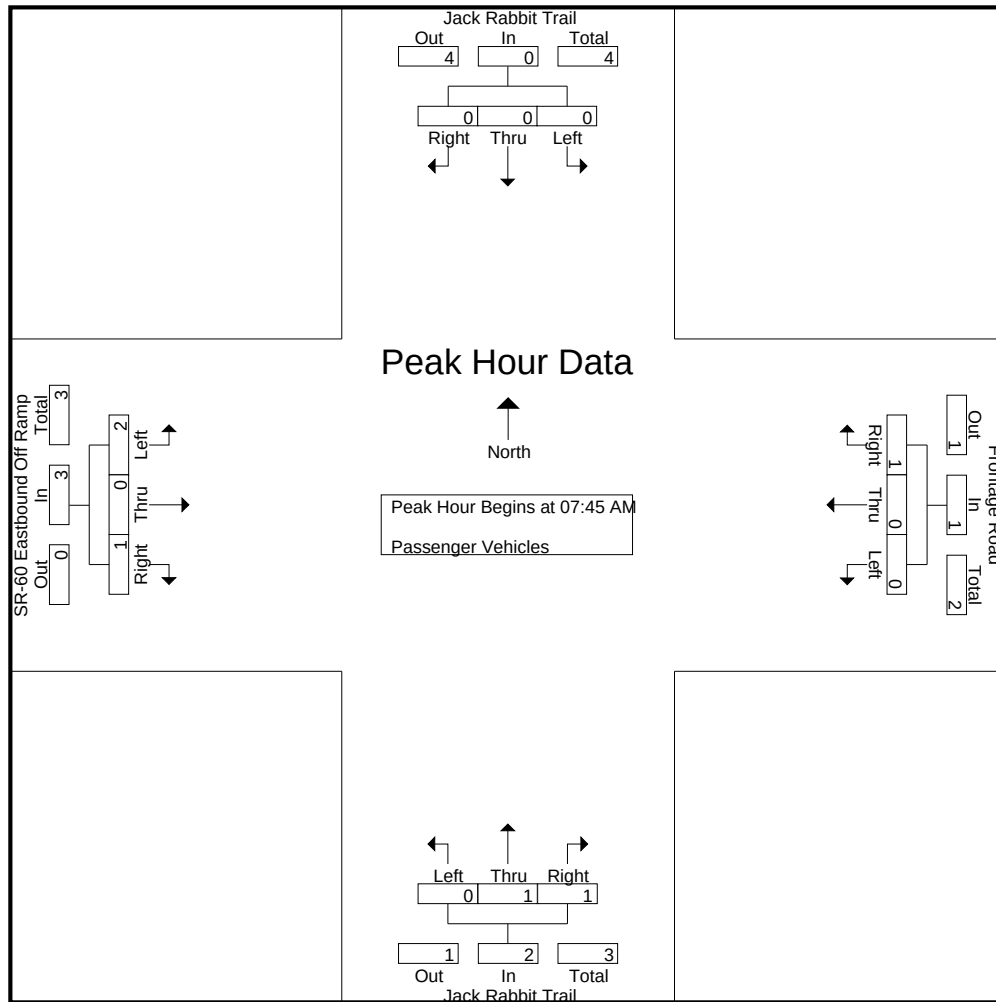
Groups Printed- Passenger Vehicles

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	3	0	0	3	4
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	2
Total	0	1	0	1	0	0	0	0	0	0	1	1	6	0	0	6	8
08:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	1	1	0	1	0	1	2	0	1	3	5
Grand Total	0	1	0	1	0	0	1	1	0	1	1	2	8	0	1	9	13
Apprch %	0	100	0		0	0	100		0	50	50		88.9	0	11.1		
Total %	0	7.7	0	7.7	0	0	7.7	7.7	0	7.7	7.7	15.4	61.5	0	7.7	69.2	

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	2
08:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
Total Volume	0	0	0	0	0	0	1	1	0	1	1	2	2	0	1	3	6
% App. Total	0	0	0		0	0	100		0	50	50		66.7	0	33.3		
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.250	.250	.500	.500	.000	.250	.750	.750

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1
+15 mins.	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1
Total Volume	0	0	0	0	0	0	1	1	0	1	1	2	2	0	1	3
% App. Total	0	0	0	0	0	0	100		0	50	50		66.7	0	33.3	
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.250	.250	.500	.500	.000	.250	.750

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

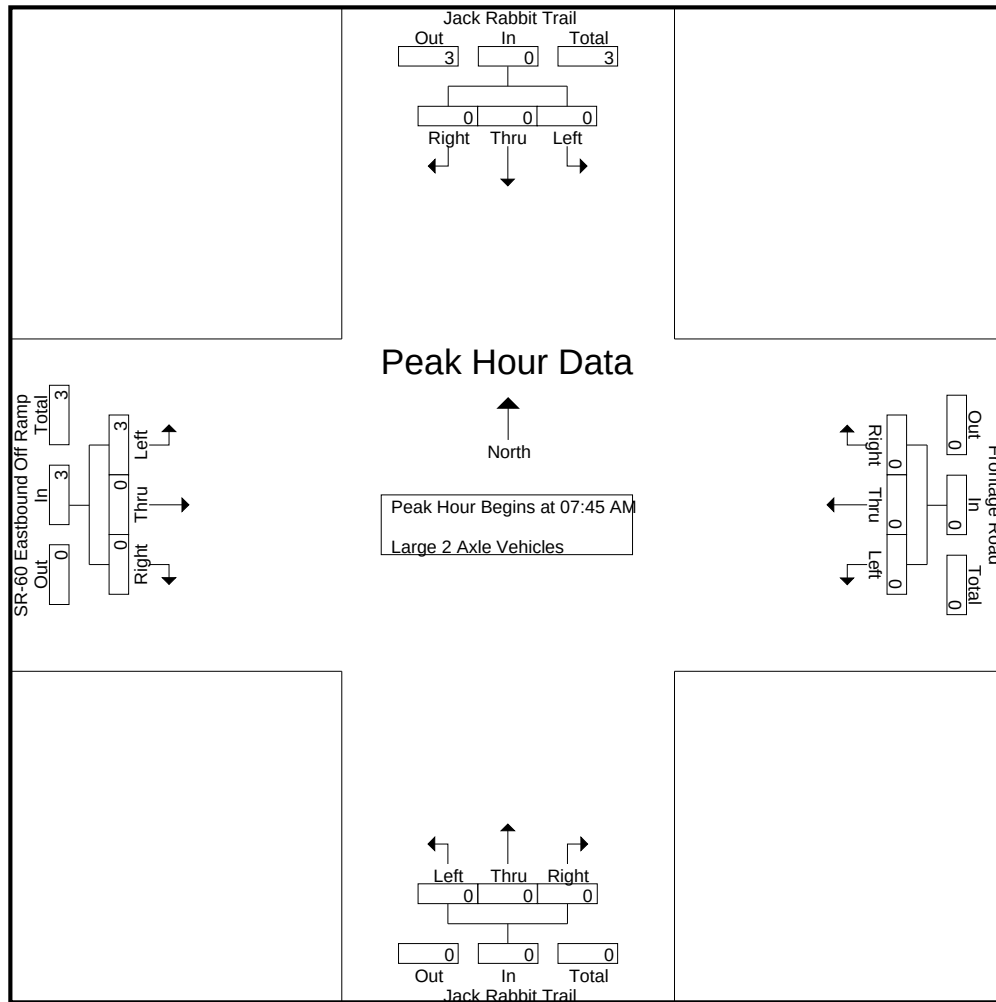
Groups Printed- Large 2 Axle Vehicles

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
Apprch %	0	0	0		0	0	0		0	0	0		100	0	0		
Total %	0	0	0		0	0	0		0	0	0		100	0	0	100	

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.750	.000	.000	.750	.750

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.750	.000	.000	.750

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

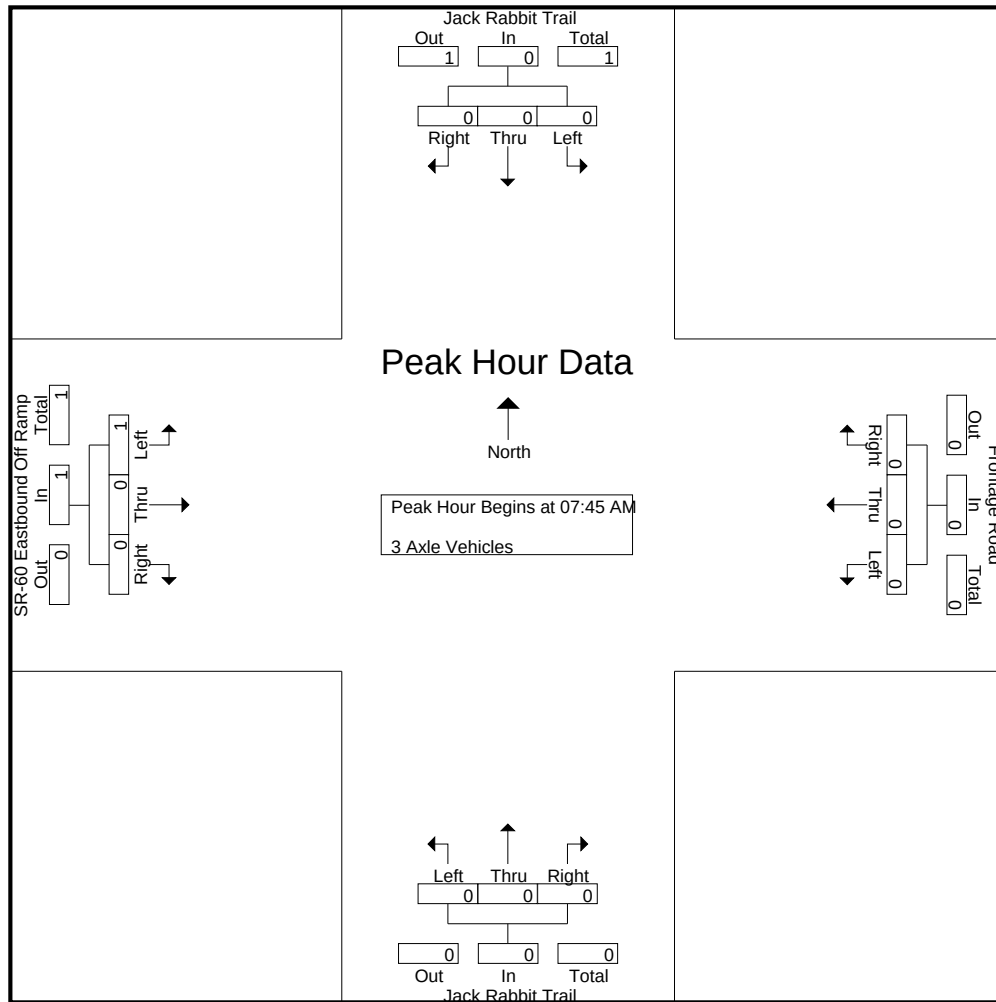
Groups Printed- 3 Axle Vehicles

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
Apprch %	0	0	0		0	0	0		0	0	0		100	0	0		
Total %	0	0	0		0	0	0		0	0	0		100	0	0	100	

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.250

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

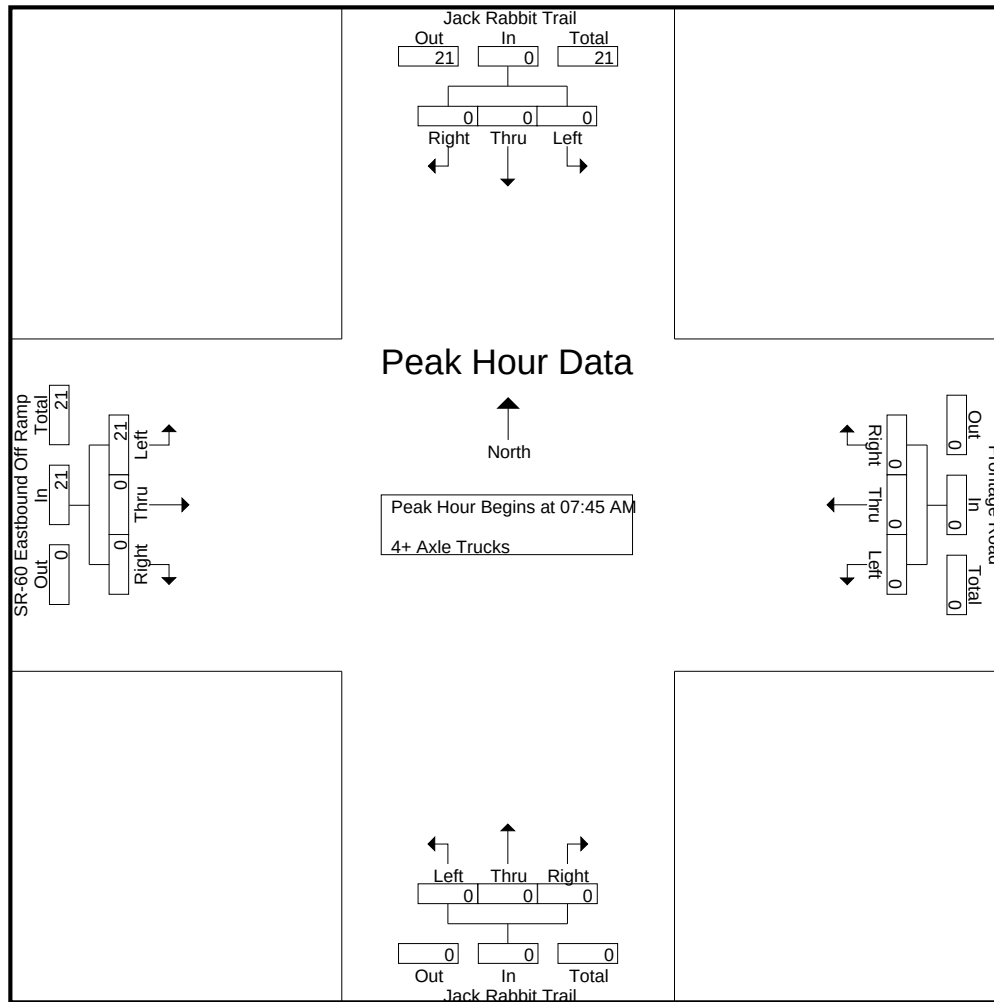
Groups Printed- 4+ Axle Trucks

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11	11
Total	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	16	16
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	10
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	26	0	0	26	26
Apprch %	0	0	0		0	0	0		0	0	0		100	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11	11
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	3
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	21	21
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.477	.000	.000	.477	.477

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage AM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	21	0	0	21
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.477	.000	.000	.477

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

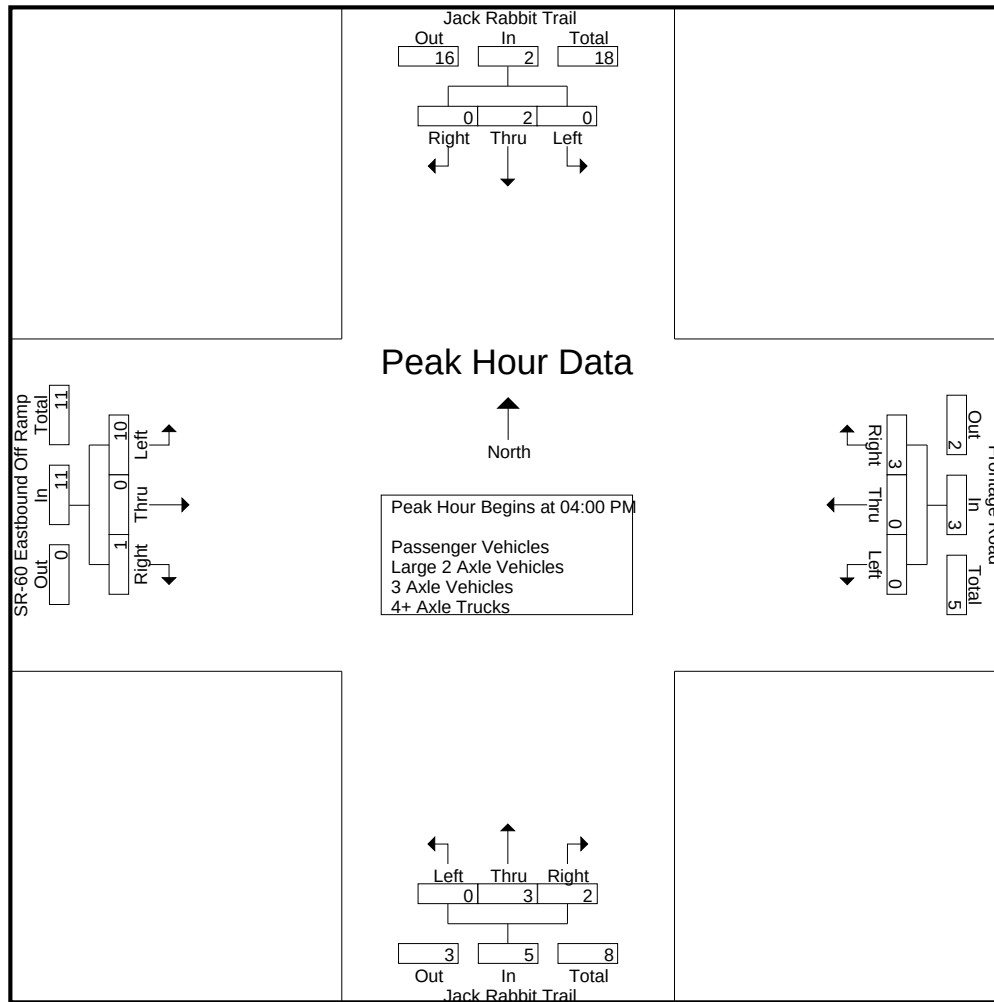
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	2	3
04:15 PM	0	2	0	2	0	0	2	2	0	1	2	3	5	0	1	6	13
04:30 PM	0	0	0	0	0	0	1	1	0	1	0	1	2	0	0	2	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	2	0	2	0	0	3	3	0	3	2	5	10	0	1	11	21
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	3	0	0	3	5
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	4	0	4	3	0	0	3	7
Grand Total	0	2	0	2	0	0	3	3	0	7	2	9	13	0	1	14	28
Apprch %	0	100	0		0	0	100		0	77.8	22.2		92.9	0	7.1		
Total %	0	7.1	0	7.1	0	0	10.7	10.7	0	25	7.1	32.1	46.4	0	3.6	50	
Passenger Vehicles	0	2	0	2	0	0	3	3	0	7	2	9	12	0	1	13	27
% Passenger Vehicles	0	100	0	100	0	0	100	100	0	100	100	100	92.3	0	100	92.9	96.4
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	7.7	0	0	7.1	3.6
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	2	3
04:15 PM	0	2	0	2	0	0	2	2	0	1	2	3	5	0	1	6	13
04:30 PM	0	0	0	0	0	0	1	1	0	1	0	1	2	0	0	2	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	0	2	0	2	0	0	3	3	0	3	2	5	10	0	1	11	21
% App. Total	0	100	0		0	0	100		0	60	40		90.9	0	9.1		
PHF	.000	.250	.000	.250	.000	.000	.375	.375	.000	.750	.250	.417	.500	.000	.250	.458	.404

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	2
+15 mins.	0	2	0	2	0	0	2	2	0	1	2	3	5	0	1	6
+30 mins.	0	0	0	0	0	0	1	1	0	1	0	1	2	0	0	2
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total Volume	0	2	0	2	0	0	3	3	0	3	2	5	10	0	1	11
% App. Total	0	100	0		0	0	100		0	60	40		90.9	0	9.1	
PHF	.000	.250	.000	.250	.000	.000	.375	.375	.000	.750	.250	.417	.500	.000	.250	.458

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

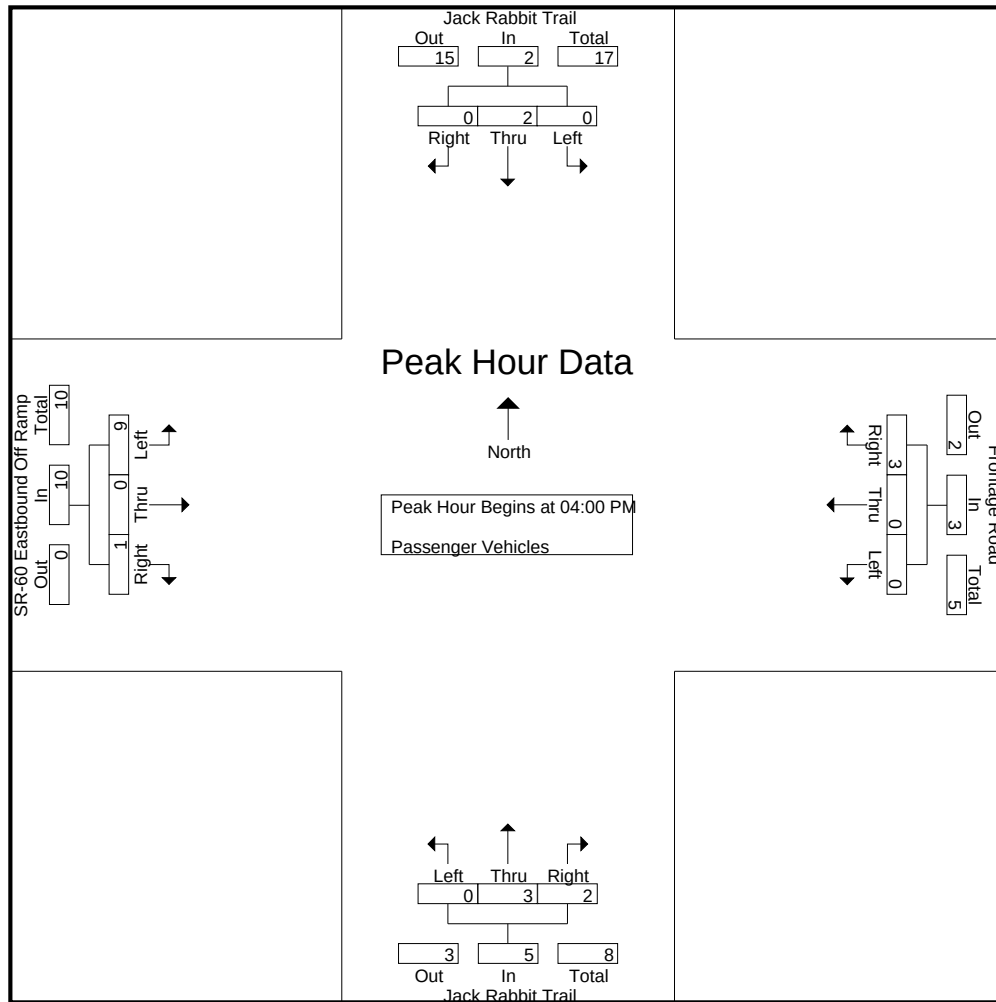
Groups Printed- Passenger Vehicles

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	2
04:15 PM	0	2	0	2	0	0	2	2	0	1	2	3	5	0	1	6	13
04:30 PM	0	0	0	0	0	0	1	1	0	1	0	1	2	0	0	2	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	2	0	2	0	0	3	3	0	3	2	5	9	0	1	10	20
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	3	0	0	3	5
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	4	0	4	3	0	0	3	7
Grand Total	0	2	0	2	0	0	3	3	0	7	2	9	12	0	1	13	27
Apprch %	0	100	0		0	0	100		0	77.8	22.2		92.3	0	7.7		
Total %	0	7.4	0	7.4	0	0	11.1	11.1	0	25.9	7.4	33.3	44.4	0	3.7	48.1	

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	2
04:15 PM	0	2	0	2	0	0	2	2	0	1	2	3	5	0	1	6	13
04:30 PM	0	0	0	0	0	0	1	1	0	1	0	1	2	0	0	2	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	0	2	0	2	0	0	3	3	0	3	2	5	9	0	1	10	20
% App. Total	0	100	0		0	0	100		0	60	40		90	0	10		
PHF	.000	.250	.000	.250	.000	.000	.375	.375	.000	.750	.250	.417	.450	.000	.250	.417	.385

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1
+15 mins.	0	2	0	2	0	0	2	2	0	1	2	3	5	0	1	6
+30 mins.	0	0	0	0	0	0	1	1	0	1	0	1	2	0	0	2
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total Volume	0	2	0	2	0	0	3	3	0	3	2	5	9	0	1	10
% App. Total	0	100	0		0	0	100		0	60	40		90	0	10	
PHF	.000	.250	.000	.250	.000	.000	.375	.375	.000	.750	.250	.417	.450	.000	.250	.417

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

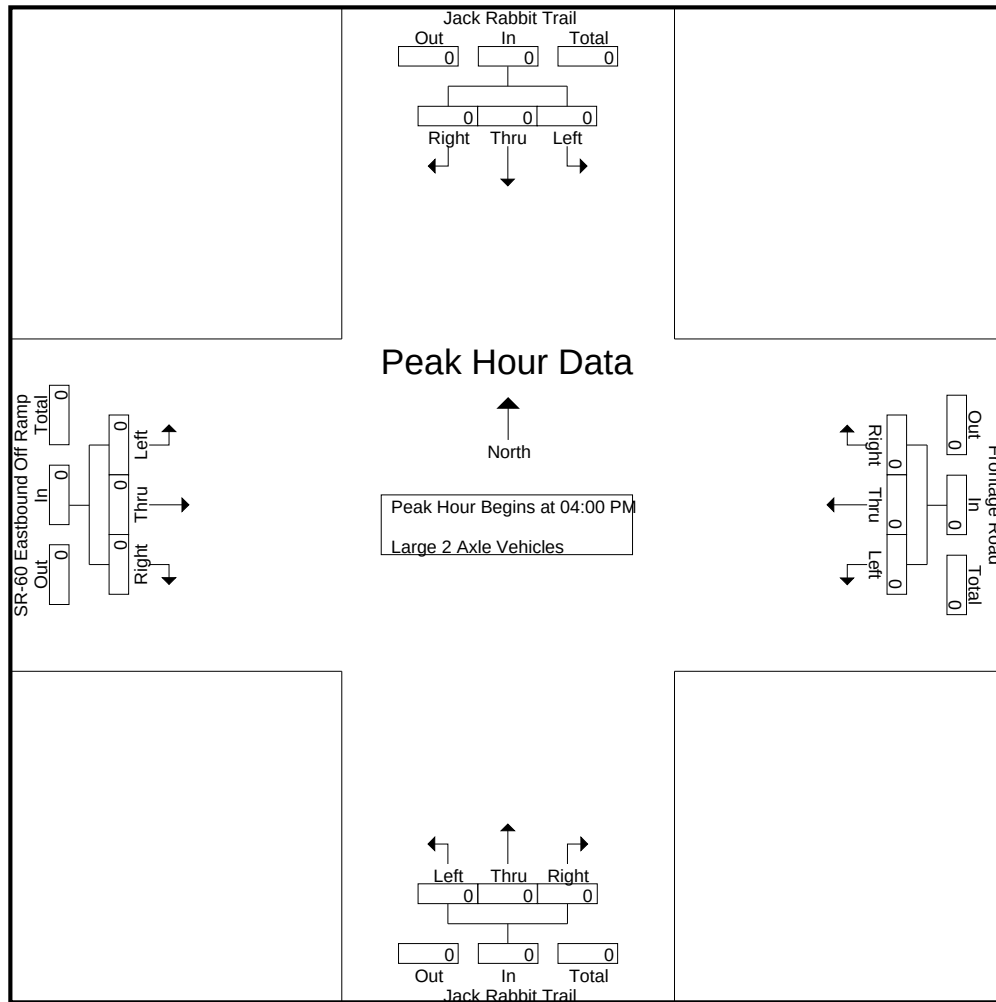
Groups Printed- Large 2 Axle Vehicles

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

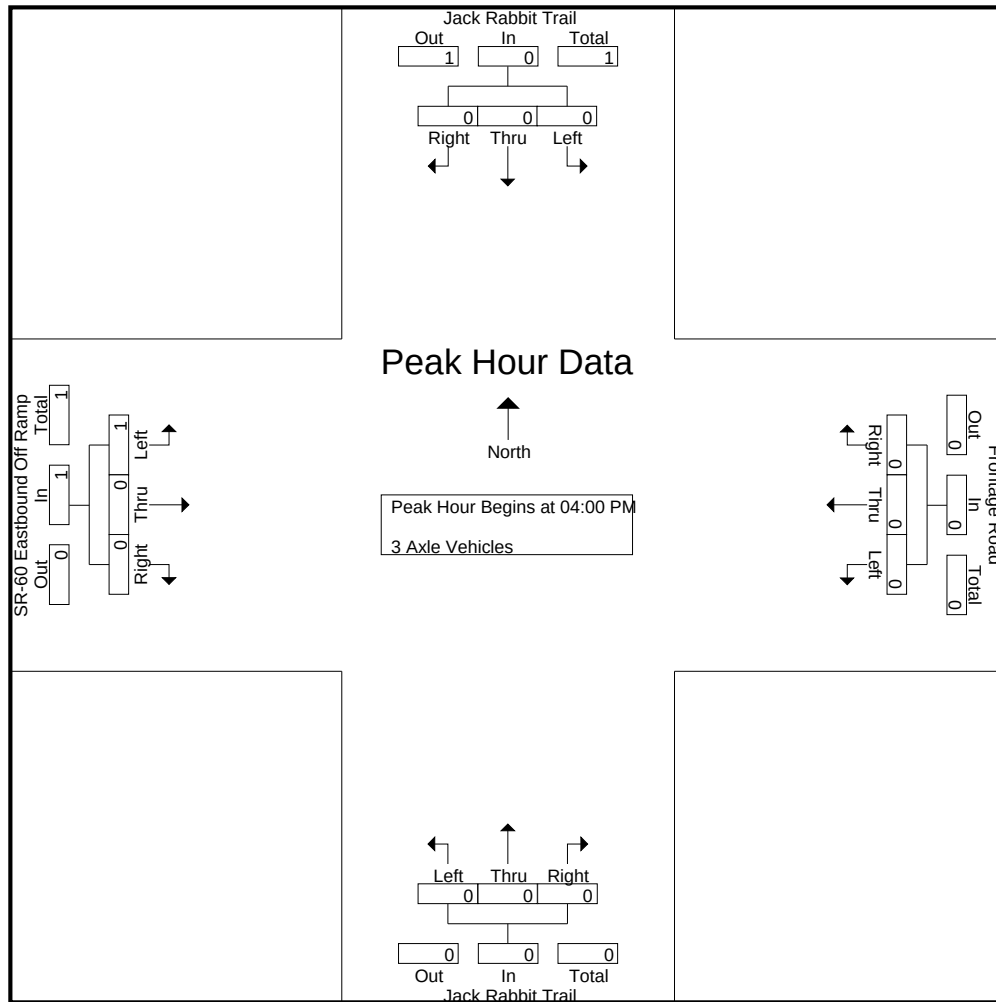
Groups Printed- 3 Axle Vehicles

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Apprch %	0	0	0		0	0	0		0	0	0		100	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.250

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

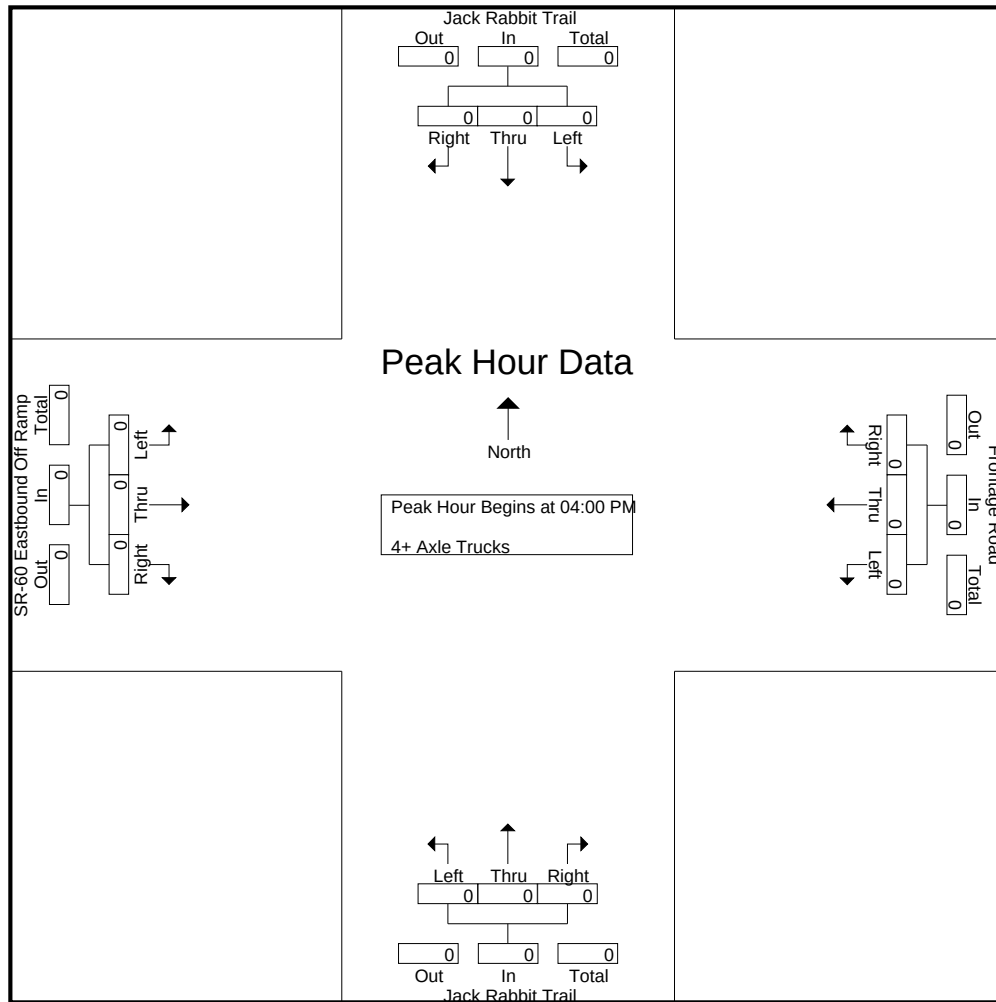
Groups Printed- 4+ Axle Trucks

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Jack Rabbit Trail Southbound				Frontage Road Westbound				Jack Rabbit Trail Northbound				SR-60 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Jack Rabbit Trail
E/W: SR-60 EB Off Ramp/Frontage Road
Weather: Clear

File Name : 02_BMT_Jack Rabbit_Frontage PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Beaumont
 N/S: Jack Rabbit Trail
 E/W: SR-60 EB Off Ramp/Frontage Road



Date: 11/19/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Jack Rabbit Trail	East Leg Frontage Road	South Leg Jack Rabbit Trail	West Leg SR-60 EB Ramps	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Jack Rabbit Trail	East Leg Frontage Road	South Leg Jack Rabbit Trail	West Leg SR-60 EB Ramps	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Beaumont
 N/S: Jack Rabbit Trail
 E/W: SR-60 EB Off Ramp/Frontage Road



Date: 11/19/2019
 Day: Tuesday

BICYCLES

	Southbound Jack Rabbit Trail			Westbound Frontage Road			Northbound Jack Rabbit Trail			Eastbound SR-60 EB Ramps			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Jack Rabbit Trail			Westbound Frontage Road			Northbound Jack Rabbit Trail			Eastbound SR-60 EB Ramps			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

[illegible]

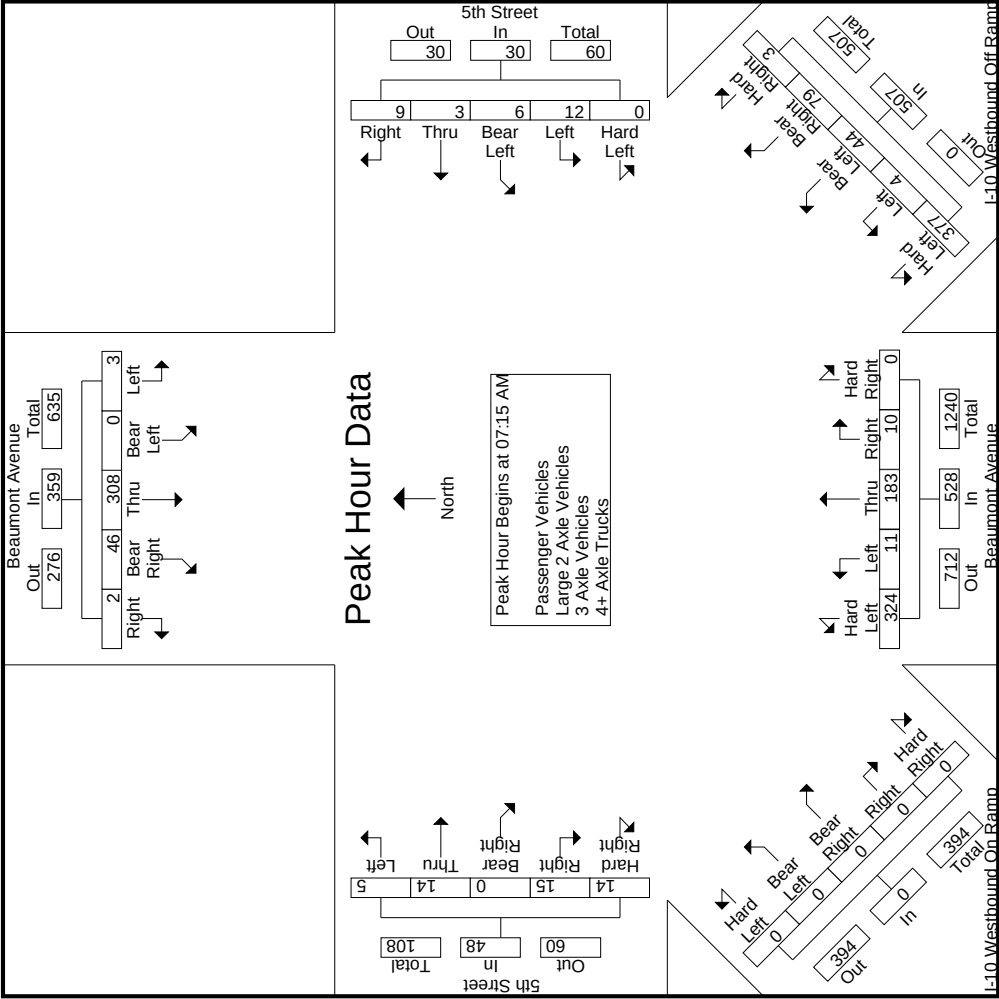
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Westbound Ramps / 5th Street
Weather: Clear

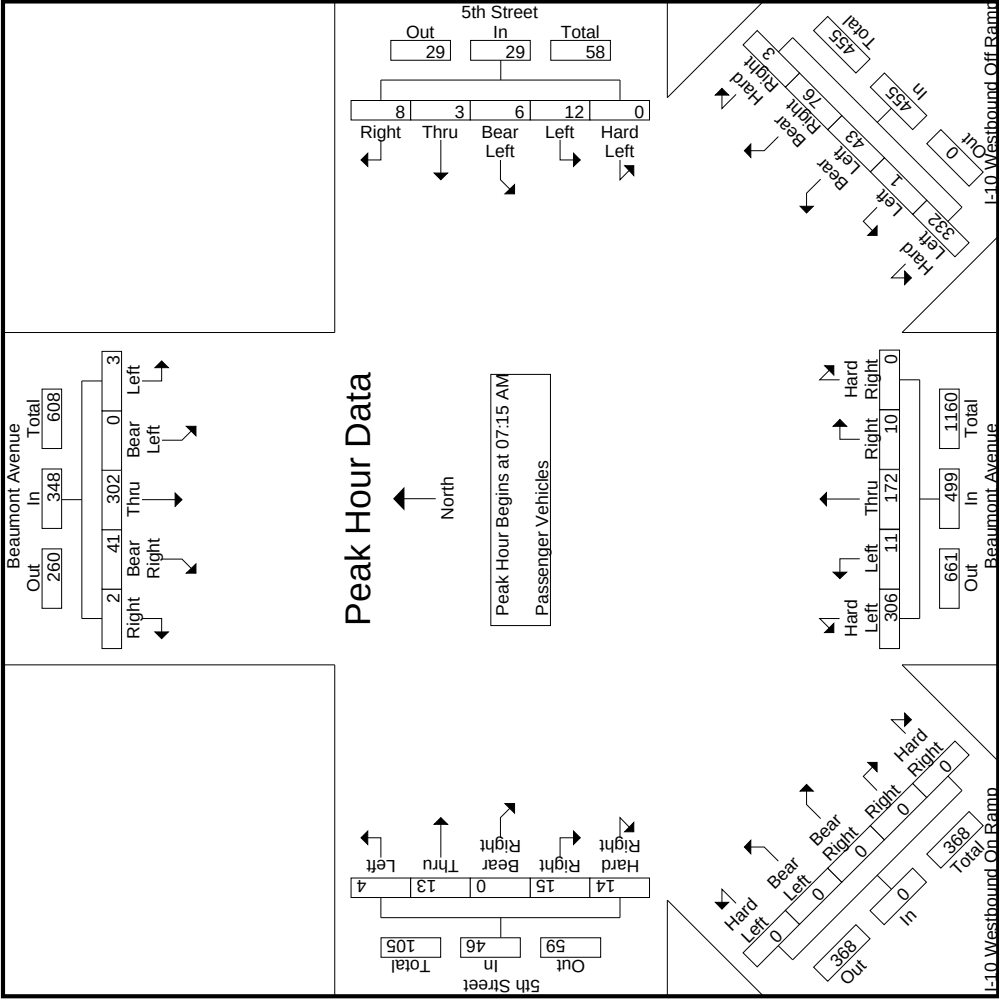
File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

Beaumont Avenue Southbound										5th Street Westbound					I-10 Westbound Off Ramp Northwestbound					Beaumont Avenue Northbound					I-10 Westbound On Ramp Northeastbound					5th Street Eastbound					
Start Time	Left	Beav Left	Thru	Beav Right	Right	App. Total	Hard Left	Left	Beav Left	Right	Thru	Beav Left	Right	App. Total	Hard Left	Left	Beav Left	Right	Thru	Beav Left	Right	App. Total	Hard Left	Left	Beav Left	Right	Thru	Beav Left	Right	App. Total	Hard Left	Right	App. Total	Int. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																			
Peak Hour for Each Approach Begins at:																																			
+0 mins. +15 mins. +30 mins. +45 mins.	07:30 AM										07:00 AM										07:00 AM										07:30 AM				
	1	0	91	5	1	98	0	2	3	0	4	9	99	0	7	16	3	125	89	2	33	2	0	126	0	0	0	0	0	1	3	0	3	10	
	0	0	95	15	0	110	0	4	2	2	4	12	84	4	13	26	0	127	99	2	45	1	0	147	0	0	0	0	0	1	3	0	3	11	
	2	0	74	17	1	94	0	2	3	1	1	7	109	0	10	20	2	141	68	4	42	3	0	117	0	0	0	0	0	2	6	0	6	18	
	1	0	64	13	1	79	0	3	1	0	3	7	99	0	10	22	1	132	83	3	51	4	0	141	0	0	0	0	0	1	3	0	5	13	
Total Volume	4	0	324	50	3	381	0	11	9	3	12	35	391	4	40	84	6	525	339	11	171	10	0	531	0	0	0	0	0	5	15	0	17	52	
% App. Total	1	0	85	13.1	0.8		0	31.4	25.7	8.6	34.3	74.5	0.8	7.6	16	1.1		63.8	2.1	32.2	1.9	0		0	0	0	0	0	9.6	28.8	0	32.7	28.8		
PHF	.500	.000	.853	.735	.750	.866	.000	.688	.750	.375	.750	.729	.897	.250	.769	.808	.500	.931	.856	.688	.838	.625	.000	.903	.000	.000	.000	.000	.000	.625	.625	.000	.708	.938	.722

3:1-101

City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Westbound Ramps / 5th Street
Weather: Clear

[illegible]



City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Westbound Ramps / 5th Street
Weather: Clear

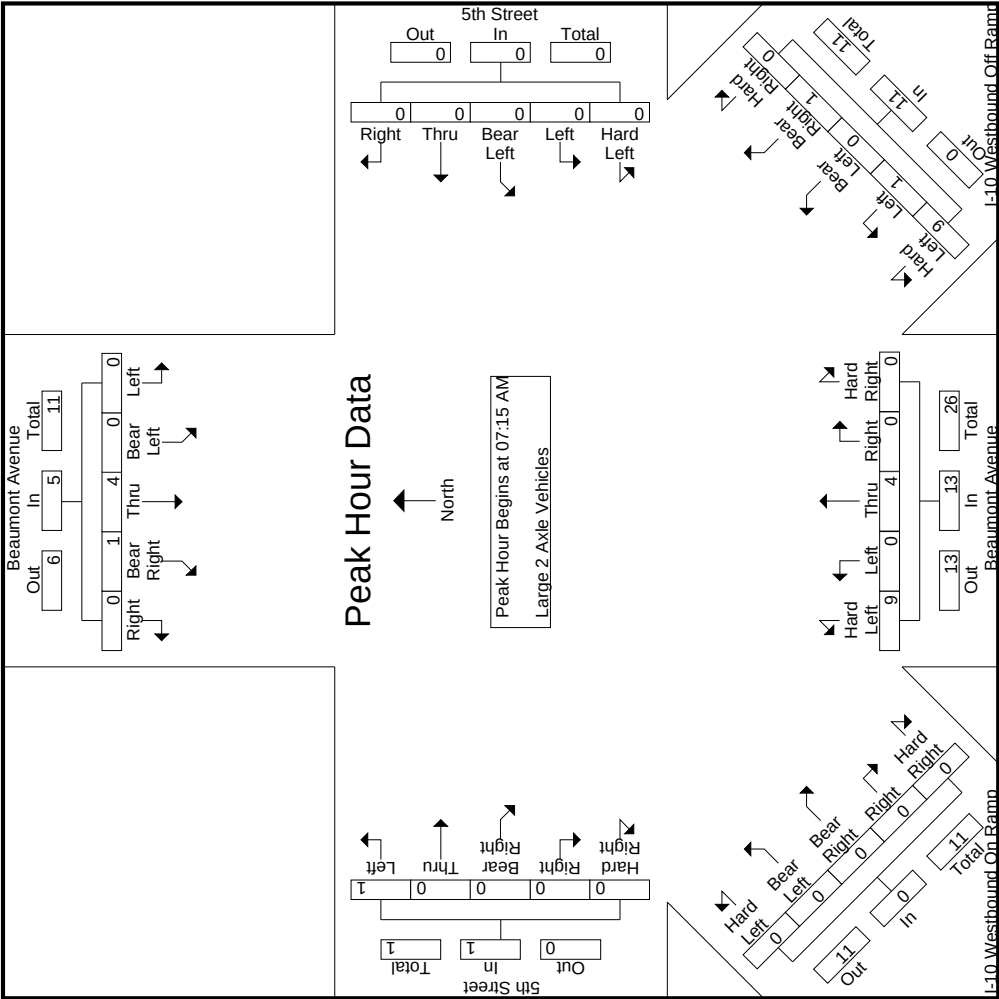
File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

3.1-104

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear



City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

City of Beaumont

 $3.1 \cdot 10^7$

File Name : 03 BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- 3 Axle Vehicles

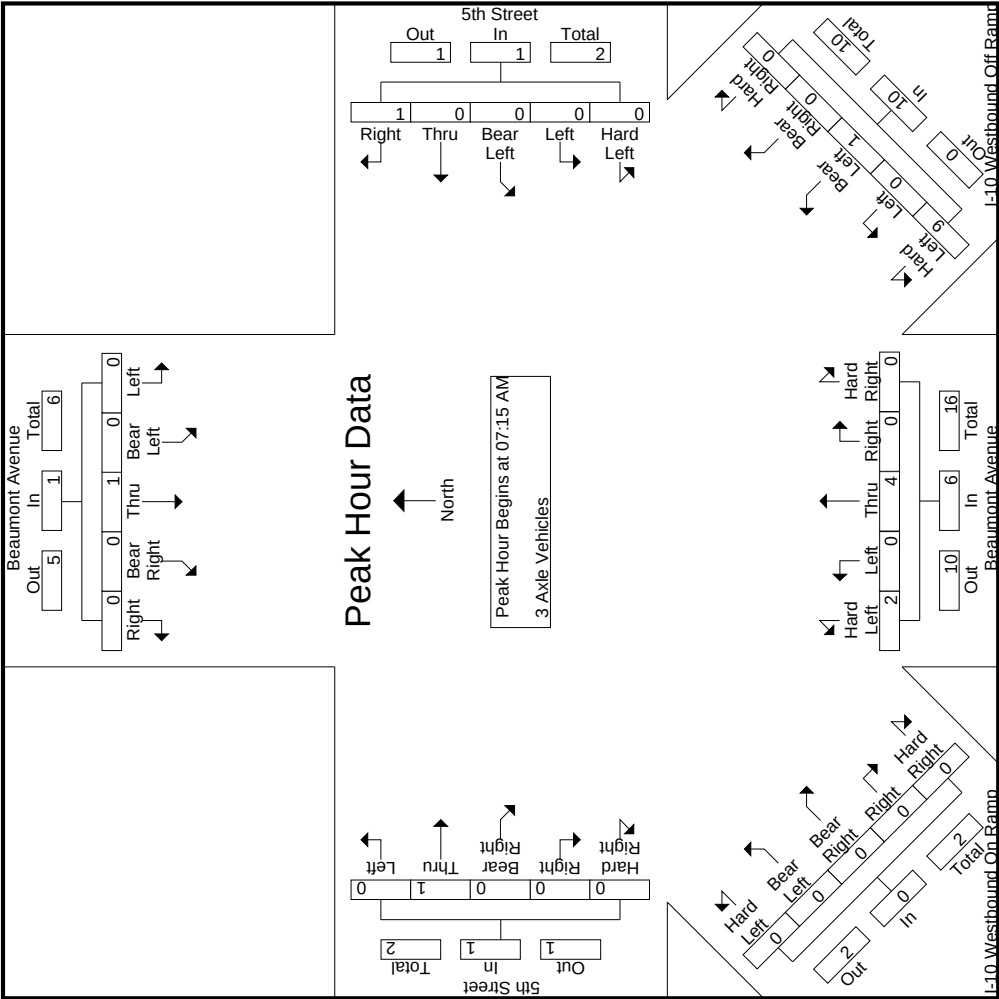
Beaumont Avenue Southbound										5th Street Westbound										I-10 Westbound Off Ramp Northwestbound										Beaumont Avenue Northbound										I-10 Westbound On Ramp Northeastbound										5th Street Eastbound									
Start Time	Bear Left	Bear Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Hard Left	Left	Hard Left	Left	Bear Left	Thru Left	Bear Right	Hard Left	Left	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Hard Left	Left	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Hard Left	Left	App. Total	Exclu. Total	Inclu. Total	Total														
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3														
07:15 AM	0	0	0	0	0	0	0	0	1	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4															
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2															
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7																
Total	0	0	0	0	0	0	0	0	0	0	1	9	0	1	0	0	10	2	0	3	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	16																
08:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6																
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3																	
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1																	
Total	0	0	1	0	0	0	0	0	0	0	0	2	0	0	1	0	3	2	0	3	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10																	
Grand Total Approach %	100						100						84.6						23.1						15.4						100																												

3.1-108

Beaumont Avenue Southbound										5th Street Westbound					I-10 Westbound Off Ramp Northwestbound					Beaumont Avenue Northbound					I-10 Westbound On Ramp Northeastbound					5th Street Eastbound					Int. Total
Start Time	Left	Bear Left	Thru	Bear Right	App. Total	Hard Left	Left	Bear Left	Thru	Bear Right	App. Total	Hard Left	Left	Bear Left	Thru	Bear Right	App. Total	Hard Left	Left	Bear Left	Thru	Bear Right	App. Total	Hard Left	Left	Bear Left	Thru	Bear Right	App. Total	Hard Right					
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																			
Peak Hour for Entire Intersection Begins at 07:15 AM																																			
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4			
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7			
08:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	6			
Total Volume	0	0	1	0	0	1	9	0	1	0	10	90	0	10	0	0	6	2	4	0	0	0	1	0	0	0	1	0	0	0	0	19			
% App. Total	0	0	100	0	0	0	0	0	0	0	33.3	0	66.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
PHF	.000	.000	.250	.000	.000	.250	.450	.000	.250	.000	.417	.500	.250	.000	.333	.000	.375	.000	.000	.000	.000	.250	.000	.000	.000	.000	.250	.000	.000	.000	.000	.679			

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Westbound Ramps / 5th Street
Weather: Clear

Start Time	Beaumont Avenue Southbound					5th Street Westbound					I-10 Westbound Off Ramp Northwestbound					Beaumont Avenue Northbound					I-10 Westbound On Ramp Northeastbound					5th Street Eastbound					Int. Total
	Left	Thru	Right	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Int. Total

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM										07:15 AM										07:15 AM										07:15 AM									
+0 mins.	0	0	0	0	0	0	0	0	0	1	1	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0					
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	5	0	1	0	0	6	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0					
+45 mins.	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	4	0	0	0	0	0	0	0	1	0	0	0	1					
Total Volume	0	0	1	0	0	1	0	0	0	1	1	9	0	1	0	0	10	2	0	4	0	0	6	0	0	0	0	0	0	0	1	0	0	0	1					
% App. Total	0	0	100	0	0	0	0	0	0	100	90	0	10	0	0	0	33.3	0	66.7	0	0	0	0	0	0	0	0	0	0	0	100	0	0	0	0					
PHF	.000	.000	.250	.000	.000	.250	.000	.000	.000	.250	.250	.450	.000	.250	.000	.000	.417	.500	.000	.333	.000	.375	.000	.000	.000	.000	.000	.250	.000	.000	.000	.250	.000	.000	.250					

3:1-110

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont

N/S: Beaumont Avenue

EW: I-10 Westbound Ramps / 5th Street

Weather: Clear

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- 4+ Axle Trucks

Beaumont Avenue Southbound										5th Street Westbound										I-10 Westbound Off Ramp Northwestbound										Beaumont Avenue Northbound										I-10 Westbound On Ramp Northeastbound										5th Street Eastbound										
Start Time	Bear Left	Thru Left	Bear Right	Right	RTOR	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	Hard Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	Hard Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total																											
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	13	2	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	16	16																											
07:15 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	11	1	0	2	0	0	0	0	3	0	0	0	0	0	0	0	0	0	15	15																											
07:30 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	4	1	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	7	7																												
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	10	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	16	16																												
Total	0	0	0	2	0	2	0	0	0	0	0	0	0	36	8	0	4	0	0	0	12	0	0	0	0	0	0	0	0	0	54	54																												
08:00 AM	0	0	1	2	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	8	8																												
08:15 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	4	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	8	8																												
08:30 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	9	9																												
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	5	5																													
Total	0	0	4	3	0	0	7	0	0	0	0	0	0	16	7	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	30	30																												
Grand Total	44.4										55.6										92.9										78.9										21.1																			
Approach%																					61.9										17.9																													

03-1-111

11	Beaumont Avenue Southbound						5th Street Westbound						I-10 Westbound Off Ramp Northwestbound						Beaumont Avenue Northbound						I-10 Westbound On Ramp Northeastbound						5th Street Eastbound						
	Bear Left		Thru Left	Bear Right	App. Total	Hard Left	Bear Left		Thru Left	Bear Right	App. Total	Hard Left	Bear Left		Thru Left	Bear Right	App. Total	Hard Left	Bear Left		Thru Left	Bear Right	App. Total	Hard Left	Bear Left		Thru Left	Bear Right	App. Total	Hard Left	Bear Left		Thru Left	Bear Right	App. Total		
	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Left	Right	Int. Total		
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 07:15 AM																																					
07:15 AM	0	0	0	1	0	0	0	0	0	0	0	11	1	0	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
07:30 AM	0	0	0	1	0	0	0	0	0	0	4	1	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7		
07:45 AM	0	0	0	0	0	0	0	0	0	0	10	4	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16			
08:00 AM	0	0	1	2	0	3	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8			
Total Volume	0	0	1	4	0	5	0	0	0	0	27	7	0	3	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46			
% App. Total	0	0	20	80	0	0	0	0	0	0	87.1	70	0	30	0	0	625	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.719		
PHF	.000	.000	.250	.500	.000	.417	.000	.000	.000	.000	.675	.438	.000	.375	.000	.000	.625	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.719			

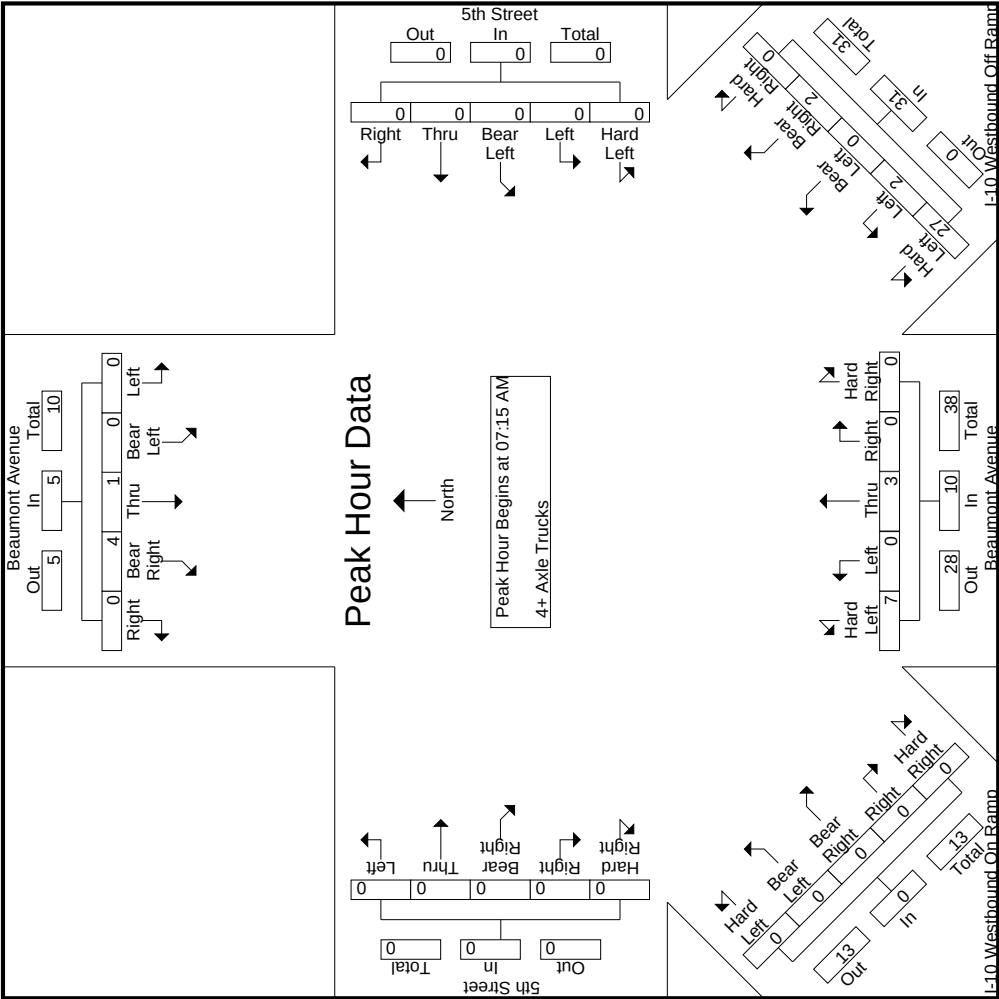
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:15 AM

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont

N/S: Beaumont Avenue

E/W: I-10 Westbound Ramps / 5th Street

Weather: Clear

File Name : 03_BMT_Beaumont_10 W_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

[illegible]

3.1-113

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Beaumont Avenue Southbound										5th Street Westbound										I-10 Westbound Off Ramp Northwestbound										Beaumont Avenue Northbound										I-10 Westbound On Ramp Northeastbound										5th Street Eastbound									
Start Time	Left	Bear Left	Thru Right	Bear Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru Right	Bear Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru Right	Bear Right	App. Total	Hard Left	Left	Bear Left	Thru Right	Bear Right	App. Total	Hard Left	Left	Bear Left	Thru Right	Bear Right	App. Total	Hard Left	Left	Bear Left	Thru Right	Bear Right	App. Total	Exclu. Total	Inclu. Total																				
04:00 PM	1	0	77	21	1	0	100	0	6	4	0	4	4	14	187	0	2	21	3	213	66	1	64	6	0	137	0	0	0	0	0	0	0	0	0	0	0	0	5	3	0	6	3	17	4	481	485												
04:15 PM	0	0	85	11	2	0	98	0	9	4	5	2	1	20	146	0	8	19	2	175	60	2	56	7	0	125	0	0	0	0	0	0	0	0	0	0	3	4	0	4	4	15	1	433	434														
04:30 PM	1	0	89	16	0	0	106	0	7	5	3	5	3	20	162	0	3	20	4	189	56	1	80	6	0	143	0	0	0	0	0	0	0	0	0	5	5	0	9	0	19	3	477	480															
04:45 PM	2	0	94	14	6	0	116	0	4	6	2	3	0	15	136	0	5	6	1	148	73	0	62	2	0	137	0	0	0	0	0	0	0	0	5	3	0	8	3	19	0	435	435																
Total	4	0	345	62	9	0	420	0	26	19	10	14	8	69	631	0	18	66	10	725	255	4	262	21	0	542	0	0	0	0	0	0	0	0	18	15	0	27	10	70	8	1826	1833																
05:00 PM	5	0	79	8	0	0	92	0	19	5	0	6	4	30	164	0	5	18	4	191	51	0	74	6	0	131	0	0	0	0	0	0	0	0	8	1	0	4	3	16	4	460	464																
05:15 PM	1	0	90	15	3	0	109	0	7	5	2	2	1	16	168	0	2	15	0	185	78	1	67	5	0	151	0	0	0	0	0	0	0	4	2	0	4	3	13	1	474	475																	
05:30 PM	1	0	84	16	0	0	101	0	7	14	0	4	3	25	144	0	3	10	1	158	74	4	55	8	0	141	0	0	0	0	0	0	0	3	2	0	7	0	12	3	437	440																	
05:45 PM	1	0	64	7	0	0	72	0	6	2	2	4	2	14	152	0	9	18	0	179	60	2	49	4	0	115	0	0	0	0	0	0	0	0	3	0	3	4	10	2	390	392																	
Total	8	0	317	46	3	0	374	0	39	26	4	16	10	85	628	0	19	61	5	713	263	7	245	23	0	538	0	0	0	0	0	0	0	15	8	0	18	10	51	10	1761	1771																	
Grand Total	12	0	662	108	12	0	794	0	65	45	14	30	18	154	1259	0	37	127	15	1438	518	11	507	44	0	1080	0	0	0	0	0	0	0	33	23	0	45	20	121	18	3587	3605																	
Approach %	1.5	0	83.4	13.6	1.5			0	42.2	29.2	9.1	19.5		87.6		0	2.6	8.8	1		48	1	46.9	4.1	0		0	0	0	0	0	0	27.3	19	0	37.2	16.5																						
Total %	0.3	0	18.5	3	0.3	22.1		0	1.8	1.3	0.4	0.8	4.3	35.1		0	1	3.5	0.4	40.1	14.4	0.3	14.1	1.2	0	30.1	0	0	0	0	0	0	0.9	0.6	0	1.3	0.6	3.4	0.5	99.5																			
Passenger Vehicles	12	0	650	104	12	778		0	64	45	14	30	171	1170		0	32	124	15	1341	492	10	497	43	0	1042	0	0	0	0	0	0	33	23	0	44	20	120	0	0	3452																		
% Passenger Vehicles	100	0	98.2	96.3	100	0	98	0	98.5	100	100	100	99.4	92.9	0	86.5	97.6	100	93.3	95	90.9	98	97.7	0	96.5	0	0	0	0	0	0	100	100	0	97.8	100	99.2	0	0	95.8																			
Large 2-Axle Vehicles	0	0	8	3	0	11		0	0	0	0	0	0	28	0	0	1	0	29	10	1	6	0	0	17	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	58																	
% Large 2-Axle Vehicles	0	0	1.2	2.8	0	0	1.4	0	0	0	0	0	0	2.2	0	0	0.8	0	2	1.9	9.1	1.2	0	0	1.6	0	0	0	0	0	0	0	0	0	0	2.2	0	0.8	0	0	1.6																		
3-Axle Vehicles	0	0	2	0	0	2		0	0	0	0	0	0	5	0	0	0	0	5	6	0	3	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16																	
% 3-Axle Vehicles	0	0	0.3	0	0	0	0.3	0	0	0	0	0	0	0.4	0	0	0	0	0.3	1.2	0	0.6	0	0	0.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4																	
4+ Axle Trucks	0	0	2	1	0	3		0	1	0	0	0	1	56	0	5	2	0	63	10	0	1	1	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79																
% 4+ Axle Trucks	0	0	0.3	0.9	0	0	0.4	0	1.5	0	0	0	0	4.4	0	13.5	1.6	0	4.4	1.9	0	0.2	2.3	0	1.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.2																	

Counts Unlimited
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File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2

City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Westbound Ramps / 5th Street
Weather: Clear

Beaumont Avenue Southbound					5th Street Westbound					I-10 Westbound Off Ramp Northwestbound					Beaumont Avenue Northbound					I-10 Westbound On Ramp Northeastbound					5th Street Eastbound											
Start Time	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Left	Left	Bear Left	Thru	Right	App. Total	Hard Right	Right	Bear Right	Total	App. Total	Int. Total							
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																				
Peak Hour for Entire Intersection Begins at 04:30 PM																																				
04:30 PM	1	0	89	16	0	106	0	7	5	3	5	20	162	0	3	20	4	189	56	1	80	6	0	143	0	0	0	0	0	5	5	0	9	0	19	477
04:45 PM	2	0	94	14	6	116	0	4	6	2	3	15	136	0	5	6	1	148	73	0	62	2	0	137	0	0	0	0	0	5	3	0	8	3	19	435
05:00 PM	5	0	79	8	0	92	0	19	5	0	6	30	164	0	5	18	4	191	51	0	74	6	0	131	0	0	0	0	0	8	1	0	4	3	16	460
05:15 PM	1	0	90	15	3	109	0	7	5	2	2	16	168	0	2	15	0	185	78	1	67	5	0	151	0	0	0	0	0	4	2	0	4	3	13	474
Total Volume	9	0	352	53	9	423	0	37	21	7	16	81	630	0	15	59	9	713	258	2	283	19	0	562	0	0	0	0	0	22	11	0	25	9	67	1846
% App. Total	2.1	0	83.2	12.5	2.1		0	45.7	25.9	8.6	19.8	88.4	88.4	0	2.1	8.3	1.3		45.9	0.4	50.4	3.4	0		0	0	0	0	0	32.8	16.4	0	37.3	13.4		
PHF	.450	.000	.936	.828	.375	.912	.000	.487	.875	.583	.667	.675	.938	.000	.750	.738	.563	.933	.827	.500	.884	.792	.000	.930	.000	.000	.000	.000	.688	.550	.000	.694	.750	.882	.968	

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City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 4

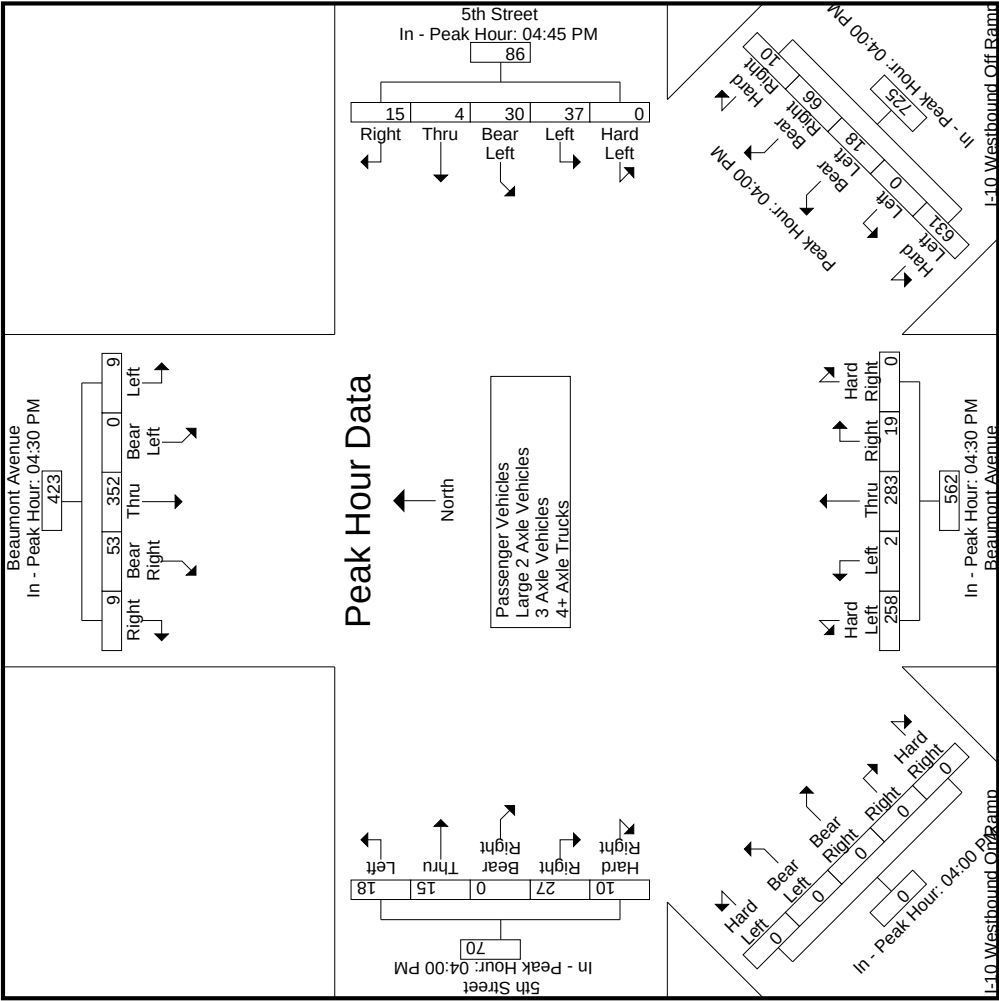
Beaumont Avenue Southbound										5th Street Westbound					I-10 Westbound Off Ramp Northwestbound					Beaumont Avenue Northbound					I-10 Westbound On Ramp Northeastbound					5th Street Eastbound					
Start Time	Left	Bea	Thru	Bea	Right	App. Total	Hard Left	Left	Thru	Bea	Left	Thru	Bea	Right	App. Total	Hard Left	Left	Thru	Bea	Left	Thru	Bea	Right	App. Total	Hard Left	Left	Thru	Bea	Right	App. Total	Hard Right	Int. Total			
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																			
Peak Hour for Each Approach Begins at:																																			
+0 mins. +15 mins. +30 mins. +45 mins.	04:30 PM										04:45 PM					04:00 PM					04:30 PM					04:00 PM					04:00 PM				
	1	0	89	16	0	106	0	4	6	2	3	15	187	0	2	21	3	213	56	1	80	6	0	143	0	0	0	0	0	5	3	0	6	3	17
	2	0	94	14	6	116	0	19	5	0	6	30	146	0	8	19	2	175	73	0	62	2	0	137	0	0	0	0	0	3	4	0	4	15	
	5	0	79	8	0	92	0	7	5	2	2	16	162	0	3	20	4	189	51	0	74	6	0	131	0	0	0	0	0	5	5	0	9	0	19
	1	0	90	15	3	109	0	7	14	0	4	25	136	0	5	6	1	148	78	1	67	5	0	151	0	0	0	0	0	5	3	0	8	3	19
Total Volume	9	0	352	53	9	423	0	37	30	4	15	86	631	0	18	66	10	725	258	2	283	19	0	562	0	0	0	0	0	18	15	0	27	10	70
% App. Total	2.1	0	83.2	12.5	2.1		0	43	34.9	4.7	17.4	87	0	2.5	9.1	1.4		45.9	0.4	50.4	3.4	0		0	0	0	0	0	25.7	21.4	0	38.6	14.3		
PHF	.450	.000	.936	.828	.375	.912	.000	.487	.536	.500	.625	.717	.844	.000	.563	.786	.625	.851	.827	.500	.884	.792	.000	.930	.000	.000	.000	.000	.900	.750	.000	.750	.625	.921	

3:1-116

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File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 5

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

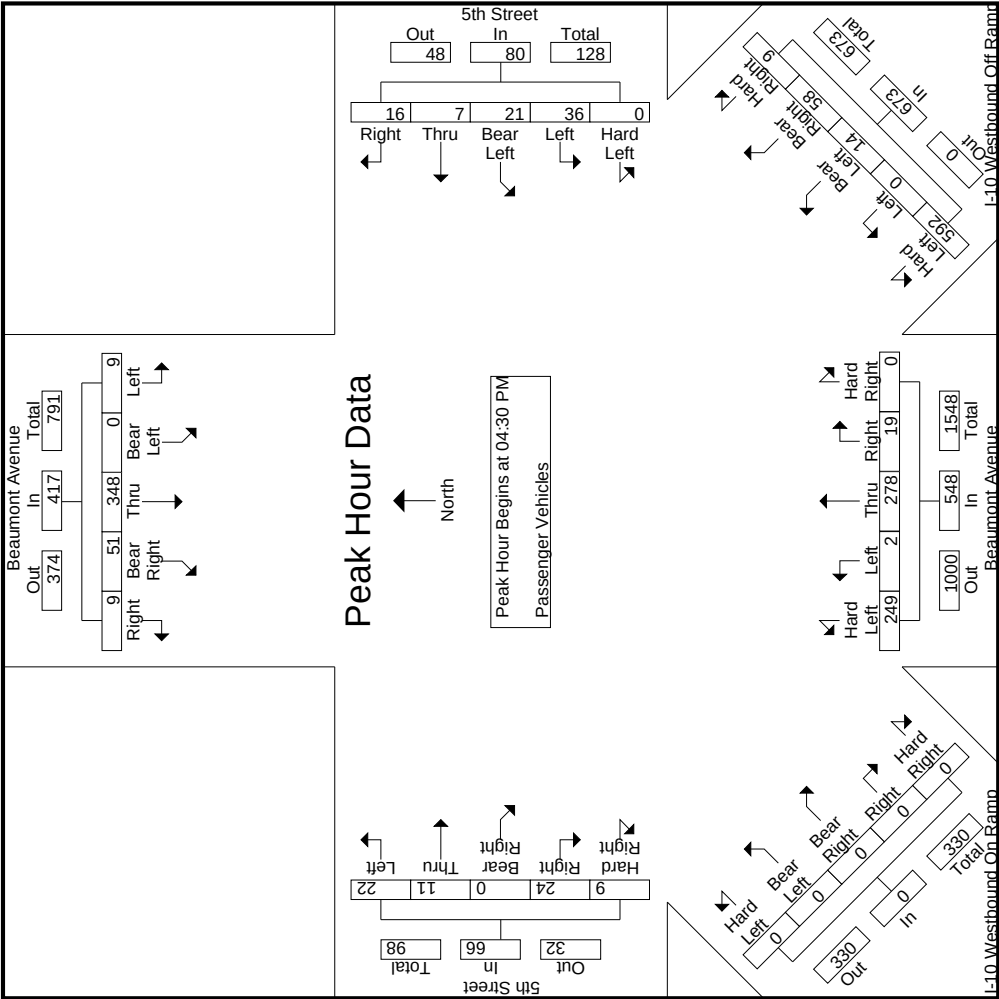


City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

File Name : 03_BMT_Beaumont_10_W_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- Passenger Vehicles																																								
Beaumont Avenue Southbound						5th Street Westbound						I-10 Westbound Off Ramp Northwestbound						Beaumont Avenue Northbound						I-10 Westbound On Ramp Northeastbound						5th Street Eastbound										
Start Time	Left	Bear Left	Thru Left	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	Hard Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	Hard Right	App. Total	Exclu. Total	Incl. Total							
04:00 PM	1	0	73	21	1	0	96	0	6	4	0	4	4	14	171	0	2	20	3	196	62	1	63	6	0	132	0	0	0	0	0	5	3	0	6	3	17	4	455	459
04:15 PM	0	0	85	9	2	0	96	0	9	4	5	2	1	20	128	0	5	19	2	154	54	2	52	7	0	115	0	0	0	0	0	3	4	0	4	4	15	1	400	401
04:30 PM	1	0	87	15	0	0	103	0	7	5	3	5	3	20	153	0	3	19	4	179	52	1	80	6	0	139	0	0	0	0	0	5	5	0	9	0	19	3	460	463
04:45 PM	2	0	93	13	6	0	114	0	4	6	2	3	0	15	123	0	4	6	1	134	71	0	62	2	0	135	0	0	0	0	0	5	3	0	7	3	18	0	416	416
Total	4	0	338	58	9	0	409	0	26	19	10	14	8	69	575	0	14	64	10	663	239	4	257	21	0	521	0	0	0	0	0	18	15	0	26	10	69	8	1731	1739
05:00 PM	5	0	78	8	0	0	91	0	18	5	0	6	4	29	157	0	5	18	4	184	49	0	72	6	0	127	0	0	0	0	0	8	1	0	4	3	16	4	447	451
05:15 PM	1	0	90	15	3	0	109	0	7	5	2	2	1	16	159	0	2	15	0	176	77	1	64	5	0	147	0	0	0	0	0	4	2	0	4	3	13	1	461	462
05:30 PM	1	0	82	16	0	0	99	0	7	14	0	4	3	25	134	0	3	10	1	148	70	4	55	8	0	137	0	0	0	0	0	3	2	0	7	0	12	3	421	424
05:45 PM	1	0	62	7	0	0	70	0	6	2	2	4	2	14	145	0	8	17	0	170	57	1	49	3	0	110	0	0	0	0	0	0	3	0	3	4	10	2	374	376
Total	8	0	312	46	3	0	369	0	38	26	4	16	10	84	595	0	18	60	5	678	253	6	240	22	0	521	0	0	0	0	0	15	8	0	18	10	51	10	1703	1713
GPH	12	0	650	104	12	0	778	0	64	45	14	30	18	153	1170	0	32	124	15	1341	492	10	487	43	0	1042	0	0	0	0	0	33	23	0	44	20	120	18	3434	3452
Approach %	1.5	0	83.5	13.4	1.5			0	41.8	29.4	9.2	19.6		87.2	0	2.4	9.2	1.1		47.2	1	47.7	4.1	0		0	0	0	0	0	27.5	19.2	0	36.7	16.7					
Total %	0.3	0	18.9	3	0.3	22.7		0	1.9	1.3	0.4	0.9		4.5	34.1	0	0.9	3.6	0.4	39.1	14.3	0.3	14.5	1.3	0	30.3	0	0	0	0	0	1	0.7	0	1.3	0.6	3.5	0.5	99.	5

Beaumont Avenue Southbound						5th Street Westbound						I-10 Westbound Off Ramp Northwestbound						Beaumont Avenue Northbound						I-10 Westbound On Ramp Northeastbound						5th Street Eastbound							
Start Time	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	Hard Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	Hard Right	App. Total	Exclu. Total	Incl. Total						
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																					
Peak Hour for Entire Intersection Begins at 04:30 PM																																					
04:30 PM	1	0	87	15	0	103	0	7	5	3	5	20	153	0	3	19	4	179	52	1	80	6	0	139	0	0	0	0	0	5	5	0	9	0	19	460	
04:45 PM	2	0	93	13	6	114	0	4	6	2	3	15	123	0	4	6	1	134	71	0	62	2	0	135	0	0	0	0	0	5	3	0	7	3	18	416	
05:00 PM	5	0	78	8	0	91	0	18	5	0	6	29	157	0	5	18	4	184	49	0	72	6	0	127	0	0	0	0	0	8	1	0	4	3	16	447	
05:15 PM	1	0	90	15	3	109	0	7	5	2	2	16	159	0	2	15	0	176	77	1	64	5	0	147	0	0	0	0	0	4	2	0	4	3	13	461	
% App. Total	2.2	0	83.5	12.2	2.2			0	45	26.2	8.8	20		88	0	2.1	8.6	1.3		45.4	0.4	50.7	3.5	0		0	0	0	0	22	11	0	24	9	66	1784	
PHF	.450	.000	.935	.850	.375	.914	.000	.500	.875	.583	.667	.690	.931	.000	.700	.763	.563	.914	.808	.500	.869	.792	.000	.932	.000	.000	.000	.000	.000	.000	.888	.550	.000	.667	.750	.868	.967



City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear

City of Beaumont

3.1-120

Counts Unlimited
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(951) 268-6268

City of Beaumont

N/S: Beaumont Avenue

EW: I-10 Westbound Ramps / 5th Street

Weather: Clear

File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- Large 2 Axle Vehicles

Beaumont Avenue Southbound										5th Street Westbound										I-10 Westbound Off Ramp Northwestbound										Beaumont Avenue Northbound										I-10 Westbound On Ramp Northeastbound										5th Street Eastbound									
Start Time	Bear Left	Thru Left	Bear Right	Right	RTO R	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	Hard Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	Hard Right	App. Total	Left	Thru Left	Bear Right	Right	Hard Right	App. Total	Left	Thru Left	Bear Right	Right	Hard Right	App. Total	Exclu. Total	Inclu. Total	Int. Total																						
04:00 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	9	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	13	13																							
04:15 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	4	4	0	0	0	0	2	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	11	11																						
04:30 PM	0	0	1	1	0	2	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	6	6																							
04:45 PM	0	0	1	1	0	2	0	0	0	0	0	0	0	6	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	10	10																							
Total	0	0	4	3	0	7	0	0	0	0	0	0	0	23	22	0	0	1	0	3	0	0	9	6	0	3	0	0	0	0	0	0	0	0	40	40																							
05:00 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0	5	5																							
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5	5																							
05:30 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	3																							
05:45 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	5	5																							
Total	0	0	4	0	0	4	0	0	0	0	0	0	0	6	6	0	0	0	0	3	0	8	4	1	3	0	0	0	0	0	0	0	0	18	18																								
Grand Total	72.7						27.3						96.6						58.8						35.3						100																												
Approach%	13.8						48.3												17.2						10.3																																		

3:1-121

Start Time	Beaumont Avenue Southbound						5th Street Westbound						I-10 Westbound Off Ramp Northwestbound						Beaumont Avenue Northbound						I-10 Westbound On Ramp Northeastbound						5th Street Eastbound																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru Left	Bear Right	Right	App. Total	Hard Left	Left

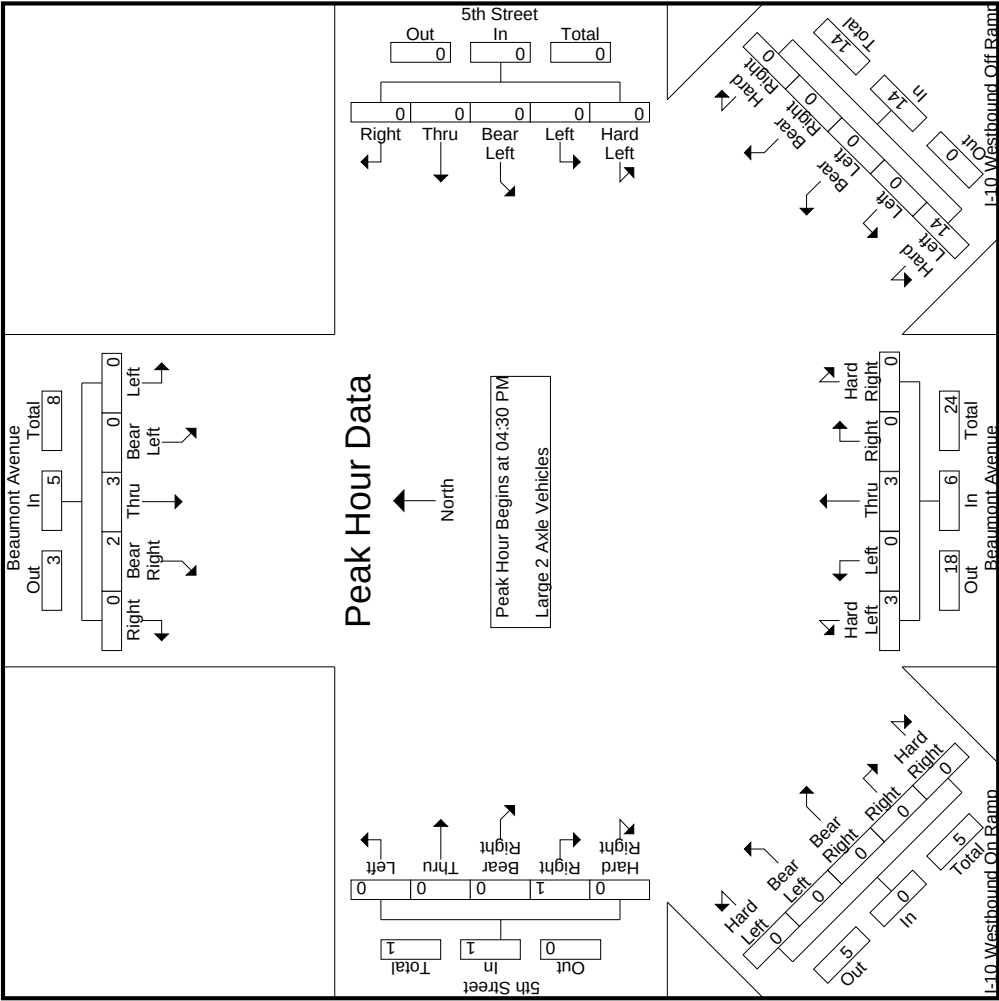
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:30 PM

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear



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City of Beaumont

N/S: Beaumont Avenue

E/W: I-10 Westbound Ramps / 5th Street

Weather: Clear

File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

[illegible]

3.1-123

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City of Beaumont

N/S: Beaumont Avenue

EW: I-10 Westbound Ramps / 5th Street

Weather: Clear

File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- 3 Axle Vehicles

	Beaumont Avenue Southbound												5th Street Westbound												I-10 Westbound Off Ramp Northwestbound												Beaumont Avenue Northbound												I-10 Westbound On Ramp Northeastbound												5th Street Eastbound																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Start Time	Bear Left		Thru Left		Bear Right		Right		RTO		App. Total		Hard Left		Left		Bear Left		Bear Right		Hard Left		App. Total		Hard Left		Left		Bear Left		Bear Right		Hard Right		App. Total		Hard Left		Left		Bear Left		Bear Right		Hard Right		App. Total		Exclu. Total		Inclu. Total		Int. Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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3-1-124

Start Time	Beaumont Avenue Southbound						5th Street Westbound						I-10 Westbound Off Ramp Northwestbound						Beaumont Avenue Northbound						I-10 Westbound On Ramp Northeastbound						5th Street Eastbound																																															
	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Bear Left	Thru	Bear Right	Right	App. Total																																					
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04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1																																				
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1																																				
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1																																					
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PHF	.000						.000						.000						.000						.000						.000						.000						.000						.000						.000						.000						.000						.750					

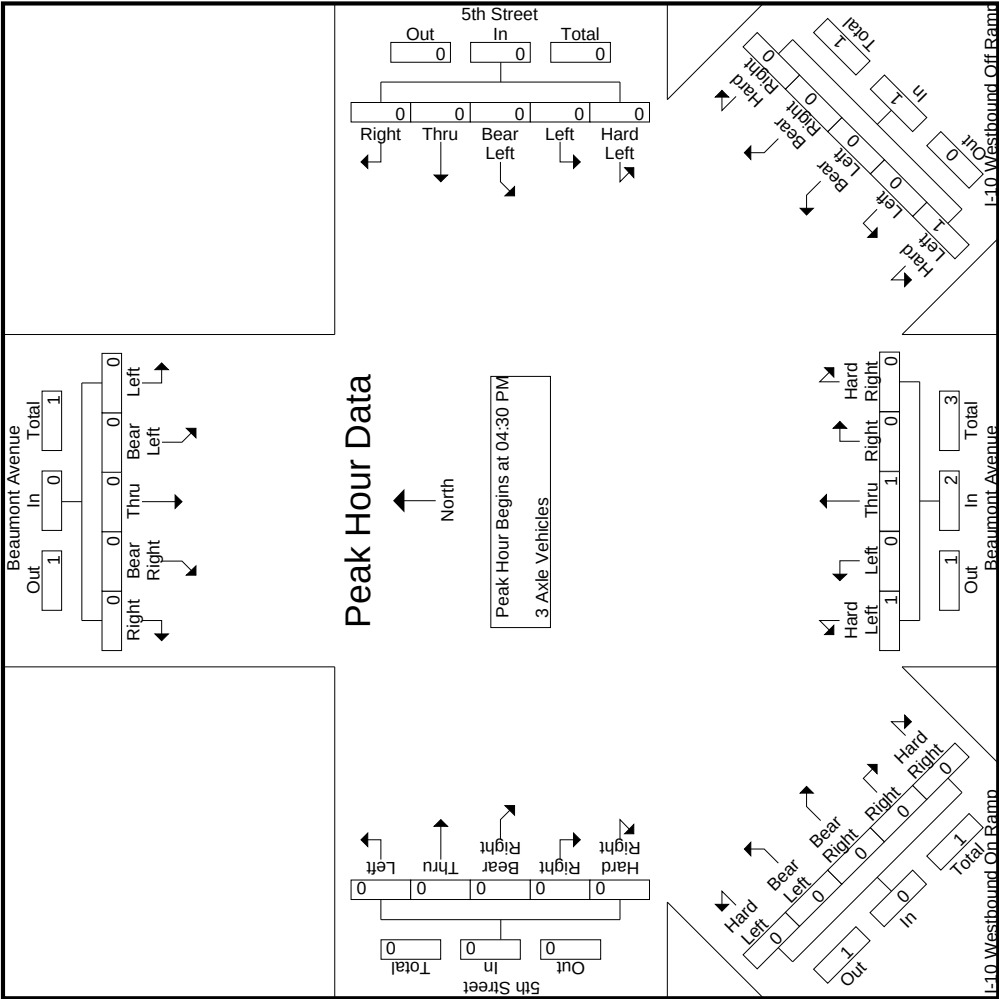
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:30 PM

Counts Unlimited
PO Box 1178
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(951) 268-6268

File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear



City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Westbound Ramps / 5th Street
Weather: Clear

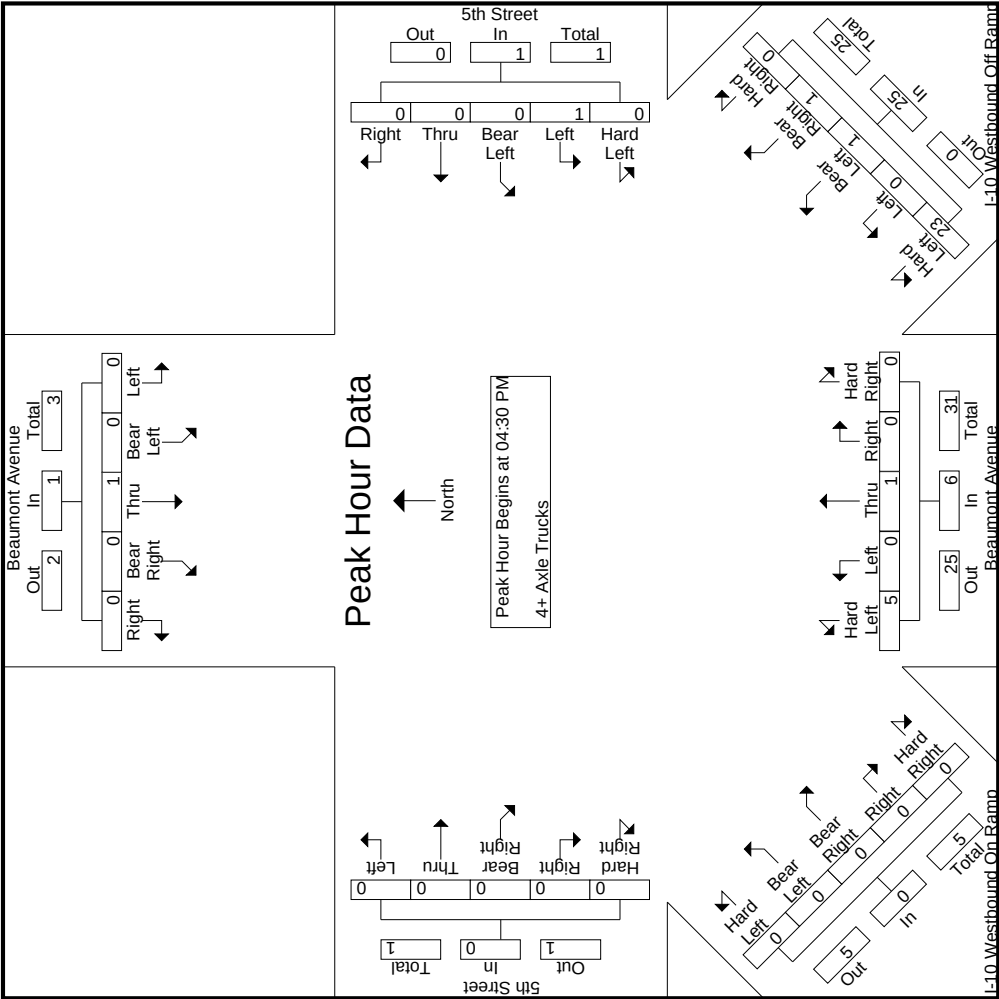
File Name : 03_BMT_Beaumont_10 W_PMI
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

3.1-126

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File Name : 03_BMT_Beaumont_10 W_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Westbound Ramps / 5th Street
Weather: Clear



City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Westbound Ramps / 5th Street
Weather: Clear

3.1-129

Location: Beaumont
N/S: Beaumont Avenue
E/W: 5th Street

Date: 1/14/2020
Day: Tuesday



PEDESTRIANS

	North Leg Beaumont Avenue Pedestrians	East Leg 5th Street Pedestrians	Southeast Leg I-10 WB Off Ramp Pedestrians	South Leg Beaumont Avenue Pedestrians	Southwest Leg I-10 WB On Ramp Pedestrians	West Leg 5th Street Pedestrians
7:00 AM	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0
7:45 AM	1	0	0	0	0	1
8:00 AM	0	1	1	0	0	2
8:15 AM	1	1	1	0	0	3
8:30 AM	0	1	1	0	0	2
8:45 AM	0	1	1	0	0	2
TOTAL VOLUMES:	2	4	4	0	0	10

	North Leg Beaumont Avenue Pedestrians	East Leg 5th Street Pedestrians	Southeast Leg I-10 WB Off Ramp Pedestrians	South Leg Beaumont Avenue Pedestrians	Southwest Leg I-10 WB On Ramp Pedestrians	West Leg 5th Street Pedestrians
4:00 PM	0	3	3	0	1	1
4:15 PM	0	1	1	0	0	0
4:30 PM	2	1	1	0	0	0
4:45 PM	1	0	2	0	1	1
5:00 PM	1	1	1	0	1	1
5:15 PM	1	0	0	0	1	1
5:30 PM	1	4	4	0	0	0
5:45 PM	1	1	1	0	0	0
TOTAL VOLUMES:	7	11	13	0	4	39

Location: Beaumont
N/S: Beaumont Avenue
E/W: 5th Street

Date: 1/14/2020
Day: Tuesday



BICYCLES

	Southbound Beaumont Avenue					Westbound 5th Street					Northwestbound I-10 WB Off Ramp					Northbound Beaumont Avenue					Northeastbound I-10 Westbound On Ramp					Eastbound 5th Street				
	Left	Bear Left	Thru	Bear Right	Right	Hard Left	Bear Left	Thru	Bear Right	Right	Hard Left	Bear Left	Thru	Bear Right	Right	Left	Thru	Right	Hard Right	Hard Left	Hard Left	Bear Left	Thru	Bear Right	Right	Hard Right	Bear Left	Thru	Right	Hard Right
7:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3

	Southbound Beaumont Avenue					Westbound 5th Street					Northwestbound I-10 WB Off Ramp					Northbound Beaumont Avenue					Northeastbound I-10 Westbound On Ramp					Eastbound 5th Street				
	Left	Bear Left	Thru	Bear Right	Right	Hard Left	Bear Left	Thru	Bear Right	Right	Hard Left	Bear Left	Thru	Bear Right	Right	Hard Left	Bear Left	Thru	Bear Right	Right	Hard Left	Bear Left	Thru	Bear Right	Right	Hard Right				
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
TOTAL VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Potrero_Oak Valley AM
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	15	59	74	7	18	25	50	7	57	156
07:15 AM	16	62	78	9	34	43	35	4	39	160
07:30 AM	13	48	61	6	15	21	51	2	53	135
07:45 AM	9	26	35	4	15	19	43	5	48	102
Total	53	195	248	26	82	108	179	18	197	553
08:00 AM	9	36	45	3	17	20	26	5	31	96
08:15 AM	10	25	35	5	15	20	37	2	39	94
08:30 AM	8	25	33	4	7	11	30	5	35	79
08:45 AM	12	27	39	1	14	15	29	2	31	85
Total	39	113	152	13	53	66	122	14	136	354
Grand Total	92	308	400	39	135	174	301	32	333	907
Apprch %	23	77		22.4	77.6		90.4	9.6		
Total %	10.1	34	44.1	4.3	14.9	19.2	33.2	3.5	36.7	
Passenger Vehicles	78	296	374	37	122	159	294	29	323	856
% Passenger Vehicles	84.8	96.1	93.5	94.9	90.4	91.4	97.7	90.6	97	94.4
Large 2 Axle Vehicles	7	5	12	0	5	5	4	1	5	22
% Large 2 Axle Vehicles	7.6	1.6	3	0	3.7	2.9	1.3	3.1	1.5	2.4
3 Axle Vehicles	5	1	6	2	5	7	1	2	3	16
% 3 Axle Vehicles	5.4	0.3	1.5	5.1	3.7	4	0.3	6.2	0.9	1.8
4+ Axle Trucks	2	6	8	0	3	3	2	0	2	13
% 4+ Axle Trucks	2.2	1.9	2	0	2.2	1.7	0.7	0	0.6	1.4

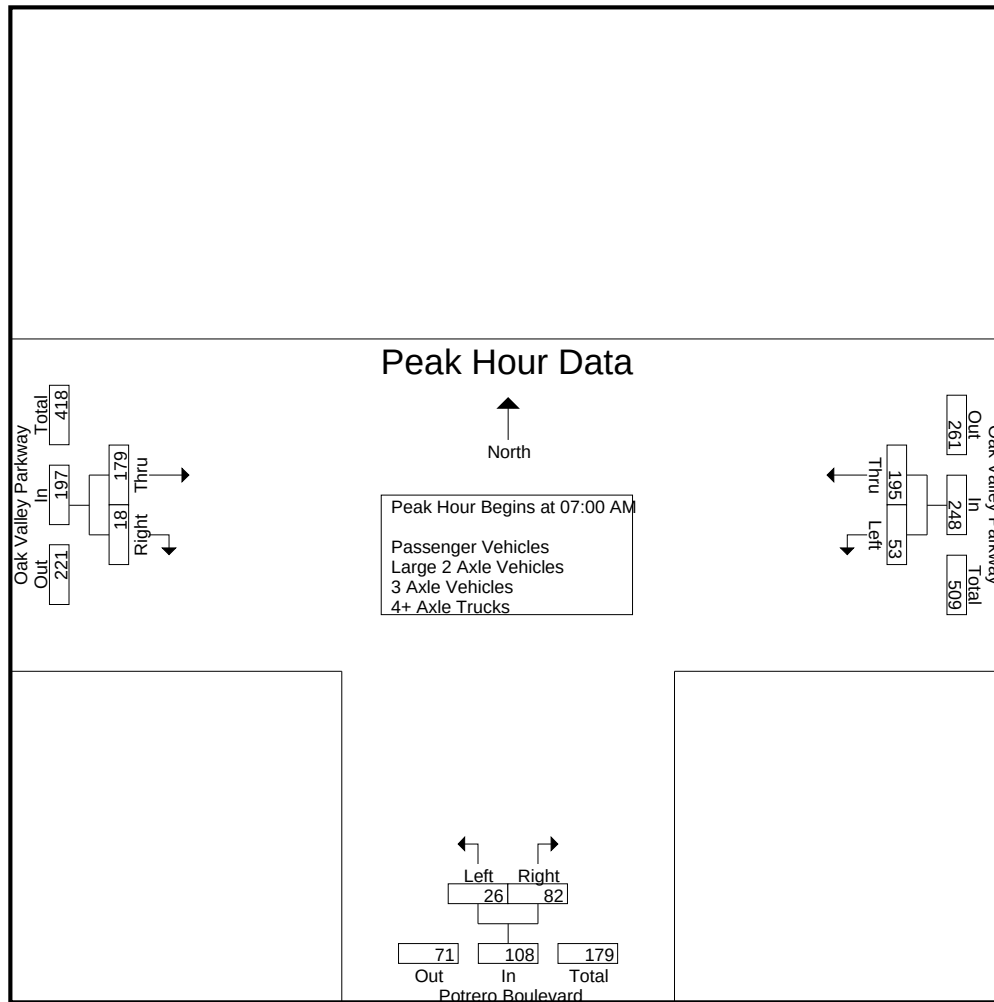
	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	15	59	74	7	18	25	50	7	57	156
07:15 AM	16	62	78	9	34	43	35	4	39	160
07:30 AM	13	48	61	6	15	21	51	2	53	135
07:45 AM	9	26	35	4	15	19	43	5	48	102
Total Volume	53	195	248	26	82	108	179	18	197	553
% App. Total	21.4	78.6		24.1	75.9		90.9	9.1		
PHF	.828	.786	.795	.722	.603	.628	.877	.643	.864	.864

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley AM
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	15	59	74	7	18	25	50	7	57
+15 mins.	16	62	78	9	34	43	35	4	39
+30 mins.	13	48	61	6	15	21	51	2	53
+45 mins.	9	26	35	4	15	19	43	5	48
Total Volume	53	195	248	26	82	108	179	18	197
% App. Total	21.4	78.6		24.1	75.9		90.9	9.1	
PHF	.828	.786	.795	.722	.603	.628	.877	.643	.864

City of Beaumont
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E/W: Oak Valley Parkway
Weather: Clear

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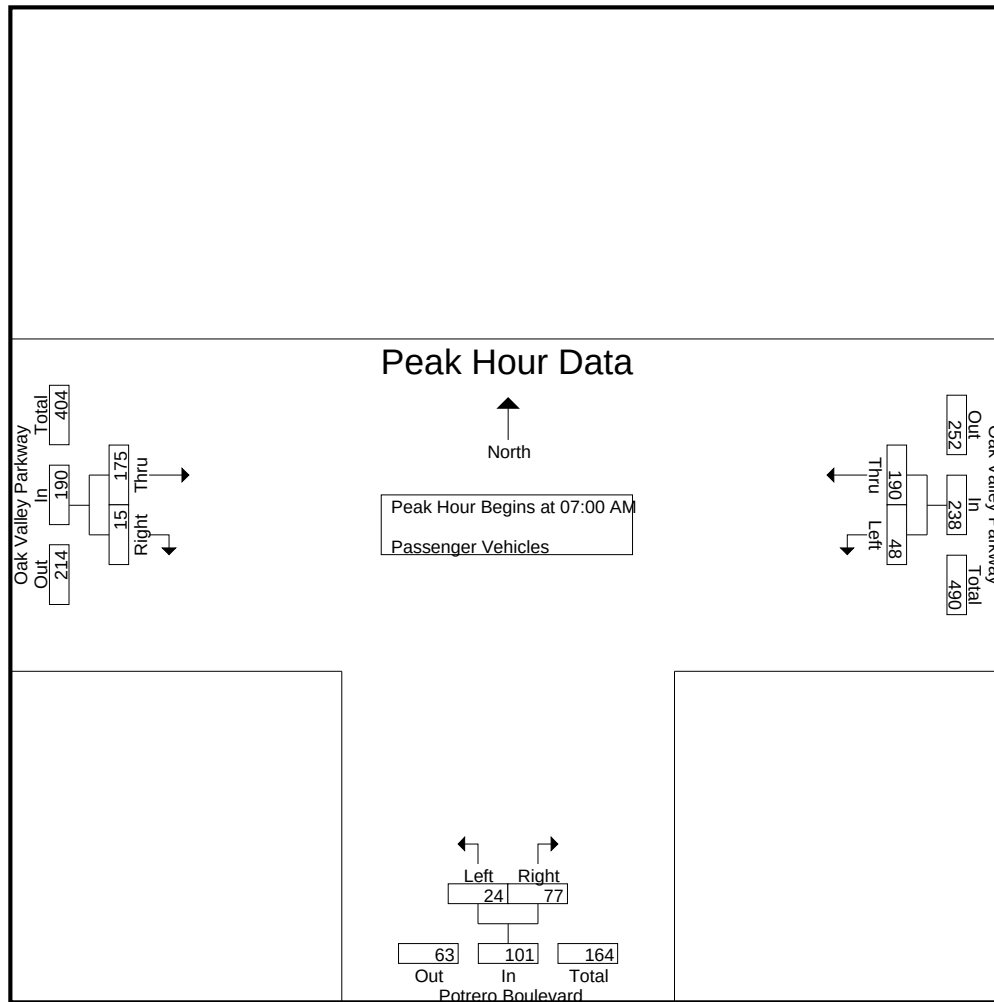
Groups Printed- Passenger Vehicles

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	15	57	72	7	18	25	50	7	57	154
07:15 AM	14	60	74	9	31	40	34	3	37	151
07:30 AM	12	48	60	6	13	19	50	2	52	131
07:45 AM	7	25	32	2	15	17	41	3	44	93
Total	48	190	238	24	77	101	175	15	190	529
08:00 AM	8	34	42	3	14	17	26	5	31	90
08:15 AM	8	24	32	5	14	19	37	2	39	90
08:30 AM	4	23	27	4	5	9	28	5	33	69
08:45 AM	10	25	35	1	12	13	28	2	30	78
Total	30	106	136	13	45	58	119	14	133	327
Grand Total	78	296	374	37	122	159	294	29	323	856
Apprch %	20.9	79.1		23.3	76.7		91	9		
Total %	9.1	34.6	43.7	4.3	14.3	18.6	34.3	3.4	37.7	

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	15	57	72	7	18	25	50	7	57	154
07:15 AM	14	60	74	9	31	40	34	3	37	151
07:30 AM	12	48	60	6	13	19	50	2	52	131
07:45 AM	7	25	32	2	15	17	41	3	44	93
Total Volume	48	190	238	24	77	101	175	15	190	529
% App. Total	20.2	79.8		23.8	76.2		92.1	7.9		
PHF	.800	.792	.804	.667	.621	.631	.875	.536	.833	.859

City of Beaumont
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	15	57	72	7	18	25	50	7	57
+15 mins.	14	60	74	9	31	40	34	3	37
+30 mins.	12	48	60	6	13	19	50	2	52
+45 mins.	7	25	32	2	15	17	41	3	44
Total Volume	48	190	238	24	77	101	175	15	190
% App. Total	20.2	79.8		23.8	76.2		92.1	7.9	
PHF	.800	.792	.804	.667	.621	.631	.875	.536	.833

City of Beaumont
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E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Potrero_Oak Valley AM
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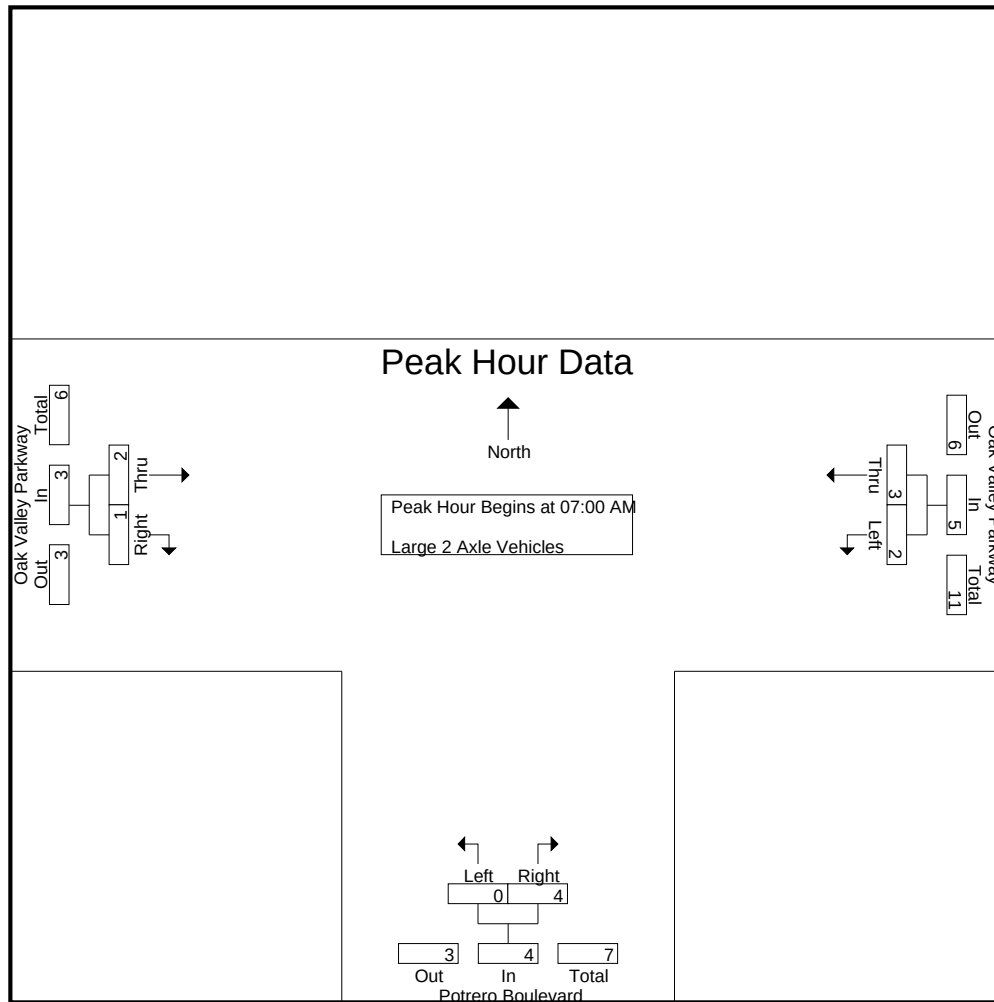
Groups Printed- Large 2 Axle Vehicles

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	1	0	0	0	0	0	0	1
07:15 AM	1	1	2	0	2	2	0	1	1	5
07:30 AM	0	0	0	0	2	2	1	0	1	3
07:45 AM	1	1	2	0	0	0	1	0	1	3
Total	2	3	5	0	4	4	2	1	3	12
08:00 AM	1	1	2	0	0	0	0	0	0	2
08:15 AM	1	0	1	0	0	0	0	0	0	1
08:30 AM	1	1	2	0	0	0	2	0	2	4
08:45 AM	2	0	2	0	1	1	0	0	0	3
Total	5	2	7	0	1	1	2	0	2	10
Grand Total	7	5	12	0	5	5	4	1	5	22
Apprch %	58.3	41.7		0	100		80	20		
Total %	31.8	22.7	54.5	0	22.7	22.7	18.2	4.5	22.7	

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	1	1	0	0	0	0	0	0	1
07:15 AM	1	1	2	0	2	2	0	1	1	5
07:30 AM	0	0	0	0	2	2	1	0	1	3
07:45 AM	1	1	2	0	0	0	1	0	1	3
Total Volume	2	3	5	0	4	4	2	1	3	12
% App. Total	40	60		0	100		66.7	33.3		
PHF	.500	.750	.625	.000	.500	.500	.500	.250	.750	.600

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	1	1	0	0	0	0	0	0
+15 mins.	1	1	2	0	2	2	0	1	1
+30 mins.	0	0	0	0	2	2	1	0	1
+45 mins.	1	1	2	0	0	0	1	0	1
Total Volume	2	3	5	0	4	4	2	1	3
% App. Total	40	60		0	100		66.7	33.3	
PHF	.500	.750	.625	.000	.500	.500	.500	.250	.750

City of Beaumont
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Weather: Clear

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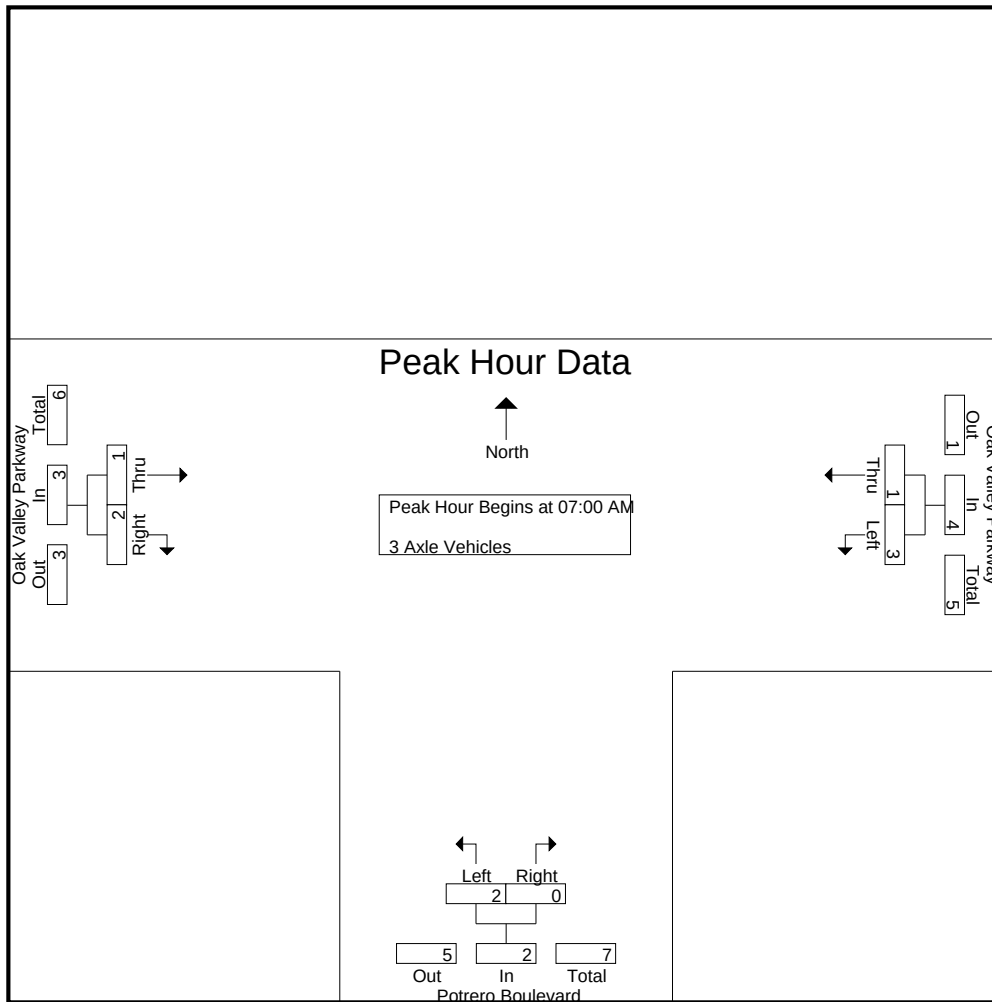
Groups Printed- 3 Axle Vehicles

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	1	1	2	0	0	0	0	0	0	2
07:30 AM	1	0	1	0	0	0	0	0	0	1
07:45 AM	1	0	1	2	0	2	1	2	3	6
Total	3	1	4	2	0	2	1	2	3	9
08:00 AM	0	0	0	0	1	1	0	0	0	1
08:15 AM	1	0	1	0	1	1	0	0	0	2
08:30 AM	1	0	1	0	2	2	0	0	0	3
08:45 AM	0	0	0	0	1	1	0	0	0	1
Total	2	0	2	0	5	5	0	0	0	7
Grand Total	5	1	6	2	5	7	1	2	3	16
Apprch %	83.3	16.7		28.6	71.4		33.3	66.7		
Total %	31.2	6.2	37.5	12.5	31.2	43.8	6.2	12.5	18.8	

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	1	1	2	0	0	0	0	0	0	2
07:30 AM	1	0	1	0	0	0	0	0	0	1
07:45 AM	1	0	1	2	0	2	1	2	3	6
Total Volume	3	1	4	2	0	2	1	2	3	9
% App. Total	75	25		100	0		33.3	66.7		
PHF	.750	.250	.500	.250	.000	.250	.250	.250	.250	.375

City of Beaumont
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Weather: Clear

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	1	1	2	0	0	0	0	0	0
+30 mins.	1	0	1	0	0	0	0	0	0
+45 mins.	1	0	1	2	0	2	1	2	3
Total Volume	3	1	4	2	0	2	1	2	3
% App. Total	75	25		100	0		33.3	66.7	
PHF	.750	.250	.500	.250	.000	.250	.250	.250	.250

City of Beaumont
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Weather: Clear

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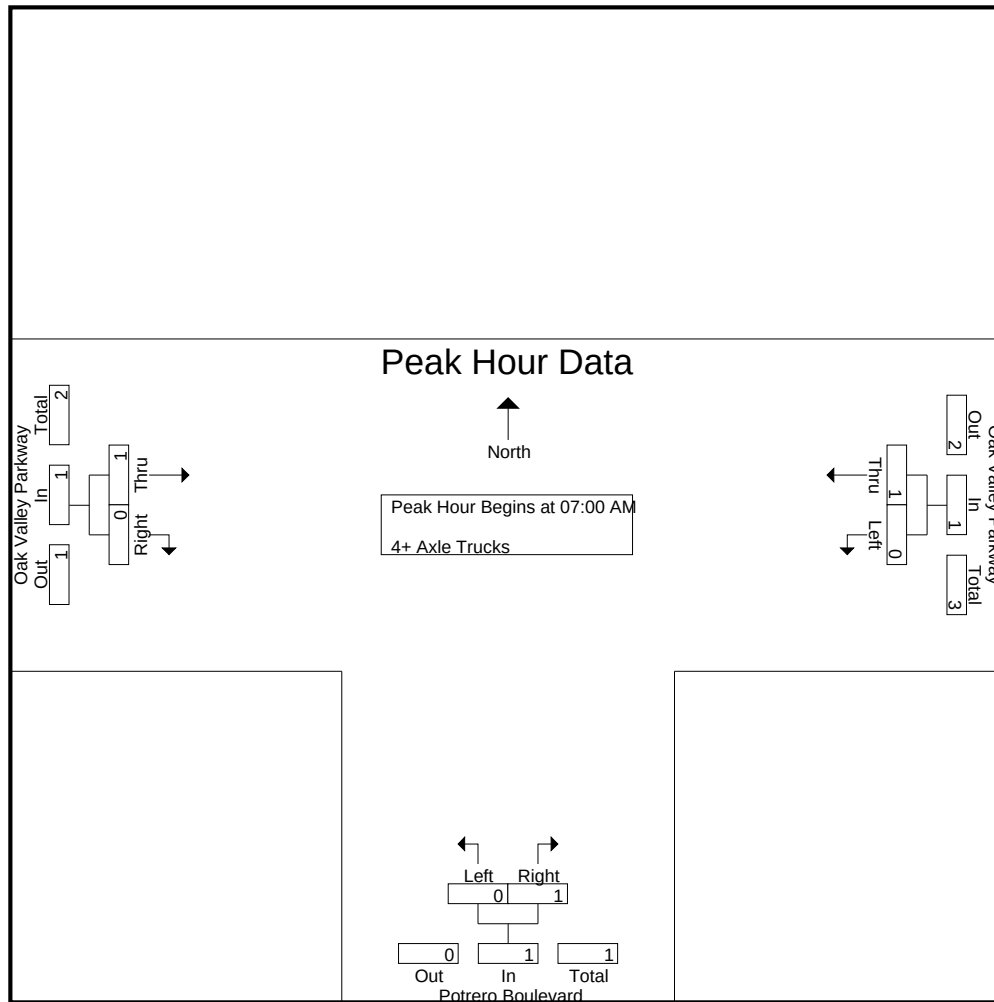
Groups Printed- 4+ Axle Trucks

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	1	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	1	1	1	0	1	2
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	1	1	1	0	1	3
08:00 AM	0	1	1	0	2	2	0	0	0	3
08:15 AM	0	1	1	0	0	0	0	0	0	1
08:30 AM	2	1	3	0	0	0	0	0	0	3
08:45 AM	0	2	2	0	0	0	1	0	1	3
Total	2	5	7	0	2	2	1	0	1	10
Grand Total	2	6	8	0	3	3	2	0	2	13
Apprch %	25	75		0	100		100	0		
Total %	15.4	46.2	61.5	0	23.1	23.1	15.4	0	15.4	

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	1	1	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	1	1	1	0	1	2
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	1	1	1	0	1	3
% App. Total	0	100		0	100		100	0		
PHF	.000	.250	.250	.000	.250	.250	.250	.000	.250	.375

City of Beaumont
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	1	1	0	0	0	0	0	0
+15 mins.	0	0	0	0	1	1	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	0	1	1	1	0	1
% App. Total	0	100		0	100		100	0	
PHF	.000	.250	.250	.000	.250	.250	.250	.000	.250

City of Beaumont
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E/W: Oak Valley Parkway
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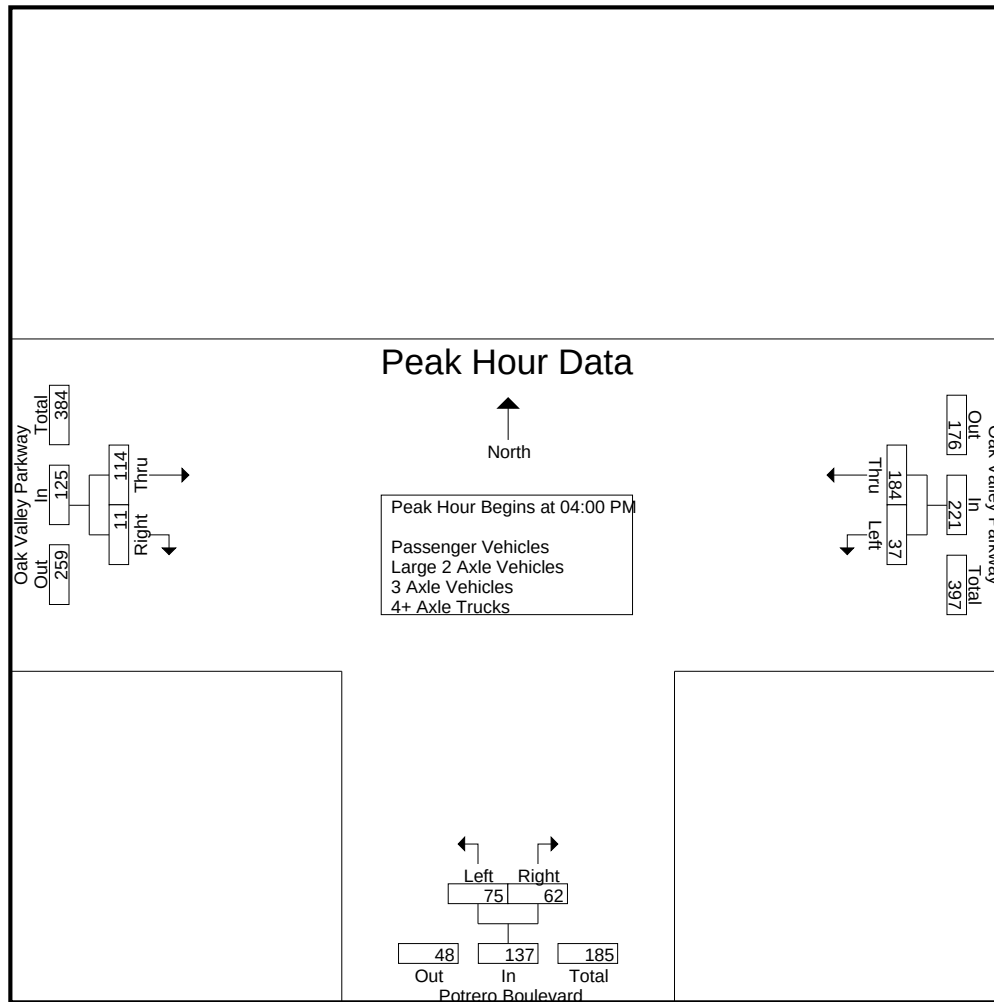
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	9	61	70	13	19	32	30	1	31	133
04:15 PM	6	49	55	21	16	37	35	6	41	133
04:30 PM	9	33	42	21	13	34	25	3	28	104
04:45 PM	13	41	54	20	14	34	24	1	25	113
Total	37	184	221	75	62	137	114	11	125	483
05:00 PM	6	49	55	10	18	28	33	1	34	117
05:15 PM	9	50	59	18	10	28	29	0	29	116
05:30 PM	9	46	55	6	6	12	30	1	31	98
05:45 PM	15	42	57	14	12	26	27	1	28	111
Total	39	187	226	48	46	94	119	3	122	442
Grand Total	76	371	447	123	108	231	233	14	247	925
Apprch %	17	83		53.2	46.8		94.3	5.7		
Total %	8.2	40.1	48.3	13.3	11.7	25	25.2	1.5	26.7	
Passenger Vehicles	76	368	444	123	107	230	230	13	243	917
% Passenger Vehicles	100	99.2	99.3	100	99.1	99.6	98.7	92.9	98.4	99.1
Large 2 Axle Vehicles	0	3	3	0	1	1	3	1	4	8
% Large 2 Axle Vehicles	0	0.8	0.7	0	0.9	0.4	1.3	7.1	1.6	0.9
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	9	61	70	13	19	32	30	1	31	133
04:15 PM	6	49	55	21	16	37	35	6	41	133
04:30 PM	9	33	42	21	13	34	25	3	28	104
04:45 PM	13	41	54	20	14	34	24	1	25	113
Total Volume	37	184	221	75	62	137	114	11	125	483
% App. Total	16.7	83.3		54.7	45.3		91.2	8.8		
PHF	.712	.754	.789	.893	.816	.926	.814	.458	.762	.908

City of Beaumont
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:00 PM			04:15 PM		
+0 mins.	6	49	55	13	19	32	35	6	41
+15 mins.	9	50	59	21	16	37	25	3	28
+30 mins.	9	46	55	21	13	34	24	1	25
+45 mins.	15	42	57	20	14	34	33	1	34
Total Volume	39	187	226	75	62	137	117	11	128
% App. Total	17.3	82.7		54.7	45.3		91.4	8.6	
PHF	.650	.935	.958	.893	.816	.926	.836	.458	.780

City of Beaumont
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Start Date : 11/19/2019
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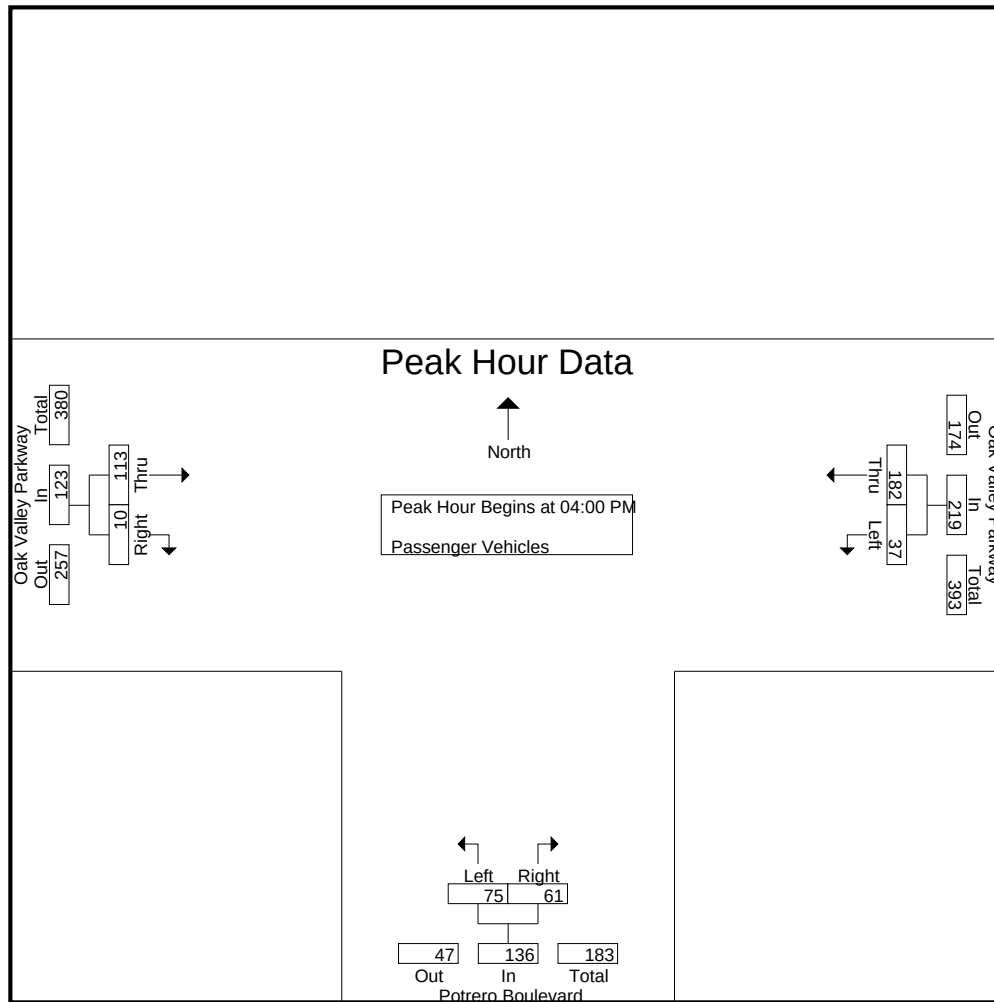
Groups Printed- Passenger Vehicles

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	9	61	70	13	19	32	30	1	31	133
04:15 PM	6	49	55	21	15	36	34	6	40	131
04:30 PM	9	33	42	21	13	34	25	2	27	103
04:45 PM	13	39	52	20	14	34	24	1	25	111
Total	37	182	219	75	61	136	113	10	123	478
05:00 PM	6	49	55	10	18	28	32	1	33	116
05:15 PM	9	49	58	18	10	28	29	0	29	115
05:30 PM	9	46	55	6	6	12	29	1	30	97
05:45 PM	15	42	57	14	12	26	27	1	28	111
Total	39	186	225	48	46	94	117	3	120	439
Grand Total	76	368	444	123	107	230	230	13	243	917
Apprch %	17.1	82.9		53.5	46.5		94.7	5.3		
Total %	8.3	40.1	48.4	13.4	11.7	25.1	25.1	1.4	26.5	

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	9	61	70	13	19	32	30	1	31	133
04:15 PM	6	49	55	21	15	36	34	6	40	131
04:30 PM	9	33	42	21	13	34	25	2	27	103
04:45 PM	13	39	52	20	14	34	24	1	25	111
Total Volume	37	182	219	75	61	136	113	10	123	478
% App. Total	16.9	83.1		55.1	44.9		91.9	8.1		
PHF	.712	.746	.782	.893	.803	.944	.831	.417	.769	.898

City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	9	61	70	13	19	32	30	1	31
+15 mins.	6	49	55	21	15	36	34	6	40
+30 mins.	9	33	42	21	13	34	25	2	27
+45 mins.	13	39	52	20	14	34	24	1	25
Total Volume	37	182	219	75	61	136	113	10	123
% App. Total	16.9	83.1		55.1	44.9		91.9	8.1	
PHF	.712	.746	.782	.893	.803	.944	.831	.417	.769

City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Potrero_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	1	1	1	0	1	2
04:30 PM	0	0	0	0	0	0	0	1	1	1
04:45 PM	0	2	2	0	0	0	0	0	0	2
Total	0	2	2	0	1	1	1	1	2	5
05:00 PM	0	0	0	0	0	0	1	0	1	1
05:15 PM	0	1	1	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	1	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	0	0	0	2	0	2	3
Grand Total	0	3	3	0	1	1	3	1	4	8
Apprch %	0	100		0	100		75	25		
Total %	0	37.5	37.5	0	12.5	12.5	37.5	12.5	50	

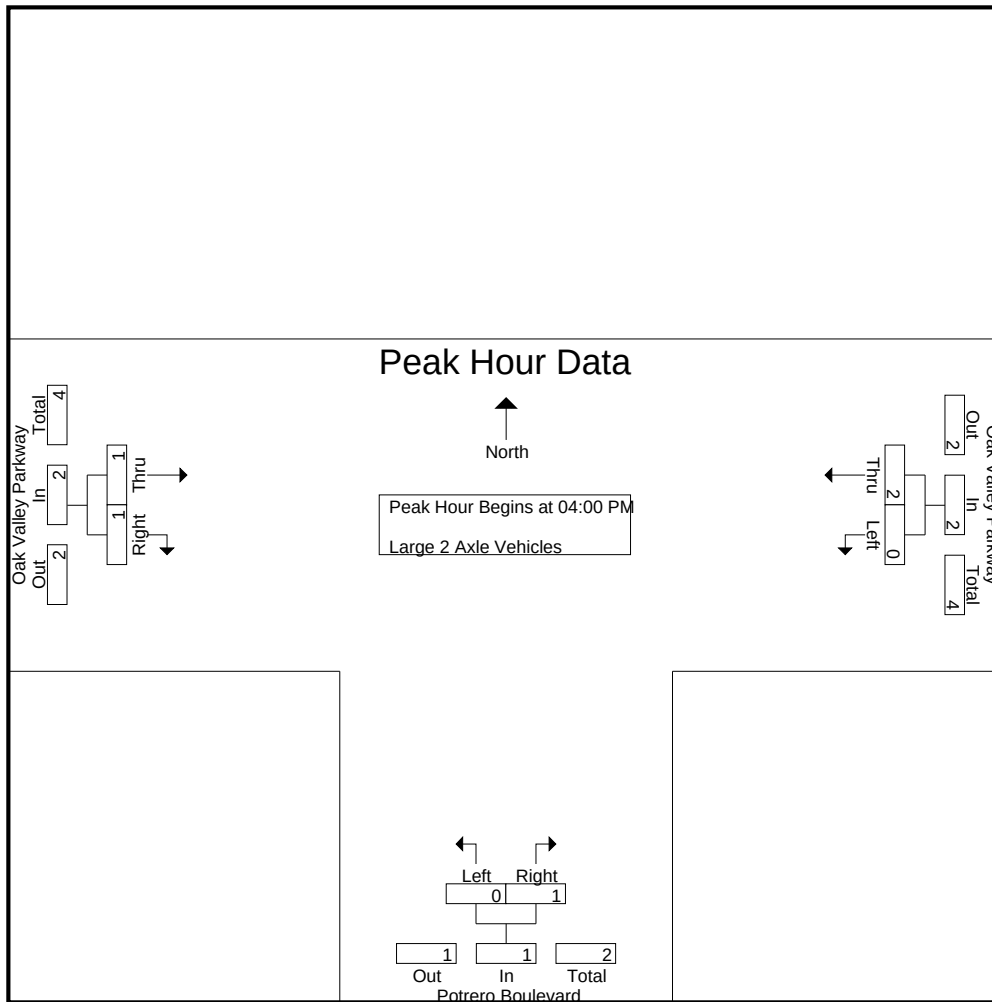
	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	1	1	1	0	1	2
04:30 PM	0	0	0	0	0	0	0	1	1	1
04:45 PM	0	2	2	0	0	0	0	0	0	2
Total Volume	0	2	2	0	1	1	1	1	2	5
% App. Total	0	100		0	100		50	50		
PHF	.000	.250	.250	.000	.250	.250	.250	.250	.500	.625

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 04:00 PM

City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	1	1	1	0	1
+30 mins.	0	0	0	0	0	0	0	1	1
+45 mins.	0	2	2	0	0	0	0	0	0
Total Volume	0	2	2	0	1	1	1	1	2
% App. Total	0	100		0	100		50	50	
PHF	.000	.250	.250	.000	.250	.250	.250	.250	.500

City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Potrero_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
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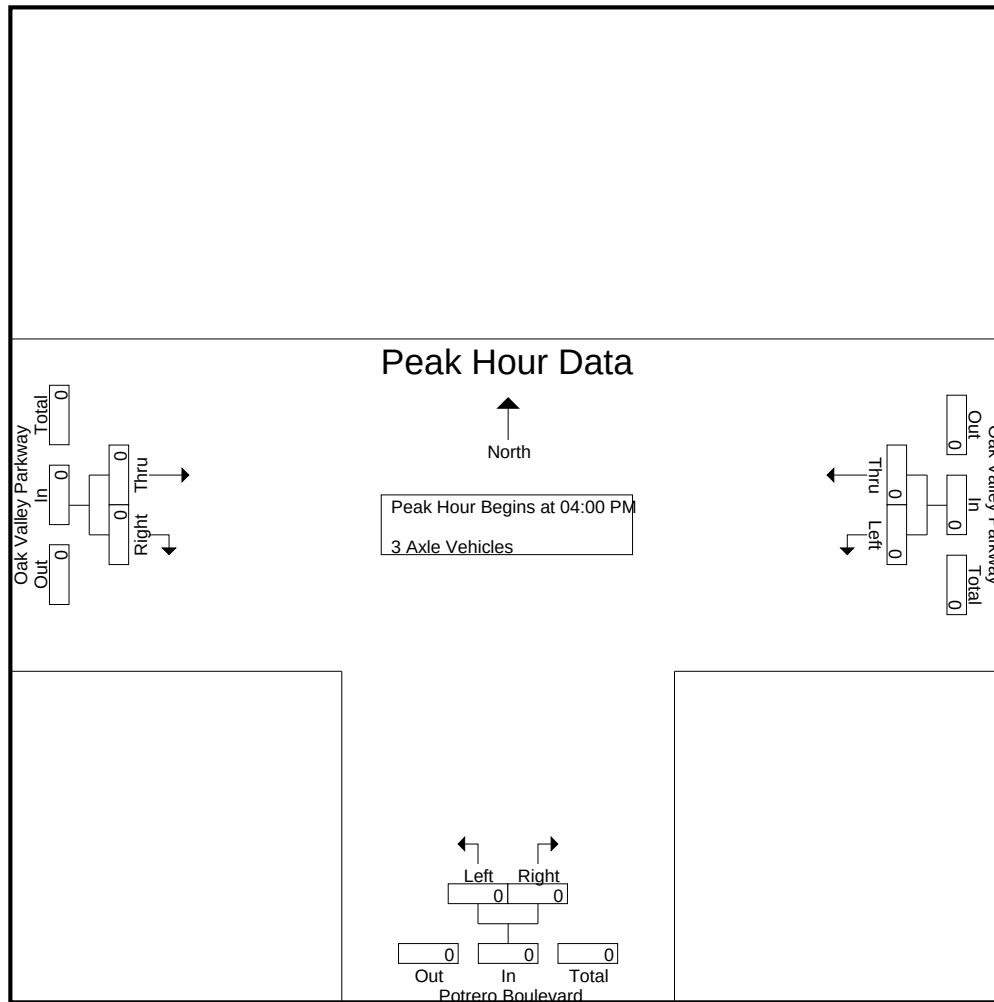
Groups Printed- 3 Axle Vehicles

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Potrero_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

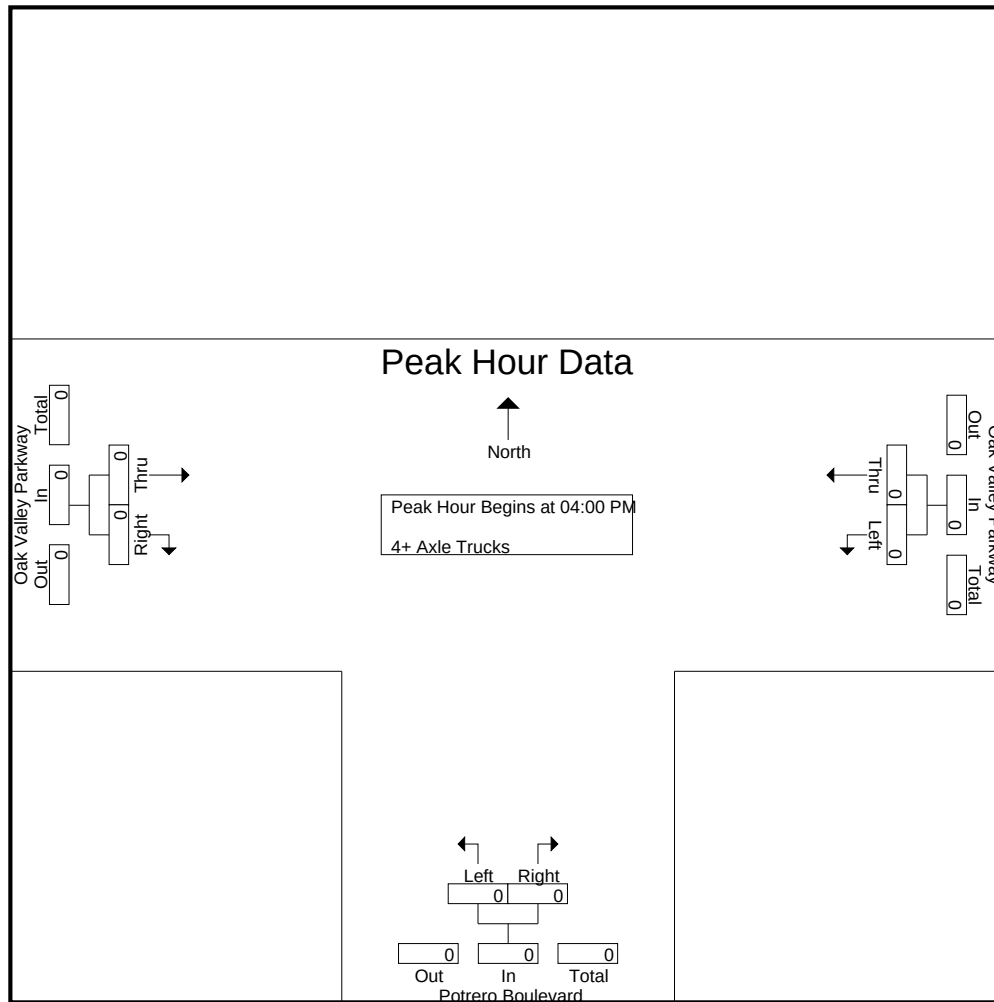
Groups Printed- 4+ Axle Trucks

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Oak Valley Parkway Westbound			Potrero Boulevard Northbound			Oak Valley Parkway Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Potrero Boulevard
E/W: Oak Valley Parkway
Weather: Clear

File Name : 03_BMT_Portero_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Beaumont
 N/S: Potrero Boulevard
 E/W: Oak Valley Parkway



Date: 11/19/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Dead End	East Leg Oak Valley Parkway	South Leg Potrero Boulevard	West Leg Oak Valley Parkway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Dead End	East Leg Oak Valley Parkway	South Leg Potrero Boulevard	West Leg Oak Valley Parkway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Beaumont
 N/S: Potrero Boulevard
 E/W: Oak Valley Parkway



Date: 11/19/2019
 Day: Tuesday

BICYCLES

	Southbound Dead End			Westbound Oak Valley Parkway			Northbound Potrero Boulevard			Eastbound Oak Valley Parkway			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Dead End			Westbound Oak Valley Parkway			Northbound Potrero Boulevard			Eastbound Oak Valley Parkway			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Eastbound Ramp / 4th Street
Weather: Clear

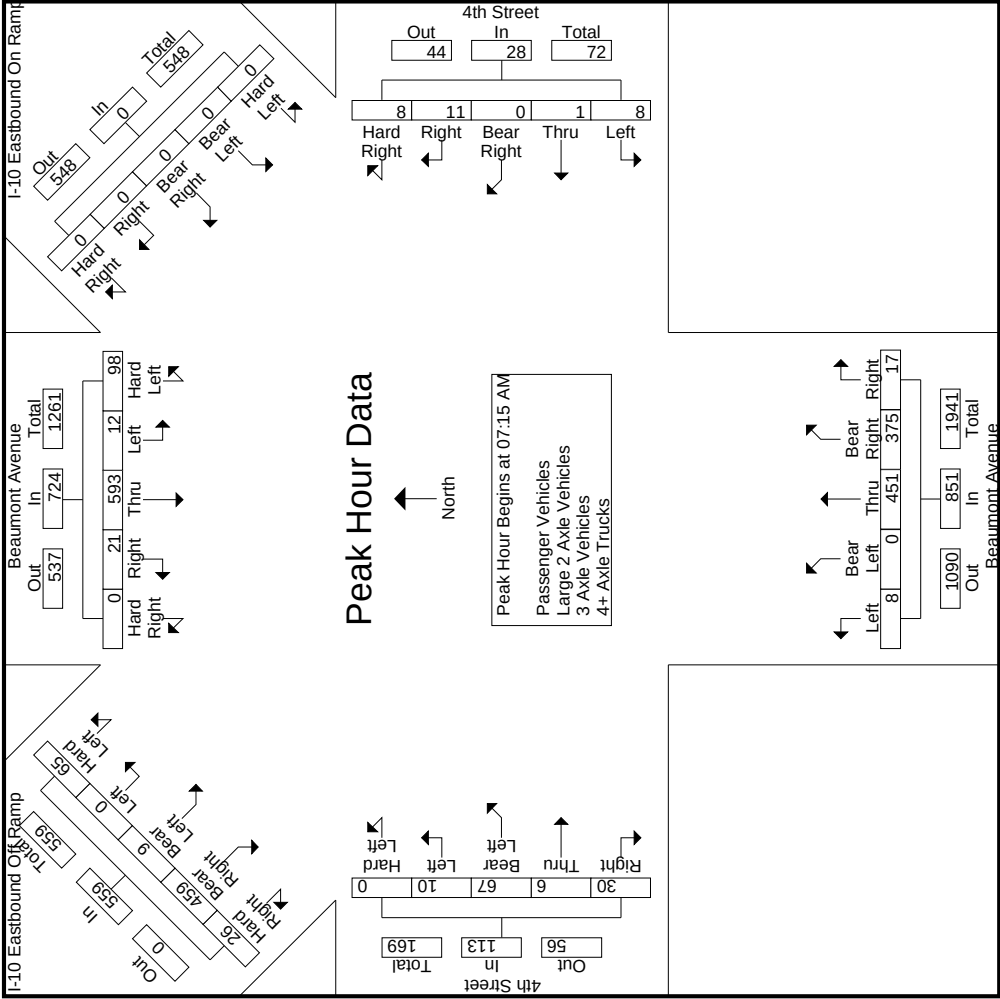
[illegible]

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2

Beaumont Avenue Southbound					I-10 Eastbound On Ramp Southwestbound					4th Street Westbound					Beaumont Avenue Northbound					4th Street Eastbound					I-10 Eastbound Off Ramp Southeastbound																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Start Time	Hard Left		Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru Left	Bear Right	Hard Left	Left	Thru Left	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left	Left	Thru Right	Bear Left	Bear Right	Hard Left</



Counts Unlimited
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Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Eastbound Ramp / 4th Street
Weather: Clear

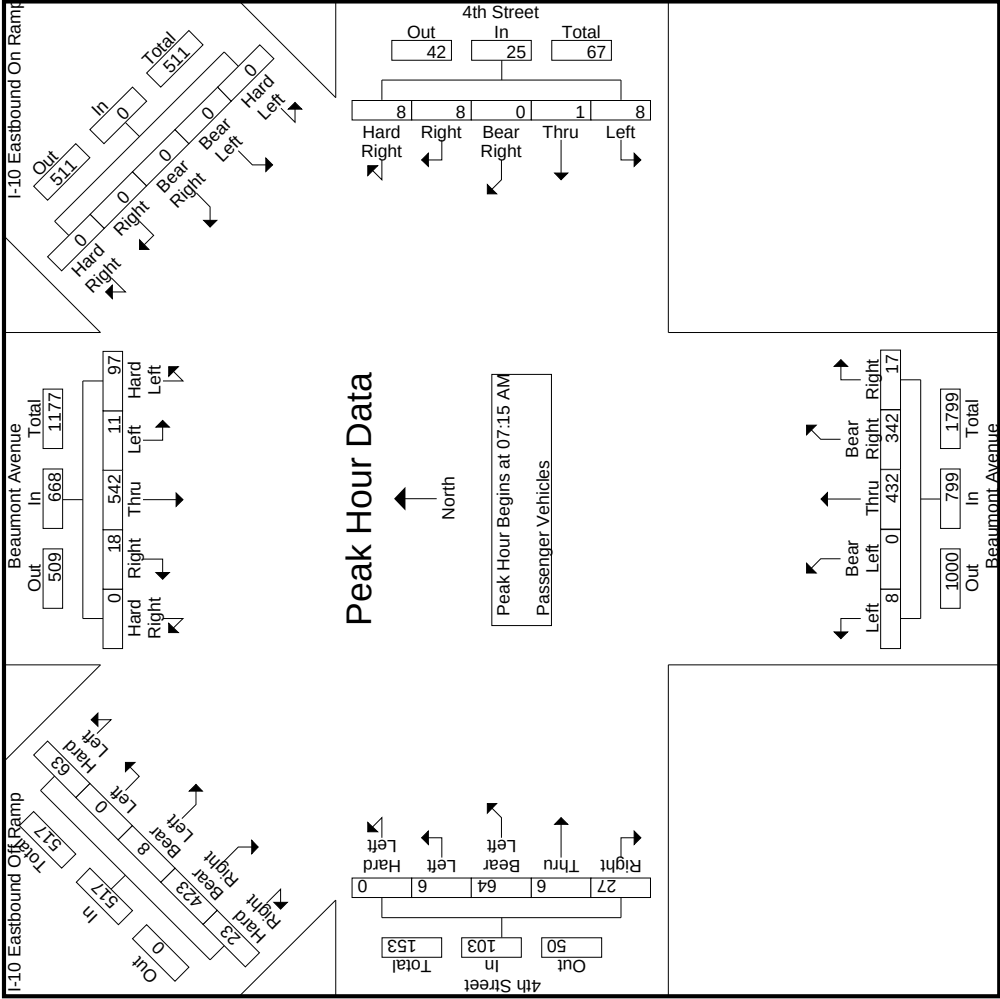
File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 4

Beaumont Avenue Southbound					I-10 Eastbound On Ramp Southwestbound					4th Street Westbound					Beaumont Avenue Northbound					4th Street Eastbound					I-10 Eastbound Off Ramp Southeastbound										
Start Time	Hard Left	Thru Left	Right	Hard Right	App. Total	Hard Left	Beas Left	Beas Right	Hard Right	App. Total	Left	Thru Left	Beas Right	Hard Right	App. Total	Left	Thru Left	Beas Right	Hard Right	App. Total	Left	Thru Left	Beas Right	Hard Right	App. Total	Left	Thru Left	Beas Right	Hard Right	App. Total	Int. Total				
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																																			
Peak Hour for Each Approach Begins at:																																			
+0 mins. +15 mins. +30 mins. +45 mins.	07:15 AM					07:00 AM					07:15 AM					08:00 AM					07:15 AM					07:15 AM									
	18	3	135	3	0	159	0	0	0	0	0	2	0	0	4	1	7	2	0	111	106	7	226	0	3	20	1	9	33	16	0	1	126	12	155
	27	1	148	1	0	177	0	0	0	0	0	1	0	0	3	2	6	5	0	102	93	1	201	0	2	16	2	7	27	18	0	3	122	6	149
	23	5	178	8	0	214	0	0	0	0	0	2	0	0	2	4	8	4	0	107	88	4	203	0	3	17	1	11	32	14	0	1	112	3	130
	30	3	132	9	0	174	0	0	0	0	0	3	1	0	2	1	7	3	0	109	108	3	223	0	2	14	2	3	21	17	0	4	99	5	125
Total Volume	98	12	593	21	0	724	0	0	0	0	0	8	1	0	11	8	28	14	0	429	395	15	853	0	10	67	6	30	113	65	0	9	459	26	559
% App. Total	13.5	1.7	81.9	2.9	0		0	0	0	0	28.6	3.6	0	39.3	28.6		1.6	0	50.3	46.3	1.8		0	8.8	59.3	5.3	26.5	11.6	0	1.6	82.1	4.7			
PHF	.817	.600	.833	.583	.000	.846	.000	.000	.000	.000	.000	.667	.250	.000	.688	.500	.875	.700	.000	.966	.914	.536	.944	.000	.833	.838	.750	.682	.903	.000	.563	.911	.542	.902	

3:1-157

City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Eastbound Ramp / 4th Street
Weather: Clear

Groups Printed- Passenger Vehicles																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Beaumont Avenue Southbound										I-10 Eastbound On Ramp Southwestbound										4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Start Time	Hard Left		Thru	Right		Appo. Total	Hard Left		Bear Left	Bear Right		Appo. Total	Left	Thru	Right	Hard Right	Appo. Total	Left	Bear Left	Bear Right	RTO R	Appo. Total	Hard Left	Left	Bear Left	Thru	Right	RTO R	Appo. Total	Hard Left	Left	Bear Left	Thru	Right	Appo. Total	Hard Left	Left	Bear Left	Thru	Right	Appo. Total	Hard Left	Left	Bear Left	Thru	Right	Appo. Total	Exclu. Total	Int. Total																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														



Counts Unlimited
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(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

Start Time	Beaumont Avenue Southbound					I-10 Eastbound On Ramp Southwestbound					4th Street Westbound					Beaumont Avenue Northbound					4th Street Eastbound					I-10 Eastbound Off Ramp Southeastbound				
	Hard Left	Thru	Right	Hard Right	App. Total	Hard Left	Beas Left	Beas Right	Hard Right	App. Total	Left	Thru	Beas Left	Beas Right	App. Total	Left	Thru	Beas Left	Beas Right	App. Total	Left	Thru	Beas Left	Beas Right	App. Total	Hard Left	Hard Right	App. Total		

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

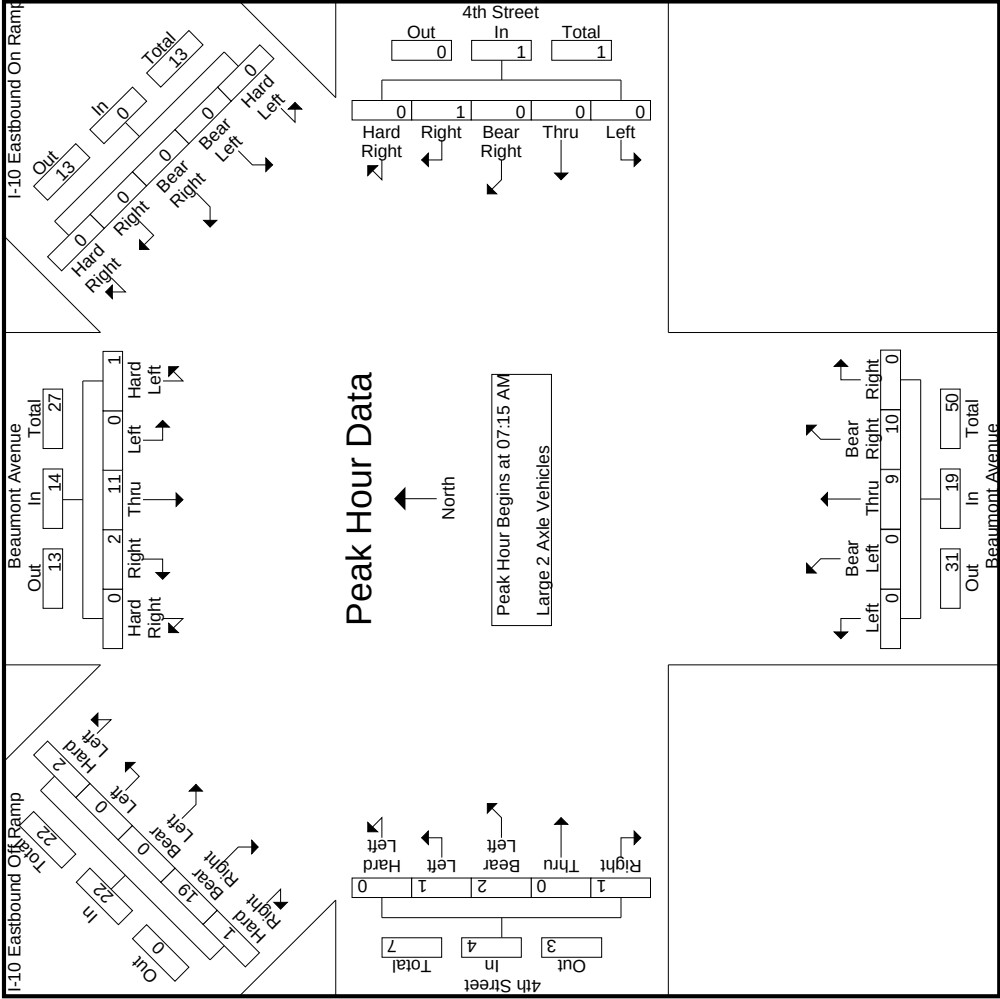
	07:15 AM										07:15 AM										07:15 AM													
+0 mins.	18	3	120	3	0	144	0	0	0	0	2	0	0	2	1	5	3	0	125	83	5	216	0	2	20	1	9	32	16	0	1	117	10	144
+15 mins.	27	1	139	1	0	168	0	0	0	0	1	0	0	2	2	5	3	0	100	75	2	180	0	2	16	2	5	25	16	0	2	108	6	132
+30 mins.	23	5	158	6	0	192	0	0	0	0	2	0	0	2	4	8	0	0	100	88	3	191	0	1	16	1	11	29	14	0	1	105	3	123
+45 mins.	29	2	125	8	0	164	0	0	0	0	3	1	0	2	1	7	2	0	107	96	7	212	0	1	12	2	2	17	17	0	4	93	4	118
Total Volume	97	11	542	18	0	668	0	0	0	0	8	1	0	8	8	25	8	0	432	342	17	799	0	6	64	6	27	103	63	0	8	423	23	517
% App. Total	14.5	1.6	81.1	2.7	0		0	0	0	0	32	4	0	32	32		1	0	54.1	42.8	2.1		0	5.8	62.1	5.8	26.2		12.2	0	1.5	81.8	4.4	
PHF	.836	.550	.858	.563	.000	.870	.000	.000	.000	.000	.667	.250	.000	1.000	.500	.781	.667	.000	.864	.891	.607	.925	.000	.750	.800	.750	.614	.805	.926	.000	.500	.904	.575	.898

3:1-160

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

Beaumont Avenue
Southbound[illegible]

Time	Beaumont Avenue Southbound					I-10 Eastbound On Ramp Southwestbound					4th Street Westbound					Beaumont Avenue Northbound					4th Street Eastbound					I-10 Eastbound Off Ramp Southeastbound					Int. Total		
	Hard Left	Thru Left	Right	Hard Right	App. Total	Hard Left	Thru Left	Right	Hard Right	App. Total	Hard Left	Thru Left	Right	Hard Right	App. Total	Hard Left	Thru Left	Right	Hard Right	App. Total	Hard Left	Thru Left	Right	Hard Right	App. Total								
Start Time																																	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																																	
Peak Hour for Entire Intersection Begins at 07:15 AM																																	
07:15 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	13			
07:30 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	7	18	
07:45 AM	0	0	2	2	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	14	
08:00 AM	1	0	3	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	6	15
Total Volume	1	0	11	2	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	1	22	60
% App. Total	7.1	0	78.6	14.3	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86.4	4.5		
PHE	250	000	917	250	000	875	000	000	000	000	000	000	000	250	000	000	000	750	625	000	679	000	250	500	000	250	000	000	792	250	786		833



City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

Beaumont Avenue Southbound					I-10 Eastbound On Ramp Southwestbound					4th Street Westbound					Beaumont Avenue Northbound					4th Street Eastbound					I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Thru	Right	App. Total	Hard Left	Beas Left	Beas Right	Hard Right	App. Total	Left	Thru	Beas Right	Beas Left	Thru	Beas Right	Hard Left	App. Total	Left	Thru	Beas Right	Beas Left	Thru	Right	App. Total	Hard Left	Beas Left	Beas Right	Hard Right	App. Total	Int. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																															
Peak Hour for Each Approach Begins at:																															
+0 mins. +15 mins. +30 mins. +45 mins.	07:15 AM					07:15 AM					07:15 AM					07:15 AM					07:15 AM					07:15 AM					
	0	0	3	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	6	
	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	4	0	7	0	0	0	0	1	1	2	0	0	5	0	7	
	0	0	2	2	0	4	0	0	0	0	0	0	0	0	3	3	0	6	0	0	1	0	0	1	0	0	0	3	0	3	
	1	0	3	0	0	4	0	0	0	0	0	0	0	0	1	2	0	3	0	1	1	0	0	2	0	0	0	5	1	6	
Total Volume	1	0	11	2	0	14	0	0	0	0	0	0	0	0	9	10	0	19	0	1	2	0	1	4	2	0	0	19	1	22	
% App. Total	7.1	0	78.6	14.3	0	0	0	0	0	0	0	0	0	0	47.4	52.6	0	0	25	50	0	25	0	25	9.1	0	0	86.4	4.5	0	
PHF	.250	.000	.917	.250	.000	.875	.000	.000	.000	.000	.000	.000	.000	.000	.750	.625	.000	.679	.000	.250	.500	.000	.250	.500	.250	.000	.000	.792	.250	.786	

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

City of Beaumont

N/S: Beaumont Avenue

Start Date : 1/14/2020

Page No : 1

Groups Printed- 3 Axle Vehicles

3.1

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 07:15 AM



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City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

Beaumont Avenue Southbound					I-10 Eastbound On Ramp Southwestbound					4th Street Westbound					Beaumont Avenue Northbound					4th Street Eastbound					I-10 Eastbound Off Ramp Southeastbound				
Start Time	Hard Left	Thru	Right	App. Total	Hard Left	Beas Left	Beas Right	Hard Right	App. Total	Left	Beas Left	Beas Thru	Beas Right	App. Total	Hard Left	Left	Beas Left	Beas Thru	Beas Right	App. Total	Hard Left	Left	Beas Left	Beas Right	Hard Right	App. Total	Hard Left	Right	Int. Total
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																													
Peak Hour for Each Approach Begins at:																													
+0 mins.	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	10	0	0	11	0	0	0	0	0	0	0	2	0	0	3	5	0	8	0	1	0	0	1	10	2	13	
% App. Total	0	9.1	90.9	0	0	0	0	0	0	0	0	0	0	100	0	0	37.5	62.5	0	0	50	0	0	0	7.7	76.9	15.4		
PHF	.000	.250	.500	.000	.000	.550	.000	.000	.000	.000	.000	.000	.000	.500	.000	.000	.375	.625	.000	.667	.000	.250	.000	.250	.000	.250	.357	.250	.406

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

Beaumont Avenue
Southbound[illegible][illegible]



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City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_AM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

Beaumont Avenue Southbound					I-10 Eastbound On Ramp Southwestbound					4th Street Westbound					Beaumont Avenue Northbound					4th Street Eastbound					I-10 Eastbound Off Ramp Southeastbound				
Start Time	Hard Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Bear Left	Bear Right	Hard Right	App. Total	Int. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																													
Peak Hour for Each Approach Begins at:																													
+0 mins.	0	0	9	0	0	0	0	0	0	0	0	0	2	2	0	4	0	1	0	0	0	1	0	0	0	2	0	2	
+15 mins.	0	0	4	0	0	0	0	0	0	0	0	0	1	5	0	6	0	0	0	0	0	0	0	0	2	0	2		
+30 mins.	0	0	13	0	0	0	0	0	0	0	0	0	3	4	0	7	0	1	0	0	1	0	0	0	3	0	3		
+45 mins.	0	0	4	1	0	5	0	0	0	0	0	0	1	7	0	8	0	0	1	0	1	2	0	0	0	0	0		
Total Volume	0	0	30	1	0	31	0	0	0	0	0	0	7	18	0	25	0	2	1	0	1	4	0	0	0	7	0		
% App. Total	0	0	96.8	3.2	0	0	0	0	0	0	0	0	28	72	0	0	0	50	25	0	25	0	0	0	0	100	0		
PHF	.000	.000	.577	.250	.000	.596	.000	.000	.000	.000	.000	.000	.583	.643	.000	.781	.000	.500	.250	.000	.250	.500	.000	.000	.000	.583	.000	.583	

3:1-169

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

City of Beaumont

Weather: Clear

0 Eastbound Off Ramp Southeastbound									
App.	Bear.		Total	Right	Left	Bear.	Bear.		App.
	Left	Right					Right	Left	
0	4	199	6	193	0	3	196	4	212
0	3	194	5	227	0	3	181	6	210
0	13	720	21	842	0	2	172	7	201
0	2	173	2	197	0	2	189	7	222
0	4	170	6	201	0	10	704	22	821
0	23	1424	43	1663	0	1.4	85.6	2.6	
0	0.4	25.2	0.8	29.5	0	23	1404	42	1641
0	100	98.6	97.7	98.7	0	0	0.9	2.3	0.8
0	0	13	1	14	0	0	2	0	2
0	0	0.1	0	0.1	0	0	0.5	0	6
0	0	0.4	0	0.4	0	0	0.4	0	0.4

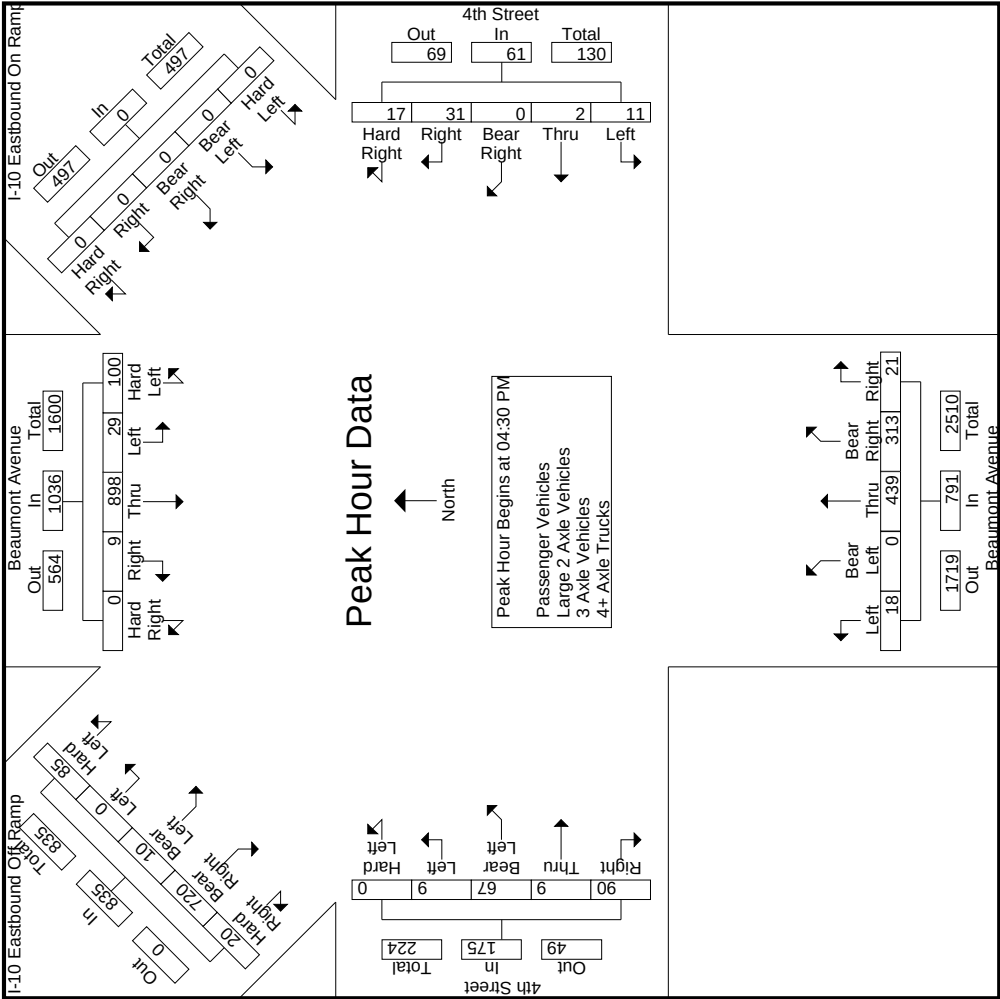
Trucks

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City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2

Beaumont Avenue Southbound					I-10 Eastbound On Ramp Southwestbound					4th Street Westbound					Beaumont Avenue Northbound					4th Street Eastbound					I-10 Eastbound Off Ramp Southeastbound											
Start Time	Hard Left		Thru	Right	Hard Right	App. Total	Hard Left		Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Bear Left	Bear Right	Hard Left	App. Total	Left	Thru	Bear Left	Bear Right	Hard Left	App. Total	Left	Thru	Bear Left	Bear Right	Hard Left	App. Total						
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																				
Peak Hour for Entire Intersection Begins at 04:30 PM																																				
04:30 PM	17	8	218	3	0	246	0	0	0	0	0	3	0	0	6	1	10	2	0	112	68	2	184	0	2	15	1	36	25	0	3	194	5	227	721	
04:45 PM	31	5	221	1	0	258	0	0	0	0	0	3	1	0	8	5	17	3	0	90	67	8	168	0	2	15	1	6	24	20	0	3	181	6	210	677
05:00 PM	19	5	216	4	0	244	0	0	0	0	0	3	0	0	7	7	17	4	0	126	92	7	229	0	3	23	2	32	60	20	0	2	172	7	201	751
05:15 PM	33	11	243	1	0	288	0	0	0	0	0	2	1	0	10	4	17	9	0	111	86	4	210	0	2	14	5	16	37	20	0	2	173	2	197	749
Total Volume	100	29	898	9	0	1036	0	0	0	0	0	11	2	0	31	17	61	18	0	439	313	21	791	0	9	67	9	90	175	85	0	10	720	20	835	2898
% App. Total	9.7	2.8	86.7	0.9	0		0	0	0	0	0	18	3.3	0	50.8	27.9		2.3	0	55.5	39.6	2.7		0	5.1	38.3	5.1	51.4	10.2	0	1.2	86.2	2.4			
PHF	.758	.659	.924	.563	.000	.899	.000	.000	.000	.000	.000	.917	.500	.000	.775	.607	.897	.500	.000	.871	.851	.656	.864	.000	.750	.728	.450	.625	.729	.850	.000	.833	.928	.714	.920	.965



Counts Unlimited
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City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 4

Beaumont Avenue Southbound					I-10 Eastbound On Ramp Southwestbound					4th Street Westbound					Beaumont Avenue Northbound					4th Street Eastbound					I-10 Eastbound Off Ramp Southeastbound										
Start Time	Hard Left	Thru	Right	App. Total	Hard Left	Beas Left	Beas Right	Hard Right	App. Total	Left	Thru	Beas Left	Beas Right	Hard Right	App. Total	Left	Thru	Beas Left	Beas Right	Hard Right	App. Total	Left	Thru	Beas Left	Beas Right	Hard Right	App. Total	Int. Total							
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																			
Peak Hour for Each Approach Begins at:																																			
+0 mins. +15 mins. +30 mins. +45 mins.	04:30 PM					04:00 PM					05:00 PM					05:00 PM					04:15 PM					04:15 PM									
	17	8	218	3	0	246	0	0	0	0	0	6	0	0	7	7	20	4	0	126	92	7	229	0	3	23	2	32	60	19	0	3	186	4	212
	31	5	221	1	0	258	0	0	0	0	0	6	0	0	9	7	22	9	0	111	86	4	210	0	2	14	5	16	37	25	0	3	194	5	227
	19	5	216	4	0	244	0	0	0	0	0	3	0	0	6	1	10	2	0	91	70	5	168	0	5	23	0	16	44	20	0	3	181	6	210
	33	11	243	1	0	288	0	0	0	0	0	3	1	0	8	5	17	3	0	101	84	1	189	0	3	15	0	17	35	20	0	2	172	7	201
Total Volume	100	29	898	9	0	1036	0	0	0	0	0	18	1	0	30	20	69	18	0	429	332	17	796	0	13	75	7	81	176	84	0	11	733	22	850
% App. Total	9.7	2.8	86.7	0.9	0	0	0	0	0	0	0	26.1	1.4	0	43.5	29	2.3	0	53.9	41.7	2.1	79.6	0	7.4	42.6	4	46	9.9	0	1.3	86.2	2.6	85.0		
PHF	.758	.659	.924	.563	.000	.899	.000	.000	.000	.000	.000	.750	.250	.000	.833	.714	.784	.500	.000	.851	.902	.607	.869	.000	.650	.815	.350	.633	.733	.840	.000	.917	.945	.786	.936

3:1-173

City of Beaumont

N/S: Beaumont Avenue

EW: I-10 Eastbound Ramp / 4th Street

Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 1

Groups Printed- Passenger Vehicles

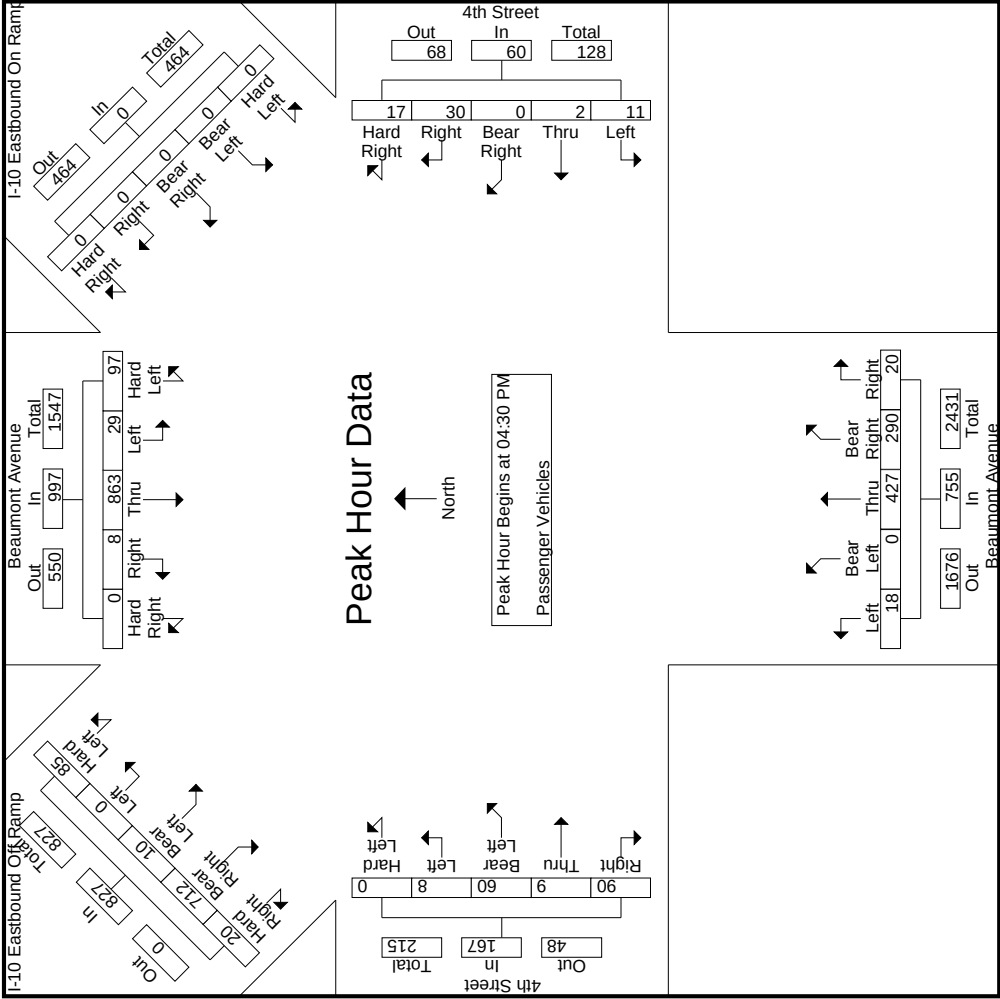
Start Time	Beaumont Avenue Southbound					I-10 Eastbound On Ramp Southwestbound					4th Street Westbound					Beaumont Avenue Northbound					4th Street Eastbound					I-10 Eastbound Off Ramp Southeastbound													
	Hard Left	Thru Left	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru Left	Bear Right	RTO R	App. Total	Left	Thru Left	Bear Right	RTO R	App. Total	Hard Left	Left	Bear Left	Bear Right	Hard Right	App. Total	Exclu. Total	Inclu. Total											
04:00 PM	15	5	233	2	0 255	0	0	0	0	0	5	0	0	7	6	18	2	0	108	75	2	2	187	0	2	19	2	11	7	34	24	0	4	155	5	188	9	682	691
04:15 PM	13	3	200	3	0 219	0	0	0	0	0	6	0	0	9	7	22	2	0	88	77	3	0	170	0	3	17	1	5	1	26	19	0	3	182	4	208	1	645	646
04:30 PM	16	8	210	2	0 236	0	0	0	0	0	3	0	0	6	1	10	2	0	109	63	1	0	175	0	2	13	1	36	24	52	25	0	3	190	5	223	24	696	720
04:45 PM	30	5	210	1	0 246	0	0	0	0	0	3	1	0	8	5	17	3	0	87	58	8	4	156	0	2	14	1	6	2	23	20	0	3	180	6	209	6	651	657
Total	74	21	853	8	0 956	0	0	0	0	0	17	1	0	30	19	67	9	0	392	273	14	6	688	0	9	63	5	58	34	135	88	0	13	707	20	828	40	2674	2714

05:00 PM	19	5	208	4	0 236	0	0	0	0	0	3	0	0	6	7	16	4	0	122	87	7	1	220	0	3	21	2	32	10	58	20	0	2	170	7	199	11	729	740
05:15 PM	32	11	235	1	0 279	0	0	0	0	0	2	1	0	10	4	17	9	0	109	82	4	1	204	0	1	12	5	16	2	34	20	0	2	172	2	196	3	730	733
05:30 PM	20	6	195	2	0 223	0	0	0	0	0	2	3	0	9	3	17	2	0	89	64	5	0	160	0	3	23	0	16	6	42	24	0	2	188	7	222	6	664	670
05:45 PM	16	10	180	4	0 210	0	0	0	0	0	4	0	0	6	3	13	2	0	98	80	1	1	181	0	3	15	0	17	3	35	20	0	4	166	6	196	4	635	639
Total	87	32	818	11	0 948	0	0	0	0	0	11	4	0	31	17	63	17	0	418	313	17	3	765	0	10	71	7	81	21	169	84	0	10	697	22	813	24	2758	2782

Grand Total	161	53	1671	19	0 1904	0	0	0	0	0	28	5	0	61	36	130	26	0	810	586	31	9	1453	0	19	134	12	139	55	304	172	0	23	1404	42	1641	64	5432	5496
Approch %	8.5	2.8	87.8	1	0	0	0	0	0	0	21.5	3.8	0	46.9	27.7		1.8	0	55.7	40.3	2.1			0	6.2	44.1	3.9	45.7			10.5	0	1.4	85.6	2.6				
Total %	3	1	30.8	0.3	0 35.1	0	0	0	0	0	0.5	0.1	0	1.1	0.7	2.4	0.5	0	14.9	10.8	0.6		26.7	0	0.3	2.5	0.2	2.6		5.6	3.2	0	0.4	25.8	0.8	30.2	1.2	98.8	

Beaumont Avenue Southbound										I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound					
Start Time	Hard		Thru	Right		App. Total	Hard		Bear	Right		App. Total	Hard		Bear	Right		App. Total	Hard		Thru	Right		App. Total	Hard		Bear	Right		App. Total	Hard		Bear	Right		App. Total			
	Left	Right		Left	Right		Left	Right		Left	Right		Left	Right		Left	Right		Left	Right		Left	Right		Left	Right		Left	Right		Left	Right		Left	Right		Left	Right	Left
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																							
Peak Hour for Entire Intersection Begins at 04:30 PM																																							
04:30 PM	16	8	210	2	0	236	0	0	0	0	0	0	3	0	0	6	1	10	2	0	109	63	1	175	0	2	13	1	36	52	25	0	3	190	5	223	696		
04:45 PM	30	5	210	1	0	246	0	0	0	0	0	0	3	1	0	8	5	17	3	0	87	58	8	156	0	2	14	1	6	23	20	0	3	180	6	209	651		
05:00 PM	19	5	208	4	0	236	0	0	0	0	0	0	3	0	0	6	7	16	4	0	122	87	7	220	0	3	21	2	32	58	20	0	2	170	7	199	729		
05:15 PM	32	11	235	1	0	279	0	0	0	0	0	0	2	1	0	10	4	17	9	0	109	82	4	204	0	1	12	5	16	34	20	0	2	172	2	196	730		
Total Volume	97	29	863	8	0	997	0	0	0	0	0	0	11	2	0	30	17	60	18	0	427	290	20	755	0	8	60	9	90	167	85	0	10	712	20	827	2806		
% App. Total	9.7	2.9	86.6	0.8	0		0	0	0	0	0	0	18.3	3.3	0	50	28.3		2.4	0	56.6	38.4	2.6		0	4.8	35.9	5.4	53.9		10.3	0	1.2	86.1	2.4				
PHF	.758	.659	.918	.500	.000	.893	.000	.000	.000	.000	.000	.000	.917	.500	.000	.750	.607	.882	.500	.000	.875	.833	.625	.858	.000	.667	.714	.450	.625	.720	.850	.000	.833	.937	.714	.927	.961		

Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:30 PM



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

Beaumont Avenue Southbound					I-10 Eastbound On Ramp Southwestbound					4th Street Westbound					Beaumont Avenue Northbound					4th Street Eastbound					I-10 Eastbound Off Ramp Southeastbound									
Start Time	Hard Left	Thru	Right	App. Total	Hard Left	Beas Left	Beas Right	Hard Right	App. Total	Left	Thru	Beas Left	Beas Right	Hard Right	App. Total	Left	Thru	Beas Left	Beas Right	Hard Right	App. Total	Left	Thru	Beas Left	Beas Right	Hard Right	App. Total	Int. Total						
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																																		
Peak Hour for Each Approach Begins at:																																		
+0 mins. +15 mins. +30 mins. +45 mins.	04:30 PM					04:30 PM					04:30 PM					04:30 PM					04:30 PM					04:30 PM								
	16	8	210	2	0	236	0	0	0	0	3	0	0	6	1	10	2	0	109	63	1	175	0	2	13	1	36	52	25	0	3	190	5	223
	30	5	210	1	0	246	0	0	0	0	3	1	0	8	5	17	3	0	87	58	8	156	0	2	14	1	6	23	20	0	3	180	6	209
	19	5	208	4	0	236	0	0	0	0	3	0	0	6	7	16	4	0	122	87	7	220	0	3	21	2	32	58	20	0	2	170	7	199
	32	11	235	1	0	279	0	0	0	0	2	1	0	10	4	17	9	0	109	82	4	204	0	1	12	5	16	34	20	0	2	172	2	196
Total Volume	97	29	863	8	0	997	0	0	0	0	11	2	0	30	17	60	18	0	427	290	20	755	0	8	60	9	90	167	85	0	10	712	20	827
% App. Total	9.7	2.9	86.6	0.8	0	0	0	0	0	0	18.3	3.3	0	50	28.3	2.4	2.4	0	56.6	38.4	2.6	75.5	0	4.8	35.9	5.4	53.9	10.3	0	1.2	86.1	2.4		
PHF	.758	.659	.918	.500	.000	.893	.000	.000	.000	.000	.917	.500	.000	.750	.607	.882	.500	.000	.875	.833	.625	.858	.000	.667	.714	.450	.625	.720	.850	.000	.833	.937	.714	.927

3.1-176

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

City of Beaumont

EW: I-10 Eastbound Ramp / 4th Street

Weather: Clear

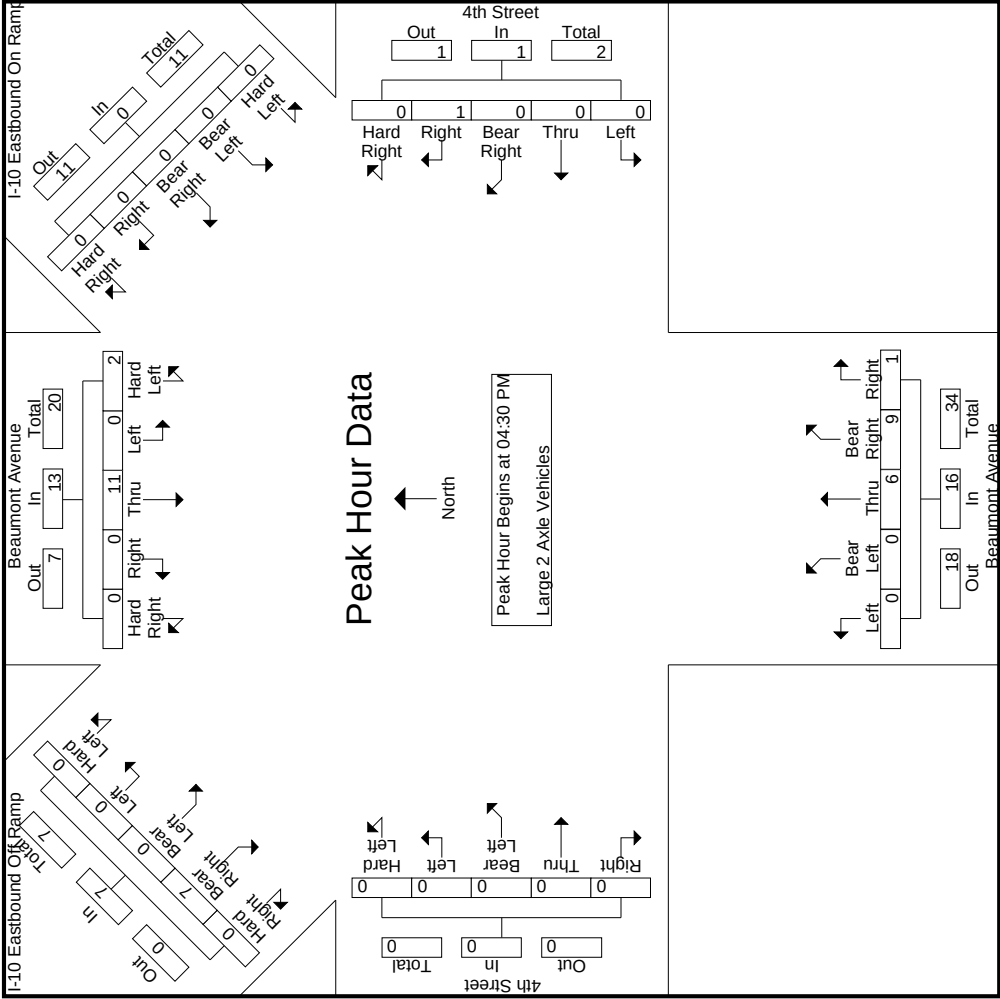
	Beaumont Avenue Southbound							I-10 Eastbound On Ramp Southwestbound						4th Street Westbound						Beaumont Avenue Northbound						4th Street Eastbound						I-10 Eastbound Off Ramp Southeastbound									
	Hd Left	Thru Left	Rght Left	Hrd Total	Bear Left	Bear Right	Hrd Total	Hd Left	Thru Left	Bear Left	Bear Right	Hrd Total	App. Total	Hd Left	Thru Left	Bear Left	Bear Right	RTD R	App. Total	Hd Left	Thru Left	Bear Left	Bear Right	Hrd Total	App. Total	Hd Left	Thru Left	Bear Left	Bear Right	Hrd Total	App. Total	Hd Left	Thru Left	Bear Left	Bear Right	Hrd Total	App. Total	Incl. Total	Excl. Total	Incl.	Int.
Start Time																																									
04:00 PM	0	1	7	0	0	8	0	0	0	0	0	0	1	2	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	3	1	4	0	16	16	0	16	16	9		
04:15 PM	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	6	2	0	0	8	0	0	2	0	0	2	0	0	0	1	0	1	0	17	17	0	17	17	7		
04:30 PM	1	0	2	0	0	3	0	0	0	0	0	0	0	0	0	1	3	1	0	5	0	0	0	0	0	0	0	0	0	4	0	12	12	0	12	12	4				
04:45 PM	1	0	4	0	0	5	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	0	0	1	0	1	0	9	9	0	9	9	9			
Total	2	1	19	0	0	22	0	0	0	0	0	0	1	2	0	10	6	1	0	17	0	0	2	1	0	3	0	0	0	9	1	10	0	54	54	0	54	54	9		
05:00 PM	0	0	1	0	0	1	0	0	0	0	0	0	1	1	0	0	3	0	0	6	0	0	0	0	0	0	0	0	0	1	0	1	0	9	9	0	9	9	7		
05:15 PM	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1	0	7	7	0	7	7	7		
05:30 PM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	0	7	7	7		
05:45 PM	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	2	1	0	0	4	0	0	0	0	0	0	0	0	0	2	0	2	0	9	9	0	9	9	9		
Total	0	0	11	0	0	11	0	0	0	0	0	0	1	1	0	6	9	0	0	16	0	0	0	0	0	0	0	0	0	4	0	4	0	32	32	0	32	32	32		
Grand Total Aspect/%			90.9 24.9										33.3			48.5 18.6	45.5 17.4					66.7		33.3												92.9 15.1					

Date Time	Beaumont Avenue Southbound					I-10 Eastbound On Ramp Southwestbound					4th Street Westbound					Beaumont Avenue Northbound					4th Street Eastbound					I-10 Eastbound Off Ramp Southeastbound				
	Start Time	Hard		Thru	Left	Asp.	Total	Hard	Right	Asp.	Total	Left	Thru	Bear	Left	Right	Asp.	Total	Hard	Left	Right	Asp.	Total	Hard	Left	Right	Asp.	Total		
		Left	Right																										Left	Right
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																														
Peak Hour for Entire Intersection Begins at 04:30 PM																														
04:30 PM																														
04:45 PM																														
05:00 PM																														
05:15 PM																														
Total Volume																														
% App. Total																														
PHE																														
771																														

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 2



City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
Start Date : 1/14/2020
Page No : 3

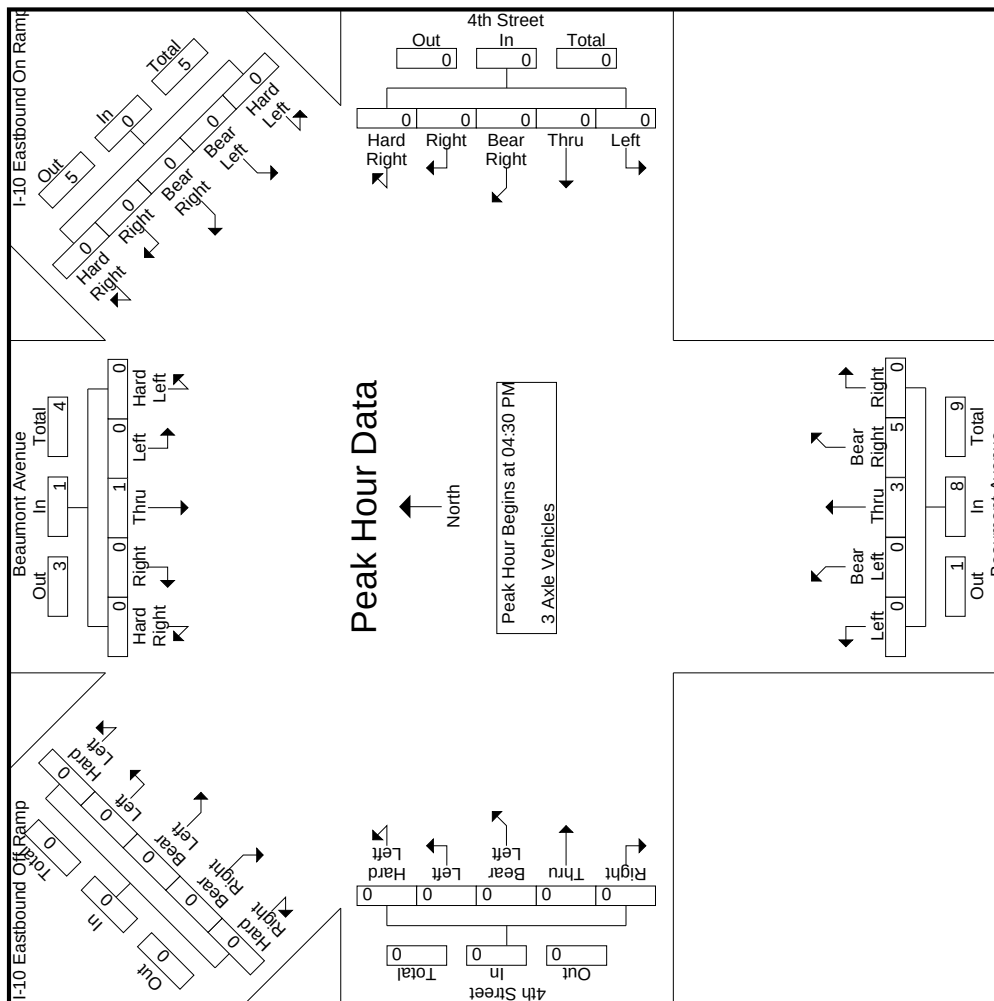
Beaumont Avenue Southbound					I-10 Eastbound On Ramp Southwestbound					4th Street Westbound					Beaumont Avenue Northbound					4th Street Eastbound					I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Bear Right	App. Total	Left	Bear Left	Thru	Bear Right	App. Total	Hard Left	Left	Bear Left	Thru	Bear Right	App. Total	Hard Left	Left	Bear Left	Thru	Bear Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																															
Peak Hour for Each Approach Begins at:																															
+0 mins. +15 mins. +30 mins. +45 mins.	04:30 PM					04:30 PM					04:30 PM					04:30 PM					04:30 PM					04:30 PM					
	1	0	2	0	0	3	0	0	0	0	0	0	0	0	0	0	1	3	1	5	0	0	0	0	0	0	0	0	0	4	4
	1	0	4	0	0	5	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	0	0	1	0	1
	0	0	1	0	0	1	0	0	0	0	0	0	0	1	0	0	3	3	0	6	0	0	0	0	0	0	0	0	1	0	1
	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	1	0	1
Total Volume	2	0	11	0	0	13	0	0	0	0	0	0	1	0	0	6	9	1	16	0	0	0	0	0	0	0	0	0	7	0	7
% App. Total	15.4	0	84.6	0	0	0	0	0	0	0	0	0	100	0	0	37.5	56.2	6.2	0	0	0	0	0	0	0	0	0	0	100	0	0
PHF	.500	.000	.688	.000	.000	.650	.000	.000	.000	.000	.000	.000	.250	.000	.000	.500	.750	.250	.667	.000	.000	.000	.000	.000	.000	.000	.000	.438	.000	.438	.000

City of Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street
Weather: Clear

Beaumont Avenue
Northbound

3.1-180	Start	Peak	Peak
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Lanes	Beaumont Avenue Southbound					I-10 Eastbound On Ramp Southwestbound					4th Street Westbound					Beaumont Avenue Northbound					4th Street Eastbound					I-10 Eastbound Off Ramp Southeastbound					Int. Total
	Hard Left	Thru Left	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru Left	Bear Right	Hard Left	App. Total	Left	Thru Left	Bear Right	Hard Right	App. Total	Left	Thru Left	Bear Right	Hard Right	App. Total						
Start Time																															
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 04:30 PM																															
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	4	0	0	0	0	0	4				
05:00 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2				
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	3				
Total Volume	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	5	0	8	0	0	0	0	0	9				
% App. Total	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37.5	62.5	0	0	0	0	0	0	0	0				
PHE	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.375	.417	.000	.500	.000	.000	.000	.000	.000	.563				

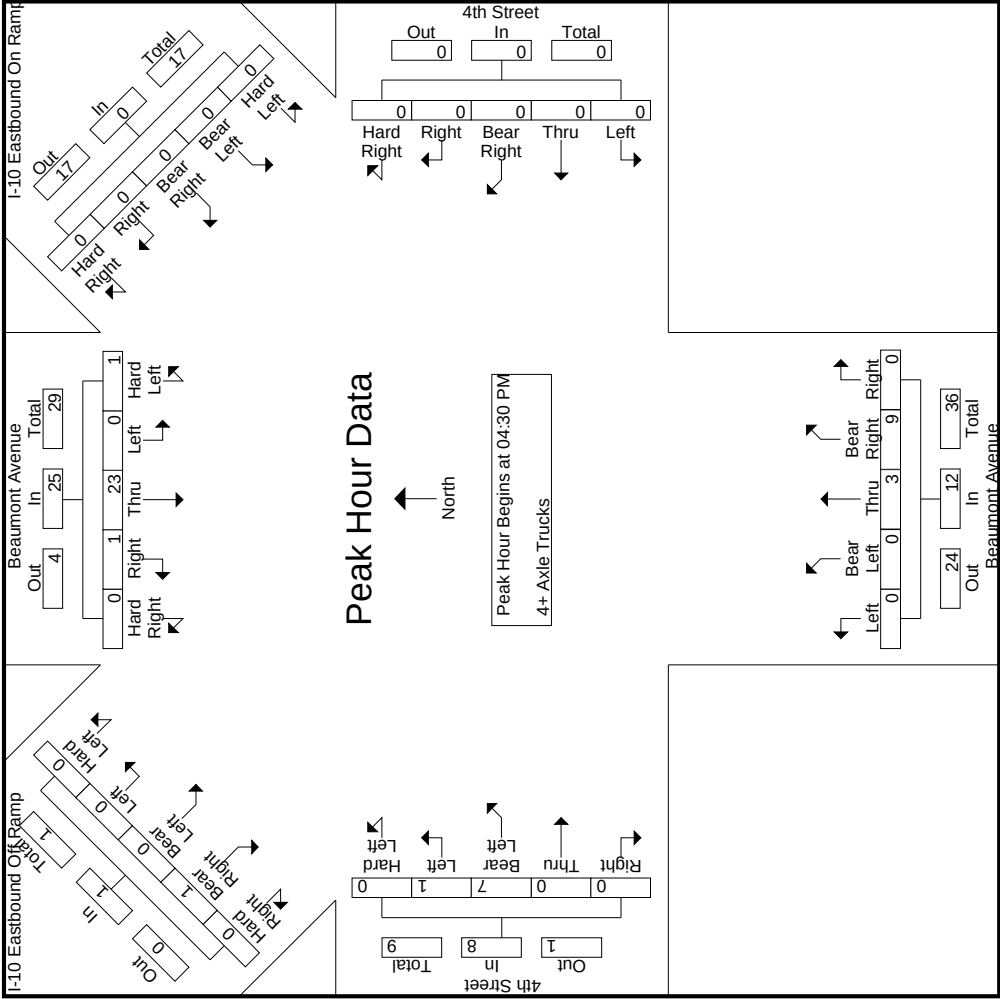


City of Beaumont
N/S: Beaumont Avenue
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File Name : 04_BMT_Beaumont_10 E_PM
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Beaumont Avenue Southbound					I-10 Eastbound On Ramp Southwestbound					4th Street Westbound					Beaumont Avenue Northbound					4th Street Eastbound					I-10 Eastbound Off Ramp Southeastbound					
Start Time	Hard Left	Thru	Right	App. Total	Hard Left	Beas Left	Beas Right	Hard Right	App. Total	Left	Thru	Beas Right	App. Total	Hard Left	Left	Thru	Beas Right	App. Total	Hard Left	Left	Thru	Beas Right	App. Total	Hard Left	Left	Beas Right	App. Total	Int. Total		
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																														
Peak Hour for Each Approach Begins at:																														
+0 mins. +15 mins. +30 mins. +45 mins.	04:30 PM					04:30 PM					04:30 PM					04:30 PM					04:30 PM					04:30 PM				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total Volume	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
% App. Total	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PHF	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		

ID	Beaumont Avenue Southbound					I-10 Eastbound On Ramp Southwestbound					4th Street Westbound					Beaumont Avenue Northbound					4th Street Eastbound					I-10 Eastbound Off Ramp Southeastbound					Int. Total
	Hard Left	Thru Left	Right	Hard Right	App. Total	Hard Left	Beasr Left	Thru Left	Right	App. Total	Hard Left	Beasr Left	Thru Left	Right	App. Total	Hard Left	Beasr Left	Thru Left	Right	App. Total	Hard Left	Beasr Left	Thru Left	Right	App. Total						
Start Time																															
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																															
Peak Hour for Entire Intersection Begins at 04:30 PM																															
04:30 PM	0	0	6	1	7	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	13				
04:45 PM	0	0	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	13				
05:00 PM	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	1	0	1	11				
05:15 PM	1	0	4	0	5	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	9				
Total Volume	1	0	23	1	25	0	0	0	0	0	0	0	0	0	0	0	0	3	9	0	12	0	1	7	0	8	46				
% App. Total	4	0	92	4	0	0	0	0	0	0	0	0	0	0	0	0	0	25	75	0	12.5	87.5	0	0	100	0	1				
PHE	250	000	821	250	000	893	000	000	000	000	000	000	000	000	000	000	000	250	875	000	667	000	000	000	250	000	885				



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: Beaumont Avenue
EW: I-10 Eastbound Ramp / 4th Street
Weather: Clear

File Name : 04_BMT_Beaumont_10 E_PM
Site Code : 99918014
Start Date : 1/14/2020
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Beaumont Avenue Southbound					I-10 Eastbound On Ramp Southwestbound					4th Street Westbound					Beaumont Avenue Northbound					4th Street Eastbound					I-10 Eastbound Off Ramp Southeastbound						
Start Time	Hard Left	Thru	Right	Hard Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Bear Left	Bear Right	Hard Left	Thru	Bear Left	Bear Right	Hard Right	App. Total	Left	Thru	Bear Left	Bear Right	Hard Left	Thru	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:30 PM to 05:15 PM - Peak 1 of 1																															
Peak Hour for Each Approach Begins at:																															
+0 mins. +15 mins. +30 mins. +45 mins.	04:30 PM					04:30 PM					04:30 PM					04:30 PM					04:30 PM					04:30 PM					
	0	0	6	1	0	7	0	0	0	0	0	0	0	0	0	0	2	2	0	4	0	0	2	0	0	2	0	0	0	0	0
	0	0	7	0	0	7	0	0	0	0	0	0	0	0	0	0	0	5	0	5	0	0	1	0	0	1	0	0	0	0	0
	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	2	0	0	2	0	0	1	0	1
	1	0	4	0	0	5	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	2	0	0	3	0	0	0	0	0
Total Volume	1	0	23	1	0	25	0	0	0	0	0	0	0	0	0	0	3	9	0	12	0	1	7	0	0	8	0	0	0	1	0
% App. Total	4	0	92	4	0		0	0	0	0	0	0	0	0	0	0	25	75	0		0	12.5	87.5	0	0	0	0	0	0	100	0
PHF	.250	.000	.821	.250	.000	.893	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.375	.450	.000	.600	.000	.250	.875	.000	.000	.667	.000	.000	.000	.250	.000

Location: Beaumont
 N/S: Beaumont Avenue
 E/W: I-10 Eastbound Ramp / 4th Street

Date: 1/14/2020
 Day: Tuesday



PEDESTRIANS

	North Leg Beaumont Avenue Pedestrians	Northeast Leg I-10 EB On Ramp Pedestrians	East Leg 4th Street Pedestrians	South Leg Beaumont Avenue Pedestrians	West Leg 4th Street Pedestrians	Northwest Leg I-10 EB Off Ramp Pedestrians
7:00 AM	0	0	0	1	0	0
7:15 AM	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0
8:15 AM	0	1	1	1	0	1
8:30 AM	0	1	0	1	0	3
8:45 AM	0	1	1	0	0	2
TOTAL VOLUMES:	0	4	2	3	0	9

	North Leg Beaumont Avenue Pedestrians	Northeast Leg I-10 EB On Ramp Pedestrians	East Leg I-10 WB Off Ramp Pedestrians	South Leg Beaumont Avenue Pedestrians	West Leg I-10 WB On Ramp Pedestrians	Northwest Leg I-10 EB Off Ramp Pedestrians
4:00 PM	0	0	0	1	1	1
4:15 PM	0	0	0	0	1	1
4:30 PM	0	1	1	0	0	0
4:45 PM	0	2	1	0	1	2
5:00 PM	0	1	1	1	0	1
5:15 PM	0	3	0	1	0	0
5:30 PM	0	0	0	0	0	0
5:45 PM	0	2	0	0	0	0
TOTAL VOLUMES:	0	9	3	3	3	23

Date: 1/14/2020
Day: Tuesday



Location: Beaumont
N/S: Beaumont Avenue
E/W: I-10 Eastbound Ramp / 4th Street

BICYCLES

	Southbound Beaumont Avenue				Southwest Bound I-10 EB On Ramp				Westbound 4th Street				Northbound Beaumont Avenue				Eastbound 4th Street				Southeastbound I-10 EB On Ramp			
	Hard Left	Bear Left	Thru	Right	Hard Left	Bear Left	Thru	Right	Hard Left	Bear Left	Thru	Right	Hard Left	Bear Left	Thru	Right	Hard Left	Bear Left	Thru	Right	Hard Left	Bear Left	Thru	Right
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Beaumont Avenue				Southwest Bound I-10 EB On Ramp				Westbound 4th Street				Northbound Beaumont Avenue				Eastbound 4th Street				Southeastbound I-10 EB On Ramp			
	Hard Left	Bear Left	Thru	Right	Hard Left	Bear Left	Thru	Right	Hard Left	Bear Left	Thru	Right	Hard Left	Bear Left	Thru	Right	Hard Left	Bear Left	Thru	Right	Hard Left	Bear Left	Thru	Right
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	16	4	20	2	10	12	0	1	1	33
07:15 AM	12	1	13	1	23	24	1	0	1	38
07:30 AM	8	0	8	2	11	13	0	0	0	21
07:45 AM	6	0	6	0	5	5	1	1	2	13
Total	42	5	47	5	49	54	2	2	4	105
08:00 AM	4	0	4	1	10	11	0	1	1	16
08:15 AM	3	0	3	2	4	6	0	1	1	10
08:30 AM	8	2	10	1	9	10	1	1	2	22
08:45 AM	6	0	6	1	3	4	0	0	0	10
Total	21	2	23	5	26	31	1	3	4	58
Grand Total	63	7	70	10	75	85	3	5	8	163
Apprch %	90	10		11.8	88.2		37.5	62.5		
Total %	38.7	4.3	42.9	6.1	46	52.1	1.8	3.1	4.9	
Passenger Vehicles	61	5	66	5	71	76	3	0	3	145
% Passenger Vehicles	96.8	71.4	94.3	50	94.7	89.4	100	0	37.5	89
Large 2 Axle Vehicles	2	2	4	1	3	4	0	2	2	10
% Large 2 Axle Vehicles	3.2	28.6	5.7	10	4	4.7	0	40	25	6.1
3 Axle Vehicles	0	0	0	0	1	1	0	0	0	1
% 3 Axle Vehicles	0	0	0	0	1.3	1.2	0	0	0	0.6
4+ Axle Trucks	0	0	0	4	0	4	0	3	3	7
% 4+ Axle Trucks	0	0	0	40	0	4.7	0	60	37.5	4.3

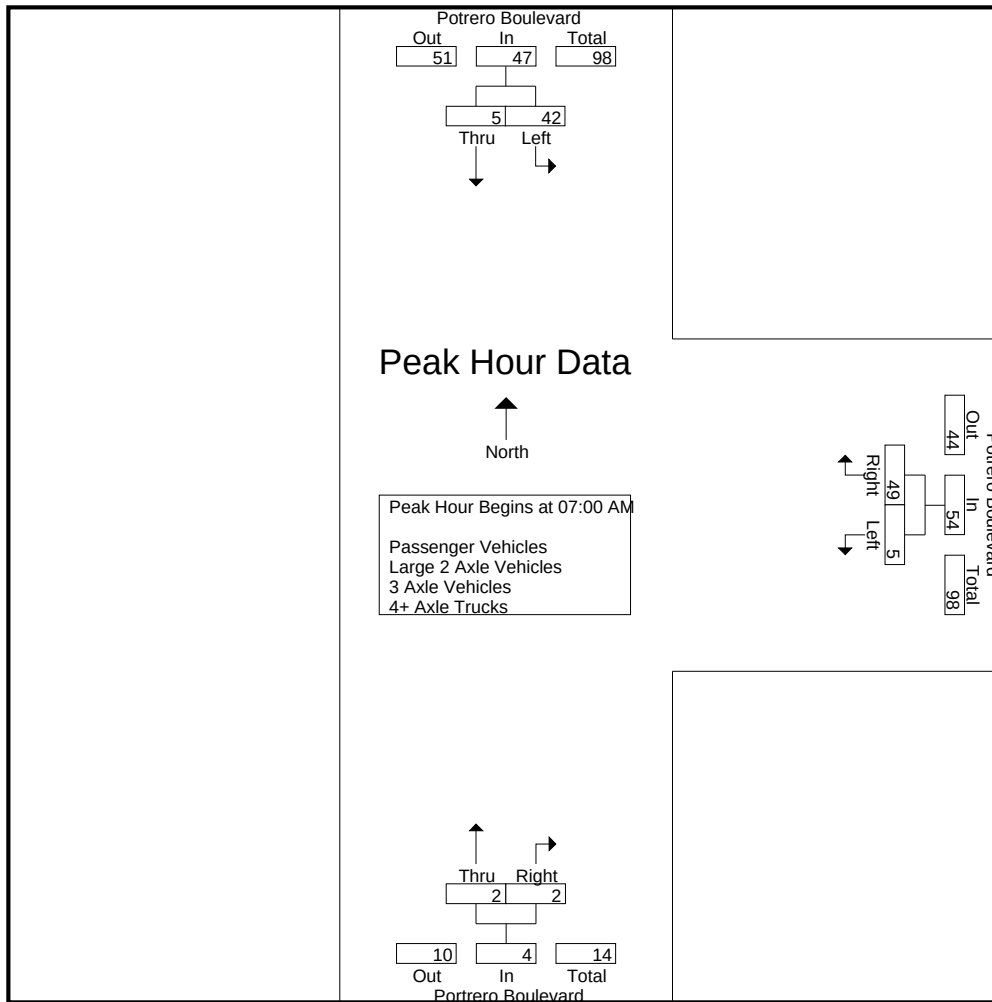
	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	16	4	20	2	10	12	0	1	1	33
07:15 AM	12	1	13	1	23	24	1	0	1	38
07:30 AM	8	0	8	2	11	13	0	0	0	21
07:45 AM	6	0	6	0	5	5	1	1	2	13
Total Volume	42	5	47	5	49	54	2	2	4	105
% App. Total	89.4	10.6		9.3	90.7		50	50		
PHF	.656	.313	.588	.625	.533	.563	.500	.500	.500	.691

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:45 AM		
+0 mins.	16	4	20	2	10	12	1	1	2
+15 mins.	12	1	13	1	23	24	0	1	1
+30 mins.	8	0	8	2	11	13	0	1	1
+45 mins.	6	0	6	0	5	5	1	1	2
Total Volume	42	5	47	5	49	54	2	4	6
% App. Total	89.4	10.6		9.3	90.7		33.3	66.7	
PHF	.656	.313	.588	.625	.533	.563	.500	1.000	.750

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	15	3	18	1	9	10	0	0	0	28
07:15 AM	12	0	12	0	22	22	1	0	1	35
07:30 AM	8	0	8	2	10	12	0	0	0	20
07:45 AM	6	0	6	0	5	5	1	0	1	12
Total	41	3	44	3	46	49	2	0	2	95
08:00 AM	3	0	3	0	10	10	0	0	0	13
08:15 AM	3	0	3	0	4	4	0	0	0	7
08:30 AM	8	2	10	1	9	10	1	0	1	21
08:45 AM	6	0	6	1	2	3	0	0	0	9
Total	20	2	22	2	25	27	1	0	1	50
Grand Total	61	5	66	5	71	76	3	0	3	145
Apprch %	92.4	7.6		6.6	93.4		100	0		
Total %	42.1	3.4	45.5	3.4	49	52.4	2.1	0	2.1	

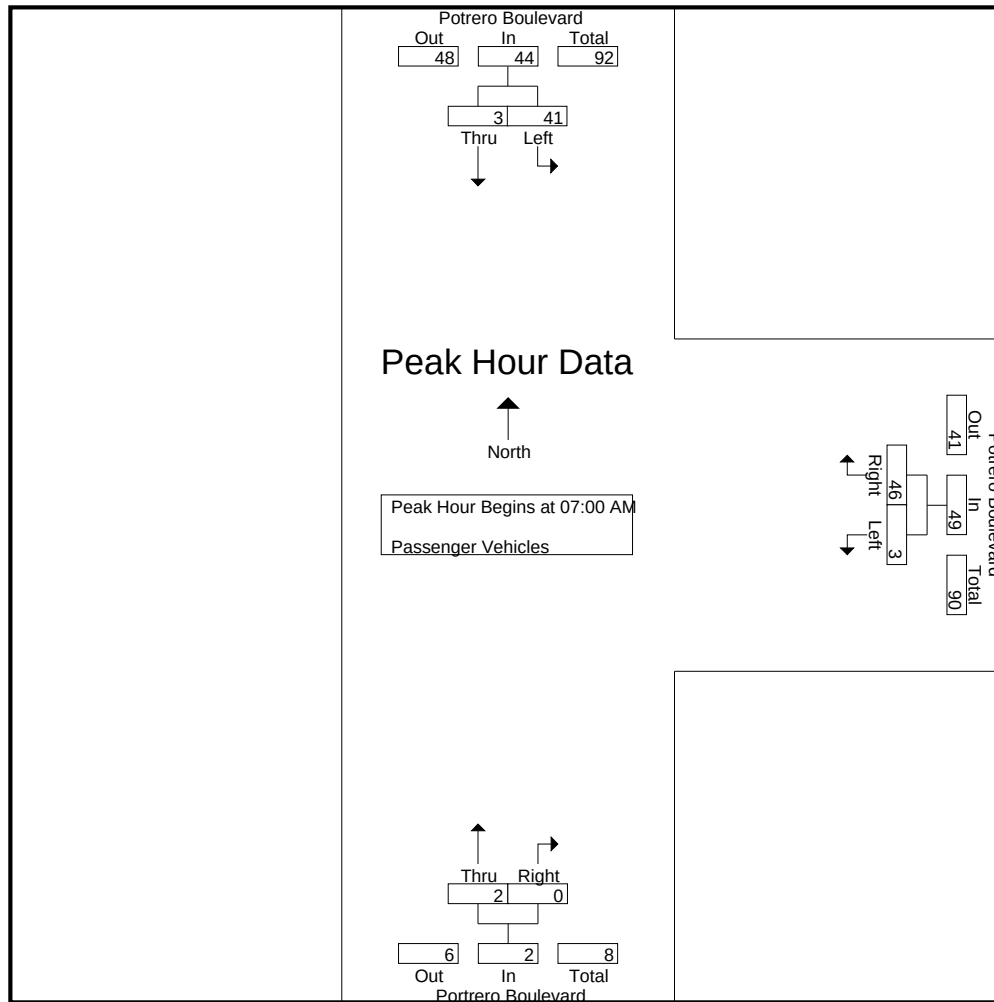
	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	15	3	18	1	9	10	0	0	0	28
07:15 AM	12	0	12	0	22	22	1	0	1	35
07:30 AM	8	0	8	2	10	12	0	0	0	20
07:45 AM	6	0	6	0	5	5	1	0	1	12
Total Volume	41	3	44	3	46	49	2	0	2	95
% App. Total	93.2	6.8		6.1	93.9		100	0		
PHF	.683	.250	.611	.375	.523	.557	.500	.000	.500	.679

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	15	3	18	1	9	10	0	0	0
+15 mins.	12	0	12	0	22	22	1	0	1
+30 mins.	8	0	8	2	10	12	0	0	0
+45 mins.	6	0	6	0	5	5	1	0	1
Total Volume	41	3	44	3	46	49	2	0	2
% App. Total	93.2	6.8		6.1	93.9		100	0	
PHF	.683	.250	.611	.375	.523	.557	.500	.000	.500

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	1	1	2	0	0	0	0	1	1	3
07:15 AM	0	1	1	0	1	1	0	0	0	2
07:30 AM	0	0	0	0	1	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	1	2	3	0	2	2	0	1	1	6
08:00 AM	1	0	1	0	0	0	0	1	1	2
08:15 AM	0	0	0	1	0	1	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	1	1	0	0	0	1
Total	1	0	1	1	1	2	0	1	1	4
Grand Total	2	2	4	1	3	4	0	2	2	10
Apprch %	50	50		25	75		0	100		
Total %	20	20	40	10	30	40	0	20	20	

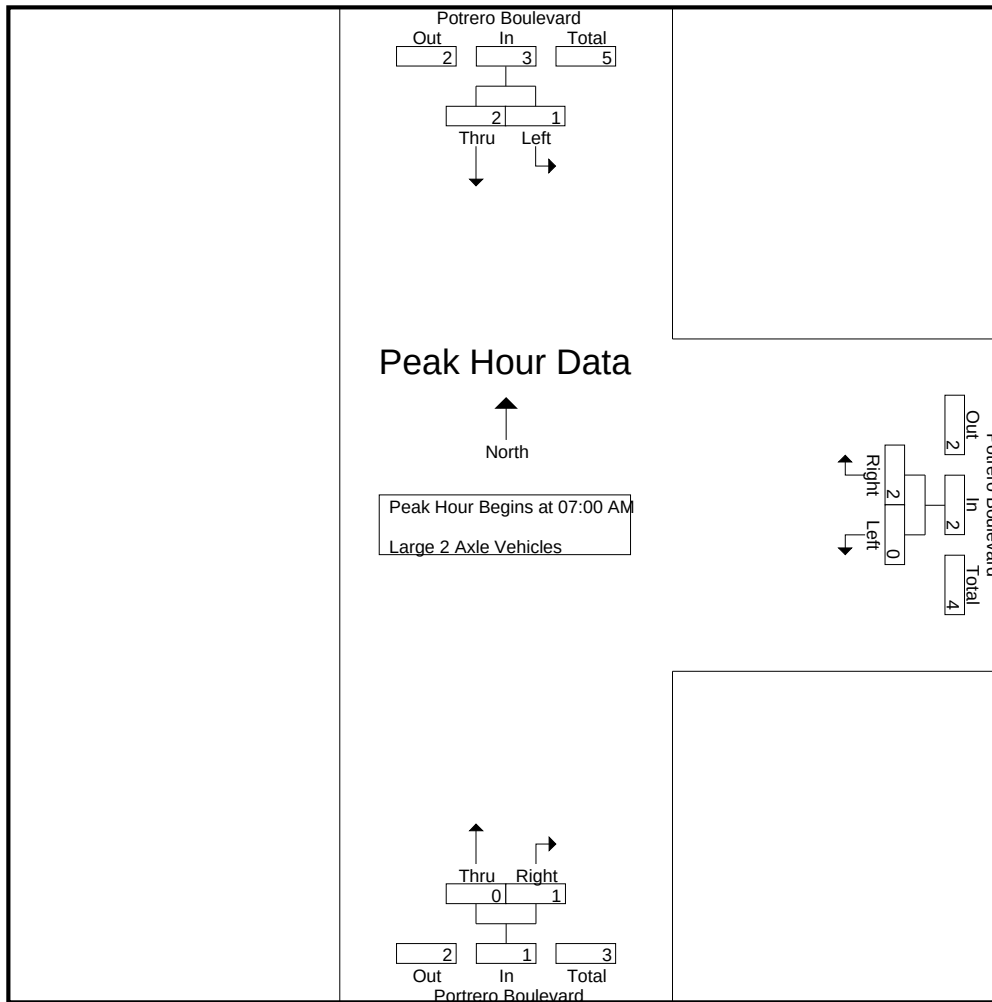
	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	1	1	2	0	0	0	0	1	1	3
07:15 AM	0	1	1	0	1	1	0	0	0	2
07:30 AM	0	0	0	0	1	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	1	2	3	0	2	2	0	1	1	6
% App. Total	33.3	66.7		0	100		0	100		
PHF	.250	.500	.375	.000	.500	.500	.000	.250	.250	.500

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	1	1	2	0	0	0	0	1	1
+15 mins.	0	1	1	0	1	1	0	0	0
+30 mins.	0	0	0	0	1	1	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	1	2	3	0	2	2	0	1	1
% App. Total	33.3	66.7		0	100		0	100	
PHF	.250	.500	.375	.000	.500	.500	.000	.250	.250

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
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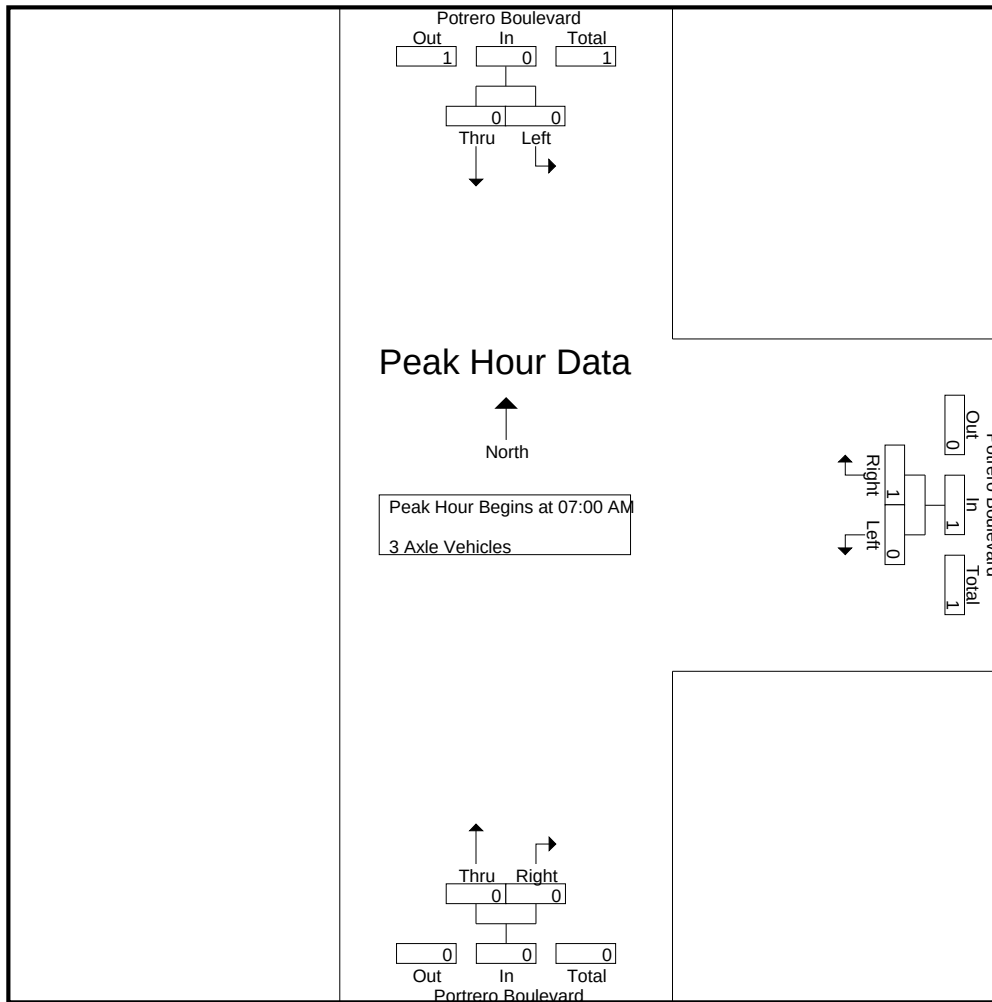
Groups Printed- 3 Axle Vehicles

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	1	1	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	1	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	1	1	0	0	0	1
Apprch %	0	0		0	100		0	0		
Total %	0	0		0	100	100	0	0		

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	1	1	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0	1
% App. Total	0	0		0	100		0	0		
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000	.250

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	1	1	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	1	0	0	0
% App. Total	0	0		0	100		0	0	
PHF	.000	.000	.000	.000	.250	.250	.000	.000	.000

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
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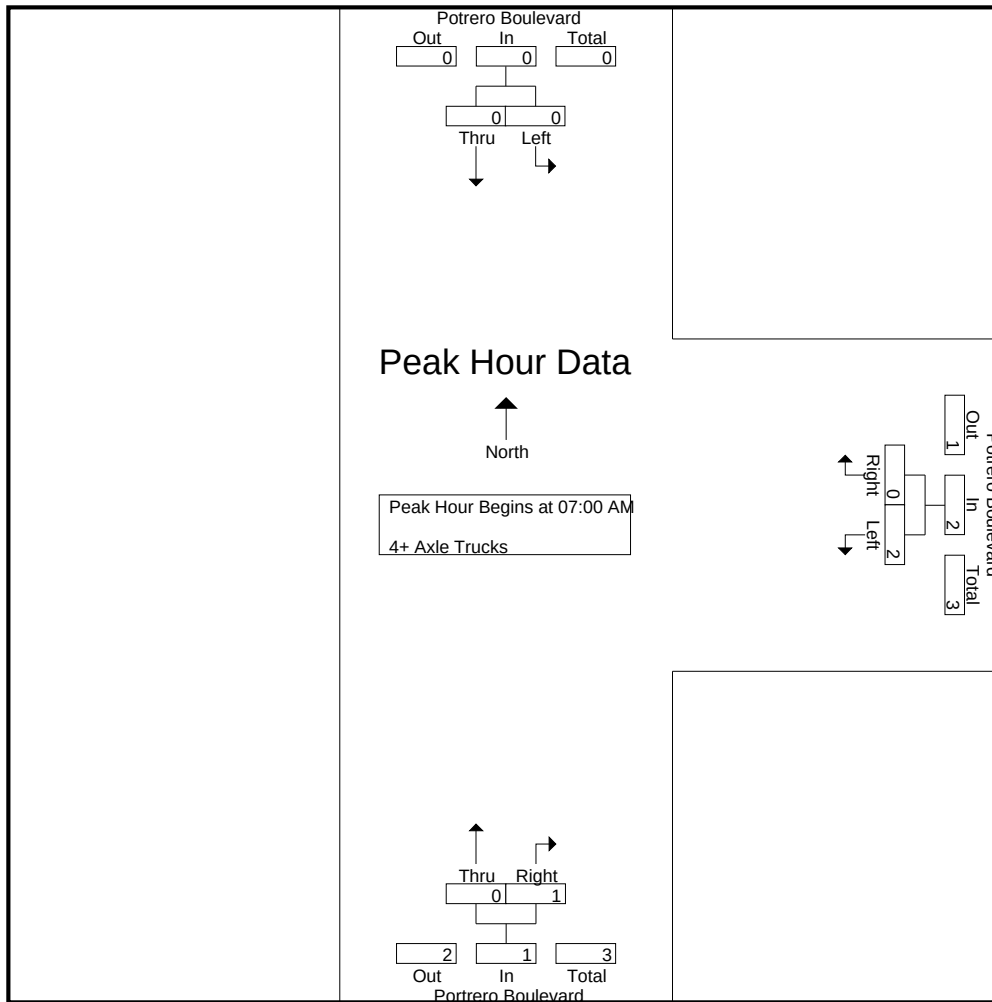
Groups Printed- 4+ Axle Trucks

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	1	0	1	0	0	0	1
07:15 AM	0	0	0	1	0	1	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	1	1	1
Total	0	0	0	2	0	2	0	1	1	3
08:00 AM	0	0	0	1	0	1	0	0	0	1
08:15 AM	0	0	0	1	0	1	0	1	1	2
08:30 AM	0	0	0	0	0	0	0	1	1	1
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	0	2	0	2	2	4
Grand Total	0	0	0	4	0	4	0	3	3	7
Apprch %	0	0		100	0		0	100		
Total %	0	0		57.1	0	57.1	0	42.9	42.9	

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	1	0	1	0	0	0	1
07:15 AM	0	0	0	1	0	1	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	1	1	1
Total Volume	0	0	0	2	0	2	0	1	1	3
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.500	.000	.500	.000	.250	.250	.750

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero AM
Site Code : 05119803
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	1	0	1	0	0	0
+15 mins.	0	0	0	1	0	1	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	1	1
Total Volume	0	0	0	2	0	2	0	1	1
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.500	.000	.500	.000	.250	.250

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero PM
Site Code : 05119803
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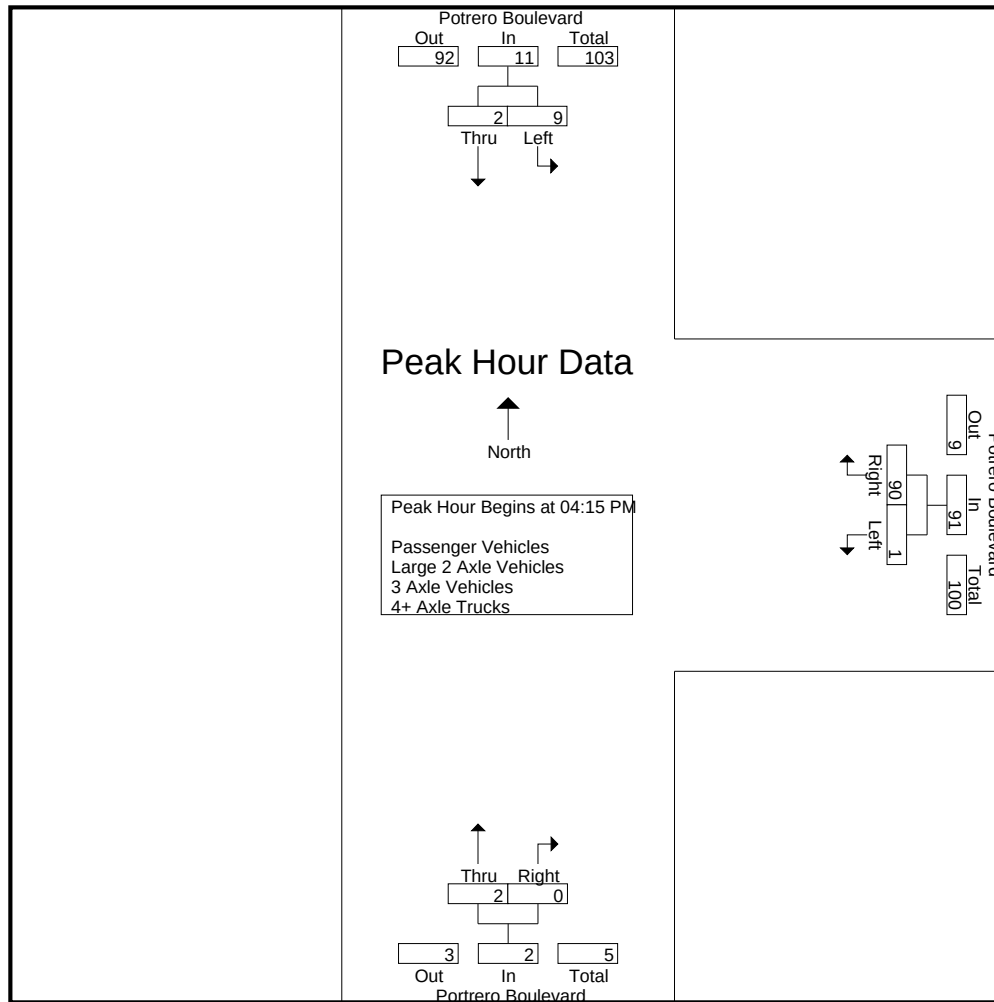
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	2	0	2	0	18	18	0	0	0	20
04:15 PM	2	0	2	0	24	24	1	0	1	27
04:30 PM	2	0	2	1	30	31	1	0	1	34
04:45 PM	3	2	5	0	16	16	0	0	0	21
Total	9	2	11	1	88	89	2	0	2	102
05:00 PM	2	0	2	0	20	20	0	0	0	22
05:15 PM	0	0	0	0	19	19	1	0	1	20
05:30 PM	1	0	1	0	11	11	0	0	0	12
05:45 PM	0	0	0	0	24	24	0	0	0	24
Total	3	0	3	0	74	74	1	0	1	78
Grand Total	12	2	14	1	162	163	3	0	3	180
Apprch %	85.7	14.3		0.6	99.4		100	0		
Total %	6.7	1.1	7.8	0.6	90	90.6	1.7	0	1.7	
Passenger Vehicles	12	2	14	0	161	161	3	0	3	178
% Passenger Vehicles	100	100	100	0	99.4	98.8	100	0	100	98.9
Large 2 Axle Vehicles	0	0	0	1	1	2	0	0	0	2
% Large 2 Axle Vehicles	0	0	0	100	0.6	1.2	0	0	0	1.1
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	2	0	2	0	24	24	1	0	1	27
04:30 PM	2	0	2	1	30	31	1	0	1	34
04:45 PM	3	2	5	0	16	16	0	0	0	21
05:00 PM	2	0	2	0	20	20	0	0	0	22
Total Volume	9	2	11	1	90	91	2	0	2	104
% App. Total	81.8	18.2		1.1	98.9		100	0		
PHF	.750	.250	.550	.250	.750	.734	.500	.000	.500	.765

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero PM
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:15 PM			04:00 PM		
+0 mins.	2	0	2	0	24	24	0	0	0
+15 mins.	2	0	2	1	30	31	1	0	1
+30 mins.	2	0	2	0	16	16	1	0	1
+45 mins.	3	2	5	0	20	20	0	0	0
Total Volume	9	2	11	1	90	91	2	0	2
% App. Total	81.8	18.2		1.1	98.9		100	0	
PHF	.750	.250	.550	.250	.750	.734	.500	.000	.500

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero PM
Site Code : 05119803
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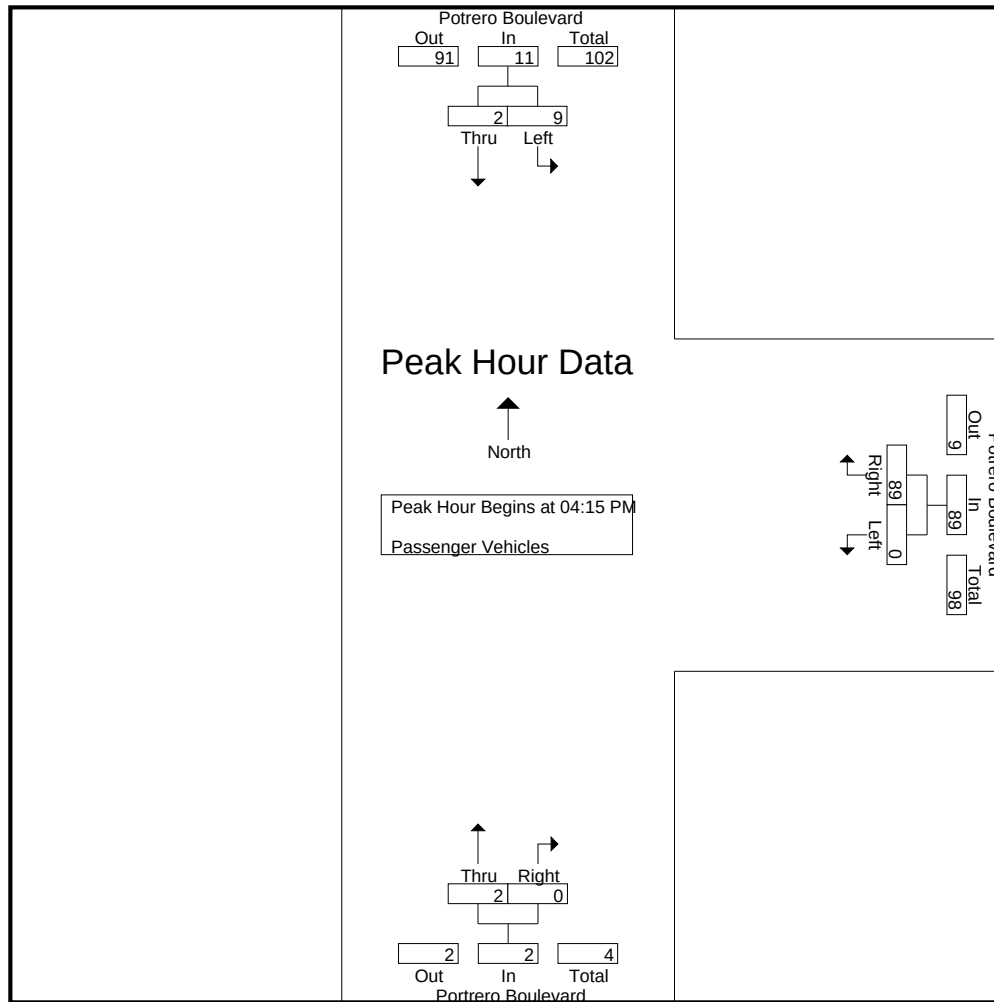
Groups Printed- Passenger Vehicles

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	2	0	2	0	18	18	0	0	0	20
04:15 PM	2	0	2	0	23	23	1	0	1	26
04:30 PM	2	0	2	0	30	30	1	0	1	33
04:45 PM	3	2	5	0	16	16	0	0	0	21
Total	9	2	11	0	87	87	2	0	2	100
05:00 PM	2	0	2	0	20	20	0	0	0	22
05:15 PM	0	0	0	0	19	19	1	0	1	20
05:30 PM	1	0	1	0	11	11	0	0	0	12
05:45 PM	0	0	0	0	24	24	0	0	0	24
Total	3	0	3	0	74	74	1	0	1	78
Grand Total	12	2	14	0	161	161	3	0	3	178
Apprch %	85.7	14.3		0	100		100	0		
Total %	6.7	1.1	7.9	0	90.4	90.4	1.7	0	1.7	

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	2	0	2	0	23	23	1	0	1	26
04:30 PM	2	0	2	0	30	30	1	0	1	33
04:45 PM	3	2	5	0	16	16	0	0	0	21
05:00 PM	2	0	2	0	20	20	0	0	0	22
Total Volume	9	2	11	0	89	89	2	0	2	102
% App. Total	81.8	18.2		0	100		100	0		
PHF	.750	.250	.550	.000	.742	.742	.500	.000	.500	.773

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero PM
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Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	2	0	2	0	23	23	1	0	1
+15 mins.	2	0	2	0	30	30	1	0	1
+30 mins.	3	2	5	0	16	16	0	0	0
+45 mins.	2	0	2	0	20	20	0	0	0
Total Volume	9	2	11	0	89	89	2	0	2
% App. Total	81.8	18.2		0	100		100	0	
PHF	.750	.250	.550	.000	.742	.742	.500	.000	.500

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

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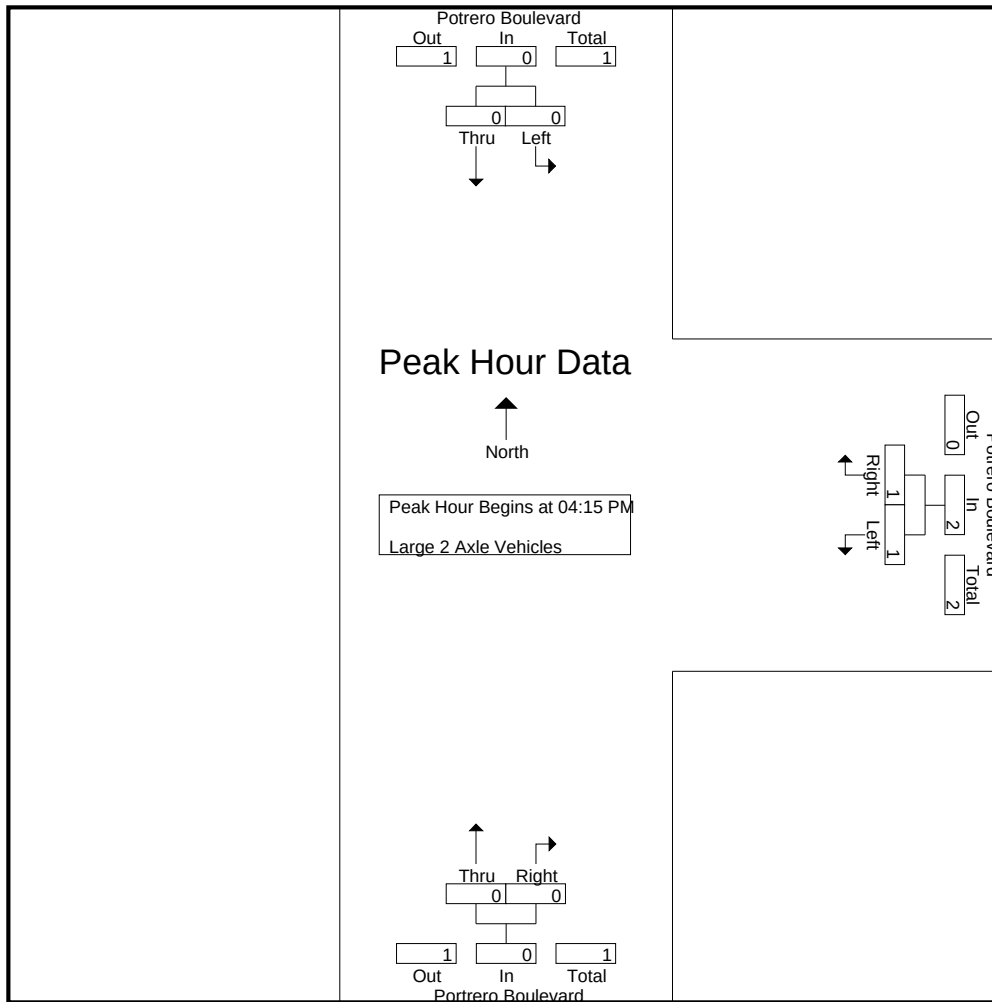
Groups Printed- Large 2 Axle Vehicles

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	1	1	0	0	0	1
04:30 PM	0	0	0	1	0	1	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	1	2	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	1	1	2	0	0	0	2
Apprch %	0	0		50	50		0	0		
Total %	0	0		50	50	100	0	0		

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	0	1	1	0	0	0	1
04:30 PM	0	0	0	1	0	1	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	1	2	0	0	0	2
% App. Total	0	0		50	50		0	0		
PHF	.000	.000	.000	.250	.250	.500	.000	.000	.000	.500

City of Beaumont
N/S: Potrero Boulevard
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Weather: Clear

File Name : 04_BMT_Potrero_Potrero PM
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Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	0	0	0	1	1	0	0	0
+15 mins.	0	0	0	1	0	1	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	1	2	0	0	0
% App. Total	0	0		50	50		0	0	
PHF	.000	.000	.000	.250	.250	.500	.000	.000	.000

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero PM
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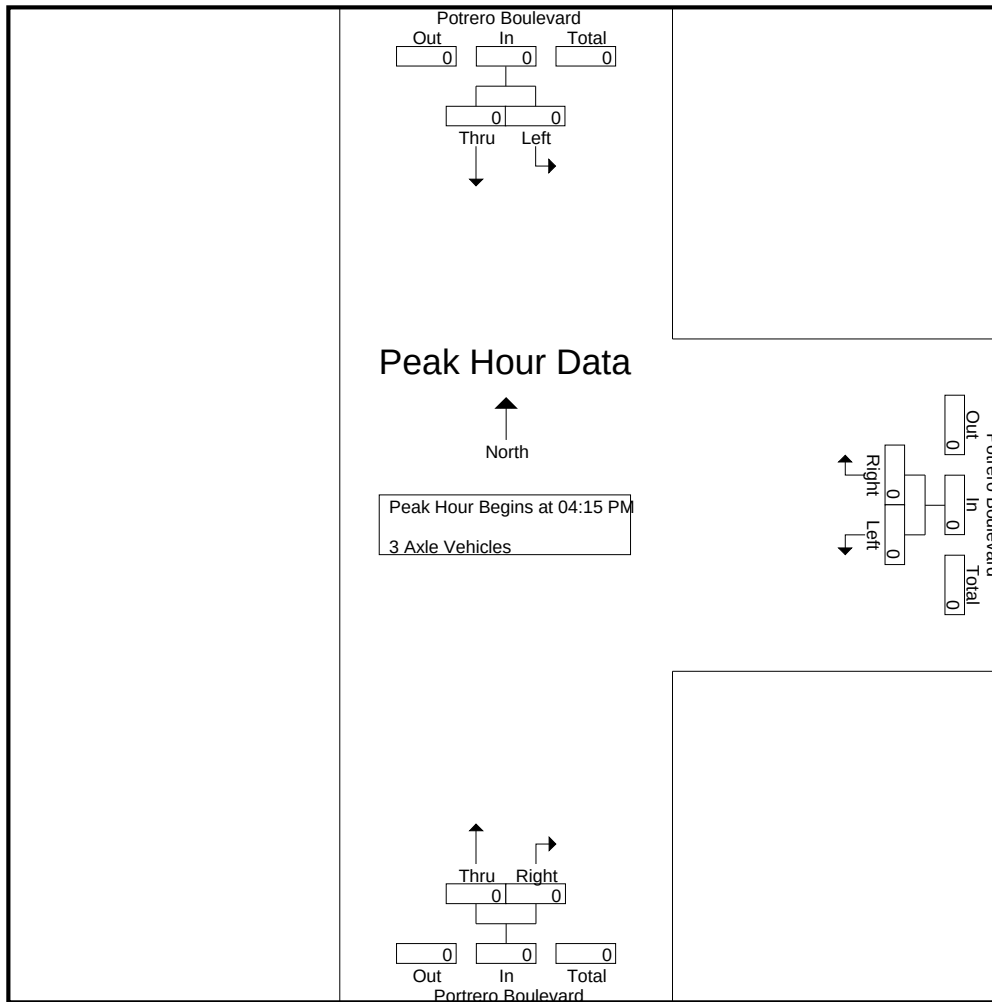
Groups Printed- 3 Axle Vehicles

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero PM
Site Code : 05119803
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Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero PM
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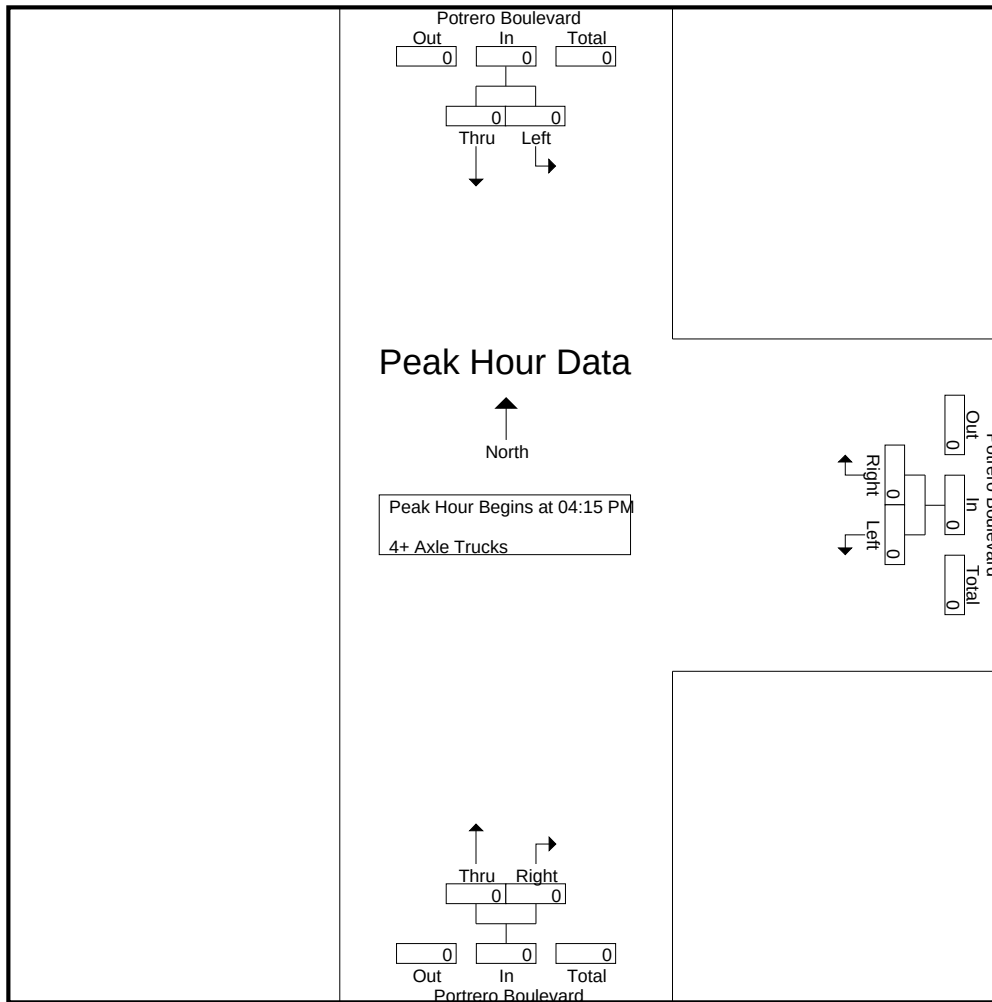
Groups Printed- 4+ Axle Trucks

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Potrero Boulevard Southbound			Potrero Boulevard Westbound			Portrero Boulevard Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Potrero Boulevard
E/W: Potrero Boulevard
Weather: Clear

File Name : 04_BMT_Potrero_Potrero PM
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Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Beaumont
 N/S: Potrero Boulevard
 E/W: Potrero Boulevard



Date: 11/19/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Potrero Boulevard Pedestrians	East Leg Potrero Boulevard Pedestrians	South Leg Potrero Boulevard Pedestrians	West Leg Dead End Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	5	0	5
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	5	0	5

	North Leg Potrero Boulevard Pedestrians	East Leg Potrero Boulevard Pedestrians	South Leg Potrero Boulevard Pedestrians	West Leg Dead End Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Beaumont
 N/S: Potrero Boulevard
 E/W: Potrero Boulevard



Date: 11/19/2019
 Day: Tuesday

BICYCLES

	Southbound Potrero Boulevard			Westbound Potrero Boulevard			Northbound Potrero Boulevard			Eastbound Dead End			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Potrero Boulevard			Westbound Potrero Boulevard			Northbound Potrero Boulevard			Eastbound Dead End			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
Site Code : 05119803
Start Date : 11/19/2019
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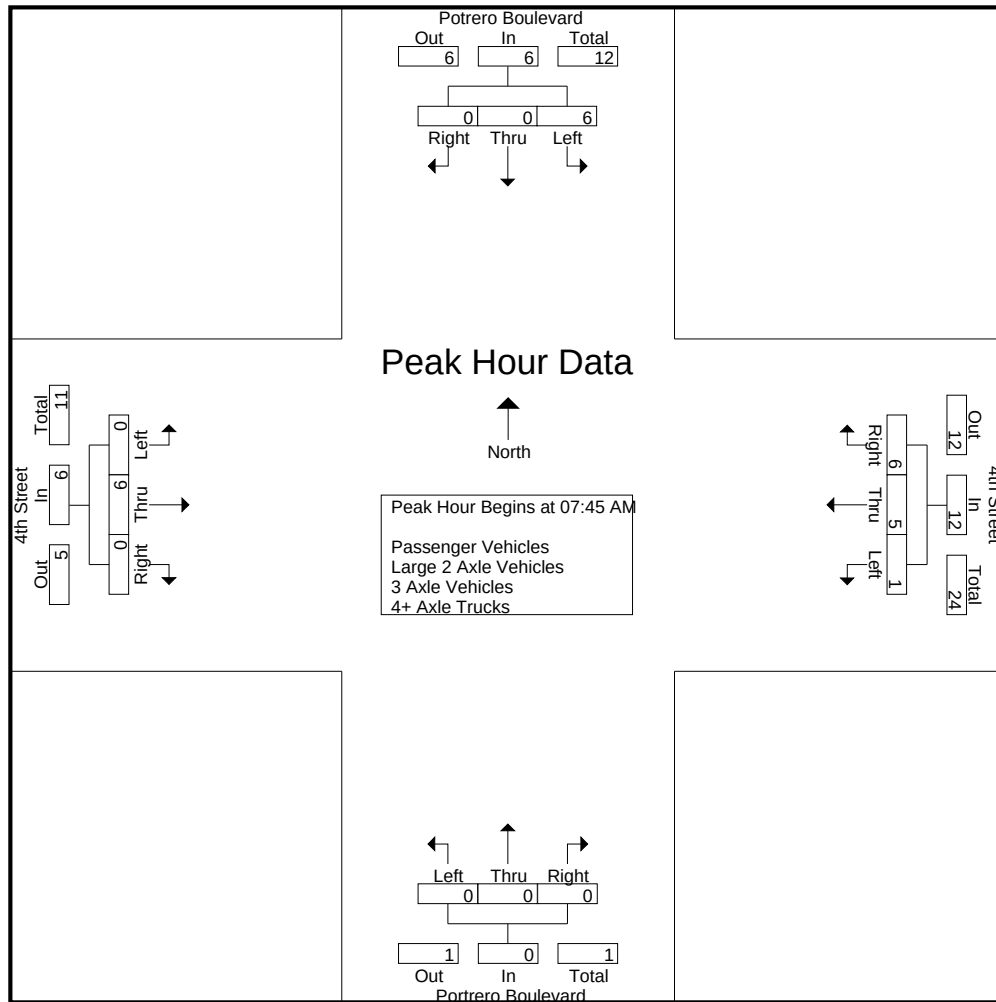
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	0	0	3	2	1	0	3	0	0	0	0	0	0	0	0	6
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:30 AM	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	3	1	4	0	0	0	0	0	0	0	0	4
Total	5	0	0	5	2	5	1	8	0	0	0	0	0	0	0	0	13
08:00 AM	1	0	0	1	0	1	1	2	0	0	0	0	0	2	0	2	5
08:15 AM	2	0	0	2	1	0	1	2	0	0	0	0	0	2	0	2	6
08:30 AM	3	0	0	3	0	1	3	4	0	0	0	0	0	2	0	2	9
08:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	1	0	0	1	3
Total	6	0	0	6	1	4	5	10	0	0	0	0	1	6	0	7	23
Grand Total	11	0	0	11	3	9	6	18	0	0	0	0	1	6	0	7	36
Apprch %	100	0	0		16.7	50	33.3		0	0	0		14.3	85.7	0		
Total %	30.6	0	0	30.6	8.3	25	16.7	50	0	0	0	0	2.8	16.7	0	19.4	
Passenger Vehicles	6	0	0	6	2	7	1	10	0	0	0	0	0	5	0	5	21
% Passenger Vehicles	54.5	0	0	54.5	66.7	77.8	16.7	55.6	0	0	0	0	0	83.3	0	71.4	58.3
Large 2 Axle Vehicles	1	0	0	1	1	1	1	3	0	0	0	0	0	0	0	0	4
% Large 2 Axle Vehicles	9.1	0	0	9.1	33.3	11.1	16.7	16.7	0	0	0	0	0	0	0	0	11.1
3 Axle Vehicles	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	2
% 3 Axle Vehicles	0	0	0	0	0	0	16.7	5.6	0	0	0	0	100	0	0	14.3	5.6
4+ Axle Trucks	4	0	0	4	0	1	3	4	0	0	0	0	0	1	0	1	9
% 4+ Axle Trucks	36.4	0	0	36.4	0	11.1	50	22.2	0	0	0	0	0	16.7	0	14.3	25

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	3	1	4	0	0	0	0	0	0	0	0	4
08:00 AM	1	0	0	1	0	1	1	2	0	0	0	0	0	2	0	2	5
08:15 AM	2	0	0	2	1	0	1	2	0	0	0	0	0	2	0	2	6
08:30 AM	3	0	0	3	0	1	3	4	0	0	0	0	0	2	0	2	9
Total Volume	6	0	0	6	1	5	6	12	0	0	0	0	0	6	0	6	24
% App. Total	100	0	0		8.3	41.7	50		0	0	0		0	100	0		
PHF	.500	.000	.000	.500	.250	.417	.500	.750	.000	.000	.000	.000	.000	.750	.000	.750	.667

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:00 AM				08:00 AM			
+0 mins.	0	0	0	0	0	3	1	4	0	0	0	0	0	2	0	2
+15 mins.	1	0	0	1	0	1	1	2	0	0	0	0	0	2	0	2
+30 mins.	2	0	0	2	1	0	1	2	0	0	0	0	0	2	0	2
+45 mins.	3	0	0	3	0	1	3	4	0	0	0	0	1	0	0	1
Total Volume	6	0	0	6	1	5	6	12	0	0	0	0	1	6	0	7
% App. Total	100	0	0		8.3	41.7	50		0	0	0		14.3	85.7	0	
PHF	.500	.000	.000	.500	.250	.417	.500	.750	.000	.000	.000	.000	.250	.750	.000	.875

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
Site Code : 05119803
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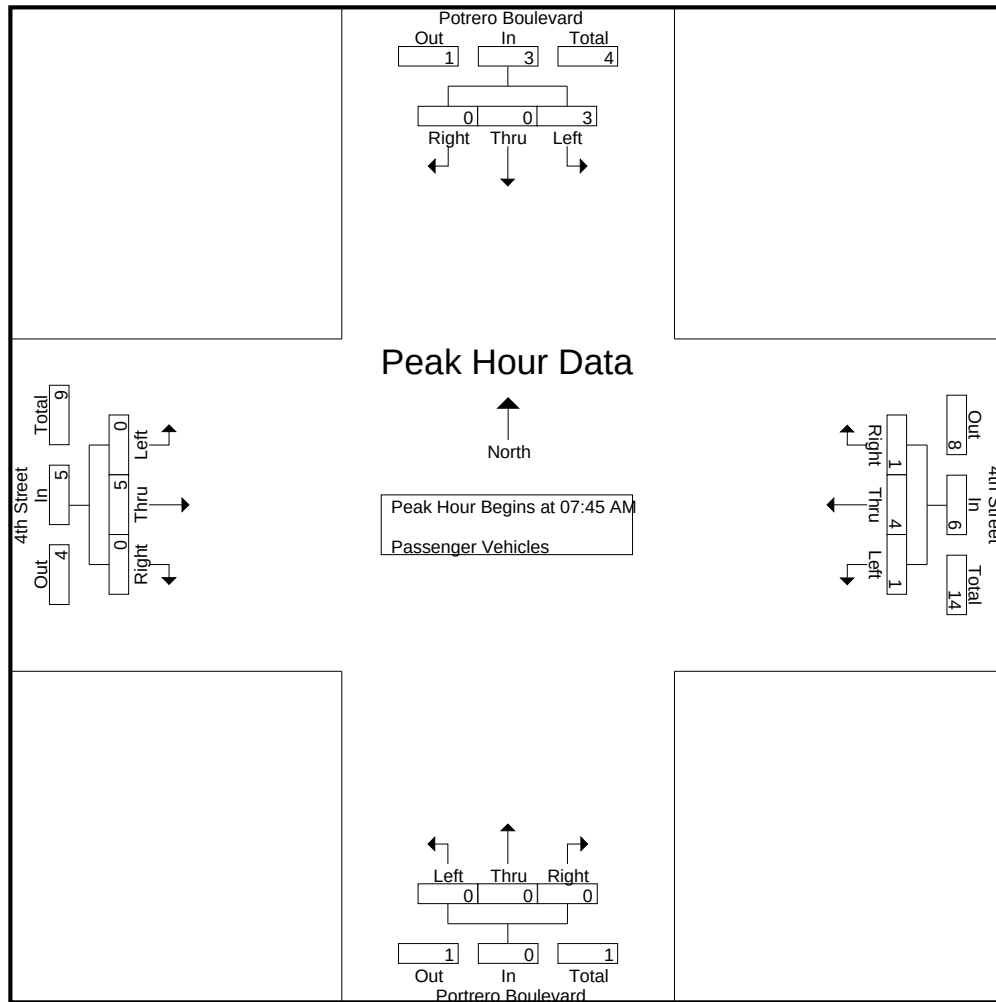
Groups Printed- Passenger Vehicles

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	0	0	2	1	0	0	1	0	0	0	0	0	0	0	0	3
07:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
07:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total	3	0	0	3	1	3	0	4	0	0	0	0	0	0	0	0	7
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
08:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
08:30 AM	3	0	0	3	0	1	1	2	0	0	0	0	0	2	0	2	7
08:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
Total	3	0	0	3	1	4	1	6	0	0	0	0	0	5	0	5	14
Grand Total	6	0	0	6	2	7	1	10	0	0	0	0	0	5	0	5	21
Apprch %	100	0	0		20	70	10		0	0	0		0	100	0		
Total %	28.6	0	0	28.6	9.5	33.3	4.8	47.6	0	0	0	0	0	23.8	0	23.8	

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	2
08:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2	3
08:15 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
08:30 AM	3	0	0	3	0	1	1	2	0	0	0	0	0	2	0	2	7
Total Volume	3	0	0	3	1	4	1	6	0	0	0	0	0	5	0	5	14
% App. Total	100	0	0		16.7	66.7	16.7		0	0	0		0	100	0		
PHF	.250	.000	.000	.250	.250	.500	.250	.750	.000	.000	.000	.000	.000	.625	.000	.625	.500

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
Site Code : 05119803
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Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0	2
+30 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1
+45 mins.	3	0	0	3	0	1	1	2	0	0	0	0	0	2	0	2
Total Volume	3	0	0	3	1	4	1	6	0	0	0	0	0	5	0	5
% App. Total	100	0	0		16.7	66.7	16.7		0	0	0		0	100	0	
PHF	.250	.000	.000	.250	.250	.500	.250	.750	.000	.000	.000	.000	.000	.625	.000	.625

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
Site Code : 05119803
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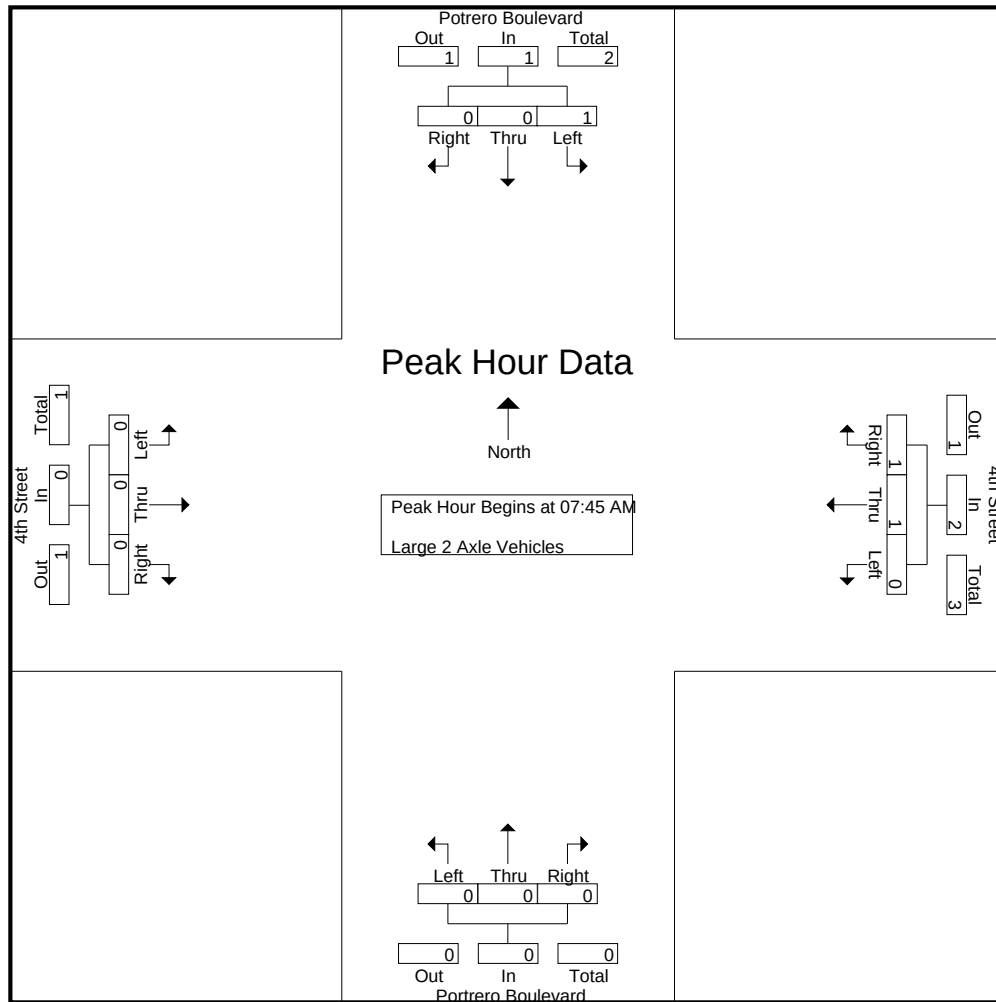
Groups Printed- Large 2 Axle Vehicles

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	2
08:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
08:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	2
Grand Total	1	0	0	1	1	1	1	3	0	0	0	0	0	0	0	0	4
Apprch %	100	0	0		33.3	33.3	33.3		0	0	0		0	0	0		
Total %	25	0	0	25	25	25	25	75	0	0	0	0	0	0	0	0	

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
08:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	1	1	2	0	0	0	0	0	0	0	0	3
% App. Total	100	0	0		0	50	50		0	0	0		0	0	0		
PHF	.250	.000	.000	.250	.000	.250	.250	.500	.000	.000	.000	.000	.000	.000	.000	.000	.750

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
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Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+30 mins.	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	1	1	2	0	0	0	0	0	0	0	0
% App. Total	100	0	0		0	50	50		0	0	0		0	0	0	
PHF	.250	.000	.000	.250	.000	.250	.250	.500	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
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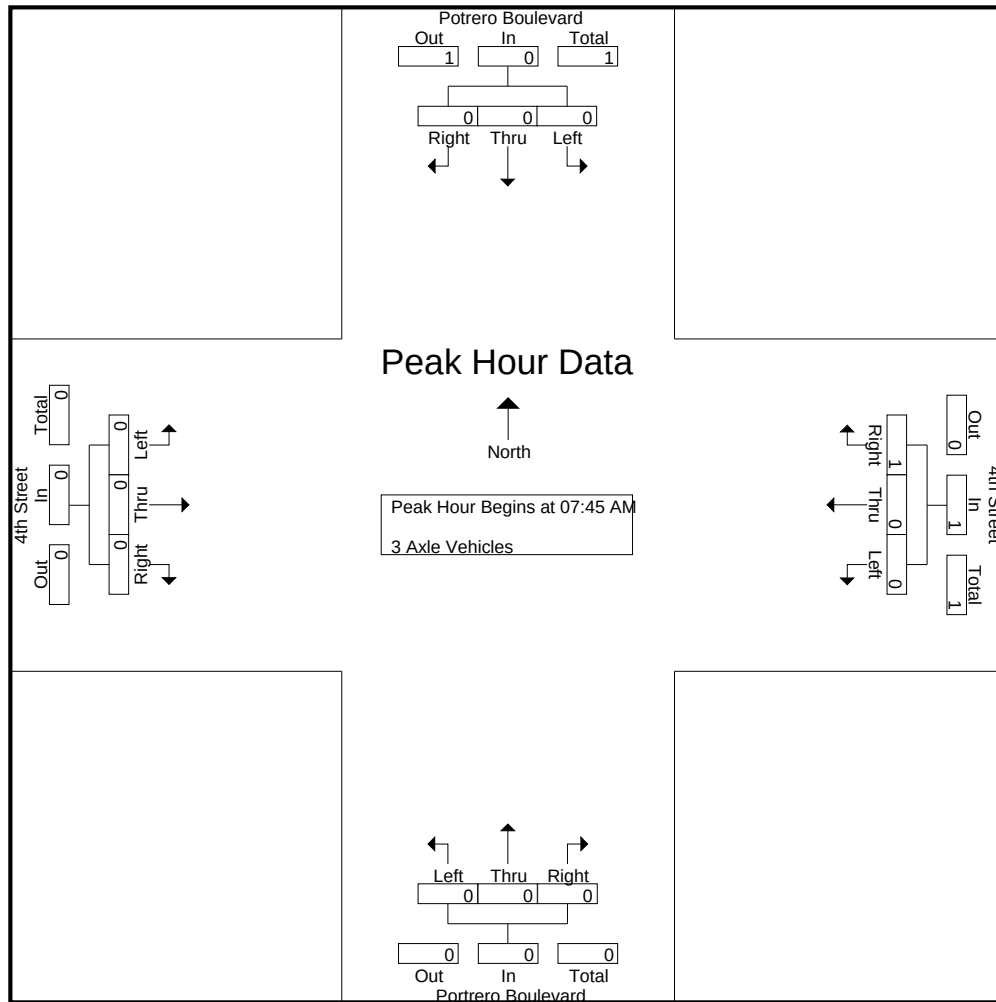
Groups Printed- 3 Axle Vehicles

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	2
Grand Total	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	2
Apprch %	0	0	0		0	0	100		0	0	0		100	0	0		
Total %	0	0	0		0	0	50	50	0	0	0		50	0	0	50	

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
% App. Total	0	0	0		0	0	100		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
Site Code : 05119803
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Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	100	100	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
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File Name : 05_BMT_Portero_4th AM
Site Code : 05119803
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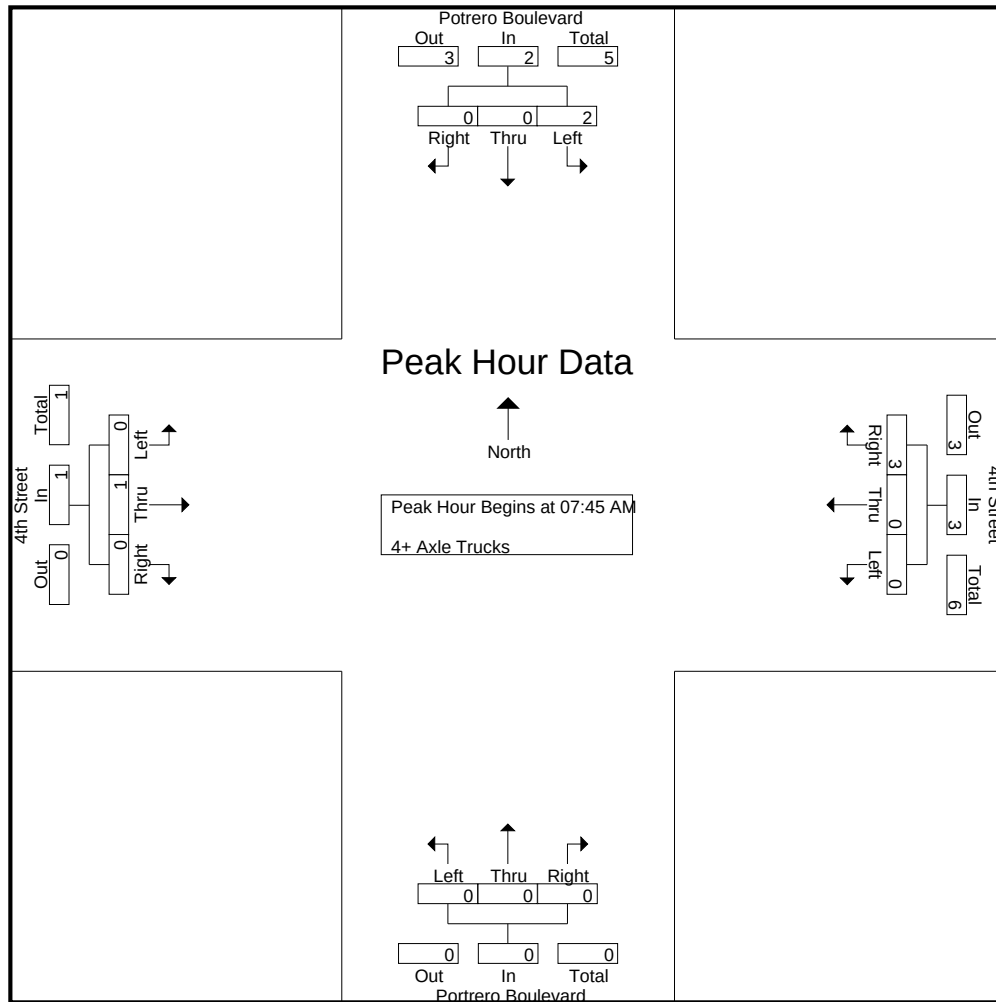
Groups Printed- 4+ Axle Trucks

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
Total	2	0	0	2	0	1	1	2	0	0	0	0	0	0	0	0	4
08:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	1	0	0	1	0	0	1	1	0	0	0	0	0	1	0	1	3
08:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	0	0	2	0	0	2	2	0	0	0	0	0	1	0	1	5
Grand Total	4	0	0	4	0	1	3	4	0	0	0	0	0	1	0	1	9
Apprch %	100	0	0		0	25	75		0	0	0		0	100	0		
Total %	44.4	0	0	44.4	0	11.1	33.3	44.4	0	0	0	0	0	11.1	0	11.1	

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
08:00 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	1	0	0	1	0	0	1	1	0	0	0	0	0	1	0	1	3
08:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
Total Volume	2	0	0	2	0	0	3	3	0	0	0	0	0	1	0	1	6
% App. Total	100	0	0		0	0	100		0	0	0		0	100	0		
PHF	.500	.000	.000	.500	.000	.000	.750	.750	.000	.000	.000	.000	.000	.250	.000	.250	.500

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th AM
Site Code : 05119803
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Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:45 AM				07:45 AM				07:45 AM			
+0 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+15 mins.	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	1	0	0	1	0	0	1	1	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
Total Volume	2	0	0	2	0	0	3	3	0	0	0	0	0	1	0	1
% App. Total	100	0	0		0	0	100		0	0	0		0	100	0	
PHF	.500	.000	.000	.500	.000	.000	.750	.750	.000	.000	.000	.000	.000	.250	.000	.250

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
Start Date : 11/19/2019
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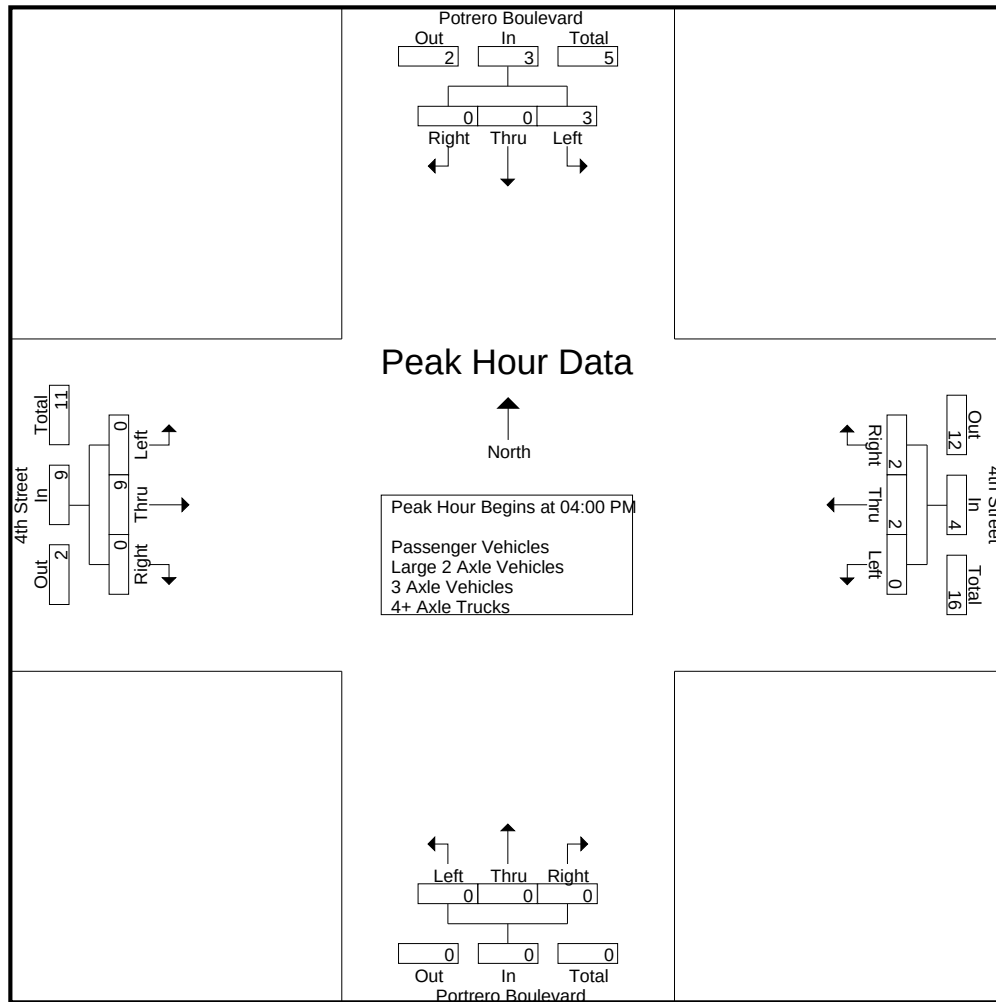
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5
04:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
04:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	3
04:45 PM	3	0	0	3	0	0	0	0	0	0	0	0	0	3	0	3	6
Total	3	0	0	3	0	2	2	4	0	0	0	0	0	9	0	9	16
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
Grand Total	3	0	0	3	0	2	3	5	0	0	0	0	0	9	0	9	17
Apprch %	100	0	0		0	40	60		0	0	0		0	100	0		
Total %	17.6	0	0	17.6	0	11.8	17.6	29.4	0	0	0	0	0	52.9	0	52.9	
Passenger Vehicles	3	0	0	3	0	2	3	5	0	0	0	0	0	7	0	7	15
% Passenger Vehicles	100	0	0	100	0	100	100	100	0	0	0	0	0	77.8	0	77.8	88.2
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	11.1	0	11.1	5.9
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	11.1	0	11.1	5.9

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3	5
04:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
04:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	3
04:45 PM	3	0	0	3	0	0	0	0	0	0	0	0	0	3	0	3	6
Total Volume	3	0	0	3	0	2	2	4	0	0	0	0	0	9	0	9	16
% App. Total	100	0	0		0	50	50		0	0	0		0	100	0		
PHF	.250	.000	.000	.250	.000	.250	.500	.500	.000	.000	.000	.000	.000	.750	.000	.750	.667

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	3	0	3
+15 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2
+45 mins.	3	0	0	3	0	0	0	0	0	0	0	0	0	3	0	3
Total Volume	3	0	0	3	0	2	2	4	0	0	0	0	0	9	0	9
% App. Total	100	0	0		0	50	50		0	0	0		0	100	0	
PHF	.250	.000	.000	.250	.000	.250	.500	.500	.000	.000	.000	.000	.000	.750	.000	.750

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
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Page No : 1

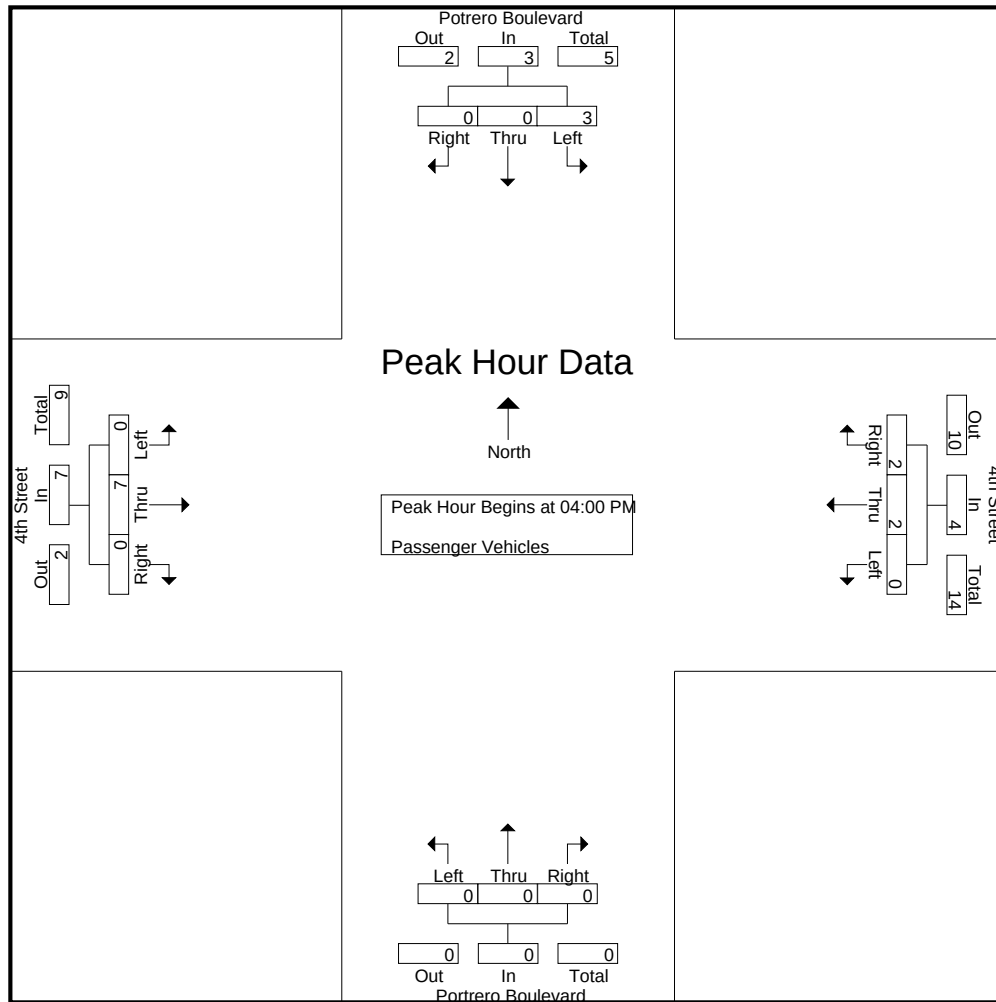
Groups Printed- Passenger Vehicles

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
04:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
04:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	3
04:45 PM	3	0	0	3	0	0	0	0	0	0	0	0	0	2	0	2	5
Total	3	0	0	3	0	2	2	4	0	0	0	0	0	7	0	7	14
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
Grand Total	3	0	0	3	0	2	3	5	0	0	0	0	0	7	0	7	15
Apprch %	100	0	0		0	40	60		0	0	0		0	100	0		
Total %	20	0	0	20	0	13.3	20	33.3	0	0	0	0	0	46.7	0	46.7	

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2	4
04:15 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
04:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2	3
04:45 PM	3	0	0	3	0	0	0	0	0	0	0	0	0	2	0	2	5
Total Volume	3	0	0	3	0	2	2	4	0	0	0	0	0	7	0	7	14
% App. Total	100	0	0		0	50	50		0	0	0		0	100	0		
PHF	.250	.000	.000	.250	.000	.250	.500	.500	.000	.000	.000	.000	.000	.875	.000	.875	.700

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	2	0	2	0	0	0	0	0	2	0	2
+15 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1
+30 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	2	0	2
+45 mins.	3	0	0	3	0	0	0	0	0	0	0	0	0	2	0	2
Total Volume	3	0	0	3	0	2	2	4	0	0	0	0	0	7	0	7
% App. Total	100	0	0		0	50	50		0	0	0		0	100	0	
PHF	.250	.000	.000	.250	.000	.250	.500	.500	.000	.000	.000	.000	.000	.875	.000	.875

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
Start Date : 11/19/2019
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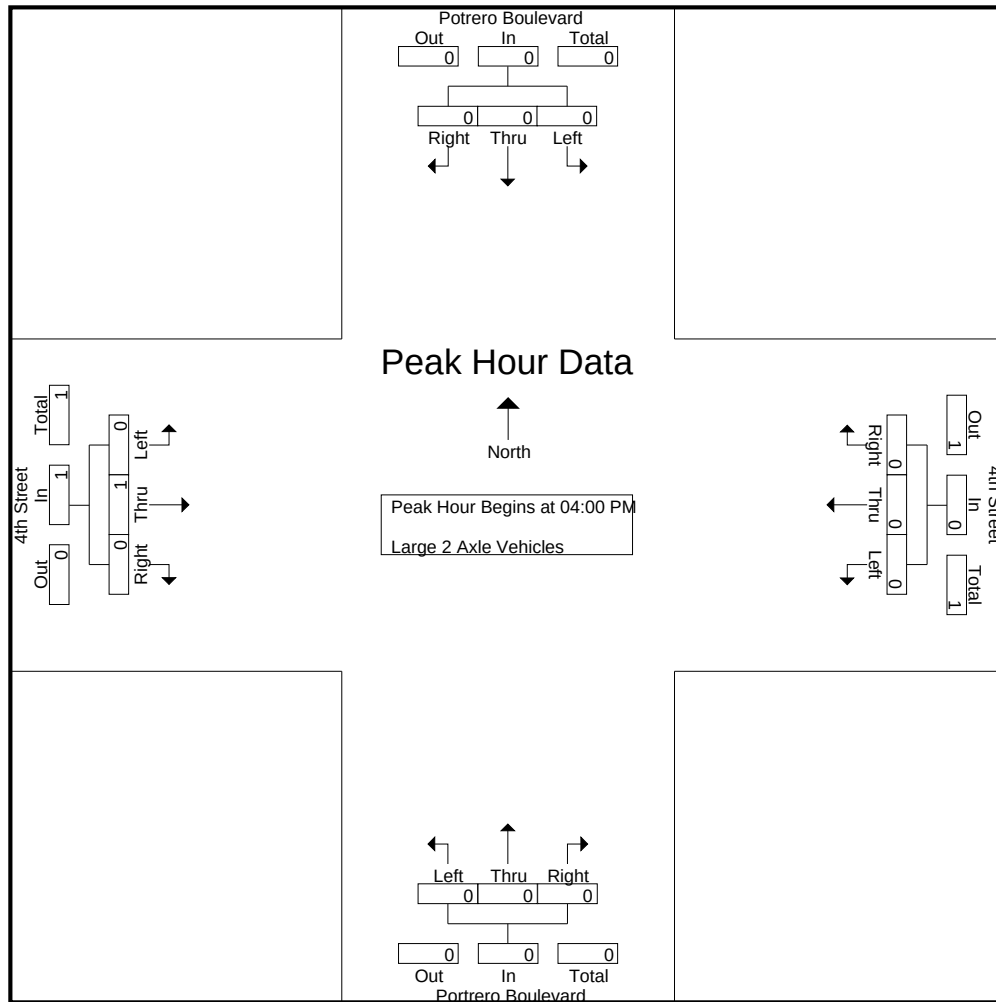
Groups Printed- Large 2 Axle Vehicles

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Apprch %	0	0	0		0	0	0		0	0	0		0	100	0		
Total %	0	0	0		0	0	0		0	0	0		0	100	0	100	

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
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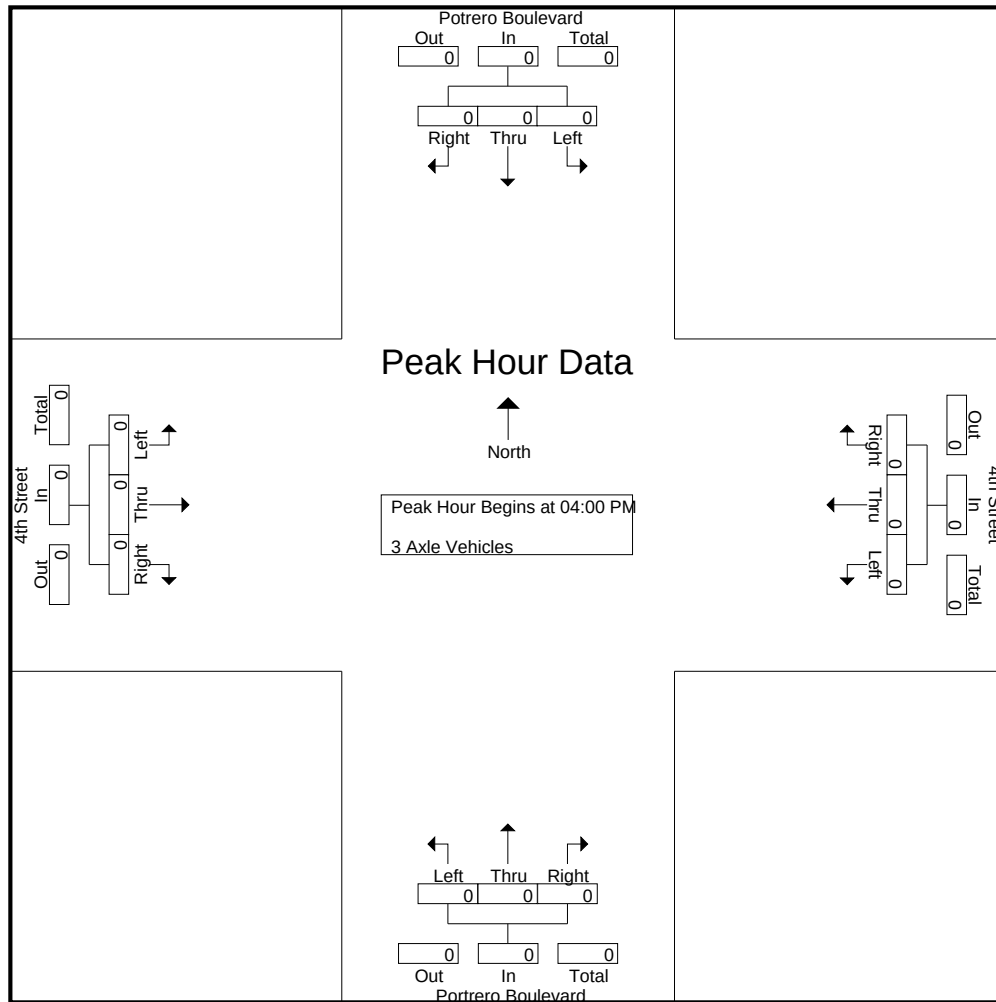
Groups Printed- 3 Axle Vehicles

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
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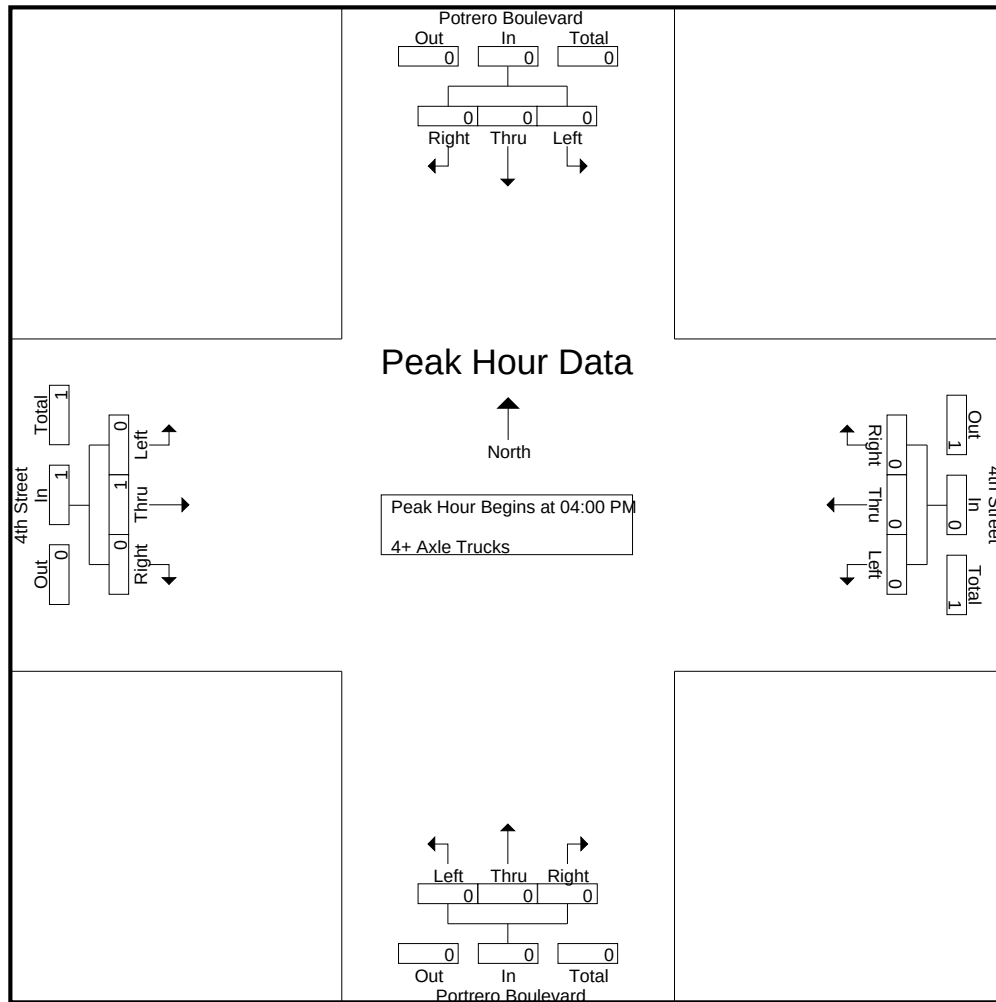
Groups Printed- 4+ Axle Trucks

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Apprch %	0	0	0		0	0	0		0	0	0		0	100	0		
Total %	0	0	0		0	0	0		0	0	0		0	100	0	100	

	Potrero Boulevard Southbound				4th Street Westbound				Portrero Boulevard Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

City of Beaumont
N/S: Potrero Boulevard
E/W: 4th Street
Weather: Clear

File Name : 05_BMT_Portero_4th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250

Location: Beaumont
 N/S: Potrero Boulevard
 E/W: 4th Street



Date: 11/19/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Potrero Boulevard	East Leg 4th Street	South Leg Potrero Boulevard	West Leg 4th Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Potrero Boulevard	East Leg 4th Street	South Leg Potrero Boulevard	West Leg 4th Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Beaumont
 N/S: Potrero Boulevard
 E/W: 4th Street



Date: 11/19/2019
 Day: Tuesday

BICYCLES

	Southbound Potrero Boulevard			Westbound 4th Street			Northbound Potrero Boulevard			Eastbound 4th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Potrero Boulevard			Westbound 4th Street			Northbound Potrero Boulevard			Eastbound 4th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

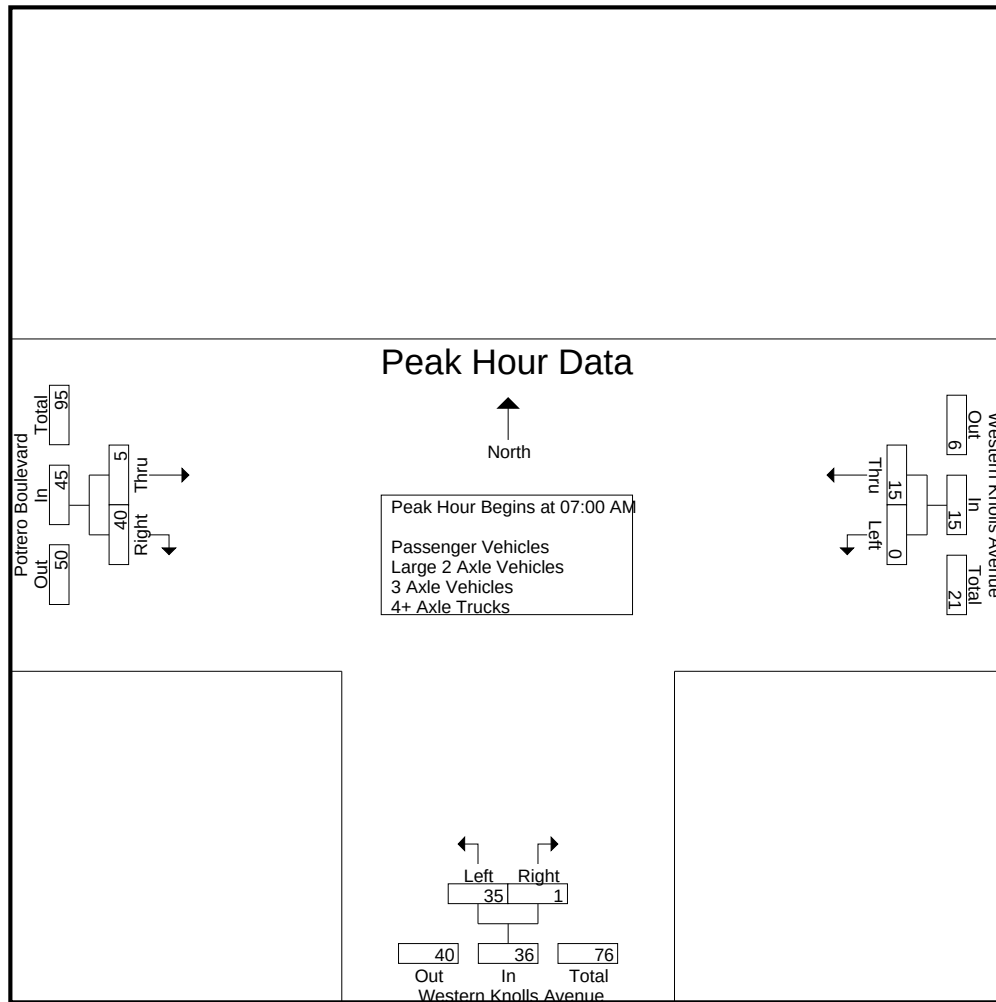
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	4	4	7	0	7	3	15	18	29
07:15 AM	0	7	7	17	1	18	1	11	12	37
07:30 AM	0	3	3	9	0	9	0	10	10	22
07:45 AM	0	1	1	2	0	2	1	4	5	8
Total	0	15	15	35	1	36	5	40	45	96
08:00 AM	1	2	3	9	1	10	1	1	2	15
08:15 AM	1	1	2	3	0	3	0	3	3	8
08:30 AM	0	2	2	8	0	8	0	7	7	17
08:45 AM	0	2	2	1	1	2	2	6	8	12
Total	2	7	9	21	2	23	3	17	20	52
Grand Total	2	22	24	56	3	59	8	57	65	148
Apprch %	8.3	91.7		94.9	5.1		12.3	87.7		
Total %	1.4	14.9	16.2	37.8	2	39.9	5.4	38.5	43.9	
Passenger Vehicles	1	21	22	54	3	57	7	57	64	143
% Passenger Vehicles	50	95.5	91.7	96.4	100	96.6	87.5	100	98.5	96.6
Large 2 Axle Vehicles	1	1	2	2	0	2	1	0	1	5
% Large 2 Axle Vehicles	50	4.5	8.3	3.6	0	3.4	12.5	0	1.5	3.4
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	4	4	7	0	7	3	15	18	29
07:15 AM	0	7	7	17	1	18	1	11	12	37
07:30 AM	0	3	3	9	0	9	0	10	10	22
07:45 AM	0	1	1	2	0	2	1	4	5	8
Total Volume	0	15	15	35	1	36	5	40	45	96
% App. Total	0	100		97.2	2.8		11.1	88.9		
PHF	.000	.536	.536	.515	.250	.500	.417	.667	.625	.649

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:15 AM			07:00 AM		
+0 mins.	0	4	4	17	1	18	3	15	18
+15 mins.	0	7	7	9	0	9	1	11	12
+30 mins.	0	3	3	2	0	2	0	10	10
+45 mins.	0	1	1	9	1	10	1	4	5
Total Volume	0	15	15	37	2	39	5	40	45
% App. Total	0	100		94.9	5.1		11.1	88.9	
PHF	.000	.536	.536	.544	.500	.542	.417	.667	.625

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

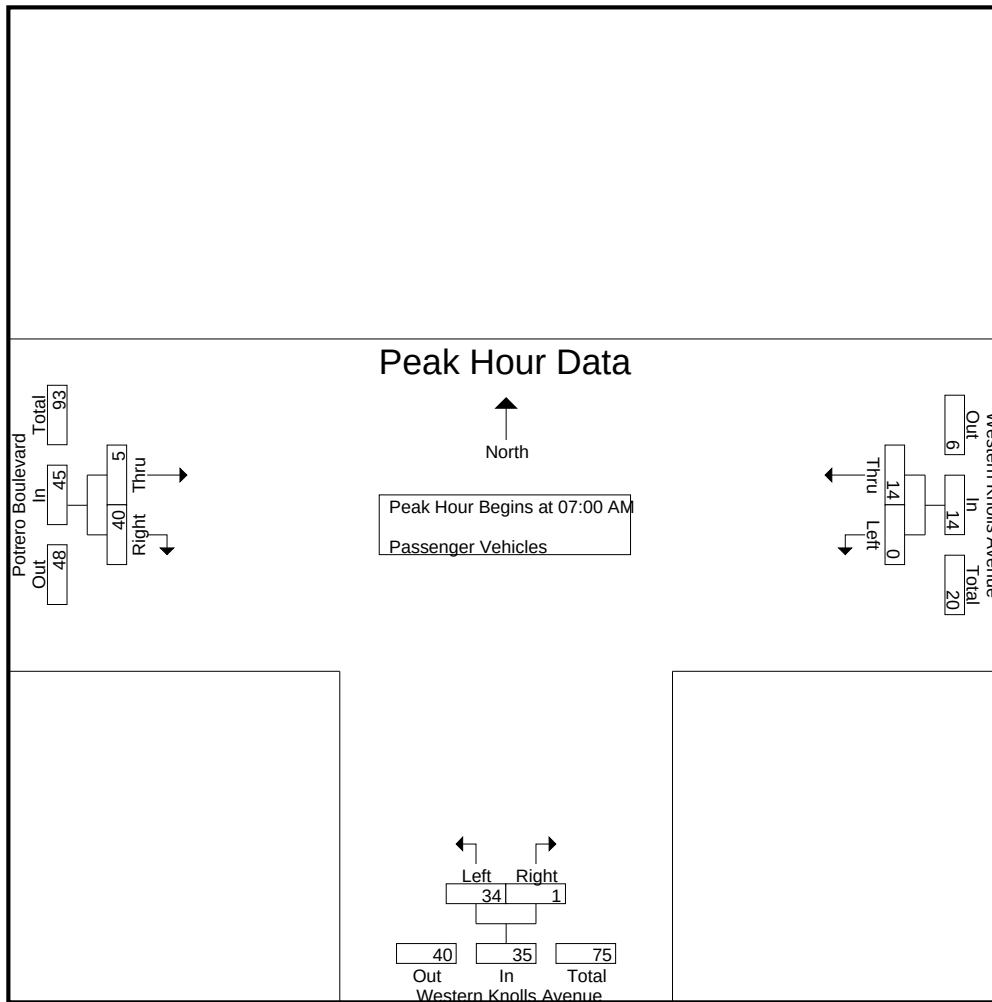
Groups Printed- Passenger Vehicles

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	4	4	7	0	7	3	15	18	29
07:15 AM	0	6	6	16	1	17	1	11	12	35
07:30 AM	0	3	3	9	0	9	0	10	10	22
07:45 AM	0	1	1	2	0	2	1	4	5	8
Total	0	14	14	34	1	35	5	40	45	94
08:00 AM	0	2	2	9	1	10	0	1	1	13
08:15 AM	1	1	2	3	0	3	0	3	3	8
08:30 AM	0	2	2	8	0	8	0	7	7	17
08:45 AM	0	2	2	0	1	1	2	6	8	11
Total	1	7	8	20	2	22	2	17	19	49
Grand Total	1	21	22	54	3	57	7	57	64	143
Apprch %	4.5	95.5		94.7	5.3		10.9	89.1		
Total %	0.7	14.7	15.4	37.8	2.1	39.9	4.9	39.9	44.8	

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	4	4	7	0	7	3	15	18	29
07:15 AM	0	6	6	16	1	17	1	11	12	35
07:30 AM	0	3	3	9	0	9	0	10	10	22
07:45 AM	0	1	1	2	0	2	1	4	5	8
Total Volume	0	14	14	34	1	35	5	40	45	94
% App. Total	0	100		97.1	2.9		11.1	88.9		
PHF	.000	.583	.583	.531	.250	.515	.417	.667	.625	.671

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	4	4	7	0	7	3	15	18
+15 mins.	0	6	6	16	1	17	1	11	12
+30 mins.	0	3	3	9	0	9	0	10	10
+45 mins.	0	1	1	2	0	2	1	4	5
Total Volume	0	14	14	34	1	35	5	40	45
% App. Total	0	100		97.1	2.9		11.1	88.9	
PHF	.000	.583	.583	.531	.250	.515	.417	.667	.625

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

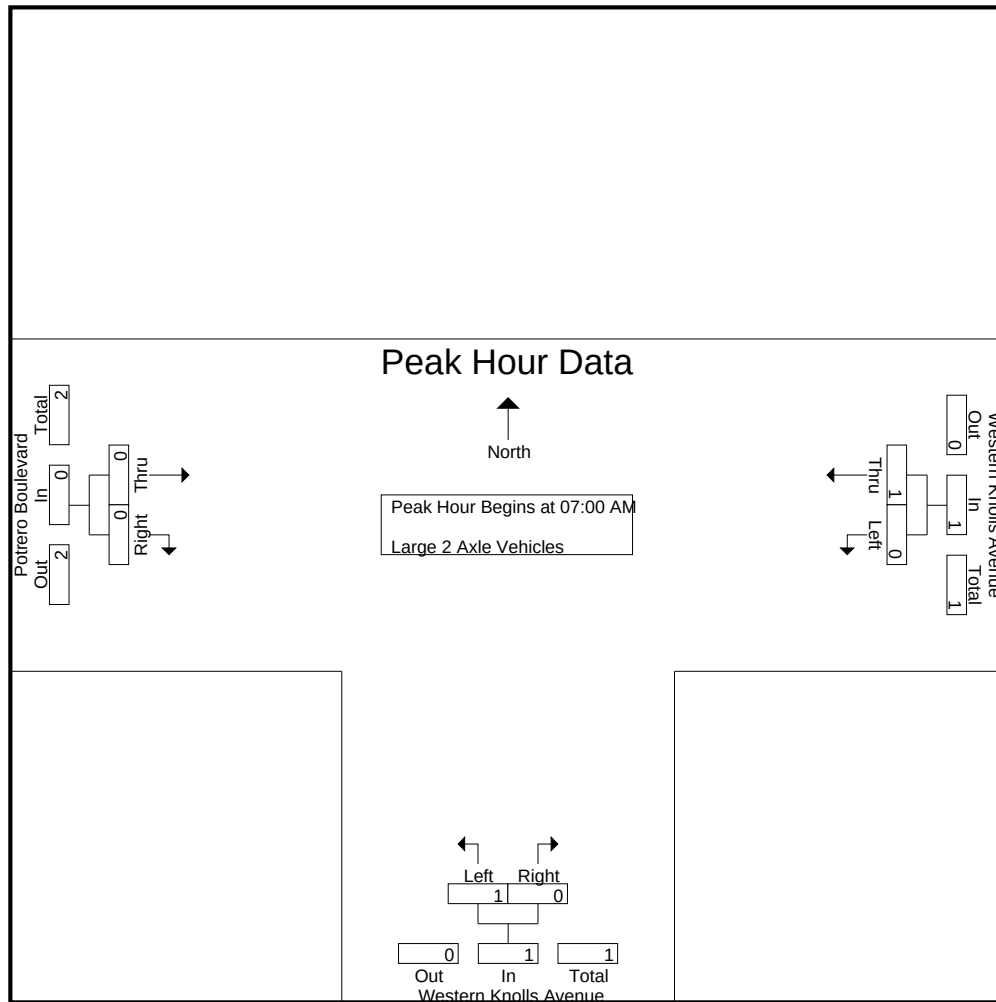
Groups Printed- Large 2 Axle Vehicles

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	1	1	0	1	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	1	0	1	0	0	0	2
08:00 AM	1	0	1	0	0	0	1	0	1	2
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	1	0	1	0	0	0	1
Total	1	0	1	1	0	1	1	0	1	3
Grand Total	1	1	2	2	0	2	1	0	1	5
Apprch %	50	50		100	0		100	0		
Total %	20	20	40	40	0	40	20	0	20	

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	1	1	1	0	1	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	1	0	1	0	0	0	2
% App. Total	0	100		100	0		0	0		
PHF	.000	.250	.250	.250	.000	.250	.000	.000	.000	.250

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	1	1	1	0	1	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	1	0	1	0	0	0
% App. Total	0	100		100	0		0	0	
PHF	.000	.250	.250	.250	.000	.250	.000	.000	.000

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

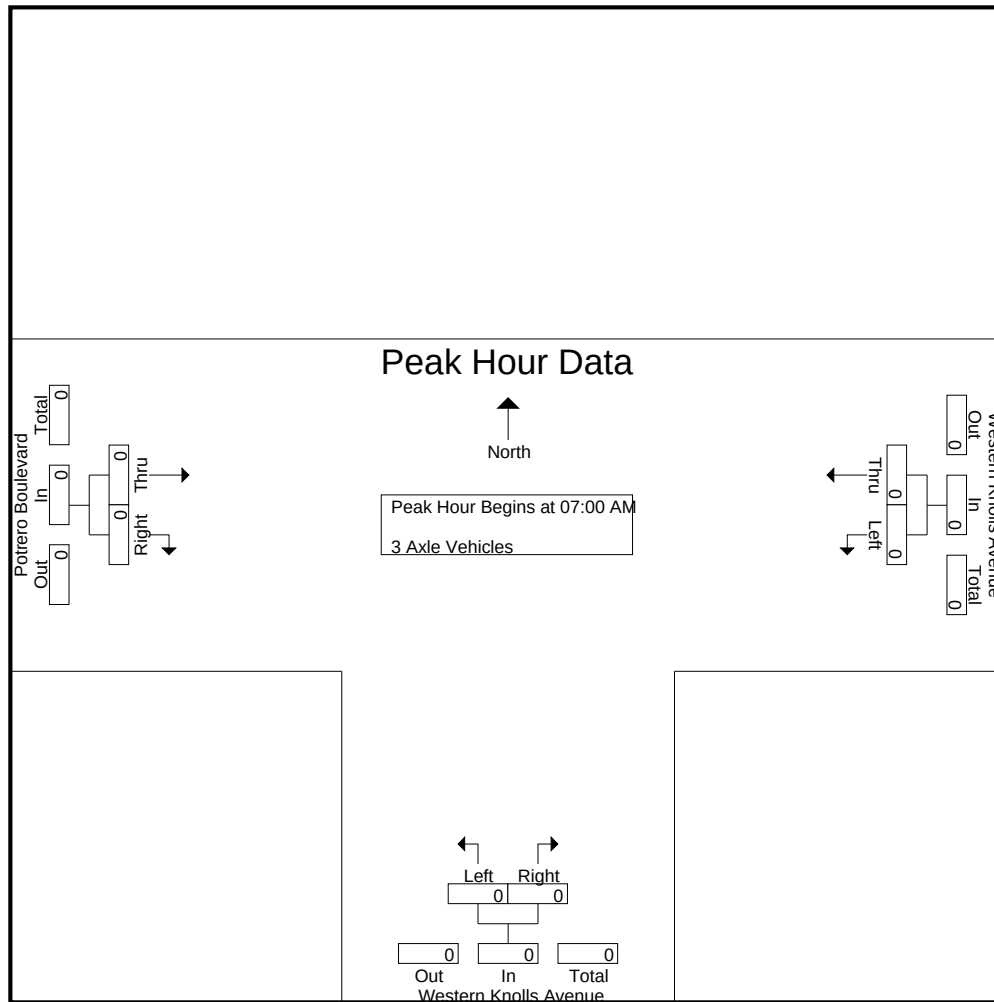
Groups Printed- 3 Axle Vehicles

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

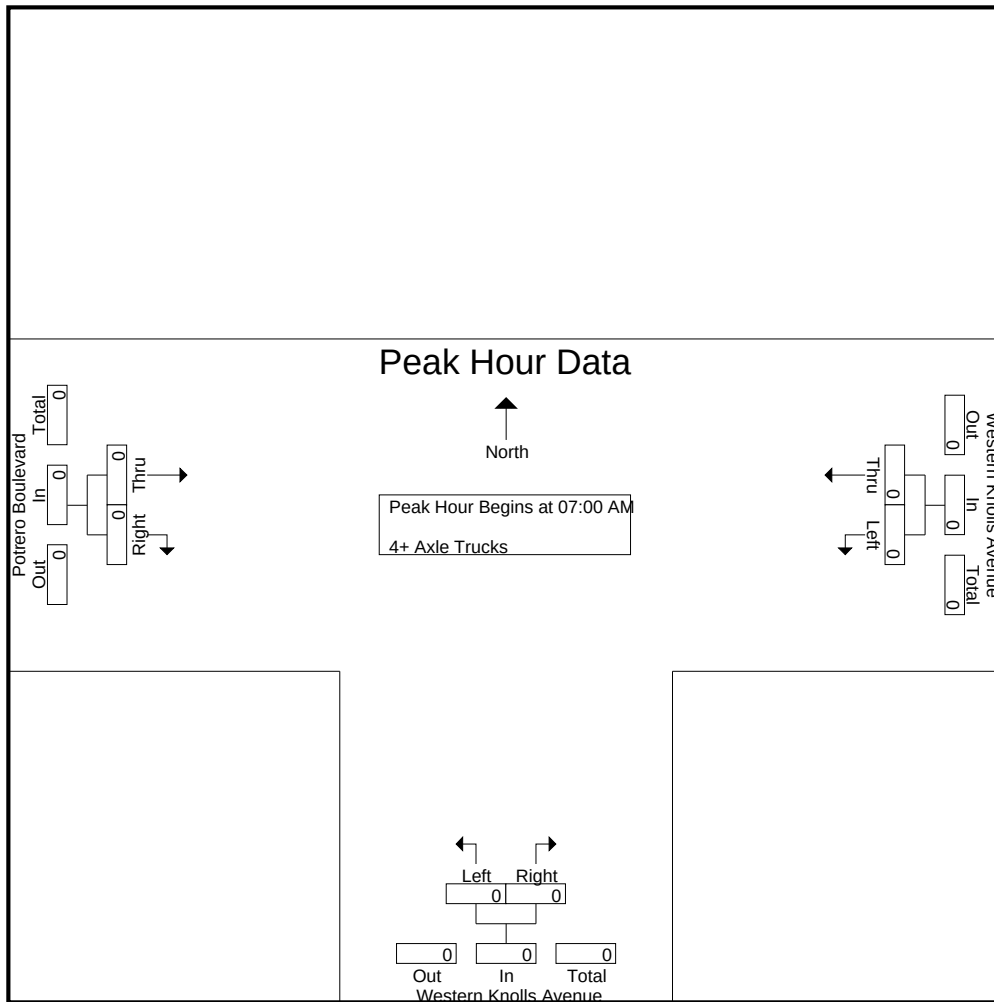
Groups Printed- 4+ Axle Trucks

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero AM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019
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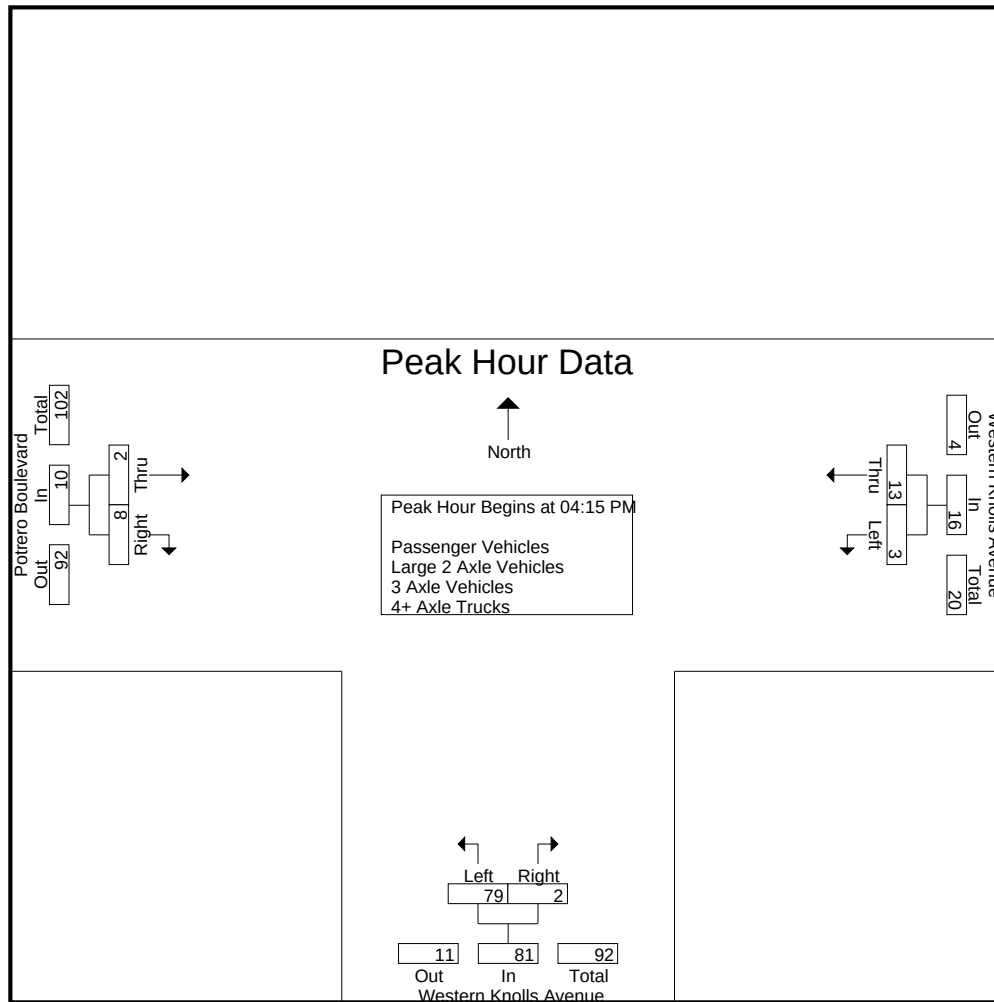
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	1	5	6	8	1	9	0	2	2	17
04:15 PM	0	4	4	22	0	22	0	3	3	29
04:30 PM	1	3	4	27	1	28	0	3	3	35
04:45 PM	1	4	5	12	1	13	2	1	3	21
Total	3	16	19	69	3	72	2	9	11	102
05:00 PM	1	2	3	18	0	18	0	1	1	22
05:15 PM	0	3	3	16	0	16	0	0	0	19
05:30 PM	0	2	2	18	2	20	0	2	2	24
05:45 PM	0	1	1	16	0	16	0	0	0	17
Total	1	8	9	68	2	70	0	3	3	82
Grand Total	4	24	28	137	5	142	2	12	14	184
Apprch %	14.3	85.7		96.5	3.5		14.3	85.7		
Total %	2.2	13	15.2	74.5	2.7	77.2	1.1	6.5	7.6	
Passenger Vehicles	4	23	27	136	5	141	2	11	13	181
% Passenger Vehicles	100	95.8	96.4	99.3	100	99.3	100	91.7	92.9	98.4
Large 2 Axle Vehicles	0	1	1	1	0	1	0	1	1	3
% Large 2 Axle Vehicles	0	4.2	3.6	0.7	0	0.7	0	8.3	7.1	1.6
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	4	4	22	0	22	0	3	3	29
04:30 PM	1	3	4	27	1	28	0	3	3	35
04:45 PM	1	4	5	12	1	13	2	1	3	21
05:00 PM	1	2	3	18	0	18	0	1	1	22
Total Volume	3	13	16	79	2	81	2	8	10	107
% App. Total	18.8	81.2		97.5	2.5		20	80		
PHF	.750	.813	.800	.731	.500	.723	.250	.667	.833	.764

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:15 PM			04:00 PM		
+0 mins.	1	5	6	22	0	22	0	2	2
+15 mins.	0	4	4	27	1	28	0	3	3
+30 mins.	1	3	4	12	1	13	0	3	3
+45 mins.	1	4	5	18	0	18	2	1	3
Total Volume	3	16	19	79	2	81	2	9	11
% App. Total	15.8	84.2		97.5	2.5		18.2	81.8	
PHF	.750	.800	.792	.731	.500	.723	.250	.750	.917

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

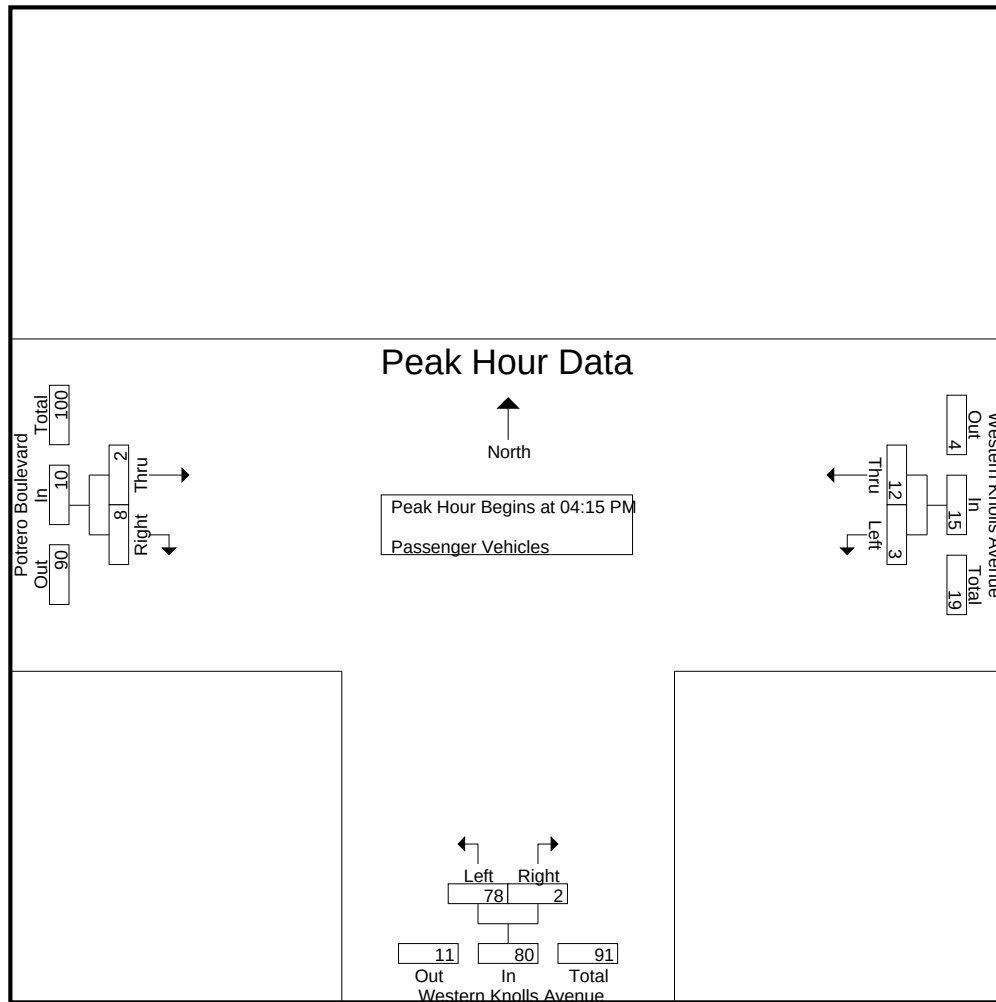
Groups Printed- Passenger Vehicles

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	1	5	6	8	1	9	0	2	2	17
04:15 PM	0	4	4	21	0	21	0	3	3	28
04:30 PM	1	2	3	27	1	28	0	3	3	34
04:45 PM	1	4	5	12	1	13	2	1	3	21
Total	3	15	18	68	3	71	2	9	11	100
05:00 PM	1	2	3	18	0	18	0	1	1	22
05:15 PM	0	3	3	16	0	16	0	0	0	19
05:30 PM	0	2	2	18	2	20	0	1	1	23
05:45 PM	0	1	1	16	0	16	0	0	0	17
Total	1	8	9	68	2	70	0	2	2	81
Grand Total	4	23	27	136	5	141	2	11	13	181
Apprch %	14.8	85.2		96.5	3.5		15.4	84.6		
Total %	2.2	12.7	14.9	75.1	2.8	77.9	1.1	6.1	7.2	

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	4	4	21	0	21	0	3	3	28
04:30 PM	1	2	3	27	1	28	0	3	3	34
04:45 PM	1	4	5	12	1	13	2	1	3	21
05:00 PM	1	2	3	18	0	18	0	1	1	22
Total Volume	3	12	15	78	2	80	2	8	10	105
% App. Total	20	80		97.5	2.5		20	80		
PHF	.750	.750	.750	.722	.500	.714	.250	.667	.833	.772

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	4	4	21	0	21	0	3	3
+15 mins.	1	2	3	27	1	28	0	3	3
+30 mins.	1	4	5	12	1	13	2	1	3
+45 mins.	1	2	3	18	0	18	0	1	1
Total Volume	3	12	15	78	2	80	2	8	10
% App. Total	20	80		97.5	2.5		20	80	
PHF	.750	.750	.750	.722	.500	.714	.250	.667	.833

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

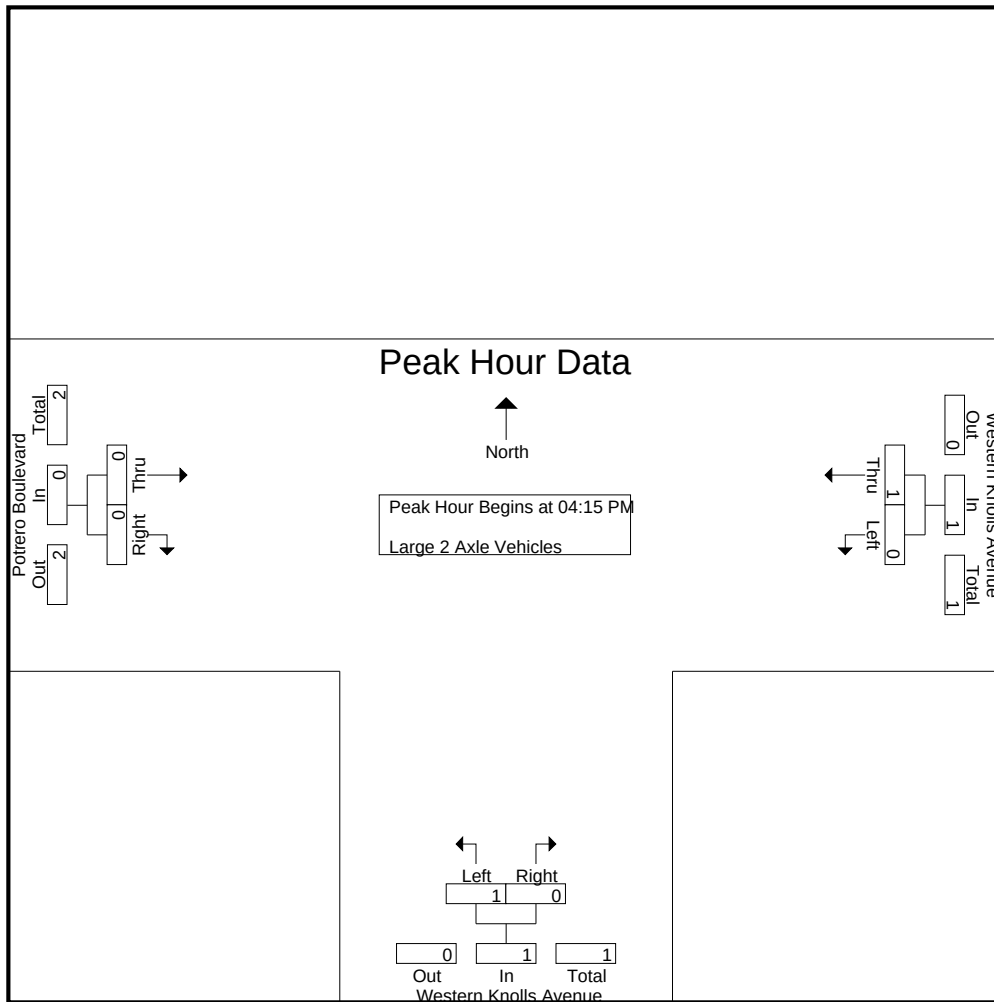
Groups Printed- Large 2 Axle Vehicles

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	1	0	1	0	0	0	1
04:30 PM	0	1	1	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	1	1	1	0	1	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	1	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	1	1
Grand Total	0	1	1	1	0	1	0	1	1	3
Apprch %	0	100		100	0		0	100		
Total %	0	33.3	33.3	33.3	0	33.3	0	33.3	33.3	

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	1	0	1	0	0	0	1
04:30 PM	0	1	1	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	1	0	1	0	0	0	2
% App. Total	0	100		100	0		0	0		
PHF	.000	.250	.250	.250	.000	.250	.000	.000	.000	.500

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
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Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	0	0	1	0	1	0	0	0
+15 mins.	0	1	1	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	1	1	1	0	1	0	0	0
% App. Total	0	100		100	0		0	0	
PHF	.000	.250	.250	.250	.000	.250	.000	.000	.000

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

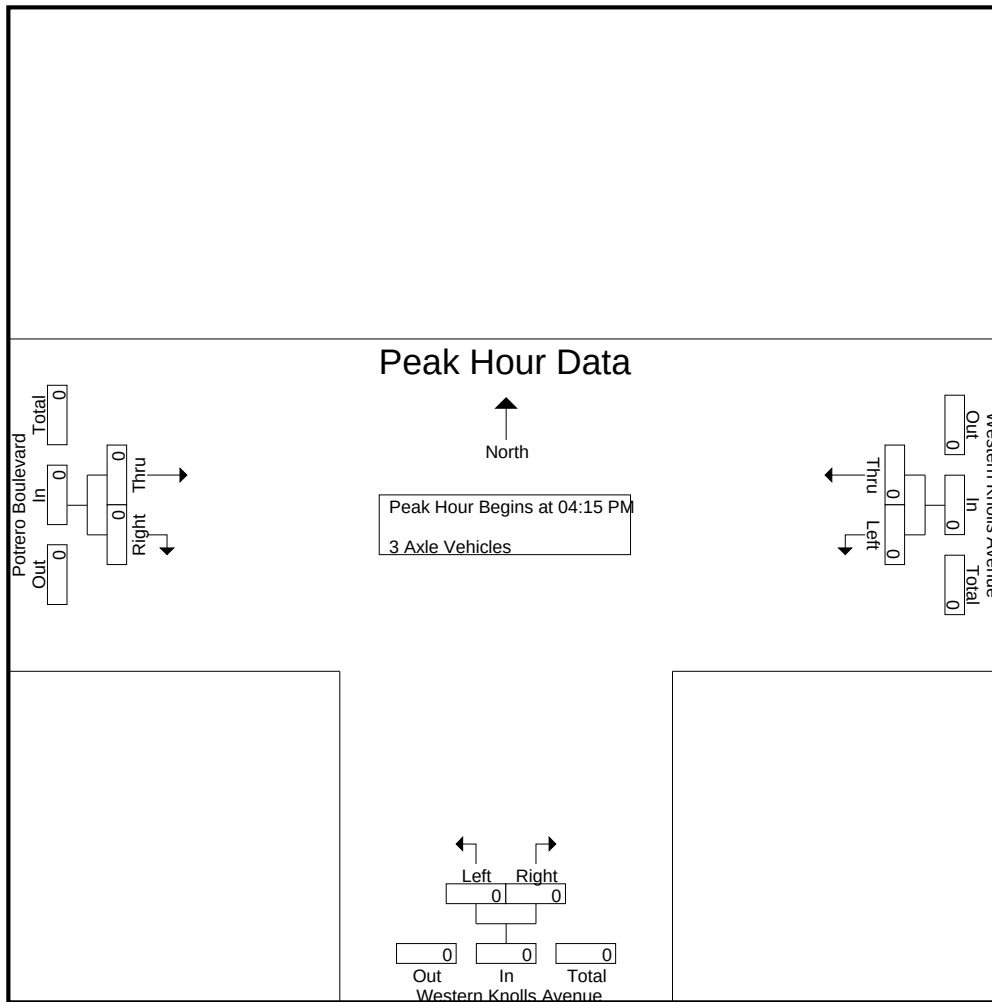
Groups Printed- 3 Axle Vehicles

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

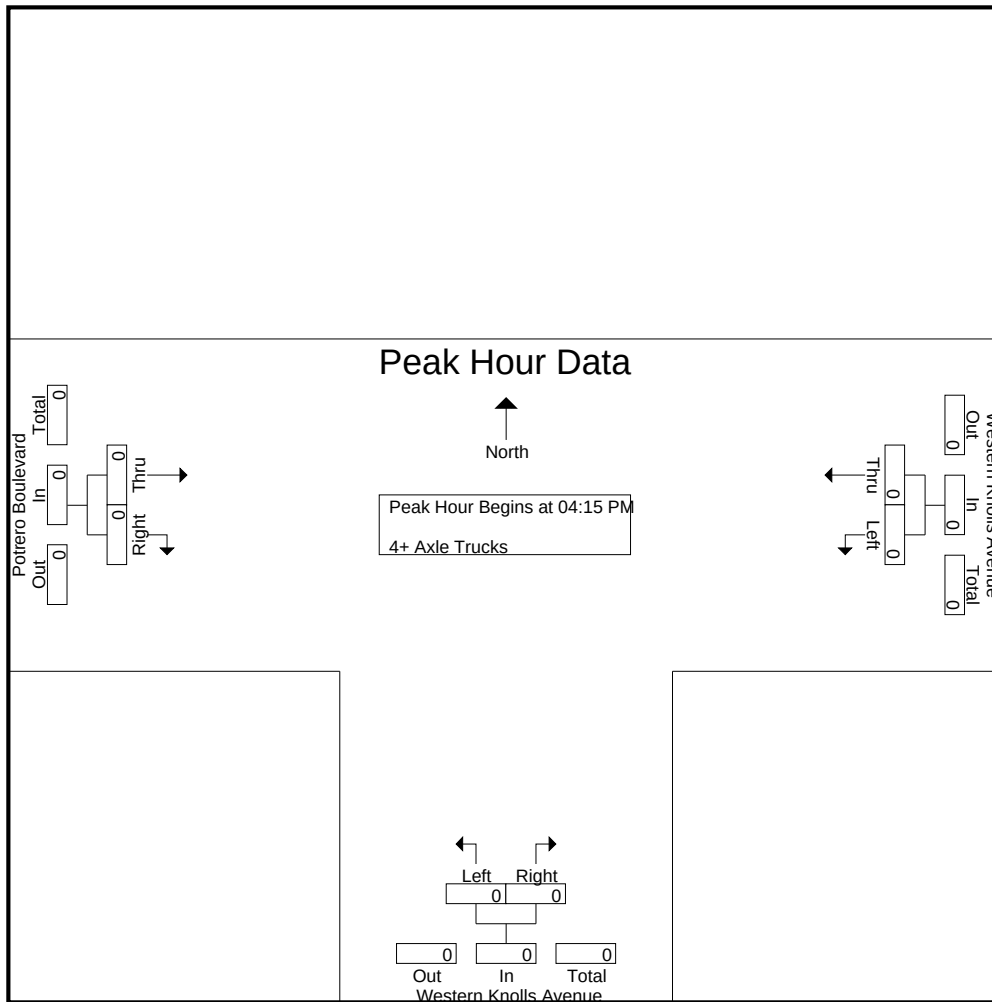
Groups Printed- 4+ Axle Trucks

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

	Western Knolls Avenue Westbound			Western Knolls Avenue Northbound			Potrero Boulevard Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:15 PM										
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Western Knolls Avenue
E/W: Potrero Blvd/Western Knolls Avenue
Weather: Clear

File Name : 06_BMT_Western Knolls_Potrero PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:15 PM			04:15 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Beaumont
 N/S: Western Knolls Avenue
 E/W: Potrero Blvd/Western Knolls Ave



Date: 11/19/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Dead End	East Leg Western Knolls Avenue	South Leg Western Knolls Avenue	West Leg Potrero Boulevard	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Dead End	East Leg Western Knolls Avenue	South Leg Western Knolls Avenue	West Leg Potrero Boulevard	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Beaumont
 N/S: Western Knolls Avenue
 E/W: Potrero Blvd/Western Knolls Ave



Date: 11/19/2019
 Day: Tuesday

BICYCLES

		Southbound Dead End			Westbound Western Knolls Avenue			Northbound Western Knolls Avenue			Eastbound Potrero Boulevard			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0	0	0	0	0	0	0	0	0

		Southbound Dead End			Westbound Western Knolls Avenue			Northbound Western Knolls Avenue			Eastbound Potrero Boulevard			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0	0	0	0	0	0	0	0	0

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	122	12	134	71	88	159	15	61	76	369
07:15 AM	129	12	141	60	98	158	16	66	82	381
07:30 AM	142	16	158	43	67	110	11	68	79	347
07:45 AM	62	2	64	43	50	93	6	66	72	229
Total	455	42	497	217	303	520	48	261	309	1326
08:00 AM	65	3	68	49	55	104	1	44	45	217
08:15 AM	57	2	59	37	43	80	1	57	58	197
08:30 AM	53	1	54	31	35	66	1	42	43	163
08:45 AM	51	2	53	39	29	68	6	44	50	171
Total	226	8	234	156	162	318	9	187	196	748
Grand Total	681	50	731	373	465	838	57	448	505	2074
Apprch %	93.2	6.8		44.5	55.5		11.3	88.7		
Total %	32.8	2.4	35.2	18	22.4	40.4	2.7	21.6	24.3	
Passenger Vehicles	673	49	722	349	453	802	55	426	481	2005
% Passenger Vehicles	98.8	98	98.8	93.6	97.4	95.7	96.5	95.1	95.2	96.7
Large 2 Axle Vehicles	8	1	9	12	12	24	2	10	12	45
% Large 2 Axle Vehicles	1.2	2	1.2	3.2	2.6	2.9	3.5	2.2	2.4	2.2
3 Axle Vehicles	0	0	0	6	0	6	0	5	5	11
% 3 Axle Vehicles	0	0	0	1.6	0	0.7	0	1.1	1	0.5
4+ Axle Trucks	0	0	0	6	0	6	0	7	7	13
% 4+ Axle Trucks	0	0	0	1.6	0	0.7	0	1.6	1.4	0.6

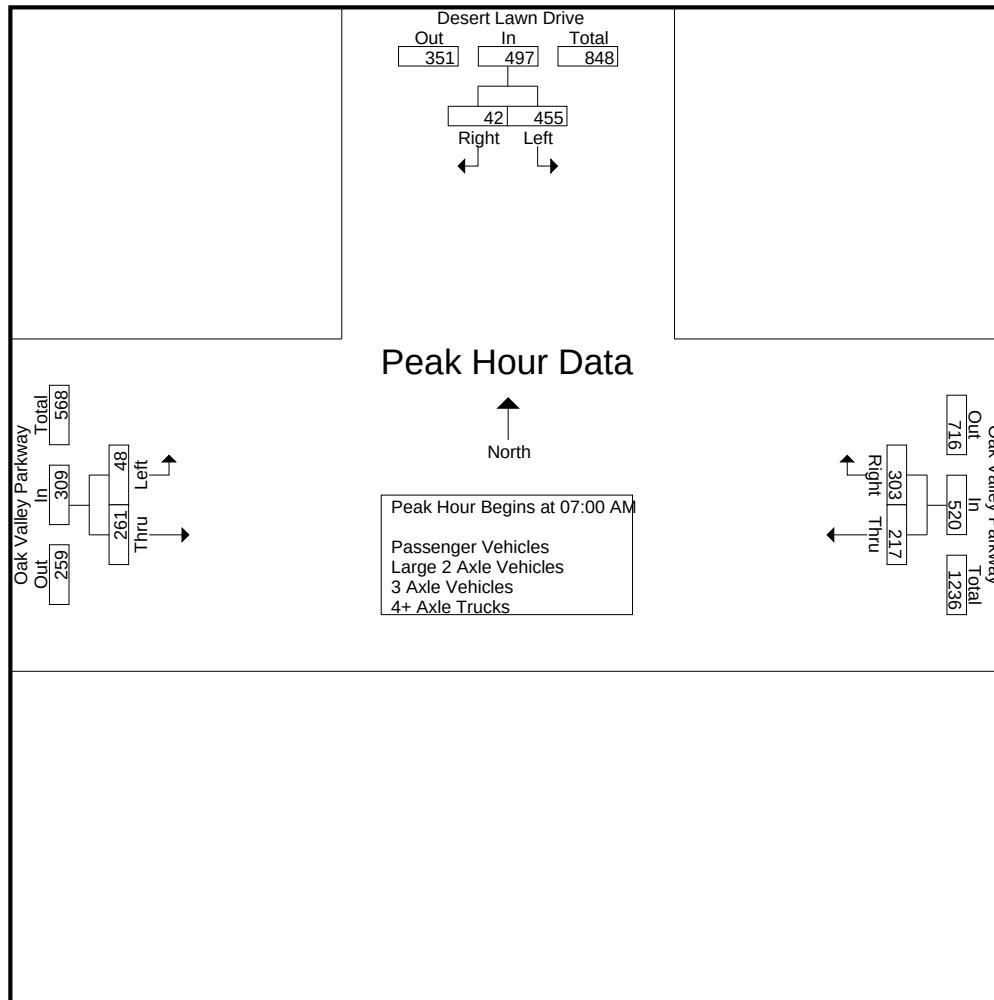
	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	122	12	134	71	88	159	15	61	76	369
07:15 AM	129	12	141	60	98	158	16	66	82	381
07:30 AM	142	16	158	43	67	110	11	68	79	347
07:45 AM	62	2	64	43	50	93	6	66	72	229
Total Volume	455	42	497	217	303	520	48	261	309	1326
% App. Total	91.5	8.5		41.7	58.3		15.5	84.5		
PHF	.801	.656	.786	.764	.773	.818	.750	.960	.942	.870

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	122	12	134	71	88	159	15	61	76
+15 mins.	129	12	141	60	98	158	16	66	82
+30 mins.	142	16	158	43	67	110	11	68	79
+45 mins.	62	2	64	43	50	93	6	66	72
Total Volume	455	42	497	217	303	520	48	261	309
% App. Total	91.5	8.5		41.7	58.3		15.5	84.5	
PHF	.801	.656	.786	.764	.773	.818	.750	.960	.942

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
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Start Date : 11/19/2019
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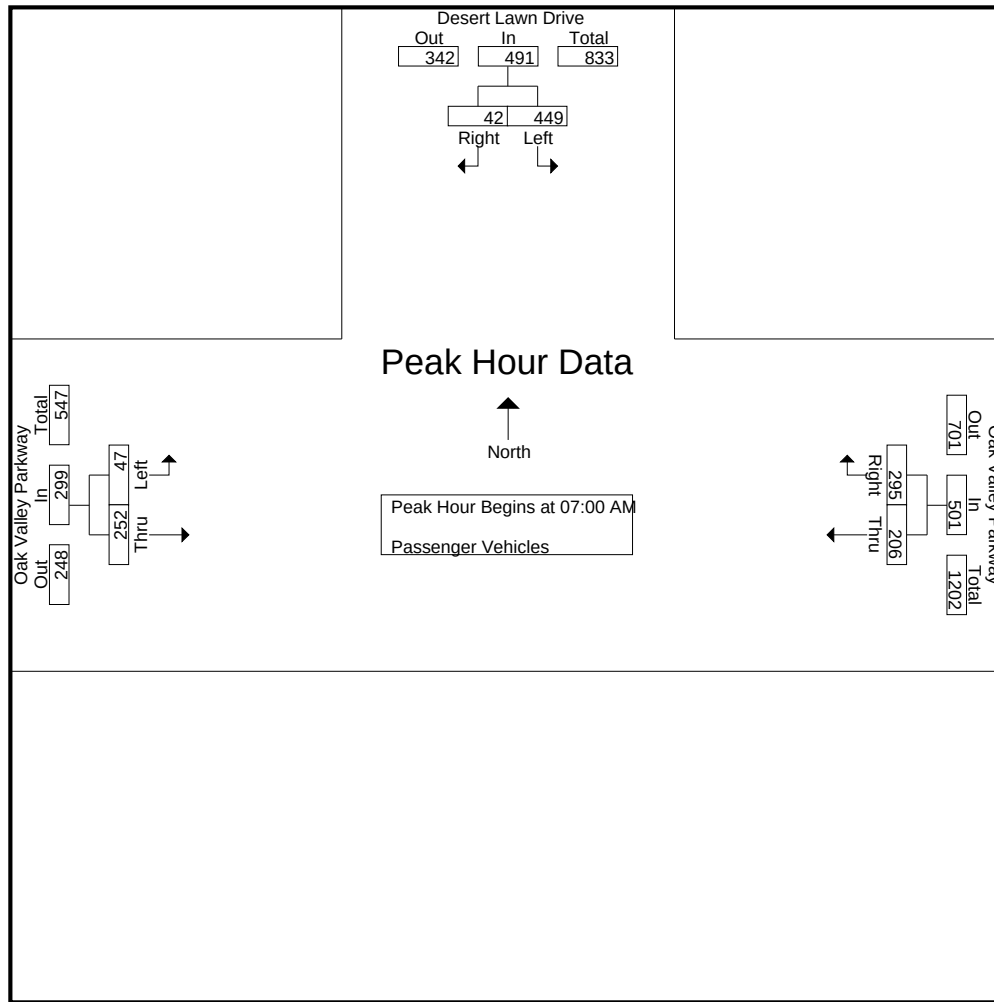
Groups Printed- Passenger Vehicles

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	121	12	133	69	87	156	15	58	73	362
07:15 AM	129	12	141	56	93	149	16	63	79	369
07:30 AM	138	16	154	42	66	108	10	66	76	338
07:45 AM	61	2	63	39	49	88	6	65	71	222
Total	449	42	491	206	295	501	47	252	299	1291
08:00 AM	65	2	67	48	53	101	1	41	42	210
08:15 AM	56	2	58	34	42	76	1	55	56	190
08:30 AM	52	1	53	26	34	60	1	38	39	152
08:45 AM	51	2	53	35	29	64	5	40	45	162
Total	224	7	231	143	158	301	8	174	182	714
Grand Total	673	49	722	349	453	802	55	426	481	2005
Apprch %	93.2	6.8		43.5	56.5		11.4	88.6		
Total %	33.6	2.4	36	17.4	22.6	40	2.7	21.2	24	

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	121	12	133	69	87	156	15	58	73	362
07:15 AM	129	12	141	56	93	149	16	63	79	369
07:30 AM	138	16	154	42	66	108	10	66	76	338
07:45 AM	61	2	63	39	49	88	6	65	71	222
Total Volume	449	42	491	206	295	501	47	252	299	1291
% App. Total	91.4	8.6		41.1	58.9		15.7	84.3		
PHF	.813	.656	.797	.746	.793	.803	.734	.955	.946	.875

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	121	12	133	69	87	156	15	58	73
+15 mins.	129	12	141	56	93	149	16	63	79
+30 mins.	138	16	154	42	66	108	10	66	76
+45 mins.	61	2	63	39	49	88	6	65	71
Total Volume	449	42	491	206	295	501	47	252	299
% App. Total	91.4	8.6		41.1	58.9		15.7	84.3	
PHF	.813	.656	.797	.746	.793	.803	.734	.955	.946

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
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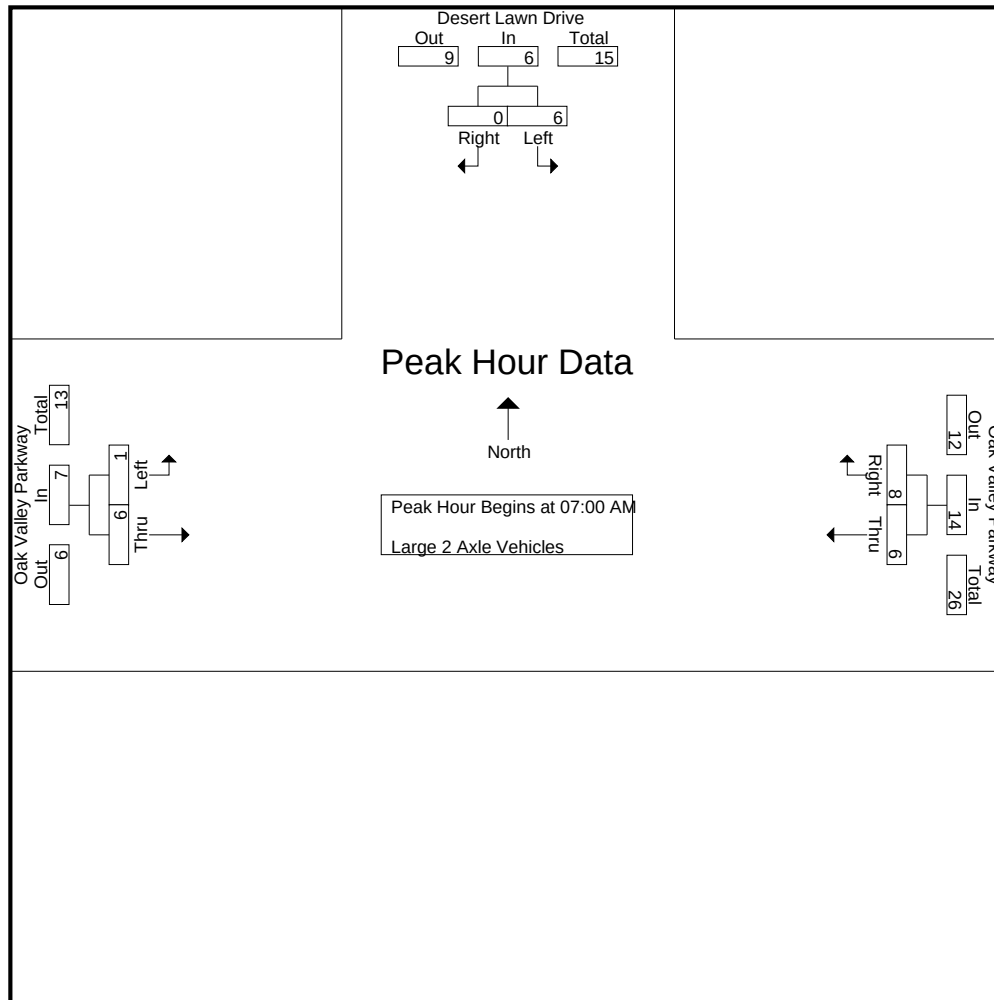
Groups Printed- Large 2 Axle Vehicles

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	1	0	1	1	1	2	0	2	2	5
07:15 AM	0	0	0	2	5	7	0	2	2	9
07:30 AM	4	0	4	0	1	1	1	1	2	7
07:45 AM	1	0	1	3	1	4	0	1	1	6
Total	6	0	6	6	8	14	1	6	7	27
08:00 AM	0	1	1	0	2	2	0	1	1	4
08:15 AM	1	0	1	1	1	2	0	0	0	3
08:30 AM	1	0	1	3	1	4	0	2	2	7
08:45 AM	0	0	0	2	0	2	1	1	2	4
Total	2	1	3	6	4	10	1	4	5	18
Grand Total	8	1	9	12	12	24	2	10	12	45
Apprch %	88.9	11.1		50	50		16.7	83.3		
Total %	17.8	2.2	20	26.7	26.7	53.3	4.4	22.2	26.7	

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	1	0	1	1	1	2	0	2	2	5
07:15 AM	0	0	0	2	5	7	0	2	2	9
07:30 AM	4	0	4	0	1	1	1	1	2	7
07:45 AM	1	0	1	3	1	4	0	1	1	6
Total Volume	6	0	6	6	8	14	1	6	7	27
% App. Total	100	0		42.9	57.1		14.3	85.7		
PHF	.375	.000	.375	.500	.400	.500	.250	.750	.875	.750

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
Site Code : 05119803
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	1	0	1	1	1	2	0	2	2
+15 mins.	0	0	0	2	5	7	0	2	2
+30 mins.	4	0	4	0	1	1	1	1	2
+45 mins.	1	0	1	3	1	4	0	1	1
Total Volume	6	0	6	6	8	14	1	6	7
% App. Total	100	0		42.9	57.1		14.3	85.7	
PHF	.375	.000	.375	.500	.400	.500	.250	.750	.875

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
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Start Date : 11/19/2019
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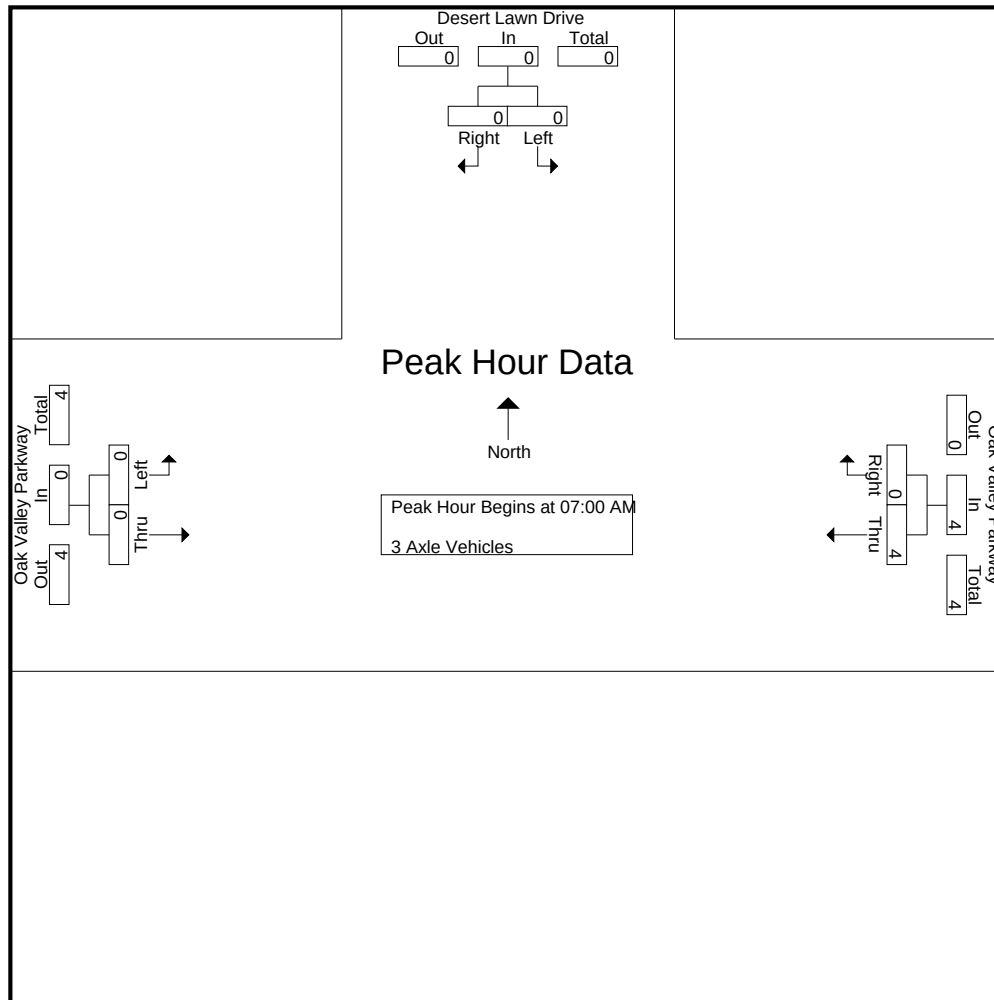
Groups Printed- 3 Axle Vehicles

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	2	0	2	0	0	0	2
07:30 AM	0	0	0	1	0	1	0	0	0	1
07:45 AM	0	0	0	1	0	1	0	0	0	1
Total	0	0	0	4	0	4	0	0	0	4
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	1	0	1	0	2	2	3
08:30 AM	0	0	0	1	0	1	0	2	2	3
08:45 AM	0	0	0	0	0	0	0	1	1	1
Total	0	0	0	2	0	2	0	5	5	7
Grand Total	0	0	0	6	0	6	0	5	5	11
Apprch %	0	0		100	0		0	100		
Total %	0	0	0	54.5	0	54.5	0	45.5	45.5	

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	2	0	2	0	0	0	2
07:30 AM	0	0	0	1	0	1	0	0	0	1
07:45 AM	0	0	0	1	0	1	0	0	0	1
Total Volume	0	0	0	4	0	4	0	0	0	4
% App. Total	0	0		100	0		0	0		
PHF	.000	.000	.000	.500	.000	.500	.000	.000	.000	.500

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
Site Code : 05119803
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	2	0	2	0	0	0
+30 mins.	0	0	0	1	0	1	0	0	0
+45 mins.	0	0	0	1	0	1	0	0	0
Total Volume	0	0	0	4	0	4	0	0	0
% App. Total	0	0	0	100	0	0	0	0	0
PHF	.000	.000	.000	.500	.000	.500	.000	.000	.000

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
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Start Date : 11/19/2019
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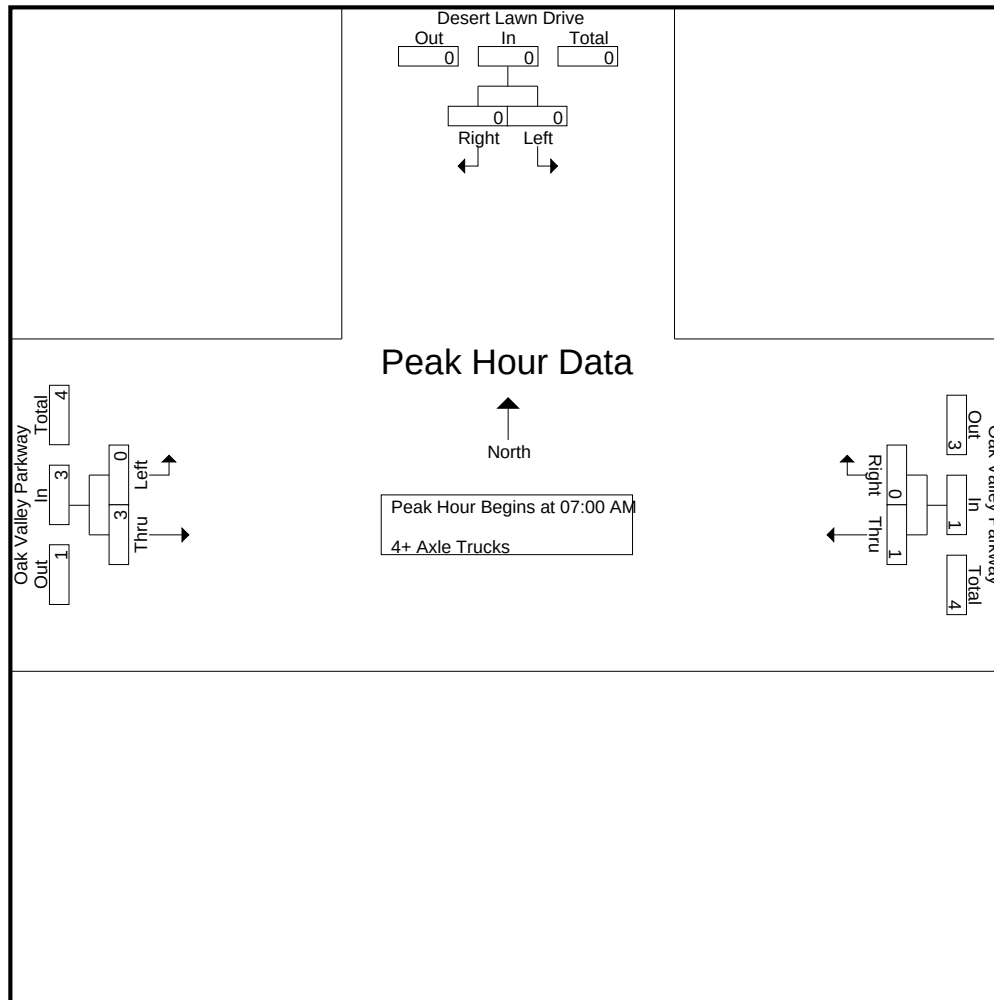
Groups Printed- 4+ Axle Trucks

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	1	0	1	0	1	1	2
07:15 AM	0	0	0	0	0	0	0	1	1	1
07:30 AM	0	0	0	0	0	0	0	1	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	3	3	4
08:00 AM	0	0	0	1	0	1	0	2	2	3
08:15 AM	0	0	0	1	0	1	0	0	0	1
08:30 AM	0	0	0	1	0	1	0	0	0	1
08:45 AM	0	0	0	2	0	2	0	2	2	4
Total	0	0	0	5	0	5	0	4	4	9
Grand Total	0	0	0	6	0	6	0	7	7	13
Apprch %	0	0		100	0		0	100		
Total %	0	0		46.2	0	46.2	0	53.8	53.8	

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	1	0	1	0	1	1	2
07:15 AM	0	0	0	0	0	0	0	1	1	1
07:30 AM	0	0	0	0	0	0	0	1	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	0	1	0	3	3	4
% App. Total	0	0		100	0		0	100		
PHF	.000	.000	.000	.250	.000	.250	.000	.750	.750	.500

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley AM
Site Code : 05119803
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	1	0	1	0	1	1
+15 mins.	0	0	0	0	0	0	0	1	1
+30 mins.	0	0	0	0	0	0	0	1	1
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	0	1	0	3	3
% App. Total	0	0		100	0		0	100	
PHF	.000	.000	.000	.250	.000	.250	.000	.750	.750

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
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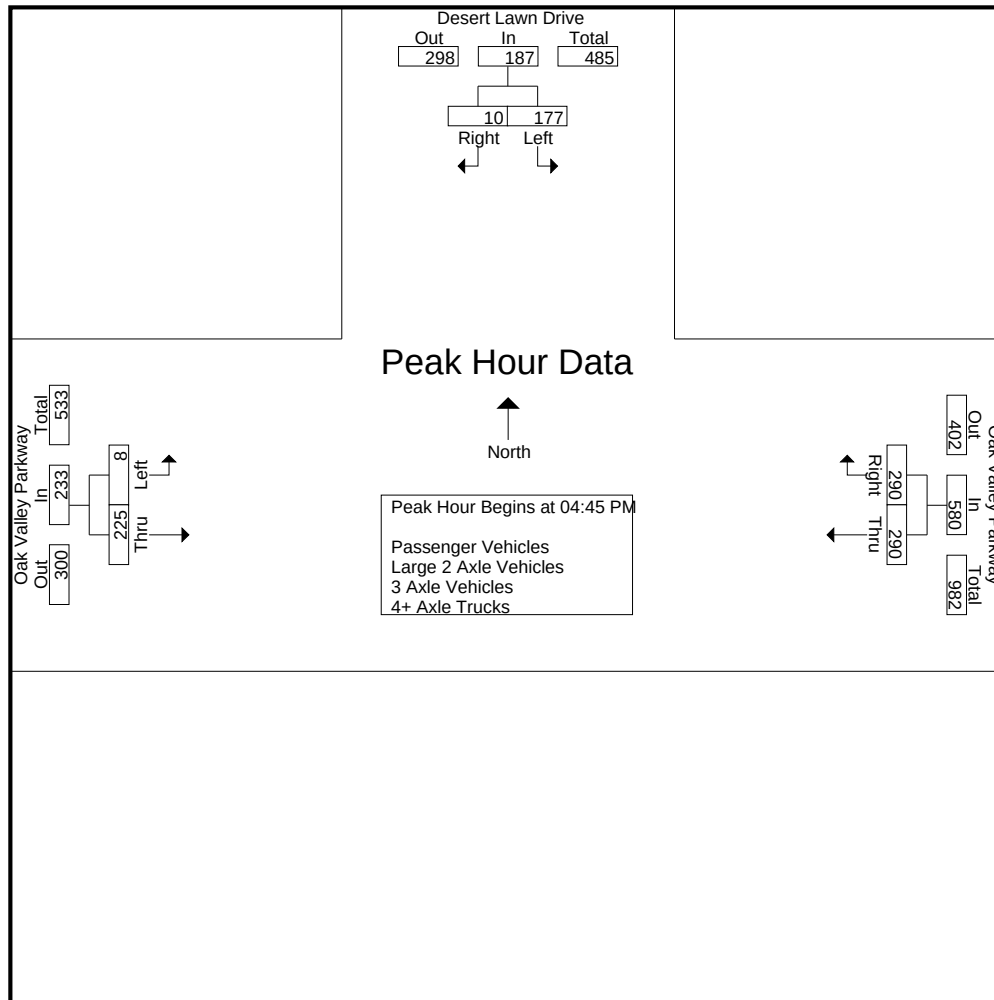
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	51	6	57	75	69	144	1	50	51	252
04:15 PM	55	2	57	73	73	146	1	55	56	259
04:30 PM	52	1	53	62	64	126	3	35	38	217
04:45 PM	44	4	48	81	74	155	3	50	53	256
Total	202	13	215	291	280	571	8	190	198	984
05:00 PM	52	1	53	72	66	138	1	66	67	258
05:15 PM	40	1	41	63	82	145	0	60	60	246
05:30 PM	41	4	45	74	68	142	4	49	53	240
05:45 PM	45	1	46	72	77	149	4	57	61	256
Total	178	7	185	281	293	574	9	232	241	1000
Grand Total	380	20	400	572	573	1145	17	422	439	1984
Apprch %	95	5		50	50		3.9	96.1		
Total %	19.2	1	20.2	28.8	28.9	57.7	0.9	21.3	22.1	
Passenger Vehicles	379	20	399	565	570	1135	17	419	436	1970
% Passenger Vehicles	99.7	100	99.8	98.8	99.5	99.1	100	99.3	99.3	99.3
Large 2 Axle Vehicles	1	0	1	5	3	8	0	3	3	12
% Large 2 Axle Vehicles	0.3	0	0.2	0.9	0.5	0.7	0	0.7	0.7	0.6
3 Axle Vehicles	0	0	0	1	0	1	0	0	0	1
% 3 Axle Vehicles	0	0	0	0.2	0	0.1	0	0	0	0.1
4+ Axle Trucks	0	0	0	1	0	1	0	0	0	1
% 4+ Axle Trucks	0	0	0	0.2	0	0.1	0	0	0	0.1

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	44	4	48	81	74	155	3	50	53	256
05:00 PM	52	1	53	72	66	138	1	66	67	258
05:15 PM	40	1	41	63	82	145	0	60	60	246
05:30 PM	41	4	45	74	68	142	4	49	53	240
Total Volume	177	10	187	290	290	580	8	225	233	1000
% App. Total	94.7	5.3		50	50		3.4	96.6		
PHF	.851	.625	.882	.895	.884	.935	.500	.852	.869	.969

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
Site Code : 05119803
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:45 PM			05:00 PM		
+0 mins.	51	6	57	81	74	155	1	66	67
+15 mins.	55	2	57	72	66	138	0	60	60
+30 mins.	52	1	53	63	82	145	4	49	53
+45 mins.	44	4	48	74	68	142	4	57	61
Total Volume	202	13	215	290	290	580	9	232	241
% App. Total	94	6		50	50		3.7	96.3	
PHF	.918	.542	.943	.895	.884	.935	.563	.879	.899

City of Beaumont
N/S: Desert Lawn Drive
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File Name : 07_BMT_Desert Lawn_Oak Valley PM
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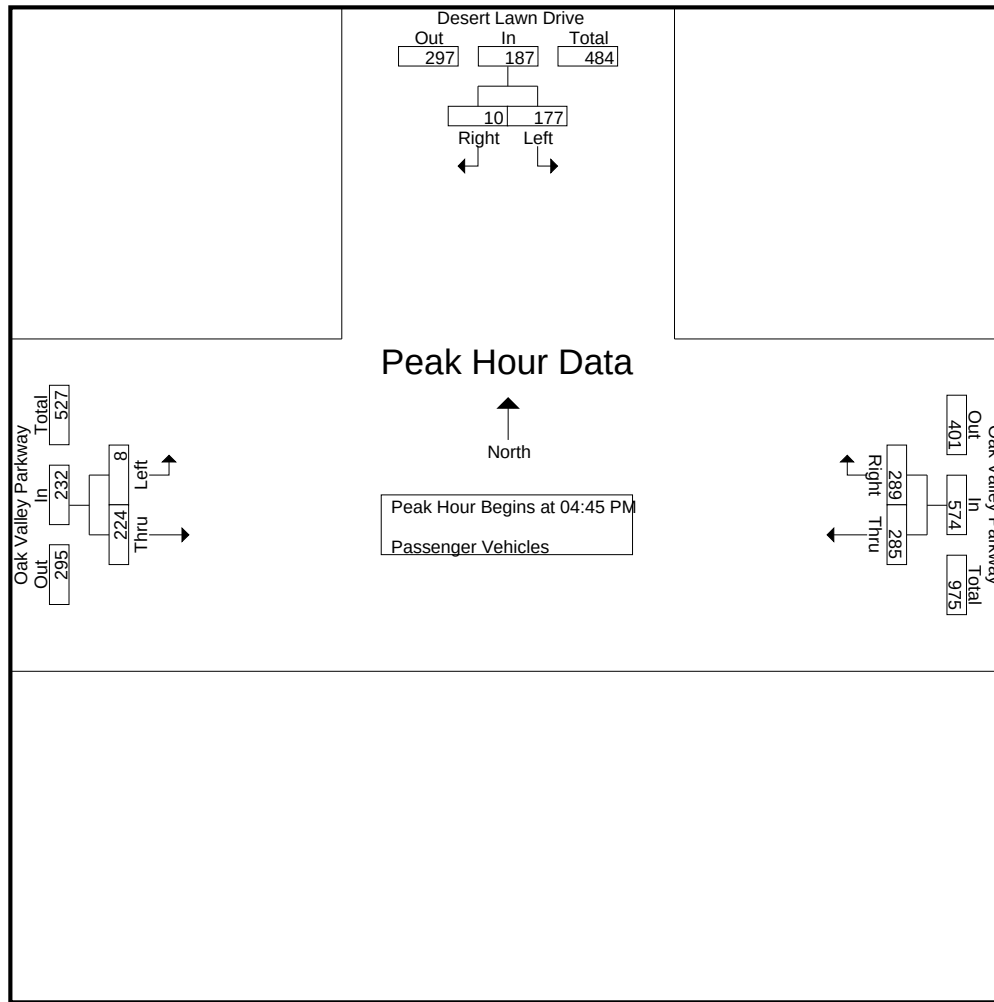
Groups Printed- Passenger Vehicles

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	50	6	56	74	69	143	1	50	51	250
04:15 PM	55	2	57	72	72	144	1	53	54	255
04:30 PM	52	1	53	62	63	125	3	35	38	216
04:45 PM	44	4	48	78	74	152	3	50	53	253
Total	201	13	214	286	278	564	8	188	196	974
05:00 PM	52	1	53	72	66	138	1	66	67	258
05:15 PM	40	1	41	62	81	143	0	60	60	244
05:30 PM	41	4	45	73	68	141	4	48	52	238
05:45 PM	45	1	46	72	77	149	4	57	61	256
Total	178	7	185	279	292	571	9	231	240	996
Grand Total	379	20	399	565	570	1135	17	419	436	1970
Apprch %	95	5		49.8	50.2		3.9	96.1		
Total %	19.2	1	20.3	28.7	28.9	57.6	0.9	21.3	22.1	

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	44	4	48	78	74	152	3	50	53	253
05:00 PM	52	1	53	72	66	138	1	66	67	258
05:15 PM	40	1	41	62	81	143	0	60	60	244
05:30 PM	41	4	45	73	68	141	4	48	52	238
Total Volume	177	10	187	285	289	574	8	224	232	993
% App. Total	94.7	5.3		49.7	50.3		3.4	96.6		
PHF	.851	.625	.882	.913	.892	.944	.500	.848	.866	.962

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
Site Code : 05119803
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	44	4	48	78	74	152	3	50	53
+15 mins.	52	1	53	72	66	138	1	66	67
+30 mins.	40	1	41	62	81	143	0	60	60
+45 mins.	41	4	45	73	68	141	4	48	52
Total Volume	177	10	187	285	289	574	8	224	232
% App. Total	94.7	5.3		49.7	50.3		3.4	96.6	
PHF	.851	.625	.882	.913	.892	.944	.500	.848	.866

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
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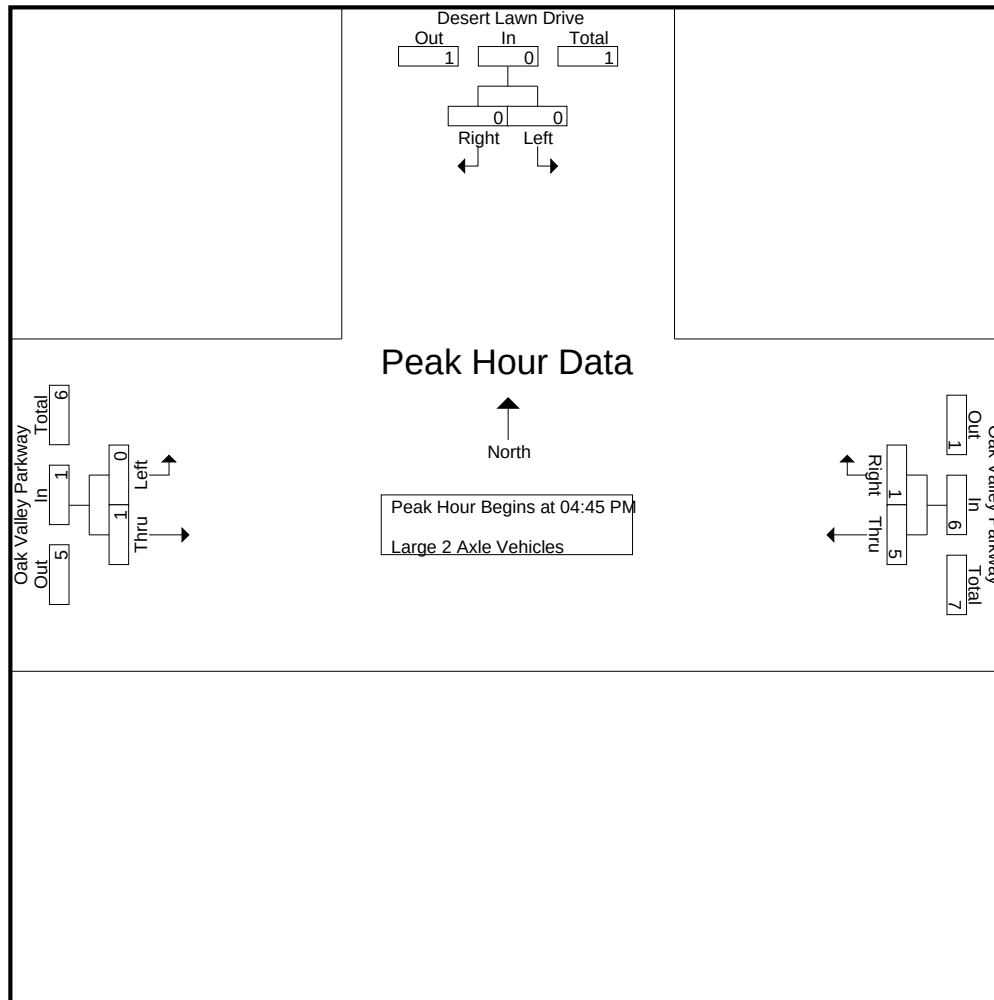
Groups Printed- Large 2 Axle Vehicles

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	1	0	1	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	1	1	0	2	2	3
04:30 PM	0	0	0	0	1	1	0	0	0	1
04:45 PM	0	0	0	3	0	3	0	0	0	3
Total	1	0	1	3	2	5	0	2	2	8
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	1	1	2	0	0	0	2
05:30 PM	0	0	0	1	0	1	0	1	1	2
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	2	1	3	0	1	1	4
Grand Total	1	0	1	5	3	8	0	3	3	12
Apprch %	100	0		62.5	37.5		0	100		
Total %	8.3	0	8.3	41.7	25	66.7	0	25	25	

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	3	0	3	0	0	0	3
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	1	1	2	0	0	0	2
05:30 PM	0	0	0	1	0	1	0	1	1	2
Total Volume	0	0	0	5	1	6	0	1	1	7
% App. Total	0	0		83.3	16.7		0	100		
PHF	.000	.000	.000	.417	.250	.500	.000	.250	.250	.583

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	0	0	3	0	3	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	1	1	2	0	0	0
+45 mins.	0	0	0	1	0	1	0	1	1
Total Volume	0	0	0	5	1	6	0	1	1
% App. Total	0	0	0	83.3	16.7		0	100	
PHF	.000	.000	.000	.417	.250	.500	.000	.250	.250

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

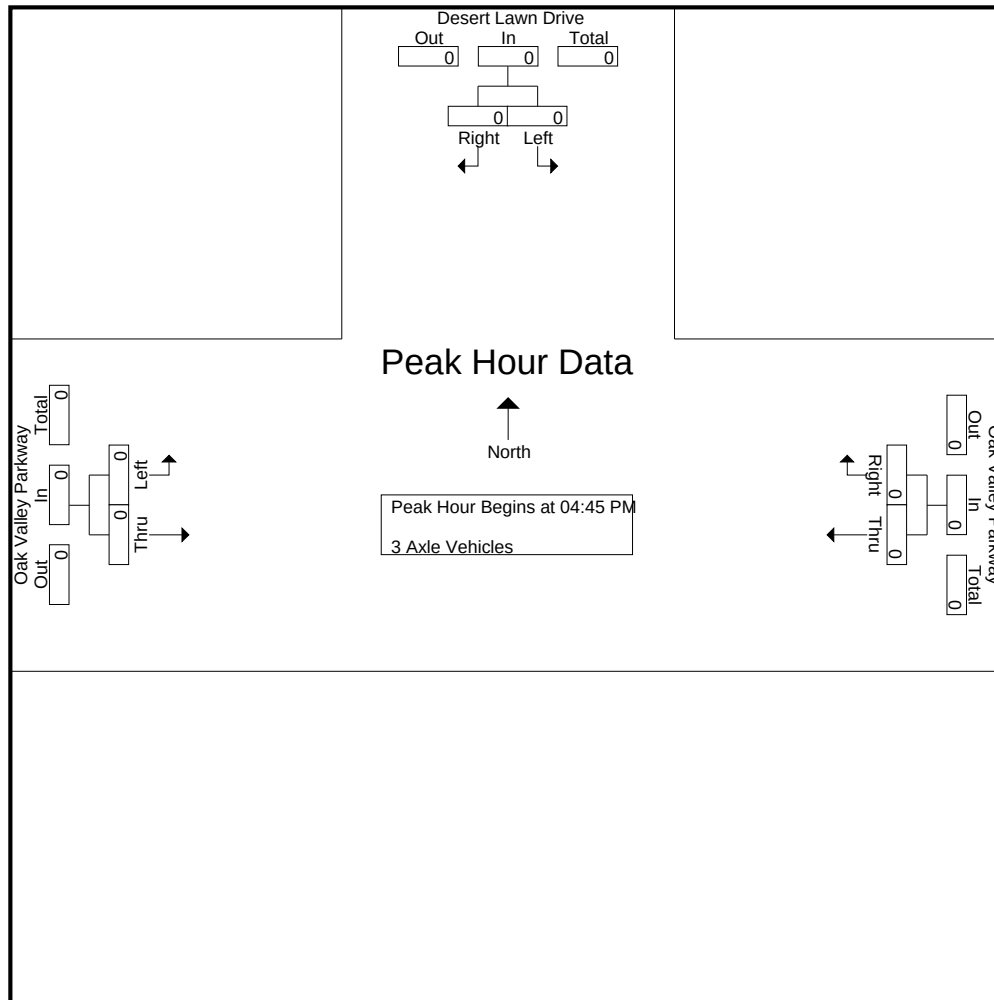
Groups Printed- 3 Axle Vehicles

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	1	0	1	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	1	0	1	0	0	0	1
Apprch %	0	0		100	0		0	0		
Total %	0	0		100	0	100	0	0		

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0	
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

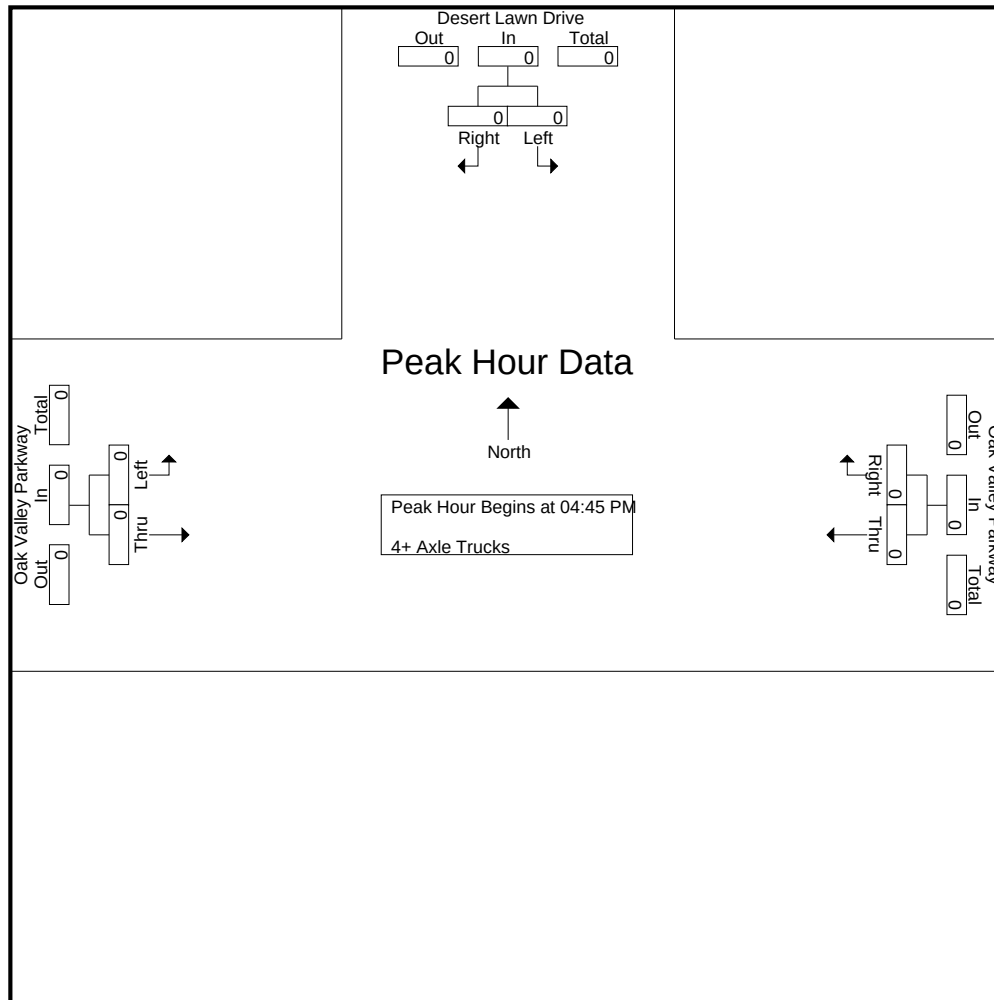
Groups Printed- 4+ Axle Trucks

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	1	0	1	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	1	0	1	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	1	0	1	0	0	0	1
Apprch %	0	0		100	0		0	0		
Total %	0	0		100	0	100	0	0		

	Desert Lawn Drive Southbound			Oak Valley Parkway Westbound			Oak Valley Parkway Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: Desert Lawn Drive
E/W: Oak Valley Parkway
Weather: Clear

File Name : 07_BMT_Desert Lawn_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
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Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM			04:45 PM			04:45 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: Beaumont
 N/S: Desert Lawn Drive
 E/W: Oak Valley Parkway



Date: 11/19/2019
 Day: Tuesday

PEDESTRIANS

		North Leg Desert Lawn Drive	East Leg Oak Valley Parkway	South Leg Dead End	West Leg Oak Valley Parkway	
		Pedestrians	Pedestrians	Pedestrians	Pedestrians	
	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	TOTAL VOLUMES:	0	0	0	0	0

		North Leg Desert Lawn Drive	East Leg Oak Valley Parkway	South Leg Dead End	West Leg Oak Valley Parkway	
		Pedestrians	Pedestrians	Pedestrians	Pedestrians	
	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	0	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	0	0
	TOTAL VOLUMES:	0	0	0	0	0

Location: Beaumont
 N/S: Desert Lawn Drive
 E/W: Oak Valley Parkway



Date: 11/19/2019
 Day: Tuesday

BICYCLES

	Southbound Desert Lawn Drive			Westbound Oak Valley Parkway			Northbound Dead End			Eastbound Oak Valley Parkway			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	1	0	0	0	0	0	0	1

	Southbound Desert Lawn Drive			Westbound Oak Valley Parkway			Northbound Dead End			Eastbound Oak Valley Parkway			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

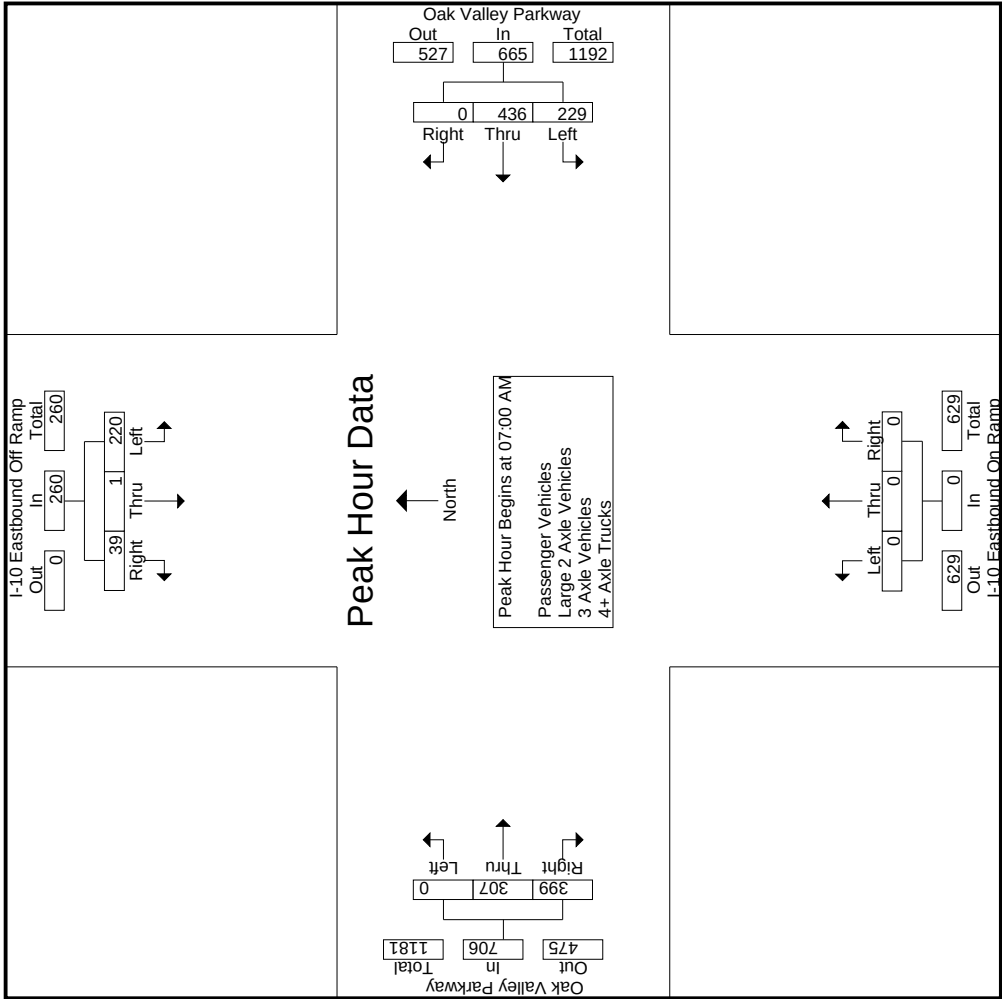
City of Beaumont
N/S: I-10 Eastbound Ramps
EW: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	I-10 Eastbound Off Ramp Southbound						Oak Valley Parkway Westbound						I-10 Eastbound On Ramp Northbound						Oak Valley Parkway Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	50	0	12	7	62		61	134	0	0	195		0	0	0	0	0		0	79	83	11	162	18	419	437
07:15 AM	49	0	8	4	57		57	133	0	0	190		0	0	0	0	0		0	83	127	27	210	31	457	488
07:30 AM	50	1	8	2	59		62	90	0	0	152		0	0	0	0	0		0	77	100	19	177	21	388	409
07:45 AM	71	0	11	4	82		49	79	0	0	128		0	0	0	0	0		0	68	89	20	157	24	367	391
Total	220	1	39	17	260		229	436	0	0	665		0	0	0	0	0		0	307	399	77	706	94	1631	1725
08:00 AM	48	0	12	5	60		52	79	0	0	131		0	0	0	0	0		0	49	64	13	113	18	304	322
08:15 AM	39	1	15	9	55		38	65	0	0	103		0	0	0	0	0		0	48	64	10	112	19	270	289
08:30 AM	36	0	11	6	47		59	64	0	0	123		0	0	0	0	0		0	41	58	14	99	20	269	289
08:45 AM	40	0	11	5	51		60	58	0	0	118		0	0	0	0	0		0	42	46	6	88	11	257	268
Total	163	1	49	25	213		209	266	0	0	475		0	0	0	0	0		0	180	232	43	412	68	1100	1168
Grand Total	383	2	88	42	473		438	702	0	0	1140		0	0	0	0	0		0	487	631	120	1118	162	2731	2893
Approch %	81	0.4	18.6				38.4	61.6	0				0	0	0				0	43.6	56.4					
Total %	14	0.1	3.2		17.3		16	25.7	0		41.7		0	0	0		0		0	17.8	23.1		40.9	5.6	94.4	
% Passenger Vehicles	373	1	82		494		427	678	0		1105		0	0	0	0	0		0	478	612		1205	0	0	2804
% Large Passenger Vehicles	97.4	50	93.2	90.5	95.9		97.5	96.6	0		96.9		0	0	0	0	0		0	98.2	97	95.8	97.3	0	0	96.9
% Large 2 Axle Vehicles	6	0	4		12		5	12	0		17		0	0	0	0	0		0	5	12		22	0	0	51
% Large 2 Axle Vehicles	1.6	0	4.5	4.8	2.3		1.1	1.7	0		1.5		0	0	0	0	0		0	1	1.9	4.2	1.8	0	0	1.8
% 3 Axle Vehicles	4	0	1		6		4	5	0		9		0	0	0	0	0		0	1	4		5	0	0	20
% 3 Axle Vehicles	1	0	1.1	2.4	1.2		0.9	0.7	0		0.8		0	0	0	0	0		0	0.2	0.6	0	0.4	0	0	0.7
4+ Axle Trucks	0	1	1		3		2	7	0		9		0	0	0	0	0		0	3	3		6	0	0	18
% 4+ Axle Trucks	0	50	1.1	2.4	0.6		0.5	1	0		0.8		0	0	0	0	0		0	0.6	0.5	0	0.5	0	0	0.6

	I-10 Eastbound Off Ramp Southbound						Oak Valley Parkway Westbound						I-10 Eastbound On Ramp Northbound						Oak Valley Parkway Eastbound						
Start Time	Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 07:00 AM																									
07:00 AM	50	0	12		62		61	134	0		195		0	0	0		0		0	79	83		162		419
07:15 AM	49	0	8		57		57	133	0		190		0	0	0		0		0	83	127		210		457
07:30 AM	50	1	8		59		62	90	0		152		0	0	0		0		0	77	100		177		388
07:45 AM	71	0	11		82		49	79	0		128		0	0	0		0		0	68	89		157		367
Total Volume	220	1	39		260		229	436	0		665		0	0	0		0		0	307	399		706		1631
% App. Total	84.6	0.4	15				34.4	65.6	0				0	0	0		0		0	43.5	56.5				
PHF	.775	.250	.813		.793		.923	.813	.000		.853		.000	.000	.000		.000		.000	.925	.785		.840		.892



Counts Unlimited
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Corona, CA 92878
(951) 268-6268

City of Beaumont
N/S: I-10 Eastbound Ramps
EW: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 3

Start Time	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
+0 mins.	50	0	12	62	07:00 AM				0	0	0	0	07:00 AM			
+15 mins.	49	0	8	57	61	134	0	195	0	0	0	0	0	79	83	162
+30 mins.	50	1	8	59	57	133	0	190	0	0	0	0	0	83	127	210
+45 mins.	71	0	11	82	62	90	0	152	0	0	0	0	0	77	100	177
Total Volume	220	1	39	260	49	79	0	128	0	0	0	0	0	68	89	157
% App. Total	84.6	0.4	15		229	436	0	665	0	0	0	0	0	307	399	706
PHF	.775	.250	.813	.793	34.4	65.6	0		0	0	0	0	0	43.5	56.5	
					.923	.813	.000	.853	.000	.000	.000	.000	.000	.925	.785	.840

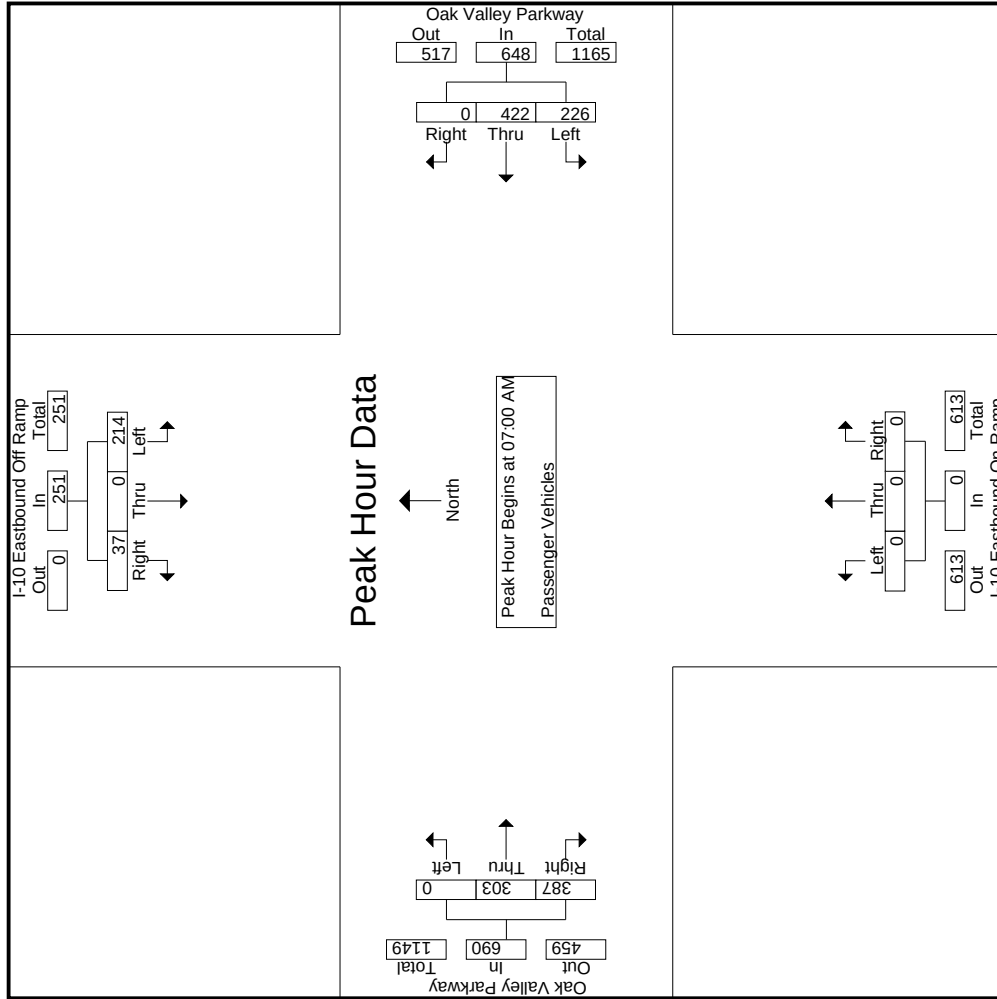
City of Beaumont
N/S: I-10 Eastbound Ramps
EW: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

Start Time	I-10 Eastbound Off Ramp Southbound					Oak Valley Parkway Westbound					I-10 Eastbound On Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
07:00 AM	49	0	12	7	61	59	131	0	0	190	0	0	0	0	0	0	78	79	10	157
07:15 AM	47	0	7	4	54	56	125	0	0	181	0	0	0	0	0	0	82	125	26	207
07:30 AM	49	0	8	2	57	62	88	0	0	150	0	0	0	0	0	0	76	98	19	174
07:45 AM	69	0	10	4	79	49	78	0	0	127	0	0	0	0	0	0	67	85	17	152
Total	214	0	37	17	251	226	422	0	0	648	0	0	0	0	0	0	303	387	72	690
08:00 AM	47	0	12	5	59	48	76	0	0	124	0	0	0	0	0	0	47	64	13	111
08:15 AM	37	1	13	7	51	36	64	0	0	100	0	0	0	0	0	0	48	61	10	109
08:30 AM	36	0	10	5	46	58	60	0	0	118	0	0	0	0	0	0	40	55	14	95
08:45 AM	39	0	10	4	49	59	56	0	0	115	0	0	0	0	0	0	40	45	6	85
Total	159	1	45	21	205	201	256	0	0	457	0	0	0	0	0	0	175	225	43	400
Grand Total	373	1	82	38	456	427	678	0	0	1105	0	0	0	0	0	0	478	612	115	1090
Apprch %	81.8	0.2	18			38.6	61.4	0			0	0	0			0	43.9	56.1		
Total %	14.1	0	3.1		17.2	16.1	25.6	0		41.7	0	0	0		0	0	18	23.1		41.1
																				5.5
																				94.5

Start Time	I-10 Eastbound Off Ramp Southbound					Oak Valley Parkway Westbound					I-10 Eastbound On Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
07:00 AM	49	0	12	7	61	59	131	0	0	190	0	0	0	0	0	0	78	79	10	157
07:15 AM	47	0	7	4	54	56	125	0	0	181	0	0	0	0	0	0	82	125	26	207
07:30 AM	49	0	8	2	57	62	88	0	0	150	0	0	0	0	0	0	76	98	19	174
07:45 AM	69	0	10	4	79	49	78	0	0	127	0	0	0	0	0	0	67	85	17	152
Total Volume	214	0	37	17	251	226	422	0	0	648	0	0	0	0	0	0	303	387	72	690
% App. Total	85.3	0	14.7			34.9	65.1	0			0	0	0	0	0	0	43.9	56.1		
PHF	.775	.000	.771		.794	.911	.805	.000		.853	.000	.000	.000		.000	.000	.924	.774		.833



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(951) 268-6268

City of Beaumont
N/S: I-10 Eastbound Ramps
EW: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 3

Start Time	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
+0 mins.	49	0	12	61	07:00 AM				07:00 AM				07:00 AM			
+15 mins.	47	0	7	54	59	131	0	190	0	0	0	0	0	78	79	157
+30 mins.	49	0	8	57	56	125	0	181	0	0	0	0	0	82	125	207
+45 mins.	69	0	10	79	62	88	0	150	0	0	0	0	0	76	98	174
Total Volume	214	0	37	251	49	78	0	127	0	0	0	0	0	67	85	152
% App. Total	85.3	0	14.7	251	226	422	0	648	0	0	0	0	0	303	387	690
PHF	.775	.000	.771	.794	34.9	65.1	0	853	0	0	0	0	0	43.9	56.1	.833

City of Beaumont
N/S: I-10 Eastbound Ramps
EW: Oak Valley Parkway
Weather: Clear

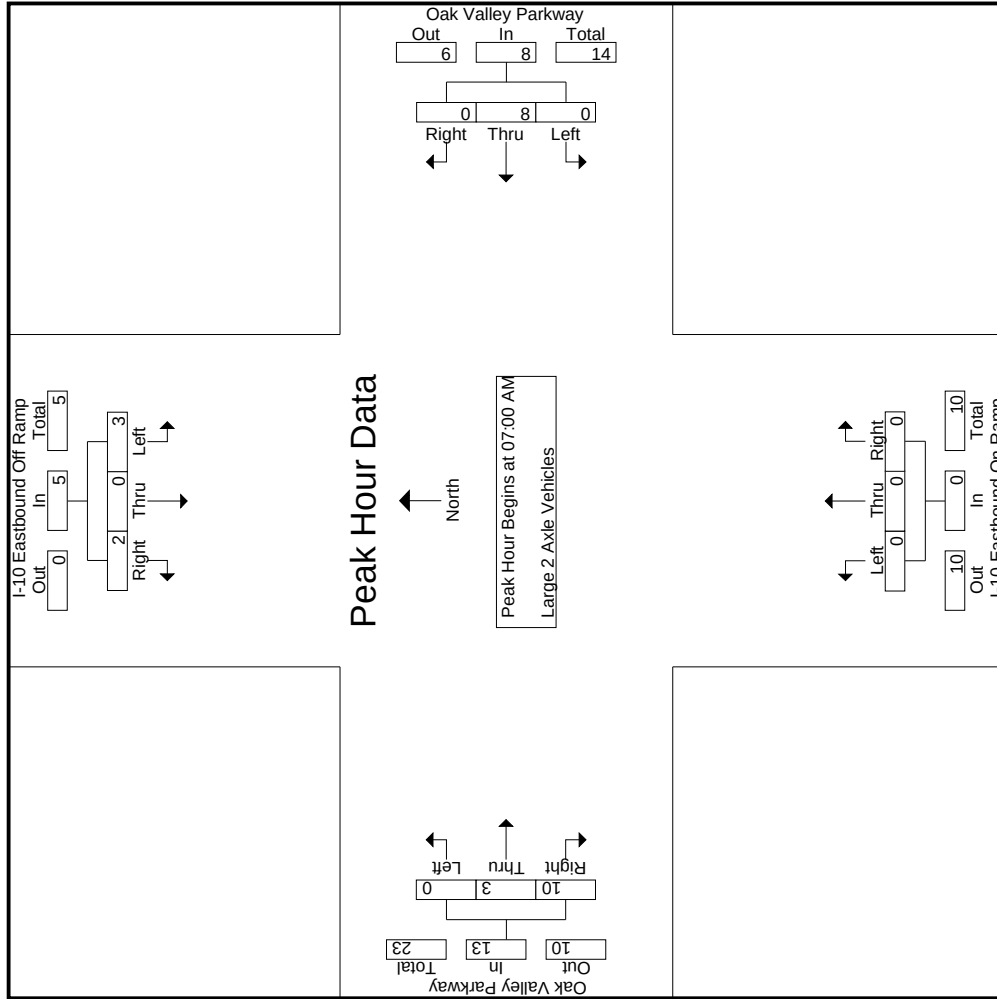
File Name : 08_BMT_10E_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed - Large 2 Axle Vehicles

Start Time	I-10 Eastbound Off Ramp Southbound					Oak Valley Parkway Westbound					I-10 Eastbound On Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
07:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	3	1	4
07:15 AM	2	0	1	0	3	0	5	0	0	5	0	0	0	0	0	0	1	1	1	2
07:30 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2
07:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	4	3	5
Total	3	0	2	0	5	0	8	0	0	8	0	0	0	0	0	0	3	10	5	13
08:00 AM	1	0	0	0	1	3	2	0	0	5	0	0	0	0	0	0	0	0	0	0
08:15 AM	1	0	1	1	2	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1
08:30 AM	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	1	1	0	2
08:45 AM	1	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total	3	0	2	2	5	5	4	0	0	9	0	0	0	0	0	0	2	2	0	4
Grand Total	6	0	4	2	10	5	12	0	0	17	0	0	0	0	0	0	5	12	5	17
Apprch %	60	0	40			29.4	70.6	0		38.6	0	0	0			0	29.4	70.6		38.6
Total %	13.6	0	9.1		22.7	11.4	27.3	0			0	0	0			0	11.4	27.3		86.3

3-1-2022

Start Time	I-10 Eastbound Off Ramp Southbound					Oak Valley Parkway Westbound					I-10 Eastbound On Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 07:00 AM																				
07:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	3	0	4
07:15 AM	2	0	1	0	1	0	5	0	0	5	0	0	0	0	0	0	1	1	0	2
07:30 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2
07:45 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	4	0	5
Total Volume	3	0	2	0	5	0	8	0	0	8	0	0	0	0	0	0	3	10	0	13
% App. Total	60	0	40			0	100	0		0	0	0	0	0	0	0	23.1	76.9		100
PHF	.375	.000	.500		.417	.000	.400	.000		.000	.000	.000	.000	.000	.000	.000	.750	.625		.650



Start Time	I-10 Eastbound Off Ramp Southbound			Oak Valley Parkway Westbound			I-10 Eastbound On Ramp Northbound			Oak Valley Parkway Eastbound		
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1												
Peak Hour for Each Approach Begins at:												
+0 mins.	0	0	0	0	07:00 AM	0	2	0	0	07:00 AM	0	0
+15 mins.	2	0	1	3	0	5	0	5	0	1	3	4
+30 mins.	1	0	0	1	0	1	0	1	0	0	1	2
+45 mins.	0	0	1	1	0	0	0	0	0	0	2	2
Total Volume	3	0	2	5	0	8	0	8	0	1	4	5
% App. Total	60	0	40		0	100	0		0	23.1	76.9	13
PHF	.375	.000	.500	.417	.000	.400	.000	.400	.000	.750	.625	.650

City of Beaumont
N/S: I-10 Eastbound Ramps
EW: Oak Valley Parkway
Weather: Clear

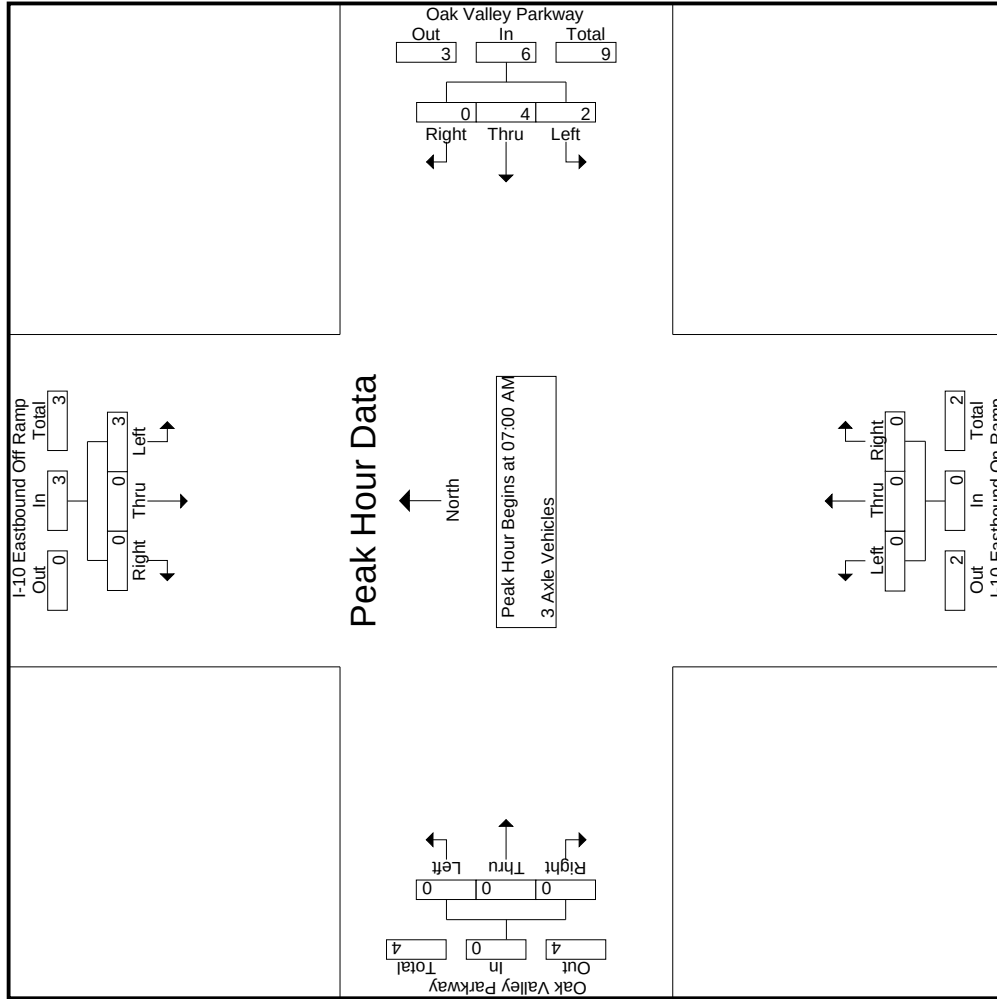
File Name : 08_BMT_10E_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	I-10 Eastbound Off Ramp Southbound					Oak Valley Parkway Westbound					I-10 Eastbound On Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
07:00 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Total	3	0	0	0	3	2	4	0	0	6	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	1	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	2	0	2	1
08:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2
08:45 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1
Total	1	0	1	1	2	2	1	0	0	3	0	0	0	0	0	0	1	4	0	5
Grand Total	4	0	1	1	5	4	5	0	0	9	0	0	0	0	0	0	1	4	0	5
Apprch %	80	0	20			44.4	55.6	0			0	0	0			0	20	80		
Total %	21.1	0	5.3		26.3	21.1	26.3	0		47.4	0	0	0		0	0	5.3	21.1		26.3

9:1-285

Start Time	I-10 Eastbound Off Ramp Southbound					Oak Valley Parkway Westbound					I-10 Eastbound On Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
07:00 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
07:45 AM	2	0	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Total Volume	3	0	0	0	3	2	4	0	0	6	0	0	0	0	0	0	0	0	0	0
% App. Total	100	0	0	0		33.3	66.7	0			0	0	0	0	0	0	0	0	0	0
PHF	.375	.000	.000		.375	.500	.500	.000		.500	.000	.000	.000		.000	.000	.000	.000		.750



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

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Start Date : 11/19/2019
Page No : 3

City of Beaumont
N/S: I-10 Eastbound Ramps
EW: Oak Valley Parkway
Weather: Clear

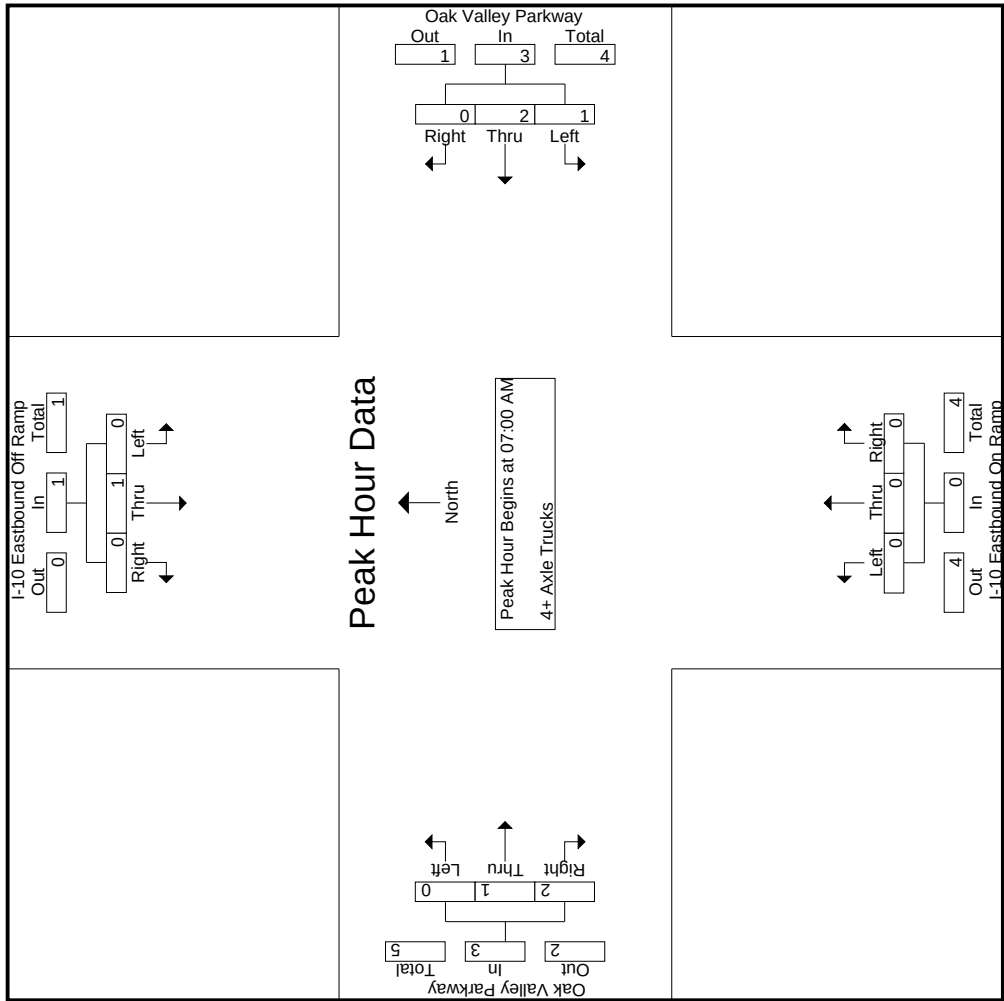
Start Time	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
+0 mins.	1	0	0	1	07:00 AM	1	0	0	1	07:00 AM	0	0	0	0	0	0
+15 mins.	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0
+45 mins.	2	0	0	2	0	1	0	1	1	0	0	0	0	0	0	0
Total Volume	3	0	0	3	2	4	0	6	6	0	0	0	0	0	0	0
% App. Total	100	0	0		33.3	66.7	0		0	0	0	0	0	0	0	
PHF	.375	.000	.000	.375	.500	.500	.000	.500	.500	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

Groups Printed- 4+ Axle Trucks

3.1-288

	I-10 Eastbound Off Ramp						Oak Valley Parkway Westbound						I-10 Eastbound On Ramp						Oak Valley Parkway Eastbound						
Start Time	Left	Thru	Right	App.	Total		Left	Thru	Right	App.	Total		Left	Thru	Right	App.	Total		Left	Thru	Right	App.	Total		Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																									
Peak Hour for Entire Intersection Begins at 07:00 AM																									
07:00 AM	0	0	0	0	0		1	1	0	0	2		0	0	0	0	0		0	0	0	1	1		3
07:15 AM	0	0	0	0	0		0	1	0	0	1		0	0	0	0	0		0	0	0	1	1		2
07:30 AM	0	1	0	0	1		0	0	0	0	0		0	0	0	0	0		0	0	1	0	1		2
07:45 AM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0
Total Volume	0	1	0	0	1		1	2	0	0	3		0	0	0	0	0		0	1	2	0	3		7
% App. Total	0	100	0	0			33.3	66.7	0	0			0	0	0	0			0	33.3	66.7				
PHF	.000	.250	.000	.000	.250		.250	.500	.000	.375		.000	.000	.000	.000	.000	.000		.000	.250	.500	.750			.583



Counts Unlimited
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File Name : 08_BMT_10E_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
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Start Time	I-10 Eastbound Off Ramp Southbound			Oak Valley Parkway Westbound			I-10 Eastbound On Ramp Northbound			Oak Valley Parkway Eastbound		
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1												
Peak Hour for Each Approach Begins at:												
+0 mins.	0	0	0	0	07:00 AM	1	0	2	07:00 AM	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	1
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	1	2	0	3	0	0	0	3
% App. Total	0	100	0		33.3	66.7	0		0	33.3	66.7	
PHF	.000	.250	.000	.250	.250	.500	.000	.375	.000	.250	.500	.750

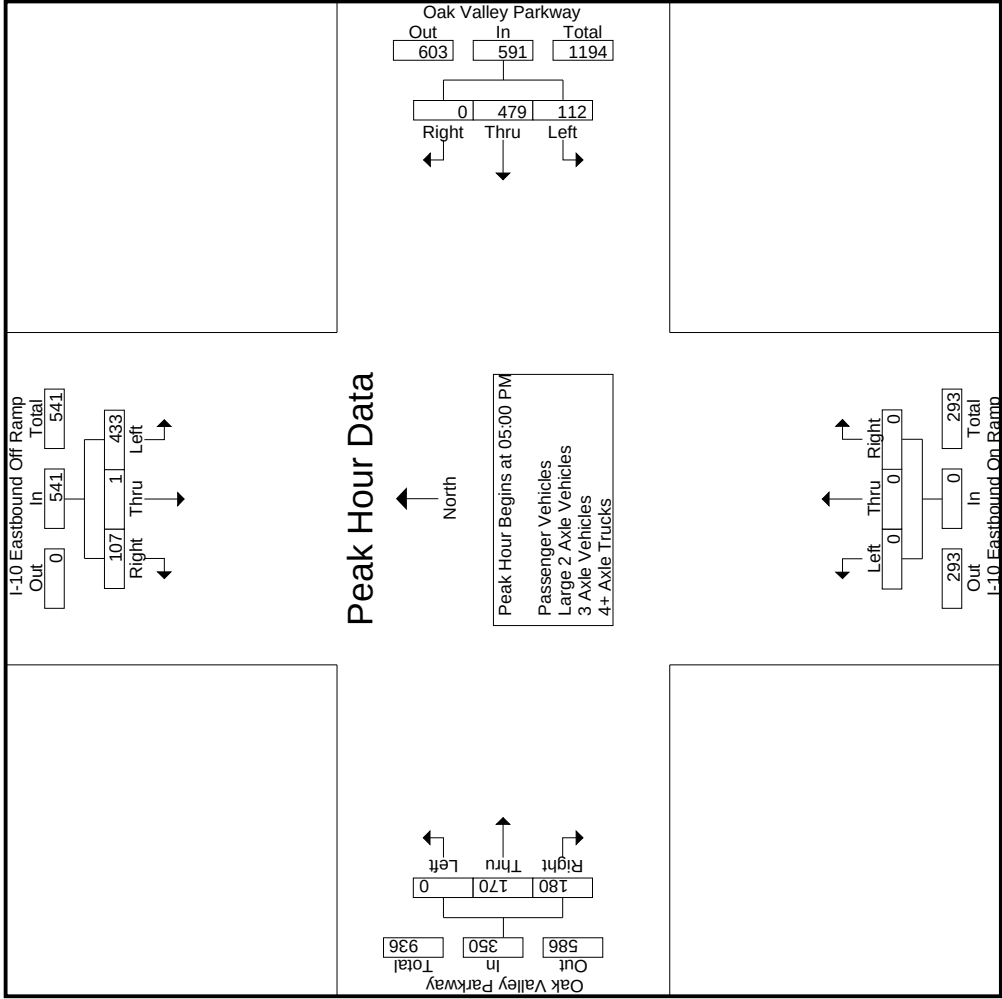
City of Beaumont
N/S: I-10 Eastbound Ramps
EW: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

I-10 Eastbound Off Ramp Southbound										Oak Valley Parkway Westbound										I-10 Eastbound On Ramp Northbound										Oak Valley Parkway Eastbound									
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total																
04:00 PM	81	1	22	7	104	30	117	0	0	147	0	0	0	0	0	0	56	51	10	107	17	358	375																
04:15 PM	71	1	14	8	86	35	120	0	0	155	0	0	0	0	0	0	45	56	9	101	17	342	359																
04:30 PM	85	0	17	6	102	36	123	0	0	159	0	0	0	0	0	0	48	46	14	94	20	355	375																
04:45 PM	72	0	25	9	97	35	116	0	0	151	0	0	0	0	0	0	38	41	7	79	16	327	343																
Total	309	2	78	30	389	136	476	0	0	612	0	0	0	0	0	0	187	194	40	381	70	1382	1452																
05:00 PM	86	1	20	11	107	31	124	0	0	155	0	0	0	0	0	0	55	45	7	100	18	362	380																
05:15 PM	97	0	23	8	120	35	133	0	0	168	0	0	0	0	0	0	45	46	14	91	22	379	401																
05:30 PM	127	0	23	7	150	24	111	0	0	135	0	0	0	0	0	0	33	36	12	69	19	354	373																
05:45 PM	123	0	41	24	164	22	111	0	0	133	0	0	0	0	0	0	37	53	11	90	35	387	422																
Total	433	1	107	50	541	112	479	0	0	591	0	0	0	0	0	0	170	180	44	350	94	1482	1576																
Grand Total	742	3	185	80	930	248	955	0	0	1203	0	0	0	0	0	0	357	374	84	731	164	2864	3028																
Approch %	79.8	0.3	19.9			20.6	79.4	0	0		0	0	0	0	0	0	48.8	51.2																					
Total %	25.9	0.1	6.5		32.5	8.7	33.3	0	0	42	0	0	0	0	0	0	12.5	13.1		25.5	5.4	94.6																	
% Passenger Vehicles	738	3	184		1005	240	946	0		1186	0	0	0	0	0	0	354	372		809	0	0	3000																
% Large Passenger Vehicles	99.5	100	99.5	100	99.5	96.8	99.1	0	0	98.6	0	0	0	0	0	0	99.2	99.5	98.8	99.3	0	0	99.1																
% Large 2 Axle Vehicles	3	0	1		4	7	8	0	0	15	0	0	0	0	0	0	3	2		6	0	0	25																
% Large 2 Axle Vehicles	0.4	0	0.5	0	0.4	2.8	0.8	0	0	1.2	0	0	0	0	0	0	0.8	0.5	1.2	0.7	0	0	0.8																
3 Axle Vehicles	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1																
% 3 Axle Vehicles	0	0	0	0	0	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0																
4+ Axle Trucks	1	0	0		1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2																
% 4+ Axle Trucks	0.1	0	0	0	0.1	0.4	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0.1																

I-10 Eastbound Off Ramp Southbound										Oak Valley Parkway Westbound										I-10 Eastbound On Ramp Northbound										Oak Valley Parkway Eastbound									
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total																
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																																							
Peak Hour for Entire Intersection Begins at 05:00 PM																																							
05:00 PM	86	1	20		107	31	124	0		155	0	0	0	0	0	0	55	45		100			362																
05:15 PM	97	0	23		120	35	133	0		168	0	0	0	0	0	0	45	46		91			379																
05:30 PM	127	0	23		150	24	111	0		135	0	0	0	0	0	0	33	36		69			354																
05:45 PM	123	0	41		164	22	111	0		133	0	0	0	0	0	0	37	53		90			387																
Total Volume	433	1	107		541	112	479	0		591	0	0	0	0	0	0	170	180		350			1482																
% App. Total	80	0.2	19.8			19	81	0			0	0	0	0	0	0	48.6	51.4					.957																
PHF	.852	.250	.652		.825	.800	.900	.000		.879	.000	.000	.000	.000	.000	.000	.773	.849		.875																			



Counts Unlimited
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City of Beaumont
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File Name : 08_BMT_10E_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 3

Start Time	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
+0 mins.	05:00 PM				04:30 PM				04:00 PM				04:00 PM			
+15 mins.	86	1	20	107	36	123	0	159	0	0	0	0	0	56	51	107
+30 mins.	97	0	23	120	35	116	0	151	0	0	0	0	0	45	56	101
+45 mins.	127	0	23	150	31	124	0	155	0	0	0	0	0	48	46	94
	123	0	41	164	35	133	0	168	0	0	0	0	0	38	41	79
Total Volume	433	1	107	541	137	496	0	633	0	0	0	0	0	187	194	381
% App. Total	80	0.2	19.8		21.6	78.4	0		0	0	0	0	0	49.1	50.9	
PHF	.852	.250	.652	.825	.951	.932	.000	.942	.000	.000	.000	.000	.000	.835	.866	.890

City of Beaumont
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Weather: Clear

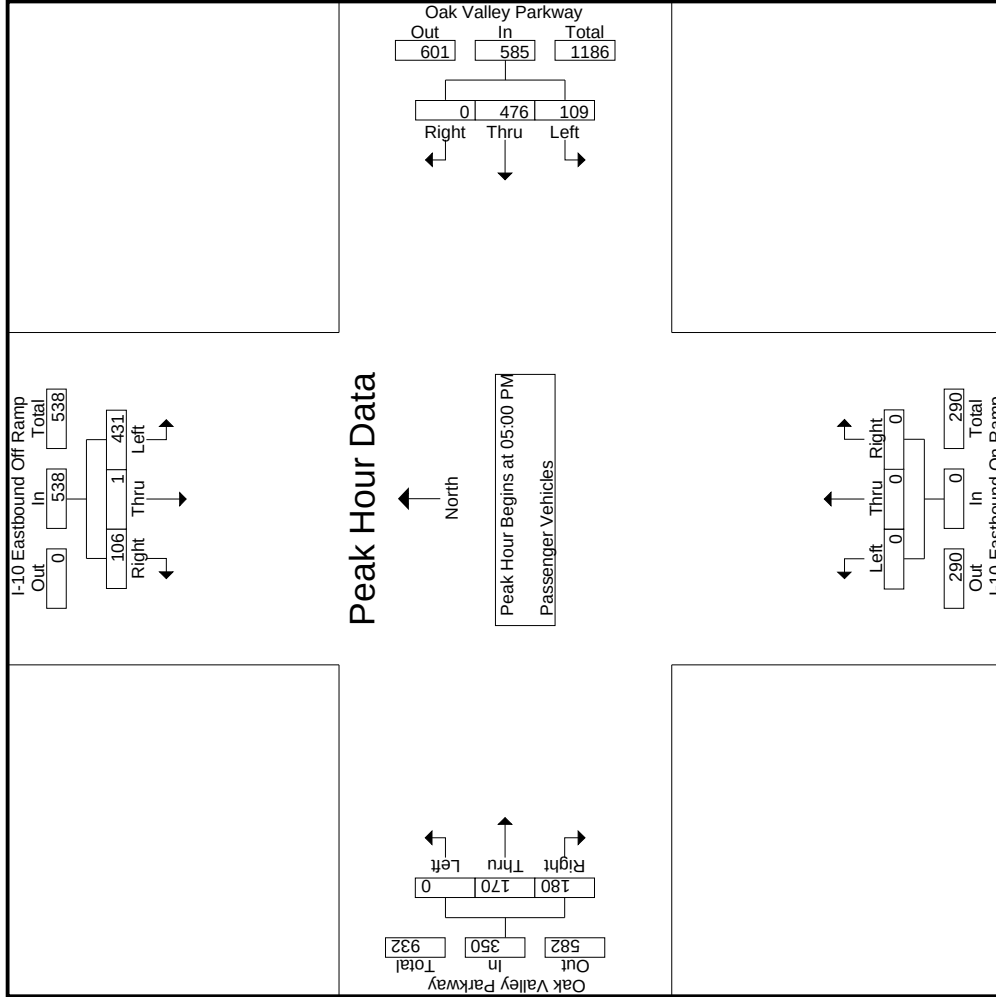
File Name : 08_BMT_10E_Oak Valley PM
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Groups Printed- Passenger Vehicles

I-10 Eastbound Off Ramp										Oak Valley Parkway Westbound						I-10 Eastbound On Ramp Northbound						Oak Valley Parkway Eastbound					
Southbound										Westbound						Northbound						Eastbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total									
04:00 PM	81	1	22	7	104	29	116	0	0	145	0	0	0	0	0	16	354	370									
04:15 PM	69	1	14	8	84	33	118	0	0	151	0	0	0	0	0	17	333	350									
04:30 PM	85	0	17	6	102	34	122	0	0	156	0	0	0	0	0	20	352	372									
04:45 PM	72	0	25	9	97	35	114	0	0	149	0	0	0	0	0	16	325	341									
Total	307	2	78	30	387	131	470	0	0	601	0	0	0	0	0	69	1364	1433									
05:00 PM	86	1	20	11	107	31	124	0	0	155	0	0	0	0	0	18	362	380									
05:15 PM	97	0	23	8	120	34	131	0	0	165	0	0	0	0	0	22	376	398									
05:30 PM	126	0	23	7	149	24	110	0	0	134	0	0	0	0	0	19	352	371									
05:45 PM	122	0	40	24	162	20	111	0	0	131	0	0	0	0	0	35	383	418									
Total	431	1	106	50	538	109	476	0	0	585	0	0	0	0	0	94	1473	1567									
Grand Total	738	3	184	80	925	240	946	0	0	1186	0	0	0	0	0	163	2837	3000									
Apprch %	79.8	0.3	19.9			20.2	79.8	0			0	0	0														
Total %	26	0.1	6.5		32.6	8.5	33.3	0		41.8	0	0	0		25.6	5.4	94.6										

9:1-294

Start Time	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	86	1	20	107	31	124	0	155	0	0	0	0	0	55	45	100	362
05:15 PM	97	0	23	120	34	131	0	165	0	0	0	0	0	45	46	91	376
05:30 PM	126	0	23	149	24	110	0	134	0	0	0	0	0	33	36	69	352
05:45 PM	122	0	40	162	20	111	0	131	0	0	0	0	0	37	53	90	383
Total Volume	431	1	106	538	109	476	0	585	0	0	0	0	0	170	180	350	1473
% App. Total	80.1	0.2	19.7		18.6	81.4	0		0	0	0	0	0	48.6	51.4		
PHF	.855	.250	.663	.830	.801	.908	.000	.886	.000	.000	.000	.000	.000	.773	.849	.875	.961



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(951) 268-6268

City of Beaumont
N/S: I-10 Eastbound Ramps
EW: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 3

Start Time	I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
+0 mins.	05:00 PM				05:00 PM				05:00 PM				05:00 PM			
+15 mins.	86	1	20	107	31	124	0	155	0	0	0	0	0	55	45	100
+30 mins.	97	0	23	120	34	131	0	165	0	0	0	0	0	45	46	91
+45 mins.	126	0	23	149	24	110	0	134	0	0	0	0	0	33	36	69
	122	0	40	162	20	111	0	131	0	0	0	0	0	37	53	90
Total Volume	431	1	106	538	109	476	0	585	0	0	0	0	0	170	180	350
% App. Total	80.1	0.2	19.7		18.6	81.4	0		0	0	0		0	48.6	51.4	
PHF	.855	.250	.663	.830	.801	.908	.000	.886	.000	.000	.000	.000	.000	.773	.849	.875

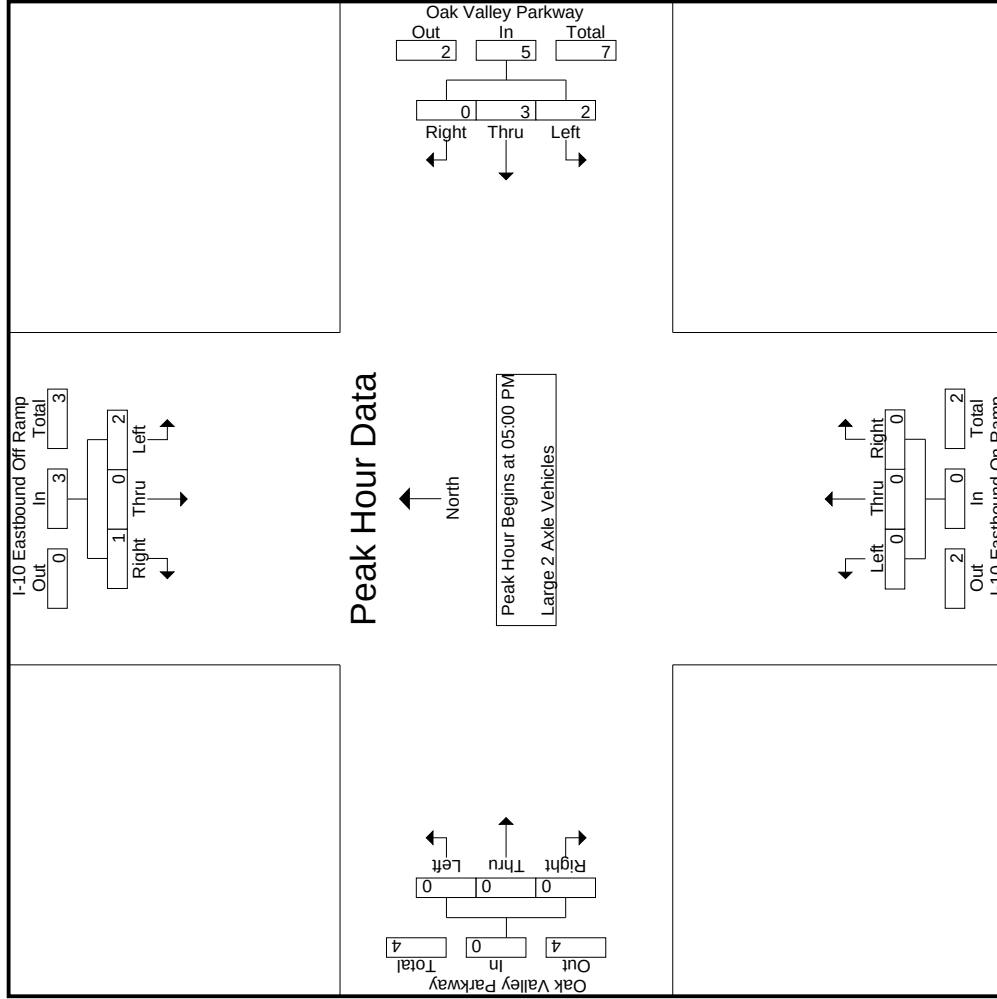
Groups Printed- Large 2 Axle Vehicles

I-10 Eastbound Off Ramp				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound			
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
04:00 PM	0	0	0	0	0	1	1	0	0	2	0	0	1	1	2
04:15 PM	1	0	0	0	1	2	1	0	0	3	0	2	1	0	3
04:30 PM	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0
Total	1	0	0	0	1	5	5	0	0	10	0	3	2	1	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0
05:30 PM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0
05:45 PM	1	0	1	0	2	1	0	0	0	1	0	0	0	0	0
Total	2	0	1	0	3	2	3	0	0	5	0	0	0	0	0
Grand Total	3	0	1	0	4	7	8	0	0	15	0	3	2	1	5
Apprch %	75	0	25		46.7	53.3	53.3	0	0	62.5	0	60	40		20.8
Total %	12.5	0	4.2		16.7	29.2	33.3	0	0		0	12.5	8.3		4

3:1-297

I-10 Eastbound Off Ramp Southbound				Oak Valley Parkway Westbound				I-10 Eastbound On Ramp Northbound				Oak Valley Parkway Eastbound			
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0
05:30 PM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0
05:45 PM	1	0	1	0	2	1	0	0	0	1	0	0	0	0	0
Total Volume	2	0	1		3	2	3	0		5	0	0	0	0	0
% App. Total	66.7	0	33.3		33.3	40	60	0		0	0	0	0	0	0
PHF	.500	.000	.250		.375	.500	.375	.000		.417	.000	.000	.000	.000	.667

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 05:00 PM



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File Name : 08_BMT_10E_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
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City of Beaumont
N/S: I-10 Eastbound Ramps
EW: Oak Valley Parkway
Weather: Clear

Start Time	I-10 Eastbound Off Ramp Southbound			Oak Valley Parkway Westbound			I-10 Eastbound On Ramp Northbound			Oak Valley Parkway Eastbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1												
Peak Hour for Each Approach Begins at:												
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	1	2	0	0	0	0	0	0	0
+30 mins.	1	0	0	0	1	0	0	0	0	0	0	0
+45 mins.	1	0	1	1	0	0	0	0	0	0	0	0
Total Volume	2	0	1	2	3	0	0	0	0	0	0	0
% App. Total	66.7	0	33.3	40	60	0	0	0	0	0	0	0
PHF	.500	.000	.250	.500	.375	.000	.000	.000	.000	.000	.000	.000

City of Beaumont
N/S: I-10 Eastbound Ramps
EW: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
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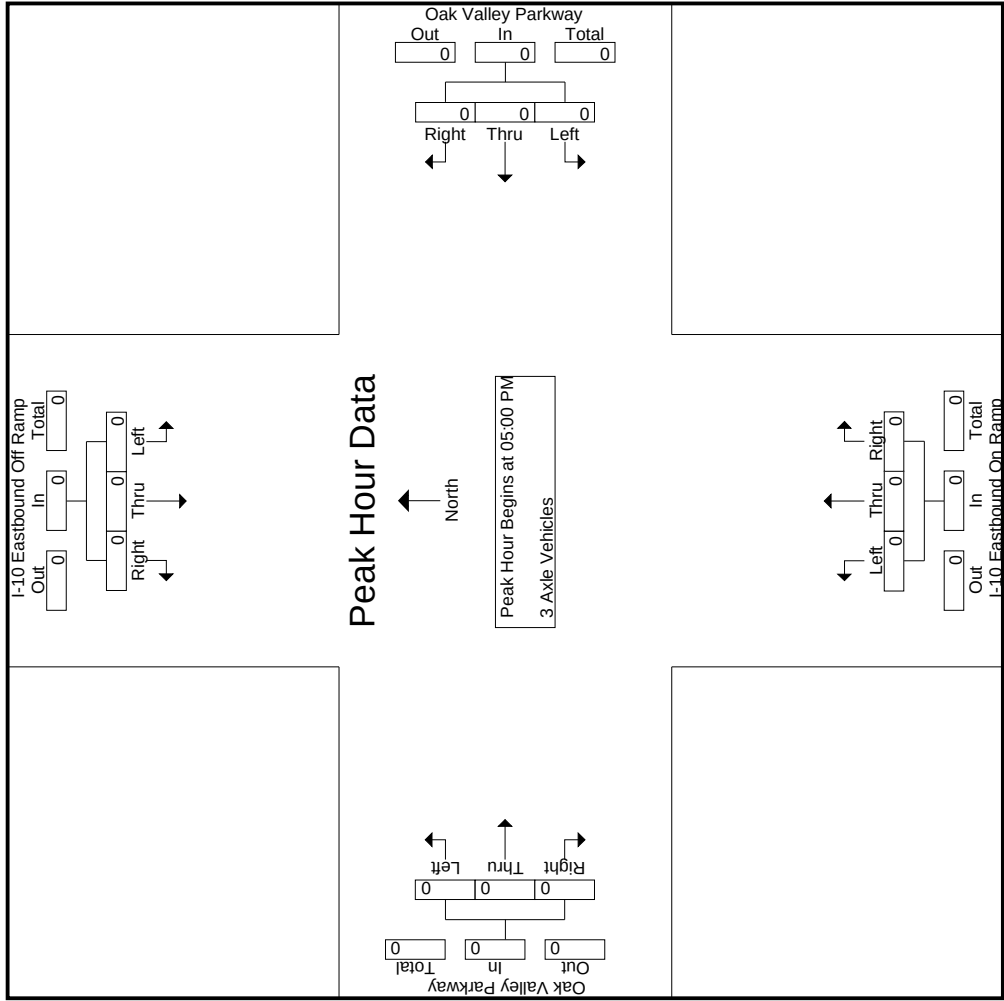
Groups Printed- 3 Axle Vehicles

Start Time	I-10 Eastbound Off Ramp Southbound					Oak Valley Parkway Westbound					I-10 Eastbound On Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0			0	100	0		100	0	0	0		0	0	0			
Total %	0	0	0			0	100	0		100	0	0	0		0	0	0			

3:1-300

Start Time	I-10 Eastbound Off Ramp Southbound					Oak Valley Parkway Westbound					I-10 Eastbound On Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 05:00 PM



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City of Beaumont
N/S: I-10 Eastbound Ramps
EW: Oak Valley Parkway
Weather: Clear

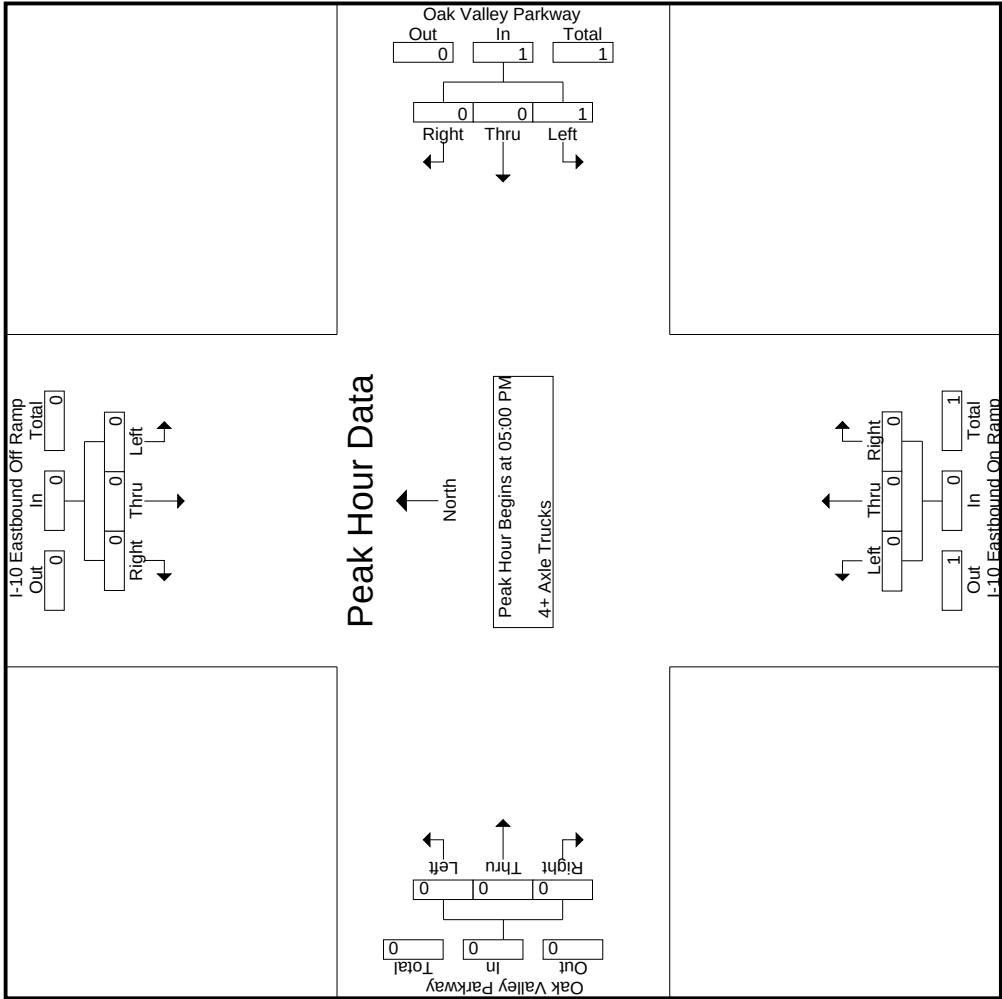
File Name : 08_BMT_10E_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 3

Start Time	I-10 Eastbound Off Ramp Southbound			Oak Valley Parkway Westbound			I-10 Eastbound On Ramp Northbound			Oak Valley Parkway Eastbound		
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1												
Peak Hour for Each Approach Begins at:												
+0 mins.	0	0	0	0	05:00 PM	0	0	0	0	05:00 PM	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

[illegible]

3.1-303

[illegible]



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City of Beaumont
N/S: I-10 Eastbound Ramps
EW: Oak Valley Parkway
Weather: Clear

File Name : 08_BMT_10E_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 3

Start Time	I-10 Eastbound Off Ramp Southbound			Oak Valley Parkway Westbound			I-10 Eastbound On Ramp Northbound			Oak Valley Parkway Eastbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Peak Hour Analysis From 05:00 PM to 05:45 PM - Peak 1 of 1												
Peak Hour for Each Approach Begins at:												
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	1	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	0	0	0	0	0	0	0	0
% App. Total	0	0	0	100	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000

Location: Beaumont
 N/S: I-10 Eastbound Ramps
 E/W: Oak Valley Parkway



Date: 11/19/2019
 Day: Tuesday

PEDESTRIANS

	North Leg I-10 Eastbound Ramps Pedestrians	East Leg Oak Valley Parkway Pedestrians	South Leg Dead End Pedestrians	West Leg Oak Valley Parkway Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	2	0	0	0	0
TOTAL VOLUMES:	2	0	0	0	2

	North Leg I-10 Eastbound Ramps Pedestrians	East Leg Oak Valley Parkway Pedestrians	South Leg Dead End Pedestrians	West Leg Oak Valley Parkway Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Beaumont
N/S: I-10 Eastbound Ramps
E/W: Oak Valley Parkway



Date: 11/19/2019
Day: Tuesday

BICYCLES

	Southbound			Westbound			Northbound			Eastbound		
	I-10 Eastbound Ramps	Oak Valley Parkway		Oak Valley Parkway		Dead End	Oak Valley Parkway		Oak Valley Parkway		Oak Valley Parkway	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	1	0	0	0	0	0	0	0
												1

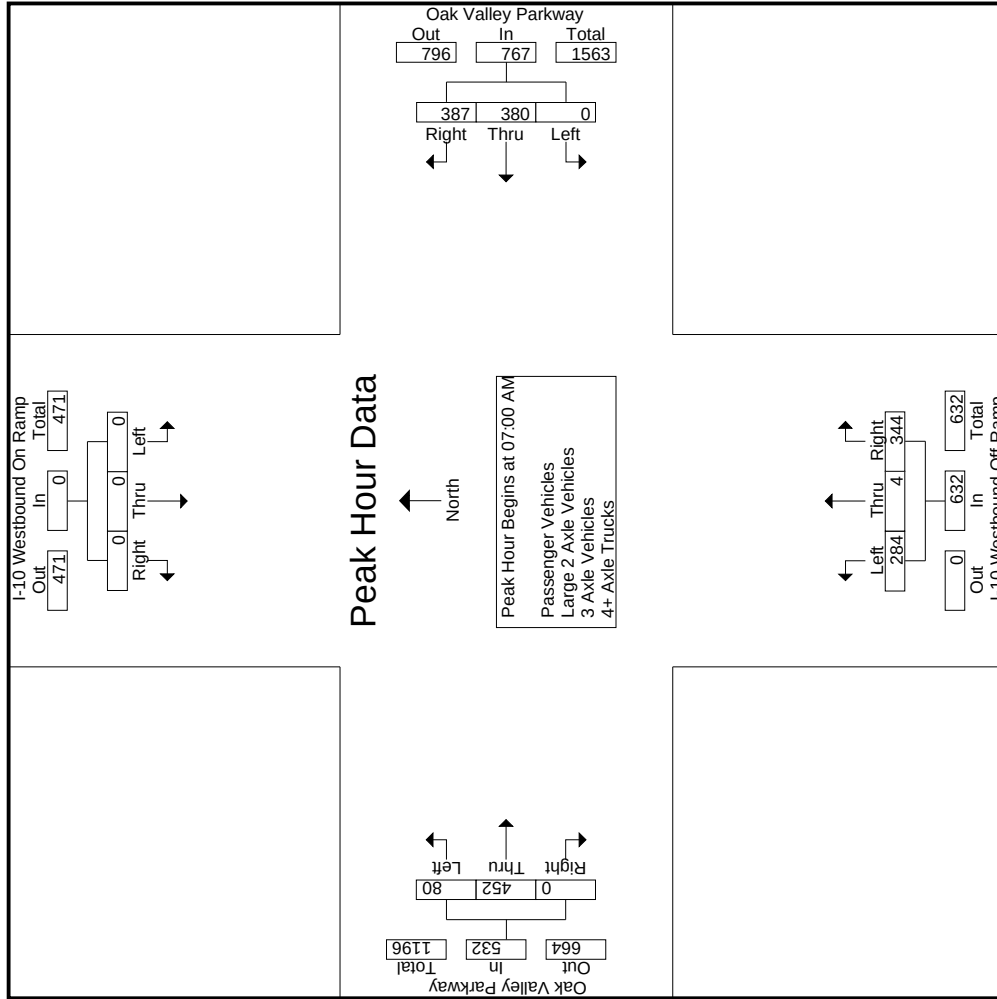
	Southbound			Westbound			Northbound			Eastbound		
	I-10 Eastbound Ramps	Oak Valley Parkway		Oak Valley Parkway		Dead End	Oak Valley Parkway		Oak Valley Parkway		Oak Valley Parkway	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0

City of Beaumont
N/S: I-10 Westbound Ramps
EW: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

		I-10 Westbound On Ramp Southbound						Oak Valley Parkway Westbound						I-10 Westbound Off Ramp Northbound						Oak Valley Parkway Eastbound										
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total							
07:00 AM	0	0	0	0	0	0	83	106	42	189	110	1	78	22	189	24	108	0	0	132	64	510	574							
07:15 AM	0	0	0	0	0	0	90	89	36	179	98	1	136	47	235	22	104	0	0	126	83	540	623							
07:30 AM	0	0	0	0	0	0	103	109	19	212	48	2	75	31	125	21	114	0	0	135	50	472	522							
07:45 AM	0	0	0	0	0	0	104	83	17	187	28	0	55	20	83	13	126	0	0	139	37	409	446							
Total	0	0	0	0	0	0	380	387	114	767	284	4	344	120	632	80	452	0	0	532	234	1931	2165							
08:00 AM	0	0	0	0	0	0	98	94	26	192	32	0	44	20	76	23	68	0	0	91	46	359	405							
08:15 AM	0	0	0	0	0	0	66	92	30	158	30	1	48	27	79	22	65	0	0	87	57	324	381							
08:30 AM	0	0	0	0	0	0	86	108	37	194	39	0	51	18	90	20	55	0	0	75	55	359	414							
08:45 AM	0	0	0	0	0	0	88	78	24	166	31	0	32	12	63	19	65	0	0	84	36	313	349							
Total	0	0	0	0	0	0	338	372	117	710	132	1	175	77	308	84	253	0	0	337	194	1355	1549							
Grand Total	0	0	0	0	0	0	718	759	231	1477	416	5	519	197	940	164	705	0	0	869	428	3286	3714							
Approach %	0	0	0			0	48.6	51.4			44.3	0.5	55.2			18.9	81.1	0												
Total %	0	0	0			0	21.9	23.1		44.9	12.7	0.2	15.8		28.6	5	21.5	0		26.4	11.5	88.5								
% Passenger Vehicles	0	0	0			0	697	752		1677	394	5	503		1096	157	690	0		847	0	0	3620							
% Large Passenger Vehicles	0	0	0			0	97.1	99.1	98.7	98.2	94.7	100	96.9	98.5	96.4	95.7	97.9	0		97.5	0	0	97.5							
% Large 2 Axle Vehicles	0	0	0			0	17	4		23	8	0	15		25	2	8	0		10	0	0	58							
% Large 2 Axle Vehicles	0	0	0			0	2.4	0.5	0.9	1.3	1.9	0	2.9	1	2.2	1.2	1.1	0		1.2	0	0	1.6							
3 Axle Vehicles	0	0	0			0	2	1		3	6	0	0		6	1	7	0		8	0	0	17							
% 3 Axle Vehicles	0	0	0			0	0.3	0.1	0	0.2	1.4	0	0	0	0.5	0.6	1	0		0.9	0	0	0.5							
4+ Axle Trucks	0	0	0			0	2	2		5	8	0	1		10	4	0	0		4	0	0	19							
% 4+ Axle Trucks	0	0	0			0	0.3	0.3	0.4	0.3	1.9	0	0.2	0.5	0.9	2.4	0	0		0.5	0	0	0.5							
Oak Valley Parkway																														
I-10 Westbound On Ramp Southbound												Oak Valley Parkway Westbound						I-10 Westbound Off Ramp Northbound							Oak Valley Parkway Eastbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total							
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																														
Peak Hour for Entire Intersection Begins at 07:00 AM																														
07:00 AM	0	0	0	0	0	0	0	83	106		189		110	1	78		189		24	108	0	132	510							
07:15 AM	0	0	0	0	0	0	90	89		179		98	1	136		235		22	104	0	126	540								
07:30 AM	0	0	0	0	0	0	103	109	109	212	48	2	75	31	125	21	114	0		135	472									
07:45 AM	0	0	0	0	0	0	104	83	83	187	28	0	55	20	83	13	83	0		139	409									
Total Volume	0	0	0	0	0	0	380	387	387	767	284	4	344	4	344	80	452	0		532	1931									
% App. Total	0	0	0	0	0	0	49.5	50.5	50.5		44.9	0.6	54.4	0.6	54.4	15	85	0												
PHF	.000	.000	.000	.000	.000	.000	.913	.888	.888	.904	.645	.500	.632	.500	.632	.672	.833	.897	.000		.957	.894								



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City of Beaumont
N/S: I-10 Westbound Ramps
EW: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 3

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:15 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	90	89	179	110	1	78	189	24	108	0	132
+15 mins.	0	0	0	0	0	103	109	212	98	1	136	235	22	104	0	126	
+30 mins.	0	0	0	0	0	104	83	187	48	2	75	125	21	114	0	135	
+45 mins.	0	0	0	0	0	98	94	192	28	0	55	83	13	126	0	139	
Total Volume	0	0	0	0	0	395	375	770	284	4	344	632	80	452	0	532	
% App. Total	0	0	0	0	0	51.3	48.7		44.9	0.6	54.4		15	85	0		
PHF	.000	.000	.000	.000	.000	.950	.860	.908	.645	.500	.632	.672	.833	.897	.000	.957	

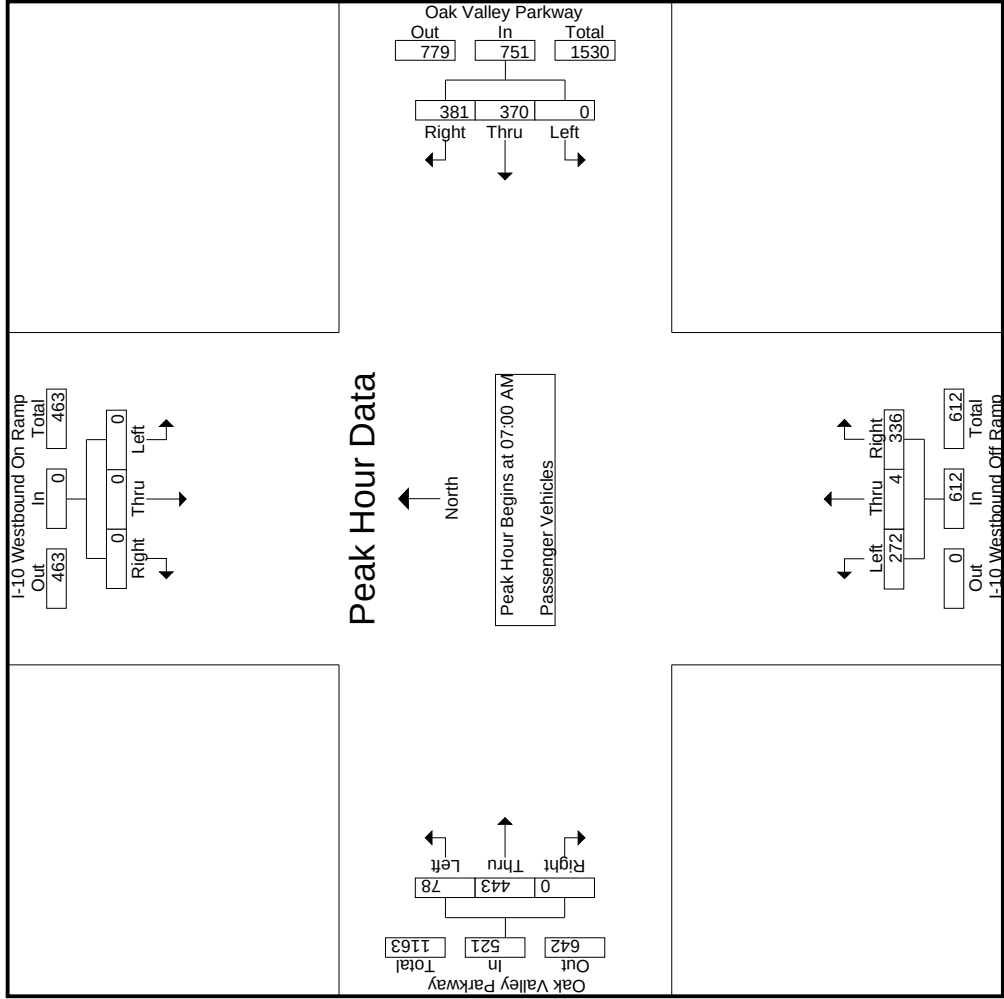
City of Beaumont
N/S: I-10 Westbound Ramps
EW: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles

Start Time	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
07:00 AM	0	0	0	0	0	0	81	105	41	186	106	1	76	22	183	24	106	0	0	130
07:15 AM	0	0	0	0	0	0	86	86	36	172	94	1	133	45	228	21	102	0	0	123
07:30 AM	0	0	0	0	0	0	102	109	19	211	46	2	75	31	123	20	112	0	0	132
07:45 AM	0	0	0	0	0	0	101	81	16	182	26	0	52	20	78	13	123	0	0	136
Total	0	0	0	0	0	0	370	381	112	751	272	4	336	118	612	78	443	0	0	521
08:00 AM	0	0	0	0	0	0	93	94	26	187	30	0	44	20	74	21	68	0	0	89
08:15 AM	0	0	0	0	0	0	65	92	30	157	28	1	44	26	73	22	63	0	0	85
08:30 AM	0	0	0	0	0	0	83	107	36	190	35	0	49	18	84	20	53	0	0	73
08:45 AM	0	0	0	0	0	0	86	78	24	164	29	0	30	12	59	16	63	0	0	79
Total	0	0	0	0	0	0	327	371	116	698	122	1	167	76	290	79	247	0	0	326
Grand Total	0	0	0	0	0	0	697	752	228	1449	394	5	503	194	902	157	690	0	0	847
Apprch %	0	0	0	0	0	0	48.1	51.9		45.3	43.7	0.6	55.8		28.2	18.5	81.5	0	0	26.5
Total %	0	0	0	0	0	0	21.8	23.5			12.3	0.2	15.7			4.9	21.6	0	0	
																				11.7
																				88.3

Start Time	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
07:00 AM	0	0	0	0	0	0	81	105	41	186	106	1	76	22	183	24	106	0	0	130
07:15 AM	0	0	0	0	0	0	86	86	36	172	94	1	133	45	228	21	102	0	0	123
07:30 AM	0	0	0	0	0	0	102	109	19	211	46	2	75	31	123	20	112	0	0	132
07:45 AM	0	0	0	0	0	0	101	81	16	182	26	0	52	20	78	13	123	0	0	136
Total Volume	0	0	0	0	0	0	370	381	112	751	272	4	336	118	612	78	443	0	0	521
% App. Total	0	0	0	0	0	0	49.3	50.7		45.3	43.7	0.7	54.9		28.2	15	85	0	0	26.5
PHF	.000	.000	.000	.000	.000	.000	.907	.874		.890	.642	.500	.632		.671	.813	.900	.000	.000	.958



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City of Beaumont
N/S: I-10 Westbound Ramps
EW: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 3

	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:00 AM				07:00 AM				07:00 AM				07:00 AM				
+0 mins.	0	0	0	0	0	0	81	105	186	106	1	76	183	24	106	0	130
+15 mins.	0	0	0	0	0	0	86	86	172	94	1	133	228	21	102	0	123
+30 mins.	0	0	0	0	0	0	102	109	211	46	2	73	123	20	112	0	132
+45 mins.	0	0	0	0	0	0	101	81	182	26	0	52	78	13	123	0	136
Total Volume	0	0	0	0	0	370	381	751	751	272	4	336	612	78	443	0	521
% App. Total	0	0	0	0	0	49.3	50.7	890	890	44.4	0.7	54.9	612	15	85	0	521
PHF	.000	.000	.000	.000	.000	.907	.874	.890	.890	.642	.500	.632	.671	.813	.900	.000	.958

City of Beaumont
N/S: I-10 Westbound Ramps
EW: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

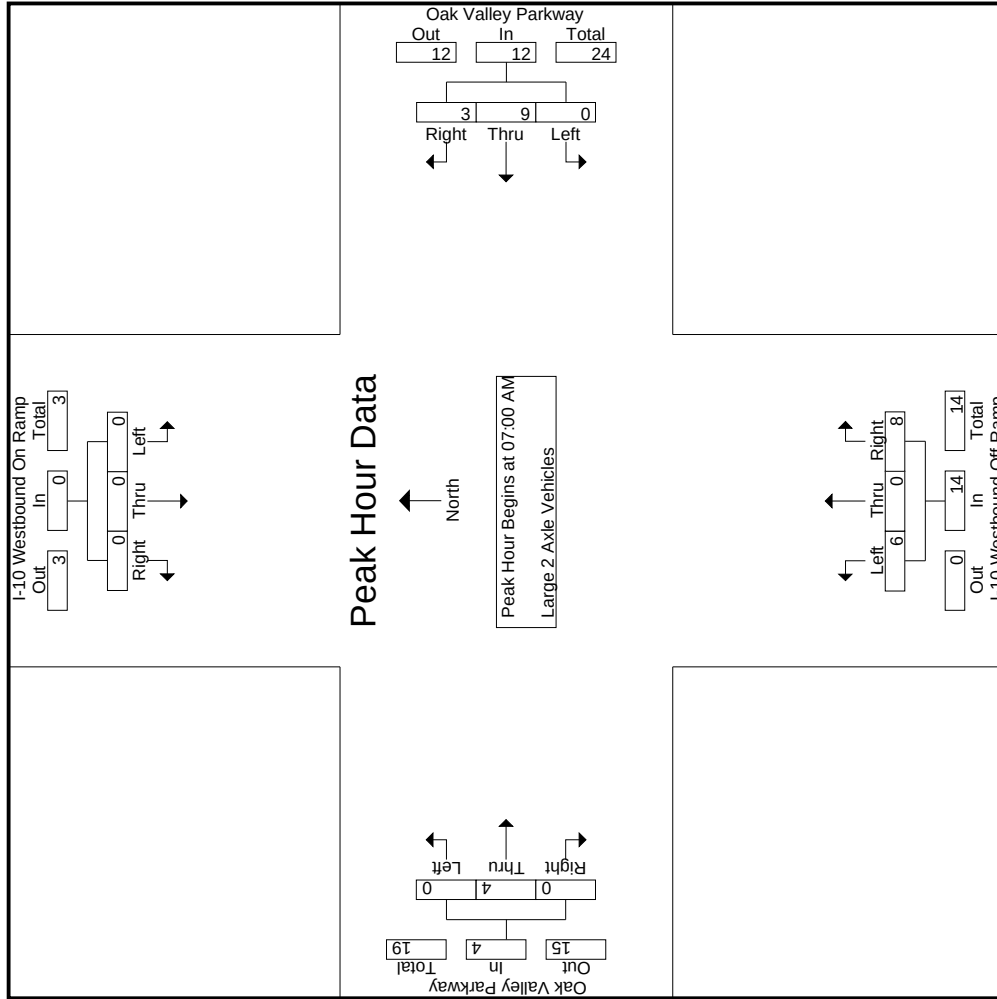
Groups Printed- Large 2 Axle Vehicles

Start Time	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
07:00 AM	0	0	0	0	0	0	2	1	1	3	2	0	2	0	4	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	3	1	0	4	2	0	3	2	5	0	2	0	0	2
07:30 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	2	0	0	2
07:45 AM	0	0	0	0	0	0	3	1	0	4	1	0	3	0	4	0	0	0	0	0
Total	0	0	0	0	0	0	9	3	1	12	6	0	8	2	14	0	4	0	0	4
08:00 AM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	3	0	3	0	1	0	0	1
08:30 AM	0	0	0	0	0	0	2	1	1	3	1	0	2	0	3	0	2	0	0	2
08:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	2	1	0	0	3
Total	0	0	0	0	0	0	8	1	1	9	2	0	7	0	9	2	4	0	0	6
Grand Total	0	0	0	0	0	0	17	4	2	21	8	0	15	2	23	2	8	0	0	10
Apprch %	0	0	0			0	81	19			34.8	0	65.2			20	80			
Total %	0	0	0			0	31.5	7.4		38.9	14.8	0	27.8		42.6	3.7	14.8			18.5

3:1-314

Start Time	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 07:00 AM																				
07:00 AM	0	0	0	0	0	0	0	2	1	3	2	0	2	0	4	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	3	1	4	2	0	3	0	5	0	2	0	0	2
07:30 AM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	2	0	0	2
07:45 AM	0	0	0	0	0	0	0	3	1	4	1	0	3	0	4	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	9	3	12	6	0	8		14	0	4	0	0	4
% App. Total	0	0	0	0		0	75	25			42.9	0	57.1			0	100	0		
PHF	.000	.000	.000		.000	.000	.750	.750		.750	.750	.000	.667		.700	.000	.500	.000		.500

.682



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City of Beaumont
N/S: I-10 Westbound Ramps
EW: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 3

Start Time	I-10 Westbound On Ramp Southbound			Oak Valley Parkway Westbound			I-10 Westbound Off Ramp Northbound			Oak Valley Parkway Eastbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1												
Peak Hour for Each Approach Begins at:												
+0 mins.	0	0	0	0	0	0	07:00 AM	2	0	0	0	0
+15 mins.	0	0	0	0	0	0	07:00 AM	2	0	0	2	0
+30 mins.	0	0	0	0	0	0	07:00 AM	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	07:00 AM	1	0	0	0	0
Total Volume	0	0	0	0	9	3	07:00 AM	6	0	0	4	0
% App. Total	0	0	0	0	75	25	07:00 AM	42.9	0	100	0	0
PHF	.000	.000	.000	.000	.750	.750	07:00 AM	.750	.000	.500	.000	.500

City of Beaumont
N/S: I-10 Westbound Ramps
EW: Oak Valley Parkway
Weather: Clear

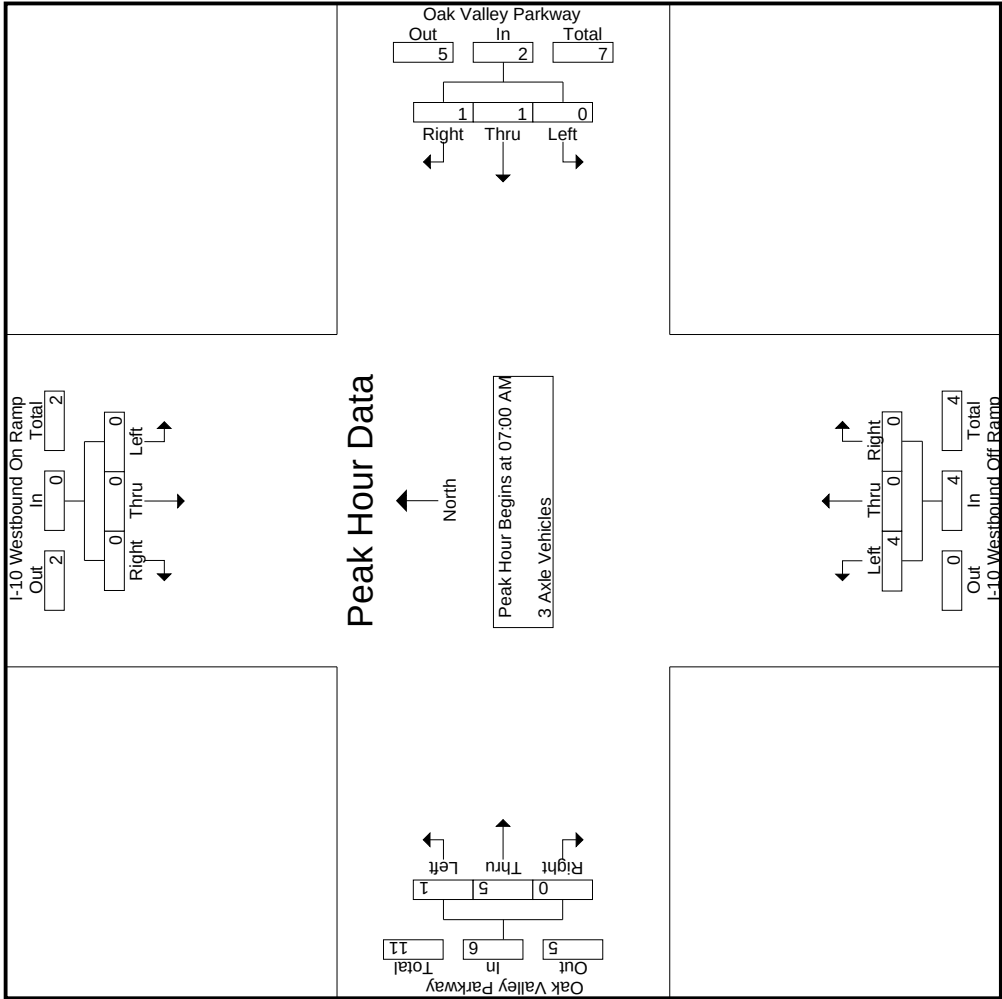
File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 3 Axle Vehicles

I-10 Westbound On Ramp Southbound										Oak Valley Parkway Westbound										I-10 Westbound Off Ramp Northbound										Oak Valley Parkway Eastbound									
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total																
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	2																
07:15 AM	0	0	0	0	0	0	1	1	0	2	2	0	0	0	2	1	0	0	0	1	0	5	5																
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1																
07:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	3	0	0	3	0	4	4																
Total	0	0	0	0	0	0	1	1	0	2	4	0	0	0	4	1	5	0	0	6	0	12	12																
08:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1																
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1																
08:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	2	2																
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1																
Total	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	2	0	0	2	0	5	5																
Grand Total	0	0	0	0	0	0	2	1	0	3	6	0	0	0	6	1	7	0	0	8	0	17	17																
Approch %	0	0	0			0	66.7	33.3			100	0	0	0	35.3	12.5	87.5	0			0																		
Total %	0	0	0			0	11.8	5.9	17.6	35.3	35.3	0	0			5.9	41.2	0		47.1	0	100																	

3.1-317

I-10 Westbound On Ramp Southbound										Oak Valley Parkway Westbound										I-10 Westbound Off Ramp Northbound										Oak Valley Parkway Eastbound									
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Thru	Left	App. Total	Int. Total															
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																																							
Peak Hour for Entire Intersection Begins at 07:00 AM																																							
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	2															
07:15 AM	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	1	0	0	0	0	0	1	1	5															
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	1															
07:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	3	0	0	3	0	3	4	4															
Total Volume	0	0	0	0	0	0	0	1	1	2	4	0	0	0	4	1	5	0	0	6	0	12	12	12															
% App. Total	0	0	0	0	0	0	50	50			100	0	0	0		16.7	83.3	0																					
PHF	.000	.000	.000	.000	.000	.000	.250	.250		.250	.500	.000	.000	.000	.000	.250	.417	.000	.000	.500	.000	.600	.600	.600															



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City of Beaumont
N/S: I-10 Westbound Ramps
EW: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
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Start Time	I-10 Westbound On Ramp Southbound			Oak Valley Parkway Westbound			I-10 Westbound Off Ramp Northbound			Oak Valley Parkway Eastbound		
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1												
Peak Hour for Each Approach Begins at:												
+0 mins.	0	0	0	0	07:00 AM	0	0	0	07:00 AM	0	2	0
+15 mins.	0	0	0	0	0	1	1	0	2	1	0	1
+30 mins.	0	0	0	0	0	0	0	0	1	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	1	0	3	3
Total Volume	0	0	0	0	0	1	1	0	4	1	5	0
% App. Total	0	0	0	0	0	50	50	0	100	16.7	83.3	0
PHF	.000	.000	.000	.000	.000	.250	.250	.000	.500	.250	.417	.500

City of Beaumont
N/S: I-10 Westbound Ramps
EW: Oak Valley Parkway
Weather: Clear

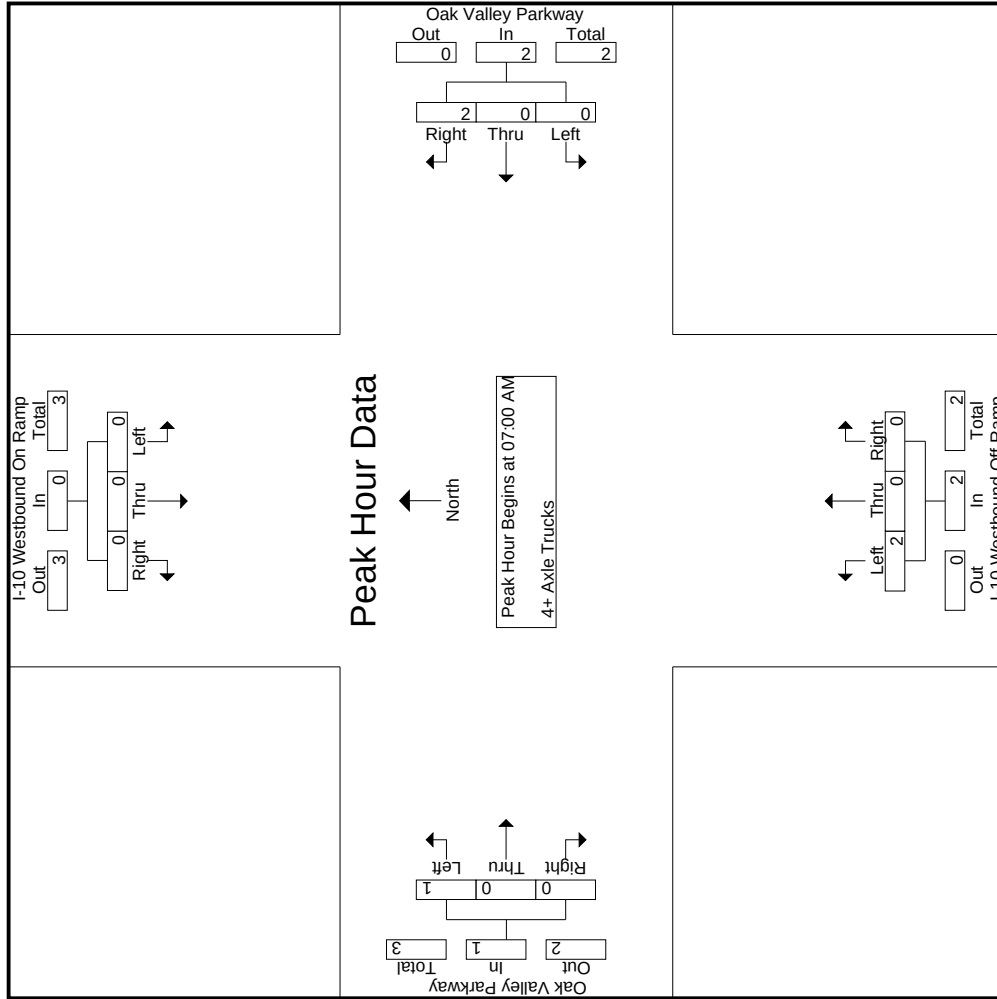
File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	2	1	2	2	0	0	0	2	1	0	0	0	1
08:00 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	2	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	1	1	3	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1
Total	0	0	0	0	0	0	2	0	0	2	6	0	1	1	7	3	0	0	0	3
Grand Total	0	0	0	0	0	0	2	2	1	4	8	0	1	1	9	4	0	0	0	4
Apprch %	0	0	0			0	50				88.9	0	11.1			100	0	0		
Total %	0	0	0			0	11.8			23.5	47.1	0	5.9		52.9	23.5	0	0		23.5

3:1-320

Start Time	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	2	2	2	2	0	0	0	2	1	0	0	0	1
% App. Total	0	0	0	0	0	0	0	100			100	0	0			100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.500		.500	.250	.000	.000	.000	.250	.250	.000	.000	.000	.250



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PO Box 1178
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(951) 268-6268

File Name : 09_BMT_10W_Oak Valley AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 3

City of Beaumont
N/S: I-10 Westbound Ramps
EW: Oak Valley Parkway
Weather: Clear

Start Time	I-10 Westbound On Ramp Southbound			Oak Valley Parkway Westbound			I-10 Westbound Off Ramp Northbound			Oak Valley Parkway Eastbound		
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1												
Peak Hour for Each Approach Begins at:												
+0 mins.	0	0	0	0	0	0	0	0	2	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	1
+45 mins.	0	0	0	0	0	0	1	0	0	0	0	0
Total Volume	0	0	0	0	0	0	2	2	2	1	0	1
% App. Total	0	0	0	0	0	0	100	0	100	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.500	.500	.250	.250	.000	.250

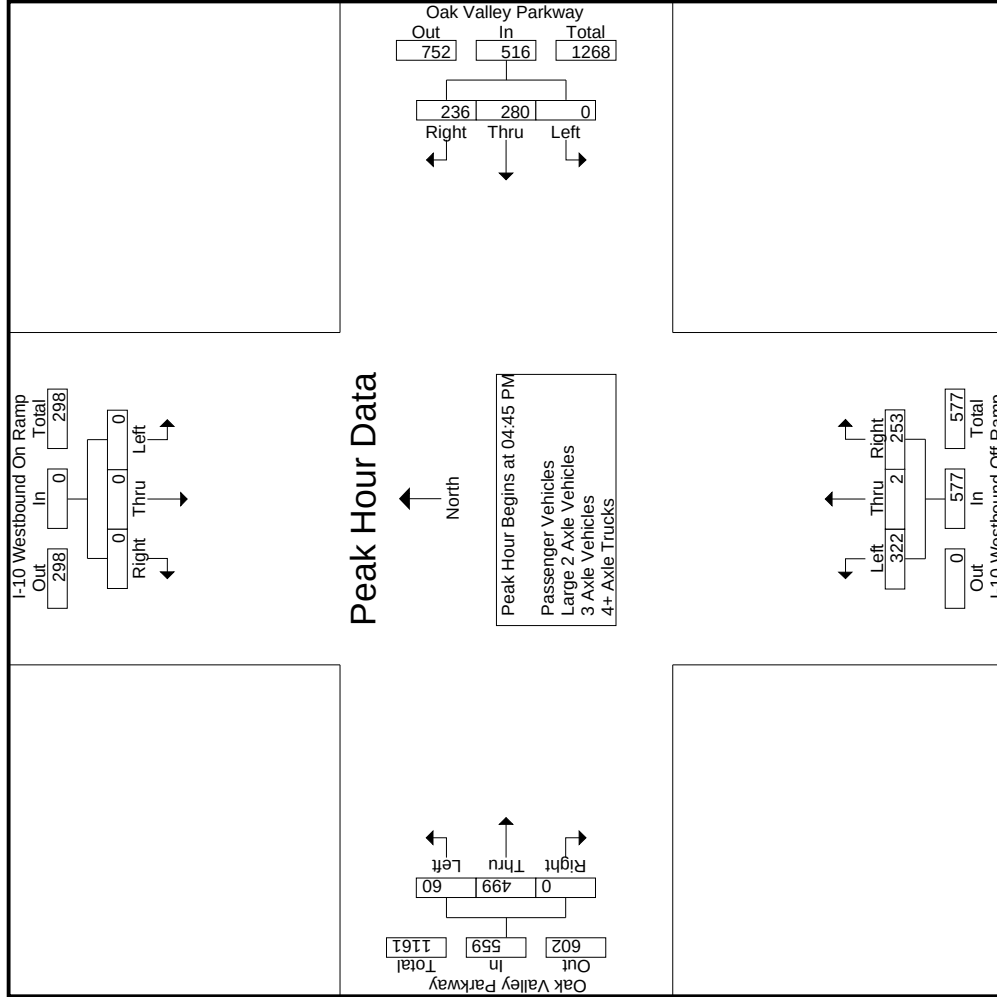
City of Beaumont
N/S: I-10 Westbound Ramps
EW: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	I-10 Westbound On Ramp Southbound						Oak Valley Parkway Westbound						I-10 Westbound Off Ramp Northbound						Oak Valley Parkway Eastbound					
	Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total	
04:00 PM	0	0	0	0	0		0	69	79	29	148		77	1	50	15	128		21	112	0	0	133	
04:15 PM	0	0	0	0	0		0	62	57	23	119		94	0	64	16	158		17	107	0	0	124	
04:30 PM	0	0	0	0	0		0	76	70	30	146		77	0	57	22	134		17	111	0	0	128	
04:45 PM	0	0	0	0	0		0	77	59	20	136		75	0	62	15	137		14	101	0	0	115	
Total	0	0	0	0	0		0	284	265	102	549		323	1	233	68	557		69	431	0	0	500	
05:00 PM	0	0	0	0	0		0	70	64	21	134		81	0	60	11	141		21	118	0	0	139	
05:15 PM	0	0	0	0	0		0	68	61	10	129		99	1	57	16	157		9	133	0	0	142	
05:30 PM	0	0	0	0	0		0	65	52	17	117		67	1	74	8	142		16	147	0	0	163	
05:45 PM	0	0	0	0	0		0	67	48	19	115		58	0	46	3	104		12	145	0	0	157	
Total	0	0	0	0	0		0	270	225	67	495		305	2	237	38	544		58	543	0	0	601	
Grand Total	0	0	0	0	0		0	554	490	169	1044		628	3	470	106	1101		127	974	0	0	1101	
Apprch %	0	0	0				0	53.1	46.9				57	0.3	42.7				11.5	88.5				
Total %	0	0	0				0	17.1	15.1		32.2		19.3	0.1	14.5		33.9		3.9	30			33.9	
Passenger Vehicles	0	0	0				0	538	486		1193		614	2	463		1184		124	961			1085	
Large Passenger Vehicles	0	0	0				0	97.1	99.2	100	98.4		97.8	66.7	98.5	99.1	98.1		97.6	98.7			98.5	
Large 2 Axle Vehicles	0	0	0				0	16	4		20		12	0	7		20		3	12			15	
Large 3 Axle Vehicles	0	0	0				0	2.9	0.8	0	1.6		1.9	0	1.5	0.9	1.7		2.4	1.2			1.4	
% 3 Axle Vehicles	0	0	0				0	0	0	0	0		1	0	0		1		0	0			0	
% 3 Axle Vehicles	0	0	0				0	0	0	0	0		0.2	0	0	0	0.1		0	0			0	
4+ Axle Trucks	0	0	0				0	0	0	0	0		1	1	0		2		0	1			1	
% 4+ Axle Trucks	0	0	0				0	0	0	0	0		0.2	33.3	0	0	0.2		0	0.1			0.1	

Start Time	I-10 Westbound On Ramp Southbound						Oak Valley Parkway Westbound						I-10 Westbound Off Ramp Northbound						Oak Valley Parkway Eastbound					
	Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total	
04:45 PM	0	0	0				0	0	0				75	0	62				14	101	0		115	
05:00 PM	0	0	0				0	0	0		64		81	0	60				21	118	0		139	
05:15 PM	0	0	0				0	68	61		129		99	1	57				9	133	0		142	
05:30 PM	0	0	0				0	65	52		117		67	1	74				16	147	0		163	
Total Volume	0	0	0				0	280	236		516		322	2	253				60	499	0		559	
% App. Total	0	0	0				0	54.3	45.7				55.8	0.3	43.8				10.7	89.3	0			
PHF	.000	.000	.000				.000	.909	.922		.949		.813	.500	.855				.714	.849	.000		.857	



Start Time	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
+0 mins.	0	0	0	0	04:00 PM				04:45 PM				05:00 PM			
+15 mins.	0	0	0	0	0	0	69	79	148	75	0	62	137	118	0	139
+30 mins.	0	0	0	0	0	0	62	57	119	81	0	60	141	133	0	142
+45 mins.	0	0	0	0	0	0	76	70	146	99	1	57	157	147	0	163
Total Volume	0	0	0	0	0	0	77	59	136	67	1	74	142	145	0	157
% App. Total	0	0	0	0	0	0	284	265	549	322	2	253	577	543	0	601
PHF	.000	.000	.000	.000	.000	.000	.922	.839	.927	.813	.500	.855	.919	.923	.000	.922

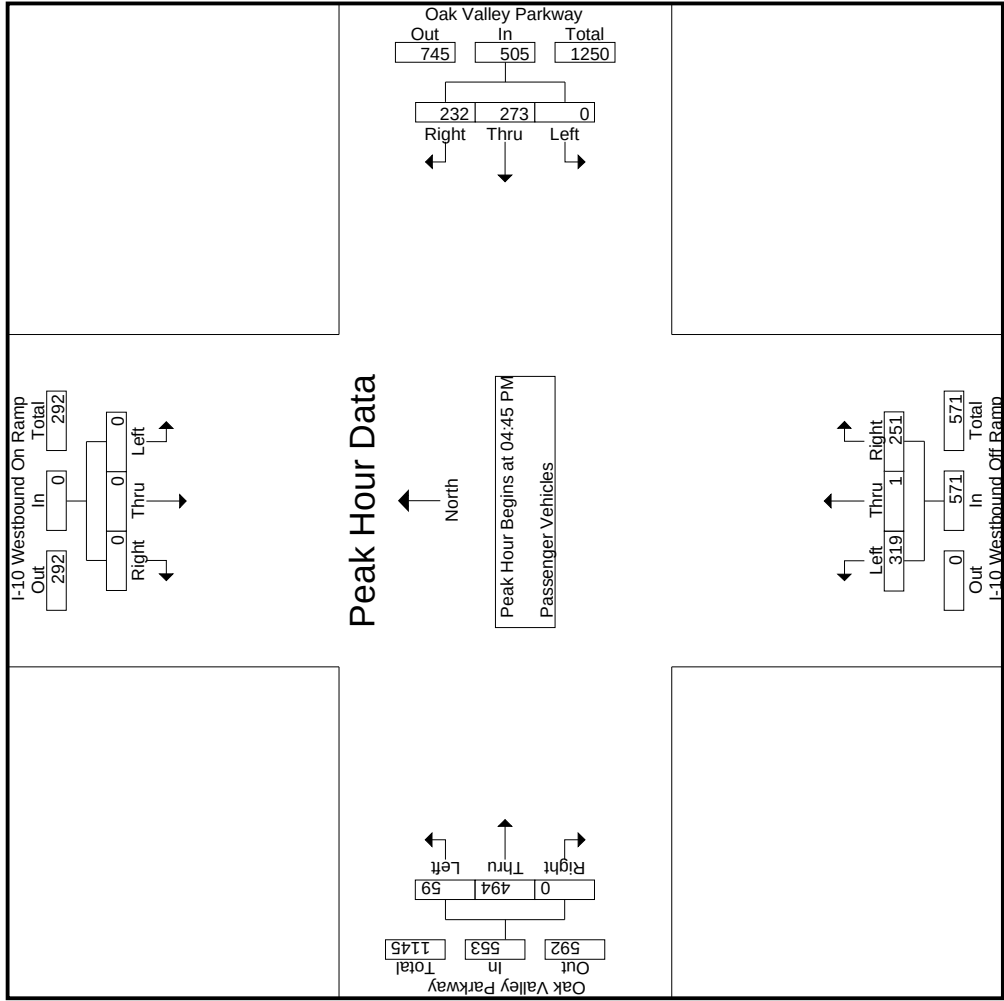
City of Beaumont
N/S: I-10 Westbound Ramps
EW: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
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Groups Printed- Passenger Vehicles

Start Time	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
04:00 PM	0	0	0	0	0	0	67	79	29	146	74	1	49	15	124	20	111	0	0	131
04:15 PM	0	0	0	0	0	0	60	57	23	117	88	0	64	16	152	16	102	0	0	118
04:30 PM	0	0	0	0	0	0	73	70	30	143	76	0	55	21	131	17	111	0	0	128
04:45 PM	0	0	0	0	0	0	75	58	20	133	74	0	61	15	135	13	99	0	0	112
Total	0	0	0	0	0	0	275	264	102	539	312	1	229	67	542	66	423	0	0	489
05:00 PM	0	0	0	0	0	0	69	63	21	132	81	0	59	11	140	21	117	0	0	138
05:15 PM	0	0	0	0	0	0	66	59	10	125	97	1	57	16	155	9	132	0	0	141
05:30 PM	0	0	0	0	0	0	63	52	17	115	67	0	74	8	141	16	146	0	0	162
05:45 PM	0	0	0	0	0	0	65	48	19	113	57	0	44	3	101	12	143	0	0	155
Total	0	0	0	0	0	0	263	222	67	485	302	1	234	38	537	58	538	0	0	596
Grand Total	0	0	0	0	0	0	538	486	169	1024	614	2	463	105	1079	124	961	0	0	1085
Apprch %	0	0	0	0	0	0	52.5	47.5		32.1	56.9	0.2	42.9		33.8	11.4	88.6	0	0	274
Total %	0	0	0	0	0	0	16.9	15.2			19.3	0.1	14.5			3.9	30.1	0	0	34
																				7.9
																				92.1

Start Time	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
04:45 PM	0	0	0	0	0	0	0	0	0	0	74	0	61	0	135	13	99	0	0	112
05:00 PM	0	0	0	0	0	0	69	63	0	132	81	0	59	0	140	21	117	0	0	138
05:15 PM	0	0	0	0	0	0	66	59	0	125	97	1	57	0	155	9	132	0	0	141
05:30 PM	0	0	0	0	0	0	63	52	0	115	67	0	74	0	141	16	146	0	0	162
Total Volume	0	0	0	0	0	0	273	232	0	505	319	1	251	0	571	59	494	0	0	553
% App. Total	0	0	0	0	0	0	54.1	45.9			55.9	0.2	44			10.7	89.3	0	0	
PHF	.000	.000	.000	.000	.000	.000	.910	.921		.949	.822	.250	.848		.921	.702	.846	.000	.000	.853



Counts Unlimited
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City of Beaumont
N/S: I-10 Westbound Ramps
EW: Oak Valley Parkway
Weather: Clear

Start Time	I-10 Westbound On Ramp Southbound				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp Northbound				Oak Valley Parkway Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.910	.921	.949	.822	.250	.848	.921	.702	.846	.000	.853

City of Beaumont
N/S: I-10 Westbound Ramps
EW: Oak Valley Parkway
Weather: Clear

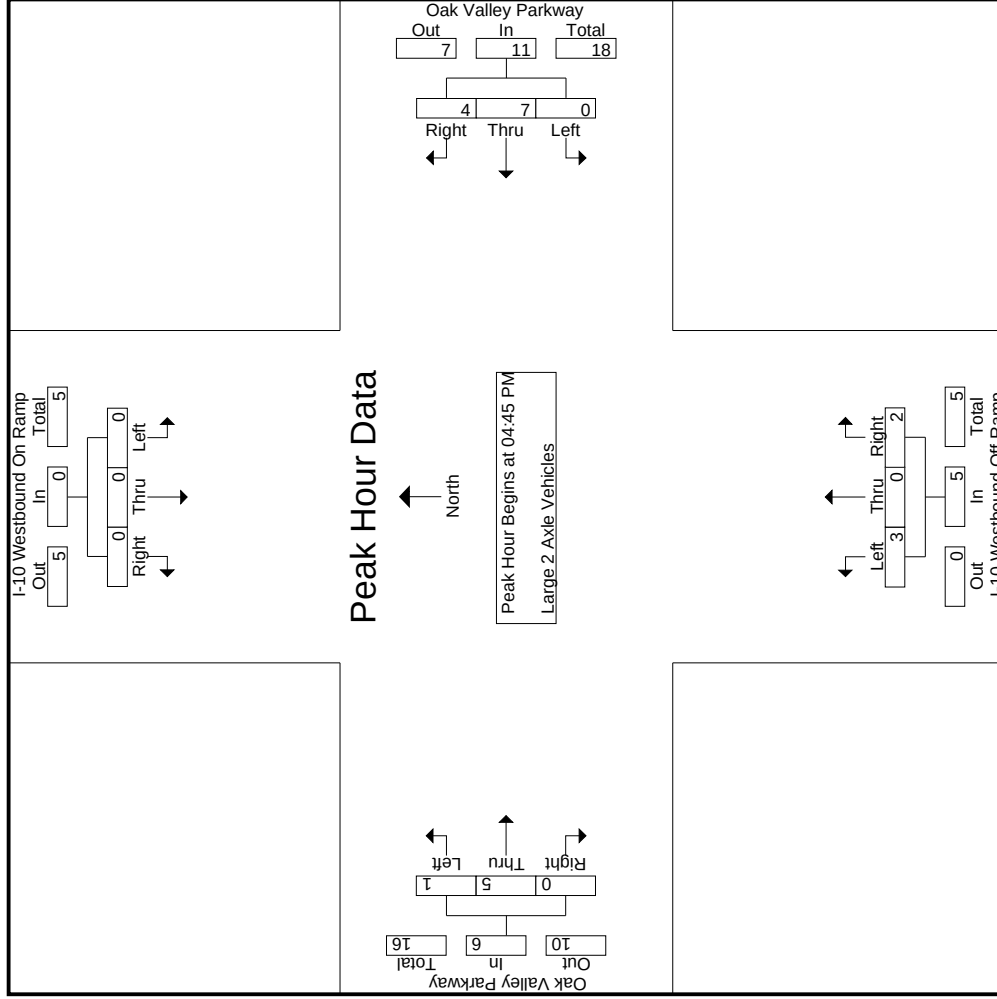
File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
04:00 PM	0	0	0	0	0	0	2	0	0	2	3	0	1	0	4	1	1	1	0	2
04:15 PM	0	0	0	0	0	0	2	0	0	2	5	0	0	0	5	1	4	0	0	5
04:30 PM	0	0	0	0	0	0	3	0	0	3	1	0	2	1	3	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	2	1	0	3	1	0	1	0	2	1	2	0	0	3
Total	0	0	0	0	0	0	9	1	0	10	10	0	4	1	14	3	7	0	0	10
05:00 PM	0	0	0	0	0	0	1	1	0	2	0	0	1	0	1	0	1	0	0	1
05:15 PM	0	0	0	0	0	0	2	2	0	4	2	0	0	0	2	0	1	0	0	1
05:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1
05:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	0	2	0	0	2
Total	0	0	0	0	0	0	7	3	0	10	2	0	3	0	5	0	5	0	0	5
Grand Total	0	0	0	0	0	0	16	4	0	20	12	0	7	1	19	3	12	0	0	15
Apprch %	0	0	0			0	80	20			63.2	0	36.8			20	80	0		
Total %	0	0	0			0	29.6	7.4		37	22.2	0	13		35.2	5.6	22.2	0		27.8

9:1-329

Start Time	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
04:45 PM	0	0	0	0	0	0	0	2	1	3	1	0	0	1	2	1	2	0	0	3
05:00 PM	0	0	0	0	0	0	0	1	1	2	0	0	1	1	1	0	1	0	0	1
05:15 PM	0	0	0	0	0	0	0	2	2	4	2	0	0	0	2	0	1	0	1	7
05:30 PM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	1	0	0	1
Total Volume	0	0	0	0	0	0	0	7	4	11	3	0	2	2	5	1	5	0	0	6
% App. Total	0	0	0	0	0	0	63.6	36.4			60	0	40			16.7	83.3	0		
PHF	.000	.000	.000	.000	.000	.000	.875	.500	.688	.688	.375	.000	.500	.625	.625	.250	.625	.000	.500	.688



City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
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	I-10 Westbound On Ramp				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp				Oak Valley Parkway Eastbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
+0 mins. +15 mins. +30 mins. +45 mins. Total Volume % App. Total PHE	04:45 PM				04:45 PM				04:45 PM				04:45 PM				
	0	0	0	0	2	1	1	3	0	0	0	1	2	1	2	0	3
	0	0	0	0	1	1	2	2	0	0	0	1	1	0	1	0	1
	0	0	0	0	2	2	4	2	2	0	0	2	2	0	1	0	1
	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	0	1
0				0	0	0	11	3	0	2	5	1	5	0	6		
0				0	0	0	60	375	0	40	16.7	83.3	0	250	625	0	500
.000				.000	.000	.000	.688	.000	.000	.500	.625	.000	.250	.625	.000	.500	

3.1-331

City of Beaumont
N/S: I-10 Westbound Ramps
EW: Oak Valley Parkway
Weather: Clear

File Name : 09_BMT_10W_Oak Valley PM
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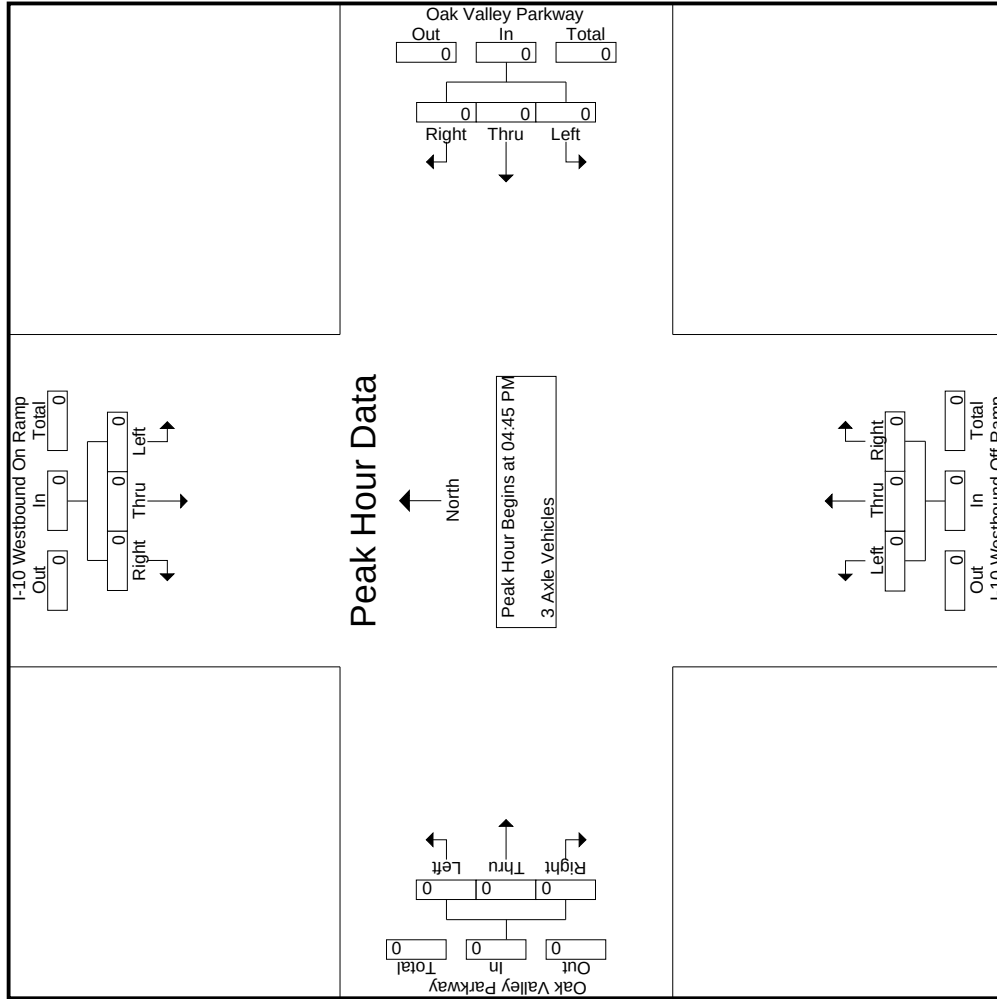
Groups Printed- 3 Axle Vehicles

Start Time	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
Apprch %	0	0	0			0	0	0			100	0	0			0	0			
Total %	0	0	0			0	0	0			100	0	0			0	0			

3.1-332

Start Time	I-10 Westbound On Ramp Southbound					Oak Valley Parkway Westbound					I-10 Westbound Off Ramp Northbound					Oak Valley Parkway Eastbound				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
Peak Hour for Entire Intersection Begins at 04:45 PM



Counts Unlimited
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City of Beaumont
N/S: I-10 Westbound Ramps
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Weather: Clear

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Site Code : 05119803
Start Date : 11/19/2019
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Start Time	I-10 Westbound On Ramp Southbound			Oak Valley Parkway Westbound			I-10 Westbound Off Ramp Northbound			Oak Valley Parkway Eastbound		
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1												
Peak Hour for Each Approach Begins at:												
+0 mins.	0	0	0	0	04:45 PM	0	0	0	0	04:45 PM	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

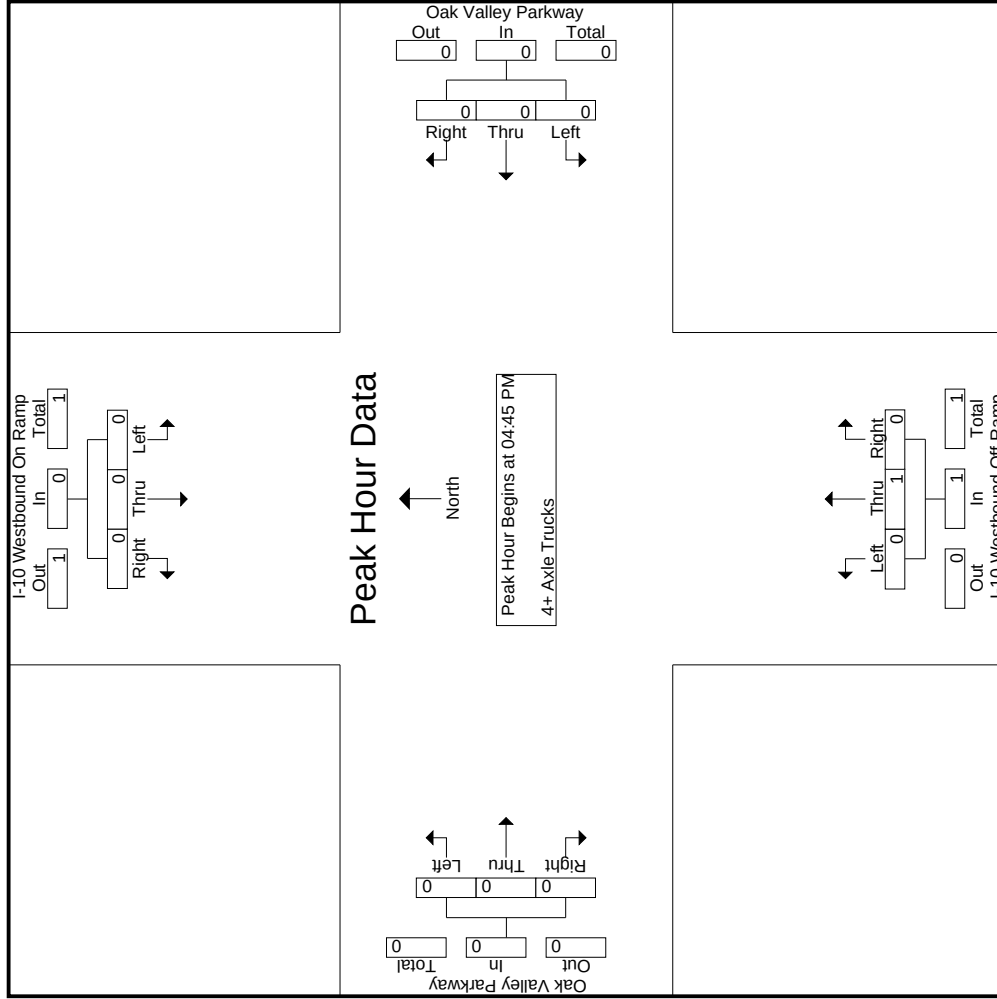
City of Beaumont
N/S: I-10 Westbound Ramps
E/W: Oak Valley Parkway
Weather: Clear

Groups Printed- 4+ Axle Trucks

	I-10 Westbound On Ramp Southbound						Oak Valley Parkway Westbound						I-10 Westbound Off Ramp Northbound						Oak Valley Parkway Eastbound								
Start Time	Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total		Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
04:15 PM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	1	0	1		0	1	1
04:30 PM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
04:45 PM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
Total	0	0	0	0	0		0	0	0	0	0		0	0	0	1	0		0	0	0	0	1		0	1	1
05:00 PM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
05:15 PM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
05:30 PM	0	0	0	0	0		0	0	0	0	0		0	0	1	0	0		0	0	0	0	0		0	1	1
05:45 PM	0	0	0	0	0		0	0	0	0	0		1	0	0	0	0		0	0	0	0	0		0	1	1
Total	0	0	0	0	0		0	0	0	0	0		1	1	0	0	2		0	0	0	0	0		0	2	2
Grand Total	0	0	0	0	0		0	0	0	0	0		1	1	0	0	2		0	1	0	0	1		0	3	3
Approach %	0	0	0	0	0		0	0	0	0	0		50	50	0	0	66.7		0	100	0	0	33.3		0	100	
Total %	0	0	0	0	0		0	0	0	0	0		33.3	33.3	0	0	66.7		0	33.3	0	0	33.3		0	100	

3.1-335

	I-10 Westbound On Ramp				Oak Valley Parkway Westbound				I-10 Westbound Off Ramp				Oak Valley Parkway Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1																
Peak Hour for Entire Intersection Begins at 04:45 PM																
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1
% App. Total	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.250



Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

File Name : 09_BMT_10W_Oak Valley PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 3

City of Beaumont
N/S: I-10 Westbound Ramps
EW: Oak Valley Parkway
Weather: Clear

Start Time	I-10 Westbound On Ramp Southbound			Oak Valley Parkway Westbound			I-10 Westbound Off Ramp Northbound			Oak Valley Parkway Eastbound		
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1												
Peak Hour for Each Approach Begins at:												
+0 mins.	0	0	0	0	04:45 PM	0	0	0	0	04:45 PM	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	1	0	0	0
Total Volume	0	0	0	0	0	0	0	0	1	0	0	0
% App. Total	0	0	0	0	0	0	0	0	100	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.000

Location: Beaumont
 N/S: I-10 Westbound Ramps
 E/W: Oak Valley Parkway



Date: 11/19/2019
 Day: Tuesday

PEDESTRIANS

	North Leg I-10 Westbound Ramps	East Leg Oak Valley Parkway	South Leg Dead End	West Leg Oak Valley Parkway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	2	0	0	0	2
TOTAL VOLUMES:	2	0	0	0	2

	North Leg I-10 Westbound Ramps	East Leg Oak Valley Parkway	South Leg Dead End	West Leg Oak Valley Parkway	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Beaumont
 N/S: I-10 Westbound Ramps
 E/W: Oak Valley Parkway



Date: 11/19/2019
 Day: Tuesday

BICYCLES

	Southbound I-10 Westbound Ramps			Westbound Oak Valley Parkway			Northbound Dead End			Eastbound Oak Valley Parkway			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound I-10 Westbound Ramps			Westbound Oak Valley Parkway			Northbound Dead End			Eastbound Oak Valley Parkway			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

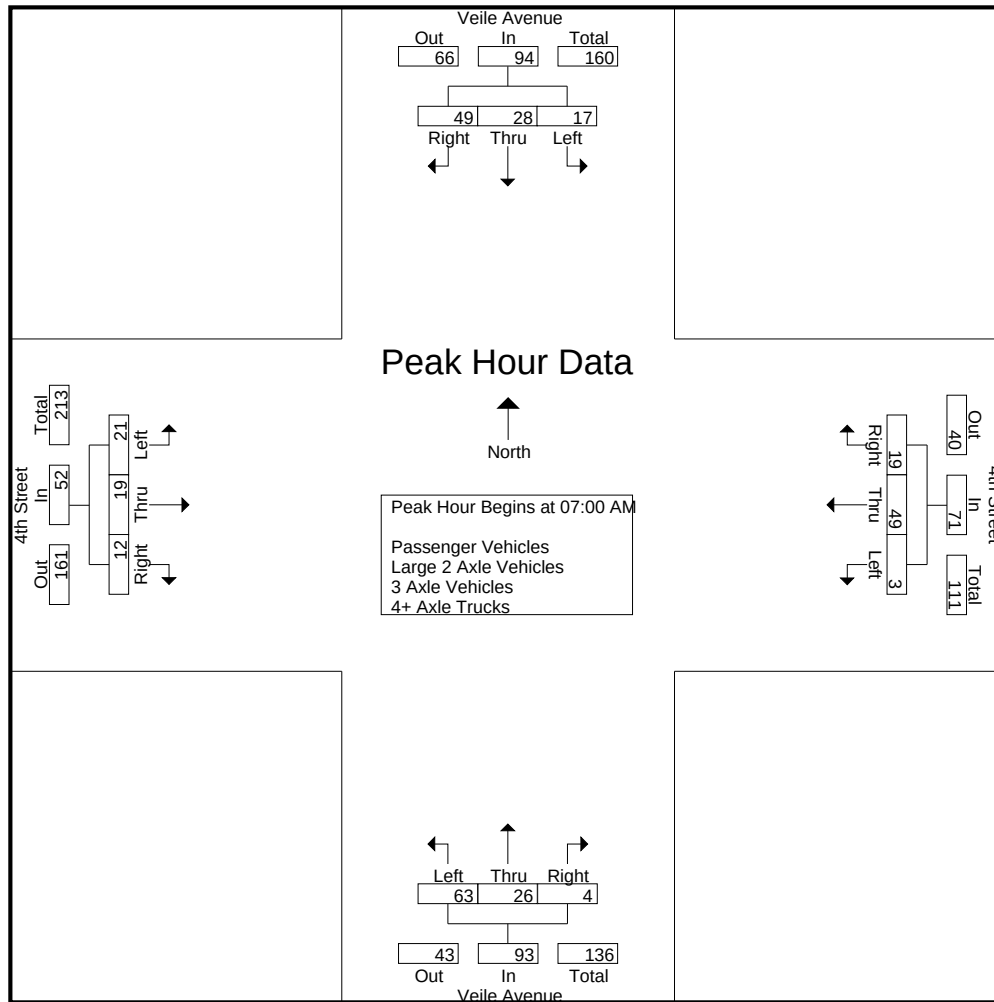
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	8	6	20	34	0	18	8	26	13	8	1	22	9	10	3	22	104
07:15 AM	1	7	10	18	0	16	2	18	38	4	2	44	3	3	7	13	93
07:30 AM	4	6	2	12	2	7	4	13	4	8	1	13	5	3	0	8	46
07:45 AM	4	9	17	30	1	8	5	14	8	6	0	14	4	3	2	9	67
Total	17	28	49	94	3	49	19	71	63	26	4	93	21	19	12	52	310
08:00 AM	1	3	9	13	0	10	7	17	7	2	2	11	8	6	2	16	57
08:15 AM	5	12	21	38	2	13	1	16	4	1	2	7	6	7	5	18	79
08:30 AM	1	9	13	23	2	7	0	9	4	2	3	9	2	6	6	14	55
08:45 AM	3	5	9	17	0	7	1	8	5	2	2	9	3	8	6	17	51
Total	10	29	52	91	4	37	9	50	20	7	9	36	19	27	19	65	242
Grand Total	27	57	101	185	7	86	28	121	83	33	13	129	40	46	31	117	552
Apprch %	14.6	30.8	54.6		5.8	71.1	23.1		64.3	25.6	10.1		34.2	39.3	26.5		
Total %	4.9	10.3	18.3	33.5	1.3	15.6	5.1	21.9	15	6	2.4	23.4	7.2	8.3	5.6	21.2	
Passenger Vehicles	21	52	75	148	7	76	27	110	77	30	11	118	23	30	21	74	450
% Passenger Vehicles	77.8	91.2	74.3	80	100	88.4	96.4	90.9	92.8	90.9	84.6	91.5	57.5	65.2	67.7	63.2	81.5
Large 2 Axle Vehicles	2	4	6	12	0	6	1	7	2	3	1	6	6	6	0	12	37
% Large 2 Axle Vehicles	7.4	7	5.9	6.5	0	7	3.6	5.8	2.4	9.1	7.7	4.7	15	13	0	10.3	6.7
3 Axle Vehicles	1	1	3	5	0	0	0	0	1	0	1	2	4	1	0	5	12
% 3 Axle Vehicles	3.7	1.8	3	2.7	0	0	0	0	1.2	0	7.7	1.6	10	2.2	0	4.3	2.2
4+ Axle Trucks	3	0	17	20	0	4	0	4	3	0	0	3	7	9	10	26	53
% 4+ Axle Trucks	11.1	0	16.8	10.8	0	4.7	0	3.3	3.6	0	0	2.3	17.5	19.6	32.3	22.2	9.6

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	8	6	20	34	0	18	8	26	13	8	1	22	9	10	3	22	104
07:15 AM	1	7	10	18	0	16	2	18	38	4	2	44	3	3	7	13	93
07:30 AM	4	6	2	12	2	7	4	13	4	8	1	13	5	3	0	8	46
07:45 AM	4	9	17	30	1	8	5	14	8	6	0	14	4	3	2	9	67
Total Volume	17	28	49	94	3	49	19	71	63	26	4	93	21	19	12	52	310
% App. Total	18.1	29.8	52.1		4.2	69	26.8		67.7	28	4.3		40.4	36.5	23.1		
PHF	.531	.778	.613	.691	.375	.681	.594	.683	.414	.813	.500	.528	.583	.475	.429	.591	.745

City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:00 AM				07:00 AM				08:00 AM			
+0 mins.	4	9	17	30	0	18	8	26	13	8	1	22	8	6	2	16
+15 mins.	1	3	9	13	0	16	2	18	38	4	2	44	6	7	5	18
+30 mins.	5	12	21	38	2	7	4	13	4	8	1	13	2	6	6	14
+45 mins.	1	9	13	23	1	8	5	14	8	6	0	14	3	8	6	17
Total Volume	11	33	60	104	3	49	19	71	63	26	4	93	19	27	19	65
% App. Total	10.6	31.7	57.7		4.2	69	26.8		67.7	28	4.3		29.2	41.5	29.2	
PHF	.550	.688	.714	.684	.375	.681	.594	.683	.414	.813	.500	.528	.594	.844	.792	.903

City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

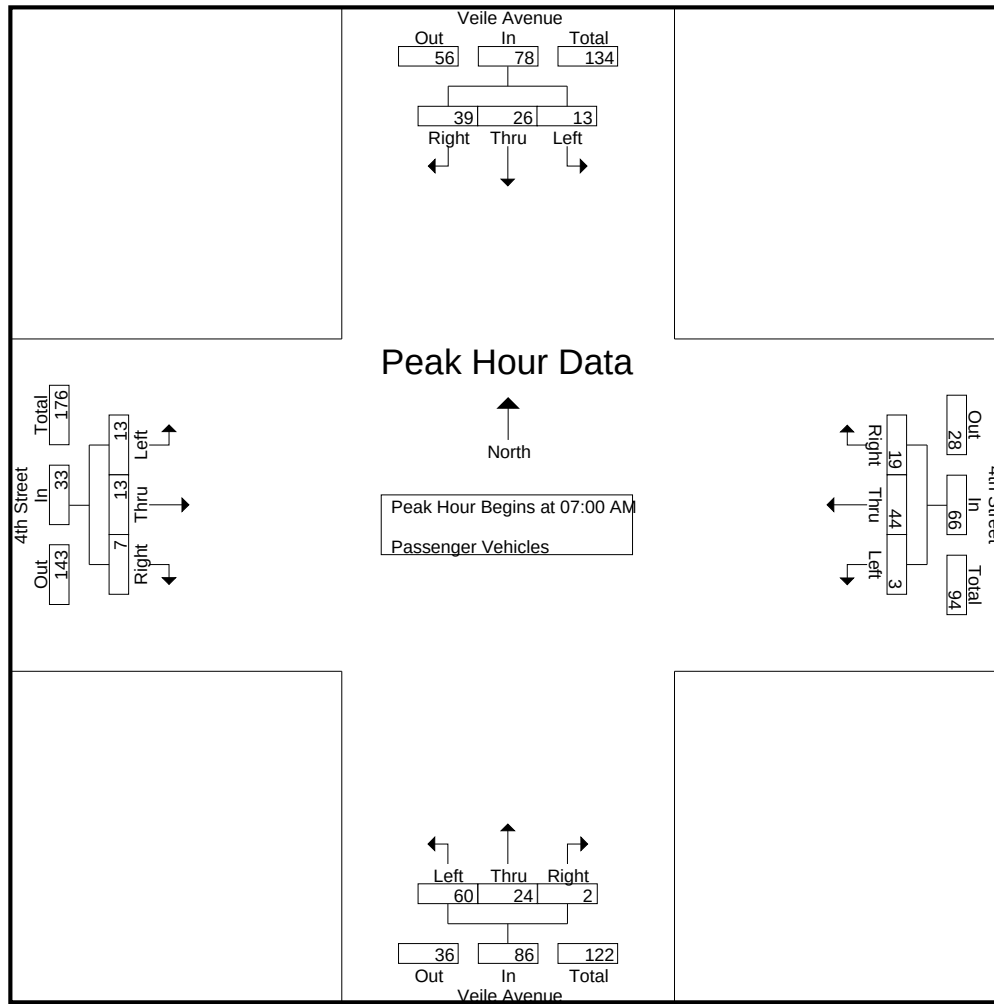
Groups Printed- Passenger Vehicles

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	6	6	17	29	0	18	8	26	13	7	0	20	4	8	1	13	88
07:15 AM	1	7	8	16	0	16	2	18	36	4	2	42	2	1	4	7	83
07:30 AM	3	6	2	11	2	5	4	11	4	7	0	11	5	2	0	7	40
07:45 AM	3	7	12	22	1	5	5	11	7	6	0	13	2	2	2	6	52
Total	13	26	39	78	3	44	19	66	60	24	2	86	13	13	7	33	263
08:00 AM	0	3	7	10	0	8	6	14	6	2	2	10	4	3	2	9	43
08:15 AM	4	10	15	29	2	13	1	16	4	1	2	7	4	5	3	12	64
08:30 AM	1	9	9	19	2	5	0	7	4	1	3	8	1	4	5	10	44
08:45 AM	3	4	5	12	0	6	1	7	3	2	2	7	1	5	4	10	36
Total	8	26	36	70	4	32	8	44	17	6	9	32	10	17	14	41	187
Grand Total	21	52	75	148	7	76	27	110	77	30	11	118	23	30	21	74	450
Apprch %	14.2	35.1	50.7		6.4	69.1	24.5		65.3	25.4	9.3		31.1	40.5	28.4		
Total %	4.7	11.6	16.7	32.9	1.6	16.9	6	24.4	17.1	6.7	2.4	26.2	5.1	6.7	4.7	16.4	

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	6	6	17	29	0	18	8	26	13	7	0	20	4	8	1	13	88
07:15 AM	1	7	8	16	0	16	2	18	36	4	2	42	2	1	4	7	83
07:30 AM	3	6	2	11	2	5	4	11	4	7	0	11	5	2	0	7	40
07:45 AM	3	7	12	22	1	5	5	11	7	6	0	13	2	2	2	6	52
Total Volume	13	26	39	78	3	44	19	66	60	24	2	86	13	13	7	33	263
% App. Total	16.7	33.3	50		4.5	66.7	28.8		69.8	27.9	2.3		39.4	39.4	21.2		
PHF	.542	.929	.574	.672	.375	.611	.594	.635	.417	.857	.250	.512	.650	.406	.438	.635	.747

City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	6	6	17	29	0	18	8	26	13	7	0	20	4	8	1	13
+15 mins.	1	7	8	16	0	16	2	18	36	4	2	42	2	1	4	7
+30 mins.	3	6	2	11	2	5	4	11	4	7	0	11	5	2	0	7
+45 mins.	3	7	12	22	1	5	5	11	7	6	0	13	2	2	2	6
Total Volume	13	26	39	78	3	44	19	66	60	24	2	86	13	13	7	33
% App. Total	16.7	33.3	50		4.5	66.7	28.8		69.8	27.9	2.3		39.4	39.4	21.2	
PHF	.542	.929	.574	.672	.375	.611	.594	.635	.417	.857	.250	.512	.650	.406	.438	.635

City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

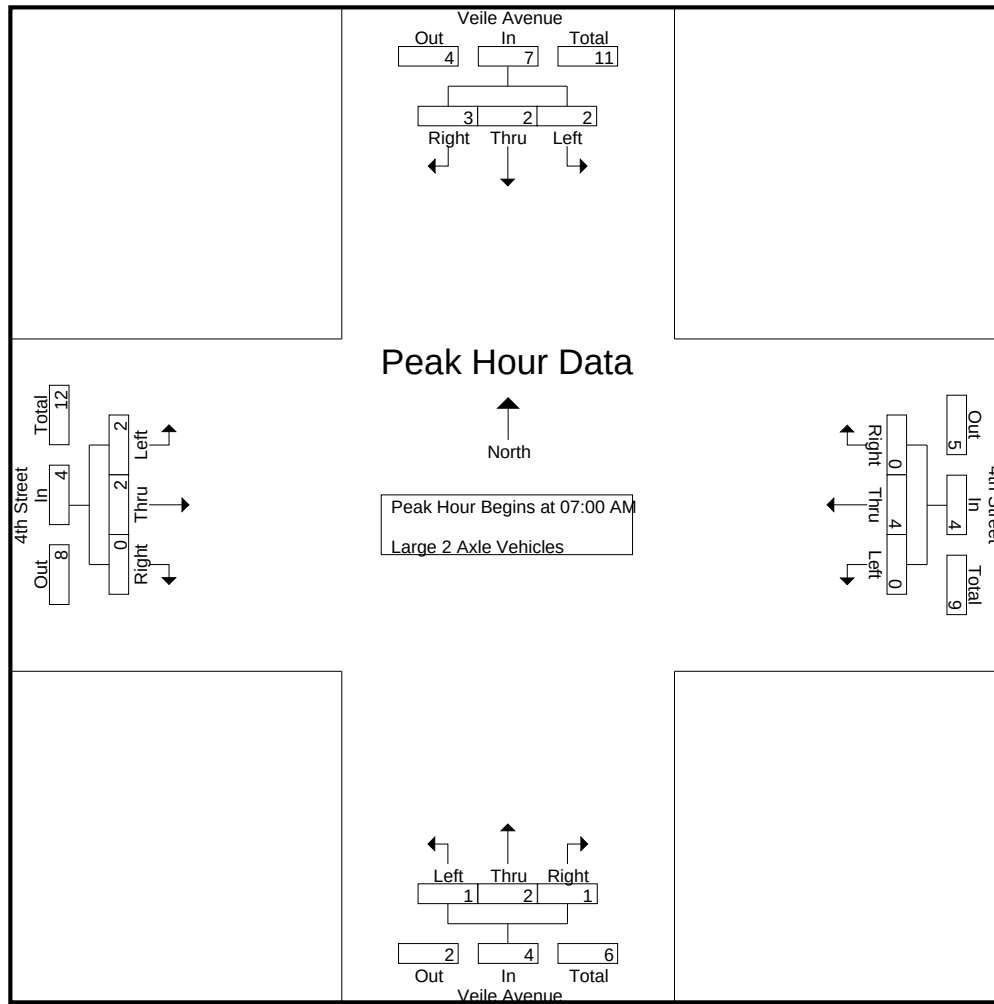
Groups Printed- Large 2 Axle Vehicles

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	0	1	3	0	0	0	0	0	1	0	1	1	1	0	2	6
07:15 AM	0	0	1	1	0	0	0	0	1	0	0	1	0	0	0	0	2
07:30 AM	0	0	0	0	0	1	0	1	0	1	1	2	0	0	0	0	3
07:45 AM	0	2	1	3	0	3	0	3	0	0	0	0	1	1	0	2	8
Total	2	2	3	7	0	4	0	4	1	2	1	4	2	2	0	4	19
08:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	3	0	0	3	4
08:15 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
08:30 AM	0	0	1	1	0	1	0	1	0	1	0	1	1	1	0	2	5
08:45 AM	0	1	2	3	0	1	0	1	1	0	0	1	0	2	0	2	7
Total	0	2	3	5	0	2	1	3	1	1	0	2	4	4	0	8	18
Grand Total	2	4	6	12	0	6	1	7	2	3	1	6	6	6	0	12	37
Apprch %	16.7	33.3	50		0	85.7	14.3		33.3	50	16.7		50	50	0		
Total %	5.4	10.8	16.2	32.4	0	16.2	2.7	18.9	5.4	8.1	2.7	16.2	16.2	16.2	0	32.4	

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	2	0	1	3	0	0	0	0	0	1	0	1	1	1	0	2	6
07:15 AM	0	0	1	1	0	0	0	0	1	0	0	1	0	0	0	0	2
07:30 AM	0	0	0	0	0	1	0	1	0	1	1	2	0	0	0	0	3
07:45 AM	0	2	1	3	0	3	0	3	0	0	0	0	1	1	0	2	8
Total Volume	2	2	3	7	0	4	0	4	1	2	1	4	2	2	0	4	19
% App. Total	28.6	28.6	42.9		0	100	0		25	50	25		50	50	0		
PHF	.250	.250	.750	.583	.000	.333	.000	.333	.250	.500	.250	.500	.500	.500	.000	.500	.594

City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	2	0	1	3	0	0	0	0	0	1	0	1	1	1	0	2
+15 mins.	0	0	1	1	0	0	0	0	1	0	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	1	0	1	1	2	0	0	0	0
+45 mins.	0	2	1	3	0	3	0	3	0	0	0	0	1	1	0	2
Total Volume	2	2	3	7	0	4	0	4	1	2	1	4	2	2	0	4
% App. Total	28.6	28.6	42.9		0	100	0		25	50	25		50	50	0	
PHF	.250	.250	.750	.583	.000	.333	.000	.333	.250	.500	.250	.500	.500	.500	.000	.500

City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
Start Date : 11/19/2019
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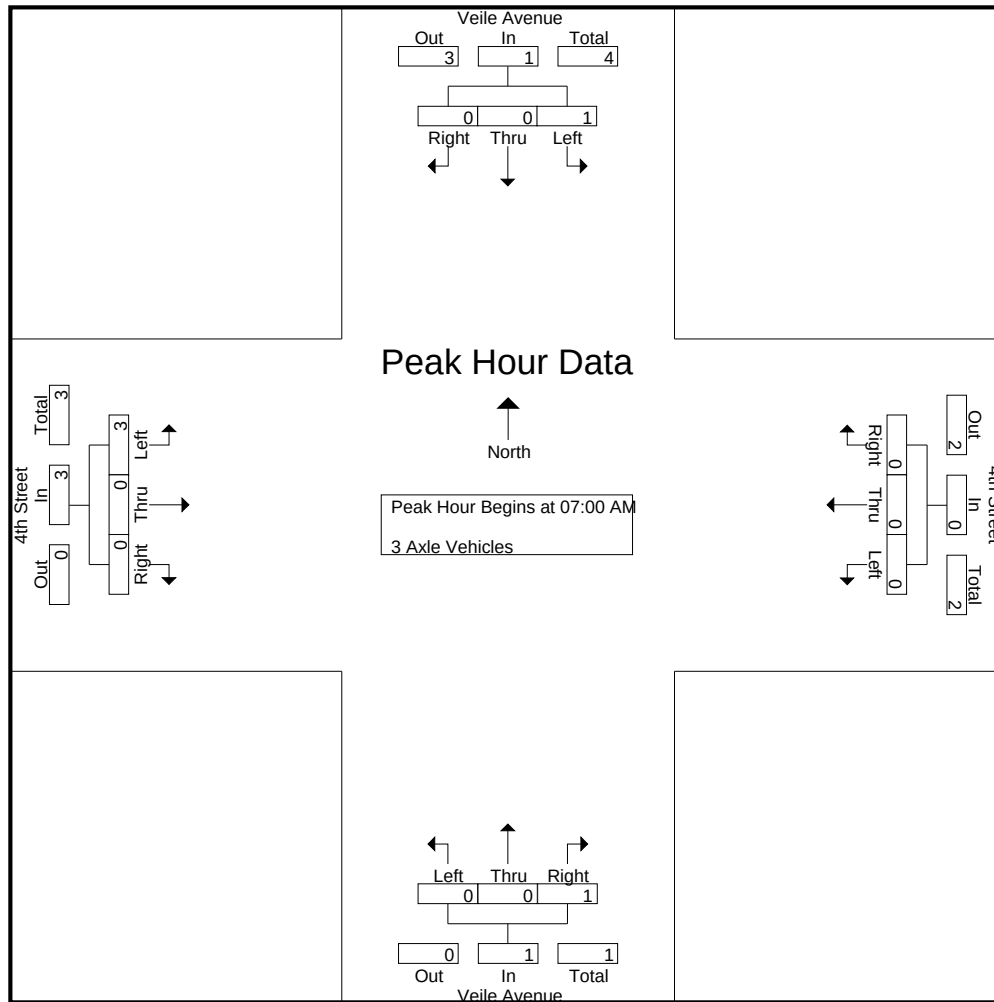
Groups Printed- 3 Axle Vehicles

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	2	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	1	0	0	1	0	0	0	0	0	0	1	1	3	0	0	3	5
08:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	2
08:15 AM	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
08:30 AM	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	1	3	4	0	0	0	0	1	0	0	1	1	1	0	2	7
Grand Total	1	1	3	5	0	0	0	0	1	0	1	2	4	1	0	5	12
Apprch %	20	20	60		0	0	0		50	0	50		80	20	0		
Total %	8.3	8.3	25	41.7	0	0	0	0	8.3	0	8.3	16.7	33.3	8.3	0	41.7	

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	2	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	1	0	0	1	0	0	0	0	0	0	1	1	3	0	0	3	5
% App. Total	100	0	0		0	0	0		0	0	100		100	0	0		
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.250	.250	.375	.000	.000	.375	.417

City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	2
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total Volume	1	0	0	1	0	0	0	0	0	0	1	1	3	0	0	3
% App. Total	100	0	0		0	0	0		0	0	100		100	0	0	
PHF	.250	.000	.000	.250	.000	.000	.000	.000	.000	.000	.250	.250	.375	.000	.000	.375

City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
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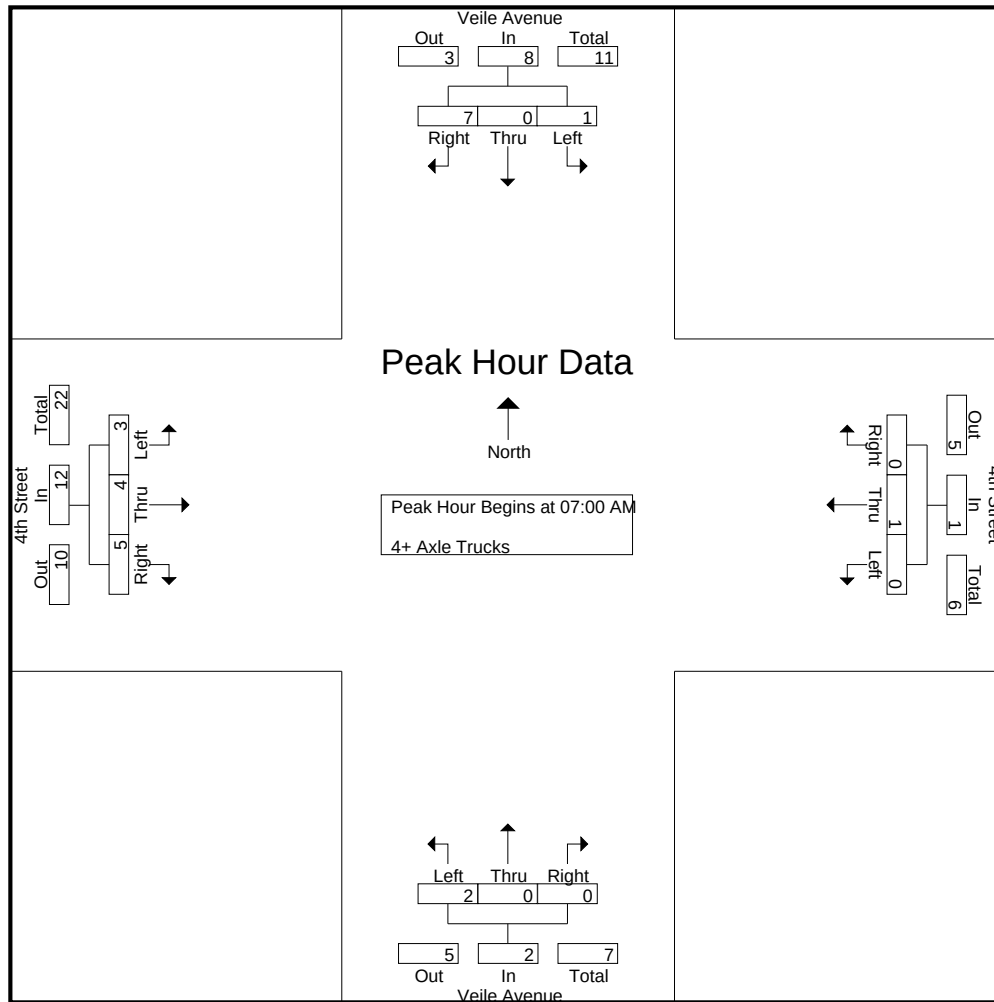
Groups Printed- 4+ Axle Trucks

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	2	2	0	0	0	0	0	0	0	0	2	1	2	5	7
07:15 AM	0	0	1	1	0	0	0	0	1	0	0	1	1	2	3	6	8
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
07:45 AM	1	0	4	5	0	0	0	0	1	0	0	1	0	0	0	0	6
Total	1	0	7	8	0	1	0	1	2	0	0	2	3	4	5	12	23
08:00 AM	1	0	2	3	0	2	0	2	0	0	0	0	1	2	0	3	8
08:15 AM	1	0	5	6	0	0	0	0	0	0	0	0	2	1	2	5	11
08:30 AM	0	0	1	1	0	1	0	1	0	0	0	0	0	1	1	2	4
08:45 AM	0	0	2	2	0	0	0	0	1	0	0	1	1	1	2	4	7
Total	2	0	10	12	0	3	0	3	1	0	0	1	4	5	5	14	30
Grand Total	3	0	17	20	0	4	0	4	3	0	0	3	7	9	10	26	53
Apprch %	15	0	85		0	100	0		100	0	0		26.9	34.6	38.5		
Total %	5.7	0	32.1	37.7	0	7.5	0	7.5	5.7	0	0	5.7	13.2	17	18.9	49.1	

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	2	2	0	0	0	0	0	0	0	0	2	1	2	5	7
07:15 AM	0	0	1	1	0	0	0	0	1	0	0	1	1	2	3	6	8
07:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
07:45 AM	1	0	4	5	0	0	0	0	1	0	0	1	0	0	0	0	6
Total Volume	1	0	7	8	0	1	0	1	2	0	0	2	3	4	5	12	23
% App. Total	12.5	0	87.5		0	100	0		100	0	0		25	33.3	41.7		
PHF	.250	.000	.438	.400	.000	.250	.000	.250	.500	.000	.000	.500	.375	.500	.417	.500	.719

City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th AM
Site Code : 05119803
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	2	2	0	0	0	0	0	0	0	0	2	1	2	5
+15 mins.	0	0	1	1	0	0	0	0	1	0	0	1	1	2	3	6
+30 mins.	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1
+45 mins.	1	0	4	5	0	0	0	0	1	0	0	1	0	0	0	0
Total Volume	1	0	7	8	0	1	0	1	2	0	0	2	3	4	5	12
% App. Total	12.5	0	87.5		0	100	0		100	0	0		25	33.3	41.7	
PHF	.250	.000	.438	.400	.000	.250	.000	.250	.500	.000	.000	.500	.375	.500	.417	.500

City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th PM
Site Code : 05119803
Start Date : 11/19/2019
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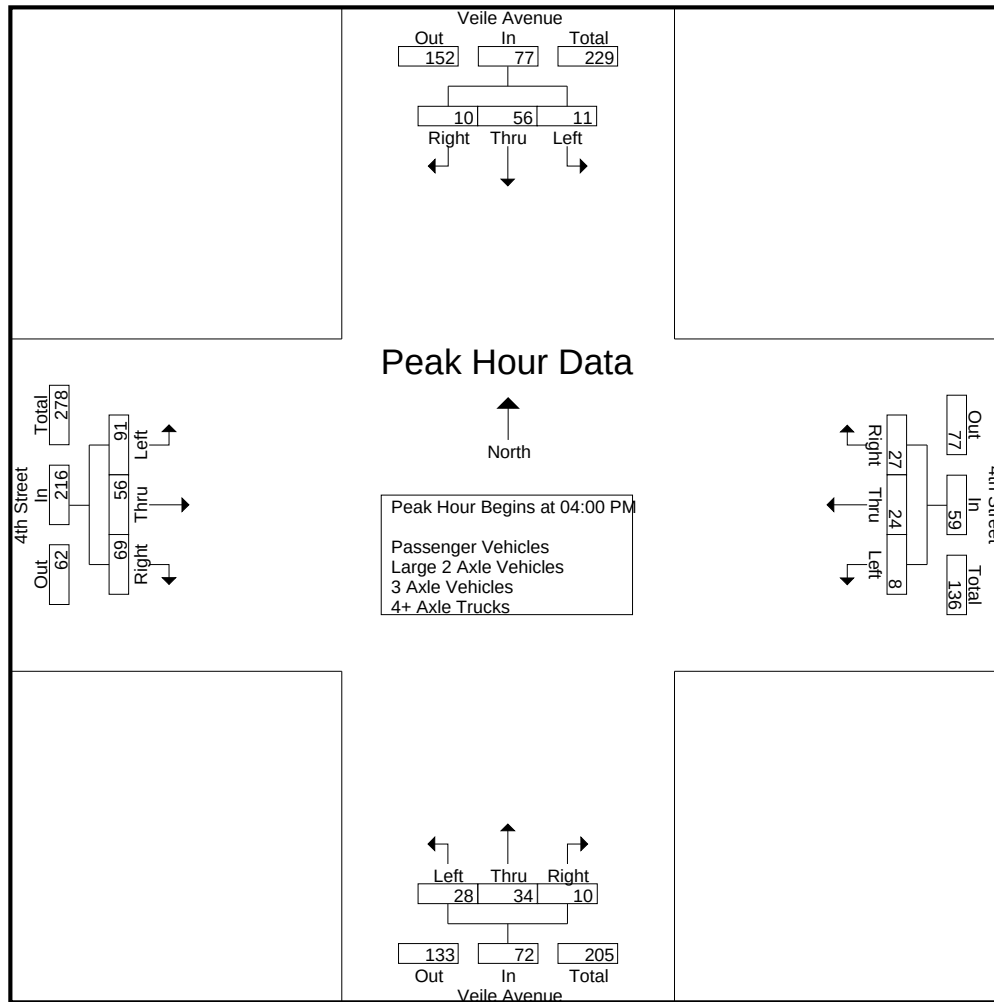
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	15	2	21	2	9	2	13	10	5	2	17	24	19	24	67	118
04:15 PM	1	15	5	21	2	12	2	16	11	6	4	21	40	24	30	94	152
04:30 PM	3	13	2	18	4	0	16	20	5	16	1	22	18	6	8	32	92
04:45 PM	3	13	1	17	0	3	7	10	2	7	3	12	9	7	7	23	62
Total	11	56	10	77	8	24	27	59	28	34	10	72	91	56	69	216	424
05:00 PM	3	20	1	24	0	1	0	1	2	3	0	5	12	2	8	22	52
05:15 PM	2	16	5	23	0	1	1	2	1	2	0	3	2	5	3	10	38
05:30 PM	6	12	2	20	0	3	1	4	4	0	1	5	11	23	5	39	68
05:45 PM	5	18	4	27	0	4	0	4	2	2	0	4	10	5	3	18	53
Total	16	66	12	94	0	9	2	11	9	7	1	17	35	35	19	89	211
Grand Total	27	122	22	171	8	33	29	70	37	41	11	89	126	91	88	305	635
Apprch %	15.8	71.3	12.9		11.4	47.1	41.4		41.6	46.1	12.4		41.3	29.8	28.9		
Total %	4.3	19.2	3.5	26.9	1.3	5.2	4.6	11	5.8	6.5	1.7	14	19.8	14.3	13.9	48	
Passenger Vehicles	24	120	11	155	7	30	28	65	29	39	10	78	117	86	82	285	583
% Passenger Vehicles	88.9	98.4	50	90.6	87.5	90.9	96.6	92.9	78.4	95.1	90.9	87.6	92.9	94.5	93.2	93.4	91.8
Large 2 Axle Vehicles	0	0	2	2	1	1	0	2	1	0	1	2	4	4	2	10	16
% Large 2 Axle Vehicles	0	0	9.1	1.2	12.5	3	0	2.9	2.7	0	9.1	2.2	3.2	4.4	2.3	3.3	2.5
3 Axle Vehicles	0	1	0	1	0	0	0	0	3	0	0	3	1	0	0	1	5
% 3 Axle Vehicles	0	0.8	0	0.6	0	0	0	0	8.1	0	0	3.4	0.8	0	0	0.3	0.8
4+ Axle Trucks	3	1	9	13	0	2	1	3	4	2	0	6	4	1	4	9	31
% 4+ Axle Trucks	11.1	0.8	40.9	7.6	0	6.1	3.4	4.3	10.8	4.9	0	6.7	3.2	1.1	4.5	3	4.9

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	4	15	2	21	2	9	2	13	10	5	2	17	24	19	24	67	118
04:15 PM	1	15	5	21	2	12	2	16	11	6	4	21	40	24	30	94	152
04:30 PM	3	13	2	18	4	0	16	20	5	16	1	22	18	6	8	32	92
04:45 PM	3	13	1	17	0	3	7	10	2	7	3	12	9	7	7	23	62
Total Volume	11	56	10	77	8	24	27	59	28	34	10	72	91	56	69	216	424
% App. Total	14.3	72.7	13		13.6	40.7	45.8		38.9	47.2	13.9		42.1	25.9	31.9		
PHF	.688	.933	.500	.917	.500	.500	.422	.738	.636	.531	.625	.818	.569	.583	.575	.574	.697

City of Beaumont
N/S: Veile Avenue
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Weather: Clear

File Name : 10_BMT_Veile_4th PM
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	3	20	1	24	2	9	2	13	10	5	2	17	24	19	24	67
+15 mins.	2	16	5	23	2	12	2	16	11	6	4	21	40	24	30	94
+30 mins.	6	12	2	20	4	0	16	20	5	16	1	22	18	6	8	32
+45 mins.	5	18	4	27	0	3	7	10	2	7	3	12	9	7	7	23
Total Volume	16	66	12	94	8	24	27	59	28	34	10	72	91	56	69	216
% App. Total	17	70.2	12.8		13.6	40.7	45.8		38.9	47.2	13.9		42.1	25.9	31.9	
PHF	.667	.825	.600	.870	.500	.500	.422	.738	.636	.531	.625	.818	.569	.583	.575	.574

City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th PM
Site Code : 05119803
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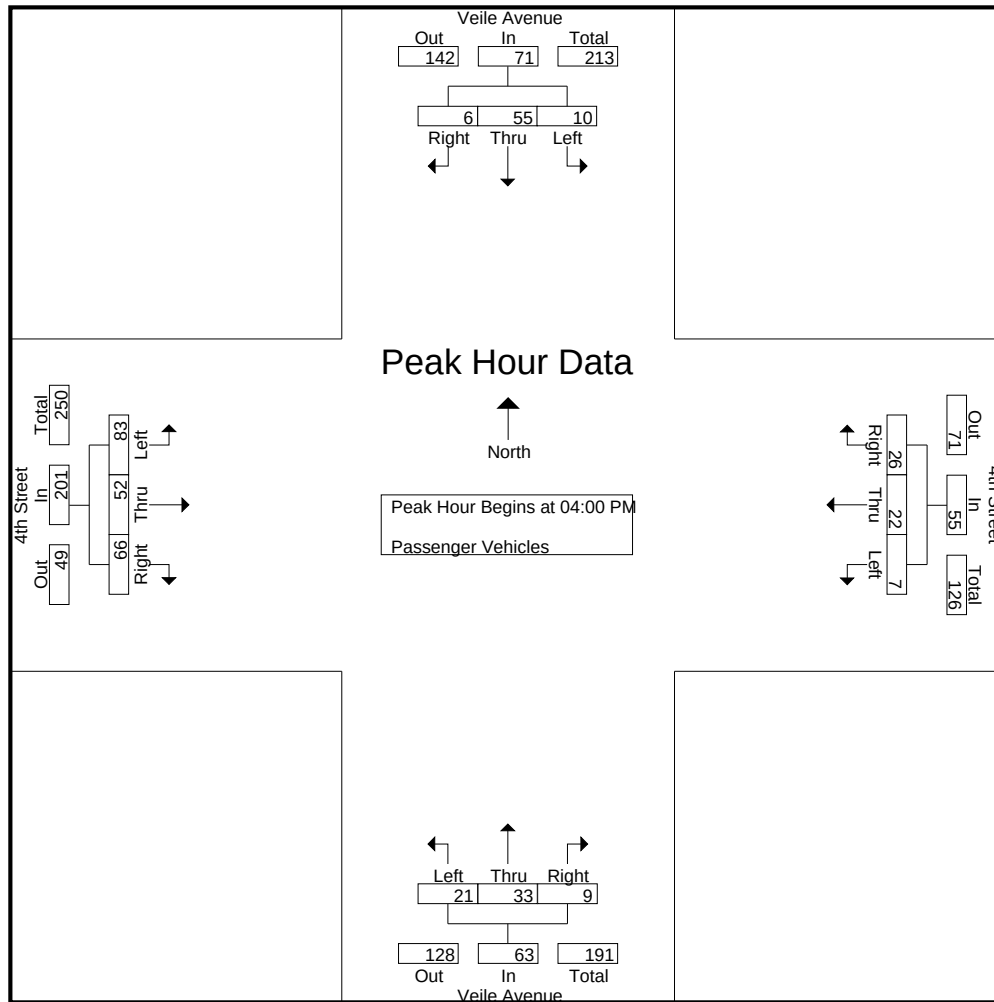
Groups Printed- Passenger Vehicles

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	3	15	1	19	2	9	2	13	7	5	2	14	23	19	23	65	111
04:15 PM	1	15	3	19	2	11	2	15	8	6	3	17	37	24	29	90	141
04:30 PM	3	12	2	17	3	0	15	18	4	15	1	20	17	5	7	29	84
04:45 PM	3	13	0	16	0	2	7	9	2	7	3	12	6	4	7	17	54
Total	10	55	6	71	7	22	26	55	21	33	9	63	83	52	66	201	390
05:00 PM	3	19	0	22	0	1	0	1	2	3	0	5	12	2	6	20	48
05:15 PM	1	16	2	19	0	0	1	1	0	2	0	2	2	4	3	9	31
05:30 PM	5	12	1	18	0	3	1	4	4	0	1	5	11	23	4	38	65
05:45 PM	5	18	2	25	0	4	0	4	2	1	0	3	9	5	3	17	49
Total	14	65	5	84	0	8	2	10	8	6	1	15	34	34	16	84	193
Grand Total	24	120	11	155	7	30	28	65	29	39	10	78	117	86	82	285	583
Apprch %	15.5	77.4	7.1		10.8	46.2	43.1		37.2	50	12.8		41.1	30.2	28.8		
Total %	4.1	20.6	1.9	26.6	1.2	5.1	4.8	11.1	5	6.7	1.7	13.4	20.1	14.8	14.1	48.9	

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	3	15	1	19	2	9	2	13	7	5	2	14	23	19	23	65	111
04:15 PM	1	15	3	19	2	11	2	15	8	6	3	17	37	24	29	90	141
04:30 PM	3	12	2	17	3	0	15	18	4	15	1	20	17	5	7	29	84
04:45 PM	3	13	0	16	0	2	7	9	2	7	3	12	6	4	7	17	54
Total Volume	10	55	6	71	7	22	26	55	21	33	9	63	83	52	66	201	390
% App. Total	14.1	77.5	8.5		12.7	40	47.3		33.3	52.4	14.3		41.3	25.9	32.8		
PHF	.833	.917	.500	.934	.583	.500	.433	.764	.656	.550	.750	.788	.561	.542	.569	.558	.691

City of Beaumont
N/S: Veile Avenue
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	3	15	1	19	2	9	2	13	7	5	2	14	23	19	23	65
+15 mins.	1	15	3	19	2	11	2	15	8	6	3	17	37	24	29	90
+30 mins.	3	12	2	17	3	0	15	18	4	15	1	20	17	5	7	29
+45 mins.	3	13	0	16	0	2	7	9	2	7	3	12	6	4	7	17
Total Volume	10	55	6	71	7	22	26	55	21	33	9	63	83	52	66	201
% App. Total	14.1	77.5	8.5		12.7	40	47.3		33.3	52.4	14.3		41.3	25.9	32.8	
PHF	.833	.917	.500	.934	.583	.500	.433	.764	.656	.550	.750	.788	.561	.542	.569	.558

City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th PM
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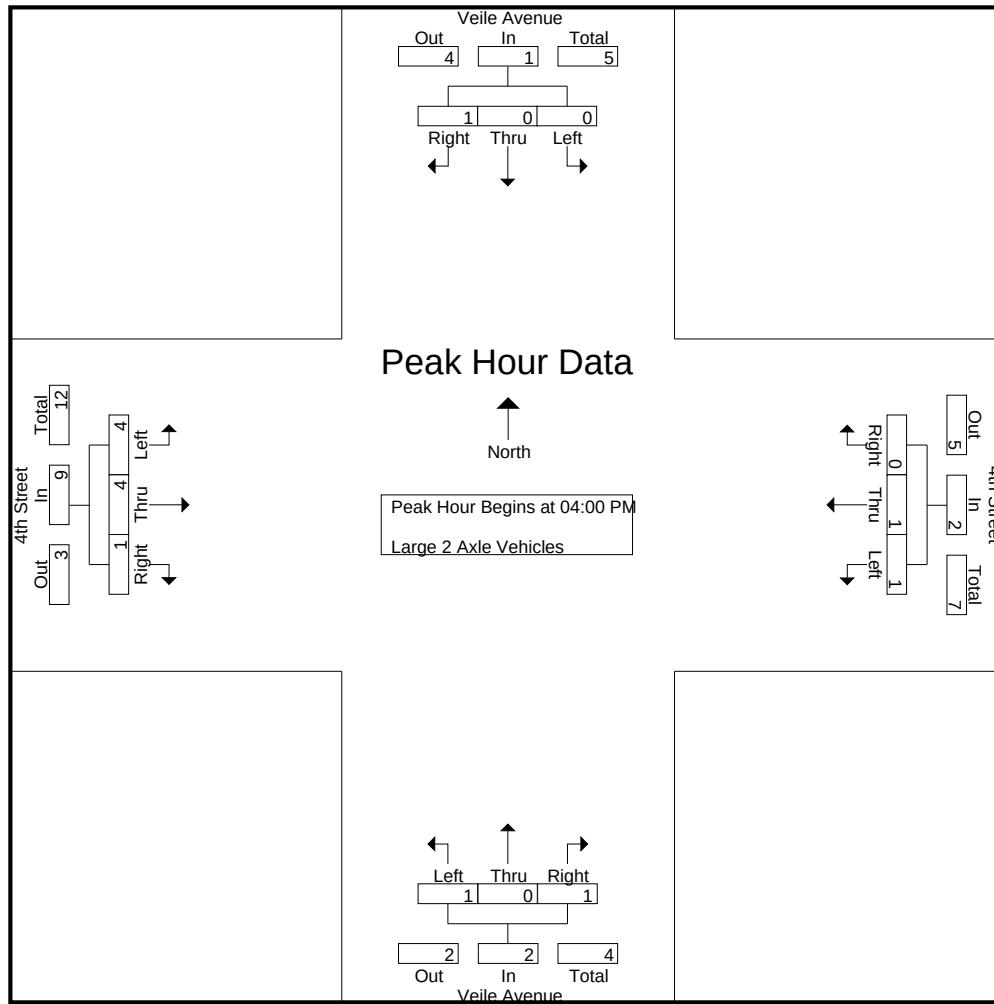
Groups Printed- Large 2 Axle Vehicles

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	1	0	1	1	0	1	2	2	0	0	2	5
04:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	1	1	1	3	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	4	4
Total	0	0	1	1	1	1	0	2	1	0	1	2	4	4	1	9	14
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
05:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1	2
Grand Total	0	0	2	2	1	1	0	2	1	0	1	2	4	4	2	10	16
Apprch %	0	0	100		50	50	0		50	0	50		40	40	20		
Total %	0	0	12.5	12.5	6.2	6.2	0	12.5	6.2	0	6.2	12.5	25	25	12.5	62.5	

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	1	0	1	1	0	1	2	2	0	0	2	5
04:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	1	1	1	3	4
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	4	4
Total Volume	0	0	1	1	1	1	0	2	1	0	1	2	4	4	1	9	14
% App. Total	0	0	100		50	50	0		50	0	50		44.4	44.4	11.1		
PHF	.000	.000	.250	.250	.250	.250	.000	.500	.250	.000	.250	.250	.500	.333	.250	.563	.700

City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th PM
Site Code : 05119803
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	1	0	1	1	0	1	2	2	0	0	2
+30 mins.	0	0	0	0	1	0	0	1	0	0	0	0	1	1	1	3
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	4
Total Volume	0	0	1	1	1	1	0	2	1	0	1	2	4	4	1	9
% App. Total	0	0	100		50	50	0		50	0	50		44.4	44.4	11.1	
PHF	.000	.000	.250	.250	.250	.250	.000	.500	.250	.000	.250	.250	.500	.333	.250	.563

City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th PM
Site Code : 05119803
Start Date : 11/19/2019
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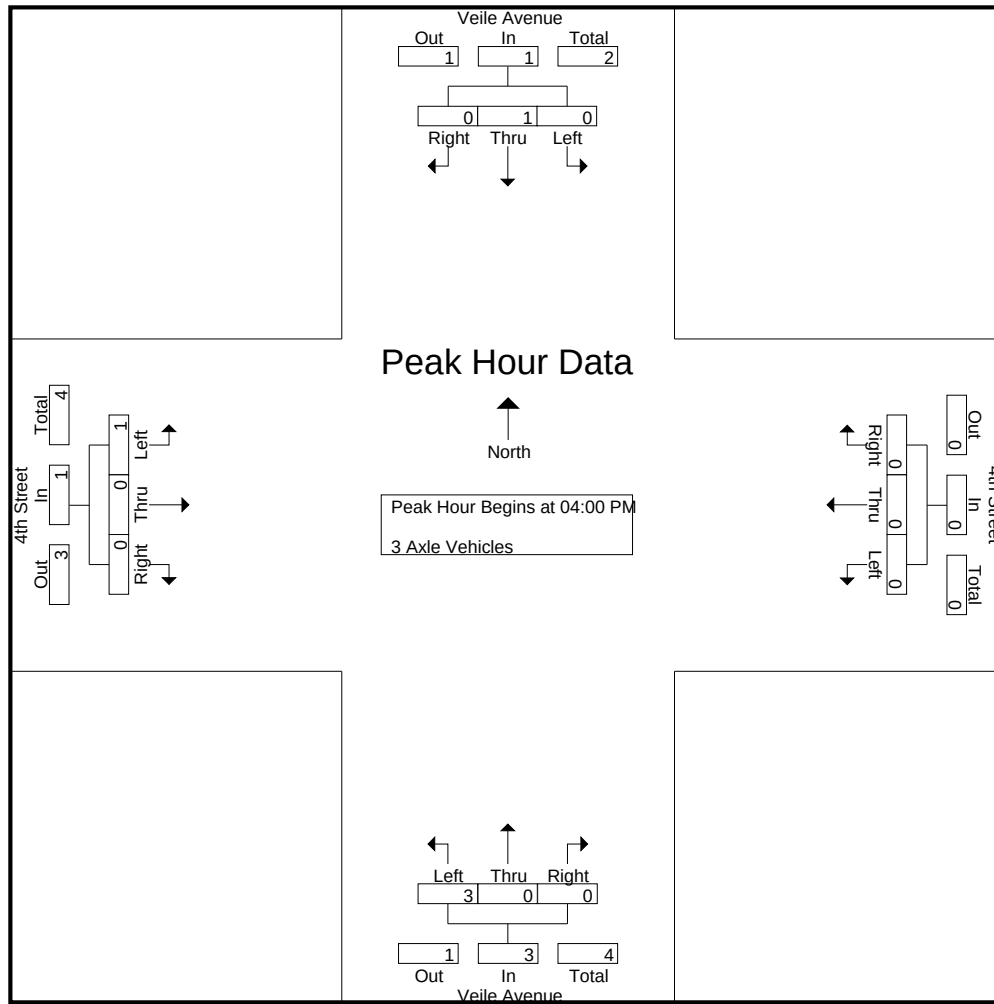
Groups Printed- 3 Axle Vehicles

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	1	2
04:30 PM	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	3	0	0	3	1	0	0	1	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	1	0	0	0	0	3	0	0	3	1	0	0	1	5
Apprch %	0	100	0		0	0	0		100	0	0		100	0	0		
Total %	0	20	0	20	0	0	0	0	60	0	0	60	20	0	0	20	

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	1	2
04:30 PM	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	3	0	0	3	1	0	0	1	5
% App. Total	0	100	0		0	0	0		100	0	0		100	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.750	.000	.000	.750	.250	.000	.000	.250	.625

City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th PM
Site Code : 05119803
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	1
+30 mins.	0	1	0	1	0	0	0	0	1	0	0	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	3	0	0	3	1	0	0	1
% App. Total	0	100	0	0	0	0	0	0	100	0	0	0	100	0	0	0
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.750	.000	.000	.750	.250	.000	.000	.250

City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th PM
Site Code : 05119803
Start Date : 11/19/2019
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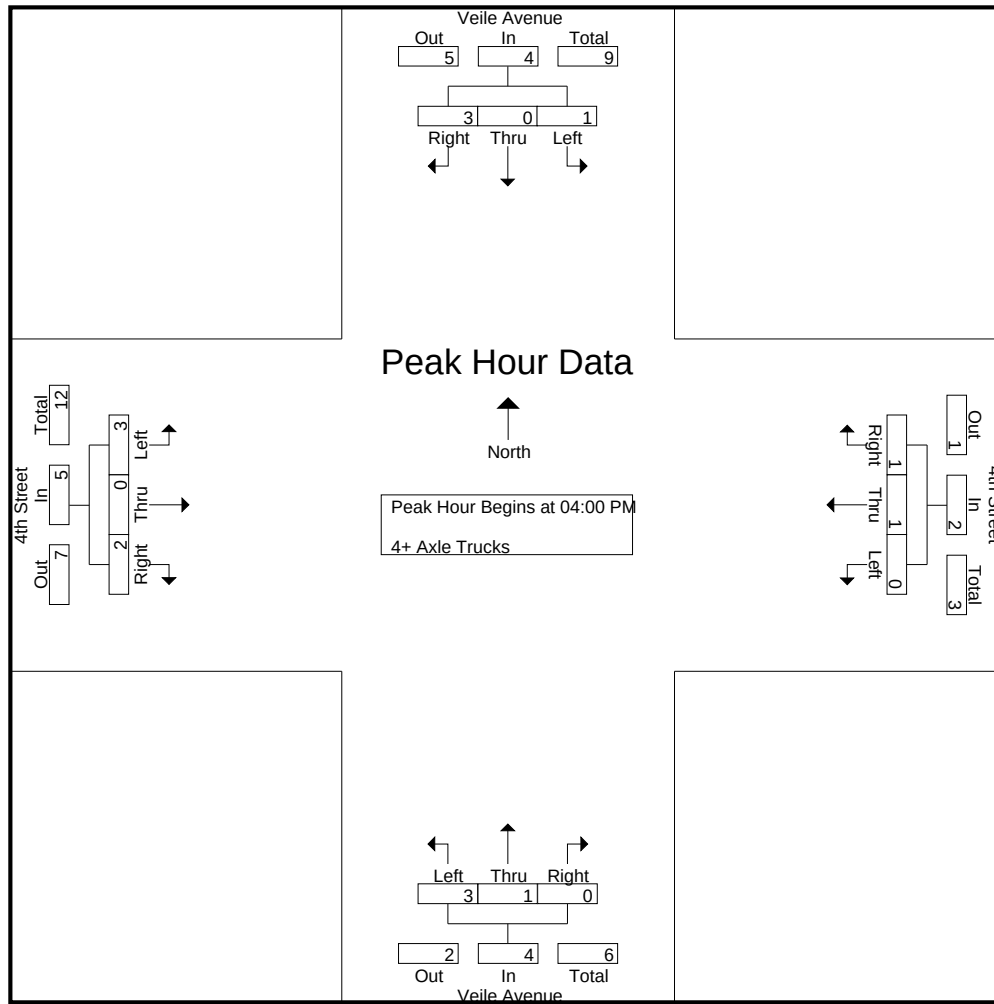
Groups Printed- 4+ Axle Trucks

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	0	0	1	0	0	0	0	2	0	0	2	1	0	1	2	5
04:15 PM	0	0	2	2	0	0	0	0	1	0	0	1	0	0	1	1	4
04:30 PM	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	2
04:45 PM	0	0	1	1	0	1	0	1	0	0	0	0	2	0	0	2	4
Total	1	0	3	4	0	1	1	2	3	1	0	4	3	0	2	5	15
05:00 PM	0	1	1	2	0	0	0	0	0	0	0	0	0	0	1	1	3
05:15 PM	1	0	2	3	0	1	0	1	1	0	0	1	0	1	0	1	6
05:30 PM	1	0	1	2	0	0	0	0	0	0	0	0	0	0	1	1	3
05:45 PM	0	0	2	2	0	0	0	0	0	1	0	1	1	0	0	1	4
Total	2	1	6	9	0	1	0	1	1	1	0	2	1	1	2	4	16
Grand Total	3	1	9	13	0	2	1	3	4	2	0	6	4	1	4	9	31
Apprch %	23.1	7.7	69.2		0	66.7	33.3		66.7	33.3	0		44.4	11.1	44.4		
Total %	9.7	3.2	29	41.9	0	6.5	3.2	9.7	12.9	6.5	0	19.4	12.9	3.2	12.9	29	

	Veile Avenue Southbound				4th Street Westbound				Veile Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	0	0	1	0	0	0	0	2	0	0	2	1	0	1	2	5
04:15 PM	0	0	2	2	0	0	0	0	1	0	0	1	0	0	1	1	4
04:30 PM	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	2
04:45 PM	0	0	1	1	0	1	0	1	0	0	0	0	2	0	0	2	4
Total Volume	1	0	3	4	0	1	1	2	3	1	0	4	3	0	2	5	15
% App. Total	25	0	75		0	50	50		75	25	0		60	0	40		
PHF	.250	.000	.375	.500	.000	.250	.250	.500	.375	.250	.000	.500	.375	.000	.500	.625	.750

City of Beaumont
N/S: Veile Avenue
E/W: 4th Street
Weather: Clear

File Name : 10_BMT_Veile_4th PM
Site Code : 05119803
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	1	0	0	1	0	0	0	0	2	0	0	2	1	0	1	2
+15 mins.	0	0	2	2	0	0	0	0	1	0	0	1	0	0	1	1
+30 mins.	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0
+45 mins.	0	0	1	1	0	1	0	1	0	0	0	0	2	0	0	2
Total Volume	1	0	3	4	0	1	1	2	3	1	0	4	3	0	2	5
% App. Total	25	0	75		0	50	50		75	25	0		60	0	40	
PHF	.250	.000	.375	.500	.000	.250	.250	.500	.375	.250	.000	.500	.375	.000	.500	.625

Location: Beaumont
 N/S: Veile Avenue
 E/W: 4th Street



Date: 11/19/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Veile Avenue	East Leg 4th Street	South Leg Dead End	West Leg 4th Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	1	0	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	1

	North Leg Veile Avenue	East Leg 4th Street	South Leg Dead End	West Leg 4th Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	1	0	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	1

Location: Beaumont
 N/S: Veile Avenue
 E/W: 4th Street



Date: 11/19/2019
 Day: Tuesday

BICYCLES

		Southbound Veile Avenue			Westbound 4th Street			Northbound Dead End			Eastbound 4th Street			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	0	0	0	0	0	0	0	0	0	0

		Southbound Veile Avenue			Westbound 4th Street			Northbound Dead End			Eastbound 4th Street			
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
	4:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:		0	0	0	1	0	0	0	0	1	0	0	0	2

City of Beaumont
N/S: California Avenue
E/W: 4th Street
Weather: Clear

File Name : 11_BMT_California_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

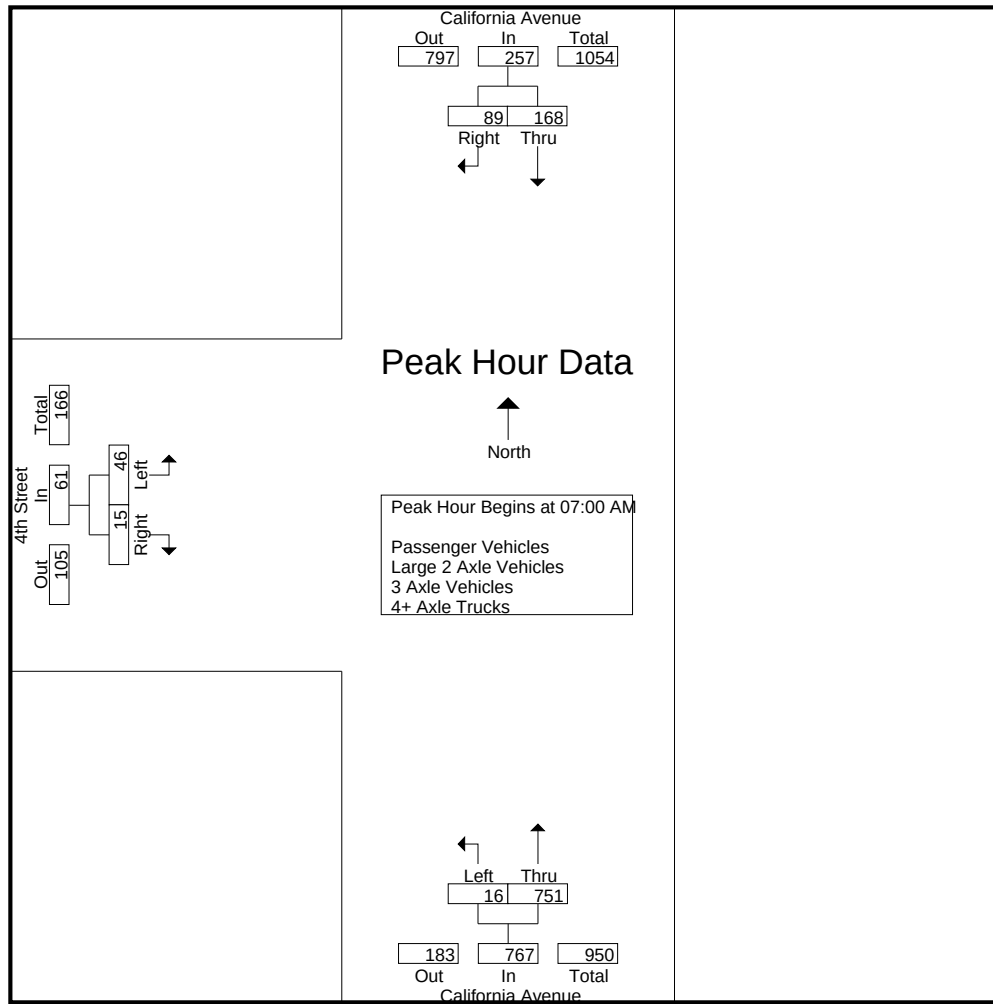
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	40	22	62	3	269	272	16	3	19	353
07:15 AM	39	26	65	2	178	180	6	5	11	256
07:30 AM	49	21	70	5	146	151	9	3	12	233
07:45 AM	40	20	60	6	158	164	15	4	19	243
Total	168	89	257	16	751	767	46	15	61	1085
08:00 AM	29	15	44	3	114	117	15	2	17	178
08:15 AM	28	23	51	2	150	152	11	1	12	215
08:30 AM	30	17	47	2	150	152	13	3	16	215
08:45 AM	29	12	41	1	111	112	18	3	21	174
Total	116	67	183	8	525	533	57	9	66	782
Grand Total	284	156	440	24	1276	1300	103	24	127	1867
Apprch %	64.5	35.5		1.8	98.2		81.1	18.9		
Total %	15.2	8.4	23.6	1.3	68.3	69.6	5.5	1.3	6.8	
Passenger Vehicles	277	150	427	23	1242	1265	85	20	105	1797
% Passenger Vehicles	97.5	96.2	97	95.8	97.3	97.3	82.5	83.3	82.7	96.3
Large 2 Axle Vehicles	5	5	10	1	22	23	8	3	11	44
% Large 2 Axle Vehicles	1.8	3.2	2.3	4.2	1.7	1.8	7.8	12.5	8.7	2.4
3 Axle Vehicles	0	0	0	0	3	3	1	1	2	5
% 3 Axle Vehicles	0	0	0	0	0.2	0.2	1	4.2	1.6	0.3
4+ Axle Trucks	2	1	3	0	9	9	9	0	9	21
% 4+ Axle Trucks	0.7	0.6	0.7	0	0.7	0.7	8.7	0	7.1	1.1

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	40	22	62	3	269	272	16	3	19	353
07:15 AM	39	26	65	2	178	180	6	5	11	256
07:30 AM	49	21	70	5	146	151	9	3	12	233
07:45 AM	40	20	60	6	158	164	15	4	19	243
Total Volume	168	89	257	16	751	767	46	15	61	1085
% App. Total	65.4	34.6		2.1	97.9		75.4	24.6		
PHF	.857	.856	.918	.667	.698	.705	.719	.750	.803	.768

City of Beaumont
N/S: California Avenue
E/W: 4th Street
Weather: Clear

File Name : 11_BMT_California_4th AM
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			08:00 AM		
+0 mins.	40	22	62	3	269	272	15	2	17
+15 mins.	39	26	65	2	178	180	11	1	12
+30 mins.	49	21	70	5	146	151	13	3	16
+45 mins.	40	20	60	6	158	164	18	3	21
Total Volume	168	89	257	16	751	767	57	9	66
% App. Total	65.4	34.6		2.1	97.9		86.4	13.6	
PHF	.857	.856	.918	.667	.698	.705	.792	.750	.786

City of Beaumont
N/S: California Avenue
E/W: 4th Street
Weather: Clear

File Name : 11_BMT_California_4th AM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

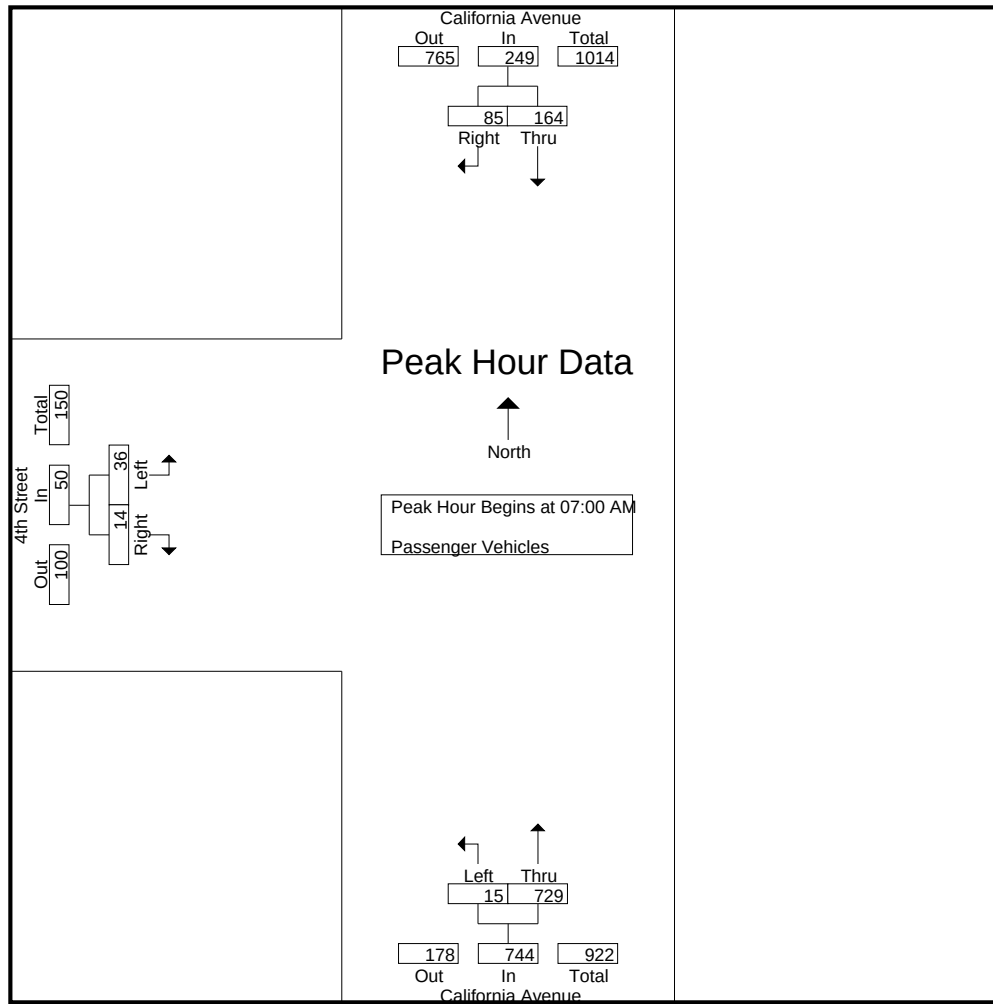
Groups Printed- Passenger Vehicles

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	39	21	60	3	259	262	13	2	15	337
07:15 AM	38	26	64	2	175	177	5	5	10	251
07:30 AM	47	20	67	4	140	144	8	3	11	222
07:45 AM	40	18	58	6	155	161	10	4	14	233
Total	164	85	249	15	729	744	36	14	50	1043
08:00 AM	29	15	44	3	111	114	13	1	14	172
08:15 AM	28	23	51	2	148	150	11	1	12	213
08:30 AM	29	17	46	2	148	150	13	2	15	211
08:45 AM	27	10	37	1	106	107	12	2	14	158
Total	113	65	178	8	513	521	49	6	55	754
Grand Total	277	150	427	23	1242	1265	85	20	105	1797
Apprch %	64.9	35.1		1.8	98.2		81	19		
Total %	15.4	8.3	23.8	1.3	69.1	70.4	4.7	1.1	5.8	

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	39	21	60	3	259	262	13	2	15	337
07:15 AM	38	26	64	2	175	177	5	5	10	251
07:30 AM	47	20	67	4	140	144	8	3	11	222
07:45 AM	40	18	58	6	155	161	10	4	14	233
Total Volume	164	85	249	15	729	744	36	14	50	1043
% App. Total	65.9	34.1		2	98		72	28		
PHF	.872	.817	.929	.625	.704	.710	.692	.700	.833	.774

City of Beaumont
N/S: California Avenue
E/W: 4th Street
Weather: Clear

File Name : 11_BMT_California_4th AM
Site Code : 05119803
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	39	21	60	3	259	262	13	2	15
+15 mins.	38	26	64	2	175	177	5	5	10
+30 mins.	47	20	67	4	140	144	8	3	11
+45 mins.	40	18	58	6	155	161	10	4	14
Total Volume	164	85	249	15	729	744	36	14	50
% App. Total	65.9	34.1		2	98		72	28	
PHF	.872	.817	.929	.625	.704	.710	.692	.700	.833

City of Beaumont
N/S: California Avenue
E/W: 4th Street
Weather: Clear

File Name : 11_BMT_California_4th AM
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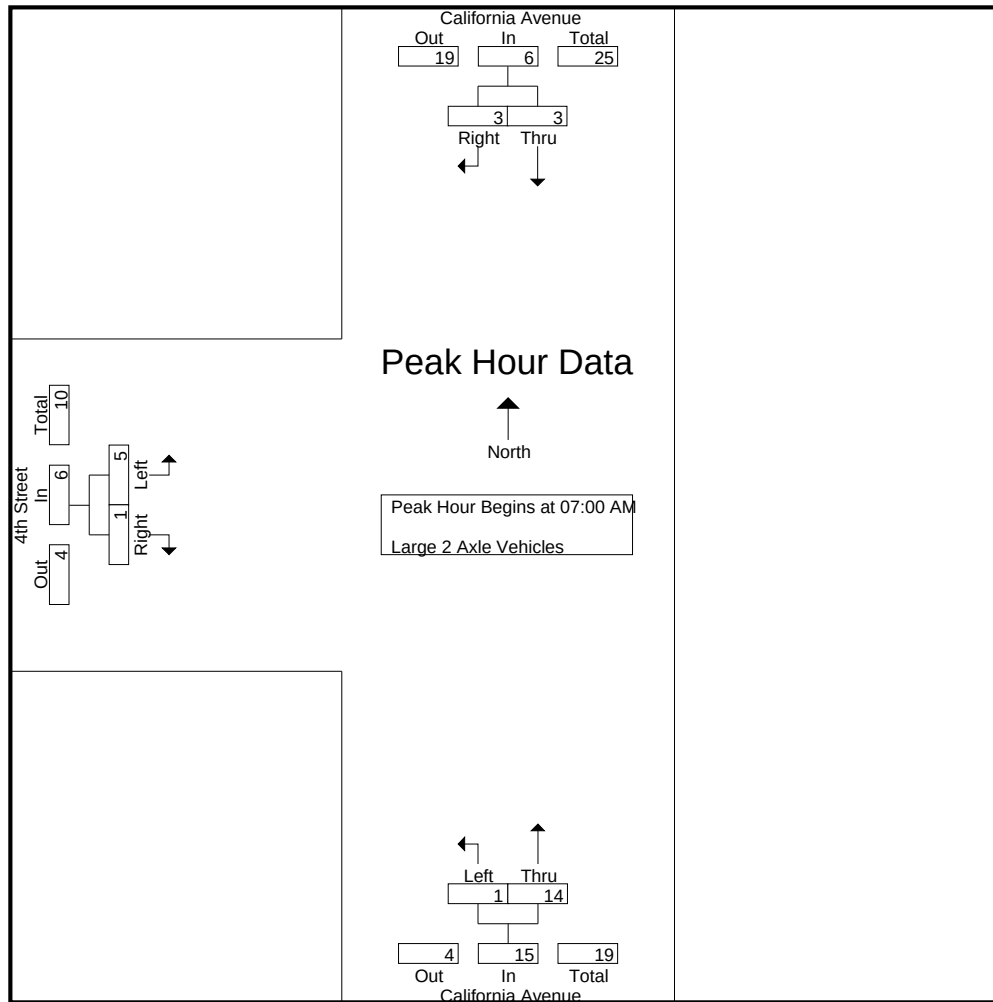
Groups Printed- Large 2 Axle Vehicles

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	1	0	1	0	5	5	1	1	2	8
07:15 AM	1	0	1	0	2	2	0	0	0	3
07:30 AM	1	1	2	1	5	6	1	0	1	9
07:45 AM	0	2	2	0	2	2	3	0	3	7
Total	3	3	6	1	14	15	5	1	6	27
08:00 AM	0	0	0	0	3	3	0	1	1	4
08:15 AM	0	0	0	0	2	2	0	0	0	2
08:30 AM	1	0	1	0	1	1	0	0	0	2
08:45 AM	1	2	3	0	2	2	3	1	4	9
Total	2	2	4	0	8	8	3	2	5	17
Grand Total	5	5	10	1	22	23	8	3	11	44
Apprch %	50	50		4.3	95.7		72.7	27.3		
Total %	11.4	11.4	22.7	2.3	50	52.3	18.2	6.8	25	

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	1	0	1	0	5	5	1	1	2	8
07:15 AM	1	0	1	0	2	2	0	0	0	3
07:30 AM	1	1	2	1	5	6	1	0	1	9
07:45 AM	0	2	2	0	2	2	3	0	3	7
Total Volume	3	3	6	1	14	15	5	1	6	27
% App. Total	50	50		6.7	93.3		83.3	16.7		
PHF	.750	.375	.750	.250	.700	.625	.417	.250	.500	.750

City of Beaumont
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	1	0	1	0	5	5	1	1	2
+15 mins.	1	0	1	0	2	2	0	0	0
+30 mins.	1	1	2	1	5	6	1	0	1
+45 mins.	0	2	2	0	2	2	3	0	3
Total Volume	3	3	6	1	14	15	5	1	6
% App. Total	50	50		6.7	93.3		83.3	16.7	
PHF	.750	.375	.750	.250	.700	.625	.417	.250	.500

City of Beaumont
N/S: California Avenue
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Weather: Clear

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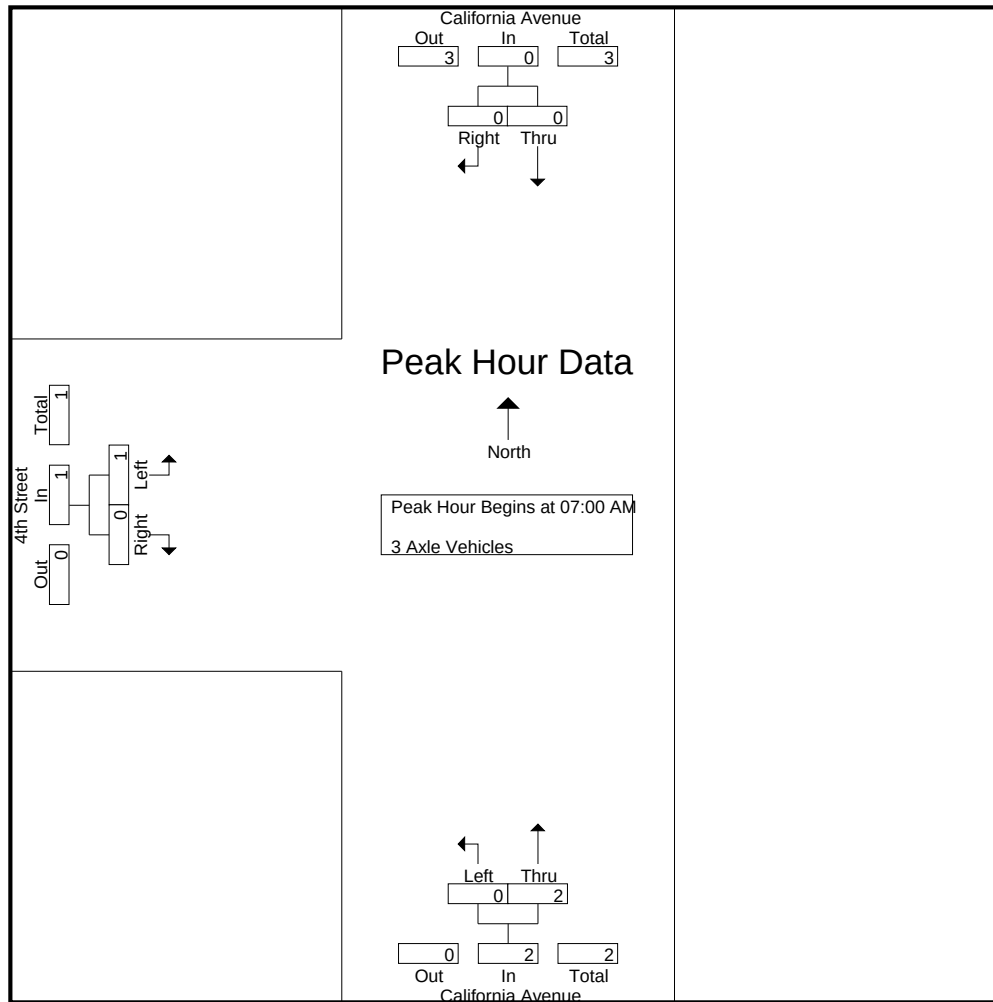
Groups Printed- 3 Axle Vehicles

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	2	2	1	0	1	3
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	2	2	1	0	1	3
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	1	1	1
08:45 AM	0	0	0	0	1	1	0	0	0	1
Total	0	0	0	0	1	1	0	1	1	2
Grand Total	0	0	0	0	3	3	1	1	2	5
Apprch %	0	0		0	100		50	50		
Total %	0	0		0	60	60	20	20	40	

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	0	2	2	1	0	1	3
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	2	2	1	0	1	3
% App. Total	0	0		0	100		100	0		
PHF	.000	.000	.000	.000	.250	.250	.250	.000	.250	.250

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	0	0	0	2	2	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	2	2	1	0	1
% App. Total	0	0		0	100		100	0	
PHF	.000	.000	.000	.000	.250	.250	.250	.000	.250

City of Beaumont
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Groups Printed- 4+ Axle Trucks

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	0	1	1	0	3	3	1	0	1	5
07:15 AM	0	0	0	0	1	1	1	0	1	2
07:30 AM	1	0	1	0	1	1	0	0	0	2
07:45 AM	0	0	0	0	1	1	2	0	2	3
Total	1	1	2	0	6	6	4	0	4	12
08:00 AM	0	0	0	0	0	0	2	0	2	2
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	1	1	0	0	0	1
08:45 AM	1	0	1	0	2	2	3	0	3	6
Total	1	0	1	0	3	3	5	0	5	9
Grand Total	2	1	3	0	9	9	9	0	9	21
Apprch %	66.7	33.3		0	100		100	0		
Total %	9.5	4.8	14.3	0	42.9	42.9	42.9	0	42.9	

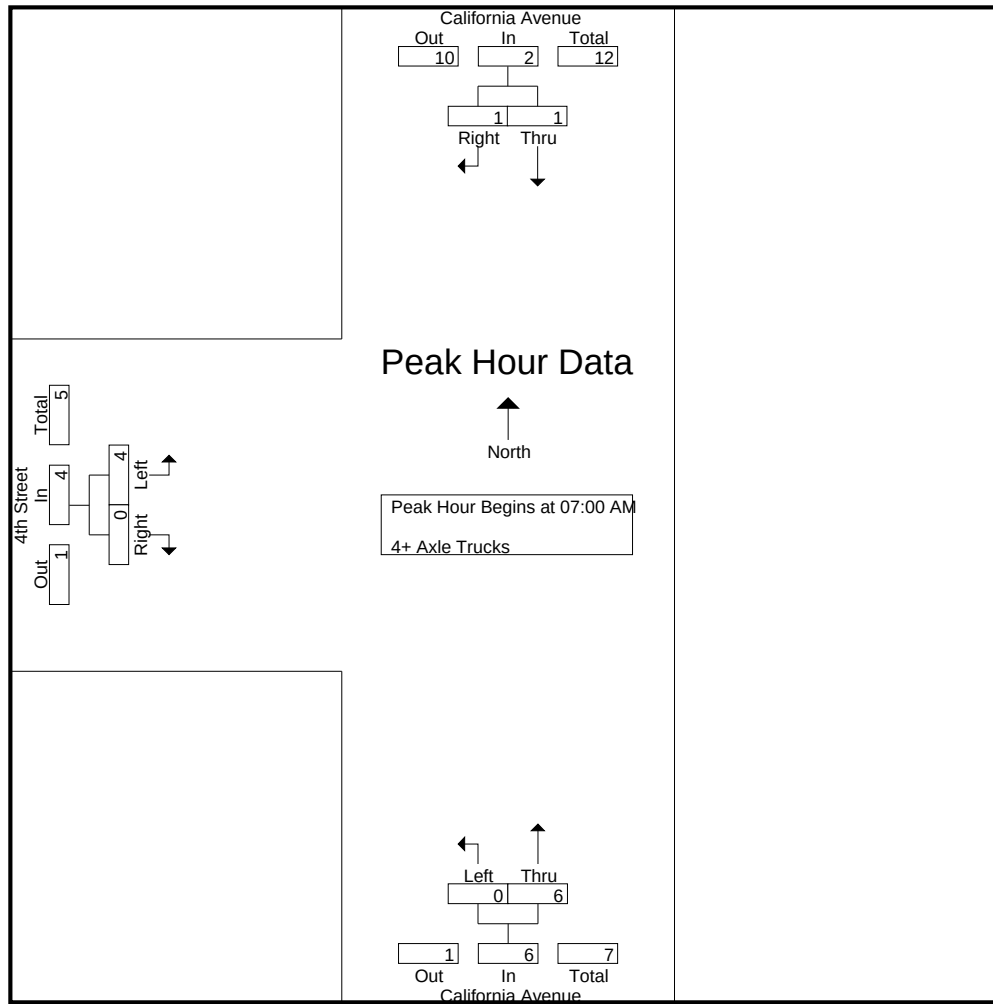
	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	0	1	1	0	3	3	1	0	1	5
07:15 AM	0	0	0	0	1	1	1	0	1	2
07:30 AM	1	0	1	0	1	1	0	0	0	2
07:45 AM	0	0	0	0	1	1	2	0	2	3
Total Volume	1	1	2	0	6	6	4	0	4	12
% App. Total	50	50		0	100		100	0		
PHF	.250	.250	.500	.000	.500	.500	.500	.000	.500	.600

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Entire Intersection Begins at 07:00 AM

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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:00 AM			07:00 AM		
+0 mins.	0	1	1	0	3	3	1	0	1
+15 mins.	0	0	0	0	1	1	1	0	1
+30 mins.	1	0	1	0	1	1	0	0	0
+45 mins.	0	0	0	0	1	1	2	0	2
Total Volume	1	1	2	0	6	6	4	0	4
% App. Total	50	50		0	100		100	0	
PHF	.250	.250	.500	.000	.500	.500	.500	.000	.500

City of Beaumont
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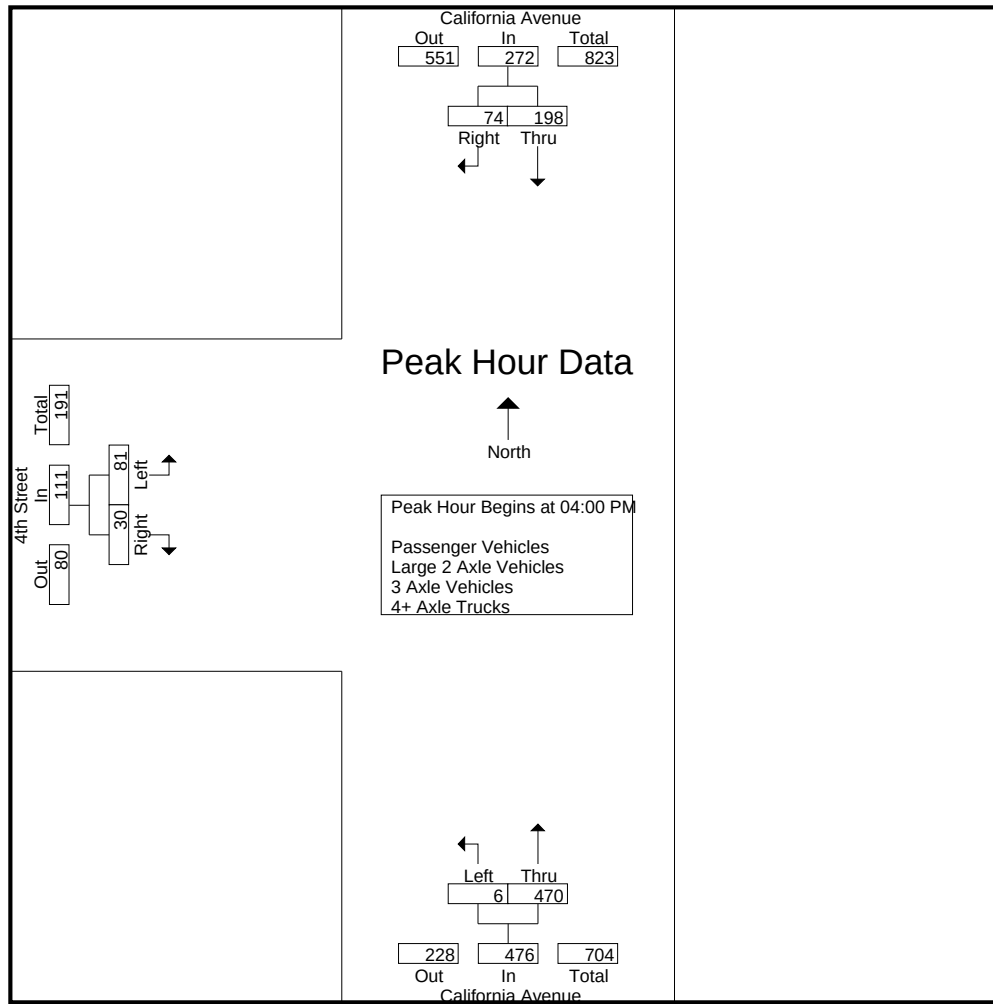
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	49	20	69	4	120	124	21	9	30	223
04:15 PM	45	27	72	0	117	117	39	5	44	233
04:30 PM	54	13	67	1	124	125	10	12	22	214
04:45 PM	50	14	64	1	109	110	11	4	15	189
Total	198	74	272	6	470	476	81	30	111	859
05:00 PM	56	6	62	0	112	112	12	5	17	191
05:15 PM	54	3	57	0	106	106	9	3	12	175
05:30 PM	59	9	68	0	94	94	19	6	25	187
05:45 PM	78	6	84	7	80	87	11	6	17	188
Total	247	24	271	7	392	399	51	20	71	741
Grand Total	445	98	543	13	862	875	132	50	182	1600
Apprch %	82	18		1.5	98.5		72.5	27.5		
Total %	27.8	6.1	33.9	0.8	53.9	54.7	8.2	3.1	11.4	
Passenger Vehicles	436	92	528	13	852	865	126	47	173	1566
% Passenger Vehicles	98	93.9	97.2	100	98.8	98.9	95.5	94	95.1	97.9
Large 2 Axle Vehicles	7	4	11	0	4	4	6	1	7	22
% Large 2 Axle Vehicles	1.6	4.1	2	0	0.5	0.5	4.5	2	3.8	1.4
3 Axle Vehicles	1	0	1	0	2	2	0	0	0	3
% 3 Axle Vehicles	0.2	0	0.2	0	0.2	0.2	0	0	0	0.2
4+ Axle Trucks	1	2	3	0	4	4	0	2	2	9
% 4+ Axle Trucks	0.2	2	0.6	0	0.5	0.5	0	4	1.1	0.6

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	49	20	69	4	120	124	21	9	30	223
04:15 PM	45	27	72	0	117	117	39	5	44	233
04:30 PM	54	13	67	1	124	125	10	12	22	214
04:45 PM	50	14	64	1	109	110	11	4	15	189
Total Volume	198	74	272	6	470	476	81	30	111	859
% App. Total	72.8	27.2		1.3	98.7		73	27		
PHF	.917	.685	.944	.375	.948	.952	.519	.625	.631	.922

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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	49	20	69	4	120	124	21	9	30
+15 mins.	45	27	72	0	117	117	39	5	44
+30 mins.	54	13	67	1	124	125	10	12	22
+45 mins.	50	14	64	1	109	110	11	4	15
Total Volume	198	74	272	6	470	476	81	30	111
% App. Total	72.8	27.2		1.3	98.7		73	27	
PHF	.917	.685	.944	.375	.948	.952	.519	.625	.631

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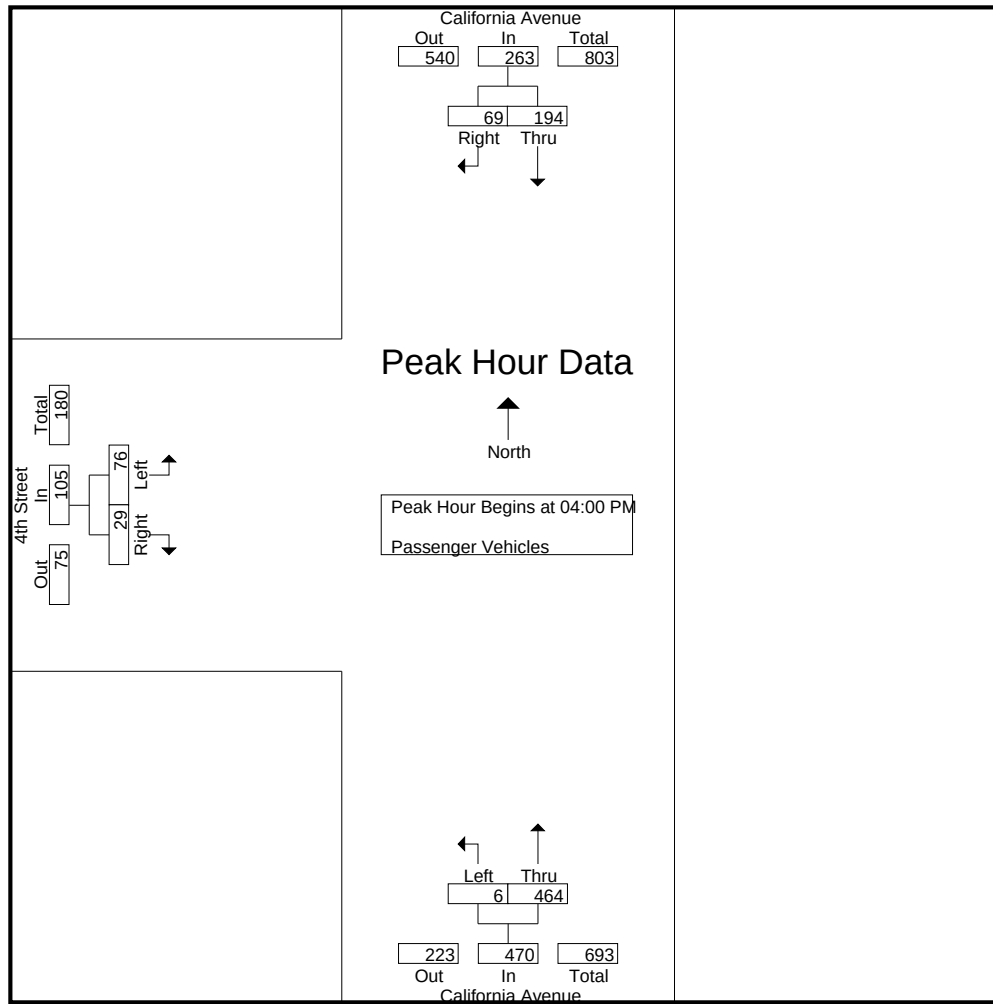
Groups Printed- Passenger Vehicles

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	48	20	68	4	117	121	21	9	30	219
04:15 PM	45	25	70	0	116	116	37	4	41	227
04:30 PM	52	11	63	1	123	124	9	12	21	208
04:45 PM	49	13	62	1	108	109	9	4	13	184
Total	194	69	263	6	464	470	76	29	105	838
05:00 PM	56	6	62	0	111	111	11	4	15	188
05:15 PM	54	2	56	0	106	106	9	2	11	173
05:30 PM	58	9	67	0	93	93	19	6	25	185
05:45 PM	74	6	80	7	78	85	11	6	17	182
Total	242	23	265	7	388	395	50	18	68	728
Grand Total	436	92	528	13	852	865	126	47	173	1566
Apprch %	82.6	17.4		1.5	98.5		72.8	27.2		
Total %	27.8	5.9	33.7	0.8	54.4	55.2	8	3	11	

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	48	20	68	4	117	121	21	9	30	219
04:15 PM	45	25	70	0	116	116	37	4	41	227
04:30 PM	52	11	63	1	123	124	9	12	21	208
04:45 PM	49	13	62	1	108	109	9	4	13	184
Total Volume	194	69	263	6	464	470	76	29	105	838
% App. Total	73.8	26.2		1.3	98.7		72.4	27.6		
PHF	.933	.690	.939	.375	.943	.948	.514	.604	.640	.923

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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	48	20	68	4	117	121	21	9	30
+15 mins.	45	25	70	0	116	116	37	4	41
+30 mins.	52	11	63	1	123	124	9	12	21
+45 mins.	49	13	62	1	108	109	9	4	13
Total Volume	194	69	263	6	464	470	76	29	105
% App. Total	73.8	26.2		1.3	98.7		72.4	27.6	
PHF	.933	.690	.939	.375	.943	.948	.514	.604	.640

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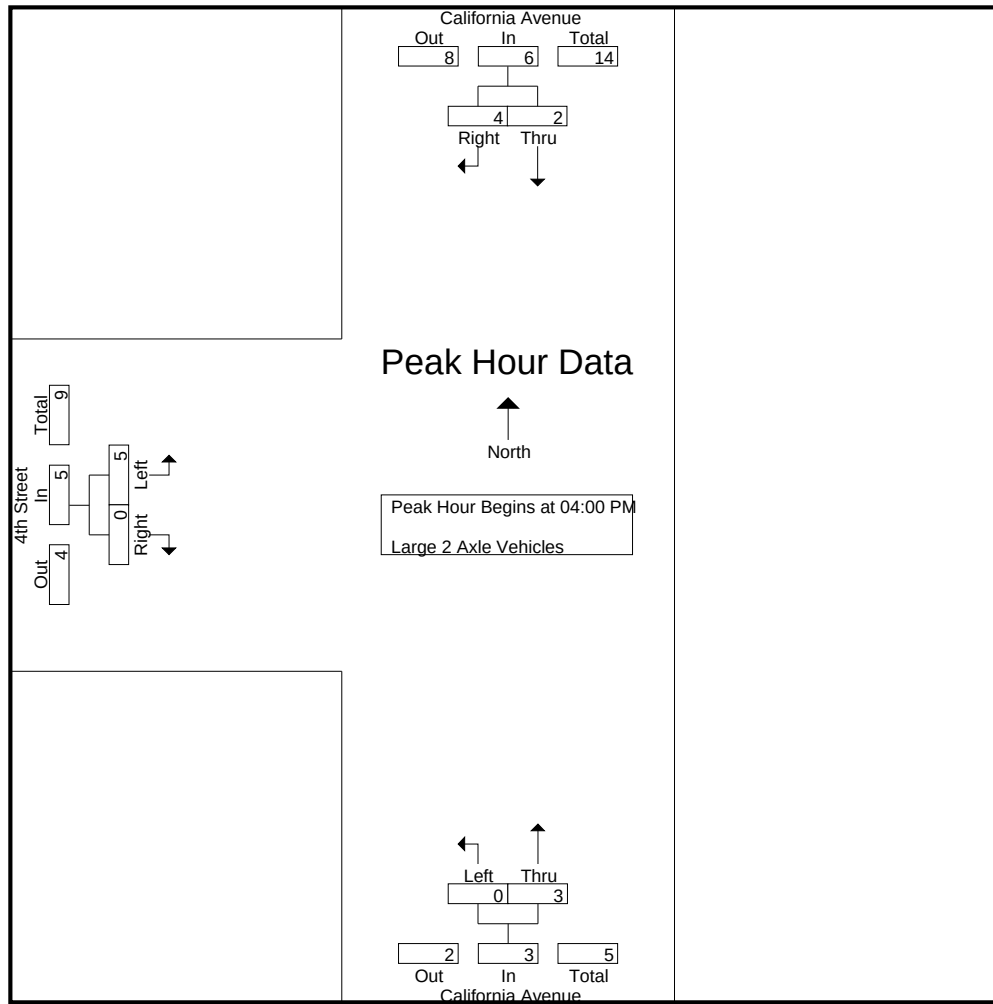
Groups Printed- Large 2 Axle Vehicles

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	1	0	1	0	0	0	0	0	0	1
04:15 PM	0	2	2	0	1	1	2	0	2	5
04:30 PM	0	2	2	0	1	1	1	0	1	4
04:45 PM	1	0	1	0	1	1	2	0	2	4
Total	2	4	6	0	3	3	5	0	5	14
05:00 PM	0	0	0	0	0	0	1	1	2	2
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	1	0	1	0	0	0	0	0	0	1
05:45 PM	4	0	4	0	1	1	0	0	0	5
Total	5	0	5	0	1	1	1	1	2	8
Grand Total	7	4	11	0	4	4	6	1	7	22
Apprch %	63.6	36.4		0	100		85.7	14.3		
Total %	31.8	18.2	50	0	18.2	18.2	27.3	4.5	31.8	

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	1	0	1	0	0	0	0	0	0	1
04:15 PM	0	2	2	0	1	1	2	0	2	5
04:30 PM	0	2	2	0	1	1	1	0	1	4
04:45 PM	1	0	1	0	1	1	2	0	2	4
Total Volume	2	4	6	0	3	3	5	0	5	14
% App. Total	33.3	66.7		0	100		100	0		
PHF	.500	.500	.750	.000	.750	.750	.625	.000	.625	.700

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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	1	0	1	0	0	0	0	0	0
+15 mins.	0	2	2	0	1	1	2	0	2
+30 mins.	0	2	2	0	1	1	1	0	1
+45 mins.	1	0	1	0	1	1	2	0	2
Total Volume	2	4	6	0	3	3	5	0	5
% App. Total	33.3	66.7		0	100		100	0	
PHF	.500	.500	.750	.000	.750	.750	.625	.000	.625

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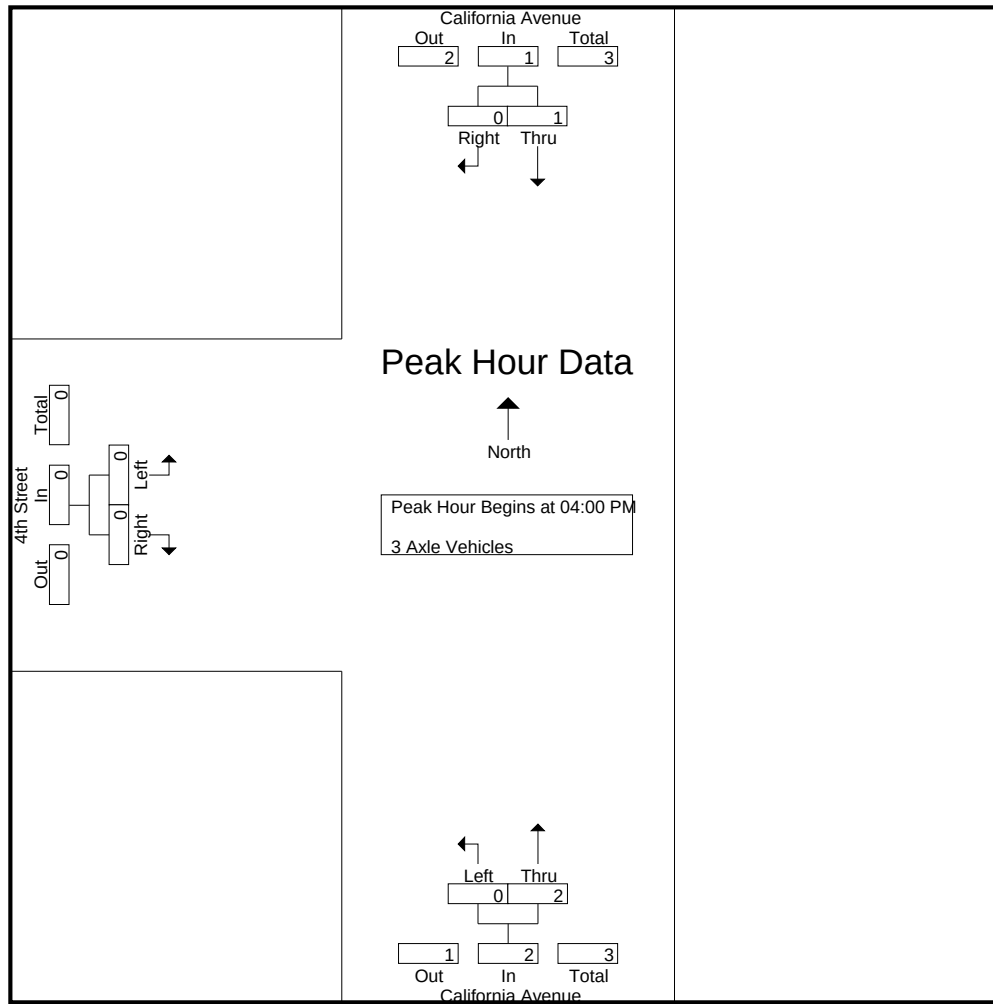
Groups Printed- 3 Axle Vehicles

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	2	2	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	1	0	1	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	1	0	1	0	2	2	0	0	0	3
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	1	0	2	2	0	0	0	3
Apprch %	100	0		0	100		0	0		
Total %	33.3	0	33.3	0	66.7	66.7	0	0	0	

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	2	2	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	1	0	1	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	2	2	0	0	0	3
% App. Total	100	0		0	100		0	0		
PHF	.250	.000	.250	.000	.250	.250	.000	.000	.000	.375

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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	2	2	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	1	0	1	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	1	0	1	0	2	2	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.250	.000	.250	.000	.250	.250	.000	.000	.000

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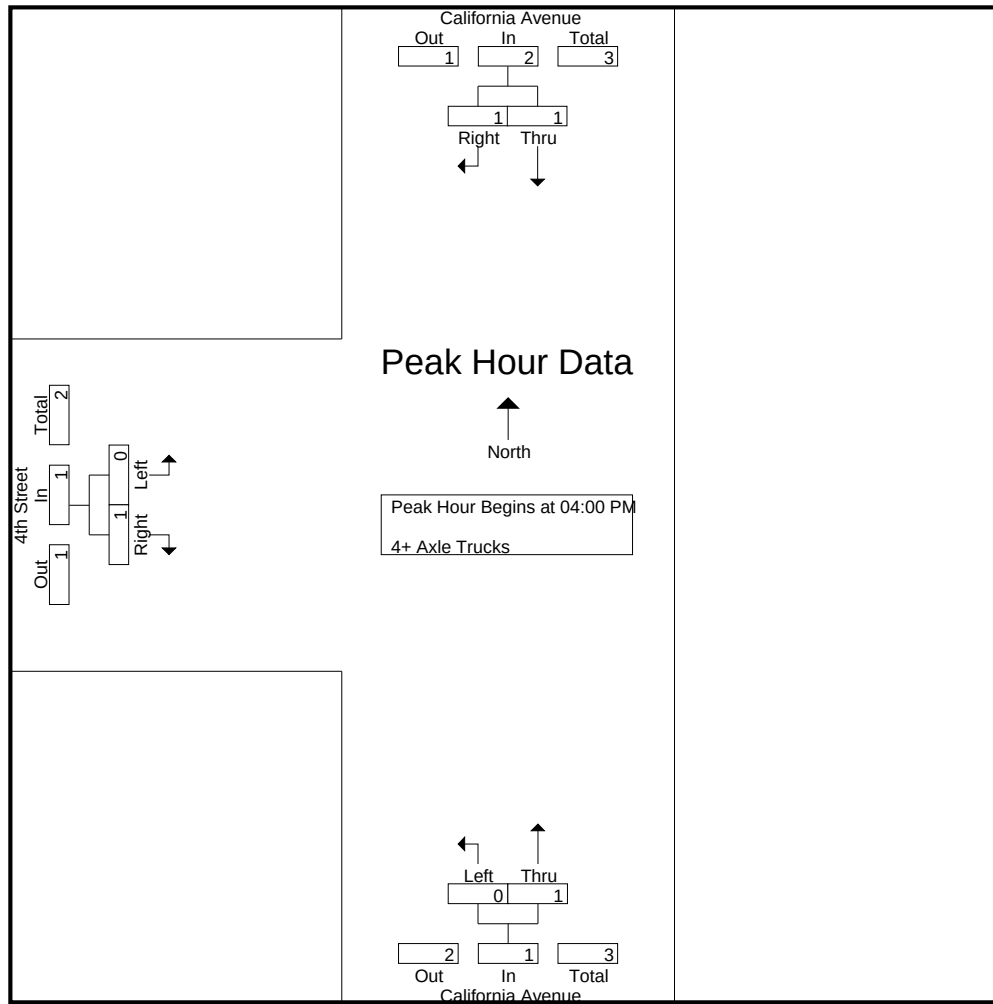
Groups Printed- 4+ Axle Trucks

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	1	1	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	1	1	1
04:30 PM	1	0	1	0	0	0	0	0	0	1
04:45 PM	0	1	1	0	0	0	0	0	0	1
Total	1	1	2	0	1	1	0	1	1	4
05:00 PM	0	0	0	0	1	1	0	0	0	1
05:15 PM	0	1	1	0	0	0	0	1	1	2
05:30 PM	0	0	0	0	1	1	0	0	0	1
05:45 PM	0	0	0	0	1	1	0	0	0	1
Total	0	1	1	0	3	3	0	1	1	5
Grand Total	1	2	3	0	4	4	0	2	2	9
Apprch %	33.3	66.7		0	100		0	100		
Total %	11.1	22.2	33.3	0	44.4	44.4	0	22.2	22.2	

	California Avenue Southbound			California Avenue Northbound			4th Street Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	1	1	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	1	1	1
04:30 PM	1	0	1	0	0	0	0	0	0	1
04:45 PM	0	1	1	0	0	0	0	0	0	1
Total Volume	1	1	2	0	1	1	0	1	1	4
% App. Total	50	50		0	100		0	100		
PHF	.250	.250	.500	.000	.250	.250	.000	.250	.250	1.00

City of Beaumont
N/S: California Avenue
E/W: 4th Street
Weather: Clear

File Name : 11_BMT_California_4th PM
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	1	1	0	0	0
+15 mins.	0	0	0	0	0	0	0	1	1
+30 mins.	1	0	1	0	0	0	0	0	0
+45 mins.	0	1	1	0	0	0	0	0	0
Total Volume	1	1	2	0	1	1	0	1	1
% App. Total	50	50		0	100		0	100	
PHF	.250	.250	.500	.000	.250	.250	.000	.250	.250

Location: Beaumont
 N/S: California Avenue
 E/W: 4th Street



Date: 11/19/2019
 Day: Tuesday

PEDESTRIANS

	North Leg California Avenue Pedestrians	East Leg Dead End Pedestrians	South Leg California Avenue Pedestrians	West Leg 4th Street Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg California Avenue Pedestrians	East Leg Dead End Pedestrians	South Leg California Avenue Pedestrians	West Leg 4th Street Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	1	0	0	0	1
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	0	1

Location: Beaumont
 N/S: California Avenue
 E/W: 4th Street



Date: 11/19/2019
 Day: Tuesday

BICYCLES

	Southbound California Avenue			Westbound Dead End			Northbound California Avenue			Eastbound 4th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	1	0	0	0	0	0	0	0	0	0	2

	Southbound California Avenue			Westbound Dead End			Northbound California Avenue			Eastbound 4th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
4:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	0	0	0	0	0	1	0	0	2

City of Beaumont
N/S: California Avenue
E/W: 5th Street
Weather: Clear

File Name : 12_BMT_California_5th AM
Site Code : 05119803
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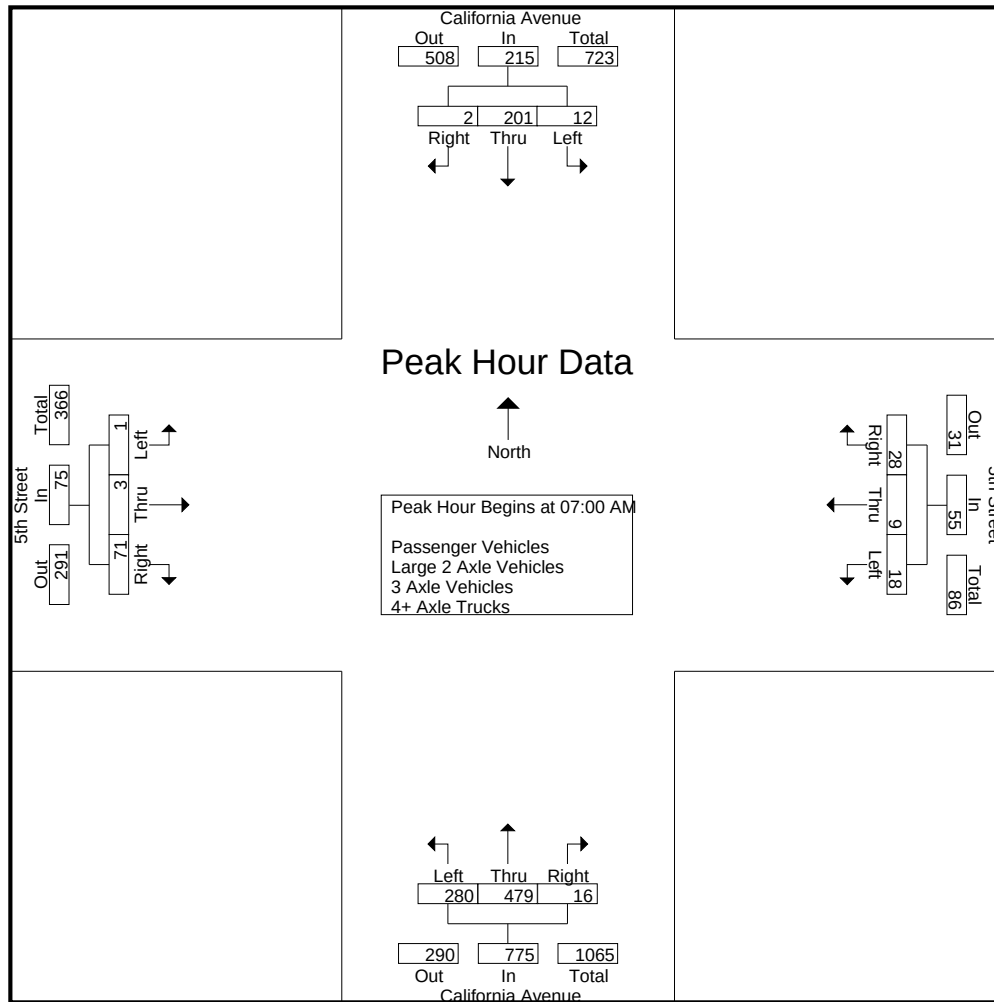
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	51	0	54	4	2	8	14	112	157	3	272	0	0	15	15	355
07:15 AM	4	58	0	62	4	1	7	12	69	119	1	189	1	0	18	19	282
07:30 AM	0	51	1	52	6	2	7	15	51	91	3	145	0	2	19	21	233
07:45 AM	5	41	1	47	4	4	6	14	48	112	9	169	0	1	19	20	250
Total	12	201	2	215	18	9	28	55	280	479	16	775	1	3	71	75	1120
08:00 AM	1	45	2	48	8	2	4	14	41	82	4	127	0	0	8	8	197
08:15 AM	1	39	1	41	4	1	6	11	56	94	2	152	2	0	8	10	214
08:30 AM	3	36	0	39	6	1	6	13	49	107	0	156	0	2	11	13	221
08:45 AM	0	31	1	32	2	2	9	13	50	78	1	129	1	1	12	14	188
Total	5	151	4	160	20	6	25	51	196	361	7	564	3	3	39	45	820
Grand Total	17	352	6	375	38	15	53	106	476	840	23	1339	4	6	110	120	1940
Apprch %	4.5	93.9	1.6		35.8	14.2	50		35.5	62.7	1.7		3.3	5	91.7		
Total %	0.9	18.1	0.3	19.3	2	0.8	2.7	5.5	24.5	43.3	1.2	69	0.2	0.3	5.7	6.2	
Passenger Vehicles	16	328	6	350	35	15	50	100	471	790	21	1282	3	6	110	119	1851
% Passenger Vehicles	94.1	93.2	100	93.3	92.1	100	94.3	94.3	98.9	94	91.3	95.7	75	100	100	99.2	95.4
Large 2 Axle Vehicles	1	13	0	14	2	0	3	5	2	21	2	25	1	0	0	1	45
% Large 2 Axle Vehicles	5.9	3.7	0	3.7	5.3	0	5.7	4.7	0.4	2.5	8.7	1.9	25	0	0	0.8	2.3
3 Axle Vehicles	0	8	0	8	1	0	0	1	2	10	0	12	0	0	0	0	21
% 3 Axle Vehicles	0	2.3	0	2.1	2.6	0	0	0.9	0.4	1.2	0	0.9	0	0	0	0	1.1
4+ Axle Trucks	0	3	0	3	0	0	0	0	1	19	0	20	0	0	0	0	23
% 4+ Axle Trucks	0	0.9	0	0.8	0	0	0	0	0.2	2.3	0	1.5	0	0	0	0	1.2

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	3	51	0	54	4	2	8	14	112	157	3	272	0	0	15	15	355
07:15 AM	4	58	0	62	4	1	7	12	69	119	1	189	1	0	18	19	282
07:30 AM	0	51	1	52	6	2	7	15	51	91	3	145	0	2	19	21	233
07:45 AM	5	41	1	47	4	4	6	14	48	112	9	169	0	1	19	20	250
Total Volume	12	201	2	215	18	9	28	55	280	479	16	775	1	3	71	75	1120
% App. Total	5.6	93.5	0.9		32.7	16.4	50.9		36.1	61.8	2.1		1.3	4	94.7		
PHF	.600	.866	.500	.867	.750	.563	.875	.917	.625	.763	.444	.712	.250	.375	.934	.893	.789

City of Beaumont
N/S: California Avenue
E/W: 5th Street
Weather: Clear

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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	3	51	0	54	4	2	8	14	112	157	3	272	0	0	15	15
+15 mins.	4	58	0	62	4	1	7	12	69	119	1	189	1	0	18	19
+30 mins.	0	51	1	52	6	2	7	15	51	91	3	145	0	2	19	21
+45 mins.	5	41	1	47	4	4	6	14	48	112	9	169	0	1	19	20
Total Volume	12	201	2	215	18	9	28	55	280	479	16	775	1	3	71	75
% App. Total	5.6	93.5	0.9		32.7	16.4	50.9		36.1	61.8	2.1		1.3	4	94.7	
PHF	.600	.866	.500	.867	.750	.563	.875	.917	.625	.763	.444	.712	.250	.375	.934	.893

City of Beaumont
N/S: California Avenue
E/W: 5th Street
Weather: Clear

File Name : 12_BMT_California_5th AM
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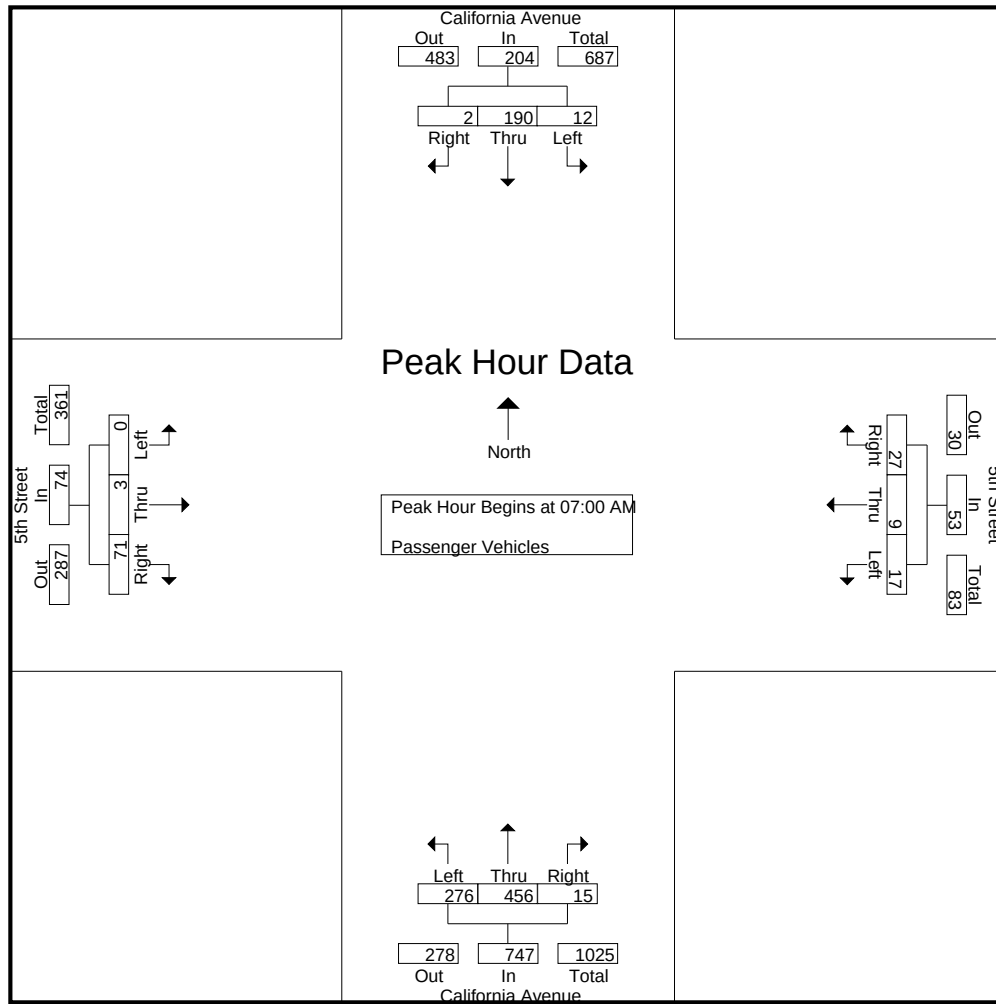
Groups Printed- Passenger Vehicles

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	48	0	51	4	2	7	13	110	145	3	258	0	0	15	15	337
07:15 AM	4	57	0	61	4	1	7	12	68	114	1	183	0	0	18	18	274
07:30 AM	0	46	1	47	5	2	7	14	51	88	3	142	0	2	19	21	224
07:45 AM	5	39	1	45	4	4	6	14	47	109	8	164	0	1	19	20	243
Total	12	190	2	204	17	9	27	53	276	456	15	747	0	3	71	74	1078
08:00 AM	1	43	2	46	7	2	3	12	41	77	3	121	0	0	8	8	187
08:15 AM	0	34	1	35	4	1	6	11	56	88	2	146	2	0	8	10	202
08:30 AM	3	35	0	38	5	1	5	11	49	102	0	151	0	2	11	13	213
08:45 AM	0	26	1	27	2	2	9	13	49	67	1	117	1	1	12	14	171
Total	4	138	4	146	18	6	23	47	195	334	6	535	3	3	39	45	773
Grand Total	16	328	6	350	35	15	50	100	471	790	21	1282	3	6	110	119	1851
Apprch %	4.6	93.7	1.7		35	15	50		36.7	61.6	1.6		2.5	5	92.4		
Total %	0.9	17.7	0.3	18.9	1.9	0.8	2.7	5.4	25.4	42.7	1.1	69.3	0.2	0.3	5.9	6.4	

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	3	48	0	51	4	2	7	13	110	145	3	258	0	0	15	15	337
07:15 AM	4	57	0	61	4	1	7	12	68	114	1	183	0	0	18	18	274
07:30 AM	0	46	1	47	5	2	7	14	51	88	3	142	0	2	19	21	224
07:45 AM	5	39	1	45	4	4	6	14	47	109	8	164	0	1	19	20	243
Total Volume	12	190	2	204	17	9	27	53	276	456	15	747	0	3	71	74	1078
% App. Total	5.9	93.1	1		32.1	17	50.9		36.9	61	2		0	4.1	95.9		
PHF	.600	.833	.500	.836	.850	.563	.964	.946	.627	.786	.469	.724	.000	.375	.934	.881	.800

City of Beaumont
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	3	48	0	51	4	2	7	13	110	145	3	258	0	0	15	15
+15 mins.	4	57	0	61	4	1	7	12	68	114	1	183	0	0	18	18
+30 mins.	0	46	1	47	5	2	7	14	51	88	3	142	0	2	19	21
+45 mins.	5	39	1	45	4	4	6	14	47	109	8	164	0	1	19	20
Total Volume	12	190	2	204	17	9	27	53	276	456	15	747	0	3	71	74
% App. Total	5.9	93.1	1		32.1	17	50.9		36.9	61	2		0	4.1	95.9	
PHF	.600	.833	.500	.836	.850	.563	.964	.946	.627	.786	.469	.724	.000	.375	.934	.881

City of Beaumont
N/S: California Avenue
E/W: 5th Street
Weather: Clear

File Name : 12_BMT_California_5th AM
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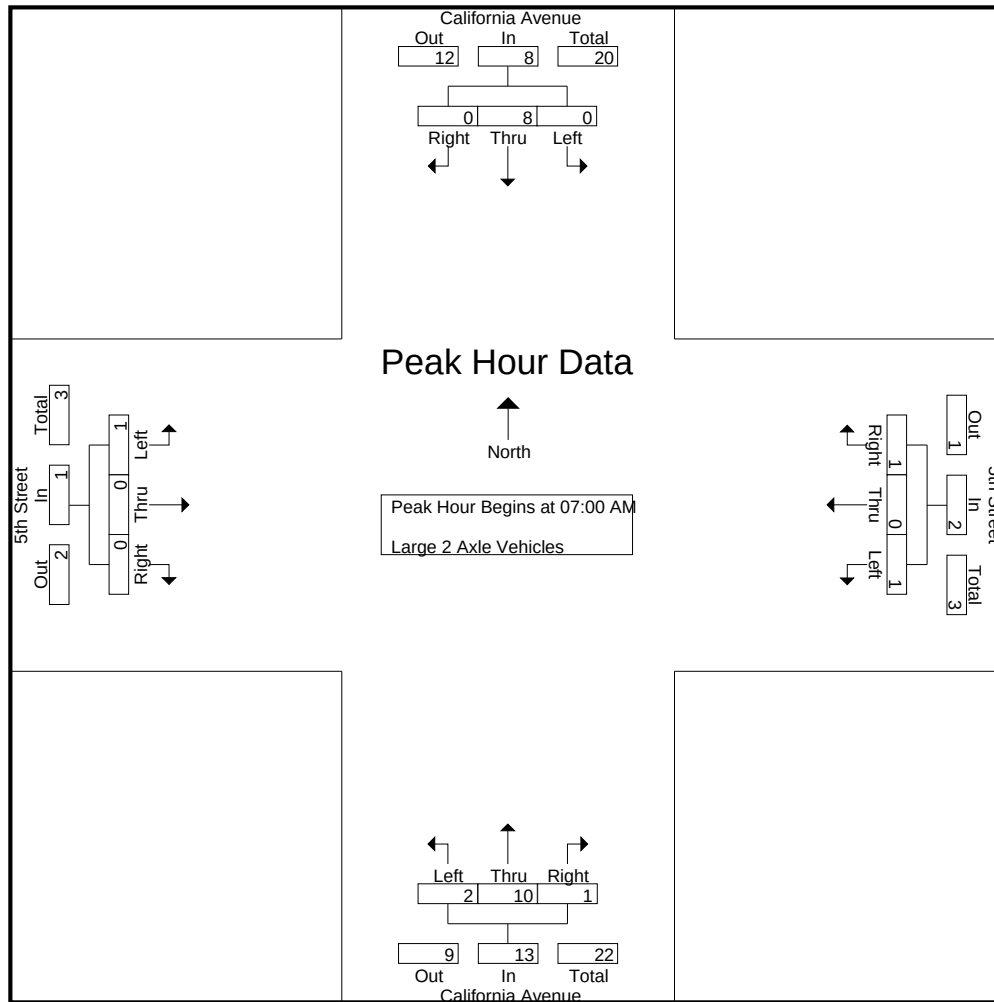
Groups Printed- Large 2 Axle Vehicles

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	2	0	2	0	0	1	1	1	5	0	6	0	0	0	0	9
07:15 AM	0	0	0	0	0	0	0	0	1	2	0	3	1	0	0	1	4
07:30 AM	0	4	0	4	1	0	0	1	0	2	0	2	0	0	0	0	7
07:45 AM	0	2	0	2	0	0	0	0	0	1	1	2	0	0	0	0	4
Total	0	8	0	8	1	0	1	2	2	10	1	13	1	0	0	1	24
08:00 AM	0	1	0	1	0	0	1	1	0	2	1	3	0	0	0	0	5
08:15 AM	1	0	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
08:30 AM	0	1	0	1	1	0	1	2	0	2	0	2	0	0	0	0	5
08:45 AM	0	3	0	3	0	0	0	0	0	5	0	5	0	0	0	0	8
Total	1	5	0	6	1	0	2	3	0	11	1	12	0	0	0	0	21
Grand Total	1	13	0	14	2	0	3	5	2	21	2	25	1	0	0	1	45
Apprch %	7.1	92.9	0		40	0	60		8	84	8		100	0	0		
Total %	2.2	28.9	0	31.1	4.4	0	6.7	11.1	4.4	46.7	4.4	55.6	2.2	0	0	2.2	

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	2	0	2	0	0	1	1	1	5	0	6	0	0	0	0	9
07:15 AM	0	0	0	0	0	0	0	0	1	2	0	3	1	0	0	1	4
07:30 AM	0	4	0	4	1	0	0	1	0	2	0	2	0	0	0	0	7
07:45 AM	0	2	0	2	0	0	0	0	0	1	1	2	0	0	0	0	4
Total Volume	0	8	0	8	1	0	1	2	2	10	1	13	1	0	0	1	24
% App. Total	0	100	0		50	0	50		15.4	76.9	7.7		100	0	0		
PHF	.000	.500	.000	.500	.250	.000	.250	.500	.500	.500	.250	.542	.250	.000	.000	.250	.667

City of Beaumont
N/S: California Avenue
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File Name : 12_BMT_California_5th AM
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	2	0	2	0	0	1	1	1	5	0	6	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	1	2	0	3	1	0	0	1
+30 mins.	0	4	0	4	1	0	0	1	0	2	0	2	0	0	0	0
+45 mins.	0	2	0	2	0	0	0	0	0	1	1	2	0	0	0	0
Total Volume	0	8	0	8	1	0	1	2	2	10	1	13	1	0	0	1
% App. Total	0	100	0		50	0	50		15.4	76.9	7.7		100	0	0	
PHF	.000	.500	.000	.500	.250	.000	.250	.500	.500	.500	.250	.542	.250	.000	.000	.250

City of Beaumont
N/S: California Avenue
E/W: 5th Street
Weather: Clear

File Name : 12_BMT_California_5th AM
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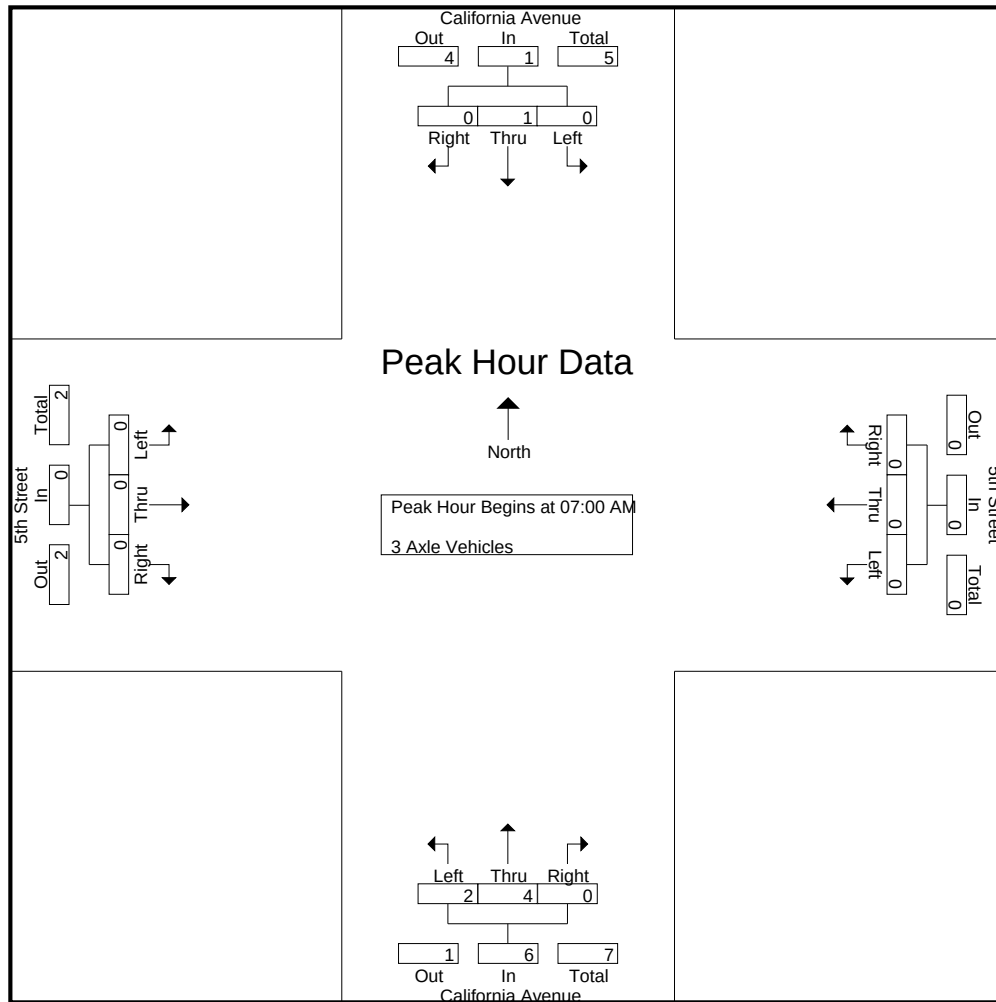
Groups Printed- 3 Axle Vehicles

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	1	2	0	3	0	0	0	0	3
07:15 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	2	4	0	6	0	0	0	0	7
08:00 AM	0	1	0	1	1	0	0	1	0	1	0	1	0	0	0	0	3
08:15 AM	0	5	0	5	0	0	0	0	0	3	0	3	0	0	0	0	8
08:30 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
08:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	7	0	7	1	0	0	1	0	6	0	6	0	0	0	0	14
Grand Total	0	8	0	8	1	0	0	1	2	10	0	12	0	0	0	0	21
Apprch %	0	100	0		100	0	0		16.7	83.3	0		0	0	0		
Total %	0	38.1	0	38.1	4.8	0	0	4.8	9.5	47.6	0	57.1	0	0	0	0	

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	1	2	0	3	0	0	0	0	3
07:15 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Volume	0	1	0	1	0	0	0	0	2	4	0	6	0	0	0	0	7
% App. Total	0	100	0		0	0	0		33.3	66.7	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.500	.500	.000	.500	.000	.000	.000	.000	.583

City of Beaumont
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	1	2	0	3	0	0	0	0
+15 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	2	4	0	6	0	0	0	0
% App. Total	0	100	0	0	0	0	0	0	33.3	66.7	0	0	0	0	0	0
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.500	.500	.000	.500	.000	.000	.000	.000

City of Beaumont
N/S: California Avenue
E/W: 5th Street
Weather: Clear

File Name : 12_BMT_California_5th AM
Site Code : 05119803
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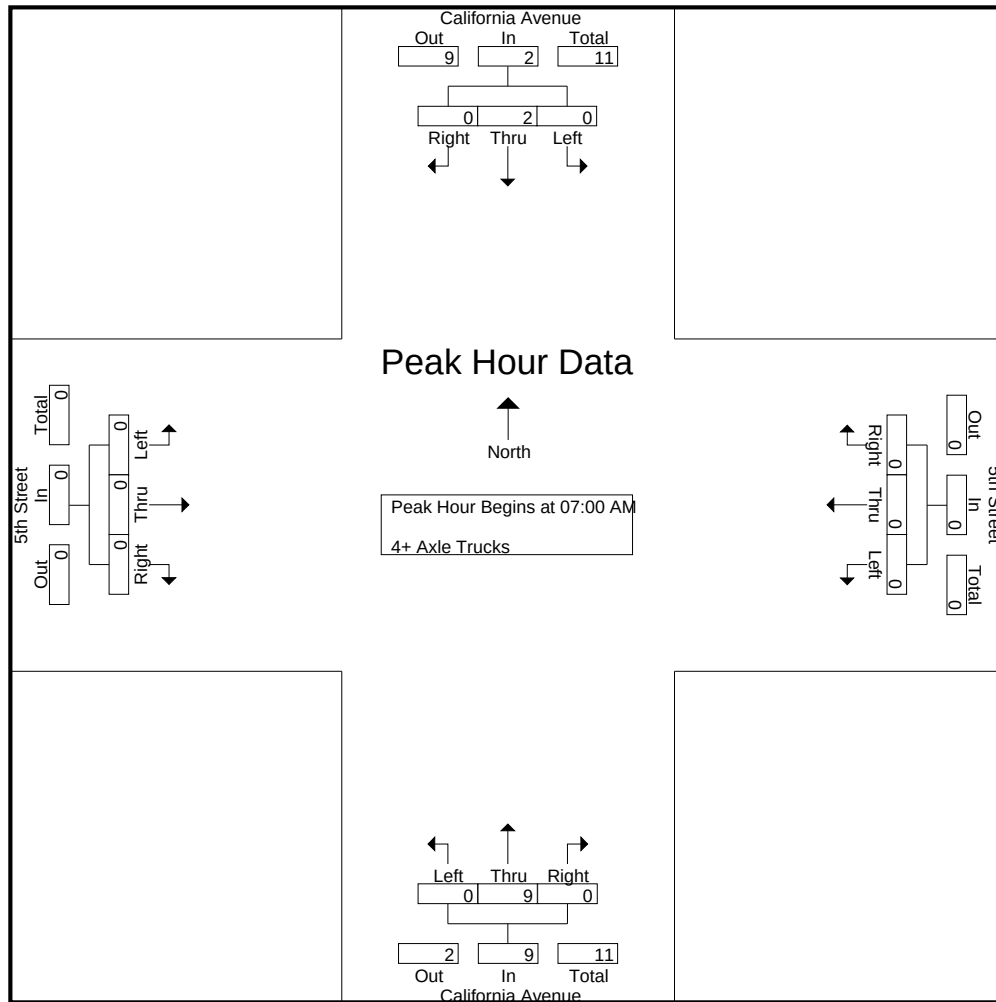
Groups Printed- 4+ Axle Trucks

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	0	5	0	5	0	0	0	0	6
07:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
07:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
Total	0	2	0	2	0	0	0	0	0	9	0	9	0	0	0	0	11
08:00 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:45 AM	0	1	0	1	0	0	0	0	1	6	0	7	0	0	0	0	8
Total	0	1	0	1	0	0	0	0	1	10	0	11	0	0	0	0	12
Grand Total	0	3	0	3	0	0	0	0	1	19	0	20	0	0	0	0	23
Apprch %	0	100	0		0	0	0		5	95	0		0	0	0		
Total %	0	13	0	13	0	0	0	0	4.3	82.6	0	87	0	0	0	0	

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	1	0	1	0	0	0	0	0	5	0	5	0	0	0	0	6
07:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
07:30 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:45 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
Total Volume	0	2	0	2	0	0	0	0	0	9	0	9	0	0	0	0	11
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.450	.000	.450	.000	.000	.000	.000	.458

City of Beaumont
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	1	0	1	0	0	0	0	0	5	0	5	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	9	0	9	0	0	0	0
% App. Total	0	100	0	0	0	0	0	0	0	100	0	0	0	0	0	0
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.450	.000	.450	.000	.000	.000	.000

City of Beaumont
N/S: California Avenue
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Weather: Clear

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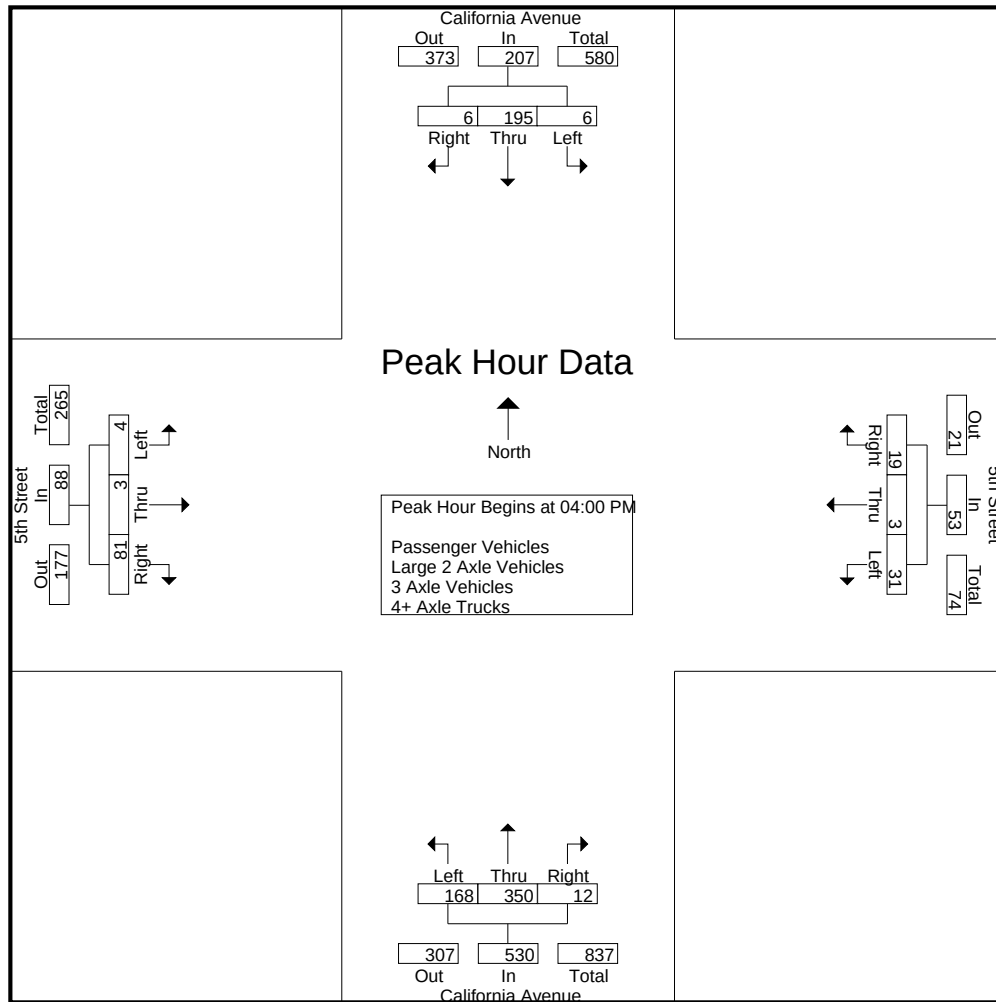
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	56	3	60	7	1	6	14	46	95	1	142	1	0	14	15	231
04:15 PM	1	58	0	59	7	1	2	10	42	92	4	138	2	0	23	25	232
04:30 PM	1	50	1	52	9	1	6	16	44	83	4	131	1	2	26	29	228
04:45 PM	3	31	2	36	8	0	5	13	36	80	3	119	0	1	18	19	187
Total	6	195	6	207	31	3	19	53	168	350	12	530	4	3	81	88	878
05:00 PM	3	42	5	50	5	3	7	15	39	83	2	124	1	0	17	18	207
05:15 PM	2	49	6	57	6	3	8	17	36	76	1	113	1	1	19	21	208
05:30 PM	1	52	1	54	5	2	6	13	31	65	4	100	1	1	16	18	185
05:45 PM	1	54	2	57	3	3	8	14	21	58	1	80	1	0	26	27	178
Total	7	197	14	218	19	11	29	59	127	282	8	417	4	2	78	84	778
Grand Total	13	392	20	425	50	14	48	112	295	632	20	947	8	5	159	172	1656
Apprch %	3.1	92.2	4.7		44.6	12.5	42.9		31.2	66.7	2.1		4.7	2.9	92.4		
Total %	0.8	23.7	1.2	25.7	3	0.8	2.9	6.8	17.8	38.2	1.2	57.2	0.5	0.3	9.6	10.4	
Passenger Vehicles	13	380	19	412	42	14	46	102	293	612	19	924	8	5	158	171	1609
% Passenger Vehicles	100	96.9	95	96.9	84	100	95.8	91.1	99.3	96.8	95	97.6	100	100	99.4	99.4	97.2
Large 2 Axle Vehicles	0	8	0	8	3	0	2	5	2	10	1	13	0	0	1	1	27
% Large 2 Axle Vehicles	0	2	0	1.9	6	0	4.2	4.5	0.7	1.6	5	1.4	0	0	0.6	0.6	1.6
3 Axle Vehicles	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	4
% 3 Axle Vehicles	0	0.8	0	0.7	0	0	0	0	0	0.2	0	0.1	0	0	0	0	0.2
4+ Axle Trucks	0	1	1	2	5	0	0	5	0	9	0	9	0	0	0	0	16
% 4+ Axle Trucks	0	0.3	5	0.5	10	0	0	4.5	0	1.4	0	1	0	0	0	0	1

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	56	3	60	7	1	6	14	46	95	1	142	1	0	14	15	231
04:15 PM	1	58	0	59	7	1	2	10	42	92	4	138	2	0	23	25	232
04:30 PM	1	50	1	52	9	1	6	16	44	83	4	131	1	2	26	29	228
04:45 PM	3	31	2	36	8	0	5	13	36	80	3	119	0	1	18	19	187
Total Volume	6	195	6	207	31	3	19	53	168	350	12	530	4	3	81	88	878
% App. Total	2.9	94.2	2.9		58.5	5.7	35.8		31.7	66	2.3		4.5	3.4	92		
PHF	.500	.841	.500	.863	.861	.750	.792	.828	.913	.921	.750	.933	.500	.375	.779	.759	.946

City of Beaumont
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:30 PM				04:00 PM				04:15 PM			
+0 mins.	3	42	5	50	9	1	6	16	46	95	1	142	2	0	23	25
+15 mins.	2	49	6	57	8	0	5	13	42	92	4	138	1	2	26	29
+30 mins.	1	52	1	54	5	3	7	15	44	83	4	131	0	1	18	19
+45 mins.	1	54	2	57	6	3	8	17	36	80	3	119	1	0	17	18
Total Volume	7	197	14	218	28	7	26	61	168	350	12	530	4	3	84	91
% App. Total	3.2	90.4	6.4		45.9	11.5	42.6		31.7	66	2.3		4.4	3.3	92.3	
PHF	.583	.912	.583	.956	.778	.583	.813	.897	.913	.921	.750	.933	.500	.375	.808	.784

City of Beaumont
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Weather: Clear

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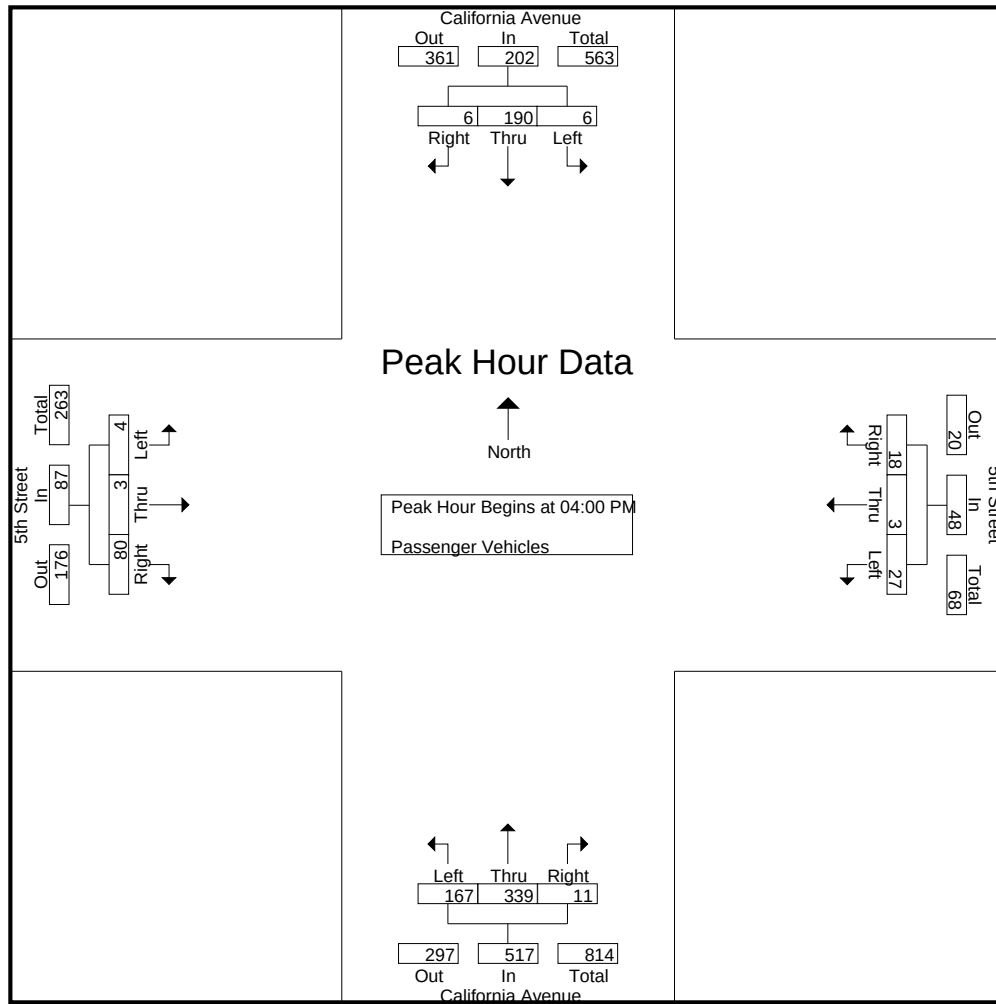
Groups Printed- Passenger Vehicles

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	56	3	60	7	1	5	13	46	93	0	139	1	0	13	14	226
04:15 PM	1	56	0	57	6	1	2	9	42	88	4	134	2	0	23	25	225
04:30 PM	1	47	1	49	8	1	6	15	44	82	4	130	1	2	26	29	223
04:45 PM	3	31	2	36	6	0	5	11	35	76	3	114	0	1	18	19	180
Total	6	190	6	202	27	3	18	48	167	339	11	517	4	3	80	87	854
05:00 PM	3	40	5	48	5	3	7	15	39	81	2	122	1	0	17	18	203
05:15 PM	2	49	6	57	4	3	8	15	36	74	1	111	1	1	19	21	204
05:30 PM	1	50	1	52	4	2	6	12	31	62	4	97	1	1	16	18	179
05:45 PM	1	51	1	53	2	3	7	12	20	56	1	77	1	0	26	27	169
Total	7	190	13	210	15	11	28	54	126	273	8	407	4	2	78	84	755
Grand Total	13	380	19	412	42	14	46	102	293	612	19	924	8	5	158	171	1609
Apprch %	3.2	92.2	4.6		41.2	13.7	45.1		31.7	66.2	2.1		4.7	2.9	92.4		
Total %	0.8	23.6	1.2	25.6	2.6	0.9	2.9	6.3	18.2	38	1.2	57.4	0.5	0.3	9.8	10.6	

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	56	3	60	7	1	5	13	46	93	0	139	1	0	13	14	226
04:15 PM	1	56	0	57	6	1	2	9	42	88	4	134	2	0	23	25	225
04:30 PM	1	47	1	49	8	1	6	15	44	82	4	130	1	2	26	29	223
04:45 PM	3	31	2	36	6	0	5	11	35	76	3	114	0	1	18	19	180
Total Volume	6	190	6	202	27	3	18	48	167	339	11	517	4	3	80	87	854
% App. Total	3	94.1	3		56.2	6.2	37.5		32.3	65.6	2.1		4.6	3.4	92		
PHF	.500	.848	.500	.842	.844	.750	.750	.800	.908	.911	.688	.930	.500	.375	.769	.750	.945

City of Beaumont
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	1	56	3	60	7	1	5	13	46	93	0	139	1	0	13	14
+15 mins.	1	56	0	57	6	1	2	9	42	88	4	134	2	0	23	25
+30 mins.	1	47	1	49	8	1	6	15	44	82	4	130	1	2	26	29
+45 mins.	3	31	2	36	6	0	5	11	35	76	3	114	0	1	18	19
Total Volume	6	190	6	202	27	3	18	48	167	339	11	517	4	3	80	87
% App. Total	3	94.1	3		56.2	6.2	37.5		32.3	65.6	2.1		4.6	3.4	92	
PHF	.500	.848	.500	.842	.844	.750	.750	.800	.908	.911	.688	.930	.500	.375	.769	.750

City of Beaumont
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Weather: Clear

File Name : 12_BMT_California_5th PM
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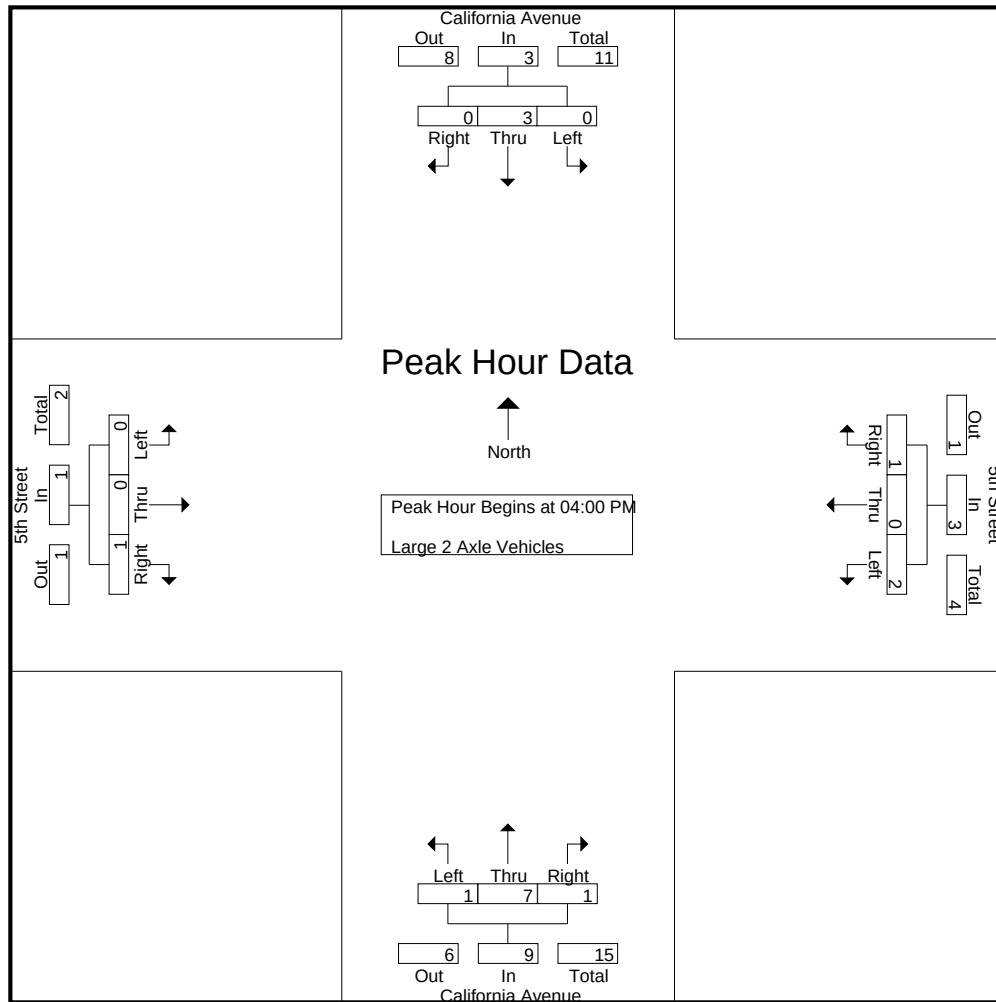
Groups Printed- Large 2 Axle Vehicles

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	1	1	0	0	1	1	0	0	1	1	3
04:15 PM	0	2	0	2	1	0	0	1	0	4	0	4	0	0	0	0	7
04:30 PM	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	1	3	0	4	0	0	0	0	4
Total	0	3	0	3	2	0	1	3	1	7	1	9	0	0	1	1	16
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
05:30 PM	0	2	0	2	1	0	0	1	0	1	0	1	0	0	0	0	4
05:45 PM	0	3	0	3	0	0	1	1	1	0	0	1	0	0	0	0	5
Total	0	5	0	5	1	0	1	2	1	3	0	4	0	0	0	0	11
Grand Total	0	8	0	8	3	0	2	5	2	10	1	13	0	0	1	1	27
Apprch %	0	100	0		60	0	40		15.4	76.9	7.7		0	0	100		
Total %	0	29.6	0	29.6	11.1	0	7.4	18.5	7.4	37	3.7	48.1	0	0	3.7	3.7	

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	1	1	0	0	1	1	0	0	1	1	3
04:15 PM	0	2	0	2	1	0	0	1	0	4	0	4	0	0	0	0	7
04:30 PM	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0	2
04:45 PM	0	0	0	0	0	0	0	0	1	3	0	4	0	0	0	0	4
Total Volume	0	3	0	3	2	0	1	3	1	7	1	9	0	0	1	1	16
% App. Total	0	100	0		66.7	0	33.3		11.1	77.8	11.1		0	0	100		
PHF	.000	.375	.000	.375	.500	.000	.250	.750	.250	.438	.250	.563	.000	.000	.250	.250	.571

City of Beaumont
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	1	1	0	0	1	1	0	0	1	1
+15 mins.	0	2	0	2	1	0	0	1	0	4	0	4	0	0	0	0
+30 mins.	0	1	0	1	1	0	0	1	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	1	3	0	4	0	0	0	0
Total Volume	0	3	0	3	2	0	1	3	1	7	1	9	0	0	1	1
% App. Total	0	100	0		66.7	0	33.3		11.1	77.8	11.1		0	0	100	
PHF	.000	.375	.000	.375	.500	.000	.250	.750	.250	.438	.250	.563	.000	.000	.250	.250

City of Beaumont
N/S: California Avenue
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Weather: Clear

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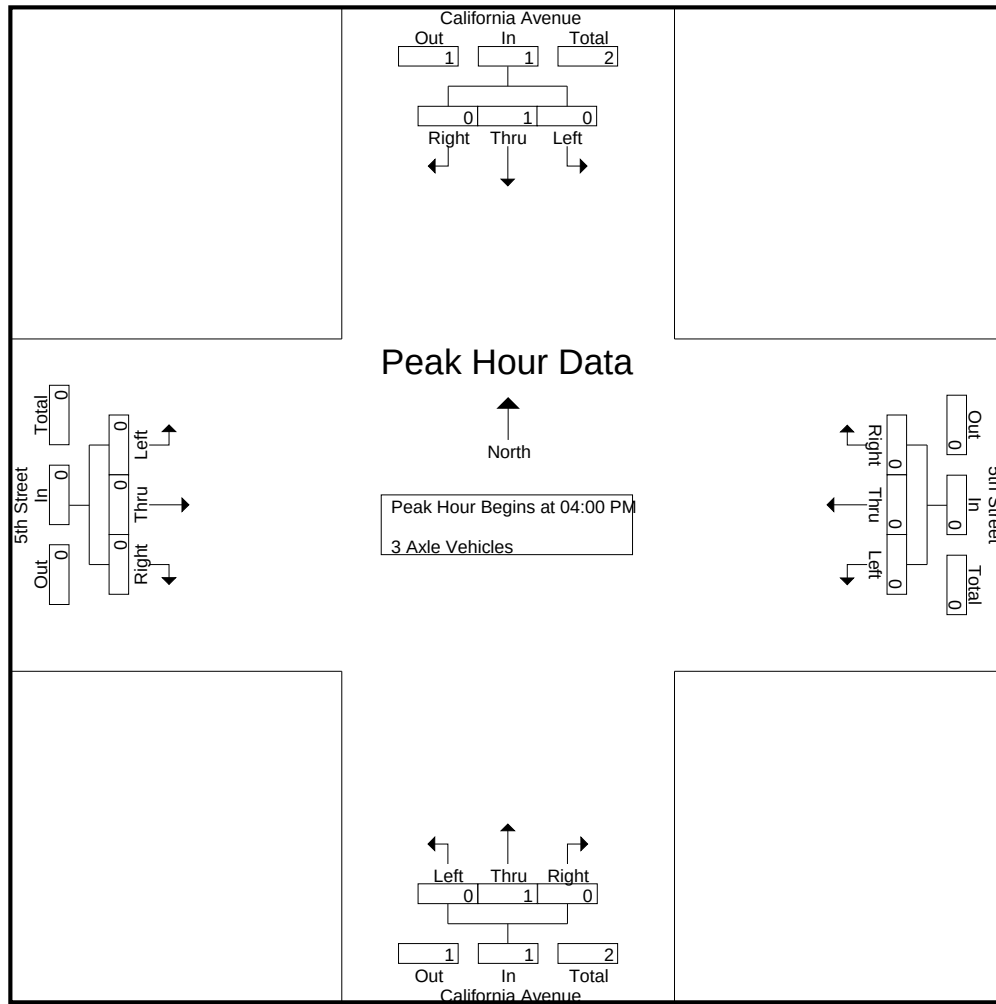
Groups Printed- 3 Axle Vehicles

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
05:00 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	4
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0		
Total %	0	75	0	75	0	0	0	0	0	25	0	25	0	0	0	0	

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.500

City of Beaumont
N/S: California Avenue
E/W: 5th Street
Weather: Clear

File Name : 12_BMT_California_5th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	100	0	0	0	0	0	0	0	100	0	0	0	0	0	0
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

City of Beaumont
N/S: California Avenue
E/W: 5th Street
Weather: Clear

File Name : 12_BMT_California_5th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 1

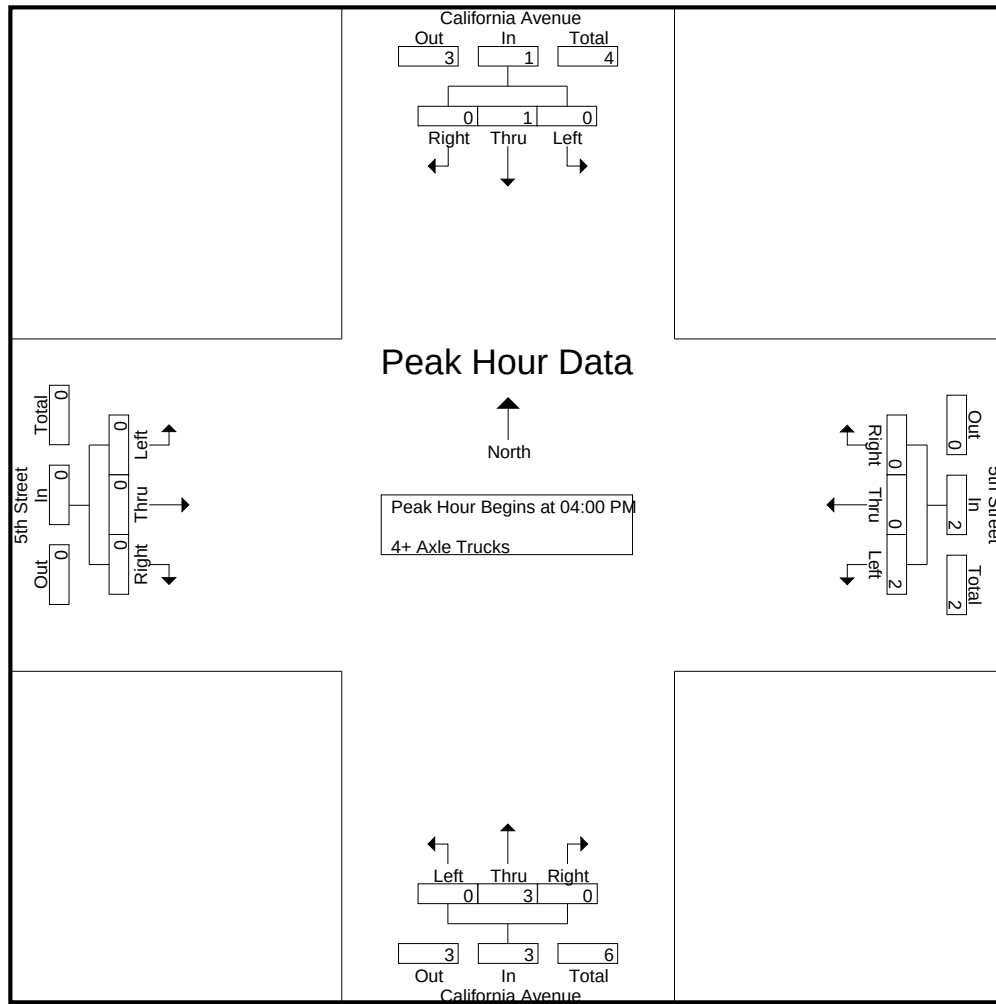
Groups Printed- 4+ Axle Trucks

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
04:45 PM	0	0	0	0	2	0	0	2	0	1	0	1	0	0	0	0	3
Total	0	1	0	1	2	0	0	2	0	3	0	3	0	0	0	0	6
05:00 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
05:15 PM	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2
05:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
05:45 PM	0	0	1	1	1	0	0	1	0	2	0	2	0	0	0	0	4
Total	0	0	1	1	3	0	0	3	0	6	0	6	0	0	0	0	10
Grand Total	0	1	1	2	5	0	0	5	0	9	0	9	0	0	0	0	16
Apprch %	0	50	50		100	0	0		0	100	0		0	0	0		
Total %	0	6.2	6.2	12.5	31.2	0	0	31.2	0	56.2	0	56.2	0	0	0	0	

	California Avenue Southbound				5th Street Westbound				California Avenue Northbound				5th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
04:45 PM	0	0	0	0	2	0	0	2	0	1	0	1	0	0	0	0	3
Total Volume	0	1	0	1	2	0	0	2	0	3	0	3	0	0	0	0	6
% App. Total	0	100	0		100	0	0		0	100	0		0	0	0		
PHF	.000	.250	.000	.250	.250	.000	.000	.250	.000	.750	.000	.750	.000	.000	.000	.000	.500

City of Beaumont
N/S: California Avenue
E/W: 5th Street
Weather: Clear

File Name : 12_BMT_California_5th PM
Site Code : 05119803
Start Date : 11/19/2019
Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	0	0	0	2	0	0	2	0	1	0	1	0	0	0	0
Total Volume	0	1	0	1	2	0	0	2	0	3	0	3	0	0	0	0
% App. Total	0	100	0		100	0	0		0	100	0		0	0	0	
PHF	.000	.250	.000	.250	.250	.000	.000	.250	.000	.750	.000	.750	.000	.000	.000	.000

Location: Beaumont
 N/S: California Avenue
 E/W: 5th Street



Date: 11/19/2019
 Day: Tuesday

PEDESTRIANS

	North Leg California Avenue Pedestrians	East Leg 5th Street Pedestrians	South Leg California Avenue Pedestrians	West Leg 5th Street Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	1	1	0	0	2
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	1	0	0	1
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	2	0	0	3

	North Leg California Avenue Pedestrians	East Leg 5th Street Pedestrians	South Leg California Avenue Pedestrians	West Leg 5th Street Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Beaumont
 N/S: California Avenue
 E/W: 5th Street



Date: 11/19/2019
 Day: Tuesday

BICYCLES

	Southbound California Avenue			Westbound 5th Street			Northbound California Avenue			Eastbound 5th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	0	0	0	0	0	0	0	0	1

	Southbound California Avenue			Westbound 5th Street			Northbound California Avenue			Eastbound 5th Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	1	0	0	0	0	1	0	0	0	0	3

Counts Unlimited, Inc

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CRV003
Site Code: 051-19803

County of Riverside
Jack Rabbit Trail
S/ Frontage Road
24 Hour Directional Classification Count

Northbound														
Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/19/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	0	0	0	0	0	1	0	0	0	0	0	1
07:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
08:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
09:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	2	2	0	0	0	0	0	0	0	0	0	0	4
14:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
15:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
16:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
17:00	0	1	1	0	2	0	0	0	0	0	0	0	0	4
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
21:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	16	8	0	3	0	0	1	0	0	0	0	0	28
Percent	0.0%	57.1%	28.6%	0.0%	10.7%	0.0%	0.0%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	11:00	07:00	06:00									11:00
Vol.	3	2	2	1	1									5
PM Peak	13:00	13:00	13:00	17:00										13:00
Vol.	2	2	2	2										4
Grand Total	0	16	8	0	3	0	0	1	0	0	0	0	0	28
Percent	0.0%	57.1%	28.6%	0.0%	10.7%	0.0%	0.0%	3.6%	0.0%	0.0%	0.0%	0.0%	0.0%	

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CRV003
Site Code: 051-19803

County of Riverside
Jack Rabbit Trail
S/ Frontage Road
24 Hour Directional Classification Count

Southbound														
Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/19/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	1	0	0	2	0	0	0	0	0	0	0	0	3
06:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
07:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
08:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
09:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00	0	1	1	0	1	0	0	0	0	0	0	0	0	3
11:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
14:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
15:00	0	1	2	0	2	0	0	1	0	0	0	0	0	6
16:00	0	2	0	0	0	0	0	1	0	0	0	0	0	3
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
21:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	10	8	0	7	0	0	2	0	0	0	0	0	27
Percent	0.0%	37.0%	29.6%	0.0%	25.9%	0.0%	0.0%	7.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	05:00	05:00	06:00		05:00									05:00
Vol.	1	1	1		2									3
PM Peak	16:00	16:00	15:00		15:00									15:00
Vol.	2	2	2		2			1						6
Grand Total	0	10	8	0	7	0	0	2	0	0	0	0	0	27
Percent	0.0%	37.0%	29.6%	0.0%	25.9%	0.0%	0.0%	7.4%	0.0%	0.0%	0.0%	0.0%	0.0%	

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CRV003
Site Code: 051-19803

County of Riverside
Jack Rabbit Trail
S/ Frontage Road
24 Hour Directional Classification Count

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/19/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	1	0	0	2	0	0	0	0	0	0	0	0	3
06:00	0	1	1	0	0	0	0	1	0	0	0	0	0	3
07:00	0	1	1	0	1	0	0	0	0	0	0	0	0	3
08:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
09:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
10:00	0	1	1	0	1	0	0	0	0	0	0	0	0	3
11:00	0	4	3	0	0	0	0	0	0	0	0	0	0	7
12 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	2	2	0	1	0	0	0	0	0	0	0	0	5
14:00	0	3	1	0	0	0	0	0	0	0	0	0	0	4
15:00	0	3	3	0	2	0	0	1	0	0	0	0	0	9
16:00	0	4	1	0	0	0	0	1	0	0	0	0	0	6
17:00	0	1	1	0	2	0	0	0	0	0	0	0	0	4
18:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
21:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	26	16	0	10	0	0	3	0	0	0	0	0	55
Percent	0.0%	47.3%	29.1%	0.0%	18.2%	0.0%	0.0%	5.5%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	11:00	11:00	11:00	05:00	06:00	06:00	06:00	06:00	06:00	06:00	06:00	06:00	06:00	11:00
Vol.	4	3	3	2	1	1	1	1	1	1	1	1	1	7
PM Peak	16:00	15:00	15:00	15:00	15:00	15:00	15:00	15:00	15:00	15:00	15:00	15:00	15:00	15:00
Vol.	4	3	3	2	1	1	1	1	1	1	1	1	1	9
Grand Total	0	26	16	0	10	0	0	3	0	0	0	0	0	55
Percent	0.0%	47.3%	29.1%	0.0%	18.2%	0.0%	0.0%	5.5%	0.0%	0.0%	0.0%	0.0%	0.0%	

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CRV001
Site Code: 051-19803

County of Riverside
Oak Valley Parkway
E/ Desert Lawn Drive
24 Hour Directional Classification Count

Eastbound														
Start Time	Cars & Trailers		2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/19/19	0	12	3	0	5	0	0	0	0	0	0	0	0	20
01:00	0	5	4	0	2	0	0	0	0	0	0	0	0	11
02:00	0	15	3	0	3	0	0	0	0	0	0	0	0	21
03:00	0	29	12	0	4	0	0	0	0	0	0	0	0	45
04:00	0	51	28	1	16	0	0	0	0	0	0	0	0	96
05:00	0	117	46	0	21	0	0	0	0	0	0	0	0	184
06:00	1	313	77	1	35	1	0	0	0	0	0	0	0	428
07:00	4	455	143	4	52	2	1	2	1	0	0	1	0	665
08:00	1	284	66	0	26	4	0	5	2	0	0	0	0	388
09:00	1	219	70	3	28	2	0	0	4	0	0	0	0	327
10:00	0	215	77	1	26	1	0	3	4	0	0	0	0	327
11:00	3	196	85	0	31	2	0	3	2	1	0	0	0	323
12 PM	0	270	89	3	36	1	0	1	4	0	0	0	0	404
13:00	0	240	87	4	44	1	0	4	1	0	0	0	0	381
14:00	6	245	94	0	38	0	0	2	2	0	0	0	0	387
15:00	3	270	96	2	51	5	1	3	1	0	0	0	0	432
16:00	1	242	96	4	26	0	0	3	0	0	0	0	0	372
17:00	4	278	90	0	26	0	0	0	0	0	0	0	0	398
18:00	2	199	54	1	23	1	0	1	0	0	0	0	0	281
19:00	0	150	37	0	16	1	0	2	0	0	0	0	0	206
20:00	2	134	15	0	0	0	0	0	0	0	0	0	0	151
21:00	0	71	6	0	3	1	0	0	0	0	0	0	0	81
22:00	0	48	11	0	3	0	0	0	0	0	0	0	0	62
23:00	0	34	5	0	2	0	0	0	0	0	0	0	0	41
Total	28	4092	1294	24	517	22	2	29	21	1	0	1	0	6031
Percent	0.5%	67.8%	21.5%	0.4%	8.6%	0.4%	0.0%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	07:00	07:00	08:00	07:00	08:00	09:00	11:00		07:00		07:00
Vol.	4	455	143	4	52	4	1	5	4	1		1		665
PM Peak	14:00	17:00	15:00	13:00	15:00	15:00	15:00	13:00	12:00					15:00
Vol.	6	278	96	4	51	5	1	4	4					432
Grand Total	28	4092	1294	24	517	22	2	29	21	1	0	1	0	6031
Percent	0.5%	67.8%	21.5%	0.4%	8.6%	0.4%	0.0%	0.5%	0.3%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc

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CRV001
Site Code: 051-19803

County of Riverside
Oak Valley Parkway
E/ Desert Lawn Drive
24 Hour Directional Classification Count

Westbound														
Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/19/19	0	29	4	0	0	0	0	0	0	0	0	0	0	33
01:00	0	23	4	0	1	0	0	0	0	0	0	0	0	28
02:00	1	22	3	0	1	1	0	0	0	0	0	0	0	28
03:00	1	58	22	1	2	1	0	0	1	0	1	0	0	87
04:00	0	86	17	1	10	0	0	0	0	0	1	0	0	115
05:00	0	38	22	1	10	0	0	0	0	0	0	0	0	71
06:00	0	144	66	7	27	2	0	5	1	2	0	0	0	254
07:00	2	305	117	3	27	2	0	6	0	1	0	0	0	463
08:00	0	191	76	2	30	1	0	6	7	0	0	0	0	313
09:00	0	167	51	2	17	0	0	3	1	0	1	0	0	242
10:00	3	171	63	0	25	3	0	0	6	0	0	0	0	271
11:00	0	192	58	1	14	2	0	2	3	0	0	0	0	272
12 PM	3	264	70	1	31	0	0	1	1	0	0	0	0	371
13:00	1	255	72	0	23	2	0	2	1	0	0	0	0	356
14:00	4	253	87	1	20	4	0	2	0	0	0	1	0	372
15:00	1	400	125	3	34	3	0	5	2	0	0	0	0	573
16:00	1	394	106	2	23	2	1	3	0	0	0	0	0	532
17:00	2	405	116	0	24	2	0	4	0	0	0	0	0	553
18:00	1	317	81	0	17	1	0	1	0	0	0	0	0	418
19:00	0	199	116	0	26	1	0	1	0	0	0	0	0	343
20:00	5	272	23	0	2	0	0	0	0	0	0	0	0	302
21:00	1	145	16	0	3	0	0	0	0	0	0	0	0	165
22:00	1	113	12	0	3	0	0	0	0	0	0	0	0	129
23:00	0	50	7	0	3	0	0	0	0	0	0	0	0	60
Total	27	4493	1334	25	373	27	1	41	23	3	3	1	0	6351
Percent	0.4%	70.7%	21.0%	0.4%	5.9%	0.4%	0.0%	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	10:00	07:00	07:00	06:00	08:00	10:00	16:00	07:00	08:00	06:00	03:00			07:00
Vol.	3	305	117	7	30	3		6	7	2	1			463
PM Peak	20:00	17:00	15:00	15:00	15:00	14:00	16:00	15:00	15:00			14:00		15:00
Vol.	5	405	125	3	34	4	1	5	2			1		573
Grand Total	27	4493	1334	25	373	27	1	41	23	3	3	1	0	6351
Percent	0.4%	70.7%	21.0%	0.4%	5.9%	0.4%	0.0%	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc

County of Riverside
Oak Valley Parkway
E/ Desert Lawn Drive
24 Hour Directional Classification Count

PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

CRV001
Site Code: 051-19803

Eastbound, Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/19/19	0	41	7	0	5	0	0	0	0	0	0	0	0	53
01:00	0	28	8	0	3	0	0	0	0	0	0	0	0	39
02:00	1	37	6	0	4	1	0	0	0	0	0	0	0	49
03:00	1	87	34	1	6	1	0	0	1	0	1	0	0	132
04:00	0	137	45	2	26	0	0	0	0	0	1	0	0	211
05:00	0	155	68	1	31	0	0	0	0	0	1	0	0	255
06:00	1	457	143	8	62	3	0	5	1	2	0	0	0	682
07:00	6	760	260	7	79	4	1	8	1	1	0	1	0	1128
08:00	1	475	142	2	56	5	0	11	9	0	0	0	0	701
09:00	1	386	121	5	45	2	0	3	5	0	1	0	0	569
10:00	3	386	140	1	51	4	0	3	10	0	0	0	0	598
11:00	3	388	143	1	45	4	0	5	5	1	0	0	0	595
12 PM	3	534	159	4	67	1	0	2	5	0	0	0	0	775
13:00	1	495	159	4	67	3	0	6	2	0	0	0	0	737
14:00	10	498	181	1	58	4	0	4	2	0	0	1	0	759
15:00	4	670	221	5	85	8	1	8	3	0	0	0	0	1005
16:00	2	636	202	6	49	2	1	6	0	0	0	0	0	904
17:00	6	683	206	0	50	2	0	4	0	0	0	0	0	951
18:00	3	516	135	1	40	2	0	2	0	0	0	0	0	699
19:00	0	349	153	0	42	2	0	3	0	0	0	0	0	549
20:00	7	406	38	0	2	0	0	0	0	0	0	0	0	453
21:00	1	216	22	0	6	1	0	0	0	0	0	0	0	246
22:00	1	161	23	0	6	0	0	0	0	0	0	0	0	191
23:00	0	84	12	0	5	0	0	0	0	0	0	0	0	101
Total	55	8585	2628	49	890	49	3	70	44	4	3	2	0	12382
Percent	0.4%	69.3%	21.2%	0.4%	7.2%	0.4%	0.0%	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	06:00	07:00	08:00	07:00	08:00	10:00	06:00	03:00	07:00		07:00
Vol.	6	760	260	8	79	5	1	11	10	2	1	1		1128
PM Peak	14:00	17:00	15:00	16:00	15:00	15:00	15:00	15:00	12:00			14:00		15:00
Vol.	10	683	221	6	85	8	1	8	5			1		1005
Grand Total	55	8585	2628	49	890	49	3	70	44	4	3	2	0	12382
Percent	0.4%	69.3%	21.2%	0.4%	7.2%	0.4%	0.0%	0.6%	0.4%	0.0%	0.0%	0.0%	0.0%	

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CRV002
Site Code: 051-19803

County of Riverside
Portero Boulevard
N/ 4th Street
24 Hour Directional Classification Count

Northbound														
Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/19/19	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
06:00	0	1	2	0	1	0	0	0	0	0	0	0	0	4
07:00	0	0	1	0	0	0	0	0	1	0	0	0	0	2
08:00	0	0	1	0	1	1	0	0	2	0	0	0	0	5
09:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
10:00	0	3	2	0	0	0	0	0	0	0	0	0	0	5
11:00	0	3	3	0	0	0	0	0	0	0	0	0	0	6
12 PM	0	5	0	0	0	0	0	0	0	0	0	0	0	5
13:00	0	4	4	0	0	0	0	0	0	0	0	0	0	8
14:00	0	2	3	0	3	0	0	0	0	0	0	0	0	8
15:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
16:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
17:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	30	20	0	5	1	0	0	3	0	0	0	0	59
Percent	0.0%	50.8%	33.9%	0.0%	8.5%	1.7%	0.0%	0.0%	5.1%	0.0%	0.0%	0.0%	0.0%	
AM Peak		10:00	11:00		06:00	08:00			08:00					11:00
Vol.		3	3		1	1			2					6
PM Peak		12:00	13:00		14:00									13:00
Vol.		5	4		3									8
Grand Total	0	30	20	0	5	1	0	0	3	0	0	0	0	59
Percent	0.0%	50.8%	33.9%	0.0%	8.5%	1.7%	0.0%	0.0%	5.1%	0.0%	0.0%	0.0%	0.0%	

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CRV002
Site Code: 051-19803

County of Riverside
Portero Boulevard
N/ 4th Street
24 Hour Directional Classification Count

Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi	Total
11/19/19	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
06:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
07:00	0	1	2	0	0	0	0	0	2	0	0	0	0	5
08:00	0	2	1	0	1	0	0	0	2	0	0	0	0	6
09:00	0	0	0	0	1	1	0	0	1	0	0	0	0	3
10:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
11:00	0	2	0	0	1	0	0	0	0	0	0	0	0	3
12 PM	0	2	1	0	1	0	0	0	0	0	0	0	0	4
13:00	0	5	1	0	1	0	0	0	0	0	0	0	0	7
14:00	1	2	2	0	1	0	0	0	0	0	0	0	0	6
15:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
16:00	0	0	2	0	1	0	0	0	0	0	0	0	0	3
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	21	14	0	7	1	0	0	5	0	0	0	0	49
Percent	2.0%	42.9%	28.6%	0.0%	14.3%	2.0%	0.0%	0.0%	10.2%	0.0%	0.0%	0.0%	0.0%	
AM Peak	08:00	08:00	07:00		08:00	09:00			07:00					08:00
Vol.	2	2	2		1	1			2					6
PM Peak	14:00	13:00	14:00		12:00									13:00
Vol.	1	5	2		1									7
Grand Total	1	21	14	0	7	1	0	0	5	0	0	0	0	49
Percent	2.0%	42.9%	28.6%	0.0%	14.3%	2.0%	0.0%	0.0%	10.2%	0.0%	0.0%	0.0%	0.0%	

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County of Riverside
Portero Boulevard
N/ 4th Street
24 Hour Directional Classification Count

Northbound, Southbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
11/19/19	0	2	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
06:00	0	1	3	0	1	0	0	0	0	0	0	0	0	5
07:00	0	1	3	0	0	0	0	0	3	0	0	0	0	7
08:00	0	2	2	0	2	1	0	0	4	0	0	0	0	11
09:00	0	1	0	0	1	1	0	0	1	0	0	0	0	4
10:00	0	3	4	0	0	0	0	0	0	0	0	0	0	7
11:00	0	5	3	0	1	0	0	0	0	0	0	0	0	9
12 PM	0	7	1	0	1	0	0	0	0	0	0	0	0	9
13:00	0	9	5	0	1	0	0	0	0	0	0	0	0	15
14:00	1	4	5	0	4	0	0	0	0	0	0	0	0	14
15:00	0	9	2	0	0	0	0	0	0	0	0	0	0	11
16:00	0	1	3	0	1	0	0	0	0	0	0	0	0	5
17:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
18:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
19:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	51	34	0	12	2	0	0	8	0	0	0	0	108
Percent	0.9%	47.2%	31.5%	0.0%	11.1%	1.9%	0.0%	0.0%	7.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak		11:00	10:00		08:00	08:00			08:00					08:00
Vol.		5	4		2	1			4					11
PM Peak	14:00	13:00	13:00		14:00									13:00
Vol.	1	9	5		4									15
Grand Total	1	51	34	0	12	2	0	0	8	0	0	0	0	108
Percent	0.9%	47.2%	31.5%	0.0%	11.1%	1.9%	0.0%	0.0%	7.4%	0.0%	0.0%	0.0%	0.0%	

Volume Comparison - 2023 OY vs. May 2022 Counts

AM Peak Hour:

2. Potrero Boulevard & Oak Valley Parkway

	<u>NBL</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>SBR</u>	<u>EBL</u>	<u>EBT</u>	<u>EBR</u>	<u>WBL</u>	<u>WBT</u>	<u>WBR</u>	<u>TOTAL</u>
Traffic Study: OY 2023	42	0	155	0	0	0	0	235	29	154	254	0	869
Counts: May 2022	53	0	176	0	0	0	0	190	46	142	88	0	695

Variance: 25%

4. Potrero Boulevard & 4th Street

	<u>NBL</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>SBR</u>	<u>EBL</u>	<u>EBT</u>	<u>EBR</u>	<u>WBL</u>	<u>WBT</u>	<u>WBR</u>	<u>TOTAL</u>
Traffic Study: OY 2023	0	0	0	138	0	295	80	19	0	1	45	24	602
Counts: May 2022	0	0	0	243	0	8	8	13	0	0	15	61	348

Variance: 73%

7. I-10 EB Ramps & Oak Valley Parkway

	<u>NBL</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>SBR</u>	<u>EBL</u>	<u>EBT</u>	<u>EBR</u>	<u>WBL</u>	<u>WBT</u>	<u>WBR</u>	<u>TOTAL</u>
Traffic Study: OY 2023	0	0	0	258	3	124	0	460	469	260	575	0	2,149
Counts: May 2022	0	0	0	261	0	74	0	368	265	202	358	0	1,528

Variance: 41%

8. I-10 WB Ramps & Oak Valley Parkway

	<u>NBL</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>SBR</u>	<u>EBL</u>	<u>EBT</u>	<u>EBR</u>	<u>WBL</u>	<u>WBT</u>	<u>WBR</u>	<u>TOTAL</u>
Traffic Study: OY 2023	343	4	379	0	0	0	150	567	0	0	493	445	2,380
Counts: May 2022	157	0	169	0	0	0	192	437	0	0	403	639	1,997

Variance: 19%

11. California Avenue & 6th Street

	<u>NBL</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>SBR</u>	<u>EBL</u>	<u>EBT</u>	<u>EBR</u>	<u>WBL</u>	<u>WBT</u>	<u>WBR</u>	<u>TOTAL</u>
Traffic Study: OY 2023	409	87	53	46	127	4	4	289	119	140	288	20	1,586
Counts: May 2022	328	77	75	29	65	7	6	269	108	77	266	15	1,322

Variance: 20%

13. California Avenue & 4th Street

	<u>NBL</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>SBR</u>	<u>EBL</u>	<u>EBT</u>	<u>EBR</u>	<u>WBL</u>	<u>WBT</u>	<u>WBR</u>	<u>TOTAL</u>
Traffic Study: OY 2023	70	819	0	0	182	218	73	0	22	0	0	0	1,384
Counts: May 2022	17	535	0	0	170	149	78	0	17	0	0	0	966

Variance: 43%

PM Peak Hour:**2. Potrero Boulevard & Oak Valley Parkway**

	<u>NBL</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>SBR</u>	<u>EBL</u>	<u>EBT</u>	<u>EBR</u>	<u>WBL</u>	<u>WBT</u>	<u>WBR</u>	<u>TOTAL</u>
Traffic Study: OY 2023	95	0	193	0	0	0	0	192	30	129	266	0	904
Counts: May 2022	73	0	234	0	0	0	0	121	57	175	150	0	810

Variance: 12%

4. Potrero Boulevard & 4th Street

	<u>NBL</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>SBR</u>	<u>EBL</u>	<u>EBT</u>	<u>EBR</u>	<u>WBL</u>	<u>WBT</u>	<u>WBR</u>	<u>TOTAL</u>
Traffic Study: OY 2023	0	0	0	124	0	120	328	57	0	0	18	177	823
Counts: May 2022	0	0	0	242	0	2	5	7	0	0	5	278	539

Variance: 53%

7. I-10 EB Ramps & Oak Valley Parkway

	<u>NBL</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>SBR</u>	<u>EBL</u>	<u>EBT</u>	<u>EBR</u>	<u>WBL</u>	<u>WBT</u>	<u>WBR</u>	<u>TOTAL</u>
Traffic Study: OY 2023	0	0	0	509	1	195	0	395	241	163	641	0	2,145
Counts: May 2022	0	0	0	502	5	160	0	351	193	141	412	0	1,764

Variance: 22%

8. I-10 WB Ramps & Oak Valley Parkway

	<u>NBL</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>SBR</u>	<u>EBL</u>	<u>EBT</u>	<u>EBR</u>	<u>WBL</u>	<u>WBT</u>	<u>WBR</u>	<u>TOTAL</u>
Traffic Study: OY 2023	379	4	298	0	0	0	177	726	0	0	426	291	2,301
Counts: May 2022	239	3	249	0	0	0	145	708	0	0	314	301	1,959

Variance: 17%

11. California Avenue & 6th Street

	<u>NBL</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>SBR</u>	<u>EBL</u>	<u>EBT</u>	<u>EBR</u>	<u>WBL</u>	<u>WBT</u>	<u>WBR</u>	<u>TOTAL</u>
Traffic Study: OY 2023	271	103	130	14	57	11	20	459	174	142	272	11	1,661
Counts: May 2022	227	61	66	20	57	7	14	474	162	92	335	21	1,536

Variance: 8%

13. California Avenue & 4th Street

	<u>NBL</u>	<u>NBT</u>	<u>NBR</u>	<u>SBL</u>	<u>SBT</u>	<u>SBR</u>	<u>EBL</u>	<u>EBT</u>	<u>EBR</u>	<u>WBL</u>	<u>WBT</u>	<u>WBR</u>	<u>TOTAL</u>
Traffic Study: OY 2023	51	505	0	0	978	185	196	0	92	0	0	0	2,007
Counts: May 2022	34	309	0	0	245	145	160	0	44	0	0	0	937

Variance: 114%

APPENDIX 3.2:

EXISTING (2020) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	183	21	57	200	28	86
Future Vol, veh/h	183	21	57	200	28	86
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	213	24	66	233	33	100
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	8.9	8.3	8.9
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	86	92	92	21	57	100	100
LT Vol	28	0	0	0	0	57	0	0
Through Vol	0	0	92	92	0	0	100	100
RT Vol	0	86	0	0	21	0	0	0
Lane Flow Rate	33	100	106	106	24	66	116	116
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.057	0.14	0.16	0.16	0.02	0.108	0.173	0.118
Departure Headway (Hd)	6.251	5.053	5.423	5.423	3.01	5.86	5.358	3.649
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	570	704	658	658	1172	610	667	974
Service Time	4.018	2.821	3.185	3.185	0.772	3.613	3.11	1.401
HCM Lane V/C Ratio	0.058	0.142	0.161	0.161	0.02	0.108	0.174	0.119
HCM Control Delay	9.4	8.7	9.2	9.2	5.8	9.3	9.2	6.9
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.5	0.6	0.6	0.1	0.4	0.6	0.4

Intersection

Intersection Delay, s/veh 7.3

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	9	0	51	0	2	5	43	6	0
Future Vol, veh/h	0	0	0	9	0	51	0	2	5	43	6	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	14	0	78	0	3	8	66	9	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7	6.8	7.7
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	15%	88%
Vol Thru, %	29%	0%	12%
Vol Right, %	71%	85%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	7	60	49
LT Vol	0	9	43
Through Vol	2	0	6
RT Vol	5	51	0
Lane Flow Rate	11	92	75
Geometry Grp	1	1	1
Degree of Util (X)	0.011	0.092	0.089
Departure Headway (Hd)	3.69	3.569	4.246
Convergence, Y/N	Yes	Yes	Yes
Cap	966	998	845
Service Time	1.729	1.614	2.267
HCM Lane V/C Ratio	0.011	0.092	0.089
HCM Control Delay	6.8	7	7.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.3	0.3

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/05/2023



Lane Group	EBT	WBT	WBR	SBL	Ø7
Lane Configurations	↑↑	↑	↗	↘	
Traffic Volume (vph)	8	6	14	11	
Future Volume (vph)	8	6	14	11	
Turn Type	NA	NA	Perm	Prot	
Protected Phases	4	8		6	7
Permitted Phases			8		
Detector Phase	4	8	8	6	
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	15.8	27.8	27.8	28.2	9.6
Total Split (s)	72.6	63.0	63.0	47.4	9.6
Total Split (%)	60.5%	52.5%	52.5%	39.5%	8%
Yellow Time (s)	4.8	4.8	4.8	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.8	5.8	5.8	6.2	
Lead/Lag		Lag	Lag		Lead
Lead-Lag Optimize?		Yes	Yes		Yes
Recall Mode	None	None	None	Min	None

Intersection Summary

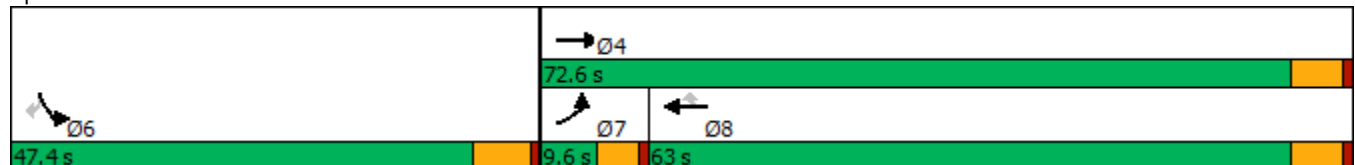
Cycle Length: 120

Actuated Cycle Length: 32.2

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

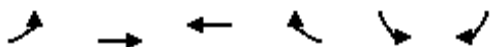
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/05/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	0	8	6	14	11	0	
Future Volume (veh/h)	0	8	6	14	11	0	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	0	12	9	21	16	0	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	7	366	193	163	1434	658	
Arrive On Green	0.00	0.10	0.10	0.10	0.41	0.00	
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610	
Grp Volume(v), veh/h	0	12	9	21	16	0	
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610	
Q Serve(g_s), s	0.0	0.1	0.1	0.3	0.1	0.0	
Cycle Q Clear(g_c), s	0.0	0.1	0.1	0.3	0.1	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	7	366	193	163	1434	658	
V/C Ratio(X)	0.00	0.03	0.05	0.13	0.01	0.00	
Avail Cap(c_a), veh/h	370	9849	4439	3762	5907	2709	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	0.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	0.0	9.9	9.9	10.0	4.3	0.0	
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.4	0.0	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	0.0	9.9	10.0	10.4	4.3	0.0	
LnGrp LOS	A	A	B	B	A	A	
Approach Vol, veh/h		12	30		16		
Approach Delay, s/veh		9.9	10.3		4.3		
Approach LOS		A	B		A		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				8.3	16.2	0.0	8.3
Change Period (Y+Rc), s				5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s				66.8	41.2	5.0	57.2
Max Q Clear Time (g_c+I1), s				2.1	2.1	0.0	2.3
Green Ext Time (p_c), s				0.0	0.0	0.0	0.1
Intersection Summary							
HCM 6th Ctrl Delay			8.6				
HCM 6th LOS			A				

Intersection

Intersection Delay, s/veh 58.5

Intersection LOS F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	49	271	228	307	458	42
Future Vol, veh/h	49	271	228	307	458	42
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	56	311	262	353	526	48
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	25	14.1	127.4
HCM LOS	C	B	F

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	92%
Vol Thru, %	0%	100%	100%	100%	13%	0%
Vol Right, %	0%	0%	0%	0%	87%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	49	271	91	91	353	500
LT Vol	49	0	0	0	0	458
Through Vol	0	271	91	91	46	0
RT Vol	0	0	0	0	307	42
Lane Flow Rate	56	311	105	105	405	575
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.13	0.675	0.211	0.211	0.556	1.185
Departure Headway (Hd)	9.012	8.487	7.887	7.887	5.487	7.421
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	400	430	458	458	661	489
Service Time	6.712	6.187	5.587	5.587	3.187	5.172
HCM Lane V/C Ratio	0.14	0.723	0.229	0.229	0.613	1.176
HCM Control Delay	13.1	27.1	12.7	12.7	14.8	127.4
HCM Lane LOS	B	D	B	B	B	F
HCM 95th-tile Q	0.4	4.9	0.8	0.8	3.4	21.2

Intersection												
Int Delay, s/veh	8.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰			↱			↕			↕	
Traffic Vol, veh/h	0	5	40	0	16	0	36	0	1	0	0	0
Future Vol, veh/h	0	5	40	0	16	0	36	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	8	62	0	25	0	55	0	2	0	0	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	-	114	2	148	113	-	2	0	0	2	0	0
Stage 1	-	2	-	111	111	-	-	-	-	-	-	-
Stage 2	-	112	-	37	2	-	-	-	-	-	-	-
Critical Hdwy	-	6.5	6.2	7.1	6.5	-	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	4	3.3	3.5	4	-	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	780	1088	825	781	0	1634	-	-	1634	-	-
Stage 1	0	898	-	899	807	0	-	-	-	-	-	-
Stage 2	0	807	-	984	898	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	753	1088	752	754	-	1634	-	-	1634	-	-
Mov Cap-2 Maneuver	-	753	-	752	754	-	-	-	-	-	-	-
Stage 1	-	898	-	868	780	-	-	-	-	-	-	-
Stage 2	-	780	-	920	898	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.7		9.9			7.1			0			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1634	-	-	1037	754	1634	-	-				
HCM Lane V/C Ratio	0.034	-	-	0.067	0.033	-	-	-				
HCM Control Delay (s)	7.3	0	-	8.7	9.9	0	-	-				
HCM Lane LOS	A	A	-	A	A	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-	-				

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/06/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	↶	↷	↱
Traffic Volume (vph)	315	235	491	3
Future Volume (vph)	315	235	491	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	43.1	14.5	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	0.92	0.91	0.42	0.95
Control Delay	36.5	64.9	3.8	74.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	36.5	64.9	3.8	74.9
LOS	D	E	A	E
Approach Delay	36.5		23.6	74.9
Approach LOS	D		C	E

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 37.2

Intersection LOS: D

Intersection Capacity Utilization 84.0%

ICU Level of Service E

Analysis Period (min) 15

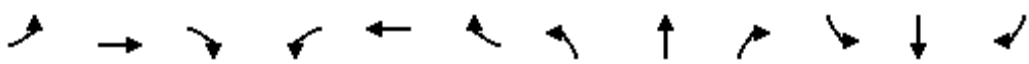
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/06/2020

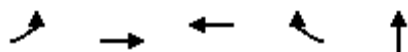
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩	
Traffic Volume (veh/h)	0	315	414	235	491	0	0	0	0	229	3	45
Future Volume (veh/h)	0	315	414	235	491	0	0	0	0	229	3	45
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	354	378	264	552	0				257	3	32
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	402	429	292	1313	0				283	3	35
Arrive On Green	0.00	0.48	0.48	0.32	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	841	898	1810	1900	0				1572	18	196
Grp Volume(v), veh/h	0	0	732	264	552	0				292	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1738	1810	1900	0				1786	0	0
Q Serve(g_s), s	0.0	0.0	34.1	12.5	0.0	0.0				14.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	34.1	12.5	0.0	0.0				14.4	0.0	0.0
Prop In Lane	0.00		0.52	1.00		0.00				0.88		0.11
Lane Grp Cap(c), veh/h	0	0	832	292	1313	0				322	0	0
V/C Ratio(X)	0.00	0.00	0.88	0.90	0.42	0.00				0.91	0.00	0.00
Avail Cap(c_a), veh/h	0	0	832	298	1313	0				322	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	0.42	0.42	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	21.1	29.8	0.0	0.0				36.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	12.8	14.4	0.4	0.0				28.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	15.0	5.4	0.2	0.0				8.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	34.0	44.1	0.4	0.0				64.4	0.0	0.0
LnGrp LOS	A	A	C	D	A	A				E	A	A
Approach Vol, veh/h		732			816						292	
Approach Delay, s/veh		34.0			14.6						64.4	
Approach LOS		C			B						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.1	48.9		22.0		68.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2						
Max Q Clear Time (g_c+l1), s	14.5	36.1		16.4		2.0						
Green Ext Time (p_c), s	0.0	2.6		0.0		3.6						
Intersection Summary												
HCM 6th Ctrl Delay			30.2									
HCM 6th LOS			C									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/06/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	84	459	413	394	4
Future Volume (vph)	84	459	413	394	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	11.8	42.8	31.0	31.0	47.2
Total Split (%)	13.1%	47.6%	34.4%	34.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	6.8	33.1	23.6	23.6	45.3
Actuated g/C Ratio	0.08	0.37	0.26	0.26	0.50
v/c Ratio	0.63	0.67	0.85	0.56	0.75
Control Delay	51.3	16.6	48.0	6.1	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	51.3	16.6	48.0	6.1	23.5
LOS	D	B	D	A	C
Approach Delay		22.0	27.5		23.5
Approach LOS		C	C		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 24.7

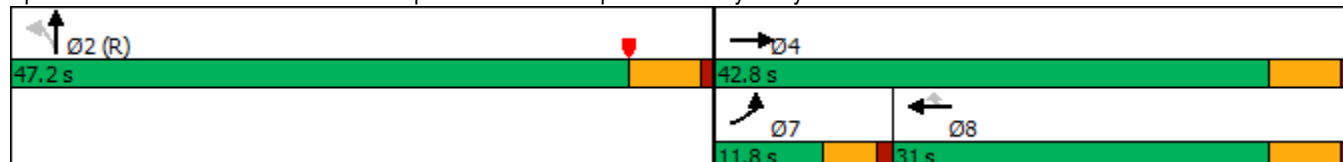
Intersection LOS: C

Intersection Capacity Utilization 84.0%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/06/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	459	0	0	413	394	313	4	348	0	0	0
Future Volume (veh/h)	84	459	0	0	413	394	313	4	348	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	86	468	0	0	421	286	319	4	233			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	111	689	0	0	475	403	502	6	367			
Arrive On Green	0.02	0.12	0.00	0.00	0.25	0.25	0.51	0.51	0.51			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	987	12	721			
Grp Volume(v), veh/h	86	468	0	0	421	286	556	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1721	0	0			
Q Serve(g_s), s	4.3	21.2	0.0	0.0	19.2	14.6	21.1	0.0	0.0			
Cycle Q Clear(g_c), s	4.3	21.2	0.0	0.0	19.2	14.6	21.1	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.57		0.42			
Lane Grp Cap(c), veh/h	111	689	0	0	475	403	875	0	0			
V/C Ratio(X)	0.77	0.68	0.00	0.00	0.89	0.71	0.64	0.00	0.00			
Avail Cap(c_a), veh/h	145	781	0	0	532	451	875	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.28	0.28	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.5	34.6	0.0	0.0	32.5	30.8	16.1	0.0	0.0			
Incr Delay (d2), s/veh	3.8	0.6	0.0	0.0	15.2	4.5	3.5	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.0	10.7	0.0	0.0	10.2	5.8	8.0	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.2	35.2	0.0	0.0	47.7	35.3	19.6	0.0	0.0			
LnGrp LOS	D	D	A	A	D	D	B	A	A			
Approach Vol, veh/h	554			707			556					
Approach Delay, s/veh	37.0			42.7			19.6					
Approach LOS	D			D			B					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	51.5			38.5			10.1			28.3		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	41.4			37.0			7.2			25.2		
Max Q Clear Time (g_c+I1), s	23.1			23.2			6.3			21.2		
Green Ext Time (p_c), s	3.3			2.2			0.0			1.3		
Intersection Summary												
HCM 6th Ctrl Delay	33.9											
HCM 6th LOS	C											

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑				↗			↗
Traffic Vol, veh/h	0	505	138	149	845	25	0	0	59	0	61	151
Future Vol, veh/h	0	505	138	149	845	25	0	0	59	0	61	151
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	555	152	164	929	27	0	0	65	0	67	166
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	707	0	0	-	-	354	-	1978	478
Stage 1	-	-	-	-	-	-	-	-	-	-	1271	-
Stage 2	-	-	-	-	-	-	-	-	-	-	707	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	4	3.3
Pot Cap-1 Maneuver	0	-	-	901	-	-	0	0	648	0	~ 63	539
Stage 1	0	-	-	-	-	-	0	0	-	0	241	-
Stage 2	0	-	-	-	-	-	0	0	-	0	441	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	901	-	-	-	-	648	-	~ 52	539
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	~ 52	-
Stage 1	-	-	-	-	-	-	-	-	-	-	197	-
Stage 2	-	-	-	-	-	-	-	-	-	-	441	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.4			11.2			14.6		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	648	-	-	901	-	-	539					
HCM Lane V/C Ratio	0.1	-	-	0.182	-	-	0.308					
HCM Control Delay (s)	11.2	-	-	9.9	-	-	14.6					
HCM Lane LOS	B	-	-	A	-	-	B					
HCM 95th %tile Q(veh)	0.3	-	-	0.7	-	-	1.3					
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon			

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	28	22	3	53	19	68	27	6	21	29	65
Future Volume (vph)	31	28	22	3	53	19	68	27	6	21	29	65
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	21.0	43.0	43.0	15.0	37.0	37.0	31.0	43.0	43.0	19.0	31.0	31.0
Total Split (%)	17.5%	35.8%	35.8%	12.5%	30.8%	30.8%	25.8%	35.8%	35.8%	15.8%	25.8%	25.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 41.1

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Veile Av. & 4th St.

 Ø1	 Ø2	 Ø3	 Ø4
19 s	43 s	15 s	43 s
 Ø5	 Ø6	 Ø7	 Ø8
31 s	31 s	21 s	37 s

HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	28	22	3	53	19	68	27	6	21	29	65
Future Volume (veh/h)	31	28	22	3	53	19	68	27	6	21	29	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	41	37	29	4	71	25	91	36	8	28	39	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	444	376	10	370	313	137	504	427	59	423	
Arrive On Green	0.04	0.23	0.23	0.01	0.19	0.19	0.08	0.27	0.27	0.03	0.22	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	41	37	29	4	71	25	91	36	8	28	39	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	1.0	0.7	0.6	0.1	1.4	0.6	2.2	0.6	0.2	0.7	0.7	0.0
Cycle Q Clear(g_c), s	1.0	0.7	0.6	0.1	1.4	0.6	2.2	0.6	0.2	0.7	0.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	444	376	10	370	313	137	504	427	59	423	
V/C Ratio(X)	0.51	0.08	0.08	0.41	0.19	0.08	0.67	0.07	0.02	0.47	0.09	
Avail Cap(c_a), veh/h	660	1573	1333	419	1319	1118	1063	1573	1333	580	1065	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.0	13.5	13.4	22.3	15.1	14.8	20.2	12.4	12.2	21.3	13.9	0.0
Incr Delay (d2), s/veh	1.8	0.1	0.1	9.8	0.3	0.1	2.1	0.1	0.0	2.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.2	0.2	0.1	0.5	0.2	0.8	0.2	0.0	0.3	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.8	13.5	13.5	32.1	15.4	14.9	22.3	12.4	12.2	23.5	14.0	0.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	
Approach Vol, veh/h	107			100			135			67		
Approach Delay, s/veh	17.1			15.9			19.1			17.9		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.1	17.7	4.8	16.3	8.0	15.8	6.6	14.5				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	14.4	37.2	10.4	37.2	26.4	25.2	16.4	31.2				
Max Q Clear Time (g_c+I1), s	2.7	2.6	2.1	2.7	4.2	2.7	3.0	3.4				
Green Ext Time (p_c), s	0.0	0.2	0.0	0.2	0.1	0.1	0.0	0.4				

Intersection Summary

HCM 6th Ctrl Delay 17.6

HCM 6th LOS B

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/06/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	272	113	55	272	19	382	79	43	96
Future Volume (vph)	4	272	113	55	272	19	382	79	43	96
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	26.5	26.5	10.3	27.2	27.2	29.0	42.1	11.1	24.2
Total Split (%)	10.7%	29.4%	29.4%	11.4%	30.2%	30.2%	32.2%	46.8%	12.3%	26.9%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.1	17.2	17.2	5.7	23.2	23.2	21.4	39.6	6.1	19.5
Actuated g/C Ratio	0.06	0.21	0.21	0.07	0.29	0.29	0.26	0.49	0.08	0.24
v/c Ratio	0.04	0.73	0.25	0.48	0.54	0.03	0.87	0.15	0.35	0.24
Control Delay	40.8	42.3	2.0	53.5	29.4	0.1	49.7	11.8	46.7	29.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	42.3	2.0	53.5	29.4	0.1	49.7	11.8	46.7	29.9
LOS	D	D	A	D	C	A	D	B	D	C
Approach Delay		30.6			31.6			40.1		35.0
Approach LOS		C			C			D		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 80.9

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 34.8

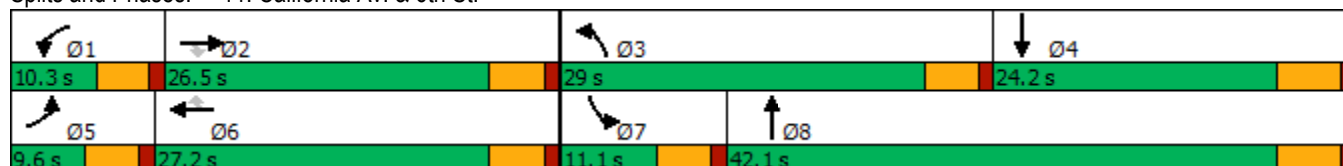
Intersection LOS: C

Intersection Capacity Utilization 64.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/06/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	272	113	55	272	19	382	79	49	43	96	4
Future Volume (veh/h)	4	272	113	55	272	19	382	79	49	43	96	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	296	122	60	296	12	415	86	31	47	104	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	365	309	84	444	376	457	631	228	74	487	9
Arrive On Green	0.01	0.19	0.19	0.05	0.23	0.23	0.25	0.47	0.47	0.04	0.26	0.26
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1333	481	1810	1858	36
Grp Volume(v), veh/h	4	296	122	60	296	12	415	0	117	47	0	106
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1814	1810	0	1894
Q Serve(g_s), s	0.2	11.6	5.2	2.5	11.0	0.4	17.3	0.0	2.8	2.0	0.0	3.4
Cycle Q Clear(g_c), s	0.2	11.6	5.2	2.5	11.0	0.4	17.3	0.0	2.8	2.0	0.0	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		0.02
Lane Grp Cap(c), veh/h	10	365	309	84	444	376	457	0	859	74	0	497
V/C Ratio(X)	0.42	0.81	0.39	0.71	0.67	0.03	0.91	0.00	0.14	0.63	0.00	0.21
Avail Cap(c_a), veh/h	116	529	449	132	546	463	567	0	859	151	0	497
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.6	30.1	27.5	36.6	27.1	23.1	28.2	0.0	11.5	36.8	0.0	22.4
Incr Delay (d2), s/veh	10.3	6.1	0.8	4.1	2.3	0.0	14.7	0.0	0.3	3.3	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	5.7	1.9	1.2	5.1	0.2	8.7	0.0	1.1	0.9	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.9	36.2	28.3	40.7	29.4	23.1	42.9	0.0	11.9	40.1	0.0	23.4
LnGrp LOS	D	D	C	D	C	C	D	A	B	D	A	C
Approach Vol, veh/h		422			368			532			153	
Approach Delay, s/veh		34.0			31.0			36.1			28.5	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	19.8	24.3	25.6	5.0	23.0	7.8	42.1				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	5.7	* 22	24.4	19.0	5.0	* 22	6.5	36.9				
Max Q Clear Time (g_c+I1), s	4.5	13.6	19.3	5.4	2.2	13.0	4.0	4.8				
Green Ext Time (p_c), s	0.0	1.4	0.3	0.3	0.0	1.2	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			33.5									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Intersection												
Int Delay, s/veh	5.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	2	3	71	19	9	29	283	506	17	12	210	2
Future Vol, veh/h	2	3	71	19	9	29	283	506	17	12	210	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	50	-	-	50
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	90	24	11	37	358	641	22	15	266	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1688	1675	266	1702	1656	641	269	0	0	663	0	0
Stage 1	296	296	-	1357	1357	-	-	-	-	-	-	-
Stage 2	1392	1379	-	345	299	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	75	96	778	73	99	478	1306	-	-	935	-	-
Stage 1	717	672	-	186	219	-	-	-	-	-	-	-
Stage 2	177	214	-	675	670	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	41	53	778	41	55	478	1306	-	-	935	-	-
Mov Cap-2 Maneuver	61	93	-	81	99	-	-	-	-	-	-	-
Stage 1	405	659	-	105	124	-	-	-	-	-	-	-
Stage 2	84	121	-	582	657	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.2		42.8		3.1		0.5	
HCM LOS	B		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1306	-	-	77	778	86	478	935	-	-
HCM Lane V/C Ratio	0.274	-	-	0.082	0.116	0.412	0.077	0.016	-	-
HCM Control Delay (s)	8.8	0	-	55.9	10.2	73.5	13.2	8.9	0	-
HCM Lane LOS	A	A	-	F	B	F	B	A	A	-
HCM 95th %tile Q(veh)	1.1	-	-	0.3	0.4	1.7	0.2	0.1	-	-

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	58	16	17	772	172	93
Future Vol, veh/h	58	16	17	772	172	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	75	21	22	1003	223	121
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1331	284	344	0	-	0
Stage 1	284	-	-	-	-	-
Stage 2	1047	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	172	760	1226	-	-	-
Stage 1	769	-	-	-	-	-
Stage 2	341	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	169	760	1226	-	-	-
Mov Cap-2 Maneuver	169	-	-	-	-	-
Stage 1	755	-	-	-	-	-
Stage 2	341	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	35.4	0.2		0		
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1226	-	169	760	-	-
HCM Lane V/C Ratio	0.018	-	0.446	0.027	-	-
HCM Control Delay (s)	8	-	42.4	9.9	-	-
HCM Lane LOS	A	-	E	A	-	-
HCM 95th %tile Q(veh)	0.1	-	2.1	0.1	-	-

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)
07/06/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	6	15	18	3	56	279	3	368
Future Volume (vph)	6	15	18	3	56	279	3	368
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		10.1		10.0	6.7	46.3	5.0	40.9
Actuated g/C Ratio		0.17		0.17	0.11	0.77	0.08	0.68
v/c Ratio		0.18		0.14	0.30	0.11	0.02	0.16
Control Delay		14.0		18.1	30.6	3.9	25.7	7.5
Queue Delay		0.0		0.0	0.1	0.2	0.0	0.1
Total Delay		14.0		18.1	30.8	4.1	25.7	7.6
LOS		B		B	C	A	C	A
Approach Delay		14.0		18.1		8.4		7.7
Approach LOS		B		B		A		A

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.30

Intersection Signal Delay: 8.8

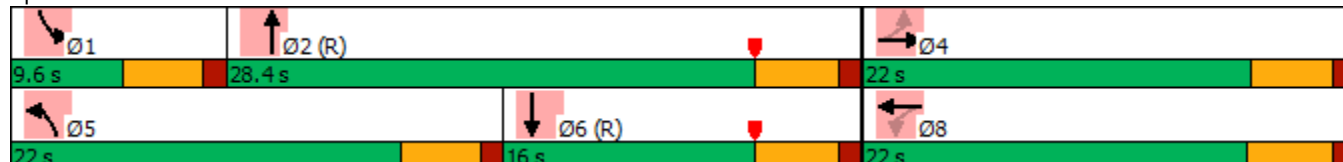
Intersection LOS: A

Intersection Capacity Utilization 34.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/06/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	15	29	18	3	10	56	279	13	3	368	2
Future Volume (veh/h)	6	15	29	18	3	10	56	279	13	3	368	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	7	16	32	20	3	11	61	303	14	3	400	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	79	127	189	42	65	96	2215	102	7	2141	11
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.11	1.00	1.00	0.00	0.58	0.58
Sat Flow, veh/h	97	610	984	730	322	503	1810	3514	162	1810	3683	18
Grp Volume(v), veh/h	55	0	0	34	0	0	61	155	162	3	196	206
Grp Sat Flow(s),veh/h/ln	1690	0	0	1556	0	0	1810	1805	1871	1810	1805	1897
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.1	3.1	3.1
Cycle Q Clear(g_c), s	1.7	0.0	0.0	1.0	0.0	0.0	1.9	0.0	0.0	0.1	3.1	3.1
Prop In Lane	0.13		0.58	0.59		0.32	1.00		0.09	1.00		0.01
Lane Grp Cap(c), veh/h	285	0	0	296	0	0	96	1138	1179	7	1049	1103
V/C Ratio(X)	0.19	0.00	0.00	0.11	0.00	0.00	0.63	0.14	0.14	0.41	0.19	0.19
Avail Cap(c_a), veh/h	552	0	0	530	0	0	525	1138	1179	151	1049	1103
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	0.0	0.0	23.2	0.0	0.0	26.2	0.0	0.0	29.8	5.9	5.9
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	2.6	0.2	0.2	12.9	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.4	0.0	0.0	0.8	0.1	0.1	0.1	1.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	0.0	0.0	23.4	0.0	0.0	28.8	0.2	0.2	42.7	6.3	6.3
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		55			34			378			405	
Approach Delay, s/veh		23.8			23.4			4.9			6.6	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	42.6		12.5	7.8	39.7		12.5				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		3.7	3.9	5.1		3.0				
Green Ext Time (p_c), s	0.0	1.8		0.2	0.0	1.2		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			7.6									
HCM 6th LOS			A									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/06/2020

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	464	9	345	216	340
Future Volume (vph)	464	9	345	216	340
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	22.0	22.0	22.0	38.0	16.0
Total Split (%)	36.7%	36.7%	36.7%	63.3%	26.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	15.4	15.4	15.4	35.0	15.0
Actuated g/C Ratio	0.26	0.26	0.26	0.58	0.25
v/c Ratio	0.77	0.68	0.81	0.11	0.50
Control Delay	33.4	23.1	42.1	5.4	16.1
Queue Delay	0.0	0.8	0.0	0.0	2.0
Total Delay	33.4	23.9	42.1	5.4	18.0
LOS	C	C	D	A	B
Approach Delay		28.8		27.9	18.0
Approach LOS		C		C	B

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 25.7

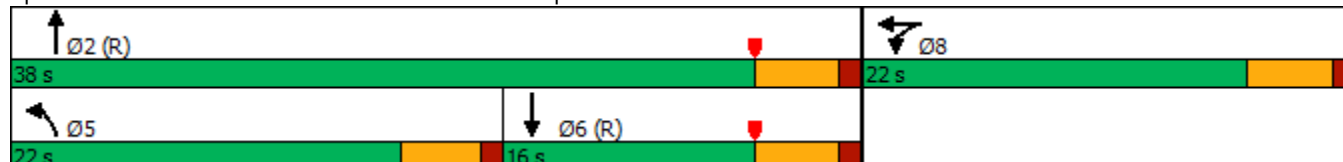
Intersection LOS: C

Intersection Capacity Utilization 59.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary

15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/06/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	340	75
Future Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	340	75
Initial Q (Qb), veh				0	0	0	75	100	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				328	256	143	375	235	0	0	370	82
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				472	299	167	525	2091	0	0	693	152
Arrive On Green				0.26	0.26	0.26	0.39	0.97	0.00	0.00	0.09	0.09
Sat Flow, veh/h				1810	1145	640	1810	3705	0	0	3039	645
Grp Volume(v), veh/h				328	0	399	375	235	0	0	225	227
Grp Sat Flow(s),veh/h/ln				1810	0	1785	1810	1805	0	0	1805	1784
Q Serve(g_s), s				9.8	0.0	12.8	11.7	0.1	0.0	0.0	7.1	7.2
Cycle Q Clear(g_c), s				9.8	0.0	12.8	11.7	0.1	0.0	0.0	7.1	7.2
Prop In Lane				1.00		0.36	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				472	0	465	525	2091	0	0	425	420
V/C Ratio(X)				0.70	0.00	0.86	0.71	0.11	0.00	0.00	0.53	0.54
Avail Cap(c_a), veh/h				519	0	512	525	2091	0	0	489	484
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.84	0.84	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.0	0.0	21.1	15.5	0.5	0.0	0.0	24.5	24.5
Incr Delay (d2), s/veh				3.6	0.0	12.7	3.3	0.1	0.0	0.0	4.6	4.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	386.1	18.5	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.0	0.0	6.1	61.1	5.5	0.0	0.0	3.7	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				23.6	0.0	33.8	404.9	19.2	0.0	0.0	29.1	29.4
LnGrp LOS				C	A	C	F	B	A	A	C	C
Approach Vol, veh/h					727			610			452	
Approach Delay, s/veh					29.2			256.3			29.2	
Approach LOS					C			F			C	
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	39.6			18.5			21.1			20.4		
Change Period (Y+Rc), s	* 4.8			4.6			* 4.8			4.8		
Max Green Setting (Gmax), s	* 33			17.4			* 11			17.2		
Max Q Clear Time (g_c+I1), s	2.1			13.7			9.2			14.8		
Green Ext Time (p_c), s	1.6			0.3			0.5			0.9		
Intersection Summary												
HCM 6th Ctrl Delay	106.7											
HCM 6th LOS	F											
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/06/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕	↗	↕	↖	↕
Traffic Volume (vph)	10	495	493	99	706
Future Volume (vph)	10	495	493	99	706
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	20.0	20.0	27.0	13.0	40.0
Total Split (%)	33.3%	33.3%	45.0%	21.7%	66.7%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	11.7	11.7	28.7	7.3	38.7
Actuated g/C Ratio	0.20	0.20	0.48	0.12	0.64
v/c Ratio	0.63	0.63	0.52	0.47	0.32
Control Delay	13.6	13.3	8.2	19.0	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.6	13.3	8.2	19.0	10.2
LOS	B	B	A	B	B
Approach Delay	13.5		8.2		11.3
Approach LOS	B		A		B

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 10.6

Intersection LOS: B

Intersection Capacity Utilization 59.9%

ICU Level of Service B

Analysis Period (min) 15

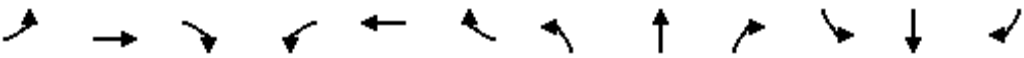
Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary 16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/06/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔					↔		↔	↔	
Traffic Volume (veh/h)	68	10	495	0	0	0	0	493	421	99	706	0
Future Volume (veh/h)	68	10	495	0	0	0	0	493	421	99	706	0
Initial Q (Qb), veh	0	0	0				0	175	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	599				0	514	439	103	735	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	423	717				0	1520	259	132	2229	0
Arrive On Green	0.00	0.00	0.22				0.00	0.47	0.47	0.15	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1940	1576	1810	3705	0
Grp Volume(v), veh/h	0	0	599				0	503	450	103	735	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1616	1810	1805	0
Q Serve(g_s), s	0.0	0.0	10.7				0.0	12.3	12.3	3.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	10.7				0.0	12.3	12.3	3.3	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.98	1.00		0.00
Lane Grp Cap(c), veh/h	0	423	717				0	845	843	132	2229	0
V/C Ratio(X)	0.00	0.00	0.84				0.00	0.60	0.53	0.78	0.33	0.00
Avail Cap(c_a), veh/h	0	481	816				0	845	756	253	2229	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(l)	0.00	0.00	1.00				0.00	1.00	1.00	0.75	0.75	0.00
Uniform Delay (d), s/veh	0.0	0.0	22.3				0.0	16.0	15.4	25.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	6.8				0.0	3.1	2.4	2.9	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	190.7	166.7	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	4.1				0.0	55.0	48.4	1.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	29.1				0.0	209.7	184.5	28.0	0.3	0.0
LnGrp LOS	A	A	C				A	F	F	C	A	A
Approach Vol, veh/h		599						953			838	
Approach Delay, s/veh		29.1						197.8			3.7	
Approach LOS		C						F			A	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.0	32.9		18.2		41.8						
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8						
Max Green Setting (Gmax), s	8.4	* 22		* 15		* 35						
Max Q Clear Time (g_c+l1), s	5.3	14.3		12.7		2.0						
Green Ext Time (p_c), s	0.0	3.8		0.7		5.8						

Intersection Summary

HCM 6th Ctrl Delay	87.5
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	115	12	37	185	75	63
Future Vol, veh/h	115	12	37	185	75	63
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	126	13	41	203	82	69
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	8.4	8	8.8
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	75	63	58	58	12	37	93	93
LT Vol	75	0	0	0	0	37	0	0
Through Vol	0	0	58	58	0	0	93	93
RT Vol	0	63	0	0	12	0	0	0
Lane Flow Rate	82	69	63	63	13	41	102	102
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.135	0.09	0.094	0.094	0.011	0.065	0.148	0.1
Departure Headway (Hd)	5.889	4.692	5.376	5.376	2.962	5.737	5.235	3.525
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	607	760	664	664	1195	624	685	1012
Service Time	3.64	2.444	3.127	3.127	0.712	3.473	2.97	1.26
HCM Lane V/C Ratio	0.135	0.091	0.095	0.095	0.011	0.066	0.149	0.101
HCM Control Delay	9.6	7.9	8.7	8.7	5.7	8.9	8.9	6.7
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.5	0.3	0.3	0.3	0	0.2	0.5	0.3

Intersection

Intersection Delay, s/veh 6.9

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	91	0	2	0	9	2	0
Future Vol, veh/h	0	0	0	2	0	91	0	2	0	9	2	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	118	0	3	0	12	3	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

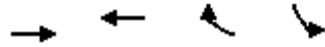
Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	6.8	7.1	7.4
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	2%	82%
Vol Thru, %	100%	0%	18%
Vol Right, %	0%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	2	93	11
LT Vol	0	2	9
Through Vol	2	0	2
RT Vol	0	91	0
Lane Flow Rate	3	121	14
Geometry Grp	1	1	1
Degree of Util (X)	0.003	0.112	0.017
Departure Headway (Hd)	4.122	3.346	4.277
Convergence, Y/N	Yes	Yes	Yes
Cap	870	1075	840
Service Time	2.136	1.356	2.288
HCM Lane V/C Ratio	0.003	0.113	0.017
HCM Control Delay	7.1	6.8	7.4
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.4	0.1

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Lane Group	EBT	WBT	WBR	SBL	Ø7
Lane Configurations	↑↑	↑	↗	↘	
Traffic Volume (vph)	12	2	2	3	
Future Volume (vph)	12	2	2	3	
Turn Type	NA	NA	Perm	Prot	
Protected Phases	4	8		6	7
Permitted Phases			8		
Detector Phase	4	8	8	6	
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	15.8	27.8	27.8	28.2	9.6
Total Split (s)	51.6	42.0	42.0	38.4	9.6
Total Split (%)	57.3%	46.7%	46.7%	42.7%	11%
Yellow Time (s)	4.8	4.8	4.8	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.8	5.8	5.8	6.2	
Lead/Lag		Lag	Lag		Lead
Lead-Lag Optimize?		Yes	Yes		Yes
Recall Mode	None	None	None	Min	None

Intersection Summary

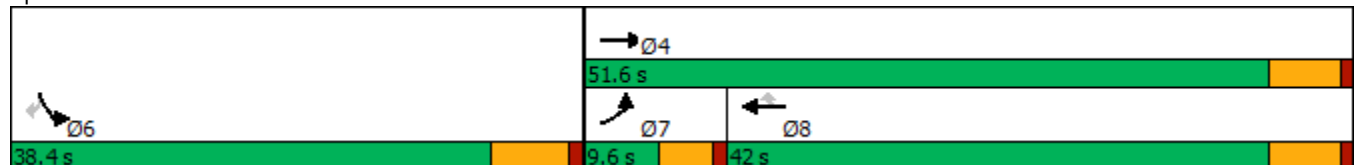
Cycle Length: 90

Actuated Cycle Length: 33.7

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

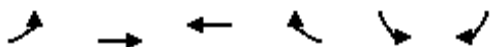
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	0	12	2	2	3	0	
Future Volume (veh/h)	0	12	2	2	3	0	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	0	18	3	3	4	0	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	8	223	117	99	1497	687	
Arrive On Green	0.00	0.06	0.06	0.06	0.43	0.00	
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610	
Grp Volume(v), veh/h	0	18	3	3	4	0	
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610	
Q Serve(g_s), s	0.0	0.1	0.0	0.0	0.0	0.0	
Cycle Q Clear(g_c), s	0.0	0.1	0.0	0.0	0.0	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	8	223	117	99	1497	687	
V/C Ratio(X)	0.00	0.08	0.03	0.03	0.00	0.00	
Avail Cap(c_a), veh/h	386	7052	2933	2486	4821	2211	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	0.0	10.4	10.3	10.3	3.9	0.0	
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.1	0.0	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	0.0	10.4	10.4	10.5	3.9	0.0	
LnGrp LOS	A	B	B	B	A	A	
Approach Vol, veh/h		18	6		4		
Approach Delay, s/veh		10.4	10.4		3.9		
Approach LOS		B	B		A		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				7.2	16.2	0.0	7.2
Change Period (Y+Rc), s				5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s				45.8	32.2	5.0	36.2
Max Q Clear Time (g_c+I1), s				2.1	2.0	0.0	2.0
Green Ext Time (p_c), s				0.0	0.0	0.0	0.0
Intersection Summary							
HCM 6th Ctrl Delay			9.5				
HCM 6th LOS			A				

Intersection

Intersection Delay, s/veh10.2

Intersection LOS B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	226	296	294	177	10
Future Vol, veh/h	8	226	296	294	177	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	8	233	305	303	182	10
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	13	8.2	13
HCM LOS	B	A	B

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	95%
Vol Thru, %	0%	100%	100%	100%	17%	0%
Vol Right, %	0%	0%	0%	0%	83%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	226	118	118	353	187
LT Vol	8	0	0	0	0	177
Through Vol	0	226	118	118	59	0
RT Vol	0	0	0	0	294	10
Lane Flow Rate	8	233	122	122	364	193
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.015	0.402	0.185	0.185	0.318	0.357
Departure Headway (Hd)	6.725	6.218	5.455	5.455	3.148	6.667
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	534	580	651	651	1118	542
Service Time	4.443	3.936	3.244	3.244	0.935	4.379
HCM Lane V/C Ratio	0.015	0.402	0.187	0.187	0.326	0.356
HCM Control Delay	9.5	13.1	9.5	9.5	7.4	13
HCM Lane LOS	A	B	A	A	A	B
HCM 95th-tile Q	0	1.9	0.7	0.7	1.4	1.6

Intersection												
Int Delay, s/veh	7.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2	8	3	14	0	80	0	2	0	0	0
Future Vol, veh/h	0	2	8	3	14	0	80	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	3	11	4	18	0	105	0	3	0	0	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	214	1	220	213	-	1	0	0	3	0	0
Stage 1	-	1	-	212	212	-	-	-	-	-	-	-
Stage 2	-	213	-	8	1	-	-	-	-	-	-	-
Critical Hdwy	-	6.5	6.2	7.1	6.5	-	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	4	3.3	3.5	4	-	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	687	1090	740	688	0	1635	-	-	1632	-	-
Stage 1	0	899	-	795	731	0	-	-	-	-	-	-
Stage 2	0	730	-	1019	899	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	643	1090	695	644	-	1635	-	-	1632	-	-
Mov Cap-2 Maneuver	-	643	-	695	644	-	-	-	-	-	-	-
Stage 1	-	899	-	744	684	-	-	-	-	-	-	-
Stage 2	-	683	-	1006	899	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	8.8		10.7		7.2		0					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1635	-	-	957 652	1632	-	-					
HCM Lane V/C Ratio	0.064	-	-	0.014 0.034	-	-	-					
HCM Control Delay (s)	7.4	0	-	8.8 10.7	0	-	-					
HCM Lane LOS	A	A	-	A B	A	-	-					
HCM 95th %tile Q(veh)	0.2	-	-	0 0.1	0	-	-					

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/06/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	↵	→	↕
Traffic Volume (vph)	196	129	481	1
Future Volume (vph)	196	129	481	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	27.5	9.8	41.9	36.5
Actuated g/C Ratio	0.31	0.11	0.47	0.41
v/c Ratio	0.91	0.87	0.72	0.98
Control Delay	48.9	74.0	21.5	56.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	48.9	74.0	21.5	56.8
LOS	D	E	C	E
Approach Delay	48.9		32.6	56.8
Approach LOS	D		C	E

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 45.3

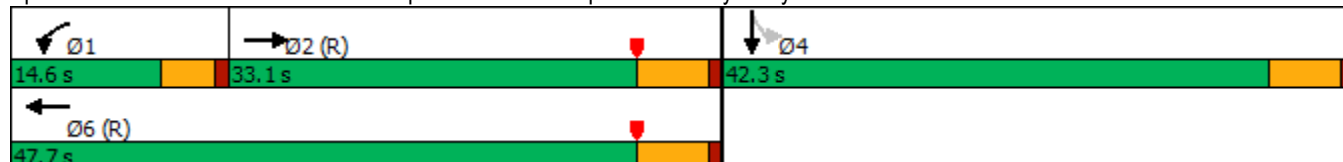
Intersection LOS: D

Intersection Capacity Utilization 74.5%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/06/2020

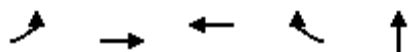
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩	
Traffic Volume (veh/h)	0	196	207	129	481	0	0	0	0	436	1	109
Future Volume (veh/h)	0	196	207	129	481	0	0	0	0	436	1	109
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	258	214	170	633	0				574	1	77
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	309	256	201	919	0				608	1	82
Arrive On Green	0.00	0.32	0.32	0.04	0.16	0.00				0.39	0.39	0.39
Sat Flow, veh/h	0	960	796	1810	1900	0				1570	3	211
Grp Volume(v), veh/h	0	0	472	170	633	0				652	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1757	1810	1900	0				1784	0	0
Q Serve(g_s), s	0.0	0.0	22.4	8.4	28.3	0.0				31.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	22.4	8.4	28.3	0.0				31.8	0.0	0.0
Prop In Lane	0.00		0.45	1.00		0.00				0.88		0.12
Lane Grp Cap(c), veh/h	0	0	565	201	919	0				691	0	0
V/C Ratio(X)	0.00	0.00	0.84	0.85	0.69	0.00				0.94	0.00	0.00
Avail Cap(c_a), veh/h	0	0	565	201	919	0				723	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.73	0.73	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	28.3	42.6	31.4	0.0				26.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	13.7	19.9	3.1	0.0				20.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	10.8	4.9	14.9	0.0				16.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	42.0	62.5	34.5	0.0				47.0	0.0	0.0
LnGrp LOS	A	A	D	E	C	A				D	A	A
Approach Vol, veh/h		472			803						652	
Approach Delay, s/veh		42.0			40.4						47.0	
Approach LOS		D			D						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.6	34.7		40.7		49.3						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9						
Max Q Clear Time (g_c+I1), s	10.4	24.4		33.8		30.3						
Green Ext Time (p_c), s	0.0	0.8		1.1		3.0						
Intersection Summary												
HCM 6th Ctrl Delay			43.1									
HCM 6th LOS			D									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/06/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	68	564	286	238	4
Future Volume (vph)	68	564	286	238	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	13.4	43.0	29.6	29.6	47.0
Total Split (%)	14.9%	47.8%	32.9%	32.9%	52.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	7.4	32.1	22.1	22.1	46.3
Actuated g/C Ratio	0.08	0.36	0.25	0.25	0.51
v/c Ratio	0.47	0.86	0.63	0.42	0.65
Control Delay	50.2	26.6	37.3	6.1	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	26.6	37.3	6.1	19.7
LOS	D	C	D	A	B
Approach Delay		29.2	23.1		19.7
Approach LOS		C	C		B

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 24.2

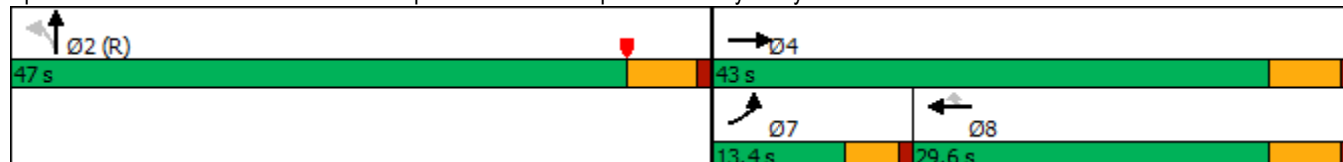
Intersection LOS: C

Intersection Capacity Utilization 74.5%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/06/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	564	0	0	286	238	324	4	254	0	0	0
Future Volume (veh/h)	68	564	0	0	286	238	324	4	254	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	70	581	0	0	295	175	334	4	210			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	91	660	0	0	467	396	552	7	347			
Arrive On Green	0.02	0.11	0.00	0.00	0.25	0.25	0.52	0.52	0.52			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1053	13	662			
Grp Volume(v), veh/h	70	581	0	0	295	175	548	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1728	0	0			
Q Serve(g_s), s	3.5	27.1	0.0	0.0	12.5	8.3	19.9	0.0	0.0			
Cycle Q Clear(g_c), s	3.5	27.1	0.0	0.0	12.5	8.3	19.9	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.61		0.38			
Lane Grp Cap(c), veh/h	91	660	0	0	467	396	905	0	0			
V/C Ratio(X)	0.77	0.88	0.00	0.00	0.63	0.44	0.61	0.00	0.00			
Avail Cap(c_a), veh/h	177	785	0	0	502	426	905	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.29	0.29	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.7	38.0	0.0	0.0	30.3	28.7	14.9	0.0	0.0			
Incr Delay (d2), s/veh	1.5	3.3	0.0	0.0	2.3	0.8	3.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.6	14.1	0.0	0.0	5.6	3.1	7.5	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.2	41.3	0.0	0.0	32.6	29.5	17.9	0.0	0.0			
LnGrp LOS	D	D	A	A	C	C	B	A	A			
Approach Vol, veh/h	651			470			548					
Approach Delay, s/veh	41.7			31.4			17.9					
Approach LOS	D			C			B					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	52.9			37.1			9.1			27.9		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	41.2			37.2			8.8			23.8		
Max Q Clear Time (g_c+I1), s	21.9			29.1			5.5			14.5		
Green Ext Time (p_c), s	3.3			2.1			0.0			1.5		
Intersection Summary												
HCM 6th Ctrl Delay	31.0											
HCM 6th LOS	C											

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑				↗			↗
Traffic Vol, veh/h	0	770	121	104	624	53	0	0	112	0	12	63
Future Vol, veh/h	0	770	121	104	624	53	0	0	112	0	12	63
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	828	130	112	671	57	0	0	120	0	13	68
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	958	0	0	-	-	479	-	1882	364
Stage 1	-	-	-	-	-	-	-	-	-	-	924	-
Stage 2	-	-	-	-	-	-	-	-	-	-	958	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	4	3.3
Pot Cap-1 Maneuver	0	-	-	726	-	-	0	0	538	0	72	639
Stage 1	0	-	-	-	-	-	0	0	-	0	351	-
Stage 2	0	-	-	-	-	-	0	0	-	0	338	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	726	-	-	-	-	538	-	61	639
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	61	-
Stage 1	-	-	-	-	-	-	-	-	-	-	297	-
Stage 2	-	-	-	-	-	-	-	-	-	-	338	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.4			13.6			11.3		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	538	-	-	726	-	-	639					
HCM Lane V/C Ratio	0.224	-	-	0.154	-	-	0.106					
HCM Control Delay (s)	13.6	-	-	10.9	-	-	11.3					
HCM Lane LOS	B	-	-	B	-	-	B					
HCM 95th %tile Q(veh)	0.9	-	-	0.5	-	-	0.4					

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	100	58	9	27	29	38	36	11	13	57	17
Future Volume (vph)	100	58	9	27	29	38	36	11	13	57	17
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	36.0	54.0	15.0	33.0	33.0	23.0	34.0	34.0	17.0	28.0	28.0
Total Split (%)	30.0%	45.0%	12.5%	27.5%	27.5%	19.2%	28.3%	28.3%	14.2%	23.3%	23.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

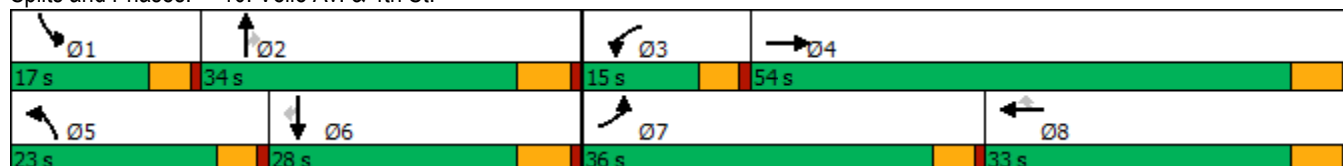
Cycle Length: 120

Actuated Cycle Length: 45.8

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	58	74	9	27	29	38	36	11	13	57	17
Future Volume (veh/h)	100	58	74	9	27	29	38	36	11	13	57	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	143	83	106	13	39	41	54	51	16	19	81	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	188	524	467	30	386	327	97	452	383	42	395	
Arrive On Green	0.10	0.29	0.29	0.02	0.20	0.20	0.05	0.24	0.24	0.02	0.21	0.00
Sat Flow, veh/h	1810	1805	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	143	83	106	13	39	41	54	51	16	19	81	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	3.7	1.6	2.4	0.3	0.8	1.0	1.4	1.0	0.4	0.5	1.7	0.0
Cycle Q Clear(g_c), s	3.7	1.6	2.4	0.3	0.8	1.0	1.4	1.0	0.4	0.5	1.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	188	524	467	30	386	327	97	452	383	42	395	
V/C Ratio(X)	0.76	0.16	0.23	0.43	0.10	0.13	0.56	0.11	0.04	0.45	0.21	
Avail Cap(c_a), veh/h	1180	1807	1612	391	1073	910	692	1113	943	466	876	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.0	12.7	13.0	23.4	15.6	15.7	22.2	14.4	14.1	23.2	15.8	0.0
Incr Delay (d2), s/veh	2.4	0.1	0.2	3.6	0.1	0.2	1.9	0.1	0.0	2.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.5	0.7	0.2	0.3	0.3	0.6	0.4	0.1	0.2	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.4	12.9	13.2	27.1	15.7	15.9	24.1	14.5	14.2	26.0	16.0	0.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	
Approach Vol, veh/h		332			93			121			100	
Approach Delay, s/veh		17.5			17.4			18.7			17.9	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.7	17.2	5.4	19.8	7.2	15.8	9.6	15.6				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	12.4	28.2	10.4	48.2	18.4	22.2	31.4	27.2				
Max Q Clear Time (g_c+I1), s	2.5	3.0	2.3	4.4	3.4	3.7	5.7	3.0				
Green Ext Time (p_c), s	0.0	0.2	0.0	1.1	0.0	0.3	0.2	0.2				

Intersection Summary

HCM 6th Ctrl Delay 17.8

HCM 6th LOS B

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/06/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	19	432	164	60	256	10	249	71	13	36
Future Volume (vph)	19	432	164	60	256	10	249	71	13	36
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	22.0	36.6	9.6	24.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	24.4%	40.7%	10.7%	26.9%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.3	23.8	23.8	5.8	28.0	28.0	14.9	37.5	5.2	19.6
Actuated g/C Ratio	0.07	0.29	0.29	0.07	0.35	0.35	0.18	0.46	0.06	0.24
v/c Ratio	0.17	0.82	0.28	0.49	0.41	0.02	0.79	0.17	0.12	0.11
Control Delay	43.7	40.6	4.0	54.3	23.4	0.0	51.5	11.1	42.8	23.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.7	40.6	4.0	54.3	23.4	0.0	51.5	11.1	42.8	23.8
LOS	D	D	A	D	C	A	D	B	D	C
Approach Delay		30.9			28.4			37.0		27.9
Approach LOS		C			C			D		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 81.1

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 31.9

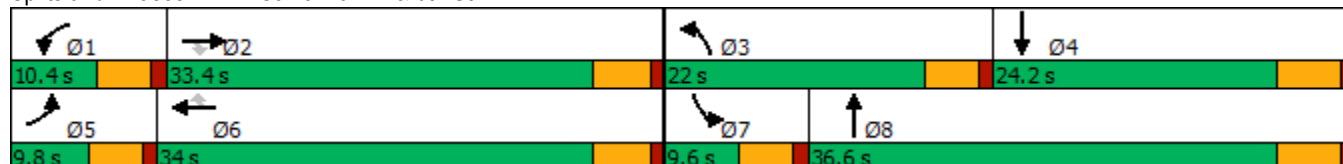
Intersection LOS: C

Intersection Capacity Utilization 59.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/06/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	432	164	60	256	10	249	71	68	13	36	11
Future Volume (veh/h)	19	432	164	60	256	10	249	71	68	13	36	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	455	169	63	269	6	262	75	41	14	38	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	41	536	455	87	585	495	304	468	256	30	407	64
Arrive On Green	0.02	0.28	0.28	0.05	0.31	0.31	0.17	0.41	0.41	0.02	0.25	0.25
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1155	631	1810	1602	253
Grp Volume(v), veh/h	20	455	169	63	269	6	262	0	116	14	0	44
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1786	1810	0	1854
Q Serve(g_s), s	0.8	17.5	6.5	2.7	8.8	0.2	10.9	0.0	3.2	0.6	0.0	1.4
Cycle Q Clear(g_c), s	0.8	17.5	6.5	2.7	8.8	0.2	10.9	0.0	3.2	0.6	0.0	1.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.35	1.00		0.14
Lane Grp Cap(c), veh/h	41	536	455	87	585	495	304	0	724	30	0	471
V/C Ratio(X)	0.49	0.85	0.37	0.73	0.46	0.01	0.86	0.00	0.16	0.46	0.00	0.09
Avail Cap(c_a), veh/h	121	701	594	135	716	607	406	0	724	117	0	471
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.4	26.2	22.3	36.4	21.6	18.6	31.4	0.0	14.7	37.7	0.0	22.1
Incr Delay (d2), s/veh	3.3	7.6	0.5	4.3	0.6	0.0	10.9	0.0	0.5	4.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	8.7	2.3	1.3	3.9	0.1	5.3	0.0	1.2	0.3	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.8	33.8	22.8	40.7	22.2	18.7	42.2	0.0	15.1	41.7	0.0	22.5
LnGrp LOS	D	C	C	D	C	B	D	A	B	D	A	C
Approach Vol, veh/h		644			338			378			58	
Approach Delay, s/veh		31.1			25.6			33.9			27.1	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	26.7	17.6	24.9	6.3	28.6	5.9	36.6				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	5.8	* 29	17.4	19.0	5.2	* 29	5.0	31.4				
Max Q Clear Time (g_c+I1), s	4.7	19.5	12.9	3.4	2.8	10.8	2.6	5.2				
Green Ext Time (p_c), s	0.0	2.4	0.2	0.1	0.0	1.4	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay			30.4									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↱	↰		↰	↱
Traffic Vol, veh/h	4	3	82	36	3	20	169	361	13	6	200	6
Future Vol, veh/h	4	3	82	36	3	20	169	361	13	6	200	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	120	-	50	-	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	3	86	38	3	21	178	380	14	6	211	6
Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	978	973	211	1007	965	380	217	0	0	394	0	0
Stage 1	223	223	-	736	736	-	-	-	-	-	-	-
Stage 2	755	750	-	271	229	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	232	254	834	221	257	671	1365	-	-	1176	-	-
Stage 1	784	723	-	414	428	-	-	-	-	-	-	-
Stage 2	404	422	-	739	718	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	200	220	834	176	222	671	1365	-	-	1176	-	-
Mov Cap-2 Maneuver	277	301	-	265	295	-	-	-	-	-	-	-
Stage 1	682	719	-	360	372	-	-	-	-	-	-	-
Stage 2	337	367	-	656	714	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB		SB		SB	
HCM Control Delay, s	10.4		17.4		2.5		0.2					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1365	-	-	287	834	267	671	1176	-	-		
HCM Lane V/C Ratio	0.13	-	-	0.026	0.103	0.154	0.031	0.005	-	-		
HCM Control Delay (s)	8	-	-	17.9	9.8	20.9	10.5	8.1	0	-		
HCM Lane LOS	A	-	-	C	A	C	B	A	A	-		
HCM 95th %tile Q(veh)	0.4	-	-	0.1	0.3	0.5	0.1	0	-	-		

Intersection						
Int Delay, s/veh	5.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	84	32	6	476	922	78
Future Vol, veh/h	84	32	6	476	922	78
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	91	35	7	517	1002	85
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1576	1045	1087	0	-	0
Stage 1	1045	-	-	-	-	-
Stage 2	531	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	122	280	649	-	-	-
Stage 1	342	-	-	-	-	-
Stage 2	594	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	121	280	649	-	-	-
Mov Cap-2 Maneuver	121	-	-	-	-	-
Stage 1	338	-	-	-	-	-
Stage 2	594	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	73.6	0.1		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	649	-	121	280	-	-
HCM Lane V/C Ratio	0.01	-	0.755	0.124	-	-
HCM Control Delay (s)	10.6	-	94.2	19.7	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0	-	4.3	0.4	-	-

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)
07/06/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	18	15	69	4	22	356	9	410
Future Volume (vph)	18	15	69	4	22	356	9	410
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		10.7		10.6	5.5	41.7	5.2	41.5
Actuated g/C Ratio		0.18		0.18	0.09	0.70	0.09	0.69
v/c Ratio		0.23		0.33	0.14	0.16	0.06	0.17
Control Delay		13.9		22.1	33.2	4.1	25.9	5.7
Queue Delay		0.2		0.3	1.0	0.3	0.0	0.1
Total Delay		14.1		22.4	34.1	4.4	25.9	5.8
LOS		B		C	C	A	C	A
Approach Delay		14.1		22.4		6.0		6.2
Approach LOS		B		C		A		A

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.33

Intersection Signal Delay: 8.1

Intersection LOS: A

Intersection Capacity Utilization 37.9%

ICU Level of Service A

Analysis Period (min) 15

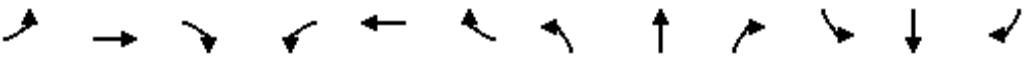
Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/06/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Volume (veh/h)	18	15	38	69	4	15	22	356	29	9	410	9
Future Volume (veh/h)	18	15	38	69	4	15	22	356	29	9	410	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	19	15	39	71	4	15	23	367	30	9	423	9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	112	84	138	281	23	39	48	2015	164	21	2100	45
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.05	1.00	1.00	0.01	0.58	0.58
Sat Flow, veh/h	232	542	887	1117	151	254	1810	3381	275	1810	3614	77
Grp Volume(v), veh/h	73	0	0	90	0	0	23	195	202	9	211	221
Grp Sat Flow(s),veh/h/ln	1661	0	0	1521	0	0	1810	1805	1851	1810	1805	1886
Q Serve(g_s), s	0.0	0.0	0.0	0.5	0.0	0.0	0.7	0.0	0.0	0.3	3.3	3.3
Cycle Q Clear(g_c), s	2.2	0.0	0.0	2.7	0.0	0.0	0.7	0.0	0.0	0.3	3.3	3.3
Prop In Lane	0.26		0.53	0.79		0.17	1.00		0.15	1.00		0.04
Lane Grp Cap(c), veh/h	334	0	0	344	0	0	48	1076	1103	21	1049	1096
V/C Ratio(X)	0.22	0.00	0.00	0.26	0.00	0.00	0.48	0.18	0.18	0.43	0.20	0.20
Avail Cap(c_a), veh/h	469	0	0	460	0	0	223	1076	1103	223	1049	1096
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	0.0	0.0	22.5	0.0	0.0	28.0	0.0	0.0	29.5	6.0	6.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.4	0.0	0.0	2.7	0.4	0.4	5.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	1.1	0.0	0.0	0.3	0.1	0.1	0.2	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	0.0	0.0	22.9	0.0	0.0	30.7	0.4	0.4	34.5	6.4	6.4
LnGrp LOS	C	A	A	C	A	A	C	A	A	C	A	A
Approach Vol, veh/h		73			90			420			441	
Approach Delay, s/veh		22.7			22.9			2.0			7.0	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	40.6		14.1	6.2	39.7		14.1				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+l1), s	2.3	2.0		4.2	2.7	5.3		4.7				
Green Ext Time (p_c), s	0.0	2.3		0.2	0.0	2.4		0.2				

Intersection Summary

HCM 6th Ctrl Delay	7.5
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/06/2020

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	685	0	272	309	422
Future Volume (vph)	685	0	272	309	422
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	24.0	24.0	18.0	36.0	18.0
Total Split (%)	40.0%	40.0%	30.0%	60.0%	30.0%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	17.7	17.7	12.1	32.7	16.0
Actuated g/C Ratio	0.30	0.30	0.20	0.54	0.27
v/c Ratio	0.81	0.69	0.77	0.16	0.55
Control Delay	33.8	19.8	41.5	7.2	19.4
Queue Delay	0.0	0.7	0.0	0.0	7.5
Total Delay	33.8	20.4	41.5	7.2	26.8
LOS	C	C	D	A	C
Approach Delay		27.2		23.3	26.8
Approach LOS		C		C	C

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 25.9

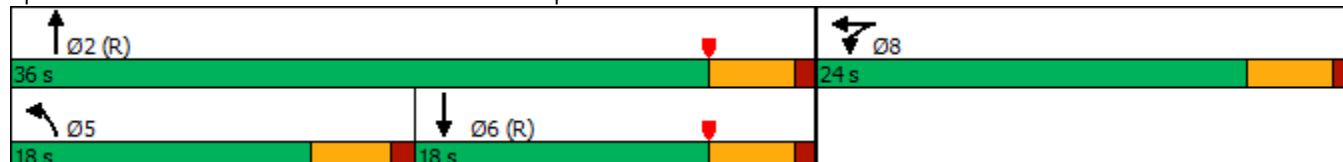
Intersection LOS: C

Intersection Capacity Utilization 92.5%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary 15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/06/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	422	94
Future Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	422	94
Initial Q (Qb), veh				75	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				800	0	0	280	319	0	0	435	97
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1126	591	0	322	1909	0	0	805	178
Arrive On Green				0.27	0.00	0.00	0.36	1.00	0.00	0.00	0.11	0.11
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	3033	650
Grp Volume(v), veh/h				800	0	0	280	319	0	0	266	266
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1783
Q Serve(g_s), s				12.5	0.0	0.0	8.7	0.0	0.0	0.0	8.3	8.4
Cycle Q Clear(g_c), s				12.5	0.0	0.0	8.7	0.0	0.0	0.0	8.3	8.4
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				1126	591	0	322	1909	0	0	495	489
V/C Ratio(X)				0.71	0.00	0.00	0.87	0.17	0.00	0.00	0.54	0.54
Avail Cap(c_a), veh/h				1158	608	0	404	2074	0	0	577	570
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	0.00	0.79	0.79	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.5	0.0	0.0	18.7	0.0	0.0	0.0	23.7	23.7
Incr Delay (d2), s/veh				2.0	0.0	0.0	10.8	0.1	0.0	0.0	4.1	4.3
Initial Q Delay(d3),s/veh				110.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				23.8	0.0	0.0	3.7	0.0	0.0	0.0	4.3	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				132.7	0.0	0.0	29.4	0.1	0.0	0.0	27.8	28.0
LnGrp LOS				F	A	A	C	A	A	A	C	C
Approach Vol, veh/h					800			599			532	
Approach Delay, s/veh					132.7			13.8			27.9	
Approach LOS					F			B			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		39.3			15.3	24.0		20.7				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 31			13.4	* 13		19.2				
Max Q Clear Time (g_c+I1), s		2.0			10.7	10.4		14.5				
Green Ext Time (p_c), s		2.2			0.1	0.9		1.4				
Intersection Summary												
HCM 6th Ctrl Delay				66.9								
HCM 6th LOS				E								
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/06/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↔	↗	↕	↖	↕
Traffic Volume (vph)	10	746	483	105	1002
Future Volume (vph)	10	746	483	105	1002
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	25.0	25.0	24.0	11.0	35.0
Total Split (%)	41.7%	41.7%	40.0%	18.3%	58.3%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	18.3	18.3	23.3	6.2	32.1
Actuated g/C Ratio	0.30	0.30	0.39	0.10	0.54
v/c Ratio	0.84	0.79	0.58	0.58	0.53
Control Delay	32.5	25.4	11.7	29.9	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	25.4	11.7	29.9	15.4
LOS	C	C	B	C	B
Approach Delay	29.0		11.7		16.7
Approach LOS	C		B		B

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 18.9

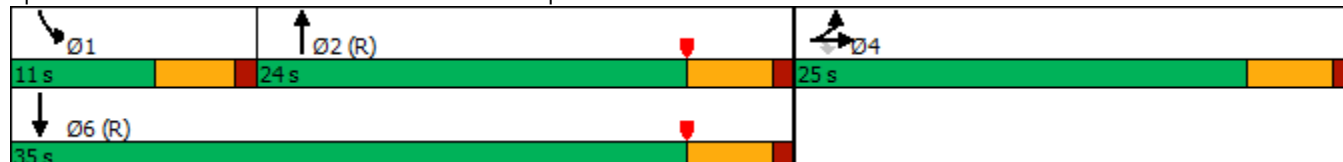
Intersection LOS: B

Intersection Capacity Utilization 92.5%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary

16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/06/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	10	746	0	0	0	0	483	362	105	1002	0
Future Volume (veh/h)	97	10	746	0	0	0	0	483	362	105	1002	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	883				0	498	373	108	1033	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	640	1084				0	690	516	137	1817	0
Arrive On Green	0.00	0.00	0.31				0.00	0.38	0.38	0.15	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2063	1472	1810	3705	0
Grp Volume(v), veh/h	0	0	883				0	457	414	108	1033	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	15.6				0.0	12.7	12.7	3.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	15.6				0.0	12.7	12.7	3.4	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	640	1084				0	633	573	137	1817	0
V/C Ratio(X)	0.00	0.00	0.81				0.00	0.72	0.72	0.79	0.57	0.00
Avail Cap(c_a), veh/h	0	640	1084				0	679	615	193	1908	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.70	0.70	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.9				0.0	16.9	16.9	25.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	4.9				0.0	7.0	7.7	6.0	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	165.5				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	31.8				0.0	6.1	5.6	1.5	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	190.3				0.0	23.9	24.6	31.0	0.9	0.0
LnGrp LOS	A	A	F				A	C	C	C	A	A
Approach Vol, veh/h		883						871			1141	
Approach Delay, s/veh		190.3						24.3			3.8	
Approach LOS		F						C			A	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.2	27.4		23.5		36.5						
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8						
Max Green Setting (Gmax), s	6.4	* 19		* 20		* 30						
Max Q Clear Time (g_c+I1), s	5.4	14.7		17.6		2.0						
Green Ext Time (p_c), s	0.0	2.2		1.1		8.7						

Intersection Summary

HCM 6th Ctrl Delay	66.8
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 3.3:

EXISTING (2020) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2020) Conditions - Weekday PM Peak Hour**

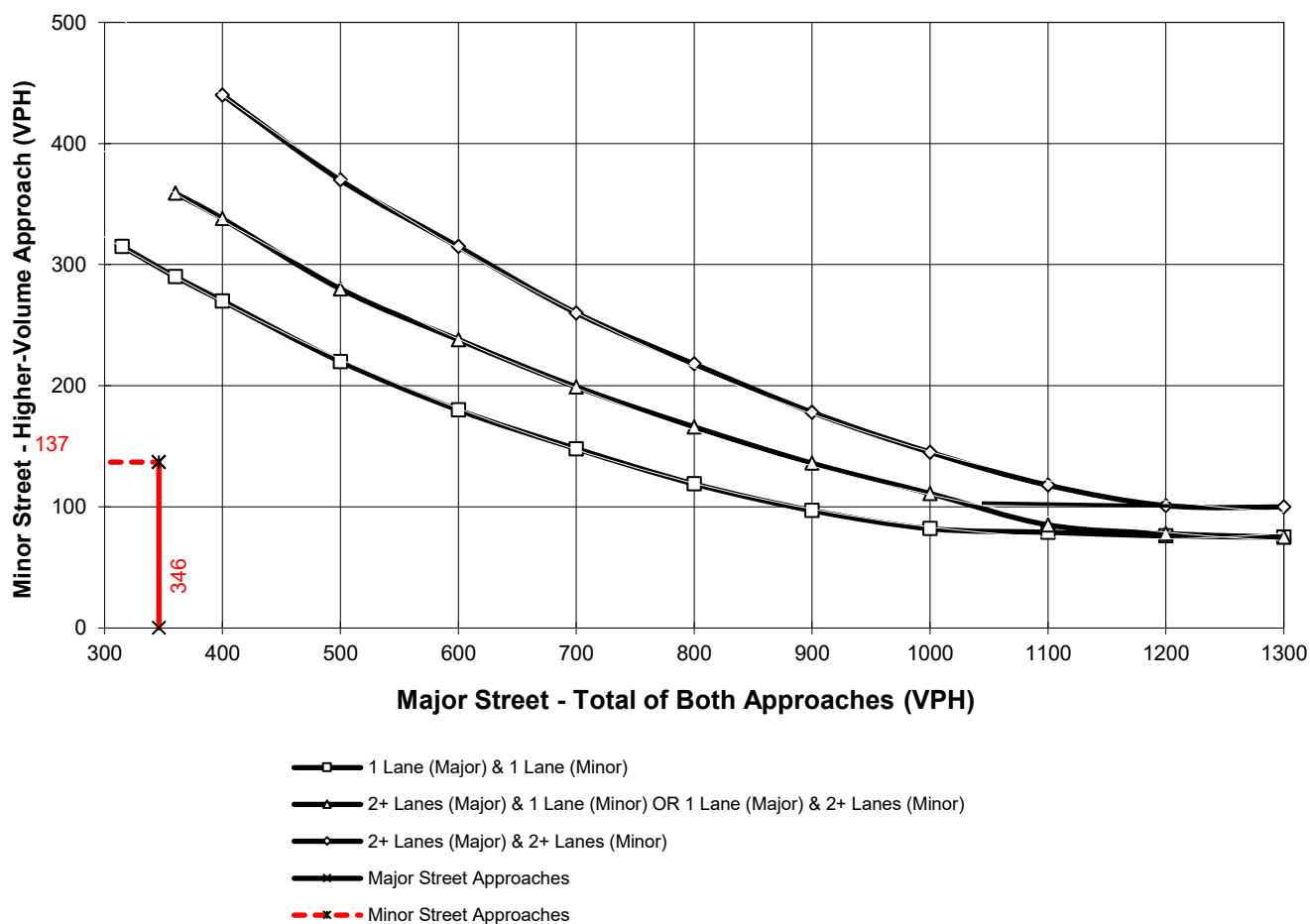
Major Street Name = **Oak Valley Pkwy.**

Total of Both Approaches (VPH) = **346**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Potrero Bl.**

High Volume Approach (VPH) = **137**
Number of Approach Lanes Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2020) Conditions - Weekday AM Peak Hour**

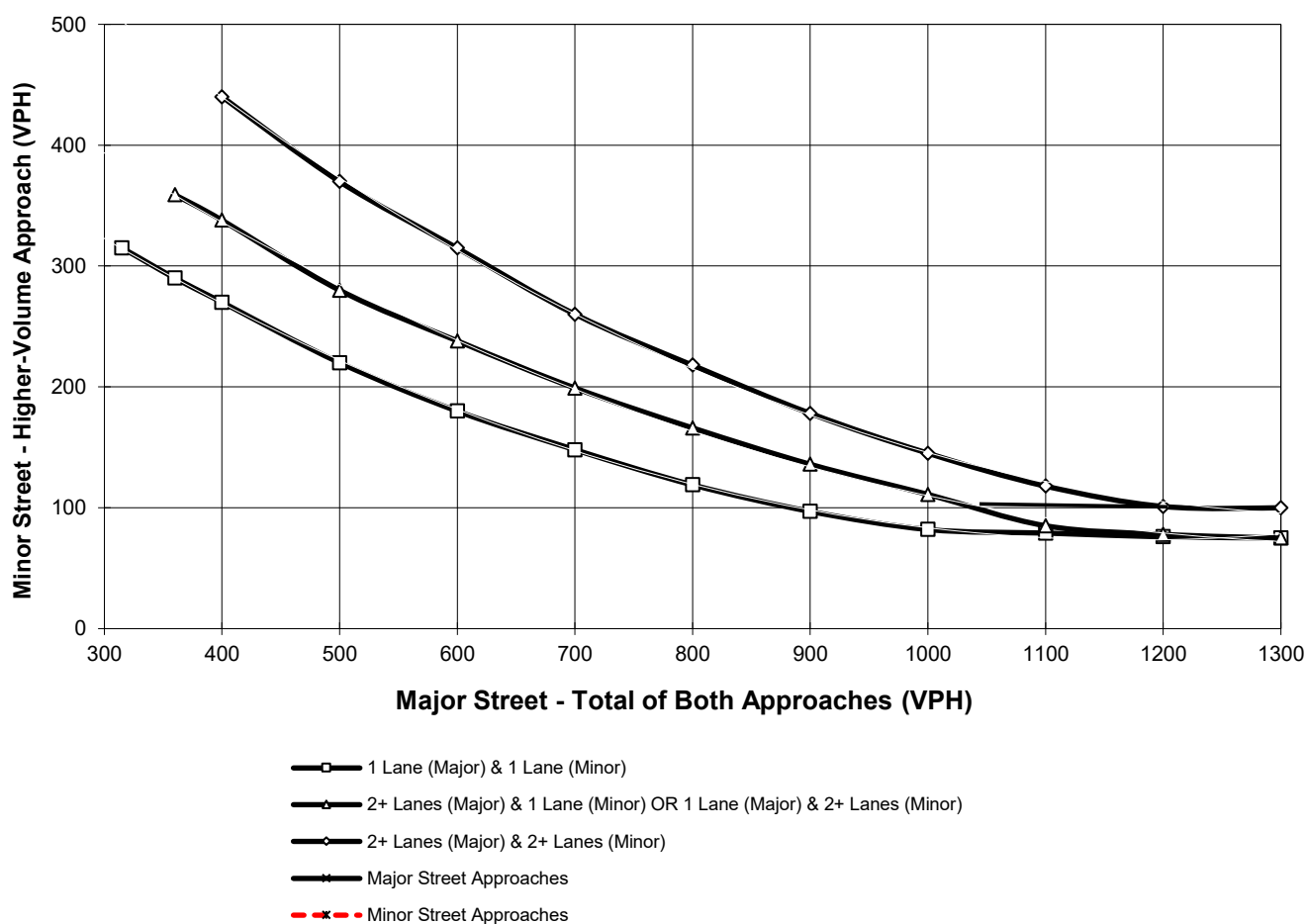
Major Street Name = **Potrero Bl.**

Total of Both Approaches (VPH) = **54**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Western Knolls Av.**

High Volume Approach (VPH) = **47**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2020) Conditions - Weekday AM Peak Hour**

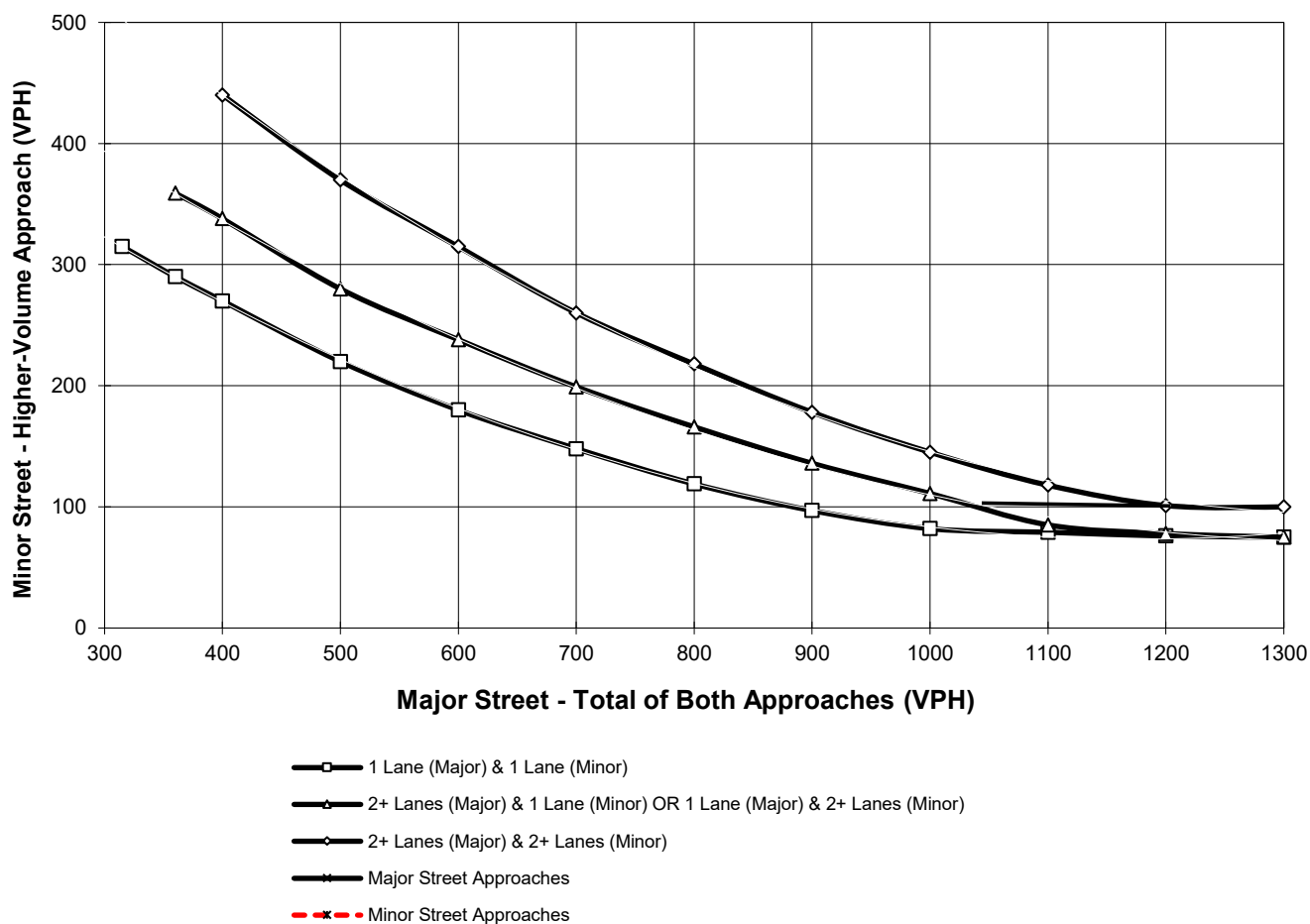
Major Street Name = **4th St.**

Total of Both Approaches (VPH) = **18**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Potrero Bl.**

High Volume Approach (VPH) = **6**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

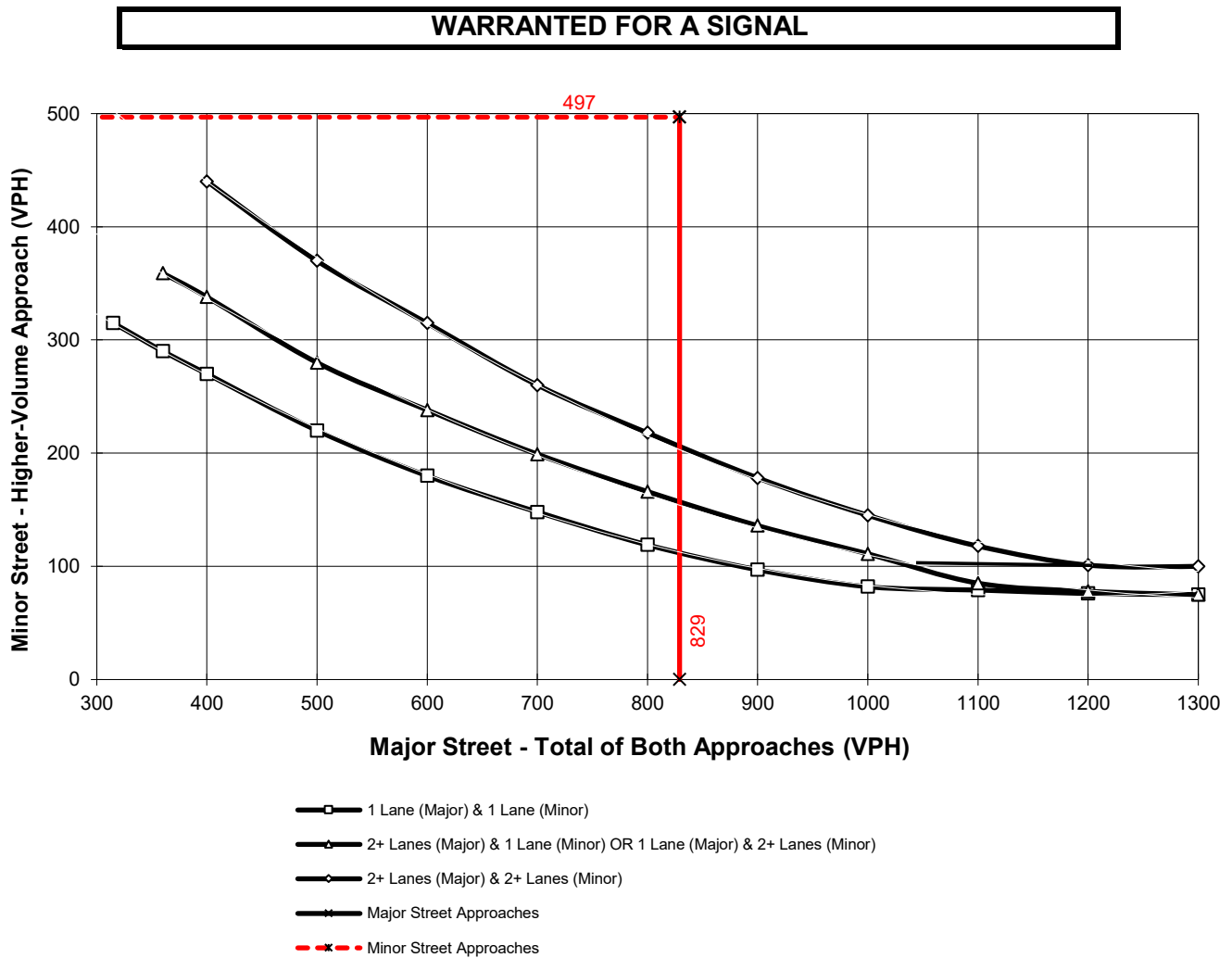
Traffic Conditions = **Existing (2020) Conditions - Weekday AM Peak Hour**

Major Street Name = **Oak Valley Pkwy.**

Total of Both Approaches (VPH) = **829**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Desert Lawn Dr.**

High Volume Approach (VPH) = **497**
Number of Approach Lanes Minor Street = **1**



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2020) Conditions - Weekday PM Peak Hour**

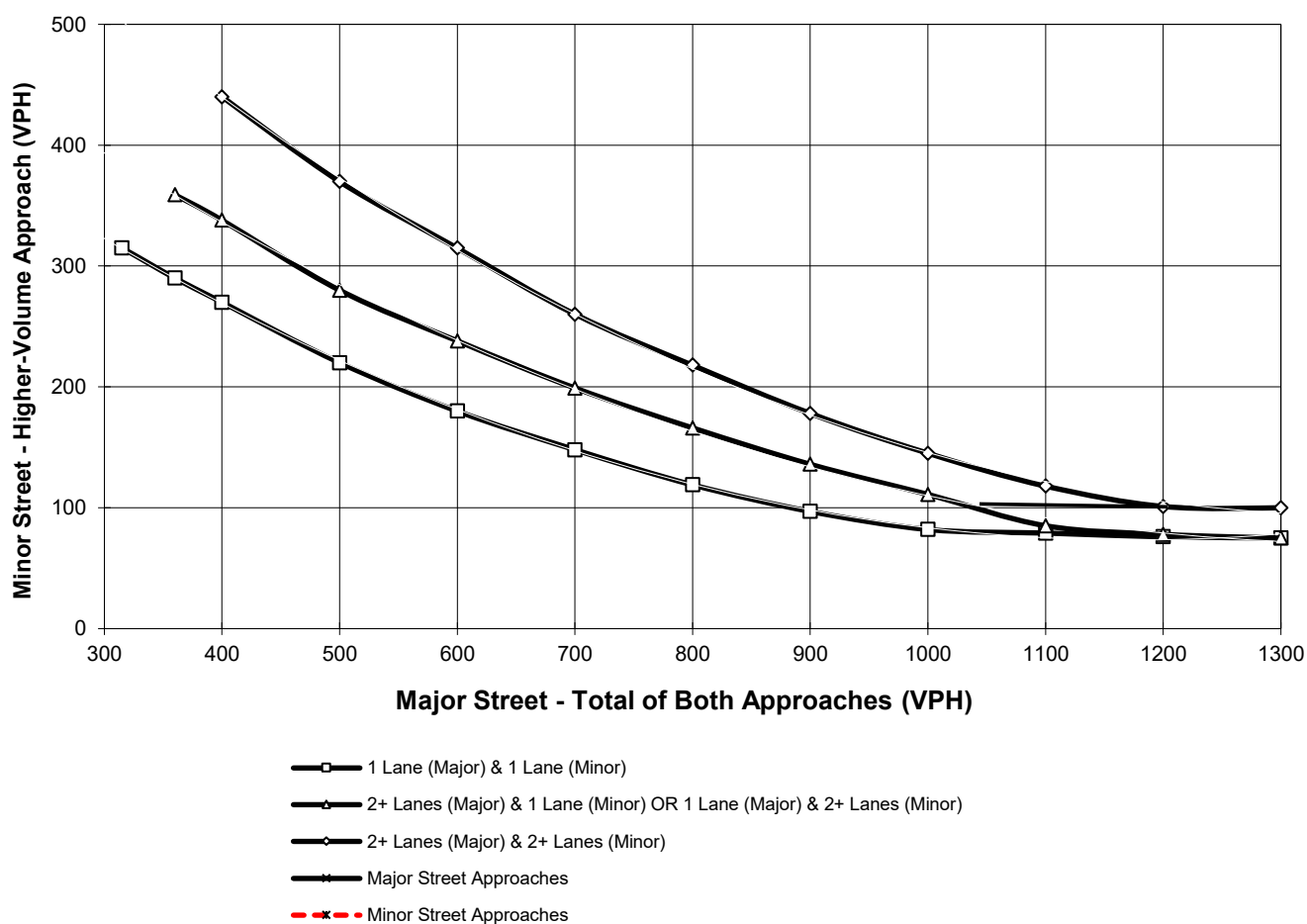
Major Street Name = **4th St.**

Total of Both Approaches (VPH) = **275**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Veile Av.**

High Volume Approach (VPH) = **77**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2020) Conditions - Weekday PM Peak Hour**

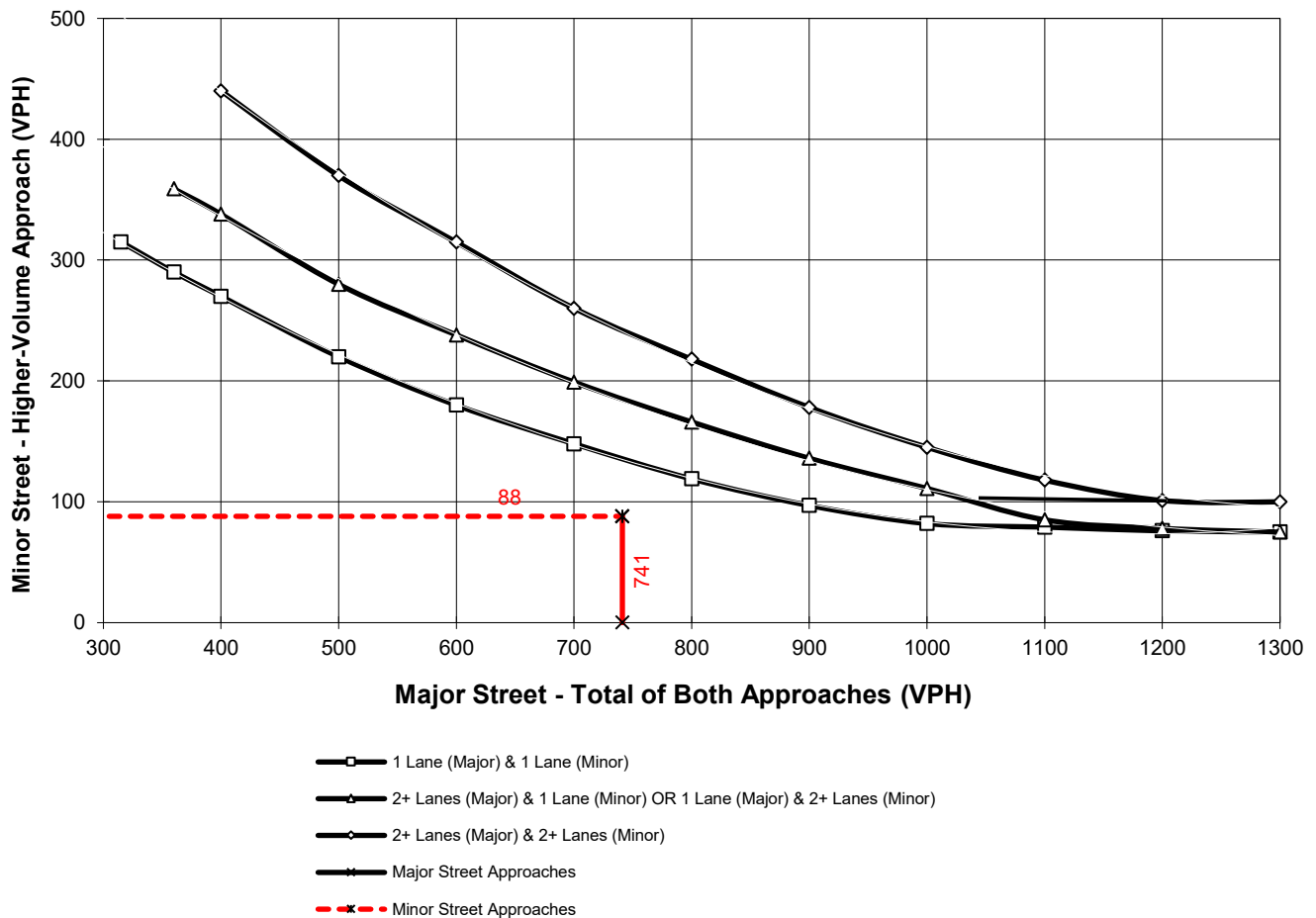
Major Street Name = **California Av.**

Total of Both Approaches (VPH) = **741**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **5th St.**

High Volume Approach (VPH) = **88**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

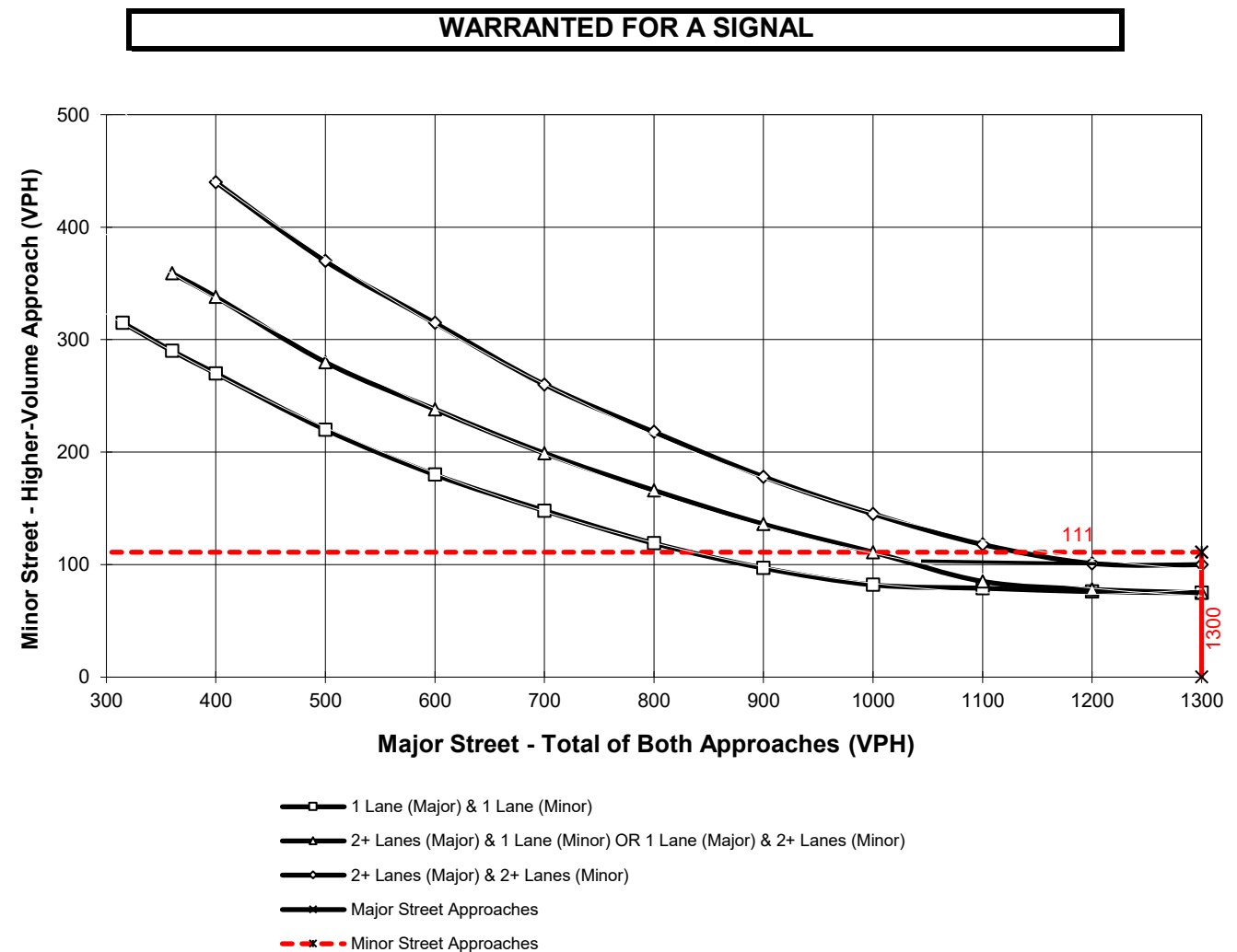
Traffic Conditions = **Existing (2020) Conditions - Weekday PM Peak Hour**

Major Street Name = **California Av.**

Total of Both Approaches (VPH) = **1468**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **4th St.**

High Volume Approach (VPH) = **111**
Number of Approach Lanes Minor Street = **1**



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 3.4:

EXISTING (2020) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Queues

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/09/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	819	264	552	311
v/c Ratio	0.92	0.91	0.42	0.95
Control Delay	36.5	64.9	3.8	74.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	36.5	64.9	3.8	74.9
Queue Length 50th (ft)	378	112	29	171
Queue Length 95th (ft)	#628	m#228	m64	#327
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	892	296	1313	329
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.92	0.89	0.42	0.95

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

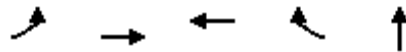
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/09/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	86	468	421	402	678
v/c Ratio	0.63	0.67	0.85	0.56	0.75
Control Delay	51.3	16.6	48.0	6.1	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	51.3	16.6	48.0	6.1	23.5
Queue Length 50th (ft)	50	164	221	0	286
Queue Length 95th (ft)	m51	m178	#365	67	#468
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	144	781	532	741	909
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.60	0.60	0.79	0.54	0.75

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	338	319	375	235	452
v/c Ratio	0.77	0.68	0.81	0.11	0.50
Control Delay	33.4	23.1	42.1	5.4	16.1
Queue Delay	0.0	0.8	0.0	0.0	2.0
Total Delay	33.4	23.9	42.1	5.4	18.0
Queue Length 50th (ft)	113	80	126	14	73
Queue Length 95th (ft)	#221	158	#243	28	118
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	491	519	523	2105	907
Starvation Cap Reductn	0	0	0	0	302
Spillback Cap Reductn	0	53	0	58	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.69	0.68	0.72	0.11	0.75

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

Jack Rabbit Trail (JN 12396)

07/09/2020

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	303	294	953	103	735
v/c Ratio	0.63	0.63	0.52	0.47	0.32
Control Delay	13.6	13.3	8.2	19.0	10.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.6	13.3	8.2	19.0	10.2
Queue Length 50th (ft)	30	27	62	24	107
Queue Length 95th (ft)	92	87	131	m54	195
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	560	546	1820	256	2328
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.54	0.54	0.52	0.40	0.32

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	530	170	633	718
v/c Ratio	0.91	0.87	0.72	0.98
Control Delay	48.9	74.0	21.5	56.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	48.9	74.0	21.5	56.8
Queue Length 50th (ft)	260	103	255	387
Queue Length 95th (ft)	#310	#163	286	#463
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	582	200	884	731
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.91	0.85	0.72	0.98

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

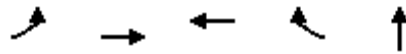
Queue shown is maximum after two cycles.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/09/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	70	581	295	245	600
v/c Ratio	0.47	0.86	0.63	0.42	0.65
Control Delay	50.2	26.6	37.3	6.1	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	26.6	37.3	6.1	19.7
Queue Length 50th (ft)	40	214	153	0	222
Queue Length 95th (ft)	m41	m200	230	55	376
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	176	785	503	608	922
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.40	0.74	0.59	0.40	0.65

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/09/2020

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	409	398	280	319	532
v/c Ratio	0.81	0.69	0.77	0.16	0.55
Control Delay	33.8	19.8	41.5	7.2	19.4
Queue Delay	0.0	0.7	0.0	0.0	7.5
Total Delay	33.8	20.4	41.5	7.2	26.8
Queue Length 50th (ft)	136	87	108	22	89
Queue Length 95th (ft)	#266	176	m#188	m46	137
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	548	614	403	1968	969
Starvation Cap Reductn	0	0	0	0	387
Spillback Cap Reductn	0	50	0	41	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.75	0.71	0.69	0.17	0.91

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	448	431	871	108	1033
v/c Ratio	0.84	0.79	0.58	0.58	0.53
Control Delay	32.5	25.4	11.7	29.9	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	25.4	11.7	29.9	15.4
Queue Length 50th (ft)	126	101	82	42	183
Queue Length 95th (ft)	#272	#236	140	m61	248
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	580	593	1514	194	1934
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.77	0.73	0.58	0.56	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 3.5:

EXISTING (2020) CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2032		7161		0.28		68.7		9.9		A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2032	303	7200	2100	0.28	0.14	64.4	60.9	10.5	13.2	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1732		7161		0.24		68.7		8.4		A

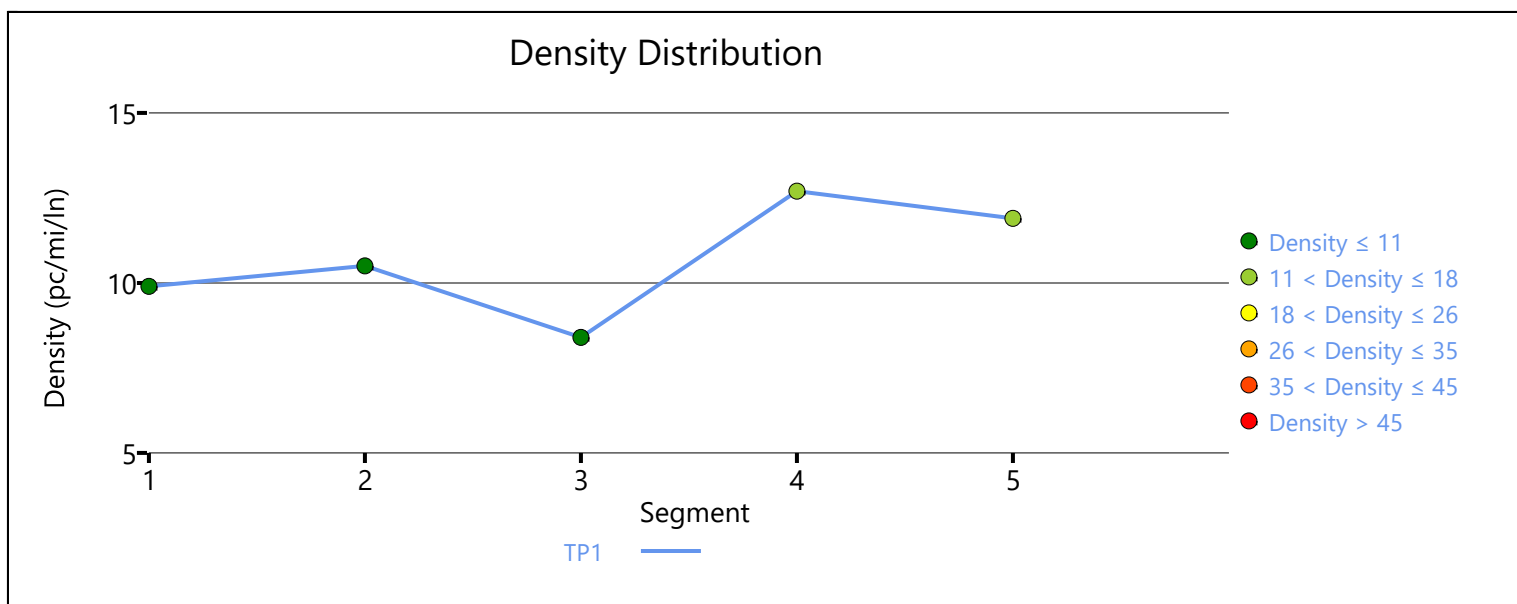
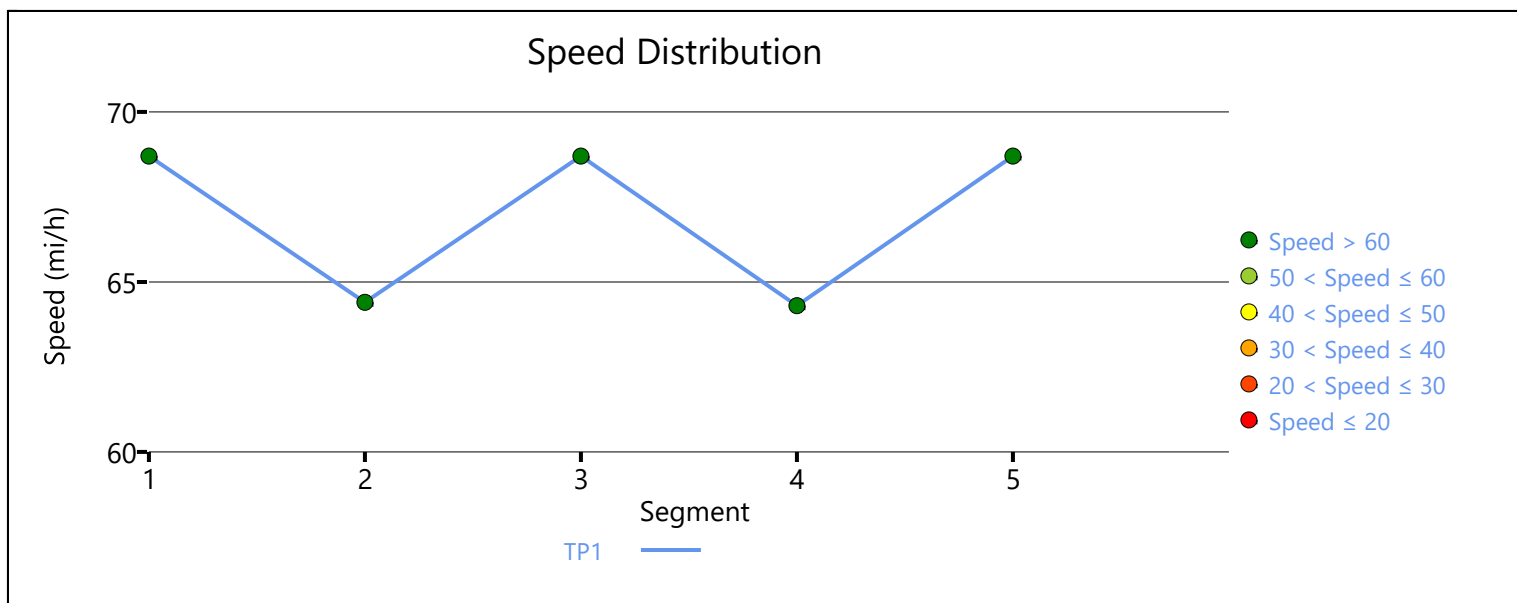
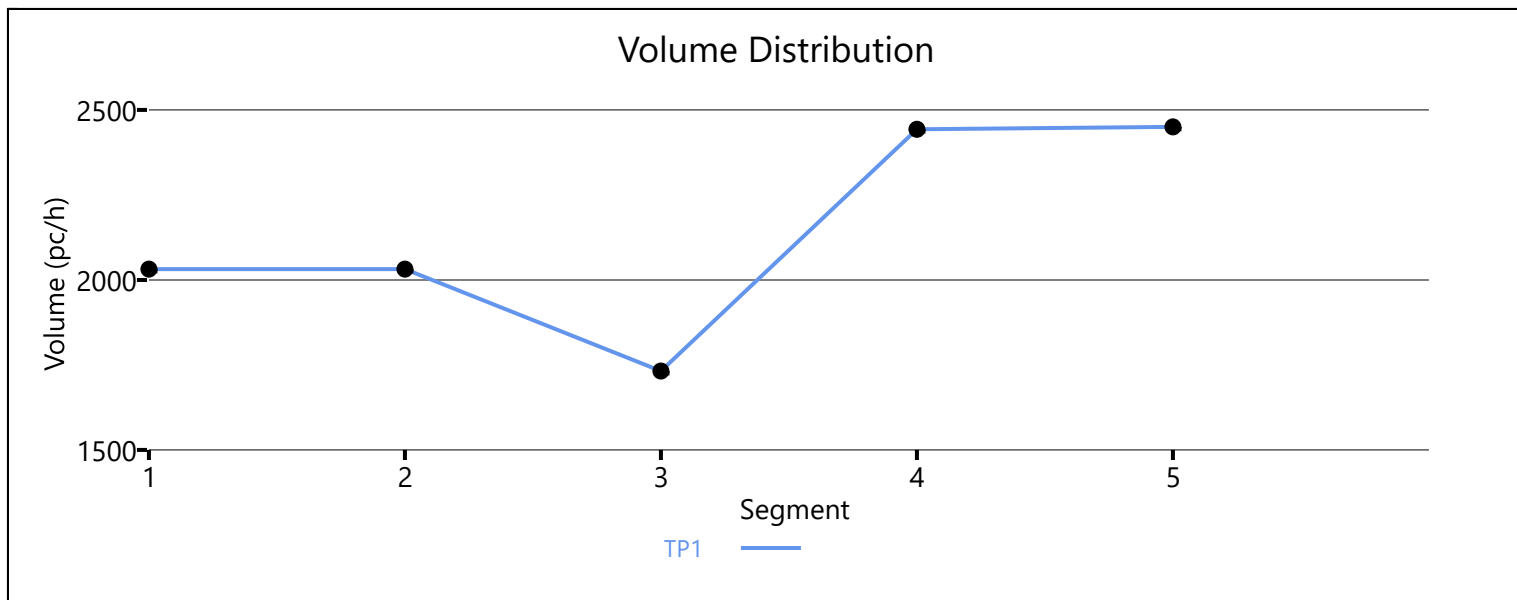
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2443	711	7200	2100	0.34	0.34	64.3	62.5	12.7	13.6	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2450		7161		0.34		68.7		11.9		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	10.5	10.1	2.1	A
Facility Overall Results					
Space Mean Speed, mi/h		67.5	Density, veh/mi/ln		10.1
Average Travel Time, min		2.1	Density, pc/mi/ln		10.5



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		2523		7161		0.35		68.7		12.2		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2523	728	7200	2100	0.35	0.35	63.2	59.8	13.3	16.7	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.901		1808		7161		0.25		68.7		8.8		A

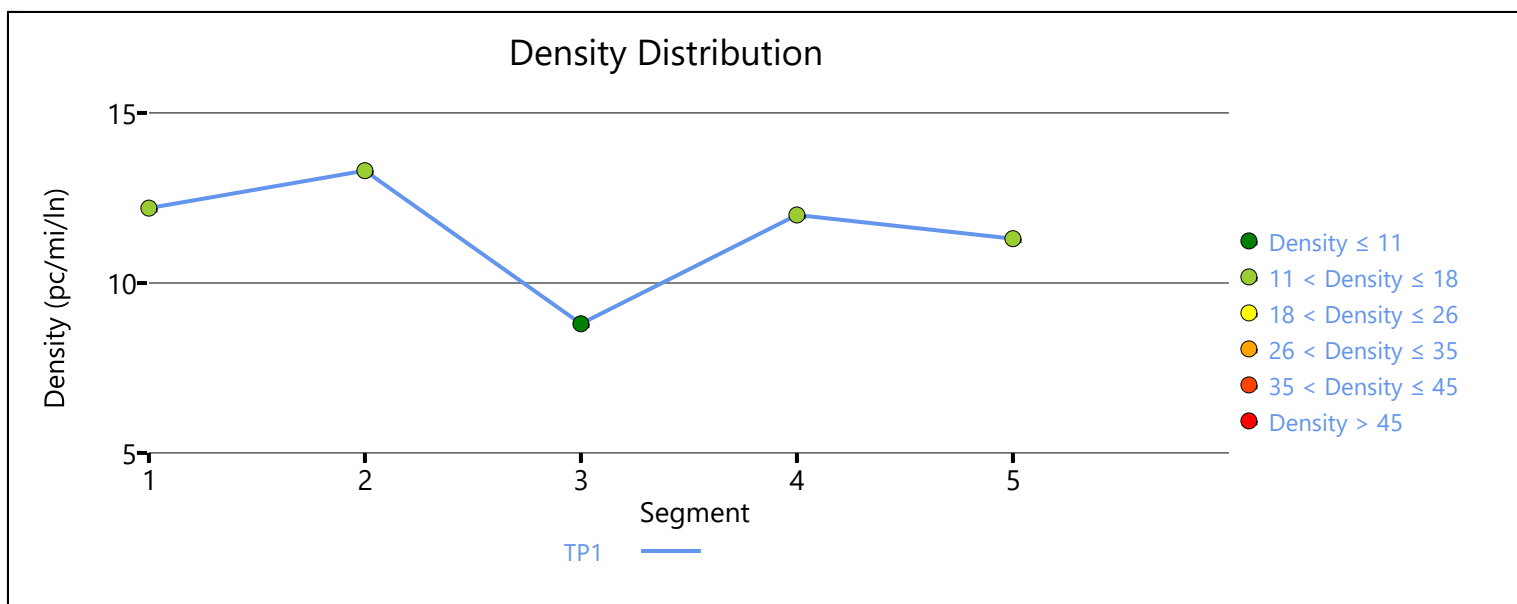
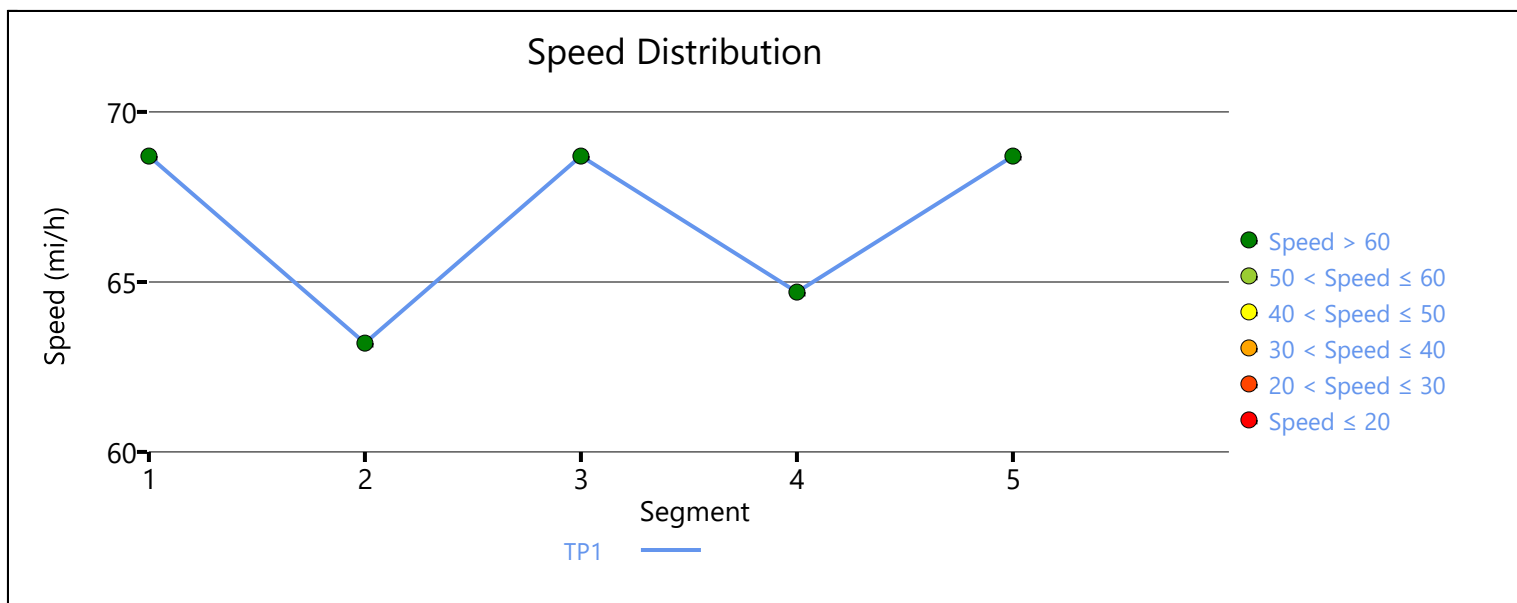
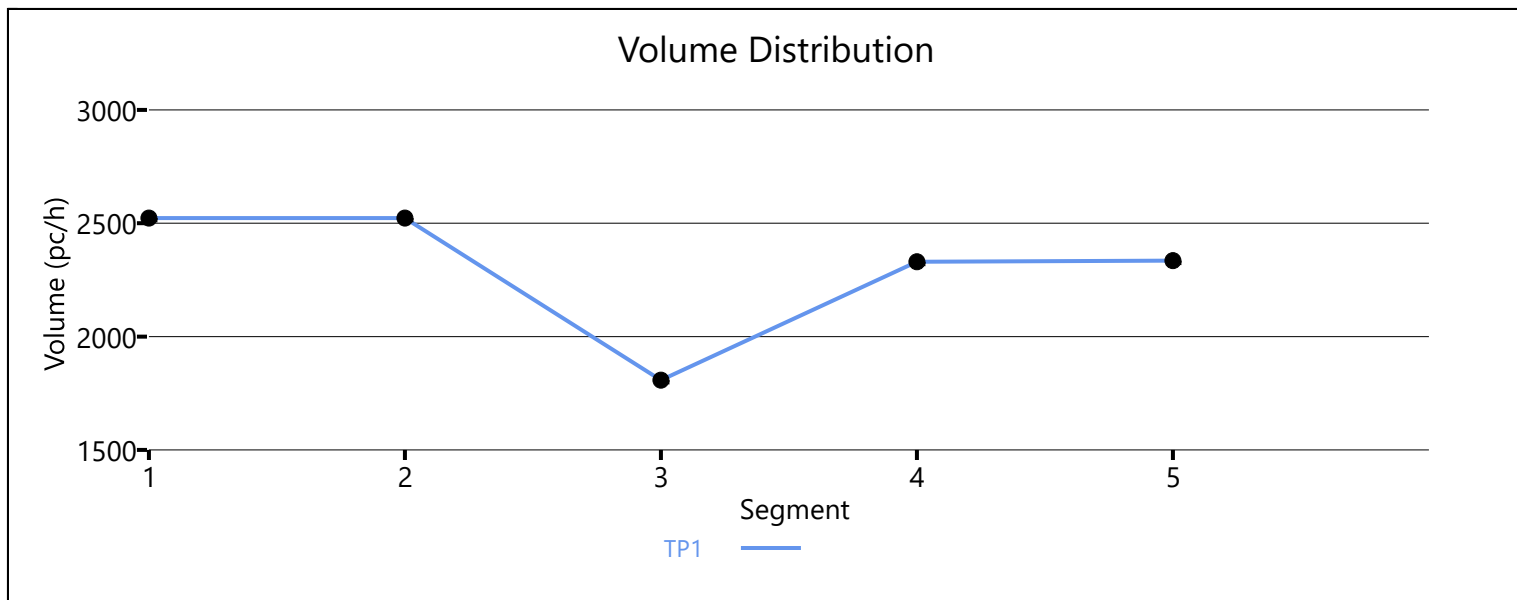
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.980	2330	522	7200	2100	0.32	0.25	64.7	62.9	12.0	11.9	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.917		2335		7161		0.33		68.7		11.3		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	11.6	10.6	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.5	Density, veh/mi/ln		10.6
Average Travel Time, min		2.2	Density, pc/mi/ln		11.6



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Beaumont	3040	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1000	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	East of Beaumont	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.893		4998		9548		0.52		68.7		18.2		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.893	0.926	4998	628	9600	2100	0.52	0.30	67.0	60.1	18.6	20.9	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.893		4347		9548		0.46		68.7		15.8		B

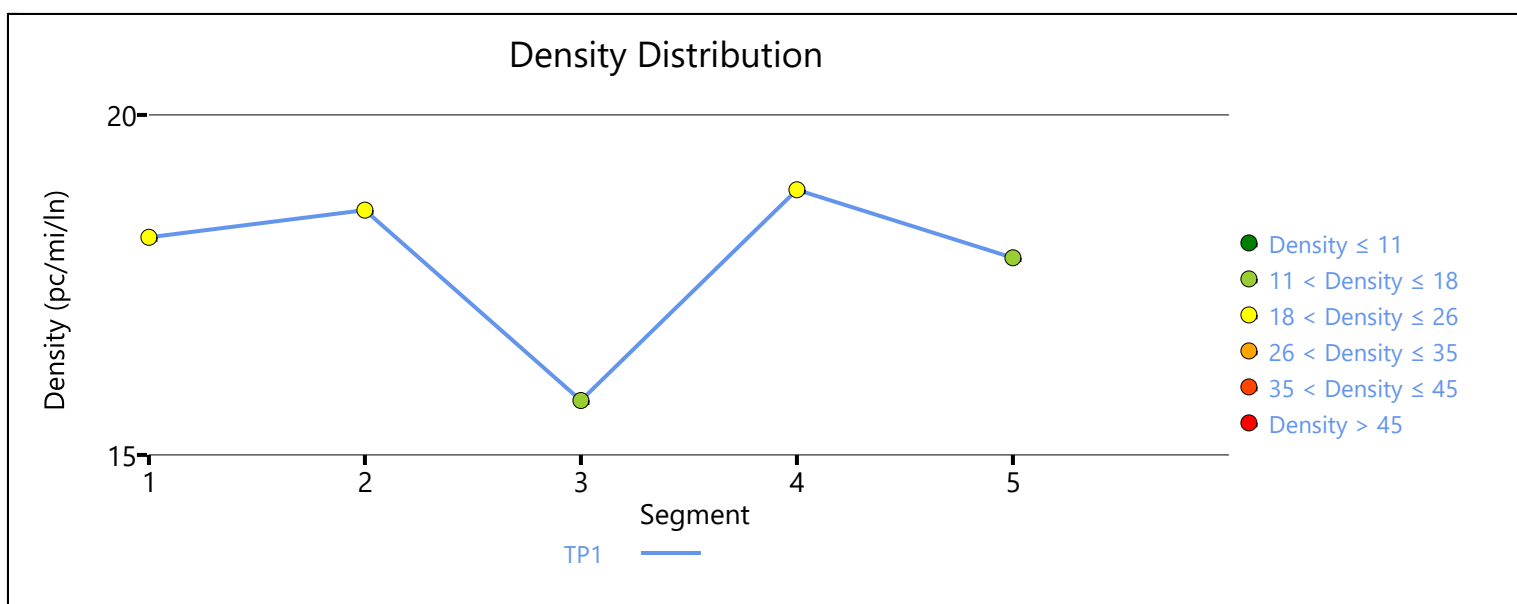
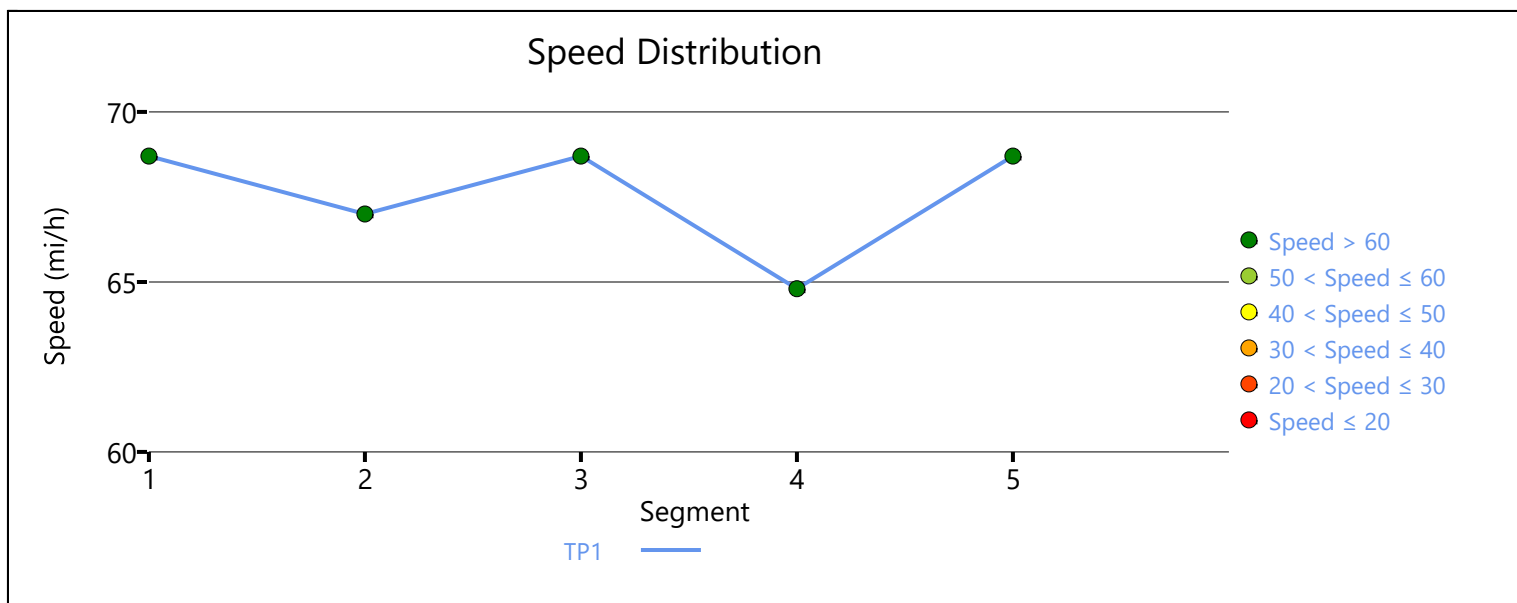
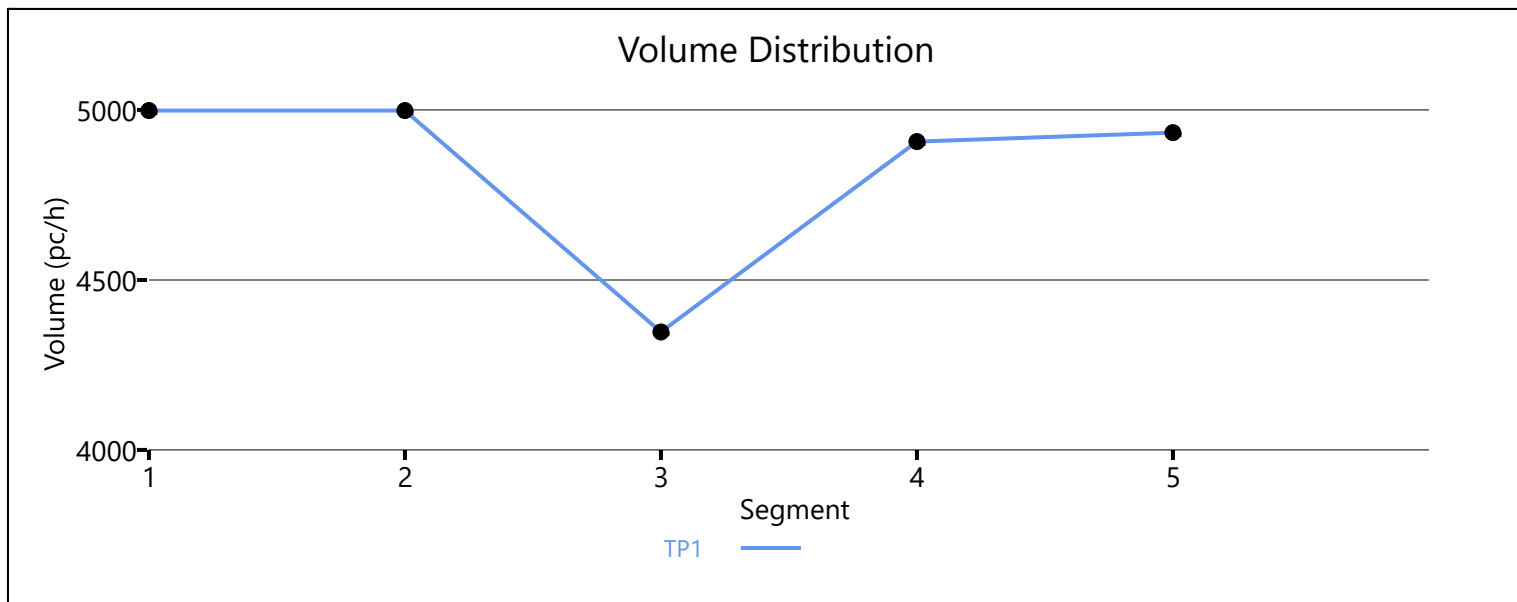
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.893	0.935	4907	560	9600	2100	0.51	0.27	64.8	62.3	18.9	17.3	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.893		4933		9548		0.52		68.7		17.9		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.8	18.0	16.1	1.7	C
Facility Overall Results					
Space Mean Speed, mi/h		67.8	Density, veh/mi/ln		16.1
Average Travel Time, min		1.7	Density, pc/mi/ln		18.0



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Beaumont	3125	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1300	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	West of Beaumont	3250	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		3852		9548		0.40		68.7		14.0		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.901	3705	626	9600	2100	0.39	0.30	66.9	60.1	13.8	16.2	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		3205		9548		0.34		68.7		11.7		B

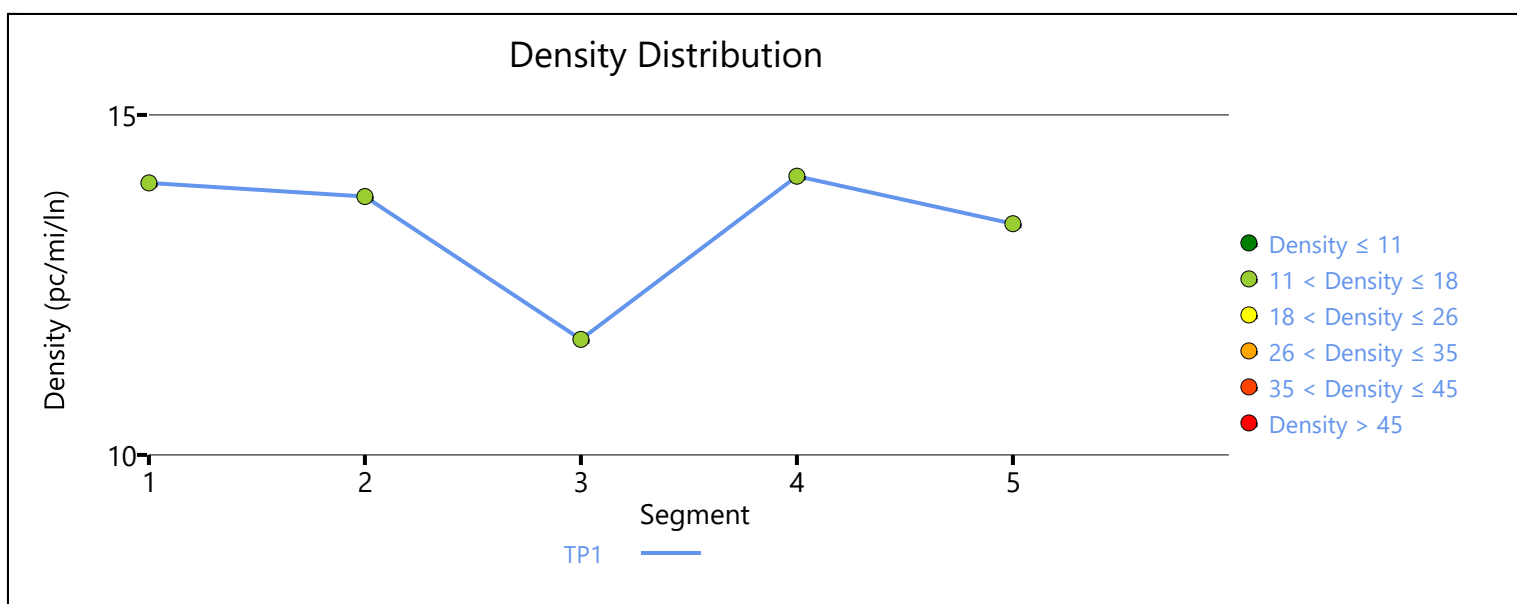
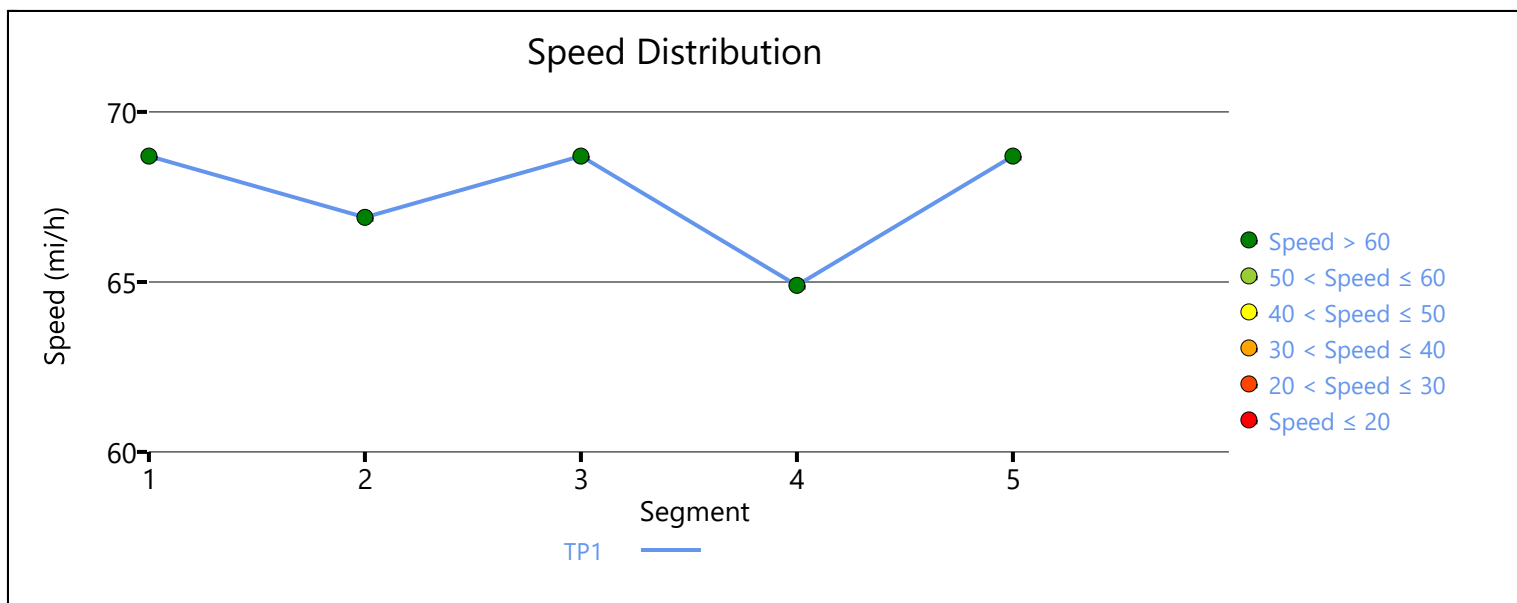
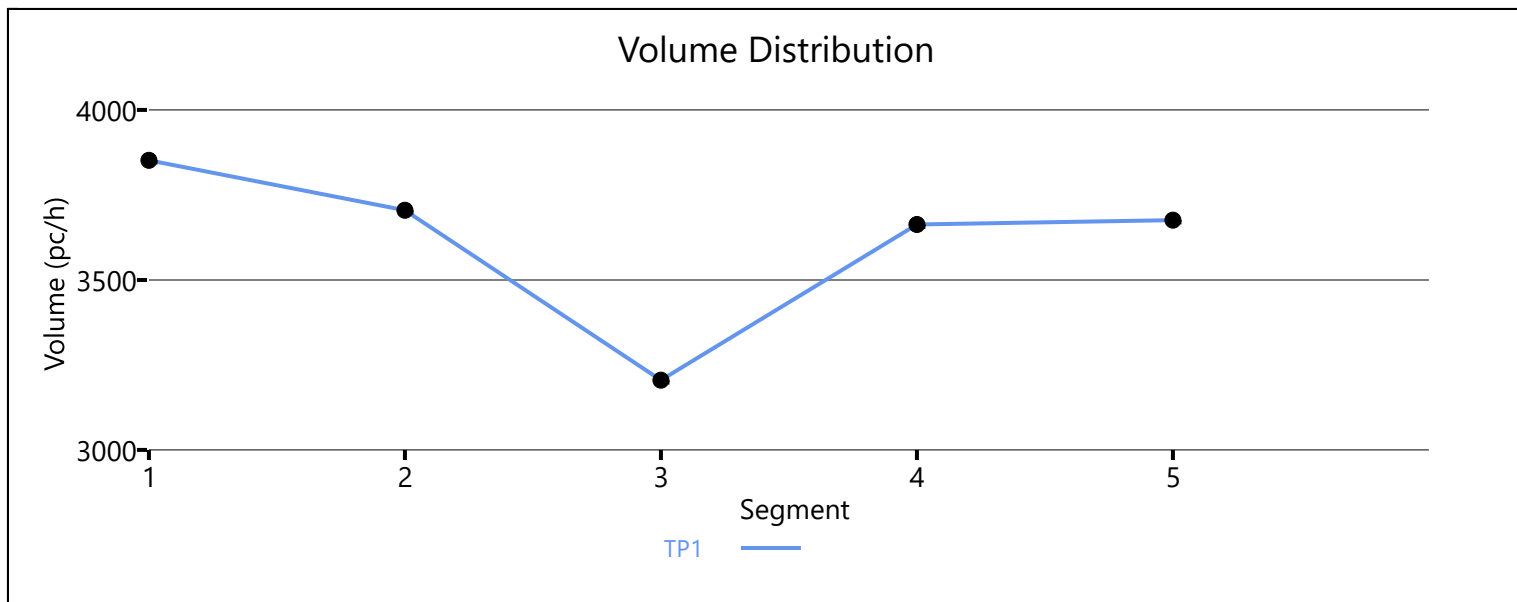
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.935	3663	458	9600	2100	0.38	0.22	64.9	61.5	14.1	16.2	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3676		9548		0.39		68.7		13.4		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.9	13.5	13.2	1.8	B
Facility Overall Results					
Space Mean Speed, mi/h		67.9	Density, veh/mi/ln		13.2
Average Travel Time, min		1.8	Density, pc/mi/ln		13.5



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of I-10	5280	2
2	Diverge	Diverge	Off-Ramp at 6th Street	1500	2
3	Basic	Basic	East of I-10	1000	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	1290	4786	0.27	69.3	9.3	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.943	1290	808	4800	2100	0.27	0.38	59.6	59.6	10.8	11.3	B

Segment 3: Basic

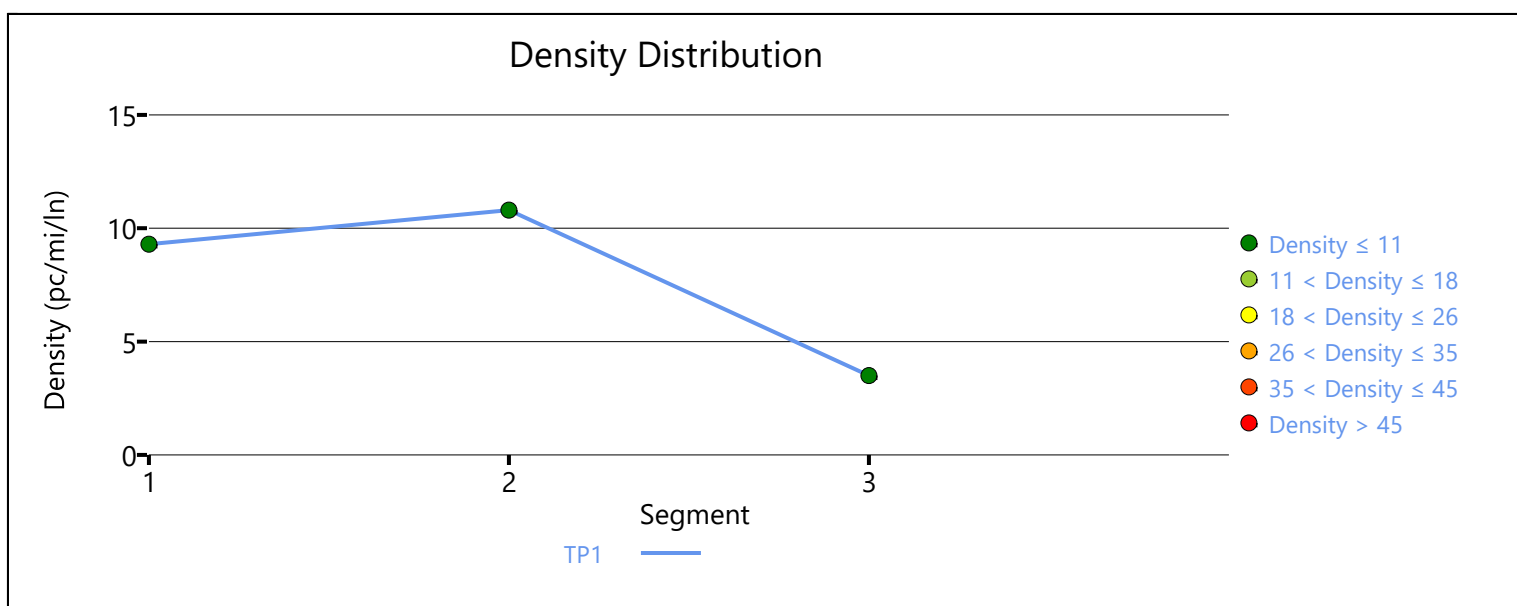
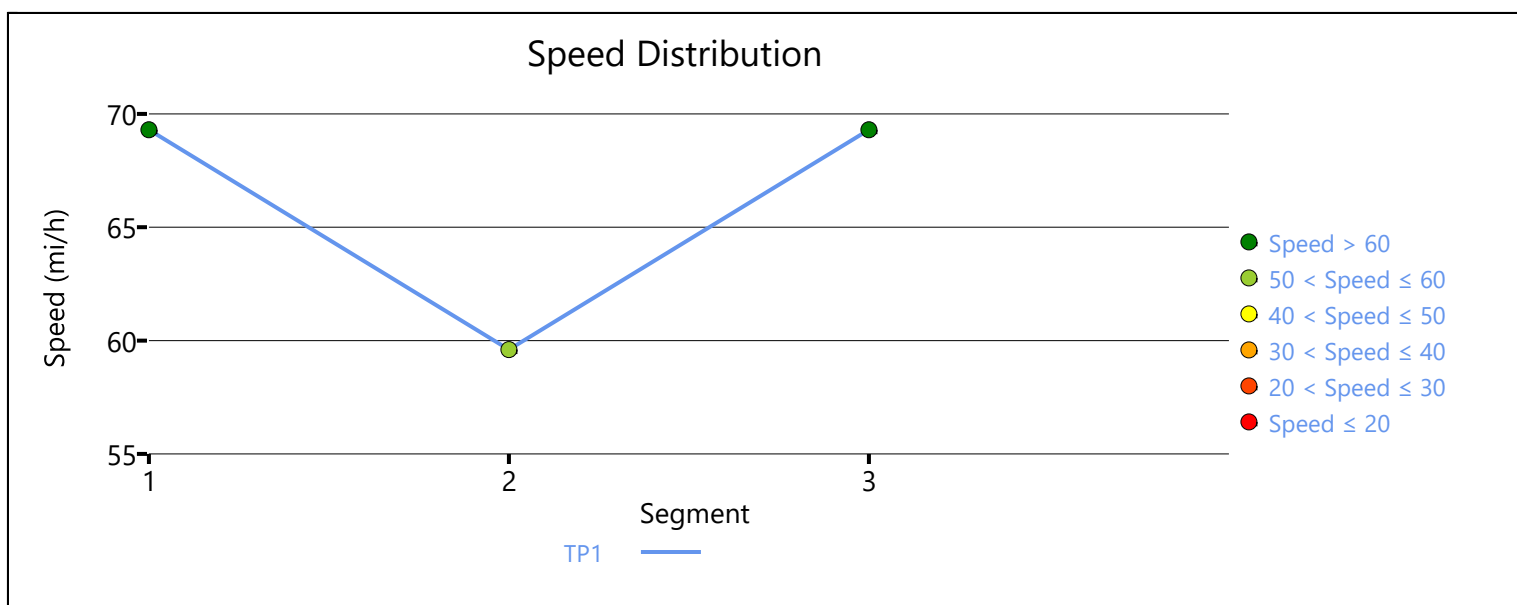
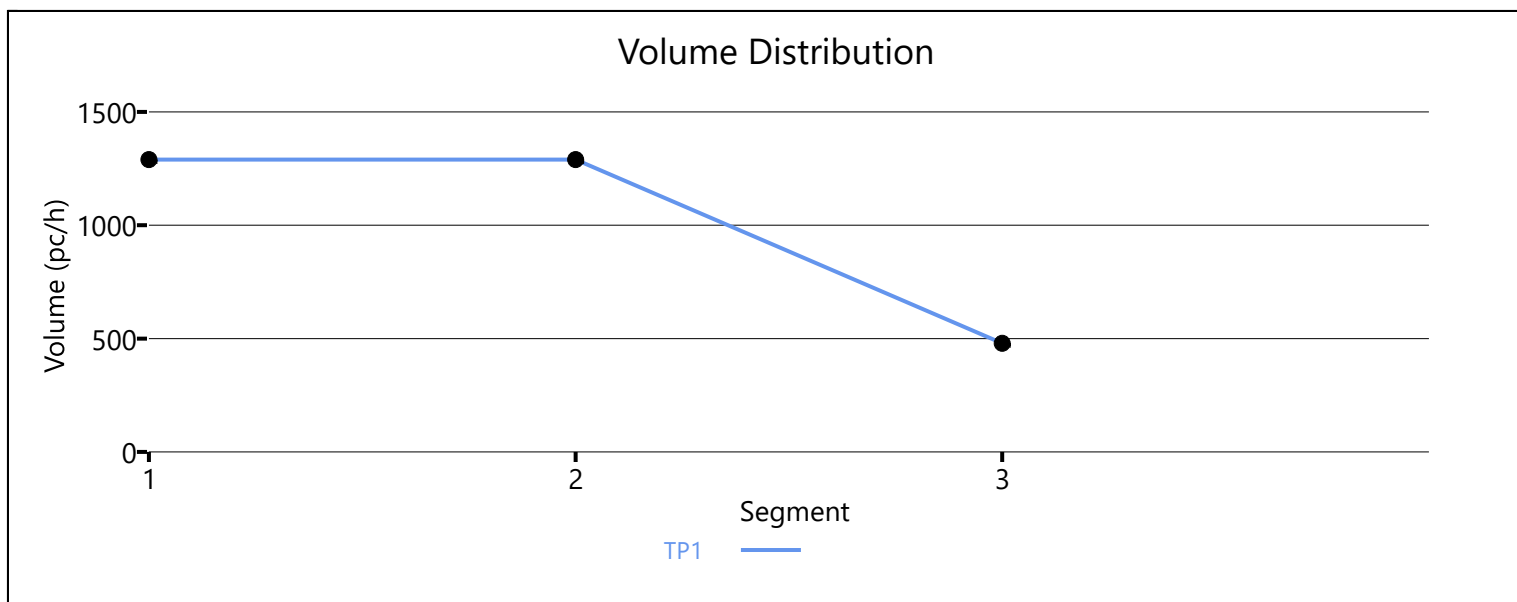
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	479	4786	0.10	69.3	3.5	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.0	8.8	8.5	1.3	A

Facility Overall Results

Space Mean Speed, mi/h	67.0	Density, veh/mi/ln	8.5
Average Travel Time, min	1.3	Density, pc/mi/ln	8.8



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Western Knolls	3500	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	100	2
4	Merge	Merge	On-Ramp	1500	2
5	Basic	Basic	West of Western Knolls	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		1241		4774		0.26		68.7		9.0		A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.971	1241	40	4800	2100	0.26	0.02	61.5	61.5	10.1	7.7	A

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		1202		4774		0.25		68.7		8.7		A

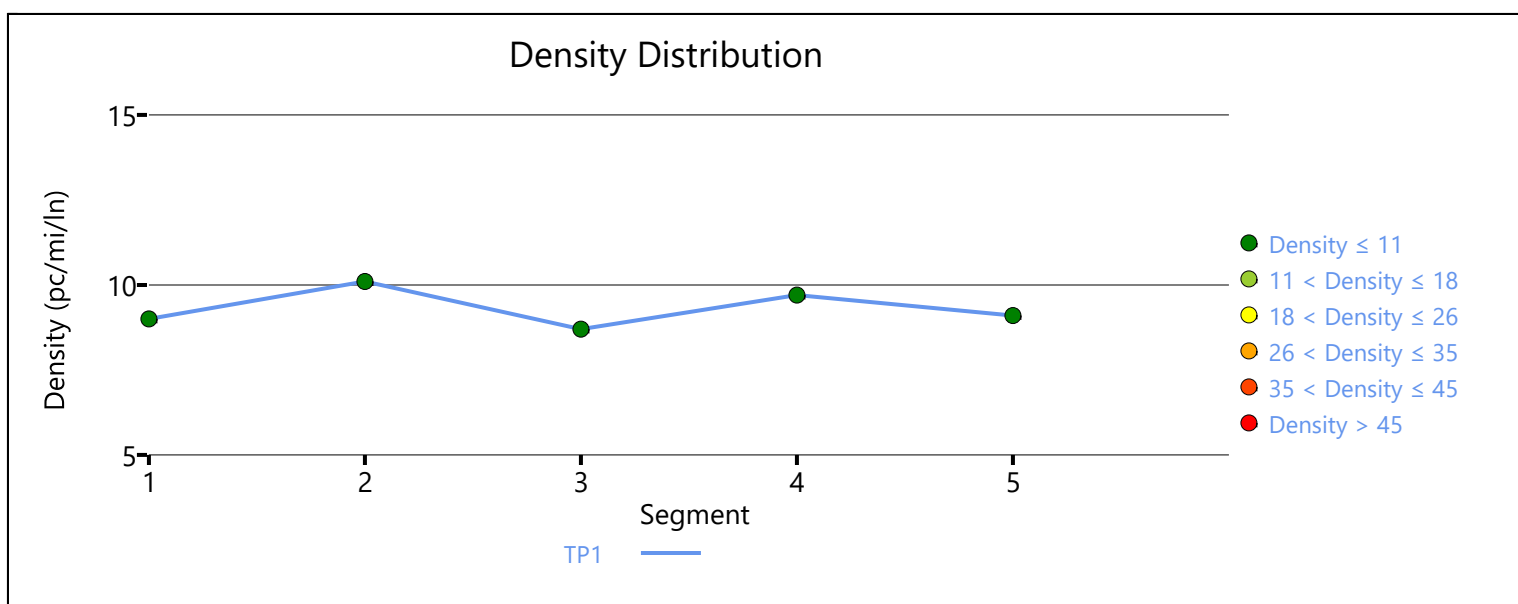
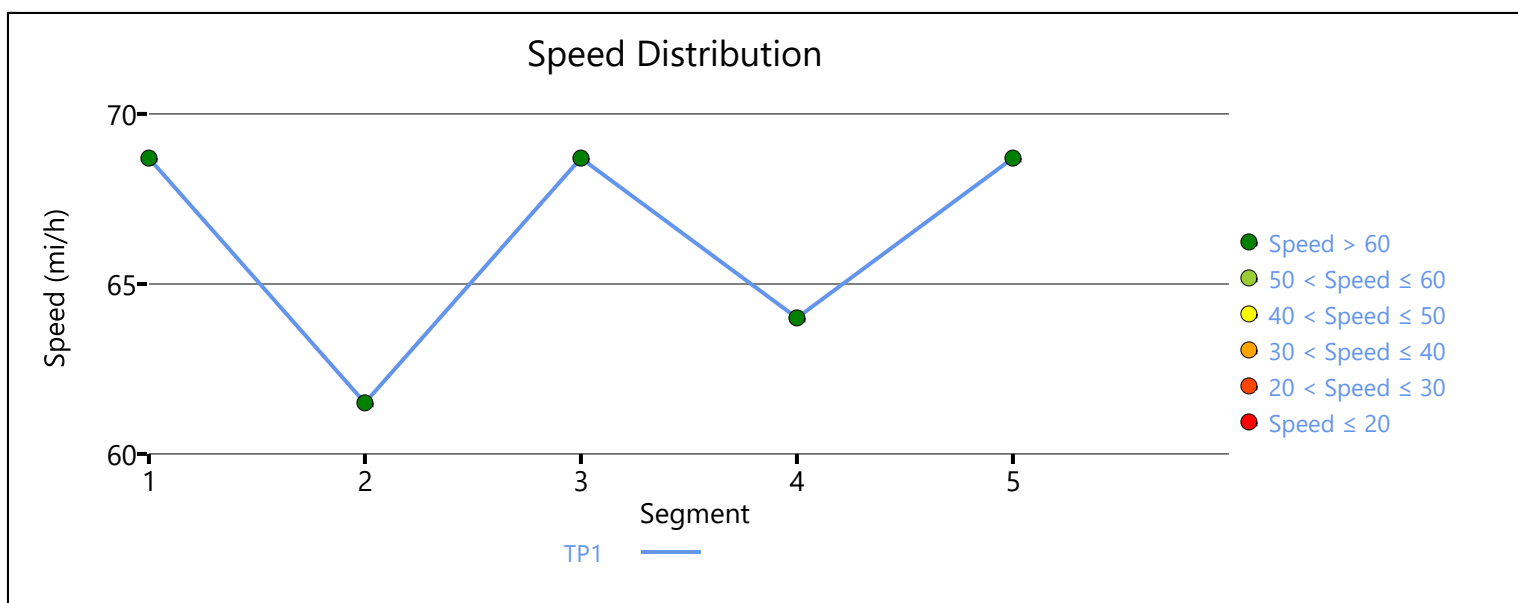
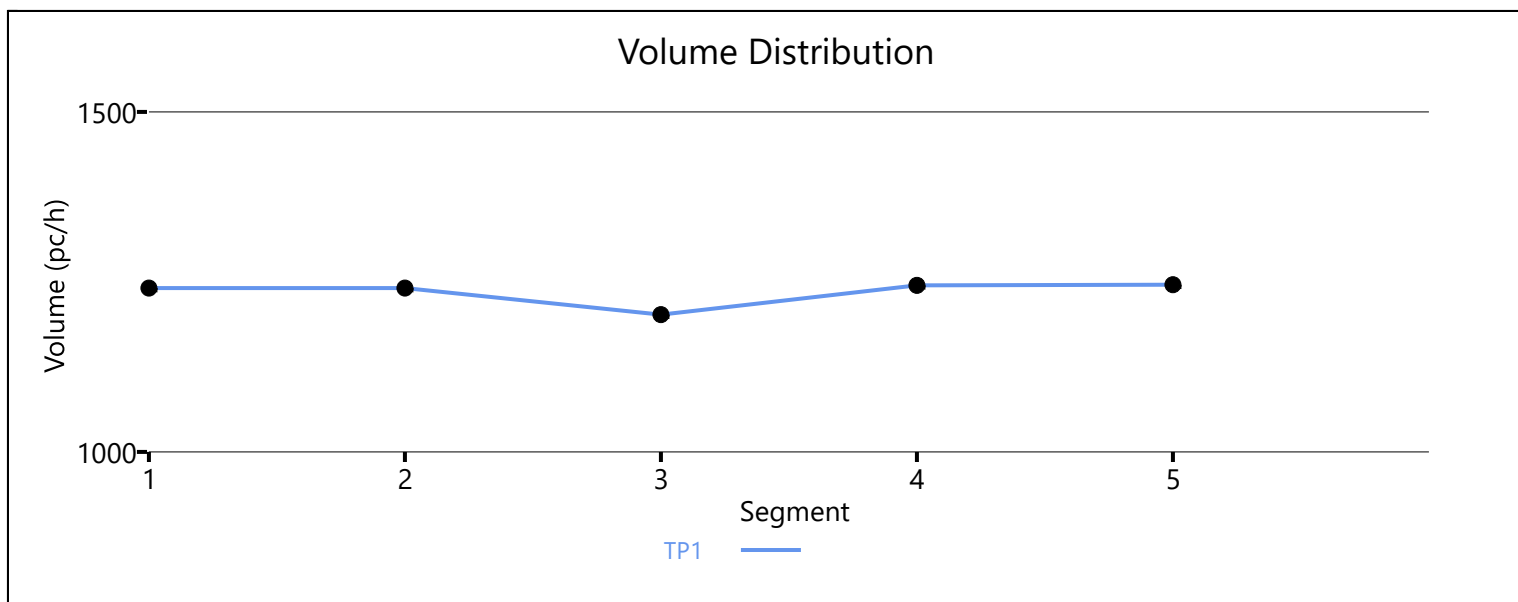
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	1.000	1245	43	4800	2100	0.26	0.02	64.0	64.0	9.7	6.9	A

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		1246		4774		0.26		68.7		9.1		A

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.1	9.3	9.3	2.0	A
Facility Overall Results					
Space Mean Speed, mi/h		67.1	Density, veh/mi/ln		9.3
Average Travel Time, min		2.0	Density, pc/mi/ln		9.3



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		2774		7161		0.39		68.7		13.5		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	2774	594	7200	2100	0.39	0.28	63.9	60.2	14.5	17.8	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2189		7161		0.31		68.7		10.6		A

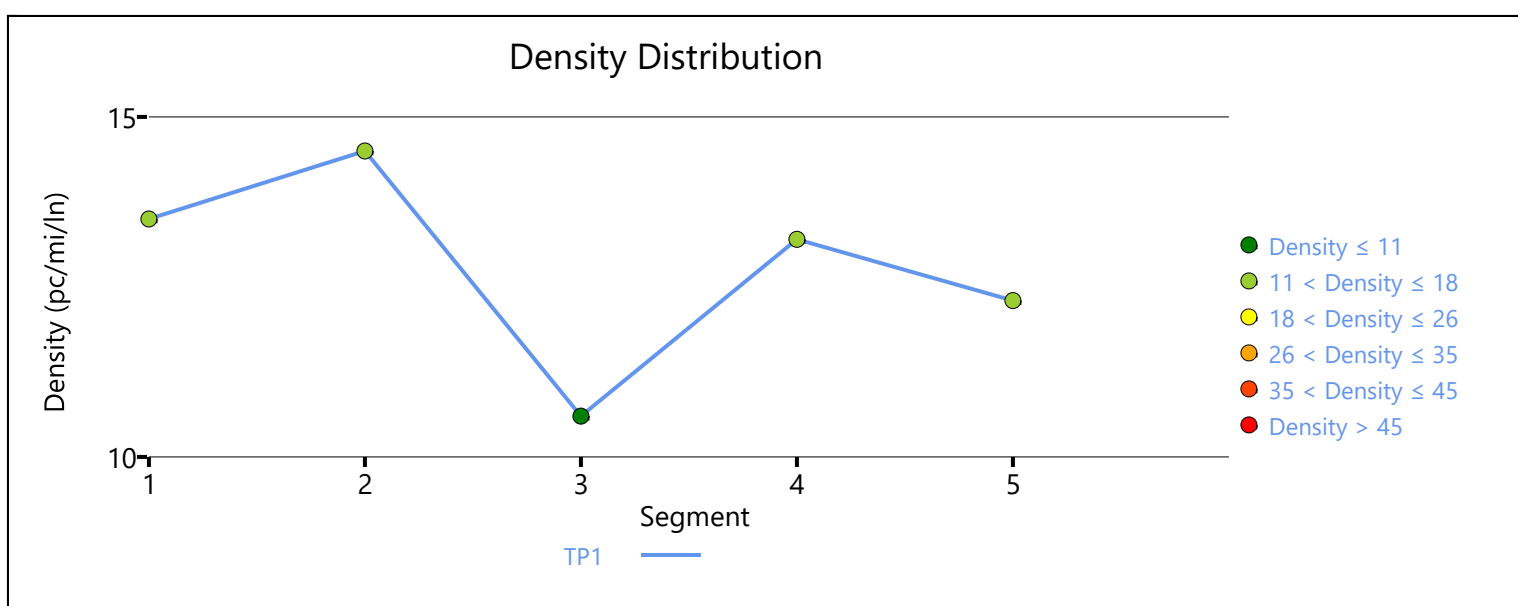
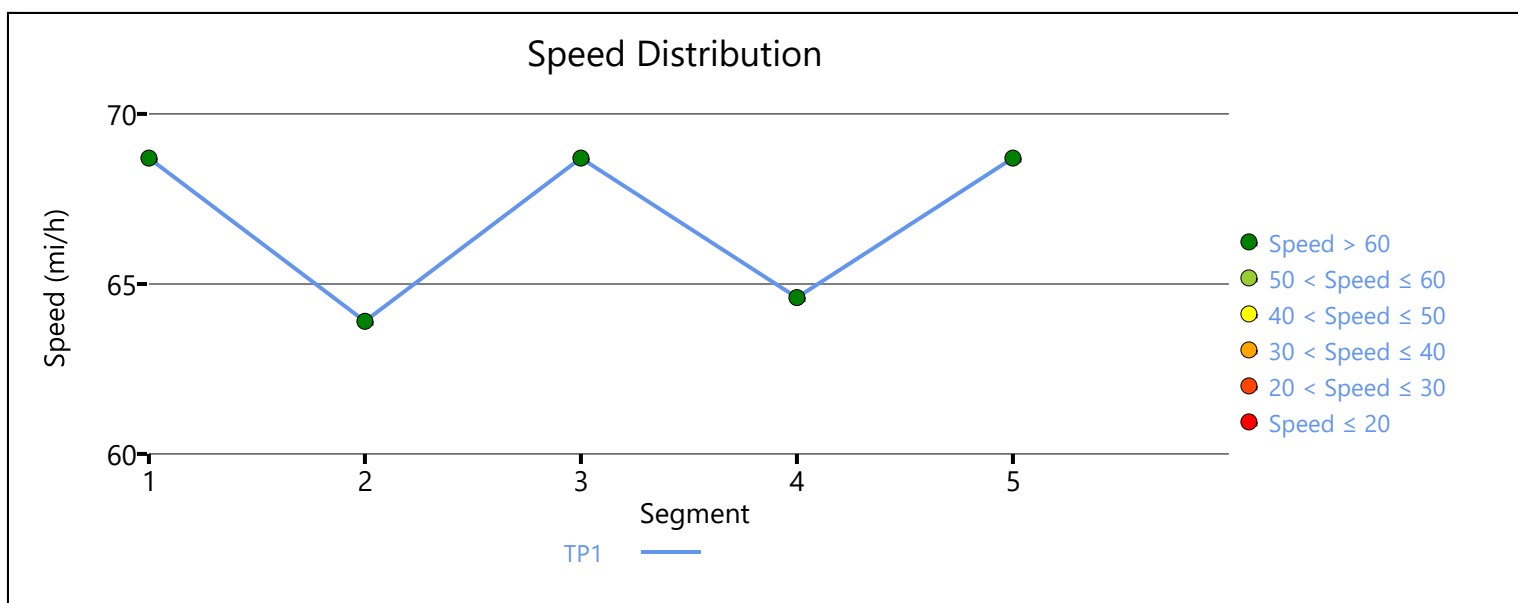
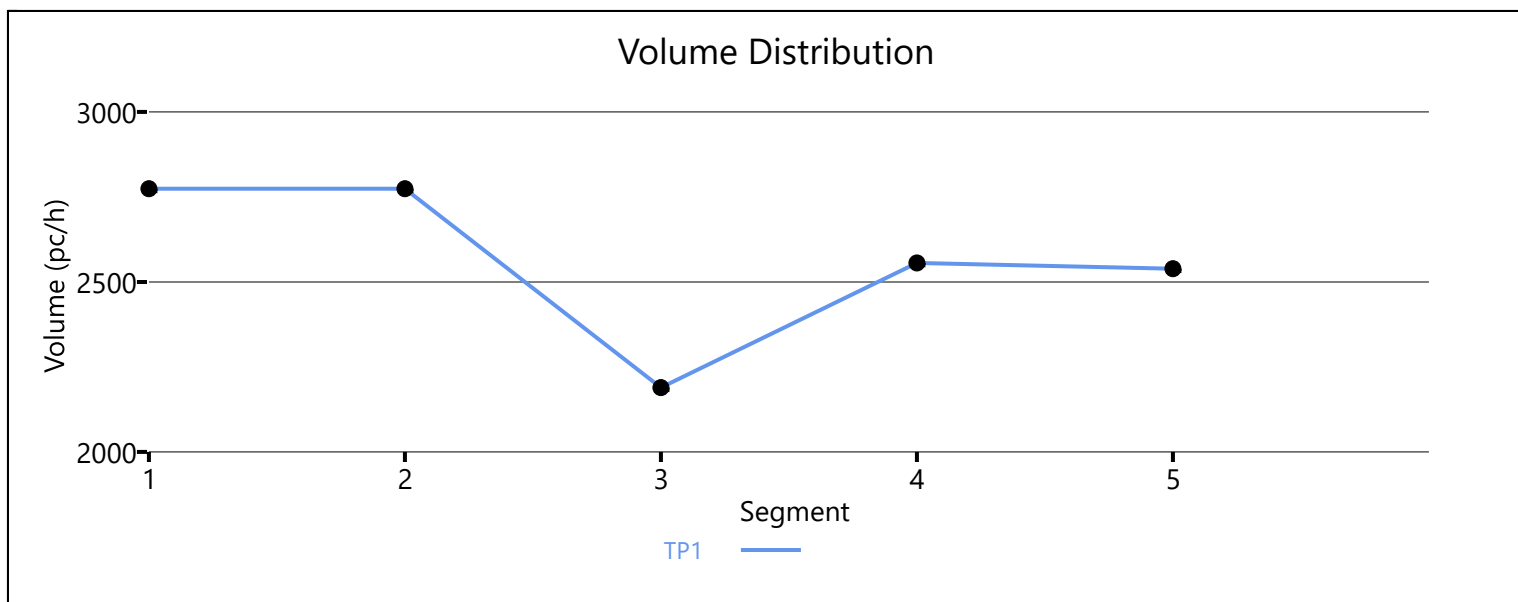
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	2556	367	7200	2100	0.36	0.17	64.6	62.6	13.2	13.2	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		2539		7161		0.35		68.7		12.3		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	13.0	12.5	2.1	B
Facility Overall Results					
Space Mean Speed, mi/h		67.5	Density, veh/mi/ln		12.5
Average Travel Time, min		2.1	Density, pc/mi/ln		13.0



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		3005		7161		0.42		68.7		14.6		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	3005	634	7200	2100	0.42	0.30	63.9	60.1	15.7	19.0	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.917		2380		7161		0.33		68.7		11.5		B

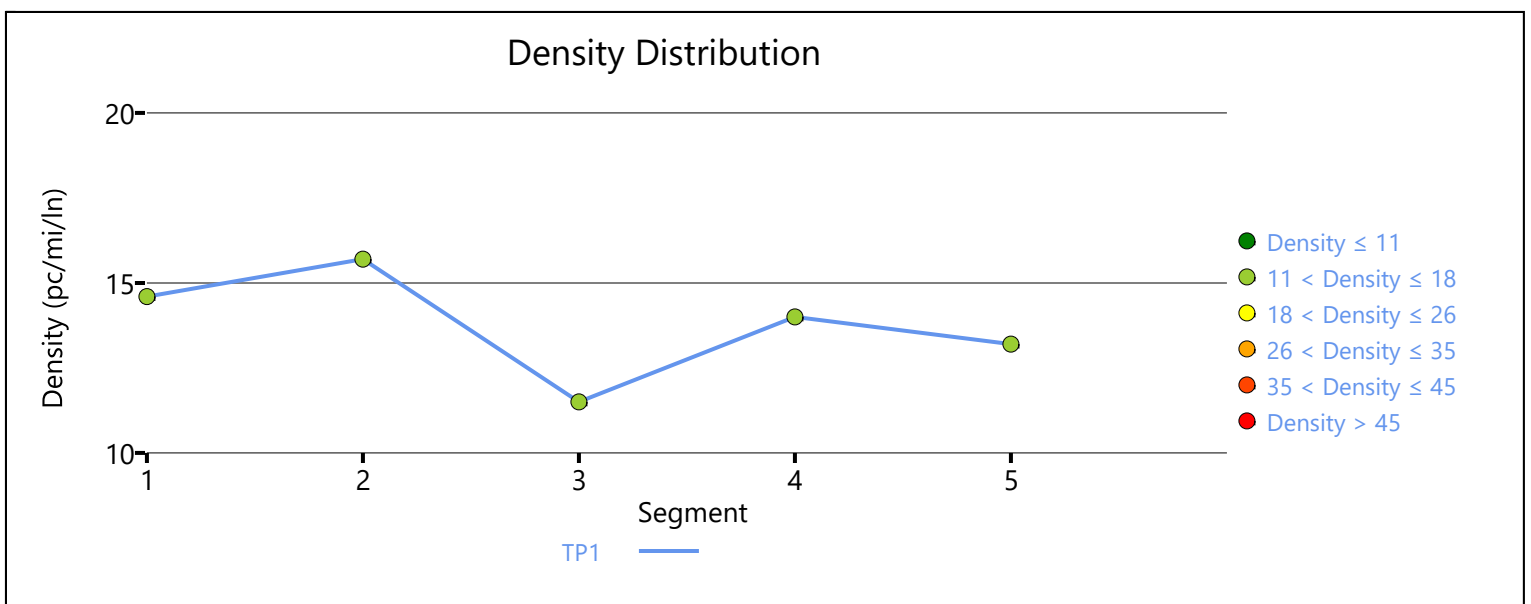
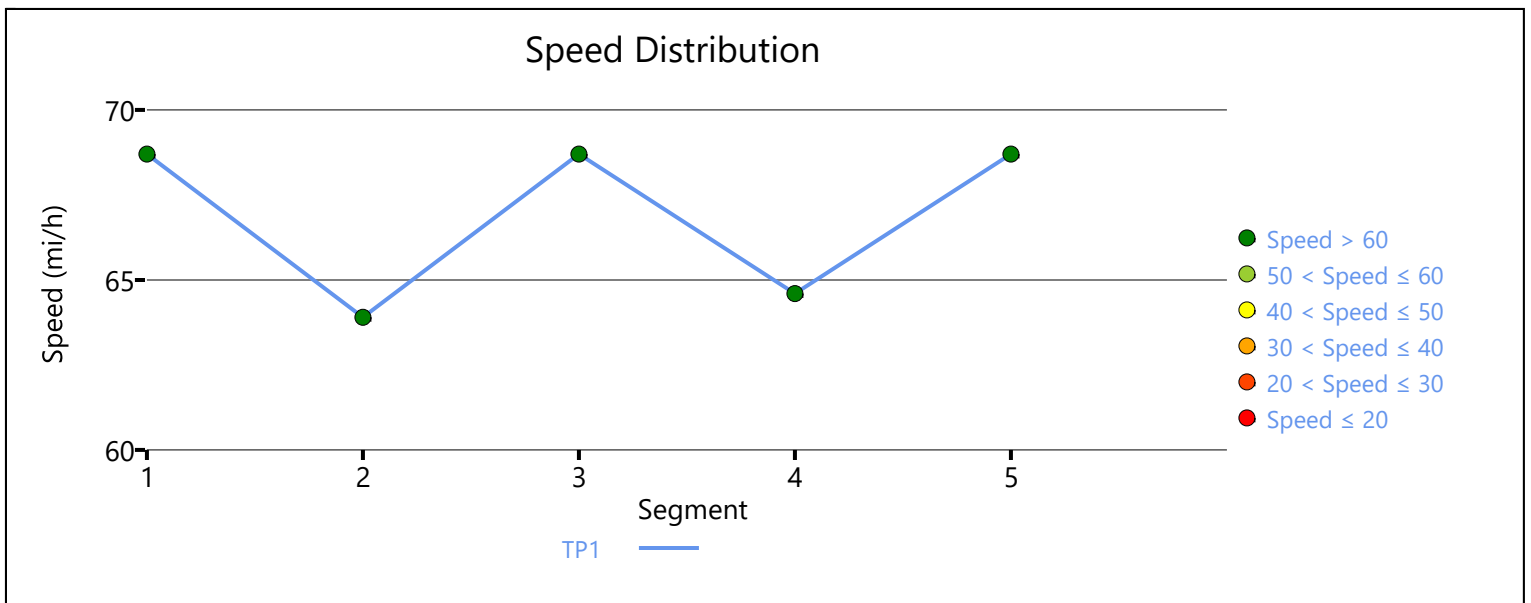
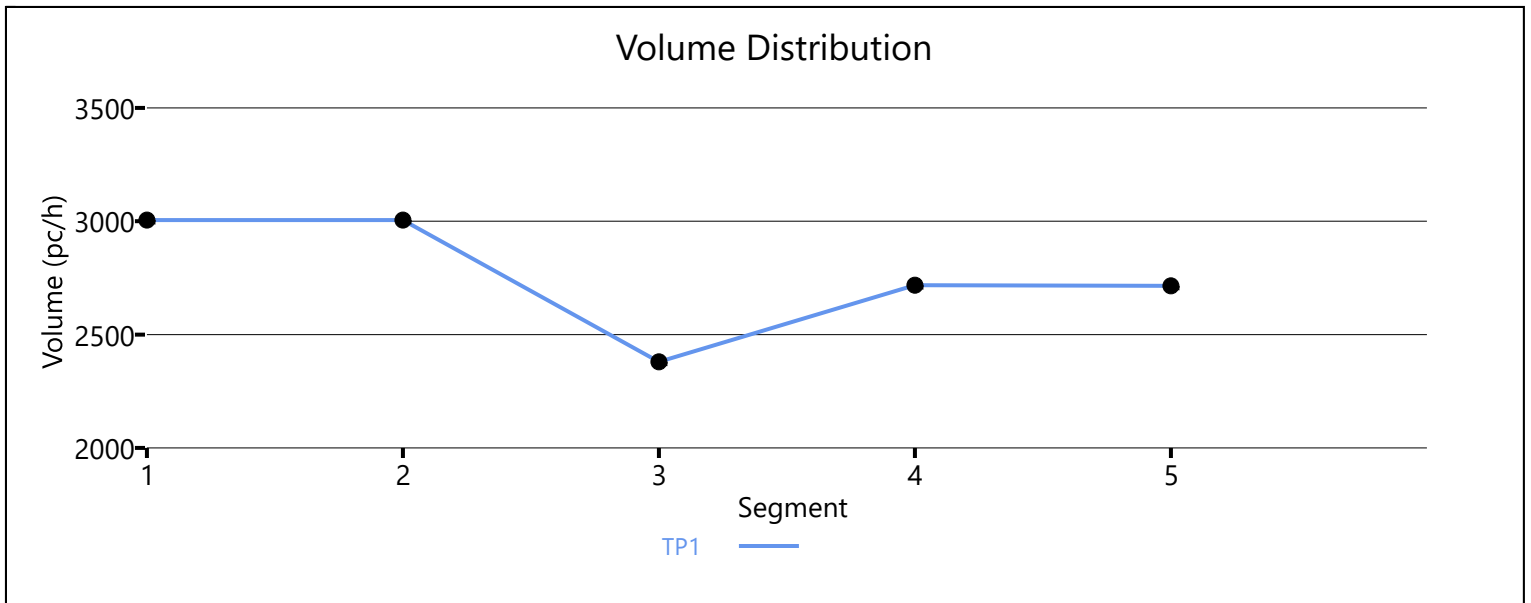
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.980	2718	338	7200	2100	0.38	0.16	64.6	62.7	14.0	13.3	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		2715		7161		0.38		68.7		13.2		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.6	13.8	12.8	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.6	Density, veh/mi/ln		12.8
Average Travel Time, min		2.2	Density, pc/mi/ln		13.8



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Beaumont	3040	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1000	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	East of Beaumont	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.917		5071		9548		0.53		68.7		18.5		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.943	5071	836	9600	2100	0.53	0.40	66.3	59.6	19.1	22.2	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.909		4249		9548		0.45		68.7		15.5		B

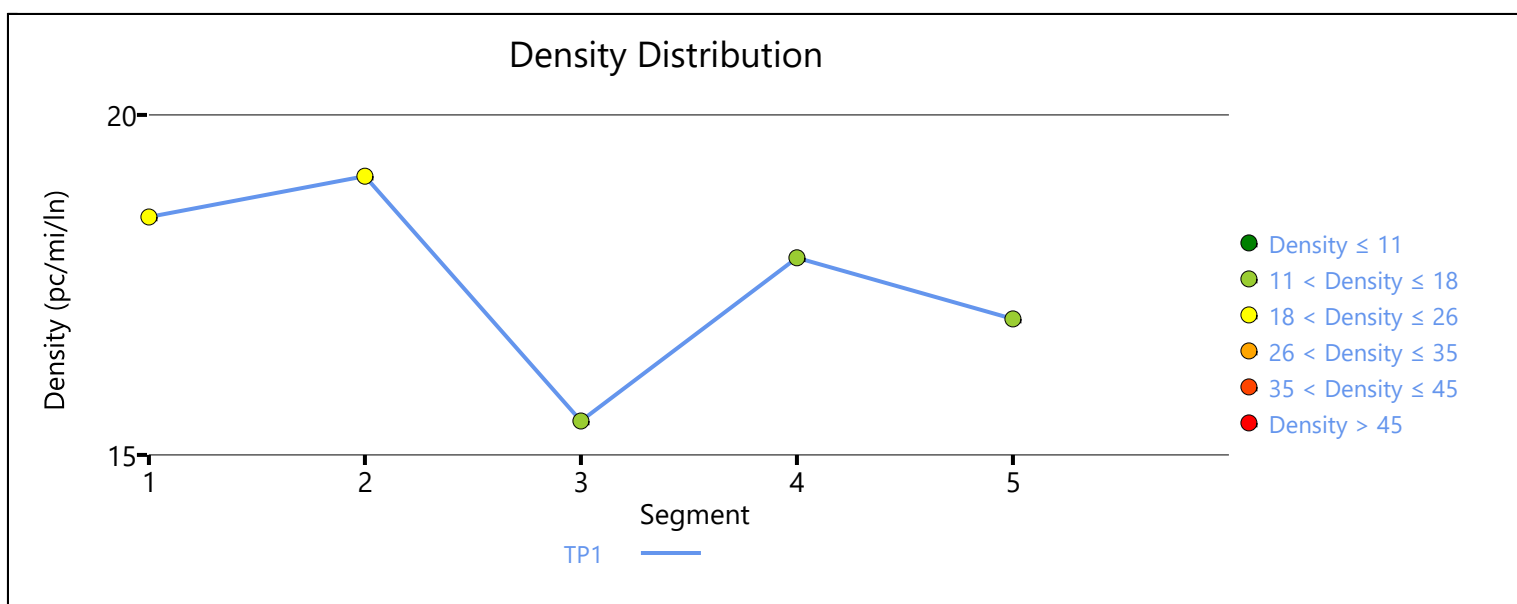
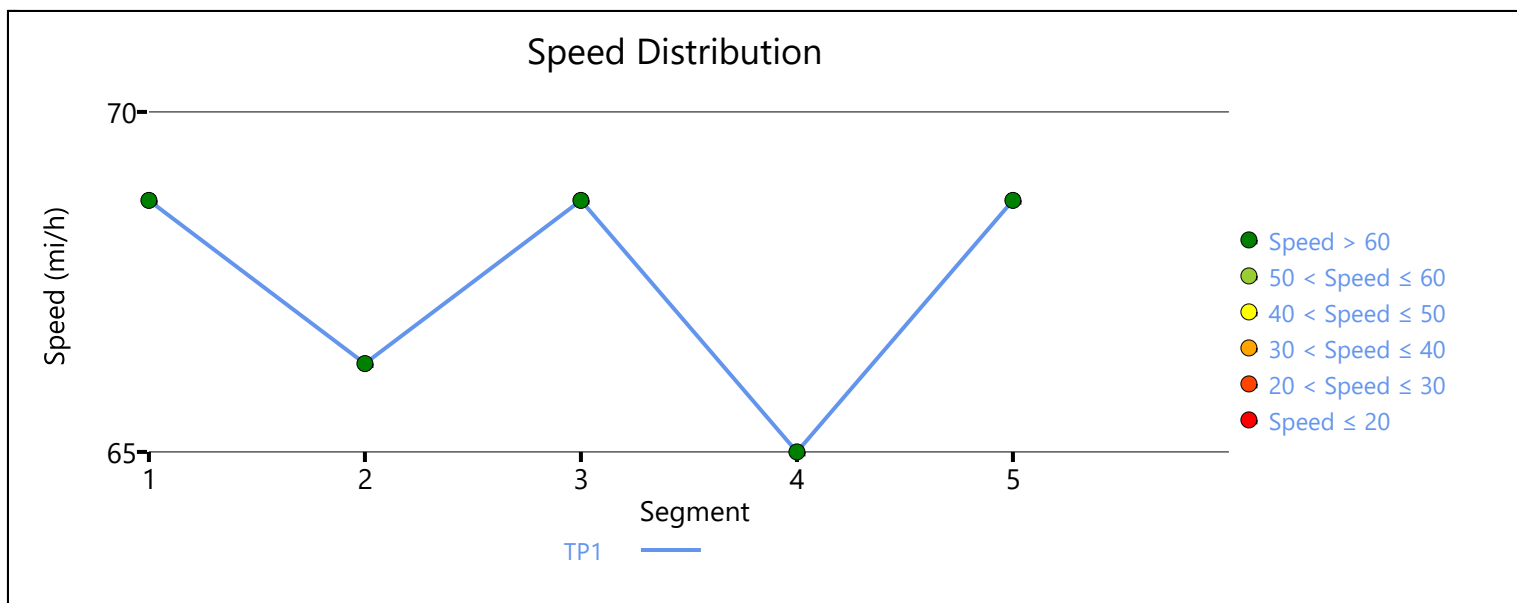
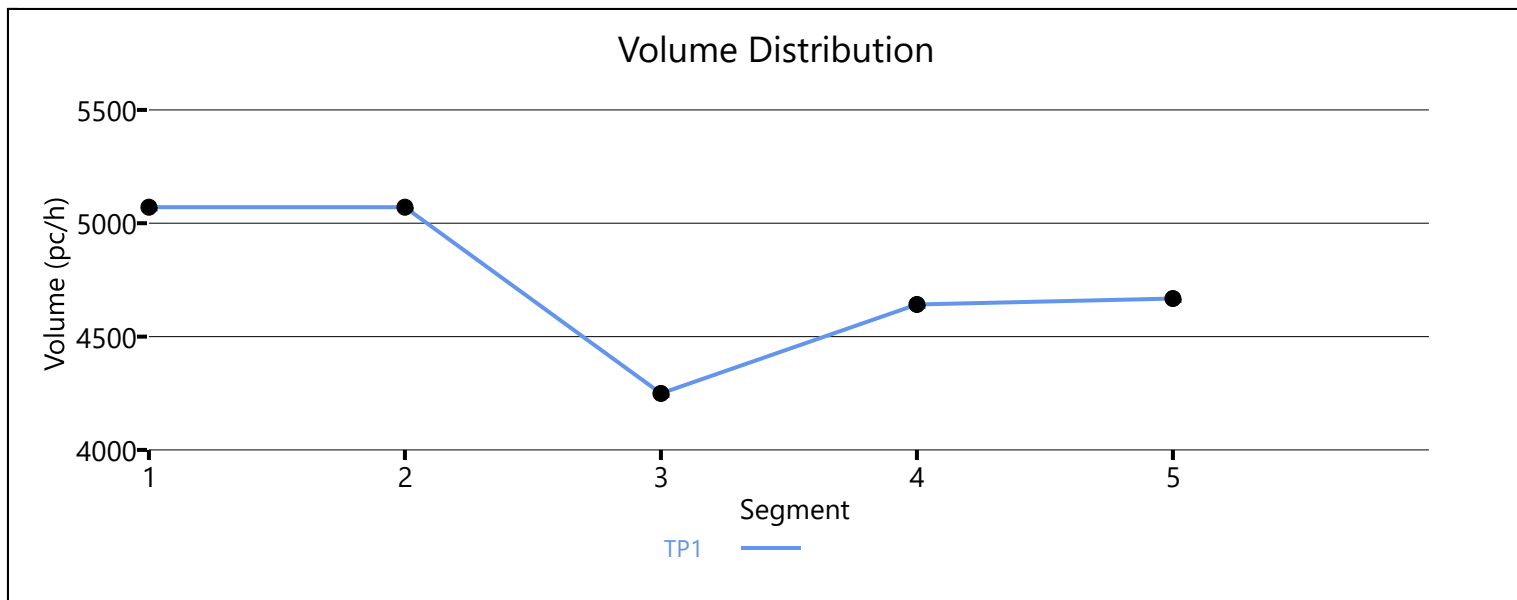
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.909	0.971	4642	393	9600	2100	0.48	0.19	65.0	62.5	17.9	15.7	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.909		4668		9548		0.49		68.7		17.0		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.8	17.8	16.2	1.7	B
Facility Overall Results					
Space Mean Speed, mi/h		67.8	Density, veh/mi/ln		16.2
Average Travel Time, min		1.7	Density, pc/mi/ln		17.8



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Beaumont	3125	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1300	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	West of Beaumont	3250	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		4676		9548		0.49		68.7		17.0		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	4676	923	9600	2100	0.49	0.44	66.1	59.3	17.7	21.3	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3734		9548		0.39		68.7		13.6		B

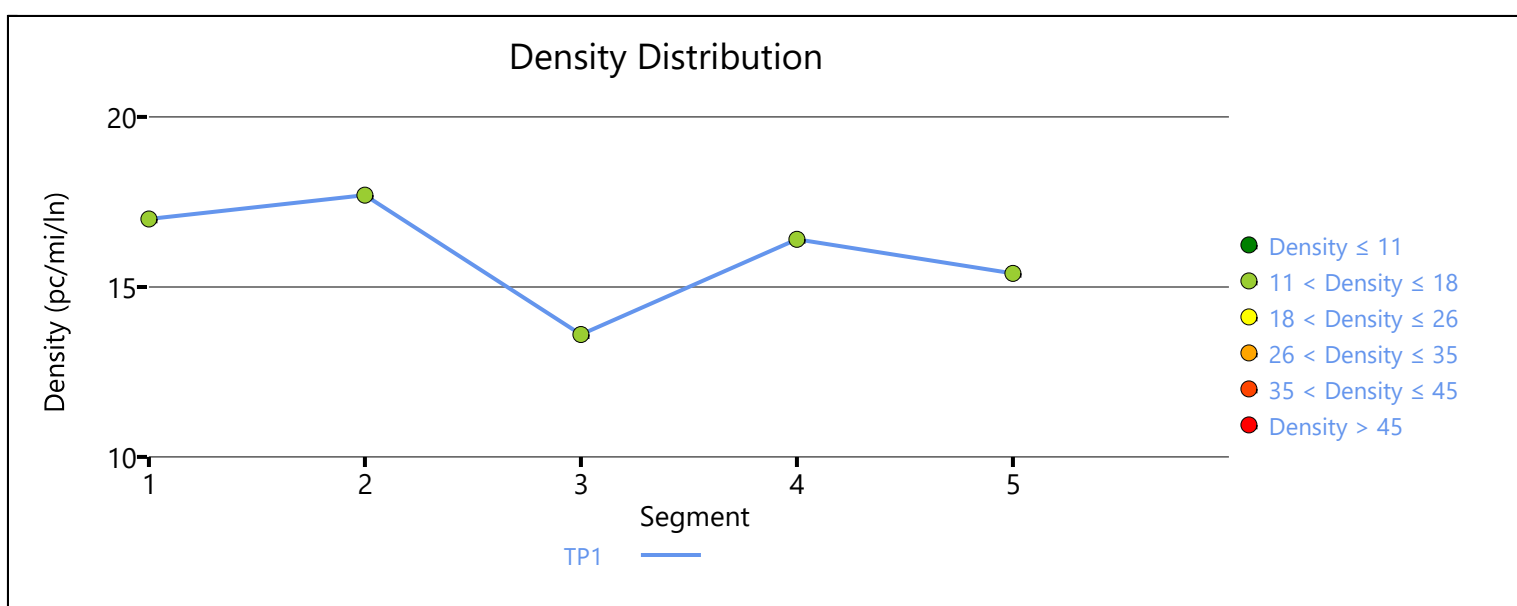
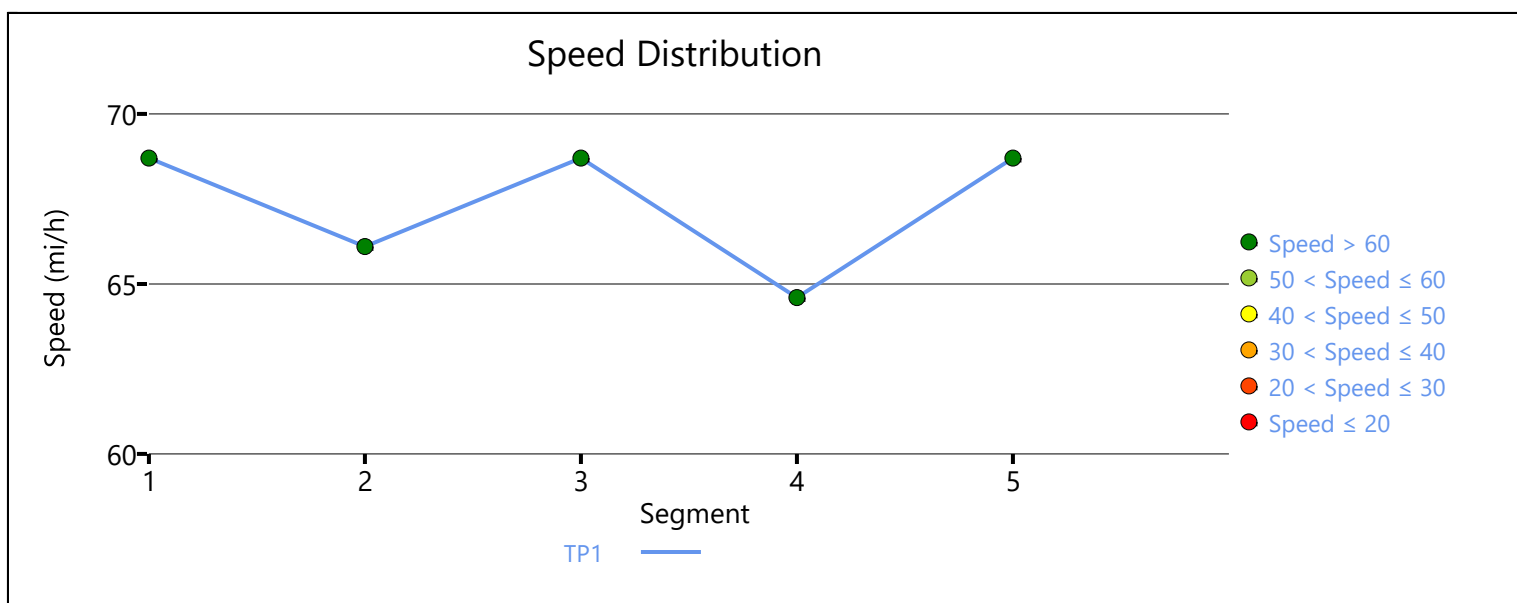
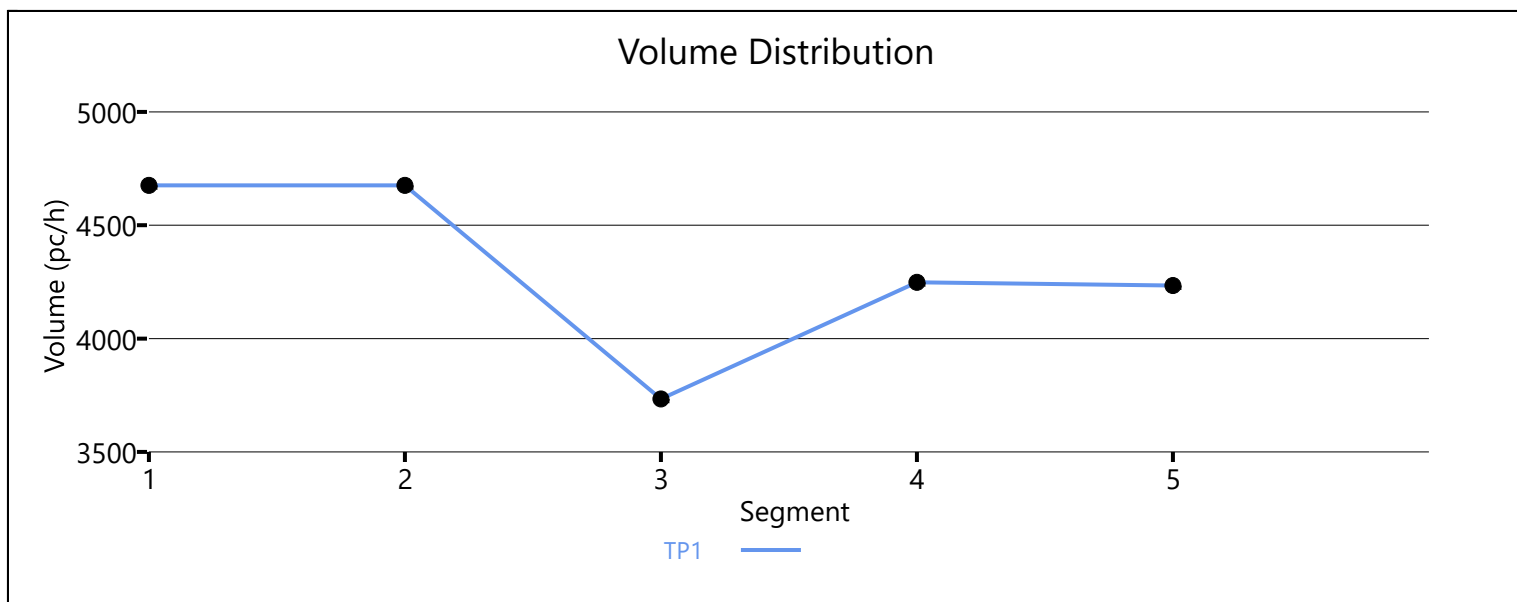
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.943	4248	514	9600	2100	0.44	0.24	64.6	61.3	16.4	18.3	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		4234		9548		0.44		68.7		15.4		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.7	16.1	15.7	1.8	B
Facility Overall Results					
Space Mean Speed, mi/h		67.7	Density, veh/mi/ln		15.7
Average Travel Time, min		1.8	Density, pc/mi/ln		16.1



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of I-10	5280	2
2	Diverge	Diverge	Off-Ramp at 6th Street	1500	2
3	Basic	Basic	East of I-10	1000	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	1510	4786	0.32	69.3	10.9	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.980	1510	1209	4800	2100	0.31	0.58	58.6	58.6	12.9	13.2	B

Segment 3: Basic

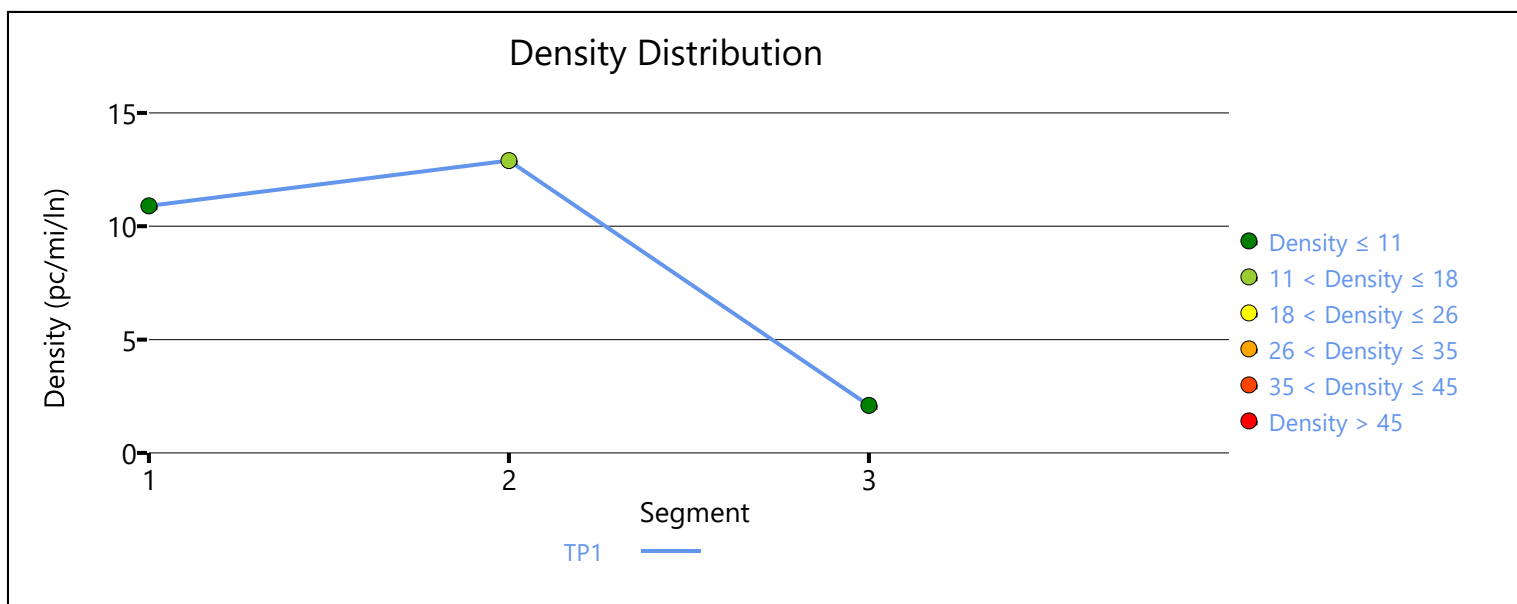
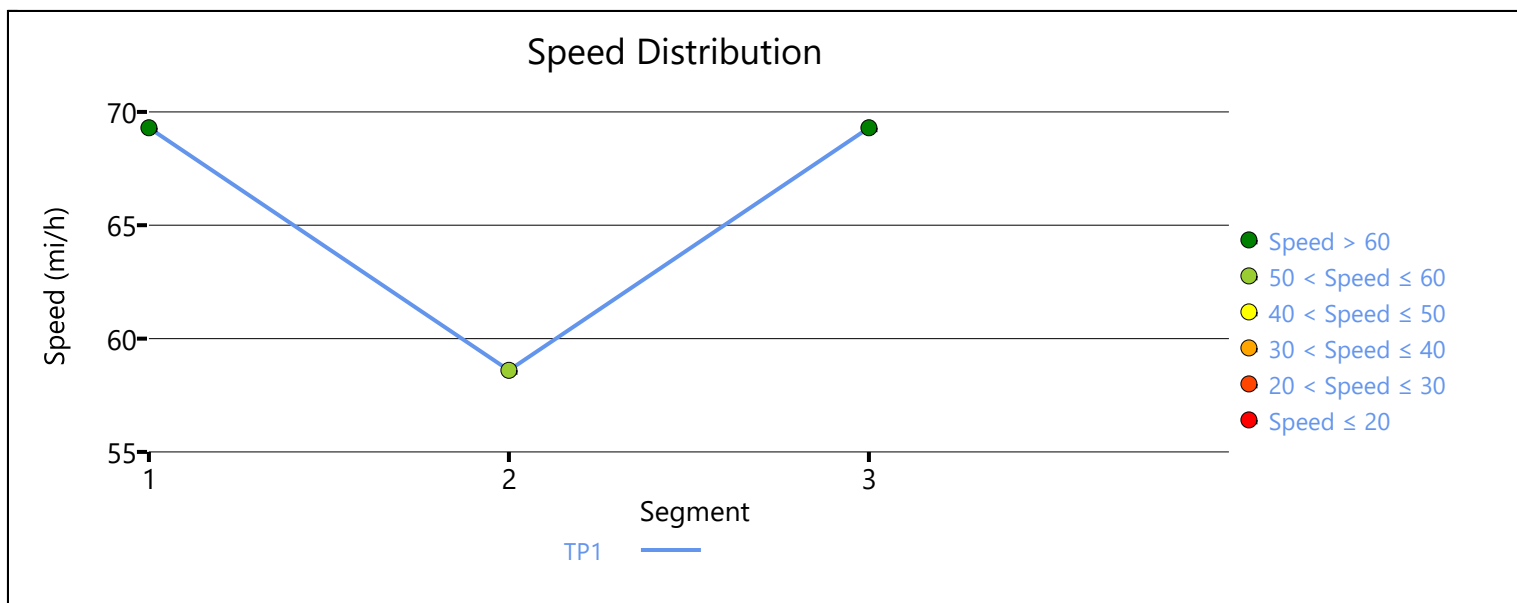
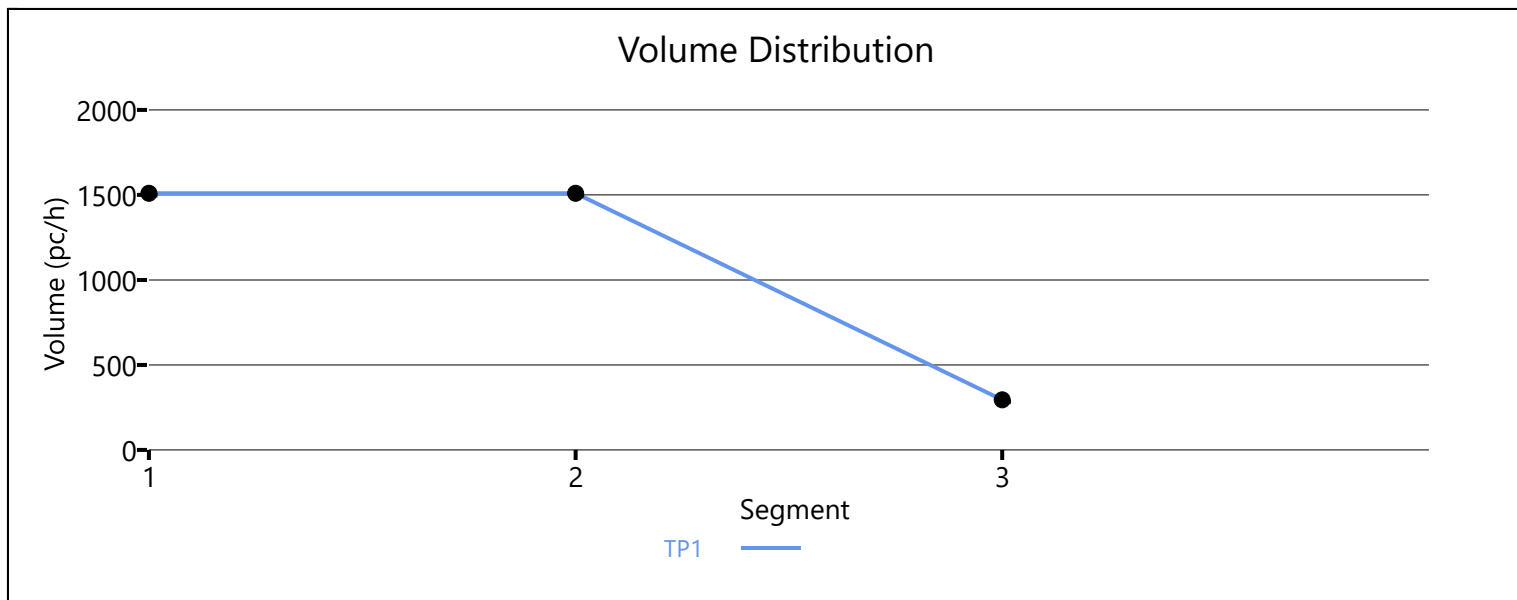
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	295	4786	0.06	69.3	2.1	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.7	10.2	10.0	1.3	A

Facility Overall Results

Space Mean Speed, mi/h	66.7	Density, veh/mi/ln	10.0
Average Travel Time, min	1.3	Density, pc/mi/ln	10.2



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2020)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Western Knolls	3500	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	100	2
4	Merge	Merge	On-Ramp	1500	2
5	Basic	Basic	West of Western Knolls	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		1479		4774		0.31		68.7		10.8		A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.990	1479	89	4800	2100	0.31	0.04	61.4	61.4	12.0	9.8	A

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		1391		4774		0.29		68.7		10.1		A

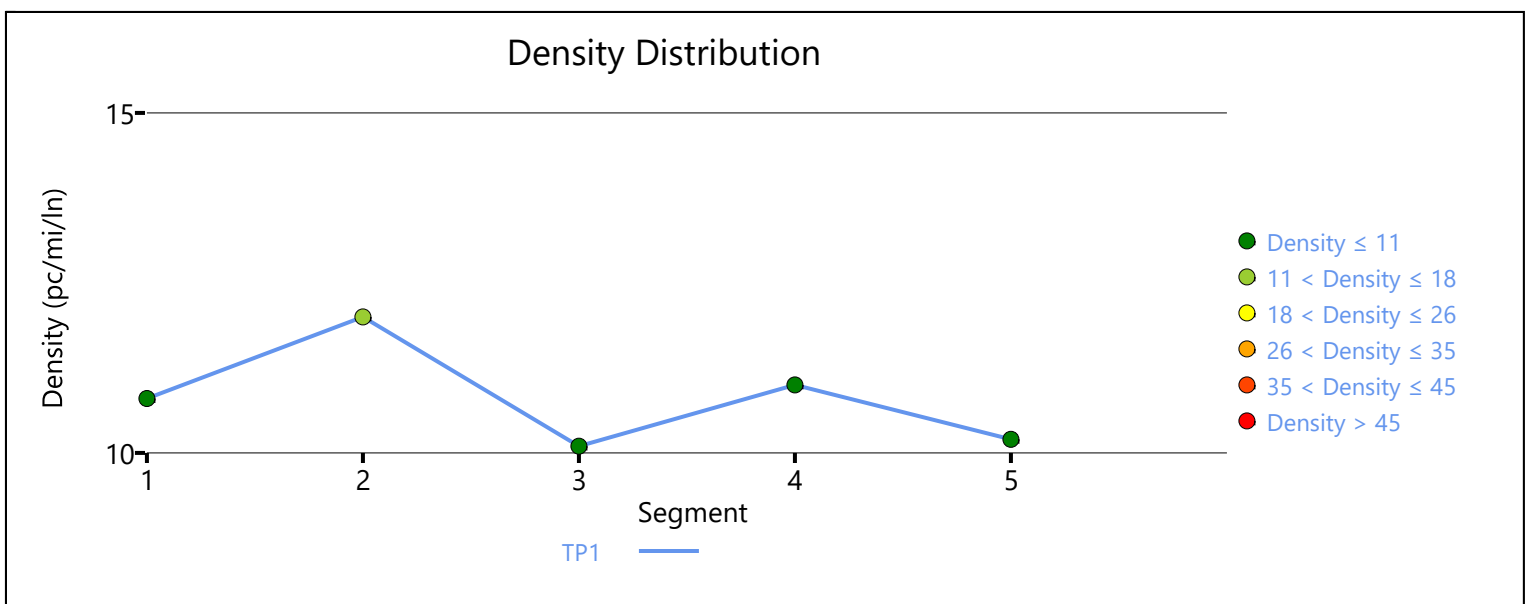
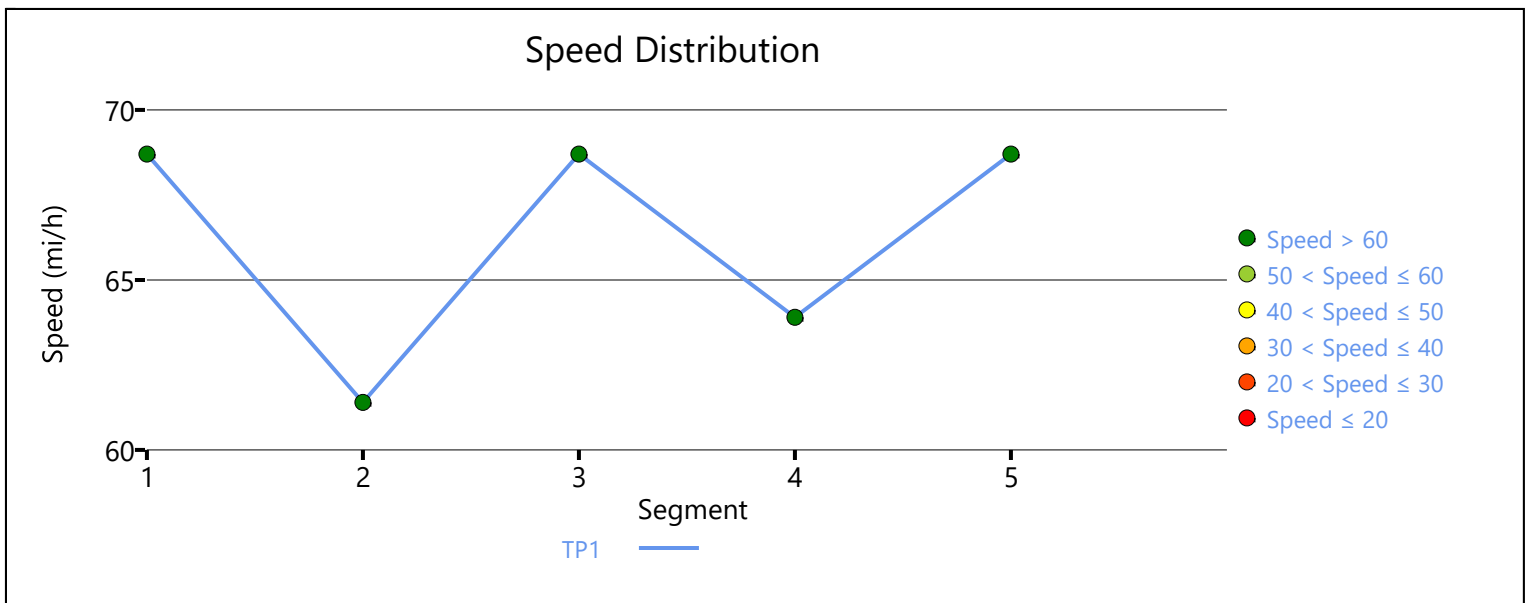
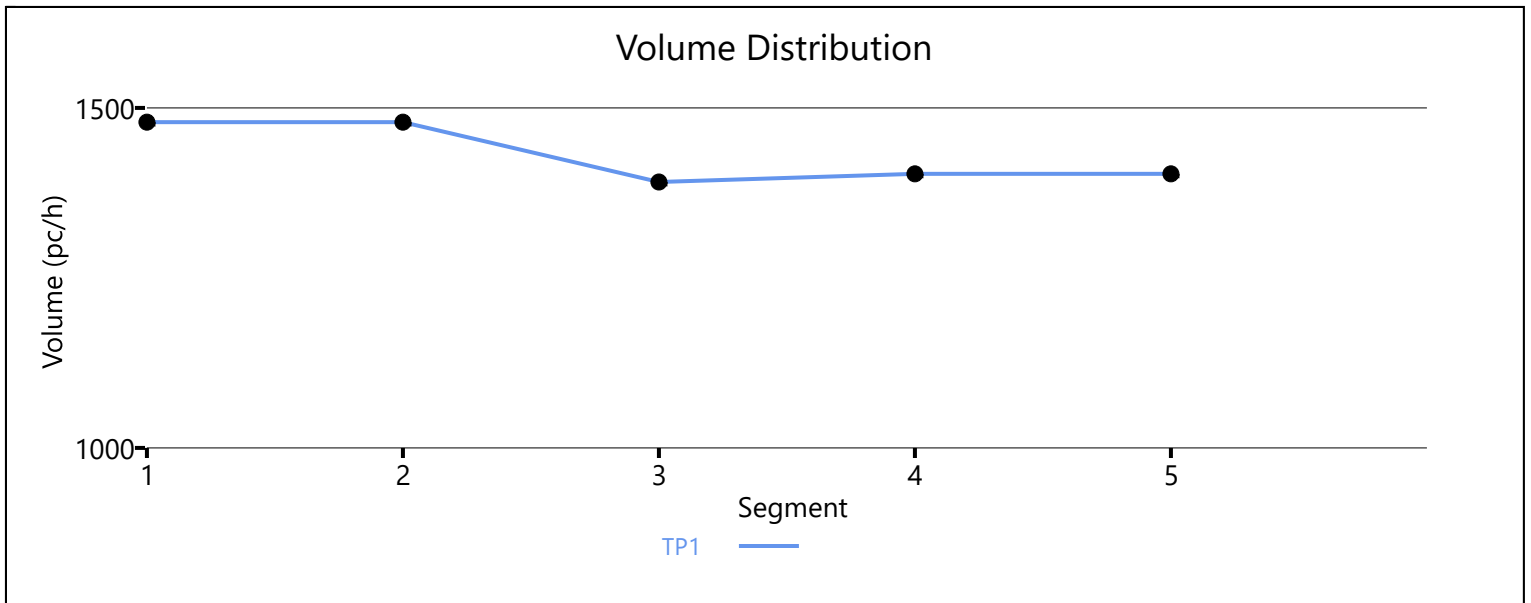
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	1.000	1403	12	4800	2100	0.29	0.01	63.9	63.9	11.0	8.2	A

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		1403		4774		0.29		68.7		10.2		A

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.0	10.7	10.7	2.0	A
Facility Overall Results					
Space Mean Speed, mi/h		67.0	Density, veh/mi/ln		10.7
Average Travel Time, min		2.0	Density, pc/mi/ln		10.7



APPENDIX 3.6:

**EXISTING (2020) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS
WITH IMPROVEMENTS**

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Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	49	271	228	458
Future Volume (vph)	49	271	228	458
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	10.0	38.2	28.2	41.8
Total Split (%)	12.5%	47.8%	35.3%	52.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effect Green (s)	5.8	18.2	13.1	21.7
Actuated g/C Ratio	0.11	0.34	0.25	0.41
v/c Ratio	0.29	0.48	0.43	0.78
Control Delay	32.9	17.4	9.5	22.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	32.9	17.4	9.5	22.6
LOS	C	B	A	C
Approach Delay		19.7	9.5	22.6
Approach LOS		B	A	C

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 53.1

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 16.7

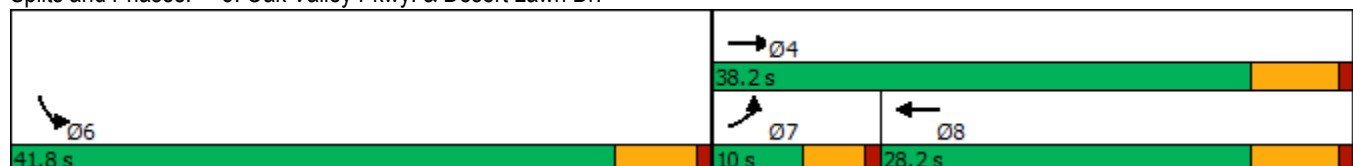
Intersection LOS: B

Intersection Capacity Utilization 57.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

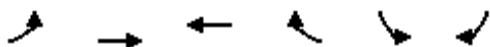


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations			 		 		
Traffic Volume (veh/h)	49	271	228	307	458	42	
Future Volume (veh/h)	49	271	228	307	458	42	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	56	311	262	353	526	48	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	94	792	975	454	601	55	
Arrive On Green	0.05	0.42	0.28	0.28	0.37	0.37	
Sat Flow, veh/h	1810	1900	3629	1610	1639	150	
Grp Volume(v), veh/h	56	311	262	353	575	0	
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1791	0	
Q Serve(g_s), s	1.7	6.3	3.3	11.2	16.6	0.0	
Cycle Q Clear(g_c), s	1.7	6.3	3.3	11.2	16.6	0.0	
Prop In Lane	1.00			1.00	0.91	0.08	
Lane Grp Cap(c), veh/h	94	792	975	454	657	0	
V/C Ratio(X)	0.59	0.39	0.27	0.78	0.88	0.00	
Avail Cap(c_a), veh/h	176	1096	1371	638	1162	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	25.7	11.3	15.5	18.3	16.4	0.0	
Incr Delay (d2), s/veh	2.2	0.3	0.1	4.0	3.9	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.7	2.0	1.1	3.9	6.0	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	27.9	11.6	15.6	22.3	20.3	0.0	
LnGrp LOS	C	B	B	C	C	A	
Approach Vol, veh/h		367	615		575		
Approach Delay, s/veh		14.1	19.5		20.3		
Approach LOS		B	B		C		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				29.3	26.2	7.5	21.8
Change Period (Y+Rc), s				6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s				32.0	36.0	5.4	22.0
Max Q Clear Time (g_c+l1), s				8.3	18.6	3.7	13.2
Green Ext Time (p_c), s				1.5	1.7	0.0	2.4
Intersection Summary							
HCM 6th Ctrl Delay			18.5				
HCM 6th LOS			B				
Notes							
User approved volume balancing among the lanes for turning movement.							

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	Ø1
Lane Configurations												
Traffic Volume (vph)	2	3	71	19	9	29	283	506	17	210	2	
Future Volume (vph)	2	3	71	19	9	29	283	506	17	210	2	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	NA	Perm	
Protected Phases		4			8		5	2		6		1
Permitted Phases	4		4	8		8			2		6	
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.6	27.8	27.8	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	15.0	33.8	33.8	28.4	28.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	21.4%	48.3%	48.3%	40.6%	40.6%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6	4.6	4.6	5.8	5.8	5.8	5.8	
Lead/Lag							Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	Min	Min	None
Act Effect Green (s)		12.2	12.2		12.2	12.2	10.7	40.0	40.0	23.1	23.1	
Actuated g/C Ratio		0.21	0.21		0.21	0.21	0.19	0.70	0.70	0.40	0.40	
v/c Ratio		0.02	0.18		0.11	0.08	1.07	0.48	0.02	46.83	0.00	
Control Delay		18.3	0.8		19.7	0.3	100.0	8.5	0.1	20239.0	0.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		18.3	0.8		19.7	0.3	100.0	8.5	0.1	20239.0	0.0	
LOS		B	A		B	A	F	A	A	F	A	
Approach Delay		2.1			9.7			40.4		20025.3		
Approach LOS		A			A			D		F		

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 57.5

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 46.83

Intersection Signal Delay: 3886.9

Intersection LOS: F

Intersection Capacity Utilization 60.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 12: California Av. & 5th St.

		
9.6 s	33.8 s	26.6 s
		
15 s	28.4 s	26.6 s

HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	71	19	9	29	283	506	17	12	210	2
Future Volume (veh/h)	2	3	71	19	9	29	283	506	17	12	210	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	90	24	11	37	358	641	22	15	266	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	217	239	320	317	121	320	420	1073	909	0	433	367
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.23	0.56	0.56	0.00	0.23	0.23
Sat Flow, veh/h	505	1204	1610	898	610	1610	1810	1900	1610	0	1900	1610
Grp Volume(v), veh/h	7	0	90	35	0	37	358	641	22	0	266	3
Grp Sat Flow(s),veh/h/ln	1709	0	1610	1508	0	1610	1810	1900	1610	0	1900	1610
Q Serve(g_s), s	0.0	0.0	2.1	0.0	0.0	0.8	8.3	9.7	0.3	0.0	5.5	0.1
Cycle Q Clear(g_c), s	0.1	0.0	2.1	0.7	0.0	0.8	8.3	9.7	0.3	0.0	5.5	0.1
Prop In Lane	0.43		1.00	0.69		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	457	0	320	438	0	320	420	1073	909	0	433	367
V/C Ratio(X)	0.02	0.00	0.28	0.08	0.00	0.12	0.85	0.60	0.02	0.00	0.61	0.01
Avail Cap(c_a), veh/h	951	0	807	880	0	807	428	1211	1026	0	978	829
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	14.2	0.0	14.9	14.4	0.0	14.4	16.1	6.3	4.2	0.0	15.2	13.1
Incr Delay (d2), s/veh	0.0	0.0	0.5	0.1	0.0	0.2	14.2	0.7	0.0	0.0	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.7	0.3	0.0	0.3	4.2	1.9	0.0	0.0	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.2	0.0	15.4	14.4	0.0	14.6	30.4	6.9	4.2	0.0	16.7	13.1
LnGrp LOS	B	A	B	B	A	B	C	A	A	A	B	B
Approach Vol, veh/h		97			72			1021			269	
Approach Delay, s/veh		15.3			14.5			15.1			16.6	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	30.6		13.3	14.8	15.8		13.3				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	10.4	22.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	11.7		4.1	10.3	7.5		2.8				
Green Ext Time (p_c), s	0.0	3.6		0.2	0.0	1.1		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			15.4									
HCM 6th LOS			B									

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
07/14/2020

					
Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	58	16	17	772	172
Future Volume (vph)	58	16	17	772	172
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8
Total Split (s)	27.8	27.8	10.1	52.2	42.1
Total Split (%)	34.8%	34.8%	12.6%	65.3%	52.6%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Min	Min
Act Effect Green (s)	12.7	12.7	5.6	47.2	45.5
Actuated g/C Ratio	0.20	0.20	0.09	0.73	0.70
v/c Ratio	0.21	0.06	0.14	0.73	0.27
Control Delay	26.3	10.8	34.5	13.8	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	26.3	10.8	34.5	13.8	7.2
LOS	C	B	C	B	A
Approach Delay	22.9			14.2	7.2
Approach LOS	C			B	A

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 64.8

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 13.1

Intersection LOS: B

Intersection Capacity Utilization 58.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	58	16	17	772	172	93
Future Volume (veh/h)	58	16	17	772	172	93
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	75	21	22	1003	223	121
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	266	237	48	1181	583	316
Arrive On Green	0.15	0.15	0.03	0.62	0.50	0.50
Sat Flow, veh/h	1810	1610	1810	1900	1158	629
Grp Volume(v), veh/h	75	21	22	1003	0	344
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	0	1787
Q Serve(g_s), s	1.8	0.6	0.6	21.2	0.0	5.9
Cycle Q Clear(g_c), s	1.8	0.6	0.6	21.2	0.0	5.9
Prop In Lane	1.00	1.00	1.00			0.35
Lane Grp Cap(c), veh/h	266	237	48	1181	0	900
V/C Ratio(X)	0.28	0.09	0.46	0.85	0.00	0.38
Avail Cap(c_a), veh/h	794	707	199	1758	0	1294
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.0	18.5	24.1	7.6	0.0	7.7
Incr Delay (d2), s/veh	0.6	0.2	2.6	2.7	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.3	4.5	0.0	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.6	18.6	26.6	10.3	0.0	7.9
LnGrp LOS	B	B	C	B	A	A
Approach Vol, veh/h	96			1025	344	
Approach Delay, s/veh	19.4			10.7	7.9	
Approach LOS	B			B	A	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	37.0			13.2	5.9	31.0
Change Period (Y+Rc), s	5.8			5.8	4.6	5.8
Max Green Setting (Gmax), s	46.4			22.0	5.5	36.3
Max Q Clear Time (g_c+I1), s	23.2			3.8	2.6	7.9
Green Ext Time (p_c), s	7.9			0.2	0.0	2.0
Intersection Summary						
HCM 6th Ctrl Delay			10.6			
HCM 6th LOS			B			

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	464	9	345	216	340
Future Volume (vph)	464	9	345	216	340
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	51.0	51.0	45.0	69.0	24.0
Total Split (%)	42.5%	42.5%	37.5%	57.5%	20.0%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	30.3	30.3	29.6	80.1	45.9
Actuated g/C Ratio	0.25	0.25	0.25	0.67	0.38
v/c Ratio	0.78	0.72	0.84	0.10	0.33
Control Delay	53.9	44.2	54.9	5.6	24.6
Queue Delay	0.0	0.3	0.4	0.0	2.2
Total Delay	53.9	44.4	55.3	5.6	26.8
LOS	D	D	E	A	C
Approach Delay		49.3		36.2	26.8
Approach LOS		D		D	C

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 38.7

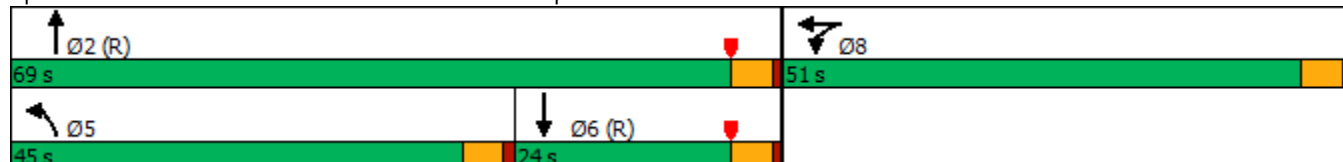
Intersection LOS: D

Intersection Capacity Utilization 59.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary

15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	340	75
Future Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	340	75
Initial Q (Qb), veh				0	0	0	23	45	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				328	256	143	375	235	0	0	370	82
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				464	294	164	482	2395	0	0	1109	243
Arrive On Green				0.26	0.26	0.26	0.37	1.00	0.00	0.00	0.81	0.81
Sat Flow, veh/h				1810	1145	640	1810	3705	0	0	3039	645
Grp Volume(v), veh/h				328	0	399	375	235	0	0	225	227
Grp Sat Flow(s),veh/h/ln				1810	0	1785	1810	1805	0	0	1805	1784
Q Serve(g_s), s				19.8	0.0	25.7	24.0	0.0	0.0	0.0	3.8	3.9
Cycle Q Clear(g_c), s				19.8	0.0	25.7	24.0	0.0	0.0	0.0	3.8	3.9
Prop In Lane				1.00		0.36	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				464	0	458	482	2395	0	0	680	672
V/C Ratio(X)				0.71	0.00	0.87	0.78	0.10	0.00	0.00	0.33	0.34
Avail Cap(c_a), veh/h				697	0	687	609	2395	0	0	730	721
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.90	0.90	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				40.5	0.0	42.7	32.8	0.0	0.0	0.0	10.2	10.2
Incr Delay (d2), s/veh				2.0	0.0	8.0	3.3	0.1	0.0	0.0	1.3	1.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	73.9	2.8	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.8	0.0	11.9	21.3	1.0	0.0	0.0	1.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				42.5	0.0	50.7	110.0	2.9	0.0	0.0	11.5	11.6
LnGrp LOS				D	A	D	F	A	A	A	B	B
Approach Vol, veh/h					727			610			452	
Approach Delay, s/veh					47.0			68.8			11.6	
Approach LOS					D			E			B	
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	84.4			31.1			53.3			35.6		
Change Period (Y+Rc), s	* 4.8			4.6			* 4.8			4.8		
Max Green Setting (Gmax), s	* 64			40.4			* 19			46.2		
Max Q Clear Time (g_c+I1), s	2.0			26.0			5.9			27.7		
Green Ext Time (p_c), s	1.7			0.5			2.2			3.1		
Intersection Summary												
HCM 6th Ctrl Delay	45.5											
HCM 6th LOS	D											
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕	↗	↕	↖	↕
Traffic Volume (vph)	10	495	493	99	706
Future Volume (vph)	10	495	493	99	706
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	41.0	41.0	56.0	23.0	79.0
Total Split (%)	34.2%	34.2%	46.7%	19.2%	65.8%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	21.1	21.1	73.5	11.2	89.3
Actuated g/C Ratio	0.18	0.18	0.61	0.09	0.74
v/c Ratio	0.81	0.64	0.44	0.61	0.27
Control Delay	44.2	16.7	11.3	46.9	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.4
Total Delay	44.2	16.7	11.3	46.9	9.3
LOS	D	B	B	D	A
Approach Delay	30.7		11.3		13.9
Approach LOS	C		B		B

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 17.1

Intersection LOS: B

Intersection Capacity Utilization 59.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps

↙ Ø1	↑ Ø2 (R)	↗ Ø4
23 s	56 s	41 s
↓ Ø6 (R)		
79 s		

HCM 6th Signalized Intersection Summary 16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↗					↕		↖	↕	
Traffic Volume (veh/h)	68	10	495	0	0	0	0	493	421	99	706	0
Future Volume (veh/h)	68	10	495	0	0	0	0	493	421	99	706	0
Initial Q (Qb), veh	0	0	0				0	75	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	599				0	514	439	103	735	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	405	687				0	1322	777	127	2551	0
Arrive On Green	0.00	0.00	0.21				0.00	0.60	0.60	0.14	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1940	1576	1810	3705	0
Grp Volume(v), veh/h	0	0	599				0	503	450	103	735	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1616	1810	1805	0
Q Serve(g_s), s	0.0	0.0	21.6				0.0	18.6	18.6	6.6	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	21.6				0.0	18.6	18.6	6.6	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.98	1.00		0.00
Lane Grp Cap(c), veh/h	0	405	687				0	1080	997	127	2551	0
V/C Ratio(X)	0.00	0.00	0.87				0.00	0.47	0.45	0.81	0.29	0.00
Avail Cap(c_a), veh/h	0	573	971				0	1080	967	277	2551	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.84	0.84	0.00
Uniform Delay (d), s/veh	0.0	0.0	45.6				0.0	16.2	15.9	50.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	6.4				0.0	1.4	1.5	3.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	16.3	18.6	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	9.0				0.0	18.1	17.3	3.0	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	52.0				0.0	33.9	36.0	54.7	0.2	0.0
LnGrp LOS	A	A	D				A	C	D	D	A	A
Approach Vol, veh/h		599						953			838	
Approach Delay, s/veh		52.0						34.9			6.9	
Approach LOS		D						C			A	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	13.0	76.6		30.4		89.6						
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8						
Max Green Setting (Gmax), s	18.4	* 51		* 36		* 74						
Max Q Clear Time (g_c+I1), s	8.6	20.6		23.6		2.0						
Green Ext Time (p_c), s	0.1	7.6		2.0		6.2						

Intersection Summary

HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	8	226	296	177
Future Volume (vph)	8	226	296	177
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	10.0	39.0	29.0	41.0
Total Split (%)	12.5%	48.8%	36.3%	51.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effect Green (s)	5.7	13.7	12.6	13.6
Actuated g/C Ratio	0.14	0.33	0.31	0.33
v/c Ratio	0.03	0.37	0.36	0.32
Control Delay	23.2	12.6	7.0	12.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.2	12.6	7.0	12.1
LOS	C	B	A	B
Approach Delay		12.9	7.0	12.1
Approach LOS		B	A	B

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 40.9

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 9.3

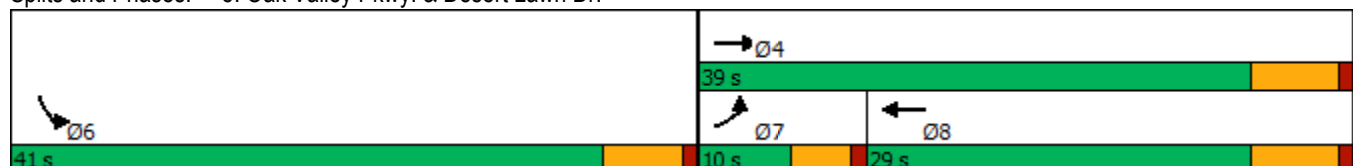
Intersection LOS: A

Intersection Capacity Utilization 32.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

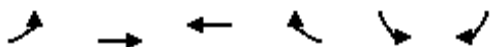


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	8	226	296	294	177	10
Future Volume (veh/h)	8	226	296	294	177	10
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	8	233	305	303	182	10
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	19	812	1027	478	442	24
Arrive On Green	0.01	0.43	0.30	0.30	0.26	0.26
Sat Flow, veh/h	1810	1900	3629	1610	1696	93
Grp Volume(v), veh/h	8	233	305	303	193	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1798	0
Q Serve(g_s), s	0.2	3.1	2.6	6.3	3.4	0.0
Cycle Q Clear(g_c), s	0.2	3.1	2.6	6.3	3.4	0.0
Prop In Lane	1.00			1.00	0.94	0.05
Lane Grp Cap(c), veh/h	19	812	1027	478	468	0
V/C Ratio(X)	0.42	0.29	0.30	0.63	0.41	0.00
Avail Cap(c_a), veh/h	254	1622	2053	956	1648	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.9	7.2	10.4	11.7	11.8	0.0
Incr Delay (d2), s/veh	5.2	0.2	0.2	1.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.7	0.7	1.7	1.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.1	7.4	10.6	13.1	12.4	0.0
LnGrp LOS	C	A	B	B	B	A
Approach Vol, veh/h		241	608		193	
Approach Delay, s/veh		7.9	11.8		12.4	
Approach LOS		A	B		B	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			22.6		15.8	5.0
Change Period (Y+Rc), s			6.2		5.8	4.6
Max Green Setting (Gmax), s			32.8		35.2	5.4
Max Q Clear Time (g_c+I1), s			5.1		5.4	2.2
Green Ext Time (p_c), s			1.1		0.5	0.0
Intersection Summary						
HCM 6th Ctrl Delay			11.0			
HCM 6th LOS			B			

Timings

12: California Av. & 5th St.

06/05/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	Ø1
Lane Configurations		↖	↗		↖	↗	↖	↑	↗	↖	↗	
Traffic Volume (vph)	4	3	82	36	3	20	169	361	13	200	6	
Future Volume (vph)	4	3	82	36	3	20	169	361	13	200	6	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	NA	Perm	
Protected Phases		4			8		5	2		6		1
Permitted Phases	4		4	8		8			2		6	
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.6	27.8	27.8	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	10.0	33.8	33.8	33.4	33.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	14.3%	48.3%	48.3%	47.7%	47.7%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6	4.6	4.6	5.8	5.8	5.8	5.8	
Lead/Lag							Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	Min	Min	None
Act Effect Green (s)		12.1	12.1		12.1	12.1	5.4	42.1	42.1	30.9	30.9	
Actuated g/C Ratio		0.20	0.20		0.20	0.20	0.09	0.70	0.70	0.51	0.51	
v/c Ratio		0.02	0.21		0.14	0.05	1.10	0.29	0.01	5.29	0.01	
Control Delay		18.3	3.8		20.3	0.2	132.9	6.4	0.0	2005.9	0.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		18.3	3.8		20.3	0.2	132.9	6.4	0.0	2005.9	0.0	
LOS		B	A		C	A	F	A	A	F	A	
Approach Delay		4.9			13.5			45.6		1951.9		
Approach LOS		A			B			D		F		

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 60.5

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 5.29

Intersection Signal Delay: 487.0

Intersection LOS: F

Intersection Capacity Utilization 52.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 12: California Av. & 5th St.

 Ø1 9.6 s	 Ø2 33.8 s	 Ø4 26.6 s
 Ø5 10 s	 Ø6 33.4 s	 Ø8 26.6 s

HCM 6th Signalized Intersection Summary

12: California Av. & 5th St.

06/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	3	82	36	3	20	169	361	13	6	200	6
Future Volume (veh/h)	4	3	82	36	3	20	169	361	13	6	200	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	3	65	38	3	16	178	380	9	6	211	4
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	298	182	320	437	28	320	227	988	838	0	514	435
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.13	0.52	0.52	0.00	0.27	0.27
Sat Flow, veh/h	731	919	1610	1254	140	1610	1810	1900	1610	0	1900	1610
Grp Volume(v), veh/h	7	0	65	41	0	16	178	380	9	0	211	4
Grp Sat Flow(s),veh/h/ln	1650	0	1610	1394	0	1610	1810	1900	1610	0	1900	1610
Q Serve(g_s), s	0.0	0.0	1.2	0.7	0.0	0.3	3.5	4.4	0.1	0.0	3.4	0.1
Cycle Q Clear(g_c), s	0.1	0.0	1.2	0.8	0.0	0.3	3.5	4.4	0.1	0.0	3.4	0.1
Prop In Lane	0.57		1.00	0.93		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	481	0	320	464	0	320	227	988	838	0	514	435
V/C Ratio(X)	0.01	0.00	0.20	0.09	0.00	0.05	0.78	0.38	0.01	0.00	0.41	0.01
Avail Cap(c_a), veh/h	1110	0	958	1013	0	958	264	1438	1219	0	1418	1202
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	11.9	0.0	12.4	12.2	0.0	12.0	15.7	5.3	4.3	0.0	11.1	9.9
Incr Delay (d2), s/veh	0.0	0.0	0.3	0.1	0.0	0.1	10.4	0.2	0.0	0.0	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.4	0.2	0.0	0.1	1.7	0.7	0.0	0.0	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.9	0.0	12.7	12.3	0.0	12.1	26.1	5.6	4.3	0.0	11.6	9.9
LnGrp LOS	B	A	B	B	A	B	C	A	A	A	B	A
Approach Vol, veh/h	72		57			567			215			
Approach Delay, s/veh	12.6		12.2			12.0			11.6			
Approach LOS	B		B			B			B			
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	0.0	25.0	11.9		9.2	15.8	11.9					
Change Period (Y+Rc), s	4.6	5.8	4.6		4.6	5.8	4.6					
Max Green Setting (Gmax), s	5.0	28.0	22.0		5.4	27.6	22.0					
Max Q Clear Time (g_c+I1), s	0.0	6.4	3.2		5.5	5.4	2.8					
Green Ext Time (p_c), s	0.0	2.0	0.2		0.0	1.0	0.2					
Intersection Summary												
HCM 6th Ctrl Delay			12.0									
HCM 6th LOS			B									

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
07/14/2020

					
Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	84	32	6	476	922
Future Volume (vph)	84	32	6	476	922
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8
Total Split (s)	28.0	28.0	9.6	72.0	62.4
Total Split (%)	28.0%	28.0%	9.6%	72.0%	62.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Min	Min
Act Effect Green (s)	12.3	12.3	5.1	65.3	63.7
Actuated g/C Ratio	0.15	0.15	0.06	0.78	0.76
v/c Ratio	0.35	0.13	0.06	0.35	0.76
Control Delay	37.0	12.0	42.0	5.5	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.8
Total Delay	37.0	12.0	42.0	5.5	16.2
LOS	D	B	D	A	B
Approach Delay	30.0			6.0	16.2
Approach LOS	C			A	B

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 84.1
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 14.1
 Intersection LOS: B
 Intersection Capacity Utilization 71.3%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	84	32	6	476	922	78
Future Volume (veh/h)	84	32	6	476	922	78
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	91	35	7	517	1002	85
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	230	205	16	1354	1105	94
Arrive On Green	0.13	0.13	0.01	0.71	0.64	0.64
Sat Flow, veh/h	1810	1610	1810	1900	1727	147
Grp Volume(v), veh/h	91	35	7	517	0	1087
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	0	1874
Q Serve(g_s), s	3.3	1.4	0.3	7.8	0.0	36.0
Cycle Q Clear(g_c), s	3.3	1.4	0.3	7.8	0.0	36.0
Prop In Lane	1.00	1.00	1.00			0.08
Lane Grp Cap(c), veh/h	230	205	16	1354	0	1199
V/C Ratio(X)	0.40	0.17	0.43	0.38	0.00	0.91
Avail Cap(c_a), veh/h	555	494	125	1738	0	1466
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.0	28.2	35.7	4.1	0.0	11.2
Incr Delay (d2), s/veh	1.1	0.4	6.4	0.2	0.0	7.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	1.3	0.1	1.6	0.0	12.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.1	28.6	42.1	4.3	0.0	18.6
LnGrp LOS	C	C	D	A	A	B
Approach Vol, veh/h	126			524	1087	
Approach Delay, s/veh	29.7			4.8	18.6	
Approach LOS	C			A	B	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	57.4			15.0	5.3	52.1
Change Period (Y+Rc), s	5.8			5.8	4.6	5.8
Max Green Setting (Gmax), s	66.2			22.2	5.0	56.6
Max Q Clear Time (g_c+I1), s	9.8			5.3	2.3	38.0
Green Ext Time (p_c), s	3.3			0.3	0.0	8.3
Intersection Summary						
HCM 6th Ctrl Delay			15.2			
HCM 6th LOS			B			

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	685	0	272	309	422
Future Volume (vph)	685	0	272	309	422
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	67.0	67.0	32.0	53.0	21.0
Total Split (%)	55.8%	55.8%	26.7%	44.2%	17.5%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	37.4	37.4	22.8	73.0	45.6
Actuated g/C Ratio	0.31	0.31	0.19	0.61	0.38
v/c Ratio	0.77	0.71	0.82	0.15	0.40
Control Delay	46.3	37.1	86.4	7.7	28.9
Queue Delay	0.4	0.3	0.6	0.0	3.0
Total Delay	46.6	37.4	87.0	7.7	31.9
LOS	D	D	F	A	C
Approach Delay		42.1		44.8	31.9
Approach LOS		D		D	C

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 40.1

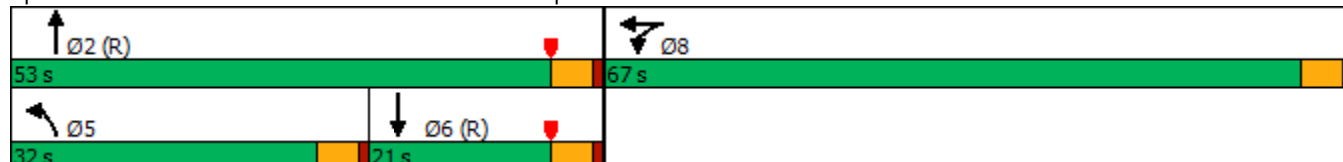
Intersection LOS: D

Intersection Capacity Utilization 92.5%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary

15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	422	94
Future Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	422	94
Initial Q (Qb), veh				40	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				800	0	0	280	319	0	0	435	97
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1062	557	0	304	2262	0	0	1235	273
Arrive On Green				0.25	0.00	0.00	0.34	1.00	0.00	0.00	0.92	0.92
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	3033	650
Grp Volume(v), veh/h				800	0	0	280	319	0	0	266	266
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1783
Q Serve(g_s), s				25.4	0.0	0.0	17.9	0.0	0.0	0.0	2.0	2.1
Cycle Q Clear(g_c), s				25.4	0.0	0.0	17.9	0.0	0.0	0.0	2.0	2.1
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				1062	557	0	304	2262	0	0	759	750
V/C Ratio(X)				0.75	0.00	0.00	0.92	0.14	0.00	0.00	0.35	0.35
Avail Cap(c_a), veh/h				1876	985	0	413	2404	0	0	830	820
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	0.00	0.84	0.84	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				40.8	0.0	0.0	39.1	1.1	0.0	0.0	7.3	7.4
Incr Delay (d2), s/veh				1.1	0.0	0.0	16.4	0.1	0.0	0.0	1.3	1.3
Initial Q Delay(d3),s/veh				41.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				19.2	0.0	0.0	8.0	0.2	0.0	0.0	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				83.3	0.0	0.0	55.5	1.2	0.0	0.0	8.6	8.7
LnGrp LOS				F	A	A	E	A	A	A	A	A
Approach Vol, veh/h					800			599			532	
Approach Delay, s/veh					83.3			26.6			8.6	
Approach LOS					F			C			A	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		84.7			24.7	60.0		35.3				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 48			27.4	* 16		62.2				
Max Q Clear Time (g_c+I1), s		2.0			19.9	4.1		27.4				
Green Ext Time (p_c), s		2.3			0.3	2.6		3.1				
Intersection Summary												
HCM 6th Ctrl Delay				45.1								
HCM 6th LOS				D								
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕	↗	↕	↖	↕
Traffic Volume (vph)	10	746	483	105	1002
Future Volume (vph)	10	746	483	105	1002
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	55.9	55.9	44.0	20.1	64.1
Total Split (%)	46.6%	46.6%	36.7%	16.8%	53.4%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	37.8	37.8	56.5	11.5	72.6
Actuated g/C Ratio	0.32	0.32	0.47	0.10	0.60
v/c Ratio	0.82	0.81	0.52	0.62	0.47
Control Delay	44.1	43.6	21.0	59.2	22.3
Queue Delay	0.0	0.0	0.0	0.0	0.7
Total Delay	44.1	43.6	21.0	59.2	23.1
LOS	D	D	C	E	C
Approach Delay	43.9		21.0		26.5
Approach LOS	D		C		C

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 30.1

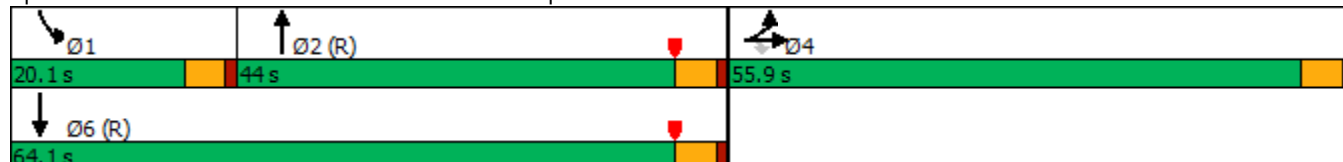
Intersection LOS: C

Intersection Capacity Utilization 92.5%

ICU Level of Service F

Analysis Period (min) 15

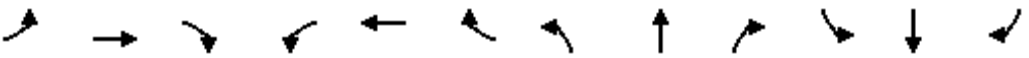
Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔					↔		↔	↔	
Traffic Volume (veh/h)	97	10	746	0	0	0	0	483	362	105	1002	0
Future Volume (veh/h)	97	10	746	0	0	0	0	483	362	105	1002	0
Initial Q (Qb), veh	0	0	73				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	883				0	498	373	108	1033	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	719	1219				0	847	633	132	1955	0
Arrive On Green	0.00	0.00	0.31				0.00	0.50	0.50	0.15	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2063	1472	1810	3705	0
Grp Volume(v), veh/h	0	0	883				0	457	414	108	1033	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	31.4				0.0	20.3	20.3	6.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	31.4				0.0	20.3	20.3	6.9	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	719	1219				0	776	703	132	1955	0
V/C Ratio(X)	0.00	0.00	0.72				0.00	0.59	0.59	0.82	0.53	0.00
Avail Cap(c_a), veh/h	0	809	1371				0	904	819	234	2209	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.81	0.81	0.00
Uniform Delay (d), s/veh	0.0	0.0	36.5				0.0	26.3	26.4	50.5	0.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.7				0.0	3.3	3.6	3.8	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	93.7				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	32.1				0.0	10.6	9.6	3.1	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	131.9				0.0	29.6	30.0	54.3	1.0	0.0
LnGrp LOS	A	A	F				A	C	C	D	A	A
Approach Vol, veh/h		883						871			1141	
Approach Delay, s/veh		131.9						29.8			6.1	
Approach LOS		F						C			A	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	13.4	64.9		41.8		78.2						
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8						
Max Green Setting (Gmax), s	15.5	* 39		* 51		* 59						
Max Q Clear Time (g_c+I1), s	8.9	22.3		33.4		2.0						
Green Ext Time (p_c), s	0.1	5.5		3.6		10.0						

Intersection Summary

HCM 6th Ctrl Delay	51.6
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 4.1:

POST PROCESSING WORKSHEETS

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Project: County of Riverside
 Scenario: Horizon Year (2040)

Job #: 12396
 Analyst: CP
 Date: 44025

LOCATION: Potrero Bl. & Oak Valley Pkwy.
 FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	412	411	41100%	1	1,181	1,180	118000%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	957	956	95600%	1	2,971	2,970	297000%
	NB Total	2	1,369	1,367	68350%	2	4,152	4,150	207500%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	203	201	10050%	2	219	217	10850%
	Right	1	823	822	82200%	1	816	815	81500%
	EB Total	3	1,026	1,023	34100%	3	1,035	1,032	34400%
WEST BOUND	Left	1	2,147	2,146	214600%	1	3,544	3,543	354300%
	Through	2	228	226	11300%	2	379	377	18850%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	3	2,375	2,372	79067%	3	3,923	3,920	130667%
TOTAL ENTERING VOLUME		8	4,770	4762	59525%	8	9,110	9102	113775%

FORECAST PEAK HOUR TO ADT COMPARISON				
		VOLUMES		ADT
		AM	PM	
North Leg	Inbound	0	0	#DIV/0! #DIV/0! -
North Leg	Outbound	0	0	
North Leg	TOTAL	0	0	
South Leg	Inbound	1,369	4,152	20% 40% 21,511
South Leg	Outbound	2,970	4,360	
South Leg	TOTAL	4,339	8,512	
East Leg	Inbound	2,375	3,923	20% 41% 17,470
East Leg	Outbound	1,160	3,190	
East Leg	TOTAL	3,535	7,113	
West Leg	Inbound	1,026	1,035	23% 35% 7,386
West Leg	Outbound	640	1,560	
West Leg	TOTAL	1,666	2,595	
OVERALL TOTAL		9,540	18,220	21% 39% 46,367

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Project: County of Riverside
Scenario: Horizon Year (2040)

Job #: 12396
Analyst: CP
Date: 44025

LOCATION: Potrero Bl. & 4th Street
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	277	276	27600%	1	205	204	20400%
	Through	2	154	152	7600%	2	499	497	24850%
	Right	1	110	109	10900%	1	128	127	12700%
	NB Total	4	541	537	13425%	4	832	828	20700%
SOUTH BOUND	Left	1	90	89	8900%	1	331	330	33000%
	Through	2	304	302	15100%	2	1,052	1,050	52500%
	Right	1	228	227	22700%	1	530	529	52900%
	SB Total	4	622	618	15450%	4	1,913	1,909	47725%
EAST BOUND	Left	1	62	61	6100%	1	838	837	83700%
	Through	2	400	398	19900%	2	1,932	1,930	96500%
	Right	1	150	149	14900%	1	682	681	68100%
	EB Total	4	612	608	15200%	4	3,452	3,448	86200%
WEST BOUND	Left	1	176	175	17500%	1	296	295	29500%
	Through	2	1,185	1,183	59150%	2	1,345	1,343	67150%
	Right	1	73	72	7200%	1	364	363	36300%
	WB Total	4	1,434	1,430	35750%	4	2,005	2,001	50025%
TOTAL ENTERING VOLUME		16	3,209	3193	19956%	16	8,202	8186	51163%

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	622	1,913	16%	62%	5,861
North Leg	Outbound	289	1,701			
North Leg	TOTAL	911	3,614			
South Leg	Inbound	541	832	20%	49%	5,899
South Leg	Outbound	630	2,030			
South Leg	TOTAL	1,171	2,862			
East Leg	Inbound	1,434	2,005	24%	51%	8,655
East Leg	Outbound	600	2,391			
East Leg	TOTAL	2,034	4,396			
West Leg	Inbound	612	3,452	22%	52%	10,559
West Leg	Outbound	1,690	2,080			
West Leg	TOTAL	2,302	5,532			
OVERALL TOTAL		6,418	16,404	21%	53%	30,974

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Project: County of Riverside
Scenario: Horizon Year (2040)

Job #: 12396
Analyst: CP
Date: 44025

LOCATION: Desert Lawn Dr. & Oak Valley Pkwy.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SOUTH BOUND	Left	1	170	169	16900%	1	217	216	21600%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	312	311	31100%	1	832	831	83100%
	SB Total	2	482	480	24000%	2	1,049	1,047	52350%
EAST BOUND	Left	1	188	187	18700%	1	1,034	1,033	103300%
	Through	2	980	978	48900%	2	2,106	2,104	105200%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	3	1,168	1,165	38833%	3	3,140	3,137	104567%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	2,038	2,036	101800%	2	2,953	2,951	147550%
	Right	1	212	211	21100%	1	378	377	37700%
	WB Total	3	2,250	2,247	74900%	3	3,331	3,328	110933%
TOTAL ENTERING VOLUME		8	3,900	3892	48650%	8	7,520	7512	93900%

FORECAST PEAK HOUR TO ADT COMPARISON				
		VOLUMES		ADT
		AM	PM	
North Leg	Inbound	482	1,049	5,092
North Leg	Outbound	400	1,412	
North Leg	TOTAL	882	2,461	
South Leg	Inbound	0	0	-
South Leg	Outbound	0	0	
South Leg	TOTAL	0	0	
East Leg	Inbound	2,250	3,331	16,416
East Leg	Outbound	1,150	2,323	
East Leg	TOTAL	3,400	5,654	
West Leg	Inbound	1,168	3,140	17,470
West Leg	Outbound	2,350	3,785	
West Leg	TOTAL	3,518	6,925	
OVERALL TOTAL		7,800	15,040	38,978

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Project: Jack Rabbit Trail TIA
Scenario: Horizon Year (2040)

Job #: 12396
Analyst: CP
Date: 7/13/20

LOCATION: I-10 EB Ramps & Oak Valley Pkwy.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SOUTH BOUND	Left	1	281	280	28000%	1	1,139	1,138	113800%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	580	579	57900%	1	1,375	1,374	137400%
	SB Total	2	861	859	42950%	2	2,514	2,512	125600%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	829	827	41350%	2	1,801	1,799	89950%
	Right	1	447	446	44600%	1	250	249	24900%
	EB Total	3	1,276	1,273	42433%	3	2,051	2,048	68267%
WEST BOUND	Left	1	313	312	31200%	1	190	189	18900%
	Through	2	1,200	1,198	59900%	2	1,645	1,643	82150%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	3	1,513	1,510	50333%	3	1,835	1,832	61067%
TOTAL ENTERING VOLUME		8	3,650	3642	45525%	8	6,400	6392	79900%

FORECAST PEAK HOUR TO ADT COMPARISON					
		VOLUMES		PERCENT OF ADT	
		AM	PM	AM	PM
North Leg	Inbound	861	2,514		
North Leg	Outbound	0	0		
North Leg	TOTAL	861	2,514	12%	34%
South Leg	Inbound	0	0		
South Leg	Outbound	760	440		
South Leg	TOTAL	760	440	22%	13%
East Leg	Inbound	1,513	1,835		
East Leg	Outbound	1,110	2,940		
East Leg	TOTAL	2,623	4,775	13%	24%
West Leg	Inbound	1,276	2,051		
West Leg	Outbound	1,780	3,020		
West Leg	TOTAL	3,056	5,071	15%	24%
OVERALL TOTAL		7,300	12,800	14%	25%

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Project: Jack Rabbit Trail TIA
Scenario: Horizon Year (2040)

Job #: 12396
Analyst: CP
Date: 7/13/20

LOCATION: I-10 WB Ramps & Oak Valley Pkwy.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	95	94	9400%	1	350	349	34900%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	251	250	25000%	1	610	609	60900%
	NB Total	2	346	344	17200%	2	960	958	47900%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	1	143	142	14200%	1	313	312	31200%
	Through	2	779	777	38850%	2	2,626	2,624	131200%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	3	922	919	30633%	3	2,939	2,936	97867%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	1,415	1,413	70650%	2	1,483	1,481	74050%
	Right	1	687	686	68600%	1	308	307	30700%
	WB Total	3	2,102	2,099	69967%	3	1,791	1,788	59600%
TOTAL ENTERING VOLUME		8	3,370	3362	42025%	8	5,690	5682	71025%

FORECAST PEAK HOUR TO ADT COMPARISON				
		VOLUMES		ADT
		AM	PM	
North Leg	Inbound	0	0	
North Leg	Outbound	830	621	
North Leg	TOTAL	830	621	3,821
South Leg	Inbound	346	960	
South Leg	Outbound	0	0	
South Leg	TOTAL	346	960	3,857
East Leg	Inbound	2,102	1,791	
East Leg	Outbound	1,030	3,236	
East Leg	TOTAL	3,132	5,027	21,142
West Leg	Inbound	922	2,939	
West Leg	Outbound	1,510	1,833	
West Leg	TOTAL	2,432	4,772	19,019
OVERALL TOTAL		6,740	11,380	47,839

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Project: County of Riverside
Scenario: Horizon Year (2040)

Job #: 12396
Analyst: CP
Date: 44025

LOCATION: Veile Av. & 4th St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	0	-1	-100%	1	17	16	1600%
	Through	2	0	-2	-100%	2	21	19	950%
	Right	1	0	-1	-100%	1	2	1	100%
	NB Total	4	0	-4	-100%	4	40	36	900%
SOUTH BOUND	Left	1	91	90	9000%	1	141	140	14000%
	Through	2	0	-2	-100%	2	9	7	350%
	Right	1	944	943	94300%	1	1,008	1,007	100700%
	SB Total	4	1,035	1,031	25775%	4	1,158	1,154	28850%
EAST BOUND	Left	1	287	286	28600%	1	1,304	1,303	130300%
	Through	2	389	387	19350%	2	1,287	1,285	64250%
	Right	1	0	-1	-100%	1	9	8	800%
	EB Total	4	676	672	16800%	4	2,600	2,596	64900%
WEST BOUND	Left	1	0	-1	-100%	1	1	0	0%
	Through	2	606	604	30200%	2	1,166	1,164	58200%
	Right	1	43	42	4200%	1	165	164	16400%
	WB Total	4	649	645	16125%	4	1,332	1,328	33200%
TOTAL ENTERING VOLUME		16	2,360	2344	14650%	16	5,130	5114	31963%

FORECAST PEAK HOUR TO ADT COMPARISON					
		VOLUMES		PERCENT OF ADT	
		AM	PM	AM	PM
North Leg	Inbound	1,035	1,158		
North Leg	Outbound	330	1,490		
North Leg	TOTAL	1,365	2,648	25%	48%
South Leg	Inbound	0	40		
South Leg	Outbound	0	19		
South Leg	TOTAL	0	59	0%	102%
East Leg	Inbound	649	1,332		
East Leg	Outbound	480	1,430		
East Leg	TOTAL	1,129	2,762	20%	50%
West Leg	Inbound	676	2,600		
West Leg	Outbound	1,550	2,191		
West Leg	TOTAL	2,226	4,791	22%	48%
OVERALL TOTAL		4,720	10,260	22%	49%

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Project: Jack Rabbit Trail TIA
Scenario: Horizon Year (2040)

Job #: 12396
Analyst: CP
Date: 7/13/20

LOCATION: California Av. & 6th St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	382	446	64	17%	249	412	163	65%
	Through	79	69	-10	-12%	71	74	3	4%
	Right	49	144	95	194%	68	425	358	530%
	NB Total	510	659	150	29%	388	911	524	135%
SOUTH BOUND	Left	43	32	-11	-26%	13	22	9	69%
	Through	96	97	1	1%	36	25	-11	-31%
	Right	4	1	-3	-75%	11	5	-6	-52%
	SB Total	143	130	-13	-9%	60	52	-8	-13%
EAST BOUND	Left	4	2	-2	-43%	19	4	-15	-78%
	Through	272	425	154	57%	432	623	191	44%
	Right	113	236	124	110%	164	99	-65	-39%
	EB Total	388	663	276	71%	614	726	112	18%
WEST BOUND	Left	55	417	362	658%	60	176	117	196%
	Through	272	609	338	124%	256	473	217	85%
	Right	19	32	13	68%	10	12	2	20%
	WB Total	346	1,058	713	206%	326	661	336	103%
TOTAL ENTERING VOLUME		1,386	2,510	1124.5	81%	1,387	2,350	964	69%

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	130	52	15%	9%	1,578
North Leg	Outbound	103	90			
North Leg	TOTAL	233	142			
South Leg	Inbound	659	911	11%	9%	13,414
South Leg	Outbound	750	300			
South Leg	TOTAL	1,409	1,211			
East Leg	Inbound	1,058	661	14%	14%	12,218
East Leg	Outbound	601	1,070			
East Leg	TOTAL	1,659	1,731			
West Leg	Inbound	663	726	8%	8%	20,238
West Leg	Outbound	1,056	890			
West Leg	TOTAL	1,719	1,616			
OVERALL TOTAL		5,020	4,700	11%	10%	47,448

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Project: Jack Rabbit Trail TIA
Scenario: Horizon Year (2040)

Job #: 12396
Analyst: CP
Date: 7/13/20

LOCATION: California Av. & 4th St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	17	185	169	1021%	6	209	203	3383%
	Through	772	964	192	25%	476	913	438	92%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	789	1,149	361	46%	482	1,122	641	133%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	172	366	195	113%	922	757	-165	-18%
	Right	93	302	210	226%	78	360	282	362%
	SB Total	264	668	404	153%	1,000	1,117	117	12%
EAST BOUND	Left	58	122	65	112%	84	434	351	420%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	16	192	177	1139%	32	536	504	1575%
	EB Total	73	314	241	330%	116	970	855	740%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
TOTAL ENTERING VOLUME		1,126	2,131	1005.5	89%	1,597	3,209	1612	101%

FORECAST PEAK HOUR TO ADT COMPARISON					
		VOLUMES		PERCENT OF ADT	
		AM	PM	AM	PM
North Leg	Inbound	668	1,117		
North Leg	Outbound	1,086	1,347		
North Leg	TOTAL	1,754	2,464	13%	18%
South Leg	Inbound	1,149	1,122		
South Leg	Outbound	558	1,293		
South Leg	TOTAL	1,707	2,415	12%	16%
East Leg	Inbound	0	0		
East Leg	Outbound	0	0		
East Leg	TOTAL	0	0	#DIV/0!	#DIV/0!
West Leg	Inbound	314	970		
West Leg	Outbound	487	569		
West Leg	TOTAL	801	1,539	17%	33%
OVERALL TOTAL		4,262	6,418	13%	20%

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Project: Jack Rabbit Trail TIA
Scenario: Horizon Year (2040)

Job #: 12396
Analyst: CP
Date: 7/13/20

LOCATION: Beaumont Av. & 5th St.
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	56	31	-25	-45%	22	0	-22	-100%
	Through	279	871	593	213%	356	1,650	1,295	364%
	Right	13	1	-12	-92%	29	0	-29	-100%
	NB Total	348	903	556	160%	407	1,650	1,244	306%
SOUTH BOUND	Left	3	74	71	2367%	9	161	152	1689%
	Through	368	879	512	139%	410	772	363	89%
	Right	2	262	260	13000%	9	92	83	922%
	SB Total	373	1,215	843	226%	428	1,025	598	140%
EAST BOUND	Left	6	91	86	1555%	18	230	212	1178%
	Through	15	8	-7	-47%	15	1	-14	-93%
	Right	29	2	-27	-93%	38	0	-38	-100%
	EB Total	50	101	52	104%	71	231	161	228%
WEST BOUND	Left	18	0	-18	-100%	69	0	-69	-100%
	Through	3	5	2	67%	4	0	-4	-100%
	Right	10	86	76	760%	15	184	169	1127%
	WB Total	31	91	60	194%	88	184	96	109%
TOTAL ENTERING VOLUME		801	2,310	1509.5	189%	993	3,090	2098	211%

FORECAST PEAK HOUR TO ADT COMPARISON					
		VOLUMES		PERCENT OF ADT	
		AM	PM	AM	PM
North Leg	Inbound	1,215	1,025		
North Leg	Outbound	1,048	2,064		
North Leg	TOTAL	2,263	3,089	14%	19%
South Leg	Inbound	903	1,650		
South Leg	Outbound	881	772		
South Leg	TOTAL	1,784	2,422	8%	11%
East Leg	Inbound	91	184		
East Leg	Outbound	83	162		
East Leg	TOTAL	174	346	1%	1%
West Leg	Inbound	101	231		
West Leg	Outbound	298	92		
West Leg	TOTAL	399	323	3%	3%
OVERALL TOTAL		4,620	6,180	6%	8%

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Project: Jack Rabbit Trail TIA
Scenario: Horizon Year (2040)

Job #: 12396
Analyst: CP
Date: 7/13/20

LOCATION: Beaumont Av. & I-10 WB Ramps
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	345	352	8	2%	272	276	5	2%
	Through	216	508	292	135%	309	884	576	187%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	561	860	300	53%	580	1,160	580	100%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	340	725	385	113%	422	685	263	62%
	Right	75	93	19	25%	94	94	0	0%
	SB Total	415	818	404	97%	516	779	263	51%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
WEST BOUND	Left	464	475	11	2%	685	745	60	9%
	Through	9	5	-4	-41%	0	0	0	#DIV/0!
	Right	132	182	51	38%	98	186	88	90%
	WB Total	604	662	58	10%	783	931	148	19%
TOTAL ENTERING VOLUME		1,579	2,340	761	48%	1,879	2,870	991	53%

FORECAST PEAK HOUR TO ADT COMPARISON					
		VOLUMES		PERCENT OF ADT	
		AM	PM	AM	PM
North Leg	Inbound	818	779		
North Leg	Outbound	690	1,070		
North Leg	TOTAL	1,508	1,849	7%	8%
South Leg	Inbound	860	1,160		
South Leg	Outbound	1,200	1,430		
South Leg	TOTAL	2,060	2,590	5%	6%
East Leg	Inbound	662	931		
East Leg	Outbound	0	0		
East Leg	TOTAL	662	931	6%	8%
West Leg	Inbound	0	0		
West Leg	Outbound	450	370		
West Leg	TOTAL	450	370	4%	3%
OVERALL TOTAL		4,680	5,740	5%	7%

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Project: Jack Rabbit Trail TIA
Scenario: Horizon Year (2040)

Job #: 12396
Analyst: CP
Date: 7/13/20

LOCATION: Beaumont Av. & I-10 EB Ramps
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	493	727	235	48%	483	871	388	80%
	Right	421	484	63	15%	362	425	63	17%
	NB Total	914	1,211	298	33%	845	1,296	451	53%
SOUTH BOUND	Left	99	90	-9	-9%	105	117	12	11%
	Through	706	1,177	472	67%	1,002	1,347	345	34%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	804	1,267	463	58%	1,107	1,464	357	32%
EAST BOUND	Left	68	53	-15	-22%	97	119	22	23%
	Through	10	6	-4	-40%	10	8	-2	-20%
	Right	495	553	58	12%	746	723	-23	-3%
	EB Total	573	612	39	7%	853	850	-3	0%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
TOTAL ENTERING VOLUME		2,291	3,090	799.5	35%	2,805	3,610	806	29%

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	1,267	1,464	5%	6%	41,495
North Leg	Outbound	780	990			
North Leg	TOTAL	2,047	2,454			
South Leg	Inbound	1,211	1,296	4%	5%	67,361
South Leg	Outbound	1,730	2,070			
South Leg	TOTAL	2,941	3,366			
East Leg	Inbound	0	0	3%	3%	19,230
East Leg	Outbound	580	550			
East Leg	TOTAL	580	550			
West Leg	Inbound	612	850	6%	9%	9,863
West Leg	Outbound	0	0			
West Leg	TOTAL	612	850			
OVERALL TOTAL		6,180	7,220	4%	5%	137,949

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Project: Jack Rabbit Trail TIA
Scenario: Horizon Year (2040)

Job #: 12396
Analyst: CP
Date: 7/13/20

LOCATION: Potrero Bl. & SR-60 WB Ramps
FORECAST YEAR: 2040

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	1	97	96	9600%	1	220	219	21900%
	Through	2	826	824	41200%	2	2,813	2,811	140550%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	NB Total	3	923	920	30667%	3	3,033	3,030	101000%
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	576	574	28700%	2	1,440	1,438	71900%
	Right	1	1,583	1,582	158200%	1	1,460	1,459	145900%
	SB Total	3	2,159	2,156	71867%	3	2,900	2,897	96567%
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	EB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
WEST BOUND	Left	1	4	3	300%	1	20	19	1900%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	84	83	8300%	1	257	256	25600%
	WB Total	2	88	86	4300%	2	277	275	13750%
TOTAL ENTERING VOLUME		8	3,170	3162	39525%	8	6,210	6202	77525%

FORECAST PEAK HOUR TO ADT COMPARISON					
		VOLUMES		PERCENT OF ADT	
		AM	PM	AM	PM
North Leg	Inbound	2,159	2,900		
North Leg	Outbound	910	3,070		
North Leg	TOTAL	3,069	5,970	14%	28%
South Leg	Inbound	923	3,033		
South Leg	Outbound	580	1,460		
South Leg	TOTAL	1,503	4,493	11%	34%
East Leg	Inbound	88	277		
East Leg	Outbound	0	0		
East Leg	TOTAL	88	277	14%	44%
West Leg	Inbound	0	0		
West Leg	Outbound	1,680	1,680		
West Leg	TOTAL	1,680	1,680	21%	21%
OVERALL TOTAL		6,340	12,420	15%	29%

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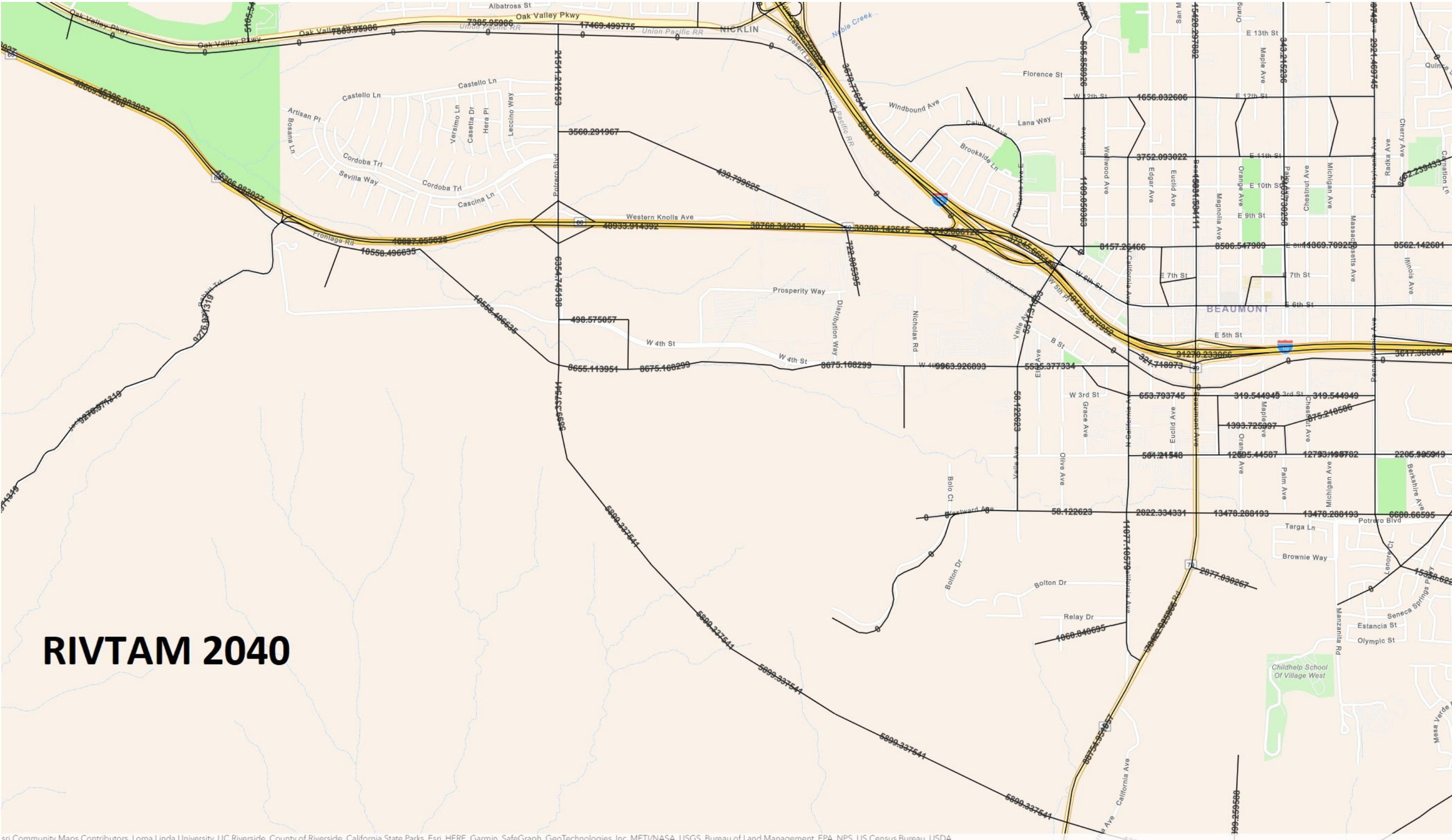
Job #: 12396
Analyst: CP
Date: 7/13/20

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	AM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFF-ERENCE	% CHANGE
NORTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	2	256	254	12700%	2	1,300	1,298	64900%
	Right	1	7	6	600%	1	11	10	1000%
	NB Total	3	263	260	8667%	3	1,311	1,308	43600%
SOUTH BOUND	Left	1	123	122	12200%	1	99	98	9800%
	Through	2	418	416	20800%	2	1,260	1,258	62900%
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	3	541	538	17933%	3	1,359	1,356	45200%
EAST BOUND	Left	1	594	593	59300%	1	1,546	1,545	154500%
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	1	52	51	5100%	1	173	172	17200%
	EB Total	2	646	644	32200%	2	1,719	1,717	85850%
WEST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
TOTAL ENTERING VOLUME		8	1,450	1442	18025%	8	4,389	4381	54763%

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		AM	PM	AM	PM	
North Leg	Inbound	541	1,359	11%	32%	13,131
North Leg	Outbound	850	2,846			
North Leg	TOTAL	1,391	4,205			
South Leg	Inbound	263	1,311	12%	43%	6,355
South Leg	Outbound	470	1,433			
South Leg	TOTAL	733	2,744			
East Leg	Inbound	0	0	19%	16%	701
East Leg	Outbound	130	110			
East Leg	TOTAL	130	110			
West Leg	Inbound	646	1,719	10%	27%	6,465
West Leg	Outbound	0	0			
West Leg	TOTAL	646	1,719			
OVERALL TOTAL		2,900	8,778	11%	33%	26,652

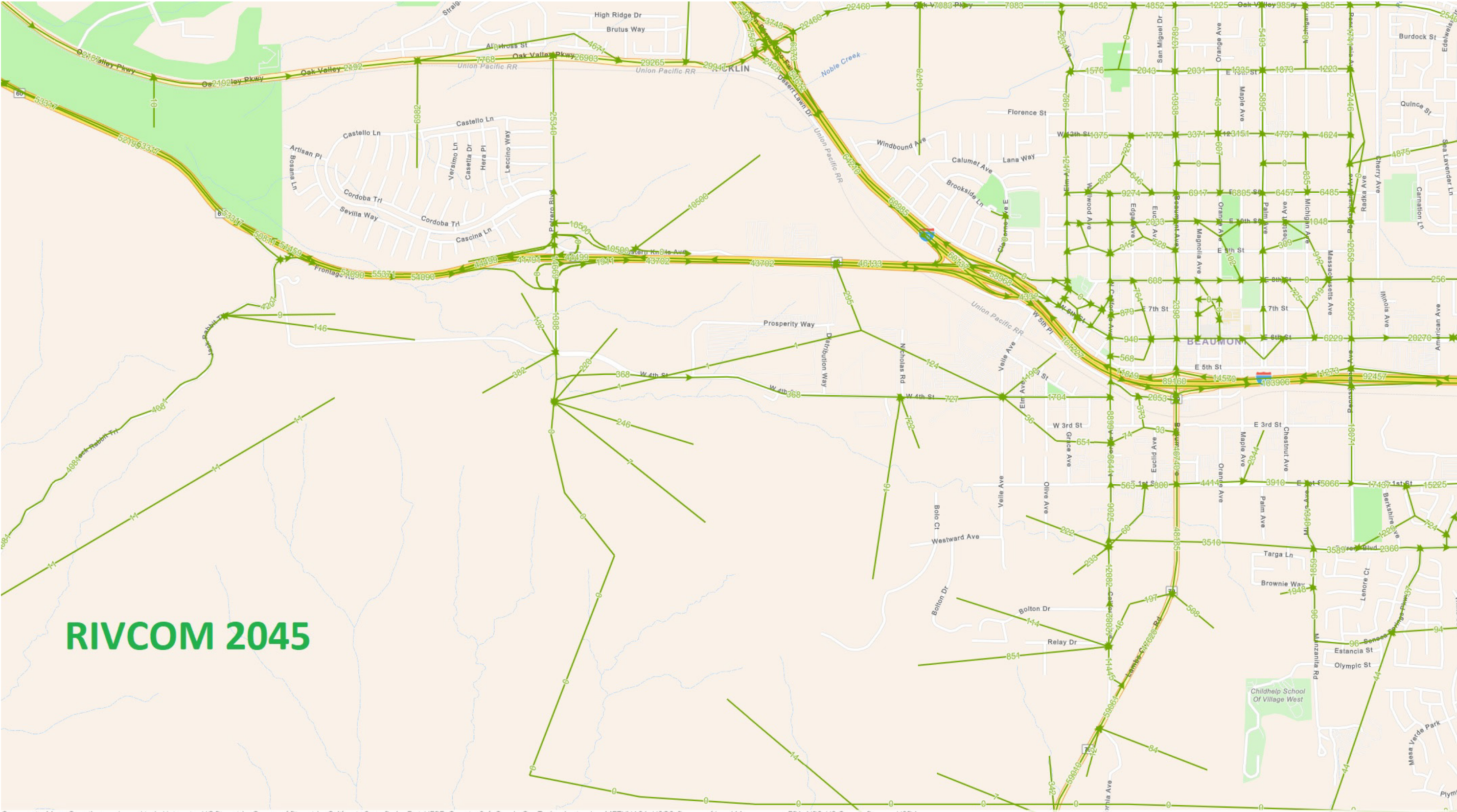
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EXHIBIT 4.1-A: RIVTAM (2040) RAW MODEL ADT VOLUMES



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EXHIBIT 4.1-B: RIVCOM (2045) RAW MODEL ADT VOLUMES



APPENDIX 5.1:

E+P (PHASE 1) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Timings
1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

07/16/2020

→

←

Lane Group	EBT	WBT	Ø6
Lane Configurations	↑	↑	
Traffic Volume (vph)	48	161	
Future Volume (vph)	48	161	
Turn Type	NA	NA	
Protected Phases	4	8	6
Permitted Phases			
Detector Phase	4	8	
Switch Phase			
Minimum Initial (s)	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8
Total Split (s)	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	33%
Yellow Time (s)	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	5.8	5.8	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	None	None
Act Effct Green (s)	11.6	11.6	
Actuated g/C Ratio	0.79	0.79	
v/c Ratio	0.03	0.12	
Control Delay	0.2	0.4	
Queue Delay	0.0	0.0	
Total Delay	0.2	0.4	
LOS	A	A	
Approach Delay	0.2	0.4	
Approach LOS	A	A	
Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 14.7			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.12			
Intersection Signal Delay: 0.4		Intersection LOS: A	
Intersection Capacity Utilization 13.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 1: 4th St. & Jack Rabbit Trail

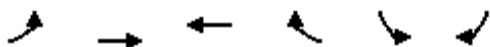


HCM 6th Signalized Intersection Summary

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

07/16/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	48	161	0	0	0
Future Volume (veh/h)	0	48	161	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	52	175	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	672	871	871	738	17	15
Arrive On Green	0.00	0.46	0.46	0.00	0.00	0.00
Sat Flow, veh/h	1229	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	52	175	0	0	0
Grp Sat Flow(s),veh/h/ln	1229	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	0.2	0.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.2	0.6	0.0	0.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	672	871	871	738	17	15
V/C Ratio(X)	0.00	0.06	0.20	0.00	0.00	0.00
Avail Cap(c_a), veh/h	6327	9615	9615	8148	4089	3638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	1.6	1.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	1.6	1.8	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		52	175		0	
Approach Delay, s/veh		1.6	1.8		0.0	
Approach LOS		A	A			
Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			10.7		0.0	10.7
Change Period (Y+Rc), s			5.8		5.8	5.8
Max Green Setting (Gmax), s			54.2		24.2	54.2
Max Q Clear Time (g_c+I1), s			2.2		0.0	2.6
Green Ext Time (p_c), s			0.2		0.0	0.9
Intersection Summary						
HCM 6th Ctrl Delay			1.8			
HCM 6th LOS			A			

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	183	21	84	200	28	94
Future Vol, veh/h	183	21	84	200	28	94
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	213	24	98	233	33	109
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	9	8.6	9
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	94	92	92	21	84	100	100
LT Vol	28	0	0	0	0	84	0	0
Through Vol	0	0	92	92	0	0	100	100
RT Vol	0	94	0	0	21	0	0	0
Lane Flow Rate	33	109	106	106	24	98	116	116
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.057	0.156	0.163	0.163	0.021	0.16	0.174	0.119
Departure Headway (Hd)	6.332	5.135	5.52	5.52	3.106	5.895	5.392	3.683
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	562	692	646	646	1134	606	662	963
Service Time	4.113	2.916	3.29	3.29	0.875	3.657	3.154	1.444
HCM Lane V/C Ratio	0.059	0.158	0.164	0.164	0.021	0.162	0.175	0.12
HCM Control Delay	9.5	8.9	9.4	9.4	5.9	9.8	9.3	6.9
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.6	0.6	0.6	0.1	0.6	0.6	0.4

Intersection

Intersection Delay, s/veh 8
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	62	0	51	0	10	24	43	33	0
Future Vol, veh/h	0	0	0	62	0	51	0	10	24	43	33	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	95	0	78	0	15	37	66	51	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

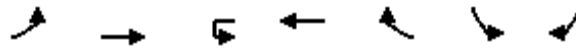
Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.1	7.2	8.2
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	55%	57%
Vol Thru, %	29%	0%	43%
Vol Right, %	71%	45%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	34	113	76
LT Vol	0	62	43
Through Vol	10	0	33
RT Vol	24	51	0
Lane Flow Rate	52	174	117
Geometry Grp	1	1	1
Degree of Util (X)	0.058	0.195	0.142
Departure Headway (Hd)	3.989	4.028	4.361
Convergence, Y/N	Yes	Yes	Yes
Cap	903	876	810
Service Time	1.989	2.123	2.451
HCM Lane V/C Ratio	0.058	0.199	0.144
HCM Control Delay	7.2	8.1	8.2
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.7	0.5

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/05/2023



Lane Group	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (vph)	27	29	1	87	14	11	81
Future Volume (vph)	27	29	1	87	14	11	81
Turn Type	Prot	NA	Perm	NA	Perm	Prot	Perm
Protected Phases	7	4		8		6	
Permitted Phases			8		8		6
Detector Phase	7	4	8	8	8	6	6
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	27.8	28.2	28.2
Total Split (s)	9.6	72.6	63.0	63.0	63.0	47.4	47.4
Total Split (%)	8.0%	60.5%	52.5%	52.5%	52.5%	39.5%	39.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8		5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes	Yes		
Recall Mode	None	None	None	None	None	Min	Min

Intersection Summary

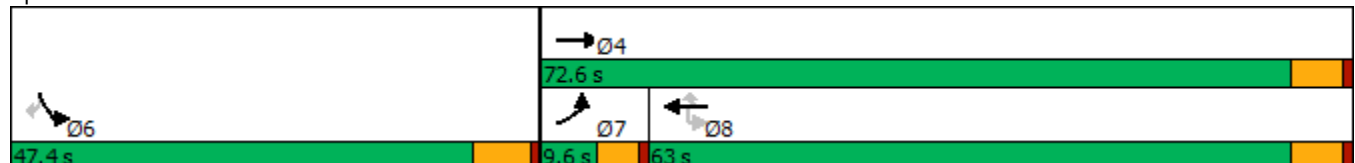
Cycle Length: 120

Actuated Cycle Length: 35.7

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary

4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/05/2023



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	27	29	1	87	14	11	81
Future Volume (veh/h)	27	29	1	87	14	11	81
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1900	1900		1900	1900	1900	1900
Adj Flow Rate, veh/h	40	43		130	21	16	121
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	82	1459		444	377	951	436
Arrive On Green	0.05	0.40		0.23	0.23	0.27	0.27
Sat Flow, veh/h	1810	3705		1900	1610	3510	1610
Grp Volume(v), veh/h	40	43		130	21	16	121
Grp Sat Flow(s),veh/h/ln	1810	1805		1900	1610	1755	1610
Q Serve(g_s), s	0.8	0.3		2.1	0.4	0.1	2.2
Cycle Q Clear(g_c), s	0.8	0.3		2.1	0.4	0.1	2.2
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	82	1459		444	377	951	436
V/C Ratio(X)	0.49	0.03		0.29	0.06	0.02	0.28
Avail Cap(c_a), veh/h	245	6533		2944	2495	3918	1797
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	6.6		11.6	11.0	9.9	10.6
Incr Delay (d2), s/veh	4.4	0.0		0.4	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.1		0.6	0.1	0.0	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.6	6.6		12.0	11.0	9.9	11.0
LnGrp LOS	C	A		B	B	A	B
Approach Vol, veh/h		83		151		137	
Approach Delay, s/veh		13.8		11.9		10.8	
Approach LOS		B		B		B	
Timer - Assigned Phs				4		6	7
Phs Duration (G+Y+Rc), s				20.7		16.2	6.3
Change Period (Y+Rc), s				5.8		6.2	4.6
Max Green Setting (Gmax), s				66.8		41.2	5.0
Max Q Clear Time (g_c+I1), s				2.3		4.2	2.8
Green Ext Time (p_c), s				0.1		0.4	0.0

Intersection Summary

HCM 6th Ctrl Delay	11.9
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

Intersection

Intersection Delay, s/veh61.4

Intersection LOS F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	51	278	250	307	458	47
Future Vol, veh/h	51	278	250	307	458	47
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	59	320	287	353	526	54
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	26.4	14.5	136
HCM LOS	D	B	F

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	91%
Vol Thru, %	0%	100%	100%	100%	14%	0%
Vol Right, %	0%	0%	0%	0%	86%	9%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	51	278	100	100	357	505
LT Vol	51	0	0	0	0	458
Through Vol	0	278	100	100	50	0
RT Vol	0	0	0	0	307	47
Lane Flow Rate	59	320	115	115	410	580
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.136	0.697	0.232	0.232	0.567	1.207
Departure Headway (Hd)	9.118	8.592	7.971	7.971	5.577	7.487
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	396	425	453	453	652	488
Service Time	6.818	6.292	5.671	5.671	3.277	5.241
HCM Lane V/C Ratio	0.149	0.753	0.254	0.254	0.629	1.189
HCM Control Delay	13.2	28.8	13.1	13.1	15.3	136
HCM Lane LOS	B	D	B	B	C	F
HCM 95th-tile Q	0.5	5.2	0.9	0.9	3.6	22.1

Intersection												
Int Delay, s/veh	8.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱			↱			↱			↱	
Traffic Vol, veh/h	0	5	59	0	16	0	89	0	1	0	0	0
Future Vol, veh/h	0	5	59	0	16	0	89	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	8	91	0	25	0	137	0	2	0	0	0
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	-	278	2	327	277	-	2	0	0	2	0	0
Stage 1	-	2	-	275	275	-	-	-	-	-	-	-
Stage 2	-	276	-	52	2	-	-	-	-	-	-	-
Critical Hdwy	-	6.5	6.2	7.1	6.5	-	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	4	3.3	3.5	4	-	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	633	1088	630	634	0	1634	-	-	1634	-	-
Stage 1	0	898	-	736	686	0	-	-	-	-	-	-
Stage 2	0	685	-	966	898	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	580	1088	535	581	-	1634	-	-	1634	-	-
Mov Cap-2 Maneuver	-	580	-	535	581	-	-	-	-	-	-	-
Stage 1	-	898	-	674	628	-	-	-	-	-	-	-
Stage 2	-	627	-	878	898	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.9		11.5			7.3			0			
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1634	-	-	1018	581	1634	-	-				
HCM Lane V/C Ratio	0.084	-	-	0.097	0.042	-	-	-				
HCM Control Delay (s)	7.4	0	-	8.9	11.5	0	-	-				
HCM Lane LOS	A	A	-	A	B	A	-	-				
HCM 95th %tile Q(veh)	0.3	-	-	0.3	0.1	0	-	-				

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/09/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	↵	→	↕
Traffic Volume (vph)	322	235	491	3
Future Volume (vph)	322	235	491	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	43.1	14.5	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	0.93	0.91	0.42	1.02
Control Delay	37.9	64.9	3.8	90.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	37.9	64.9	3.8	90.7
LOS	D	E	A	F
Approach Delay	37.9		23.6	90.7
Approach LOS	D		C	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.02

Intersection Signal Delay: 40.9

Intersection LOS: D

Intersection Capacity Utilization 85.8%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/09/2020

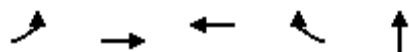
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻		↻	↻						↻	
Traffic Volume (veh/h)	0	322	414	235	491	0	0	0	0	229	3	67
Future Volume (veh/h)	0	322	414	235	491	0	0	0	0	229	3	67
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	362	378	264	552	0				257	3	56
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	407	425	292	1313	0				259	3	57
Arrive On Green	0.00	0.48	0.48	0.32	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	851	889	1810	1900	0				1441	17	314
Grp Volume(v), veh/h	0	0	740	264	552	0				316	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1740	1810	1900	0				1771	0	0
Q Serve(g_s), s	0.0	0.0	34.7	12.5	0.0	0.0				16.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	34.7	12.5	0.0	0.0				16.0	0.0	0.0
Prop In Lane	0.00		0.51	1.00		0.00				0.81		0.18
Lane Grp Cap(c), veh/h	0	0	832	292	1313	0				319	0	0
V/C Ratio(X)	0.00	0.00	0.89	0.90	0.42	0.00				0.99	0.00	0.00
Avail Cap(c_a), veh/h	0	0	832	298	1313	0				319	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.42	0.42	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	21.3	29.8	0.0	0.0				36.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	13.6	14.4	0.4	0.0				47.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	15.4	5.4	0.2	0.0				10.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	34.9	44.1	0.4	0.0				84.7	0.0	0.0
LnGrp LOS	A	A	C	D	A	A				F	A	A
Approach Vol, veh/h		740			816						316	
Approach Delay, s/veh		34.9			14.6						84.7	
Approach LOS		C			B						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.1	48.9		22.0		68.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2						
Max Q Clear Time (g_c+I1), s	14.5	36.7		18.0		2.0						
Green Ext Time (p_c), s	0.0	2.5		0.0		3.6						
Intersection Summary												
HCM 6th Ctrl Delay			34.4									
HCM 6th LOS			C									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/09/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	91	459	413	394	4
Future Volume (vph)	91	459	413	394	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	11.8	42.8	31.0	31.0	47.2
Total Split (%)	13.1%	47.6%	34.4%	34.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	6.9	33.1	23.6	23.6	45.3
Actuated g/C Ratio	0.08	0.37	0.26	0.26	0.50
v/c Ratio	0.68	0.67	0.85	0.56	0.75
Control Delay	51.0	16.9	48.0	6.1	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	16.9	48.0	6.1	23.5
LOS	D	B	D	A	C
Approach Delay		22.5	27.5		23.5
Approach LOS		C	C		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 24.8

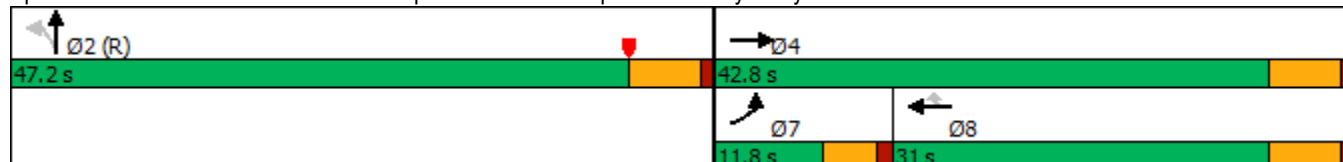
Intersection LOS: C

Intersection Capacity Utilization 85.8%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/09/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	459	0	0	413	394	313	4	348	0	0	0
Future Volume (veh/h)	91	459	0	0	413	394	313	4	348	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	93	468	0	0	421	286	319	4	233			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	120	698	0	0	475	403	497	6	363			
Arrive On Green	0.02	0.12	0.00	0.00	0.25	0.25	0.50	0.50	0.50			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	987	12	721			
Grp Volume(v), veh/h	93	468	0	0	421	286	556	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1721	0	0			
Q Serve(g_s), s	4.6	21.2	0.0	0.0	19.2	14.6	21.3	0.0	0.0			
Cycle Q Clear(g_c), s	4.6	21.2	0.0	0.0	19.2	14.6	21.3	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.57		0.42			
Lane Grp Cap(c), veh/h	120	698	0	0	475	403	866	0	0			
V/C Ratio(X)	0.78	0.67	0.00	0.00	0.89	0.71	0.64	0.00	0.00			
Avail Cap(c_a), veh/h	145	781	0	0	532	451	866	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.26	0.26	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.4	34.3	0.0	0.0	32.5	30.8	16.4	0.0	0.0			
Incr Delay (d2), s/veh	4.4	0.5	0.0	0.0	15.2	4.5	3.6	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.2	10.7	0.0	0.0	10.2	5.8	8.1	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.8	34.8	0.0	0.0	47.7	35.3	20.0	0.0	0.0			
LnGrp LOS	D	C	A	A	D	D	C	A	A			
Approach Vol, veh/h	561			707			556					
Approach Delay, s/veh	37.0			42.7			20.0					
Approach LOS	D			D			C					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	51.1			38.9			10.6			28.3		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	41.4			37.0			7.2			25.2		
Max Q Clear Time (g_c+I1), s	23.3			23.2			6.6			21.2		
Green Ext Time (p_c), s	3.3			2.2			0.0			1.3		
Intersection Summary												
HCM 6th Ctrl Delay	34.0											
HCM 6th LOS	C											

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑				↑			↑
Traffic Vol, veh/h	107	505	202	149	845	25	0	0	59	0	61	151
Future Vol, veh/h	107	505	202	149	845	25	0	0	59	0	61	151
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	118	555	222	164	929	27	0	0	65	0	67	166

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	956	0	0	777	0	0	-	-	389	-	2284	478
Stage 1	-	-	-	-	-	-	-	-	-	-	1271	-
Stage 2	-	-	-	-	-	-	-	-	-	-	1013	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	4	3.3
Pot Cap-1 Maneuver	727	-	-	848	-	-	0	0	615	0	~ 40	539
Stage 1	-	-	-	-	-	-	0	0	-	0	241	-
Stage 2	-	-	-	-	-	-	0	0	-	0	319	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	727	-	-	848	-	-	-	-	615	-	~ 23	539
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	~ 23	-
Stage 1	-	-	-	-	-	-	-	-	-	-	194	-
Stage 2	-	-	-	-	-	-	-	-	-	-	224	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4			1.5			11.5			14.6		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	615	727	-	-	848	-	-	539
HCM Lane V/C Ratio	0.105	0.162	-	-	0.193	-	-	0.308
HCM Control Delay (s)	11.5	10.9	-	-	10.3	-	-	14.6
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.4	0.6	-	-	0.7	-	-	1.3

Notes												
~: Volume exceeds capacity	\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon					

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	49	22	3	69	19	68	27	6	21	29	129
Future Volume (vph)	31	49	22	3	69	19	68	27	6	21	29	129
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	21.0	43.0	43.0	15.0	37.0	37.0	31.0	43.0	43.0	19.0	31.0	31.0
Total Split (%)	17.5%	35.8%	35.8%	12.5%	30.8%	30.8%	25.8%	35.8%	35.8%	15.8%	25.8%	25.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 44

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Veile Av. & 4th St.

 Ø1	 Ø2	 Ø3	 Ø4
19 s	43 s	15 s	43 s
 Ø5	 Ø6	 Ø7	 Ø8
31 s	31 s	21 s	37 s

HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	49	22	3	69	19	68	27	6	21	29	129
Future Volume (veh/h)	31	49	22	3	69	19	68	27	6	21	29	129
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	41	65	29	4	92	25	91	36	8	28	39	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	463	393	10	389	330	136	497	421	59	417	
Arrive On Green	0.04	0.24	0.24	0.01	0.20	0.20	0.08	0.26	0.26	0.03	0.22	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	41	65	29	4	92	25	91	36	8	28	39	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	1.0	1.2	0.6	0.1	1.8	0.6	2.2	0.7	0.2	0.7	0.7	0.0
Cycle Q Clear(g_c), s	1.0	1.2	0.6	0.1	1.8	0.6	2.2	0.7	0.2	0.7	0.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	80	463	393	10	389	330	136	497	421	59	417	
V/C Ratio(X)	0.51	0.14	0.07	0.41	0.24	0.08	0.67	0.07	0.02	0.47	0.09	
Avail Cap(c_a), veh/h	651	1550	1314	413	1300	1102	1048	1550	1314	572	1050	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.3	13.5	13.3	22.6	15.1	14.6	20.5	12.7	12.5	21.7	14.2	0.0
Incr Delay (d2), s/veh	1.9	0.1	0.1	9.8	0.3	0.1	2.1	0.1	0.0	2.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	0.2	0.1	0.7	0.2	0.9	0.2	0.0	0.3	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	13.6	13.3	32.4	15.5	14.7	22.7	12.7	12.5	23.8	14.3	0.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	
Approach Vol, veh/h		135			121			135			67	
Approach Delay, s/veh		16.5			15.9			19.4			18.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.1	17.7	4.8	16.9	8.0	15.8	6.6	15.1				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	14.4	37.2	10.4	37.2	26.4	25.2	16.4	31.2				
Max Q Clear Time (g_c+I1), s	2.7	2.7	2.1	3.2	4.2	2.7	3.0	3.8				
Green Ext Time (p_c), s	0.0	0.2	0.0	0.4	0.1	0.1	0.0	0.5				

Intersection Summary

HCM 6th Ctrl Delay 17.4

HCM 6th LOS B

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/09/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	272	113	55	272	19	382	81	43	101
Future Volume (vph)	4	272	113	55	272	19	382	81	43	101
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	26.5	26.5	10.3	27.2	27.2	28.0	42.1	11.1	25.2
Total Split (%)	10.7%	29.4%	29.4%	11.4%	30.2%	30.2%	31.1%	46.8%	12.3%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.1	17.3	17.3	5.6	23.3	23.3	21.3	40.4	6.0	20.5
Actuated g/C Ratio	0.06	0.21	0.21	0.07	0.28	0.28	0.26	0.49	0.07	0.25
v/c Ratio	0.04	0.74	0.25	0.48	0.55	0.04	0.88	0.16	0.35	0.24
Control Delay	40.8	42.8	2.0	54.1	29.7	0.1	52.6	11.8	47.0	29.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	42.8	2.0	54.1	29.7	0.1	52.6	11.8	47.0	29.2
LOS	D	D	A	D	C	A	D	B	D	C
Approach Delay		30.9			31.9			42.2		34.4
Approach LOS		C			C			D		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 81.8

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 35.7

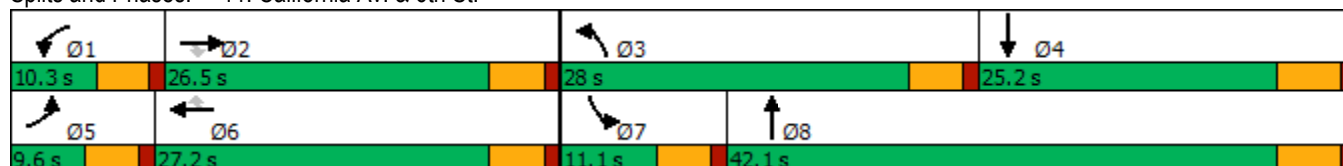
Intersection LOS: D

Intersection Capacity Utilization 64.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/09/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	272	113	55	272	19	382	81	49	43	101	4
Future Volume (veh/h)	4	272	113	55	272	19	382	81	49	43	101	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	296	122	60	296	12	415	88	31	47	110	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	365	309	84	444	376	456	636	224	74	489	9
Arrive On Green	0.01	0.19	0.19	0.05	0.23	0.23	0.25	0.47	0.47	0.04	0.26	0.26
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1342	473	1810	1860	34
Grp Volume(v), veh/h	4	296	122	60	296	12	415	0	119	47	0	112
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1815	1810	0	1894
Q Serve(g_s), s	0.2	11.6	5.2	2.5	11.0	0.4	17.3	0.0	2.9	2.0	0.0	3.6
Cycle Q Clear(g_c), s	0.2	11.6	5.2	2.5	11.0	0.4	17.3	0.0	2.9	2.0	0.0	3.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		0.02
Lane Grp Cap(c), veh/h	10	365	309	84	444	376	456	0	860	74	0	498
V/C Ratio(X)	0.42	0.81	0.39	0.71	0.67	0.03	0.91	0.00	0.14	0.63	0.00	0.23
Avail Cap(c_a), veh/h	116	529	449	132	546	463	544	0	860	151	0	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.6	30.1	27.5	36.6	27.1	23.1	28.3	0.0	11.5	36.8	0.0	22.5
Incr Delay (d2), s/veh	10.3	6.1	0.8	4.1	2.3	0.0	16.2	0.0	0.3	3.3	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	5.7	1.9	1.2	5.1	0.2	8.8	0.0	1.1	0.9	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.9	36.2	28.3	40.7	29.4	23.1	44.5	0.0	11.9	40.1	0.0	23.5
LnGrp LOS	D	D	C	D	C	C	D	A	B	D	A	C
Approach Vol, veh/h	422			368			534			159		
Approach Delay, s/veh	34.0			31.0			37.2			28.4		
Approach LOS	C			C			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	19.8	24.2	25.7	5.0	23.0	7.8	42.1				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	5.7	* 22	23.4	20.0	5.0	* 22	6.5	36.9				
Max Q Clear Time (g_c+I1), s	4.5	13.6	19.3	5.6	2.2	13.0	4.0	4.9				
Green Ext Time (p_c), s	0.0	1.4	0.3	0.4	0.0	1.2	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			33.8									
HCM 6th LOS			C									
Notes												

Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	2	3	71	24	9	29	283	508	34	12	215	2
Future Vol, veh/h	2	3	71	24	9	29	283	508	34	12	215	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	50	-	-	50
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	90	30	11	37	358	643	43	15	272	3
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1707	1704	272	1710	1664	643	275	0	0	686	0	0
Stage 1	302	302	-	1359	1359	-	-	-	-	-	-	-
Stage 2	1405	1402	-	351	305	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	73	93	772	72	98	477	1300	-	-	917	-	-
Stage 1	712	668	-	185	219	-	-	-	-	-	-	-
Stage 2	174	209	-	670	666	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	40	50	772	40	53	477	1300	-	-	917	-	-
Mov Cap-2 Maneuver	58	88	-	79	97	-	-	-	-	-	-	-
Stage 1	393	655	-	102	121	-	-	-	-	-	-	-
Stage 2	80	115	-	577	653	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	13.5		51.9		3		0.5					
HCM LOS	B		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1300	-	-	73	772	83	477	917	-	-		
HCM Lane V/C Ratio	0.276	-	-	0.087	0.116	0.503	0.077	0.017	-	-		
HCM Control Delay (s)	8.8	0	-	58.9	10.3	86	13.2	9	0	-		
HCM Lane LOS	A	A	-	F	B	F	B	A	A	-		
HCM 95th %tile Q(veh)	1.1	-	-	0.3	0.4	2.1	0.2	0.1	-	-		

Intersection

Int Delay, s/veh 4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	77	18	22	772	172	104
Future Vol, veh/h	77	18	22	772	172	104
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	100	23	29	1003	223	135

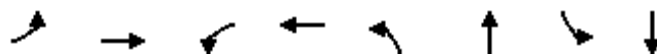
Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	1352	291	358
Stage 1	291	-	-
Stage 2	1061	-	-
Critical Hdwy	6.4	6.2	4.1
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	2.2
Pot Cap-1 Maneuver	167	753	1212
Stage 1	763	-	-
Stage 2	336	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	163	753	1212
Mov Cap-2 Maneuver	163	-	-
Stage 1	745	-	-
Stage 2	336	-	-

Approach	EB	NB	SB
HCM Control Delay, s	48.1	0.2	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1212	-	163	753	-	-
HCM Lane V/C Ratio	0.024	-	0.613	0.031	-	-
HCM Control Delay (s)	8	-	57	9.9	-	-
HCM Lane LOS	A	-	F	A	-	-
HCM 95th %tile Q(veh)	0.1	-	3.3	0.1	-	-

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)
07/09/2020



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕		↕	↙	↕	↙	↕
Traffic Volume (vph)	8	15	18	3	56	279	3	368
Future Volume (vph)	8	15	18	3	56	279	3	368
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		10.1		10.0	6.7	46.3	5.0	40.9
Actuated g/C Ratio		0.17		0.17	0.11	0.77	0.08	0.68
v/c Ratio		0.23		0.13	0.30	0.11	0.02	0.17
Control Delay		12.9		17.8	30.6	4.1	25.7	7.5
Queue Delay		0.0		0.0	0.1	0.2	0.0	0.1
Total Delay		12.9		17.8	30.8	4.3	25.7	7.5
LOS		B		B	C	A	C	A
Approach Delay		12.9		17.8		8.5		7.7
Approach LOS		B		B		A		A

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.30

Intersection Signal Delay: 8.9

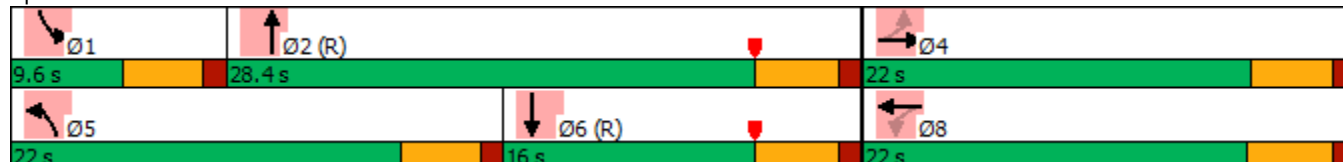
Intersection LOS: A

Intersection Capacity Utilization 34.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/09/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	15	45	18	3	10	56	279	13	3	368	7
Future Volume (veh/h)	8	15	45	18	3	10	56	279	13	3	368	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	9	16	49	20	3	11	61	303	14	3	400	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	65	154	200	43	71	96	2179	100	7	2067	41
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.11	1.00	1.00	0.00	0.57	0.57
Sat Flow, veh/h	93	471	1106	749	311	507	1810	3514	162	1810	3620	72
Grp Volume(v), veh/h	74	0	0	34	0	0	61	155	162	3	199	209
Grp Sat Flow(s),veh/h/ln	1670	0	0	1567	0	0	1810	1805	1871	1810	1805	1887
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.1	3.2	3.2
Cycle Q Clear(g_c), s	2.4	0.0	0.0	1.0	0.0	0.0	1.9	0.0	0.0	0.1	3.2	3.2
Prop In Lane	0.12		0.66	0.59		0.32	1.00		0.09	1.00		0.04
Lane Grp Cap(c), veh/h	300	0	0	313	0	0	96	1119	1160	7	1031	1078
V/C Ratio(X)	0.25	0.00	0.00	0.11	0.00	0.00	0.63	0.14	0.14	0.41	0.19	0.19
Avail Cap(c_a), veh/h	547	0	0	530	0	0	525	1119	1160	151	1031	1078
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	0.0	0.0	22.7	0.0	0.0	26.2	0.0	0.0	29.8	6.2	6.2
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.2	0.0	0.0	2.6	0.3	0.3	12.9	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.4	0.0	0.0	0.8	0.1	0.1	0.1	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	0.0	0.0	22.8	0.0	0.0	28.8	0.3	0.3	42.7	6.6	6.6
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		74			34			378			411	
Approach Delay, s/veh		23.7			22.8			4.9			6.9	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	42.0		13.1	7.8	39.1		13.1				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		4.4	3.9	5.2		3.0				
Green Ext Time (p_c), s	0.0	1.8		0.2	0.0	1.2		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			8.0									
HCM 6th LOS			A									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/09/2020

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	464	9	345	216	352
Future Volume (vph)	464	9	345	216	352
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	21.0	21.0	22.0	39.0	17.0
Total Split (%)	35.0%	35.0%	36.7%	65.0%	28.3%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	14.9	14.9	15.4	35.5	15.5
Actuated g/C Ratio	0.25	0.25	0.26	0.59	0.26
v/c Ratio	0.79	0.70	0.81	0.11	0.50
Control Delay	36.3	24.7	41.7	5.6	16.0
Queue Delay	0.0	1.1	0.0	0.0	2.3
Total Delay	36.3	25.8	41.7	5.6	18.2
LOS	D	C	D	A	B
Approach Delay		31.2		27.8	18.2
Approach LOS		C		C	B

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 26.5

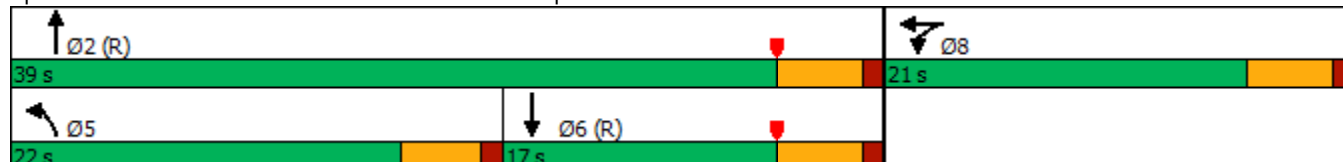
Intersection LOS: C

Intersection Capacity Utilization 63.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary 15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/09/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	352	79
Future Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	352	79
Initial Q (Qb), veh				0	0	0	75	100	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				328	256	143	375	235	0	0	383	86
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				463	293	164	525	2108	0	0	705	157
Arrive On Green				0.26	0.26	0.26	0.39	0.98	0.00	0.00	0.09	0.09
Sat Flow, veh/h				1810	1145	640	1810	3705	0	0	3030	652
Grp Volume(v), veh/h				328	0	399	375	235	0	0	234	235
Grp Sat Flow(s),veh/h/ln				1810	0	1785	1810	1805	0	0	1805	1783
Q Serve(g_s), s				9.9	0.0	12.9	11.7	0.1	0.0	0.0	7.4	7.5
Cycle Q Clear(g_c), s				9.9	0.0	12.9	11.7	0.1	0.0	0.0	7.4	7.5
Prop In Lane				1.00		0.36	1.00		0.00	0.00		0.37
Lane Grp Cap(c), veh/h				463	0	457	525	2108	0	0	434	428
V/C Ratio(X)				0.71	0.00	0.87	0.71	0.11	0.00	0.00	0.54	0.55
Avail Cap(c_a), veh/h				489	0	482	525	2108	0	0	498	492
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.78	0.78	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.3	0.0	21.4	15.5	0.4	0.0	0.0	24.4	24.5
Incr Delay (d2), s/veh				4.4	0.0	15.5	3.1	0.1	0.0	0.0	4.7	4.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	386.1	18.2	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.1	0.0	6.5	61.0	5.4	0.0	0.0	3.9	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.7	0.0	36.9	404.7	18.7	0.0	0.0	29.1	29.4
LnGrp LOS				C	A	D	F	B	A	A	C	C
Approach Vol, veh/h					727			610			469	
Approach Delay, s/veh					31.4			256.0			29.3	
Approach LOS					C			F			C	
Timer - Assigned Phs	2			5		6	8					
Phs Duration (G+Y+Rc), s	39.8			18.5		21.3	20.2					
Change Period (Y+Rc), s	* 4.8			4.6		* 4.8	4.8					
Max Green Setting (Gmax), s	* 34			17.4		* 12	16.2					
Max Q Clear Time (g_c+I1), s	2.1			13.7		9.5	14.9					
Green Ext Time (p_c), s	1.6			0.3		0.7	0.5					
Intersection Summary												
HCM 6th Ctrl Delay	106.7											
HCM 6th LOS	F											
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/09/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕	↗	↕	↖	↕
Traffic Volume (vph)	11	547	544	111	779
Future Volume (vph)	11	547	544	111	779
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	20.0	20.0	27.0	13.0	40.0
Total Split (%)	33.3%	33.3%	45.0%	21.7%	66.7%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	12.6	12.6	27.7	7.4	37.8
Actuated g/C Ratio	0.21	0.21	0.46	0.12	0.63
v/c Ratio	0.70	0.70	0.59	0.52	0.36
Control Delay	18.8	18.6	9.9	22.0	11.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	18.6	9.9	22.0	11.4
LOS	B	B	A	C	B
Approach Delay	18.7		9.9		12.7
Approach LOS	B		A		B

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 13.1

Intersection LOS: B

Intersection Capacity Utilization 63.9%

ICU Level of Service B

Analysis Period (min) 15

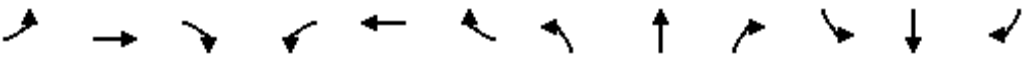
Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary 16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/09/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↗					↕		↖	↕	
Traffic Volume (veh/h)	75	11	547	0	0	0	0	544	465	111	779	0
Future Volume (veh/h)	75	11	547	0	0	0	0	544	465	111	779	0
Initial Q (Qb), veh	0	0	0				0	175	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	661				0	567	484	116	811	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	452	766				0	1424	187	148	2174	0
Arrive On Green	0.00	0.00	0.24				0.00	0.44	0.44	0.16	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1942	1575	1810	3705	0
Grp Volume(v), veh/h	0	0	661				0	554	497	116	811	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1617	1810	1805	0
Q Serve(g_s), s	0.0	0.0	11.8				0.0	14.8	14.8	3.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	11.8				0.0	14.8	14.8	3.7	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	0	452	766				0	801	810	148	2174	0
V/C Ratio(X)	0.00	0.00	0.86				0.00	0.69	0.61	0.79	0.37	0.00
Avail Cap(c_a), veh/h	0	481	816				0	801	718	253	2174	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.74	0.74	0.00
Uniform Delay (d), s/veh	0.0	0.0	21.9				0.0	16.7	16.7	24.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	9.1				0.0	4.9	3.5	2.6	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	254.3	215.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	4.8				0.0	66.9	58.4	1.5	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	31.0				0.0	275.8	235.2	27.2	0.4	0.0
LnGrp LOS	A	A	C				A	F	F	C	A	A
Approach Vol, veh/h		661						1051			927	
Approach Delay, s/veh		31.0						256.6			3.7	
Approach LOS		C						F			A	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.5	31.4		19.1		40.9						
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8						
Max Green Setting (Gmax), s	8.4	* 22		* 15		* 35						
Max Q Clear Time (g_c+I1), s	5.7	16.8		13.8		2.0						
Green Ext Time (p_c), s	0.0	3.1		0.5		6.6						

Intersection Summary

HCM 6th Ctrl Delay	111.3
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings

Jack Rabbit Trail (JN 12396)

07/16/2020

1: 4th St. & Jack Rabbit Trail



Lane Group	EBT	WBT	Ø6
Lane Configurations	↑	↑	
Traffic Volume (vph)	195	76	
Future Volume (vph)	195	76	
Turn Type	NA	NA	
Protected Phases	4	8	6
Permitted Phases			
Detector Phase	4	8	
Switch Phase			
Minimum Initial (s)	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8
Total Split (s)	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	33%
Yellow Time (s)	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	5.8	5.8	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	None	None
Act Effect Green (s)	11.5	11.5	
Actuated g/C Ratio	0.86	0.86	
v/c Ratio	0.13	0.05	
Control Delay	0.3	0.1	
Queue Delay	0.0	0.0	
Total Delay	0.3	0.1	
LOS	A	A	
Approach Delay	0.3	0.1	
Approach LOS	A	A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 13.3

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.13

Intersection Signal Delay: 0.2

Intersection LOS: A

Intersection Capacity Utilization 15.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: 4th St. & Jack Rabbit Trail

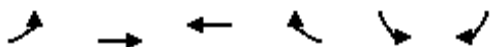


HCM 6th Signalized Intersection Summary

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

07/16/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	195	76	0	0	0
Future Volume (veh/h)	0	195	76	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	212	83	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	596	988	988	837	15	13
Arrive On Green	0.00	0.52	0.52	0.00	0.00	0.00
Sat Flow, veh/h	1336	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	212	83	0	0	0
Grp Sat Flow(s),veh/h/ln	1336	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	0.7	0.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.7	0.3	0.0	0.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	596	988	988	837	15	13
V/C Ratio(X)	0.00	0.21	0.08	0.00	0.00	0.00
Avail Cap(c_a), veh/h	5892	8521	8521	7221	3623	3224
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	1.6	1.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	1.7	1.5	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		212	83		0	
Approach Delay, s/veh		1.7	1.5		0.0	
Approach LOS		A	A			
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				12.1	0.0	12.1
Change Period (Y+Rc), s				5.8	5.8	5.8
Max Green Setting (Gmax), s				54.2	24.2	54.2
Max Q Clear Time (g_c+I1), s				2.7	0.0	2.3
Green Ext Time (p_c), s				1.2	0.0	0.4
Intersection Summary						
HCM 6th Ctrl Delay			1.6			
HCM 6th LOS			A			

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	115	12	51	185	75	99
Future Vol, veh/h	115	12	51	185	75	99
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	126	13	56	203	82	109
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	8.6	8.2	8.9
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	75	99	58	58	12	51	93	93
LT Vol	75	0	0	0	0	51	0	0
Through Vol	0	0	58	58	0	0	93	93
RT Vol	0	99	0	0	12	0	0	0
Lane Flow Rate	82	109	63	63	13	56	102	102
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.136	0.143	0.097	0.097	0.011	0.091	0.151	0.102
Departure Headway (Hd)	5.944	4.747	5.521	5.521	3.104	5.844	5.341	3.63
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	601	751	646	646	1139	612	670	981
Service Time	3.701	2.505	3.278	3.278	0.86	3.591	3.088	1.376
HCM Lane V/C Ratio	0.136	0.145	0.098	0.098	0.011	0.092	0.152	0.104
HCM Control Delay	9.6	8.3	8.9	8.9	5.9	9.2	9	6.8
HCM Lane LOS	A	A	A	A	A	A	A	A
HCM 95th-tile Q	0.5	0.5	0.3	0.3	0	0.3	0.5	0.3

Intersection

Intersection Delay, s/veh 7.6

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	26	0	91	0	38	76	9	16	0
Future Vol, veh/h	0	0	0	26	0	91	0	38	76	9	16	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	34	0	118	0	49	99	12	21	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

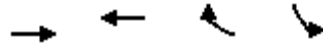
Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.6	7.6	7.6
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	22%	36%
Vol Thru, %	33%	0%	64%
Vol Right, %	67%	78%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	114	117	25
LT Vol	0	26	9
Through Vol	38	0	16
RT Vol	76	91	0
Lane Flow Rate	148	152	32
Geometry Grp	1	1	1
Degree of Util (X)	0.156	0.16	0.039
Departure Headway (Hd)	3.791	3.789	4.356
Convergence, Y/N	Yes	Yes	Yes
Cap	937	936	814
Service Time	1.849	1.853	2.428
HCM Lane V/C Ratio	0.158	0.162	0.039
HCM Control Delay	7.6	7.6	7.6
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.6	0.6	0.1

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/05/2023



Lane Group	EBT	WBT	WBR	SBL	Ø7
Lane Configurations	↑↑	↑	↗	↘	
Traffic Volume (vph)	12	2	2	3	
Future Volume (vph)	12	2	2	3	
Turn Type	NA	NA	Perm	Prot	
Protected Phases	4	8		6	7
Permitted Phases			8		
Detector Phase	4	8	8	6	
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	15.8	27.8	27.8	28.2	9.6
Total Split (s)	51.6	42.0	42.0	38.4	9.6
Total Split (%)	57.3%	46.7%	46.7%	42.7%	11%
Yellow Time (s)	4.8	4.8	4.8	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	
Total Lost Time (s)	5.8	5.8	5.8	6.2	
Lead/Lag		Lag	Lag		Lead
Lead-Lag Optimize?		Yes	Yes		Yes
Recall Mode	None	None	None	Min	None

Intersection Summary

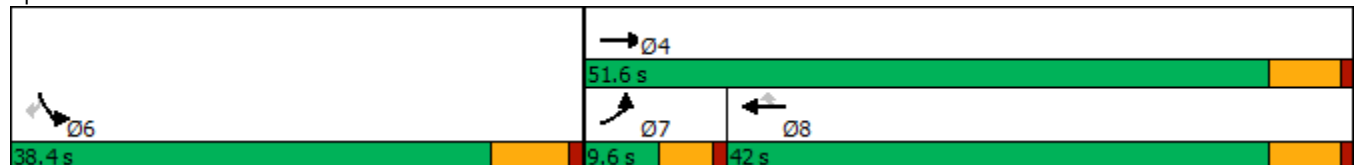
Cycle Length: 90

Actuated Cycle Length: 33.7

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

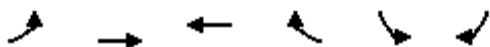
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/05/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	0	12	2	2	3	0	
Future Volume (veh/h)	0	12	2	2	3	0	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	0	18	3	3	4	0	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	8	223	117	99	1497	687	
Arrive On Green	0.00	0.06	0.06	0.06	0.43	0.00	
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610	
Grp Volume(v), veh/h	0	18	3	3	4	0	
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610	
Q Serve(g_s), s	0.0	0.1	0.0	0.0	0.0	0.0	
Cycle Q Clear(g_c), s	0.0	0.1	0.0	0.0	0.0	0.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	8	223	117	99	1497	687	
V/C Ratio(X)	0.00	0.08	0.03	0.03	0.00	0.00	
Avail Cap(c_a), veh/h	386	7052	2933	2486	4821	2211	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	0.0	10.4	10.3	10.3	3.9	0.0	
Incr Delay (d2), s/veh	0.0	0.1	0.1	0.1	0.0	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	0.0	10.4	10.4	10.5	3.9	0.0	
LnGrp LOS	A	B	B	B	A	A	
Approach Vol, veh/h							
		18	6	4			
Approach Delay, s/veh							
		10.4	10.4	3.9			
Approach LOS							
		B	B	A			
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				7.2	16.2	0.0	7.2
Change Period (Y+Rc), s				5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s				45.8	32.2	5.0	36.2
Max Q Clear Time (g_c+I1), s				2.1	2.0	0.0	2.0
Green Ext Time (p_c), s				0.0	0.0	0.0	0.0
Intersection Summary							
HCM 6th Ctrl Delay			9.5				
HCM 6th LOS			A				

Intersection

Intersection Delay, s/veh 10.8

Intersection LOS B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	255	307	294	177	13
Future Vol, veh/h	15	255	307	294	177	13
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	15	263	316	303	182	13
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	14	8.5	13.4
HCM LOS	B	A	B

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	93%
Vol Thru, %	0%	100%	100%	100%	17%	0%
Vol Right, %	0%	0%	0%	0%	83%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	255	123	123	355	190
LT Vol	15	0	0	0	0	177
Through Vol	0	255	123	123	61	0
RT Vol	0	0	0	0	294	13
Lane Flow Rate	15	263	127	127	366	196
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.029	0.458	0.198	0.198	0.338	0.369
Departure Headway (Hd)	6.783	6.275	5.628	5.628	3.32	6.775
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	528	573	642	642	1088	531
Service Time	4.526	4.019	3.328	3.328	1.02	4.515
HCM Lane V/C Ratio	0.028	0.459	0.198	0.198	0.336	0.369
HCM Control Delay	9.7	14.2	9.7	9.7	7.7	13.4
HCM Lane LOS	A	B	A	A	A	B
HCM 95th-tile Q	0.1	2.4	0.7	0.7	1.5	1.7

Intersection												
Int Delay, s/veh	8.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2	84	3	14	0	104	0	2	0	0	0
Future Vol, veh/h	0	2	84	3	14	0	104	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	3	111	4	18	0	137	0	3	0	0	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	278	1	334	277	-	1	0	0	3	0	0
Stage 1	-	1	-	276	276	-	-	-	-	-	-	-
Stage 2	-	277	-	58	1	-	-	-	-	-	-	-
Critical Hdwy	-	6.5	6.2	7.1	6.5	-	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	4	3.3	3.5	4	-	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	633	1090	623	634	0	1635	-	-	1632	-	-
Stage 1	0	899	-	735	685	0	-	-	-	-	-	-
Stage 2	0	685	-	959	899	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	580	1090	522	581	-	1635	-	-	1632	-	-
Mov Cap-2 Maneuver	-	580	-	522	581	-	-	-	-	-	-	-
Stage 1	-	899	-	673	627	-	-	-	-	-	-	-
Stage 2	-	627	-	859	899	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	8.8		11.6		7.3		0					
HCM LOS	A		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1635	-	-	1068	570	1632	-	-				
HCM Lane V/C Ratio	0.084	-	-	0.106	0.039	-	-	-				
HCM Control Delay (s)	7.4	0	-	8.8	11.6	0	-	-				
HCM Lane LOS	A	A	-	A	B	A	-	-				
HCM 95th %tile Q(veh)	0.3	-	-	0.4	0.1	0	-	-				

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/09/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	↵	→	↕
Traffic Volume (vph)	225	129	481	1
Future Volume (vph)	225	129	481	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	27.5	9.8	41.9	36.5
Actuated g/C Ratio	0.31	0.11	0.47	0.41
v/c Ratio	0.98	0.87	0.72	1.00
Control Delay	63.3	73.8	21.4	62.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	63.3	73.8	21.4	62.2
LOS	E	E	C	E
Approach Delay	63.3		32.5	62.2
Approach LOS	E		C	E

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.00

Intersection Signal Delay: 51.1

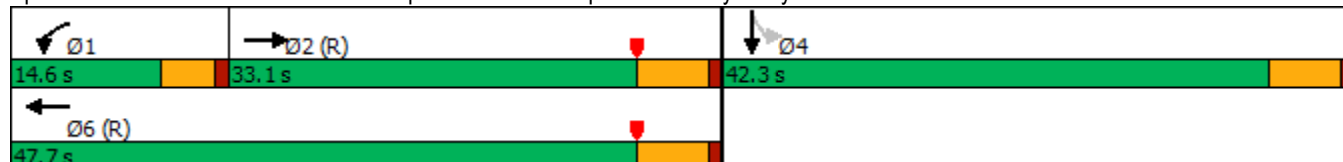
Intersection LOS: D

Intersection Capacity Utilization 76.7%

ICU Level of Service D

Analysis Period (min) 15

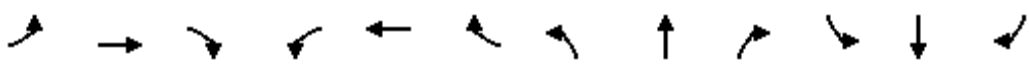
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/09/2020

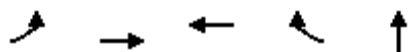
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩	
Traffic Volume (veh/h)	0	225	207	129	481	0	0	0	0	436	1	120
Future Volume (veh/h)	0	225	207	129	481	0	0	0	0	436	1	120
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	296	214	170	633	0				574	1	92
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	323	233	201	906	0				604	1	97
Arrive On Green	0.00	0.31	0.31	0.04	0.16	0.00				0.39	0.39	0.39
Sat Flow, veh/h	0	1025	741	1810	1900	0				1531	3	245
Grp Volume(v), veh/h	0	0	510	170	633	0				667	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1767	1810	1900	0				1779	0	0
Q Serve(g_s), s	0.0	0.0	25.0	8.4	28.4	0.0				32.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	25.0	8.4	28.4	0.0				32.7	0.0	0.0
Prop In Lane	0.00		0.42	1.00		0.00				0.86		0.14
Lane Grp Cap(c), veh/h	0	0	556	201	906	0				701	0	0
V/C Ratio(X)	0.00	0.00	0.92	0.85	0.70	0.00				0.95	0.00	0.00
Avail Cap(c_a), veh/h	0	0	556	201	906	0				722	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.71	0.71	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	29.7	42.6	31.8	0.0				26.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	22.4	19.5	3.2	0.0				22.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	13.2	4.9	15.0	0.0				16.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	52.1	62.0	35.0	0.0				48.4	0.0	0.0
LnGrp LOS	A	A	D	E	C	A				D	A	A
Approach Vol, veh/h		510			803						667	
Approach Delay, s/veh		52.1			40.7						48.4	
Approach LOS		D			D						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.6	34.1		41.3		48.7						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9						
Max Q Clear Time (g_c+I1), s	10.4	27.0		34.7		30.4						
Green Ext Time (p_c), s	0.0	0.1		0.8		3.0						
Intersection Summary												
HCM 6th Ctrl Delay			46.2									
HCM 6th LOS			D									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/09/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	97	564	286	238	4
Future Volume (vph)	97	564	286	238	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	13.4	43.0	29.6	29.6	47.0
Total Split (%)	14.9%	47.8%	32.9%	32.9%	52.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	7.9	32.0	21.5	21.5	46.4
Actuated g/C Ratio	0.09	0.36	0.24	0.24	0.52
v/c Ratio	0.63	0.86	0.65	0.43	0.65
Control Delay	50.5	26.0	38.4	6.2	19.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	50.5	26.0	38.4	6.2	19.6
LOS	D	C	D	A	B
Approach Delay		29.6	23.8		19.6
Approach LOS		C	C		B

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 24.6

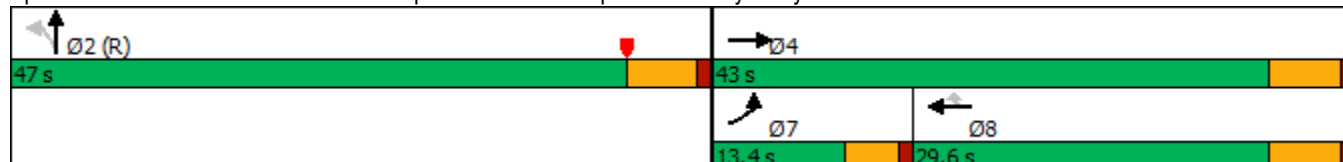
Intersection LOS: C

Intersection Capacity Utilization 76.7%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/09/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	564	0	0	286	238	324	4	254	0	0	0
Future Volume (veh/h)	97	564	0	0	286	238	324	4	254	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	100	581	0	0	295	175	334	4	210			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	129	660	0	0	428	362	552	7	347			
Arrive On Green	0.02	0.11	0.00	0.00	0.23	0.23	0.52	0.52	0.52			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1053	13	662			
Grp Volume(v), veh/h	100	581	0	0	295	175	548	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1728	0	0			
Q Serve(g_s), s	4.9	27.1	0.0	0.0	12.8	8.5	19.9	0.0	0.0			
Cycle Q Clear(g_c), s	4.9	27.1	0.0	0.0	12.8	8.5	19.9	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.61		0.38			
Lane Grp Cap(c), veh/h	129	660	0	0	428	362	905	0	0			
V/C Ratio(X)	0.78	0.88	0.00	0.00	0.69	0.48	0.61	0.00	0.00			
Avail Cap(c_a), veh/h	177	785	0	0	502	426	905	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.13	0.13	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	38.0	0.0	0.0	32.0	30.3	14.9	0.0	0.0			
Incr Delay (d2), s/veh	1.3	1.5	0.0	0.0	3.2	1.0	3.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.2	13.8	0.0	0.0	5.9	3.2	7.5	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.5	39.5	0.0	0.0	35.2	31.3	17.9	0.0	0.0			
LnGrp LOS	D	D	A	A	D	C	B	A	A			
Approach Vol, veh/h	681			470			548					
Approach Delay, s/veh	40.2			33.8			17.9					
Approach LOS	D			C			B					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	52.9			37.1			11.0			26.1		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	41.2			37.2			8.8			23.8		
Max Q Clear Time (g_c+I1), s	21.9			29.1			6.9			14.8		
Green Ext Time (p_c), s	3.3			2.1			0.0			1.4		
Intersection Summary												
HCM 6th Ctrl Delay	31.3											
HCM 6th LOS	C											

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑				↗			↗
Traffic Vol, veh/h	0	770	121	104	624	53	0	0	112	0	12	63
Future Vol, veh/h	0	770	121	104	624	53	0	0	112	0	12	63
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	828	130	112	671	57	0	0	120	0	13	68
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	958	0	0	-	-	479	-	1882	364
Stage 1	-	-	-	-	-	-	-	-	-	-	924	-
Stage 2	-	-	-	-	-	-	-	-	-	-	958	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	4	3.3
Pot Cap-1 Maneuver	0	-	-	726	-	-	0	0	538	0	72	639
Stage 1	0	-	-	-	-	-	0	0	-	0	351	-
Stage 2	0	-	-	-	-	-	0	0	-	0	338	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	726	-	-	-	-	538	-	61	639
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	61	-
Stage 1	-	-	-	-	-	-	-	-	-	-	297	-
Stage 2	-	-	-	-	-	-	-	-	-	-	338	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.4			13.6			11.3		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	538	-	-	726	-	-	639					
HCM Lane V/C Ratio	0.224	-	-	0.154	-	-	0.106					
HCM Control Delay (s)	13.6	-	-	10.9	-	-	11.3					
HCM Lane LOS	B	-	-	B	-	-	B					
HCM 95th %tile Q(veh)	0.9	-	-	0.5	-	-	0.4					

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	100	58	9	27	29	38	36	11	13	57	17
Future Volume (vph)	100	58	9	27	29	38	36	11	13	57	17
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	36.0	54.0	15.0	33.0	33.0	23.0	34.0	34.0	17.0	28.0	28.0
Total Split (%)	30.0%	45.0%	12.5%	27.5%	27.5%	19.2%	28.3%	28.3%	14.2%	23.3%	23.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

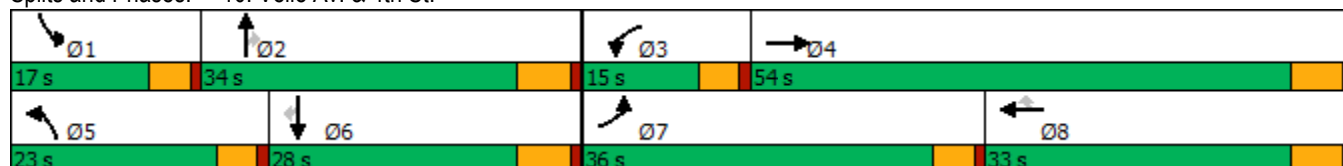
Cycle Length: 120

Actuated Cycle Length: 45.8

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	58	74	9	27	29	38	36	11	13	57	17
Future Volume (veh/h)	100	58	74	9	27	29	38	36	11	13	57	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	143	83	106	13	39	41	54	51	16	19	81	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	188	524	467	30	386	327	97	452	383	42	395	
Arrive On Green	0.10	0.29	0.29	0.02	0.20	0.20	0.05	0.24	0.24	0.02	0.21	0.00
Sat Flow, veh/h	1810	1805	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	143	83	106	13	39	41	54	51	16	19	81	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	3.7	1.6	2.4	0.3	0.8	1.0	1.4	1.0	0.4	0.5	1.7	0.0
Cycle Q Clear(g_c), s	3.7	1.6	2.4	0.3	0.8	1.0	1.4	1.0	0.4	0.5	1.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	188	524	467	30	386	327	97	452	383	42	395	
V/C Ratio(X)	0.76	0.16	0.23	0.43	0.10	0.13	0.56	0.11	0.04	0.45	0.21	
Avail Cap(c_a), veh/h	1180	1807	1612	391	1073	910	692	1113	943	466	876	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.0	12.7	13.0	23.4	15.6	15.7	22.2	14.4	14.1	23.2	15.8	0.0
Incr Delay (d2), s/veh	2.4	0.1	0.2	3.6	0.1	0.2	1.9	0.1	0.0	2.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.5	0.7	0.2	0.3	0.3	0.6	0.4	0.1	0.2	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.4	12.9	13.2	27.1	15.7	15.9	24.1	14.5	14.2	26.0	16.0	0.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	
Approach Vol, veh/h		332			93			121			100	
Approach Delay, s/veh		17.5			17.4			18.7			17.9	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.7	17.2	5.4	19.8	7.2	15.8	9.6	15.6				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	12.4	28.2	10.4	48.2	18.4	22.2	31.4	27.2				
Max Q Clear Time (g_c+I1), s	2.5	3.0	2.3	4.4	3.4	3.7	5.7	3.0				
Green Ext Time (p_c), s	0.0	0.2	0.0	1.1	0.0	0.3	0.2	0.2				

Intersection Summary

HCM 6th Ctrl Delay 17.8

HCM 6th LOS B

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/09/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	19	432	164	60	256	10	249	78	13	39
Future Volume (vph)	19	432	164	60	256	10	249	78	13	39
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	21.0	36.6	9.6	25.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	23.3%	40.7%	10.7%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.3	23.9	23.9	5.7	28.2	28.2	14.6	38.1	5.1	20.6
Actuated g/C Ratio	0.06	0.29	0.29	0.07	0.34	0.34	0.18	0.47	0.06	0.25
v/c Ratio	0.17	0.82	0.28	0.50	0.41	0.02	0.82	0.18	0.12	0.11
Control Delay	43.8	40.9	4.0	54.9	23.6	0.0	55.4	11.8	42.9	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.8	40.9	4.0	54.9	23.6	0.0	55.4	11.8	42.9	23.5
LOS	D	D	A	D	C	A	E	B	D	C
Approach Delay		31.2			28.6			39.2		27.5
Approach LOS		C			C			D		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 81.9

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 32.7

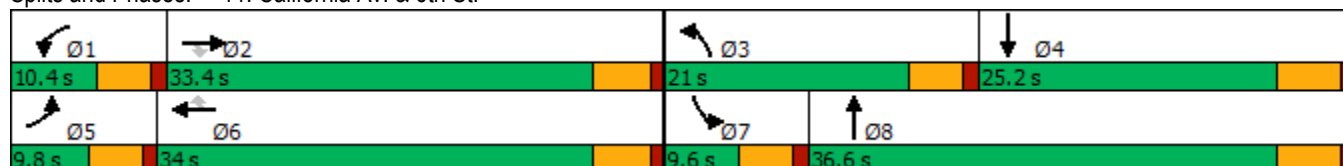
Intersection LOS: C

Intersection Capacity Utilization 59.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/09/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	432	164	60	256	10	249	78	68	13	39	11
Future Volume (veh/h)	19	432	164	60	256	10	249	78	68	13	39	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	455	169	63	269	6	262	82	41	14	41	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	41	536	454	86	583	494	303	487	243	30	416	61
Arrive On Green	0.02	0.28	0.28	0.05	0.31	0.31	0.17	0.41	0.41	0.02	0.26	0.26
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1195	597	1810	1620	237
Grp Volume(v), veh/h	20	455	169	63	269	6	262	0	123	14	0	47
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1792	1810	0	1857
Q Serve(g_s), s	0.9	17.6	6.6	2.7	8.9	0.2	11.0	0.0	3.4	0.6	0.0	1.5
Cycle Q Clear(g_c), s	0.9	17.6	6.6	2.7	8.9	0.2	11.0	0.0	3.4	0.6	0.0	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.33	1.00		0.13
Lane Grp Cap(c), veh/h	41	536	454	86	583	494	303	0	730	30	0	476
V/C Ratio(X)	0.49	0.85	0.37	0.73	0.46	0.01	0.86	0.00	0.17	0.46	0.00	0.10
Avail Cap(c_a), veh/h	121	697	591	135	712	603	381	0	730	116	0	476
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.7	26.4	22.5	36.6	21.8	18.8	31.6	0.0	14.7	38.0	0.0	22.1
Incr Delay (d2), s/veh	3.4	7.8	0.5	4.3	0.6	0.0	13.2	0.0	0.5	4.0	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	8.7	2.3	1.3	3.9	0.1	5.6	0.0	1.3	0.3	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.0	34.2	23.0	41.0	22.4	18.8	44.8	0.0	15.2	42.0	0.0	22.5
LnGrp LOS	D	C	C	D	C	B	D	A	B	D	A	C
Approach Vol, veh/h		644			338			385			61	
Approach Delay, s/veh		31.5			25.8			35.3			27.0	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	26.8	17.7	25.2	6.4	28.7	5.9	37.0				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	5.8	* 29	16.4	20.0	5.2	* 29	5.0	31.4				
Max Q Clear Time (g_c+I1), s	4.7	19.6	13.0	3.5	2.9	10.9	2.6	5.4				
Green Ext Time (p_c), s	0.0	2.3	0.1	0.1	0.0	1.4	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay	31.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↱	↰		↰	↱
Traffic Vol, veh/h	4	3	82	36	3	20	169	361	13	6	200	6
Future Vol, veh/h	4	3	82	36	3	20	169	361	13	6	200	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	120	-	50	-	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	3	86	38	3	21	178	380	14	6	211	6
Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	978	973	211	1007	965	380	217	0	0	394	0	0
Stage 1	223	223	-	736	736	-	-	-	-	-	-	-
Stage 2	755	750	-	271	229	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	232	254	834	221	257	671	1365	-	-	1176	-	-
Stage 1	784	723	-	414	428	-	-	-	-	-	-	-
Stage 2	404	422	-	739	718	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	200	220	834	176	222	671	1365	-	-	1176	-	-
Mov Cap-2 Maneuver	277	301	-	265	295	-	-	-	-	-	-	-
Stage 1	682	719	-	360	372	-	-	-	-	-	-	-
Stage 2	337	367	-	656	714	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB		SB		SB	
HCM Control Delay, s	10.4		17.4		2.5		0.2					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1365	-	-	287	834	267	671	1176	-	-		
HCM Lane V/C Ratio	0.13	-	-	0.026	0.103	0.154	0.031	0.005	-	-		
HCM Control Delay (s)	8	-	-	17.9	9.8	20.9	10.5	8.1	0	-		
HCM Lane LOS	A	-	-	C	A	C	B	A	A	-		
HCM 95th %tile Q(veh)	0.4	-	-	0.1	0.3	0.5	0.1	0	-	-		

Intersection						
Int Delay, s/veh	30.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	160	39	9	476	922	84
Future Vol, veh/h	160	39	9	476	922	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	174	42	10	517	1002	91
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1585	1048	1093	0	-	0
Stage 1	1048	-	-	-	-	-
Stage 2	537	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 120	279	646	-	-	-
Stage 1	341	-	-	-	-	-
Stage 2	590	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 118	279	646	-	-	-
Mov Cap-2 Maneuver	~ 118	-	-	-	-	-
Stage 1	336	-	-	-	-	-
Stage 2	590	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	261.2	0.2		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	646	-	118	279	-	-
HCM Lane V/C Ratio	0.015	-	1.474	0.152	-	-
HCM Control Delay (s)	10.7	-	\$ 319.9	20.2	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0	-	12.3	0.5	-	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)
07/09/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	25	15	69	4	22	356	9	410
Future Volume (vph)	25	15	69	4	22	356	9	410
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		10.7		10.6	5.5	41.7	5.2	41.5
Actuated g/C Ratio		0.18		0.18	0.09	0.70	0.09	0.69
v/c Ratio		0.39		0.39	0.14	0.16	0.06	0.17
Control Delay		11.6		24.0	33.1	4.1	25.9	5.7
Queue Delay		1.2		1.4	1.0	0.3	0.0	0.2
Total Delay		12.9		25.4	34.1	4.4	25.9	5.8
LOS		B		C	C	A	C	A
Approach Delay		12.9		25.4		6.0		6.2
Approach LOS		B		C		A		A

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.39
Intersection Signal Delay: 8.6
Intersection Capacity Utilization 37.9%
Analysis Period (min) 15
Intersection LOS: A
ICU Level of Service A

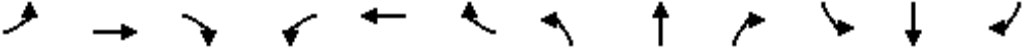
Splits and Phases: 14: Beaumont Av. & 5th St.

 Ø1	 Ø2 (R)	 Ø4
12 s	29 s	19 s
 Ø5	 Ø6 (R)	 Ø8
12 s	29 s	19 s

HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/09/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↕		↗	↕	
Traffic Volume (veh/h)	25	15	100	69	4	15	22	356	29	9	410	12
Future Volume (veh/h)	25	15	100	69	4	15	22	356	29	9	410	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	26	15	103	71	4	15	23	367	30	9	423	12
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	99	47	190	292	24	42	48	1989	162	21	2056	58
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.05	1.00	1.00	0.01	0.57	0.57
Sat Flow, veh/h	174	291	1166	1128	147	255	1810	3381	275	1810	3585	102
Grp Volume(v), veh/h	144	0	0	90	0	0	23	195	202	9	213	222
Grp Sat Flow(s),veh/h/ln	1631	0	0	1531	0	0	1810	1805	1851	1810	1805	1882
Q Serve(g_s), s	0.9	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.3	3.4	3.4
Cycle Q Clear(g_c), s	4.7	0.0	0.0	2.8	0.0	0.0	0.7	0.0	0.0	0.3	3.4	3.4
Prop In Lane	0.18		0.72	0.79		0.17	1.00		0.15	1.00		0.05
Lane Grp Cap(c), veh/h	337	0	0	357	0	0	48	1062	1089	21	1035	1079
V/C Ratio(X)	0.43	0.00	0.00	0.25	0.00	0.00	0.48	0.18	0.19	0.43	0.21	0.21
Avail Cap(c_a), veh/h	460	0	0	457	0	0	223	1062	1089	223	1035	1079
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.0	0.0	0.0	22.1	0.0	0.0	28.0	0.0	0.0	29.5	6.2	6.2
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.4	0.0	0.0	2.7	0.4	0.4	5.1	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	1.1	0.0	0.0	0.3	0.1	0.1	0.2	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	0.0	0.0	22.5	0.0	0.0	30.7	0.4	0.4	34.5	6.6	6.6
LnGrp LOS	C	A	A	C	A	A	C	A	A	C	A	A
Approach Vol, veh/h		144			90			420			444	
Approach Delay, s/veh		23.8			22.5			2.0			7.2	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	40.1		14.6	6.2	39.2		14.6				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		6.7	2.7	5.4		4.8				
Green Ext Time (p_c), s	0.0	2.3		0.4	0.0	2.4		0.3				

Intersection Summary

HCM 6th Ctrl Delay	8.7
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/09/2020

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	685	0	272	309	471
Future Volume (vph)	685	0	272	309	471
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	23.0	23.0	18.0	37.0	19.0
Total Split (%)	38.3%	38.3%	30.0%	61.7%	31.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	17.1	17.1	12.1	33.3	16.6
Actuated g/C Ratio	0.28	0.28	0.20	0.56	0.28
v/c Ratio	0.83	0.71	0.77	0.16	0.60
Control Delay	37.1	21.1	40.2	6.9	20.4
Queue Delay	0.0	0.8	0.0	0.0	19.4
Total Delay	37.1	21.9	40.2	6.9	39.8
LOS	D	C	D	A	D
Approach Delay		29.6		22.4	39.8
Approach LOS		C		C	D

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 30.5

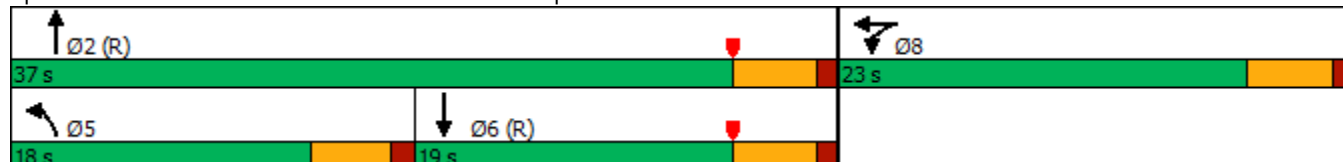
Intersection LOS: C

Intersection Capacity Utilization 94.3%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary

15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/09/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	471	107
Future Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	471	107
Initial Q (Qb), veh				75	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				800	0	0	280	319	0	0	486	110
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1098	576	0	322	1937	0	0	825	186
Arrive On Green				0.26	0.00	0.00	0.36	1.00	0.00	0.00	0.22	0.22
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	3023	659
Grp Volume(v), veh/h				800	0	0	280	319	0	0	299	297
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1781
Q Serve(g_s), s				12.6	0.0	0.0	8.7	0.0	0.0	0.0	8.7	8.8
Cycle Q Clear(g_c), s				12.6	0.0	0.0	8.7	0.0	0.0	0.0	8.7	8.8
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.37
Lane Grp Cap(c), veh/h				1098	576	0	322	1937	0	0	509	502
V/C Ratio(X)				0.73	0.00	0.00	0.87	0.16	0.00	0.00	0.59	0.59
Avail Cap(c_a), veh/h				1098	576	0	404	2085	0	0	583	575
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.67	0.67
Upstream Filter(I)				1.00	0.00	0.00	0.73	0.73	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.9	0.0	0.0	18.7	0.0	0.0	0.0	21.1	21.2
Incr Delay (d2), s/veh				2.5	0.0	0.0	10.0	0.1	0.0	0.0	4.8	5.0
Initial Q Delay(d3),s/veh				123.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				25.6	0.0	0.0	3.6	0.0	0.0	0.0	4.5	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				147.3	0.0	0.0	28.7	0.1	0.0	0.0	26.0	26.2
LnGrp LOS				F	A	A	C	A	A	A	C	C
Approach Vol, veh/h					800			599			596	
Approach Delay, s/veh					147.3			13.5			26.1	
Approach LOS					F			B			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		39.5			15.3	24.2		20.5				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 32			13.4	* 14		18.2				
Max Q Clear Time (g_c+I1), s		2.0			10.7	10.8		14.6				
Green Ext Time (p_c), s		2.2			0.1	1.2		1.2				
Intersection Summary												
HCM 6th Ctrl Delay				70.9								
HCM 6th LOS				E								
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/09/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕↕	↗	↕↕	↙	↕↕
Traffic Volume (vph)	10	746	483	154	1002
Future Volume (vph)	10	746	483	154	1002
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	25.0	25.0	24.0	11.0	35.0
Total Split (%)	41.7%	41.7%	40.0%	18.3%	58.3%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	18.3	18.3	20.6	6.9	32.1
Actuated g/C Ratio	0.30	0.30	0.34	0.12	0.54
v/c Ratio	0.84	0.79	0.63	0.77	0.53
Control Delay	32.5	25.4	12.7	43.2	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	25.4	12.7	43.2	15.7
LOS	C	C	B	D	B
Approach Delay	29.0		12.7		19.3
Approach LOS	C		B		B

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 20.3

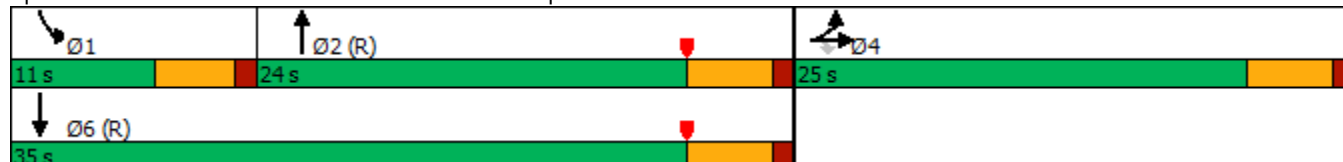
Intersection LOS: C

Intersection Capacity Utilization 94.3%

ICU Level of Service F

Analysis Period (min) 15

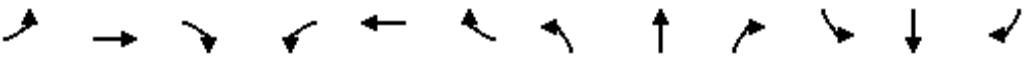
Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary 16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/09/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↗					↕		↖	↕	
Traffic Volume (veh/h)	97	10	746	0	0	0	0	483	362	154	1002	0
Future Volume (veh/h)	97	10	746	0	0	0	0	483	362	154	1002	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	883				0	498	373	159	1033	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	640	1084				0	630	471	193	1817	0
Arrive On Green	0.00	0.00	0.31				0.00	0.35	0.35	0.21	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2063	1472	1810	3705	0
Grp Volume(v), veh/h	0	0	883				0	457	414	159	1033	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	15.6				0.0	13.3	13.3	5.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	15.6				0.0	13.3	13.3	5.0	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	640	1084				0	578	523	193	1817	0
V/C Ratio(X)	0.00	0.00	0.81				0.00	0.79	0.79	0.82	0.57	0.00
Avail Cap(c_a), veh/h	0	640	1084				0	623	564	193	1908	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.66	0.66	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.9				0.0	18.6	18.6	23.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	4.9				0.0	10.6	11.6	16.2	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	165.5				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	31.8				0.0	6.8	6.4	2.7	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	190.3				0.0	29.2	30.2	39.2	0.9	0.0
LnGrp LOS	A	A	F				A	C	C	D	A	A
Approach Vol, veh/h	883						871			1192		
Approach Delay, s/veh	190.3						29.7			6.0		
Approach LOS	F						C			A		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	11.0	25.5		23.5		36.5						
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8						
Max Green Setting (Gmax), s	6.4	* 19		* 20		* 30						
Max Q Clear Time (g_c+I1), s	7.0	15.3		17.6		2.0						
Green Ext Time (p_c), s	0.0	2.0		1.1		8.7						

Intersection Summary

HCM 6th Ctrl Delay	68.2
HCM 6th LOS	E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 5.2:

E+P (PHASE 2) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

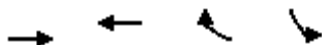
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Timings

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

07/16/2020



Lane Group	EBT	WBT	WBR	SBL
Lane Configurations	↑	↑	↗	↘
Traffic Volume (vph)	190	825	92	21
Future Volume (vph)	190	825	92	21
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8	22.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effect Green (s)	32.0	32.0	32.0	13.0
Actuated g/C Ratio	0.94	0.94	0.94	0.38
v/c Ratio	0.12	0.50	0.07	0.03
Control Delay	1.5	3.4	0.8	17.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1.5	3.4	0.8	17.8
LOS	A	A	A	B
Approach Delay	1.5	3.1		17.8
Approach LOS	A	A		B

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 34.1

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 3.1

Intersection LOS: A

Intersection Capacity Utilization 61.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: 4th St. & Jack Rabbit Trail

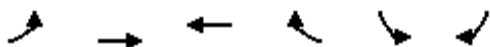


HCM 6th Signalized Intersection Summary

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

07/16/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	190	825	92	21	0
Future Volume (veh/h)	0	190	825	92	21	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	207	897	100	23	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	201	1175	1175	996	103	92
Arrive On Green	0.00	0.62	0.62	0.62	0.06	0.00
Sat Flow, veh/h	574	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	207	897	100	23	0
Grp Sat Flow(s),veh/h/ln	574	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	1.7	12.2	0.9	0.4	0.0
Cycle Q Clear(g_c), s	0.0	1.7	12.2	0.9	0.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	201	1175	1175	996	103	92
V/C Ratio(X)	0.00	0.18	0.76	0.10	0.22	0.00
Avail Cap(c_a), veh/h	716	2879	2879	2440	1224	1089
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	2.9	4.9	2.8	16.1	0.0
Incr Delay (d2), s/veh	0.0	0.1	1.1	0.0	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.8	0.0	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	3.0	6.0	2.8	17.2	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		207	997		23	
Approach Delay, s/veh		3.0	5.7		17.2	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				27.9	7.8	27.9
Change Period (Y+Rc), s				5.8	5.8	5.8
Max Green Setting (Gmax), s				54.2	24.2	54.2
Max Q Clear Time (g_c+l1), s				3.7	2.4	14.2
Green Ext Time (p_c), s				1.1	0.0	7.9
Intersection Summary						
HCM 6th Ctrl Delay			5.4			
HCM 6th LOS			A			

Intersection	
Intersection Delay, s/veh	10.3
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	183	21	207	200	28	121
Future Vol, veh/h	183	21	207	200	28	121
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	213	24	241	233	33	141
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	9.7	10.8	10
HCM LOS	A	B	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	121	92	92	21	207	100	100
LT Vol	28	0	0	0	0	207	0	0
Through Vol	0	0	92	92	0	0	100	100
RT Vol	0	121	0	0	21	0	0	0
Lane Flow Rate	33	141	106	106	24	241	116	116
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.062	0.221	0.179	0.179	0.025	0.41	0.182	0.126
Departure Headway (Hd)	6.841	5.643	6.052	6.052	3.63	6.132	5.628	3.914
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	524	636	594	594	984	587	638	915
Service Time	4.575	3.377	3.782	3.782	1.359	3.857	3.352	1.639
HCM Lane V/C Ratio	0.063	0.222	0.178	0.178	0.024	0.411	0.182	0.127
HCM Control Delay	10	10	10.1	10.1	6.5	13.1	9.6	7.2
HCM Lane LOS	A	A	B	B	A	B	A	A
HCM 95th-tile Q	0.2	0.8	0.6	0.6	0.1	2	0.7	0.4

Intersection

Intersection Delay, s/veh 23.4

Intersection LOS C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	318	0	51	0	37	90	43	156	0
Future Vol, veh/h	0	0	0	318	0	51	0	37	90	43	156	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	489	0	78	0	57	138	66	240	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

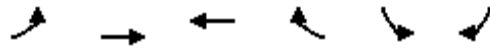
Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	32.1	11.3	15
HCM LOS	D	B	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	86%	22%
Vol Thru, %	29%	0%	78%
Vol Right, %	71%	14%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	127	369	199
LT Vol	0	318	43
Through Vol	37	0	156
RT Vol	90	51	0
Lane Flow Rate	195	568	306
Geometry Grp	1	1	1
Degree of Util (X)	0.308	0.855	0.505
Departure Headway (Hd)	5.684	5.425	5.936
Convergence, Y/N	Yes	Yes	Yes
Cap	629	664	606
Service Time	3.756	3.472	3.999
HCM Lane V/C Ratio	0.31	0.855	0.505
HCM Control Delay	11.3	32.1	15
HCM Lane LOS	B	D	B
HCM 95th-tile Q	1.3	9.7	2.8

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/05/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↱↱	↰	↱	↰↱	↱
Traffic Volume (vph)	120	100	465	14	11	459
Future Volume (vph)	120	100	465	14	11	459
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	9.6	72.6	63.0	63.0	47.4	47.4
Total Split (%)	8.0%	60.5%	52.5%	52.5%	39.5%	39.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	5.1	52.8	42.9	42.9	38.4	38.4
Actuated g/C Ratio	0.05	0.51	0.41	0.41	0.37	0.37
v/c Ratio	2.01	0.08	0.88	0.03	0.01	0.92
Control Delay	521.7	13.1	41.7	7.6	24.2	40.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	521.7	13.1	41.7	7.6	24.2	40.0
LOS	F	B	D	A	C	D
Approach Delay		290.7	40.7		39.7	
Approach LOS		F	D		D	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 103.5

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.01

Intersection Signal Delay: 87.3

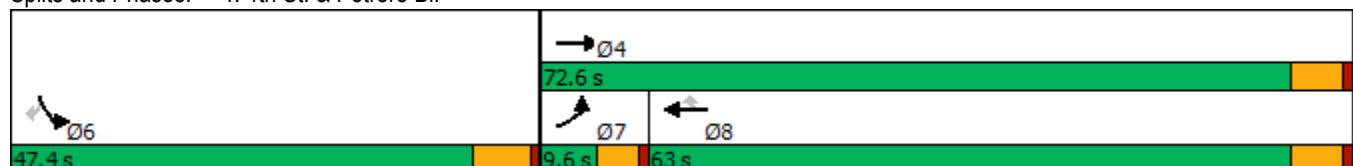
Intersection LOS: F

Intersection Capacity Utilization 62.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 4: 4th St. & Potrero Bl.

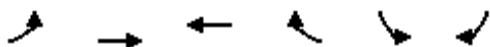


HCM 6th Signalized Intersection Summary

4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/05/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	120	100	465	14	11	459
Future Volume (veh/h)	120	100	465	14	11	459
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	179	149	694	21	16	685
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	86	1784	766	649	1375	631
Arrive On Green	0.05	0.49	0.40	0.40	0.39	0.39
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610
Grp Volume(v), veh/h	179	149	694	21	16	685
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610
Q Serve(g_s), s	5.0	2.3	36.1	0.8	0.3	41.2
Cycle Q Clear(g_c), s	5.0	2.3	36.1	0.8	0.3	41.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	86	1784	766	649	1375	631
V/C Ratio(X)	2.08	0.08	0.91	0.03	0.01	1.09
Avail Cap(c_a), veh/h	86	2292	1033	876	1375	631
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.1	14.0	29.5	19.0	19.6	32.0
Incr Delay (d2), s/veh	524.0	0.0	9.1	0.0	0.0	61.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.7	0.9	17.1	0.3	0.1	40.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	574.1	14.0	38.6	19.0	19.6	93.5
LnGrp LOS	F	B	D	B	B	F
Approach Vol, veh/h		328	715		701	
Approach Delay, s/veh		319.7	38.0		91.8	
Approach LOS		F	D		F	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			57.8		47.4	9.6
Change Period (Y+Rc), s			5.8		6.2	4.6
Max Green Setting (Gmax), s			66.8		41.2	5.0
Max Q Clear Time (g_c+I1), s			4.3		43.2	7.0
Green Ext Time (p_c), s			0.6		0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			112.6			
HCM 6th LOS			F			

Intersection

Intersection Delay, s/veh75.4

Intersection LOS F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	56	299	348	307	458	72
Future Vol, veh/h	56	299	348	307	458	72
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	64	344	400	353	526	83
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	32.9	16.4	176.7
HCM LOS	D	C	F

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	86%
Vol Thru, %	0%	100%	100%	100%	18%	0%
Vol Right, %	0%	0%	0%	0%	82%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	56	299	139	139	377	530
LT Vol	56	0	0	0	0	458
Through Vol	0	299	139	139	70	0
RT Vol	0	0	0	0	307	72
Lane Flow Rate	64	344	160	160	433	609
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.153	0.771	0.327	0.327	0.611	1.308
Departure Headway (Hd)	9.582	9.053	8.319	8.319	5.948	7.728
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	377	402	435	435	610	469
Service Time	7.282	6.753	6.019	6.019	3.648	5.487
HCM Lane V/C Ratio	0.17	0.856	0.368	0.368	0.71	1.299
HCM Control Delay	14	36.4	15	15	17.5	176.7
HCM Lane LOS	B	E	B	B	C	F
HCM 95th-tile Q	0.5	6.4	1.4	1.4	4.1	26.4

Intersection												
Int Delay, s/veh	9.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱			↱			↱			↱	
Traffic Vol, veh/h	0	5	125	0	16	0	345	0	1	0	0	0
Future Vol, veh/h	0	5	125	0	16	0	345	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	8	192	0	25	0	531	0	2	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2	
Conflicting Flow All	-	1066	2	1165	1065	-	2	0
Stage 1	-	2	-	1063	1063	-	-	-
Stage 2	-	1064	-	102	2	-	-	-
Critical Hdwy	-	6.5	6.2	7.1	6.5	-	4.1	-
Critical Hdwy Stg 1	-	5.5	-	6.1	5.5	-	-	-
Critical Hdwy Stg 2	-	5.5	-	6.1	5.5	-	-	-
Follow-up Hdwy	-	4	3.3	3.5	4	-	2.2	-
Pot Cap-1 Maneuver	0	224	1088	173	224	0	1634	-
Stage 1	0	898	-	272	302	0	-	-
Stage 2	0	302	-	909	898	0	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	151	1088	103	151	-	1634	-
Mov Cap-2 Maneuver	-	151	-	103	151	-	-	-
Stage 1	-	898	-	184	204	-	-	-
Stage 2	-	204	-	742	898	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	33.4	8.2	0
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1634	-	-	878	151	1634	-
HCM Lane V/C Ratio	0.325	-	-	0.228	0.163	-	-
HCM Control Delay (s)	8.3	0	-	10.3	33.4	0	-
HCM Lane LOS	A	A	-	B	D	A	-
HCM 95th %tile Q(veh)	1.4	-	-	0.9	0.6	0	-

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/10/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	←	→	→
Traffic Volume (vph)	343	235	491	3
Future Volume (vph)	343	235	491	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	43.1	14.5	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	0.96	0.91	0.42	1.30
Control Delay	42.8	63.2	3.4	186.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	42.8	63.2	3.4	186.0
LOS	D	E	A	F
Approach Delay	42.8		22.8	186.0
Approach LOS	D		C	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.30

Intersection Signal Delay: 65.2

Intersection LOS: E

Intersection Capacity Utilization 92.9%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/10/2020

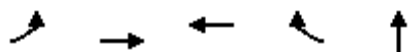
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩	
Traffic Volume (veh/h)	0	343	414	235	491	0	0	0	0	229	3	165
Future Volume (veh/h)	0	343	414	235	491	0	0	0	0	229	3	165
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	385	378	264	552	0				257	3	166
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	421	413	292	1313	0				188	2	121
Arrive On Green	0.00	0.48	0.48	0.32	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	880	864	1810	1900	0				1042	12	673
Grp Volume(v), veh/h	0	0	763	264	552	0				426	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1744	1810	1900	0				1727	0	0
Q Serve(g_s), s	0.0	0.0	36.5	12.5	0.0	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	36.5	12.5	0.0	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.50	1.00		0.00				0.60		0.39
Lane Grp Cap(c), veh/h	0	0	835	292	1313	0				311	0	0
V/C Ratio(X)	0.00	0.00	0.91	0.90	0.42	0.00				1.37	0.00	0.00
Avail Cap(c_a), veh/h	0	0	835	298	1313	0				311	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	0.46	0.46	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	21.8	29.8	0.0	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	16.2	15.4	0.5	0.0				186.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	16.6	5.5	0.2	0.0				22.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	38.0	45.2	0.5	0.0				222.9	0.0	0.0
LnGrp LOS	A	A	D	D	A	A				F	A	A
Approach Vol, veh/h		763			816						426	
Approach Delay, s/veh		38.0			14.9						222.9	
Approach LOS		D			B						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.1	48.9		22.0		68.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2						
Max Q Clear Time (g_c+I1), s	14.5	38.5		18.2		2.0						
Green Ext Time (p_c), s	0.0	2.0		0.0		3.6						
Intersection Summary												
HCM 6th Ctrl Delay			67.9									
HCM 6th LOS			E									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/10/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	112	459	413	394	4
Future Volume (vph)	112	459	413	394	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	5.4	34.2	24.2	24.2	44.2
Actuated g/C Ratio	0.06	0.38	0.27	0.27	0.49
v/c Ratio	1.06	0.65	0.82	0.55	0.76
Control Delay	85.4	15.8	44.9	5.9	24.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	85.4	15.8	44.9	5.9	24.3
LOS	F	B	D	A	C
Approach Delay		29.4	25.8		24.3
Approach LOS		C	C		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.06

Intersection Signal Delay: 26.3

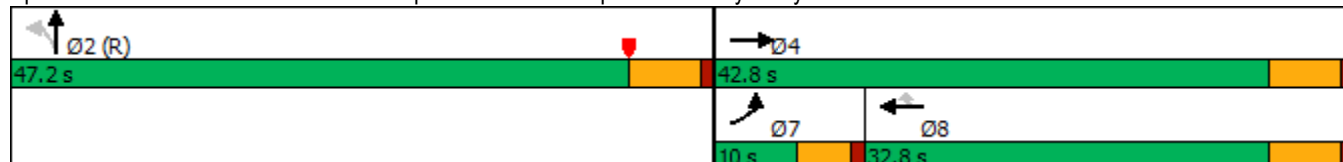
Intersection LOS: C

Intersection Capacity Utilization 92.9%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	459	0	0	413	394	313	4	348	0	0	0
Future Volume (veh/h)	112	459	0	0	413	394	313	4	348	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	114	468	0	0	421	286	319	4	233			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	694	0	0	483	409	500	6	365			
Arrive On Green	0.04	0.24	0.00	0.00	0.25	0.25	0.51	0.51	0.51			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	987	12	721			
Grp Volume(v), veh/h	114	468	0	0	421	286	556	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1721	0	0			
Q Serve(g_s), s	5.4	20.1	0.0	0.0	19.1	14.5	21.2	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	20.1	0.0	0.0	19.1	14.5	21.2	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.57		0.42			
Lane Grp Cap(c), veh/h	109	694	0	0	483	409	871	0	0			
V/C Ratio(X)	1.05	0.67	0.00	0.00	0.87	0.70	0.64	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	871	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.20	0.20	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	29.2	0.0	0.0	32.2	30.4	16.2	0.0	0.0			
Incr Delay (d2), s/veh	52.4	0.4	0.0	0.0	12.4	3.6	3.6	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.9	9.3	0.0	0.0	9.8	5.7	8.1	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	95.6	29.5	0.0	0.0	44.5	34.0	19.8	0.0	0.0			
LnGrp LOS	F	C	A	A	D	C	B	A	A			
Approach Vol, veh/h	582			707			556					
Approach Delay, s/veh	42.5			40.3			19.8					
Approach LOS	D			D			B					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	51.3			38.7			10.0			28.7		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	41.4			37.0			5.4			27.0		
Max Q Clear Time (g_c+I1), s	23.2			22.1			7.4			21.1		
Green Ext Time (p_c), s	3.3			2.3			0.0			1.8		
Intersection Summary												
HCM 6th Ctrl Delay	34.8											
HCM 6th LOS	C											

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑				↑			↑
Traffic Vol, veh/h	107	505	507	149	845	25	0	0	59	0	0	151
Future Vol, veh/h	107	505	507	149	845	25	0	0	59	0	0	151
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	118	555	557	164	929	27	0	0	65	0	0	166

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	956	0	0	1112	0	0	-	-	556	-	-	478
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	727	-	-	635	-	-	0	0	480	0	0	539
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	727	-	-	635	-	-	-	-	480	-	-	539
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			1.8			13.7			14.6		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	480	727	-	-	635	-	-	539
HCM Lane V/C Ratio	0.135	0.162	-	-	0.258	-	-	0.308
HCM Control Delay (s)	13.7	10.9	-	-	12.6	-	-	14.6
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.5	0.6	-	-	1	-	-	1.3

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	120	22	3	143	19	68	27	6	21	29	434
Future Volume (vph)	31	120	22	3	143	19	68	27	6	21	29	434
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	21.0	43.0	43.0	15.0	37.0	37.0	31.0	43.0	43.0	19.0	31.0	31.0
Total Split (%)	17.5%	35.8%	35.8%	12.5%	30.8%	30.8%	25.8%	35.8%	35.8%	15.8%	25.8%	25.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	7.4	17.0	17.0	6.5	14.7	14.7	8.7	24.7	24.7	7.1	18.6	18.6
Actuated g/C Ratio	0.15	0.35	0.35	0.13	0.30	0.30	0.18	0.50	0.50	0.14	0.38	0.38
v/c Ratio	0.15	0.24	0.04	0.02	0.34	0.04	0.28	0.04	0.01	0.11	0.05	0.60
Control Delay	28.2	18.0	0.1	30.7	22.2	0.1	26.9	16.4	0.0	28.9	20.4	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.2	18.0	0.1	30.7	22.2	0.1	26.9	16.4	0.0	28.9	20.4	5.5
LOS	C	B	A	C	C	A	C	B	A	C	C	A
Approach Delay		17.6			19.9			22.5			7.4	
Approach LOS		B			B			C			A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 49.1

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 13.2

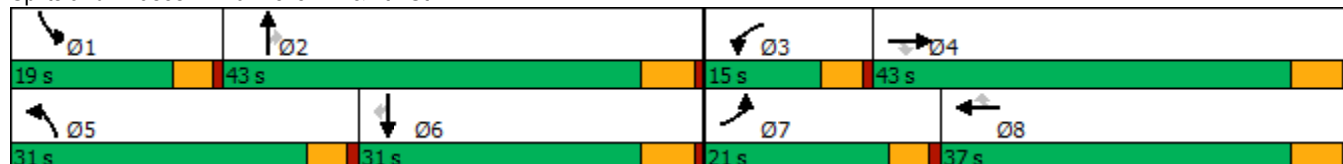
Intersection LOS: B

Intersection Capacity Utilization 52.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	120	22	3	143	19	68	27	6	21	29	434
Future Volume (veh/h)	31	120	22	3	143	19	68	27	6	21	29	434
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	41	160	29	4	191	25	91	36	8	28	39	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	483	409	10	409	346	135	490	416	59	411	
Arrive On Green	0.04	0.25	0.25	0.01	0.22	0.22	0.07	0.26	0.26	0.03	0.22	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	41	160	29	4	191	25	91	36	8	28	39	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	1.0	3.2	0.6	0.1	4.1	0.6	2.3	0.7	0.2	0.7	0.8	0.0
Cycle Q Clear(g_c), s	1.0	3.2	0.6	0.1	4.1	0.6	2.3	0.7	0.2	0.7	0.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	80	483	409	10	409	346	135	490	416	59	411	
V/C Ratio(X)	0.51	0.33	0.07	0.41	0.47	0.07	0.67	0.07	0.02	0.47	0.09	
Avail Cap(c_a), veh/h	642	1529	1295	407	1282	1086	1033	1529	1295	564	1035	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.6	14.1	13.1	22.9	15.8	14.5	20.9	13.0	12.8	22.0	14.5	0.0
Incr Delay (d2), s/veh	1.9	0.4	0.1	9.8	0.8	0.1	2.2	0.1	0.0	2.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.1	0.2	0.1	1.5	0.2	0.9	0.2	0.0	0.3	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.5	14.5	13.2	32.7	16.7	14.6	23.0	13.0	12.8	24.2	14.6	0.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	
Approach Vol, veh/h	230			220			135			67		
Approach Delay, s/veh	15.9			16.7			19.8			18.6		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.1	17.7	4.9	17.5	8.0	15.8	6.6	15.7				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	14.4	37.2	10.4	37.2	26.4	25.2	16.4	31.2				
Max Q Clear Time (g_c+I1), s	2.7	2.7	2.1	5.2	4.3	2.8	3.0	6.1				
Green Ext Time (p_c), s	0.0	0.2	0.0	0.9	0.1	0.1	0.0	1.0				

Intersection Summary

HCM 6th Ctrl Delay 17.3

HCM 6th LOS B

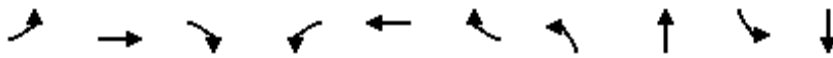
Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	272	113	55	272	19	382	86	43	126
Future Volume (vph)	4	272	113	55	272	19	382	86	43	126
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	23.8	23.8	13.0	27.2	27.2	28.0	42.2	11.0	25.2
Total Split (%)	10.7%	26.4%	26.4%	14.4%	30.2%	30.2%	31.1%	46.9%	12.2%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.1	16.7	16.7	7.0	24.0	24.0	21.4	40.5	6.0	20.5
Actuated g/C Ratio	0.06	0.20	0.20	0.08	0.29	0.29	0.26	0.49	0.07	0.25
v/c Ratio	0.04	0.77	0.26	0.39	0.54	0.03	0.89	0.16	0.36	0.30
Control Delay	41.0	47.2	2.2	46.4	29.3	0.1	53.6	12.3	47.7	30.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.0	47.2	2.2	46.4	29.3	0.1	53.6	12.3	47.7	30.2
LOS	D	D	A	D	C	A	D	B	D	C
Approach Delay		34.1			30.4			42.8		34.5
Approach LOS		C			C			D		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 82.6

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 36.4

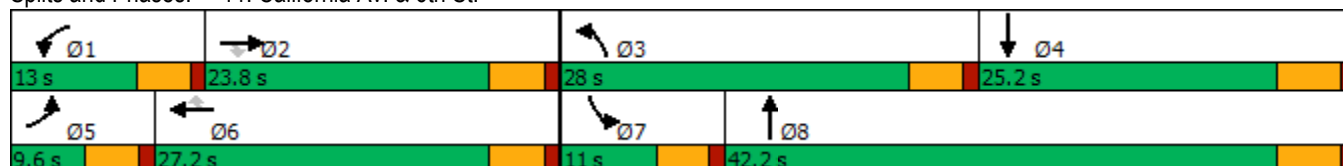
Intersection LOS: D

Intersection Capacity Utilization 64.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	272	113	55	272	19	382	86	49	43	126	4
Future Volume (veh/h)	4	272	113	55	272	19	382	86	49	43	126	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	296	122	60	296	12	415	93	31	47	137	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	358	304	85	437	370	456	650	217	74	496	7
Arrive On Green	0.01	0.19	0.19	0.05	0.23	0.23	0.25	0.48	0.48	0.04	0.27	0.27
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1364	455	1810	1868	27
Grp Volume(v), veh/h	4	296	122	60	296	12	415	0	124	47	0	139
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1818	1810	0	1895
Q Serve(g_s), s	0.2	11.6	5.2	2.5	11.0	0.4	17.3	0.0	3.0	2.0	0.0	4.5
Cycle Q Clear(g_c), s	0.2	11.6	5.2	2.5	11.0	0.4	17.3	0.0	3.0	2.0	0.0	4.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		0.01
Lane Grp Cap(c), veh/h	10	358	304	85	437	370	456	0	866	74	0	503
V/C Ratio(X)	0.42	0.83	0.40	0.71	0.68	0.03	0.91	0.00	0.14	0.63	0.00	0.28
Avail Cap(c_a), veh/h	116	465	394	196	548	464	545	0	866	149	0	503
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.5	30.3	27.7	36.5	27.3	23.2	28.2	0.0	11.4	36.7	0.0	22.6
Incr Delay (d2), s/veh	10.3	9.2	0.9	4.0	2.4	0.0	16.0	0.0	0.3	3.3	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	6.0	1.9	1.2	5.1	0.2	8.8	0.0	1.1	0.9	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.8	39.5	28.5	40.5	29.6	23.2	44.2	0.0	11.8	40.0	0.0	24.0
LnGrp LOS	D	D	C	D	C	C	D	A	B	D	A	C
Approach Vol, veh/h	422			368			539			186		
Approach Delay, s/veh	36.4			31.2			36.8			28.0		
Approach LOS	D			C			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	19.4	24.2	25.8	5.0	22.7	7.8	42.2				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	8.4	* 19	23.4	20.0	5.0	* 22	6.4	37.0				
Max Q Clear Time (g_c+I1), s	4.5	13.6	19.3	6.5	2.2	13.0	4.0	5.0				
Green Ext Time (p_c), s	0.0	1.0	0.3	0.5	0.0	1.2	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay	34.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	12.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱	↱		↱	↱		↱	↱		↱	↱
Traffic Vol, veh/h	2	3	71	49	9	29	283	513	95	12	240	2
Future Vol, veh/h	2	3	71	49	9	29	283	513	95	12	240	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	50	-	-	50
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	90	62	11	37	358	649	120	15	304	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1783	1819	304	1748	1702	649	307	0	0	769	0	0
Stage 1	334	334	-	1365	1365	-	-	-	-	-	-	-
Stage 2	1449	1485	-	383	337	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	64	79	740	68	93	473	1265	-	-	854	-	-
Stage 1	684	647	-	184	217	-	-	-	-	-	-	-
Stage 2	165	190	-	644	645	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	32	38	740	~34	45	473	1265	-	-	854	-	-
Mov Cap-2 Maneuver	46	70	-	69	86	-	-	-	-	-	-	-
Stage 1	338	633	-	91	107	-	-	-	-	-	-	-
Stage 2	67	94	-	551	631	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	14.7		149.2		2.8		0.4	
HCM LOS	B		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1265	-	-	58	740	71	473	854	-	-
HCM Lane V/C Ratio	0.283	-	-	0.109	0.121	1.034	0.078	0.018	-	-
HCM Control Delay (s)	9	0	-	74.5	10.5	217.2	13.3	9.3	0	-
HCM Lane LOS	A	A	-	F	B	F	B	A	A	-
HCM 95th %tile Q(veh)	1.2	-	-	0.3	0.4	5.4	0.3	0.1	-	-

Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						

Intersection						
Int Delay, s/veh	28.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	143	23	47	772	172	153
Future Vol, veh/h	143	23	47	772	172	153
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	186	30	61	1003	223	199

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1448	323	422	0	-	0
Stage 1	323	-	-	-	-	-
Stage 2	1125	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 146	723	1148	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	313	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 138	723	1148	-	-	-
Mov Cap-2 Maneuver	~ 138	-	-	-	-	-
Stage 1	699	-	-	-	-	-
Stage 2	313	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	222.5	0.5	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1148	-	138	723	-	-
HCM Lane V/C Ratio	0.053	-	1.346	0.041	-	-
HCM Control Delay (s)	8.3	-	256.7	10.2	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.2	-	11.8	0.1	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	13	15	18	3	56	279	3	368
Future Volume (vph)	13	15	18	3	56	279	3	368
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		10.3		10.1	6.7	42.2	5.0	36.8
Actuated g/C Ratio		0.17		0.17	0.11	0.70	0.08	0.61
v/c Ratio		0.37		0.14	0.30	0.13	0.02	0.20
Control Delay		10.9		17.8	29.2	4.8	25.7	8.1
Queue Delay		0.2		0.1	0.1	0.4	0.0	0.1
Total Delay		11.1		17.9	29.4	5.2	25.7	8.2
LOS		B		B	C	A	C	A
Approach Delay		11.1		17.9		9.1		8.3
Approach LOS		B		B		A		A

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 9.4

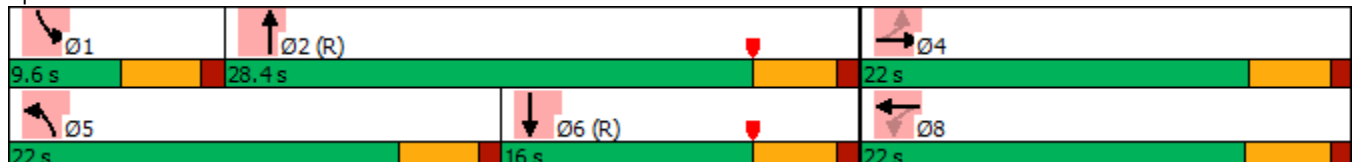
Intersection LOS: A

Intersection Capacity Utilization 35.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Volume (veh/h)	13	15	100	18	3	10	56	279	13	3	368	32
Future Volume (veh/h)	13	15	100	18	3	10	56	279	13	3	368	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	14	16	109	20	3	11	61	303	14	3	400	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	79	43	202	221	47	82	96	2115	97	7	1857	162
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.11	1.00	1.00	0.00	0.55	0.55
Sat Flow, veh/h	82	272	1287	799	297	524	1810	3514	162	1810	3360	293
Grp Volume(v), veh/h	139	0	0	34	0	0	61	155	162	3	214	221
Grp Sat Flow(s),veh/h/ln	1641	0	0	1620	0	0	1810	1805	1871	1810	1805	1847
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.1	3.6	3.6
Cycle Q Clear(g_c), s	4.6	0.0	0.0	1.0	0.0	0.0	1.9	0.0	0.0	0.1	3.6	3.6
Prop In Lane	0.10		0.78	0.59		0.32	1.00		0.09	1.00		0.16
Lane Grp Cap(c), veh/h	324	0	0	350	0	0	96	1086	1126	7	998	1021
V/C Ratio(X)	0.43	0.00	0.00	0.10	0.00	0.00	0.63	0.14	0.14	0.41	0.21	0.22
Avail Cap(c_a), veh/h	539	0	0	534	0	0	525	1086	1126	151	998	1021
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	0.0	0.0	21.7	0.0	0.0	26.2	0.0	0.0	29.8	6.8	6.8
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.1	0.0	0.0	2.6	0.3	0.3	12.9	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.0	0.4	0.0	0.0	0.8	0.1	0.1	0.1	1.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.1	0.0	0.0	21.8	0.0	0.0	28.8	0.3	0.3	42.7	7.3	7.3
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		139			34			378			438	
Approach Delay, s/veh		24.1			21.8			4.9			7.5	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	40.9		14.2	7.8	38.0		14.2				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		6.6	3.9	5.6		3.0				
Green Ext Time (p_c), s	0.0	1.8		0.5	0.0	1.2		0.1				

Intersection Summary

HCM 6th Ctrl Delay	9.3
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	464	9	345	216	393
Future Volume (vph)	464	9	345	216	393
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	21.0	21.0	21.0	39.0	18.0
Total Split (%)	35.0%	35.0%	35.0%	65.0%	30.0%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	14.9	14.9	15.0	35.5	15.9
Actuated g/C Ratio	0.25	0.25	0.25	0.59	0.26
v/c Ratio	0.79	0.70	0.83	0.11	0.55
Control Delay	36.3	24.7	44.1	5.6	16.7
Queue Delay	0.0	1.1	0.0	0.0	3.3
Total Delay	36.3	25.8	44.1	5.6	20.1
LOS	D	C	D	A	C
Approach Delay		31.2		29.3	20.1
Approach LOS		C		C	C

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 27.3

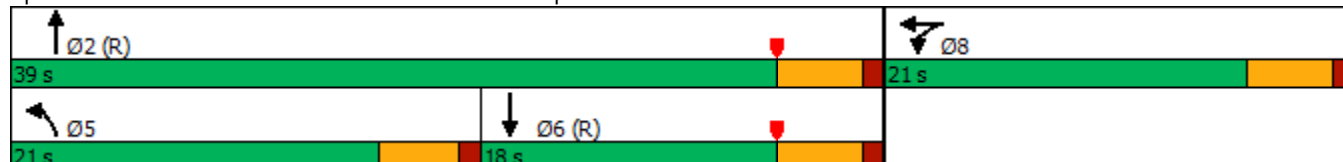
Intersection LOS: C

Intersection Capacity Utilization 63.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary

15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	393	93
Future Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	393	93
Initial Q (Qb), veh				0	0	0	75	100	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				328	256	143	375	235	0	0	427	101
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				463	293	164	495	2108	0	0	727	171
Arrive On Green				0.26	0.26	0.26	0.39	0.98	0.00	0.00	0.09	0.09
Sat Flow, veh/h				1810	1145	640	1810	3705	0	0	2997	681
Grp Volume(v), veh/h				328	0	399	375	235	0	0	264	264
Grp Sat Flow(s),veh/h/ln				1810	0	1785	1810	1805	0	0	1805	1777
Q Serve(g_s), s				9.9	0.0	12.9	11.7	0.1	0.0	0.0	8.4	8.5
Cycle Q Clear(g_c), s				9.9	0.0	12.9	11.7	0.1	0.0	0.0	8.4	8.5
Prop In Lane				1.00		0.36	1.00		0.00	0.00		0.38
Lane Grp Cap(c), veh/h				463	0	457	495	2108	0	0	452	445
V/C Ratio(X)				0.71	0.00	0.87	0.76	0.11	0.00	0.00	0.58	0.59
Avail Cap(c_a), veh/h				489	0	482	495	2108	0	0	499	491
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.78	0.78	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.3	0.0	21.4	16.3	0.4	0.0	0.0	24.5	24.6
Incr Delay (d2), s/veh				4.4	0.0	15.5	4.7	0.1	0.0	0.0	5.4	5.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	437.1	18.2	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.1	0.0	6.5	65.0	5.4	0.0	0.0	4.5	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.7	0.0	36.9	458.1	18.7	0.0	0.0	29.9	30.2
LnGrp LOS				C	A	D	F	B	A	A	C	C
Approach Vol, veh/h					727			610			528	
Approach Delay, s/veh					31.4			288.8			30.0	
Approach LOS					C			F			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		39.8			18.5	21.4		20.2				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 34			16.4	* 13		16.2				
Max Q Clear Time (g_c+I1), s		2.1			13.7	10.5		14.9				
Green Ext Time (p_c), s		1.6			0.2	0.9		0.5				
Intersection Summary												
HCM 6th Ctrl Delay				115.2								
HCM 6th LOS				F								
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕	↗	↕	↖	↕
Traffic Volume (vph)	11	547	544	111	779
Future Volume (vph)	11	547	544	111	779
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	20.0	20.0	27.0	13.0	40.0
Total Split (%)	33.3%	33.3%	45.0%	21.7%	66.7%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	12.6	12.6	27.7	7.4	37.8
Actuated g/C Ratio	0.21	0.21	0.46	0.12	0.63
v/c Ratio	0.70	0.70	0.59	0.52	0.36
Control Delay	18.8	18.6	9.9	22.0	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	18.6	9.9	22.0	10.3
LOS	B	B	A	C	B
Approach Delay	18.7		9.9		11.8
Approach LOS	B		A		B

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 12.7

Intersection LOS: B

Intersection Capacity Utilization 63.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary

16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	11	547	0	0	0	0	544	465	111	779	0
Future Volume (veh/h)	75	11	547	0	0	0	0	544	465	111	779	0
Initial Q (Qb), veh	0	0	0				0	175	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	661				0	567	484	116	811	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	452	766				0	1424	187	148	2174	0
Arrive On Green	0.00	0.00	0.24				0.00	0.44	0.44	0.16	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1942	1575	1810	3705	0
Grp Volume(v), veh/h	0	0	661				0	554	497	116	811	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1617	1810	1805	0
Q Serve(g_s), s	0.0	0.0	11.8				0.0	14.8	14.8	3.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	11.8				0.0	14.8	14.8	3.7	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	0	452	766				0	801	810	148	2174	0
V/C Ratio(X)	0.00	0.00	0.86				0.00	0.69	0.61	0.79	0.37	0.00
Avail Cap(c_a), veh/h	0	481	816				0	801	718	253	2174	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.72	0.72	0.00
Uniform Delay (d), s/veh	0.0	0.0	21.9				0.0	16.7	16.7	24.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	9.1				0.0	4.9	3.5	2.5	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	254.3	215.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	4.8				0.0	66.9	58.4	1.5	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	31.0				0.0	275.8	235.2	27.1	0.4	0.0
LnGrp LOS	A	A	C				A	F	F	C	A	A
Approach Vol, veh/h		661						1051			927	
Approach Delay, s/veh		31.0						256.6			3.7	
Approach LOS		C						F			A	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	9.5	31.4	19.1	40.9								
Change Period (Y+Rc), s	4.6	* 4.8	* 4.8	* 4.8								
Max Green Setting (Gmax), s	8.4	* 22	* 15	* 35								
Max Q Clear Time (g_c+I1), s	5.7	16.8	13.8	2.0								
Green Ext Time (p_c), s	0.0	3.1	0.5	6.6								

Intersection Summary

HCM 6th Ctrl Delay	111.3
HCM 6th LOS	F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

07/16/2020



Lane Group	EBT	WBT	WBR	SBL
Lane Configurations	↑	↑	↰	↱
Traffic Volume (vph)	884	269	30	98
Future Volume (vph)	884	269	30	98
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8	22.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effect Green (s)	38.1	38.1	38.1	13.4
Actuated g/C Ratio	0.70	0.70	0.70	0.25
v/c Ratio	0.72	0.22	0.03	0.24
Control Delay	11.6	5.1	1.7	26.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	11.6	5.1	1.7	26.2
LOS	B	A	A	C
Approach Delay	11.6	4.8		26.2
Approach LOS	B	A		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 54.1

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 11.1

Intersection LOS: B

Intersection Capacity Utilization 64.5%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: 4th St. & Jack Rabbit Trail

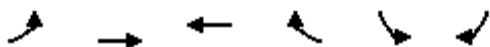


HCM 6th Signalized Intersection Summary

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

07/16/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	884	269	30	98	0
Future Volume (veh/h)	0	884	269	30	98	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	961	292	33	107	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	146	1156	1156	979	282	251
Arrive On Green	0.00	0.61	0.61	0.61	0.16	0.00
Sat Flow, veh/h	1072	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	961	292	33	107	0
Grp Sat Flow(s),veh/h/ln	1072	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	19.7	3.5	0.4	2.6	0.0
Cycle Q Clear(g_c), s	0.0	19.7	3.5	0.4	2.6	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	146	1156	1156	979	282	251
V/C Ratio(X)	0.00	0.83	0.25	0.03	0.38	0.00
Avail Cap(c_a), veh/h	674	2092	2092	1773	890	792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	7.6	4.5	3.9	18.6	0.0
Incr Delay (d2), s/veh	0.0	1.6	0.1	0.0	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.0	0.6	0.1	1.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	9.3	4.6	3.9	19.5	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		961	325		107	
Approach Delay, s/veh		9.3	4.5		19.5	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				35.7	13.5	35.7
Change Period (Y+Rc), s				5.8	5.8	5.8
Max Green Setting (Gmax), s				54.2	24.2	54.2
Max Q Clear Time (g_c+I1), s				21.7	4.6	5.5
Green Ext Time (p_c), s				8.2	0.2	1.7
Intersection Summary						
HCM 6th Ctrl Delay			8.9			
HCM 6th LOS			A			

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	115	12	90	185	75	234
Future Vol, veh/h	115	12	90	185	75	234
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	126	13	99	203	82	257
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	9.3	9.2	10.3
HCM LOS	A	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	75	234	58	58	12	90	93	93
LT Vol	75	0	0	0	0	90	0	0
Through Vol	0	0	58	58	0	0	93	93
RT Vol	0	234	0	0	12	0	0	0
Lane Flow Rate	82	257	63	63	13	99	102	102
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.14	0.351	0.108	0.108	0.014	0.175	0.165	0.117
Departure Headway (Hd)	6.225	5.028	6.145	6.145	3.712	6.357	5.851	4.13
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	579	720	586	586	967	568	617	873
Service Time	3.925	2.728	3.857	3.857	1.423	4.057	3.551	1.83
HCM Lane V/C Ratio	0.142	0.357	0.108	0.108	0.013	0.174	0.165	0.117
HCM Control Delay	9.9	10.4	9.6	9.6	6.5	10.4	9.7	7.4
HCM Lane LOS	A	B	A	A	A	B	A	A
HCM 95th-tile Q	0.5	1.6	0.4	0.4	0	0.6	0.6	0.4

Intersection

Intersection Delay, s/veh23.1

Intersection LOS C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	98	0	91	0	173	389	9	55	0
Future Vol, veh/h	0	0	0	98	0	91	0	173	389	9	55	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	127	0	118	0	225	505	12	71	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	12	28.4	9.3
HCM LOS	B	D	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	52%	14%
Vol Thru, %	31%	0%	86%
Vol Right, %	69%	48%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	562	189	64
LT Vol	0	98	9
Through Vol	173	0	55
RT Vol	389	91	0
Lane Flow Rate	730	245	83
Geometry Grp	1	1	1
Degree of Util (X)	0.867	0.38	0.127
Departure Headway (Hd)	4.278	5.575	5.519
Convergence, Y/N	Yes	Yes	Yes
Cap	839	648	651
Service Time	2.357	3.578	3.54
HCM Lane V/C Ratio	0.87	0.378	0.127
HCM Control Delay	28.4	12	9.3
HCM Lane LOS	D	B	A
HCM 95th-tile Q	10.9	1.8	0.4

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	559	435	152	2	3	150
Future Volume (vph)	559	435	152	2	3	150
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	9.6	51.6	42.0	42.0	38.4	38.4
Total Split (%)	10.7%	57.3%	46.7%	46.7%	42.7%	42.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	5.0	20.6	10.9	10.9	10.0	10.0
Actuated g/C Ratio	0.12	0.48	0.26	0.26	0.23	0.23
v/c Ratio	3.93	0.37	0.47	0.01	0.00	0.41
Control Delay	1347.5	7.6	16.9	8.5	13.3	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1347.5	7.6	16.9	8.5	13.3	5.5
LOS	F	A	B	A	B	A
Approach Delay		761.1	16.7		5.6	
Approach LOS		F	B		A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 42.6

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 3.93

Intersection Signal Delay: 584.2

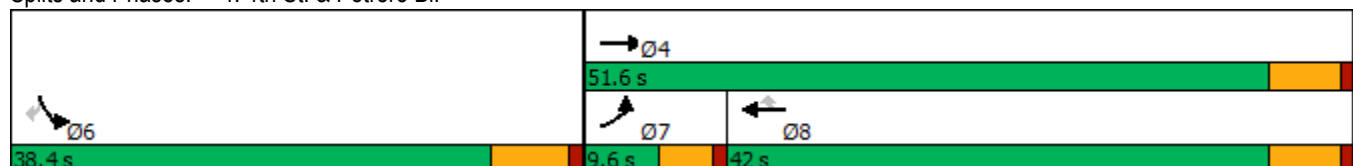
Intersection LOS: F

Intersection Capacity Utilization 61.5%

ICU Level of Service B

Analysis Period (min) 15

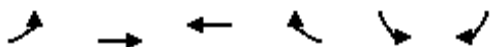
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	559	435	152	2	3	150	
Future Volume (veh/h)	559	435	152	2	3	150	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	834	649	227	3	4	224	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	217	1701	457	387	844	387	
Arrive On Green	0.12	0.47	0.24	0.24	0.24	0.24	
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610	
Grp Volume(v), veh/h	834	649	227	3	4	224	
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610	
Q Serve(g_s), s	5.0	4.8	4.3	0.1	0.0	5.1	
Cycle Q Clear(g_c), s	5.0	4.8	4.3	0.1	0.0	5.1	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	217	1701	457	387	844	387	
V/C Ratio(X)	3.83	0.38	0.50	0.01	0.00	0.58	
Avail Cap(c_a), veh/h	217	3975	1653	1401	2717	1246	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	18.3	7.1	13.6	12.0	12.0	13.9	
Incr Delay (d2), s/veh	1286.7	0.1	0.8	0.0	0.0	1.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	79.4	1.0	1.5	0.0	0.0	4.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	1305.0	7.1	14.5	12.0	12.0	15.3	
LnGrp LOS	F	A	B	B	B	B	
Approach Vol, veh/h		1483	230	228			
Approach Delay, s/veh		737.0	14.4	15.3			
Approach LOS		F	B	B			
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				25.4	16.2	9.6	15.8
Change Period (Y+Rc), s				5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s				45.8	32.2	5.0	36.2
Max Q Clear Time (g_c+I1), s				6.8	7.1	7.0	6.3
Green Ext Time (p_c), s				2.7	0.7	0.0	1.2
Intersection Summary							
HCM 6th Ctrl Delay			566.6				
HCM 6th LOS			F				

Intersection	
Intersection Delay, s/veh	13.8
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	42	362	339	294	177	21
Future Vol, veh/h	42	362	339	294	177	21
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	43	373	349	303	182	22
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	20.3	9.3	14.8
HCM LOS	C	A	B

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	89%
Vol Thru, %	0%	100%	100%	100%	19%	0%
Vol Right, %	0%	0%	0%	0%	81%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	42	362	136	136	362	198
LT Vol	42	0	0	0	0	177
Through Vol	0	362	136	136	68	0
RT Vol	0	0	0	0	294	21
Lane Flow Rate	43	373	140	140	373	204
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.084	0.67	0.229	0.229	0.371	0.407
Departure Headway (Hd)	6.971	6.463	5.887	5.887	3.583	7.174
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	513	560	608	608	996	500
Service Time	4.725	4.216	3.637	3.637	1.332	4.931
HCM Lane V/C Ratio	0.084	0.666	0.23	0.23	0.374	0.408
HCM Control Delay	10.4	21.4	10.4	10.4	8.5	14.8
HCM Lane LOS	B	C	B	B	A	B
HCM 95th-tile Q	0.3	5	0.9	0.9	1.7	2

Intersection												
Int Delay, s/veh	10.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱			↱			↱			↱	
Traffic Vol, veh/h	0	2	397	3	14	0	176	0	2	0	0	0
Future Vol, veh/h	0	2	397	3	14	0	176	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	3	522	4	18	0	232	0	3	0	0	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	468	1	730	467	-	1	0	0	3	0	0
Stage 1	-	1	-	466	466	-	-	-	-	-	-	-
Stage 2	-	467	-	264	1	-	-	-	-	-	-	-
Critical Hdwy	-	6.5	6.2	7.1	6.5	-	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	4	3.3	3.5	4	-	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	496	1090	340	496	0	1635	-	-	1632	-	-
Stage 1	0	899	-	581	566	0	-	-	-	-	-	-
Stage 2	0	565	-	746	899	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	426	1090	157	426	-	1635	-	-	1632	-	-
Mov Cap-2 Maneuver	-	426	-	157	426	-	-	-	-	-	-	-
Stage 1	-	899	-	498	486	-	-	-	-	-	-	-
Stage 2	-	485	-	387	899	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	11.4		16.8		7.5		0					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1635	-	-	1082	327	1632	-	-				
HCM Lane V/C Ratio	0.142	-	-	0.485	0.068	-	-	-				
HCM Control Delay (s)	7.6	0	-	11.4	16.8	0	-	-				
HCM Lane LOS	A	A	-	B	C	A	-	-				
HCM 95th %tile Q(veh)	0.5	-	-	2.7	0.2	0	-	-				

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/10/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	↔	↔	↔	↔
Traffic Volume (vph)	332	129	481	1
Future Volume (vph)	332	129	481	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	27.5	9.8	41.9	36.5
Actuated g/C Ratio	0.31	0.11	0.47	0.41
v/c Ratio	1.23	0.87	0.72	1.06
Control Delay	148.6	73.7	20.6	78.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	148.6	73.7	20.6	78.3
LOS	F	E	C	E
Approach Delay	148.6		31.9	78.3
Approach LOS	F		C	E

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.23

Intersection Signal Delay: 83.8

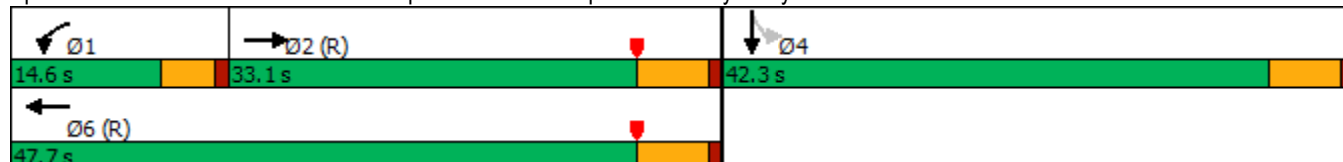
Intersection LOS: F

Intersection Capacity Utilization 84.2%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/10/2020

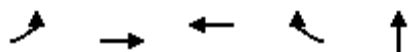
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩	
Traffic Volume (veh/h)	0	332	207	129	481	0	0	0	0	436	1	152
Future Volume (veh/h)	0	332	207	129	481	0	0	0	0	436	1	152
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	437	200	170	633	0				574	1	134
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	374	171	201	885	0				581	1	136
Arrive On Green	0.00	0.30	0.30	0.04	0.15	0.00				0.41	0.41	0.41
Sat Flow, veh/h	0	1234	565	1810	1900	0				1432	2	334
Grp Volume(v), veh/h	0	0	637	170	633	0				709	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1798	1810	1900	0				1768	0	0
Q Serve(g_s), s	0.0	0.0	27.3	8.4	28.5	0.0				35.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	27.3	8.4	28.5	0.0				35.8	0.0	0.0
Prop In Lane	0.00		0.31	1.00		0.00				0.81		0.19
Lane Grp Cap(c), veh/h	0	0	546	201	885	0				717	0	0
V/C Ratio(X)	0.00	0.00	1.17	0.85	0.72	0.00				0.99	0.00	0.00
Avail Cap(c_a), veh/h	0	0	546	201	885	0				717	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.61	0.61	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	31.4	42.6	32.4	0.0				26.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	93.9	17.2	3.1	0.0				30.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	25.1	4.8	14.9	0.0				19.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	125.3	59.7	35.5	0.0				57.2	0.0	0.0
LnGrp LOS	A	A	F	E	D	A				E	A	A
Approach Vol, veh/h		637			803						709	
Approach Delay, s/veh		125.3			40.6						57.2	
Approach LOS		F			D						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.6	33.1		42.3		47.7						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9						
Max Q Clear Time (g_c+I1), s	10.4	29.3		37.8		30.5						
Green Ext Time (p_c), s	0.0	0.0		0.0		2.9						
Intersection Summary												
HCM 6th Ctrl Delay			71.2									
HCM 6th LOS			E									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/10/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	204	564	286	238	4
Future Volume (vph)	204	564	286	238	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	13.4	43.0	29.6	29.6	47.0
Total Split (%)	14.9%	47.8%	32.9%	32.9%	52.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	8.8	32.6	19.2	19.2	45.8
Actuated g/C Ratio	0.10	0.36	0.21	0.21	0.51
v/c Ratio	1.19	0.84	0.73	0.46	0.66
Control Delay	131.2	22.9	43.2	6.7	20.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	131.2	22.9	43.2	6.7	20.0
LOS	F	C	D	A	B
Approach Delay		51.7	26.6		20.0
Approach LOS		D	C		B

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.19

Intersection Signal Delay: 34.8

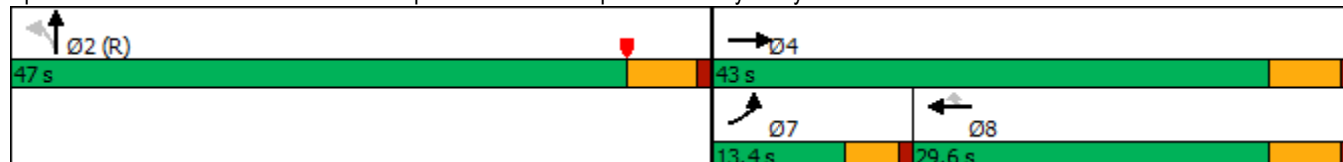
Intersection LOS: C

Intersection Capacity Utilization 84.2%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	564	0	0	286	238	324	4	254	0	0	0
Future Volume (veh/h)	204	564	0	0	286	238	324	4	254	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	210	581	0	0	295	175	334	4	210			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	177	660	0	0	377	319	552	7	347			
Arrive On Green	0.03	0.11	0.00	0.00	0.20	0.20	0.52	0.52	0.52			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1053	13	662			
Grp Volume(v), veh/h	210	581	0	0	295	175	548	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1728	0	0			
Q Serve(g_s), s	8.8	27.1	0.0	0.0	13.3	8.8	19.9	0.0	0.0			
Cycle Q Clear(g_c), s	8.8	27.1	0.0	0.0	13.3	8.8	19.9	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.61		0.38			
Lane Grp Cap(c), veh/h	177	660	0	0	377	319	905	0	0			
V/C Ratio(X)	1.19	0.88	0.00	0.00	0.78	0.55	0.61	0.00	0.00			
Avail Cap(c_a), veh/h	177	785	0	0	502	426	905	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.5	38.0	0.0	0.0	34.2	32.4	14.9	0.0	0.0			
Incr Delay (d2), s/veh	89.6	1.1	0.0	0.0	5.7	1.5	3.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.4	13.7	0.0	0.0	6.4	3.4	7.5	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	133.1	39.1	0.0	0.0	40.0	33.9	17.9	0.0	0.0			
LnGrp LOS	F	D	A	A	D	C	B	A	A			
Approach Vol, veh/h	791			470			548					
Approach Delay, s/veh	64.0			37.7			17.9					
Approach LOS	E			D			B					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	52.9			37.1			13.4			23.7		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	41.2			37.2			8.8			23.8		
Max Q Clear Time (g_c+I1), s	21.9			29.1			10.8			15.3		
Green Ext Time (p_c), s	3.3			2.1			0.0			1.4		
Intersection Summary												
HCM 6th Ctrl Delay	43.2											
HCM 6th LOS	D											

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱		↱	↑↑				↱			↱
Traffic Vol, veh/h	236	770	239	104	624	53	0	0	112	0	0	63
Future Vol, veh/h	236	770	239	104	624	53	0	0	112	0	0	63
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	254	828	257	112	671	57	0	0	120	0	0	68
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	728	0	0	1085	0	0	-	-	543	-	-	364
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	885	-	-	651	-	-	0	0	489	0	0	639
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	885	-	-	651	-	-	-	-	489	-	-	639
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2			1.6			14.8			11.3		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	489	885	-	-	651	-	-	639				
HCM Lane V/C Ratio	0.246	0.287	-	-	0.172	-	-	0.106				
HCM Control Delay (s)	14.8	10.7	-	-	11.7	-	-	11.3				
HCM Lane LOS	B	B	-	-	B	-	-	B				
HCM 95th %tile Q(veh)	1	1.2	-	-	0.6	-	-	0.4				

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	100	481	9	59	29	38	36	11	13	57	135
Future Volume (vph)	100	481	9	59	29	38	36	11	13	57	135
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	36.0	54.0	15.0	33.0	33.0	23.0	34.0	34.0	17.0	28.0	28.0
Total Split (%)	30.0%	45.0%	12.5%	27.5%	27.5%	19.2%	28.3%	28.3%	14.2%	23.3%	23.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	9.5	22.6	5.7	12.8	12.8	6.9	15.8	15.8	5.9	11.1	11.1
Actuated g/C Ratio	0.18	0.42	0.11	0.24	0.24	0.13	0.29	0.29	0.11	0.21	0.21
v/c Ratio	0.45	0.53	0.07	0.19	0.08	0.24	0.09	0.03	0.10	0.21	0.40
Control Delay	28.2	14.4	30.0	22.1	0.3	29.2	19.1	0.1	30.0	25.4	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.2	14.4	30.0	22.1	0.3	29.2	19.1	0.1	30.0	25.4	7.9
LOS	C	B	C	C	A	C	B	A	C	C	A
Approach Delay		16.5		16.4			21.1			14.1	
Approach LOS		B		B			C			B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 54.1

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 16.4

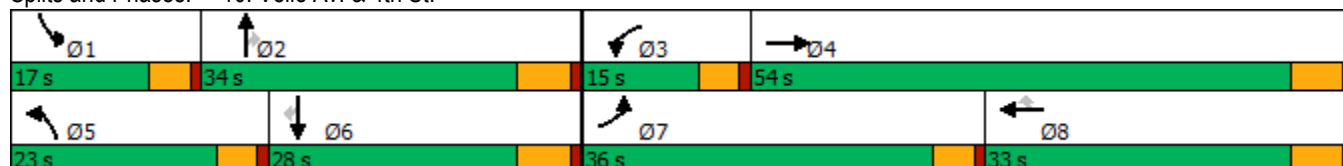
Intersection LOS: B

Intersection Capacity Utilization 41.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary 10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	481	74	9	59	29	38	36	11	13	57	135
Future Volume (veh/h)	100	481	74	9	59	29	38	36	11	13	57	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	143	687	106	13	84	41	54	51	16	19	81	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	188	1024	158	30	455	386	95	428	363	42	373	
Arrive On Green	0.10	0.33	0.33	0.02	0.24	0.24	0.05	0.23	0.23	0.02	0.20	0.00
Sat Flow, veh/h	1810	3135	483	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	143	395	398	13	84	41	54	51	16	19	81	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1813	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	3.9	9.6	9.6	0.4	1.8	1.0	1.5	1.1	0.4	0.5	1.8	0.0
Cycle Q Clear(g_c), s	3.9	9.6	9.6	0.4	1.8	1.0	1.5	1.1	0.4	0.5	1.8	0.0
Prop In Lane	1.00		0.27	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	188	590	592	30	455	386	95	428	363	42	373	
V/C Ratio(X)	0.76	0.67	0.67	0.44	0.18	0.11	0.57	0.12	0.04	0.45	0.22	
Avail Cap(c_a), veh/h	1115	1707	1715	369	1014	859	653	1051	891	440	828	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.2	14.8	14.8	24.8	15.4	15.1	23.6	15.7	15.4	24.6	17.2	0.0
Incr Delay (d2), s/veh	2.4	1.3	1.3	3.7	0.2	0.1	2.0	0.1	0.0	2.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.2	3.3	0.2	0.7	0.3	0.6	0.4	0.1	0.2	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	16.1	16.1	28.5	15.6	15.2	25.6	15.8	15.5	27.4	17.5	0.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	
Approach Vol, veh/h		936			138			121			100	
Approach Delay, s/veh		17.4			16.7			20.1			19.4	
Approach LOS		B			B			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	17.3	5.4	22.5	7.3	15.8	9.9	18.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	12.4	28.2	10.4	48.2	18.4	22.2	31.4	27.2				
Max Q Clear Time (g_c+I1), s	2.5	3.1	2.4	11.6	3.5	3.8	5.9	3.8				
Green Ext Time (p_c), s	0.0	0.2	0.0	5.0	0.0	0.3	0.2	0.5				

Intersection Summary

HCM 6th Ctrl Delay 17.8

HCM 6th LOS B

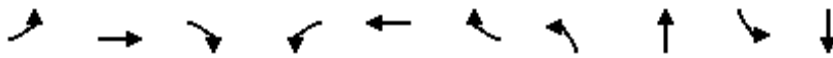
Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	19	432	164	60	256	10	249	105	13	47
Future Volume (vph)	19	432	164	60	256	10	249	105	13	47
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	20.0	36.6	9.6	26.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	22.2%	40.7%	10.7%	29.1%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.2	24.1	24.1	5.7	28.3	28.3	14.4	38.8	5.1	21.5
Actuated g/C Ratio	0.06	0.29	0.29	0.07	0.34	0.34	0.17	0.47	0.06	0.26
v/c Ratio	0.18	0.82	0.29	0.51	0.41	0.02	0.83	0.21	0.13	0.13
Control Delay	44.0	41.5	4.0	55.5	23.8	0.0	58.8	13.6	43.0	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.0	41.5	4.0	55.5	23.8	0.0	58.8	13.6	43.0	23.5
LOS	D	D	A	E	C	A	E	B	D	C
Approach Delay		31.6			28.9			40.2		27.2
Approach LOS		C			C			D		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 82.7

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 33.3

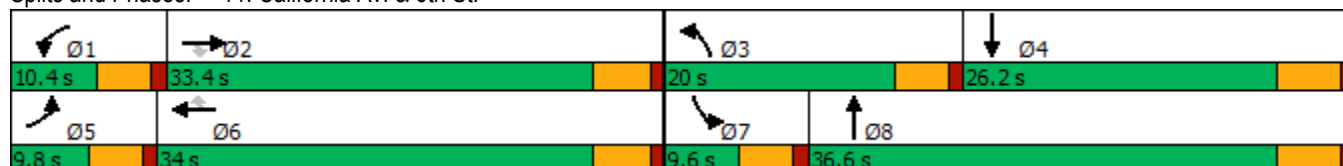
Intersection LOS: C

Intersection Capacity Utilization 59.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	432	164	60	256	10	249	105	68	13	47	11
Future Volume (veh/h)	19	432	164	60	256	10	249	105	68	13	47	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	455	169	63	269	6	262	111	41	14	49	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	41	533	452	85	580	491	302	548	202	30	438	54
Arrive On Green	0.02	0.28	0.28	0.05	0.31	0.31	0.17	0.41	0.41	0.02	0.26	0.26
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1323	489	1810	1660	203
Grp Volume(v), veh/h	20	455	169	63	269	6	262	0	152	14	0	55
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1812	1810	0	1863
Q Serve(g_s), s	0.9	18.0	6.7	2.7	9.1	0.2	11.2	0.0	4.3	0.6	0.0	1.8
Cycle Q Clear(g_c), s	0.9	18.0	6.7	2.7	9.1	0.2	11.2	0.0	4.3	0.6	0.0	1.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.27	1.00		0.11
Lane Grp Cap(c), veh/h	41	533	452	85	580	491	302	0	750	30	0	492
V/C Ratio(X)	0.49	0.85	0.37	0.74	0.46	0.01	0.87	0.00	0.20	0.46	0.00	0.11
Avail Cap(c_a), veh/h	118	683	579	132	698	591	350	0	750	114	0	492
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.4	27.1	23.0	37.4	22.4	19.3	32.3	0.0	14.9	38.7	0.0	22.2
Incr Delay (d2), s/veh	3.4	8.3	0.5	4.6	0.6	0.0	16.4	0.0	0.6	4.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	9.0	2.4	1.3	4.0	0.1	5.9	0.0	1.7	0.3	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.8	35.4	23.5	42.0	22.9	19.3	48.7	0.0	15.5	42.8	0.0	22.7
LnGrp LOS	D	D	C	D	C	B	D	A	B	D	A	C
Approach Vol, veh/h		644			338			414			69	
Approach Delay, s/veh		32.5			26.4			36.5			26.7	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	27.1	17.9	26.2	6.4	29.1	5.9	38.1				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	5.8	* 29	15.4	21.0	5.2	* 29	5.0	31.4				
Max Q Clear Time (g_c+I1), s	4.7	20.0	13.2	3.8	2.9	11.1	2.6	6.3				
Green Ext Time (p_c), s	0.0	2.3	0.1	0.1	0.0	1.4	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	32.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔	↔	↔	↔	↔		↔	↔
Traffic Vol, veh/h	4	3	82	47	3	20	169	395	368	6	211	6
Future Vol, veh/h	4	3	82	47	3	20	169	395	368	6	211	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	120	-	50	-	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	3	86	49	3	21	178	416	387	6	222	6
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1212	1393	222	1054	1012	416	228	0	0	803	0	0
Stage 1	234	234	-	772	772	-	-	-	-	-	-	-
Stage 2	978	1159	-	282	240	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	160	143	823	206	241	641	1352	-	-	830	-	-
Stage 1	774	715	-	395	412	-	-	-	-	-	-	-
Stage 2	304	272	-	729	711	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	137	123	823	163	208	641	1352	-	-	830	-	-
Mov Cap-2 Maneuver	208	195	-	252	283	-	-	-	-	-	-	-
Stage 1	672	709	-	343	358	-	-	-	-	-	-	-
Stage 2	253	236	-	644	705	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	11		19.4		1.5		0.3					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1352	-	-	202	823	254	641	830	-	-		
HCM Lane V/C Ratio	0.132	-	-	0.036	0.105	0.207	0.033	0.008	-	-		
HCM Control Delay (s)	8.1	-	-	23.5	9.9	22.8	10.8	9.4	0	-		
HCM Lane LOS	A	-	-	C	A	C	B	A	A	-		
HCM 95th %tile Q(veh)	0.5	-	-	0.1	0.3	0.8	0.1	0	-	-		

Intersection						
Int Delay, s/veh	386.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	473	66	17	476	922	99
Future Vol, veh/h	473	66	17	476	922	99
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	514	72	18	517	1002	108
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1609	1056	1110	0	-	0
Stage 1	1056	-	-	-	-	-
Stage 2	553	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 116	276	637	-	-	-
Stage 1	~ 338	-	-	-	-	-
Stage 2	580	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 113	276	637	-	-	-
Mov Cap-2 Maneuver	~ 113	-	-	-	-	-
Stage 1	~ 329	-	-	-	-	-
Stage 2	580	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	1471.9	0.4		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	637	-	113	276	-	-
HCM Lane V/C Ratio	0.029	-	4.55	0.26	-	-
HCM Control Delay (s)	10.8	\$	1674.1	22.6	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.1	-	53.7	1	-	-
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)
07/10/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	52	15	69	4	22	356	9	410
Future Volume (vph)	52	15	69	4	22	356	9	410
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		12.5		12.3	5.5	36.1	5.2	35.9
Actuated g/C Ratio		0.21		0.20	0.09	0.60	0.09	0.60
v/c Ratio		0.70		0.74	0.14	0.18	0.06	0.21
Control Delay		11.4		55.8	35.9	5.3	25.9	7.0
Queue Delay		63.1		107.1	1.0	0.6	0.0	0.3
Total Delay		74.5		163.0	36.9	5.9	25.9	7.3
LOS		E		F	D	A	C	A
Approach Delay		74.5		163.0		7.6		7.7
Approach LOS		E		F		A		A

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 38.5

Intersection LOS: D

Intersection Capacity Utilization 51.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↕		↗	↕	
Traffic Volume (veh/h)	52	15	359	69	4	15	22	356	29	9	410	20
Future Volume (veh/h)	52	15	359	69	4	15	22	356	29	9	410	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	54	15	370	71	4	15	23	367	30	9	423	21
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	101	28	331	233	21	29	48	1730	141	21	1739	86
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.05	1.00	1.00	0.01	0.50	0.50
Sat Flow, veh/h	139	119	1380	524	87	122	1810	3381	275	1810	3500	173
Grp Volume(v), veh/h	439	0	0	90	0	0	23	195	202	9	218	226
Grp Sat Flow(s),veh/h/ln	1638	0	0	732	0	0	1810	1805	1851	1810	1805	1869
Q Serve(g_s), s	8.6	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.3	4.1	4.2
Cycle Q Clear(g_c), s	14.4	0.0	0.0	5.8	0.0	0.0	0.7	0.0	0.0	0.3	4.1	4.2
Prop In Lane	0.12		0.84	0.79		0.17	1.00		0.15	1.00		0.09
Lane Grp Cap(c), veh/h	460	0	0	283	0	0	48	924	947	21	897	928
V/C Ratio(X)	0.95	0.00	0.00	0.32	0.00	0.00	0.48	0.21	0.21	0.43	0.24	0.24
Avail Cap(c_a), veh/h	460	0	0	283	0	0	223	924	947	223	897	928
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	0.0	0.0	19.2	0.0	0.0	28.0	0.0	0.0	29.5	8.6	8.6
Incr Delay (d2), s/veh	30.3	0.0	0.0	0.6	0.0	0.0	2.7	0.5	0.5	5.1	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.9	0.0	0.0	1.1	0.0	0.0	0.3	0.1	0.1	0.2	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.8	0.0	0.0	19.9	0.0	0.0	30.7	0.5	0.5	34.5	9.3	9.3
LnGrp LOS	D	A	A	B	A	A	C	A	A	C	A	A
Approach Vol, veh/h		439			90			420			453	
Approach Delay, s/veh		53.8			19.9			2.2			9.8	
Approach LOS		D			B			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	35.5		19.2	6.2	34.6		19.2				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		16.4	2.7	6.2		7.8				
Green Ext Time (p_c), s	0.0	2.3		0.0	0.0	2.4		0.2				

Intersection Summary

HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

	↙	←	↖	↑	↓
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations	↙	↕	↖	↑↑	↑↑
Traffic Volume (vph)	685	0	272	309	668
Future Volume (vph)	685	0	272	309	668
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	23.0	23.0	21.0	37.0	16.0
Total Split (%)	38.3%	38.3%	35.0%	61.7%	26.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	17.1	17.1	13.1	33.3	15.6
Actuated g/C Ratio	0.28	0.28	0.22	0.56	0.26
v/c Ratio	0.83	0.71	0.71	0.16	0.91
Control Delay	37.1	21.1	35.3	7.6	39.9
Queue Delay	0.0	0.7	0.0	0.0	47.6
Total Delay	37.1	21.9	35.3	7.6	87.5
LOS	D	C	D	A	F
Approach Delay		29.6		20.6	87.5
Approach LOS		C		C	F

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 49.2

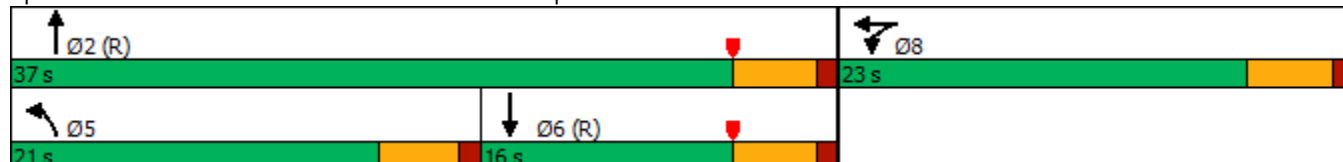
Intersection LOS: D

Intersection Capacity Utilization 107.5%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary

15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	668	169
Future Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	668	169
Initial Q (Qb), veh				75	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				800	0	0	280	319	0	0	689	174
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1098	576	0	324	1937	0	0	802	202
Arrive On Green				0.26	0.00	0.00	0.36	1.00	0.00	0.00	0.11	0.11
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	2950	721
Grp Volume(v), veh/h				800	0	0	280	319	0	0	435	428
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1770
Q Serve(g_s), s				12.6	0.0	0.0	8.6	0.0	0.0	0.0	14.1	14.1
Cycle Q Clear(g_c), s				12.6	0.0	0.0	8.6	0.0	0.0	0.0	14.1	14.1
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.41
Lane Grp Cap(c), veh/h				1098	576	0	324	1937	0	0	507	497
V/C Ratio(X)				0.73	0.00	0.00	0.86	0.16	0.00	0.00	0.86	0.86
Avail Cap(c_a), veh/h				1098	576	0	495	2085	0	0	581	570
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	0.00	0.70	0.70	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.9	0.0	0.0	18.6	0.0	0.0	0.0	26.0	26.1
Incr Delay (d2), s/veh				2.5	0.0	0.0	4.6	0.1	0.0	0.0	16.9	17.3
Initial Q Delay(d3),s/veh				123.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				25.6	0.0	0.0	3.1	0.0	0.0	0.0	9.1	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				147.3	0.0	0.0	23.2	0.1	0.0	0.0	43.0	43.3
LnGrp LOS				F	A	A	C	A	A	A	D	D
Approach Vol, veh/h					800			599			863	
Approach Delay, s/veh					147.3			10.9			43.1	
Approach LOS					F			B			D	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		39.5			15.4	24.1		20.5				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 32			16.4	* 11		18.2				
Max Q Clear Time (g_c+I1), s		2.0			10.6	16.1		14.6				
Green Ext Time (p_c), s		2.2			0.2	0.0		1.2				
Intersection Summary												
HCM 6th Ctrl Delay				71.4								
HCM 6th LOS				E								
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕↕	↗	↕↕	↙	↕↕
Traffic Volume (vph)	11	823	533	120	1107
Future Volume (vph)	11	823	533	120	1107
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	25.0	25.0	24.0	11.0	35.0
Total Split (%)	41.7%	41.7%	40.0%	18.3%	58.3%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	19.4	19.4	22.2	6.2	31.0
Actuated g/C Ratio	0.32	0.32	0.37	0.10	0.52
v/c Ratio	0.90	0.83	0.66	0.67	0.61
Control Delay	40.8	28.7	13.5	33.4	19.0
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	40.8	28.7	13.5	33.4	19.1
LOS	D	C	B	C	B
Approach Delay	34.9		13.5		20.5
Approach LOS	C		B		C

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 22.8

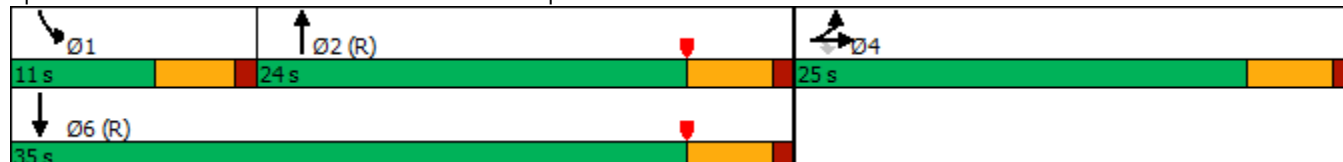
Intersection LOS: C

Intersection Capacity Utilization 107.5%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary

16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	11	823	0	0	0	0	533	400	120	1107	0
Future Volume (veh/h)	107	11	823	0	0	0	0	533	400	120	1107	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	973				0	549	412	124	1141	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	640	1084				0	668	502	157	1817	0
Arrive On Green	0.00	0.00	0.33				0.00	0.35	0.35	0.17	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2060	1475	1810	3705	0
Grp Volume(v), veh/h	0	0	973				0	504	457	124	1141	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	17.4				0.0	15.2	15.2	3.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	17.4				0.0	15.2	15.2	3.9	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	640	1084				0	614	556	157	1817	0
V/C Ratio(X)	0.00	0.00	0.90				0.00	0.82	0.82	0.79	0.63	0.00
Avail Cap(c_a), veh/h	0	640	1084				0	626	567	193	1841	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.34	0.34	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.9				0.0	18.1	18.1	24.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	10.0				0.0	11.8	12.8	4.8	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	202.9				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	38.2				0.0	7.7	7.1	1.7	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	232.8				0.0	29.9	31.0	29.1	0.6	0.0
LnGrp LOS	A	A	F				A	C	C	C	A	A
Approach Vol, veh/h	973						961			1265		
Approach Delay, s/veh	232.8						30.4			3.4		
Approach LOS	F						C			A		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	9.8	25.6	24.6		35.4							
Change Period (Y+Rc), s	4.6	* 4.8	* 4.8		* 4.8							
Max Green Setting (Gmax), s	6.4	* 19	* 20		* 30							
Max Q Clear Time (g_c+I1), s	5.9	17.2	19.4		2.0							
Green Ext Time (p_c), s	0.0	1.2	0.4		9.9							

Intersection Summary

HCM 6th Ctrl Delay 81.3

HCM 6th LOS F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 5.3:

**E+P (PROJECT BUILDOUT) CONDITIONS INTERSECTION OPERATIONS ANALYSIS
WORKSHEETS**

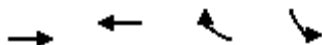
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Timings

Jack Rabbit Trail (JN 12396)

07/16/2020

1: 4th St. & Jack Rabbit Trail



Lane Group	EBT	WBT	WBR	SBL
Lane Configurations	↑	↑	↗	↘
Traffic Volume (vph)	170	785	234	100
Future Volume (vph)	170	785	234	100
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8	22.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effect Green (s)	33.4	33.4	33.4	13.7
Actuated g/C Ratio	0.68	0.68	0.68	0.28
v/c Ratio	0.14	0.66	0.22	0.22
Control Delay	5.2	10.7	1.2	23.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.2	10.7	1.2	23.4
LOS	A	B	A	C
Approach Delay	5.2	8.5		23.4
Approach LOS	A	A		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 49.4

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 9.2

Intersection LOS: A

Intersection Capacity Utilization 59.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: 4th St. & Jack Rabbit Trail

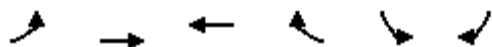


HCM 6th Signalized Intersection Summary

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

07/16/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	170	785	234	100	0
Future Volume (veh/h)	0	170	785	234	100	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	185	853	254	109	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	162	1087	1087	921	301	268
Arrive On Green	0.00	0.57	0.57	0.57	0.17	0.00
Sat Flow, veh/h	517	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	185	853	254	109	0
Grp Sat Flow(s),veh/h/ln	517	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	2.0	15.5	3.6	2.4	0.0
Cycle Q Clear(g_c), s	0.0	2.0	15.5	3.6	2.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	162	1087	1087	921	301	268
V/C Ratio(X)	0.00	0.17	0.78	0.28	0.36	0.00
Avail Cap(c_a), veh/h	498	2321	2321	1967	987	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	4.5	7.4	4.8	16.4	0.0
Incr Delay (d2), s/veh	0.0	0.1	1.3	0.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	3.0	0.5	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	4.6	8.7	5.0	17.1	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		185	1107		109	
Approach Delay, s/veh		4.6	7.8		17.1	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				31.2	13.2	31.2
Change Period (Y+Rc), s				5.8	5.8	5.8
Max Green Setting (Gmax), s				54.2	24.2	54.2
Max Q Clear Time (g_c+I1), s				4.0	4.4	17.5
Green Ext Time (p_c), s				1.0	0.2	7.9
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			

Intersection

Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	183	21	232	200	28	136
Future Vol, veh/h	183	21	232	200	28	136
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	213	24	270	233	33	158
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	9.9	11.6	10.3
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	136	92	92	21	232	100	100
LT Vol	28	0	0	0	0	232	0	0
Through Vol	0	0	92	92	0	0	100	100
RT Vol	0	136	0	0	21	0	0	0
Lane Flow Rate	33	158	106	106	24	270	116	116
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.063	0.252	0.183	0.183	0.026	0.465	0.184	0.129
Departure Headway (Hd)	6.942	5.743	6.192	6.192	3.767	6.211	5.706	3.991
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	516	625	580	580	947	580	630	898
Service Time	4.679	3.48	3.927	3.927	1.501	3.937	3.433	1.717
HCM Lane V/C Ratio	0.064	0.253	0.183	0.183	0.025	0.466	0.184	0.129
HCM Control Delay	10.1	10.4	10.3	10.3	6.6	14.2	9.7	7.3
HCM Lane LOS	B	B	B	B	A	B	A	A
HCM 95th-tile Q	0.2	1	0.7	0.7	0.1	2.5	0.7	0.4

Intersection

Intersection Delay, s/veh36.6

Intersection LOS E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	343	0	51	0	52	110	43	181	0
Future Vol, veh/h	0	0	0	343	0	51	0	52	110	43	181	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	528	0	78	0	80	169	66	278	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

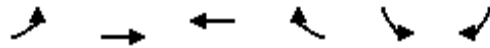
Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	56	13.7	18.9
HCM LOS	F	B	C

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	87%	19%
Vol Thru, %	32%	0%	81%
Vol Right, %	68%	13%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	162	394	224
LT Vol	0	343	43
Through Vol	52	0	181
RT Vol	110	51	0
Lane Flow Rate	249	606	345
Geometry Grp	1	1	1
Degree of Util (X)	0.425	0.983	0.609
Departure Headway (Hd)	6.133	5.841	6.364
Convergence, Y/N	Yes	Yes	Yes
Cap	586	624	565
Service Time	4.183	3.841	4.41
HCM Lane V/C Ratio	0.425	0.971	0.611
HCM Control Delay	13.7	56	18.9
HCM Lane LOS	B	F	C
HCM 95th-tile Q	2.1	14.4	4.1

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	155	123	516	14	11	510
Future Volume (vph)	155	123	516	14	11	510
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	9.6	72.6	63.0	63.0	47.4	47.4
Total Split (%)	8.0%	60.5%	52.5%	52.5%	39.5%	39.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	5.0	59.1	49.5	49.5	41.4	41.4
Actuated g/C Ratio	0.04	0.52	0.44	0.44	0.37	0.37
v/c Ratio	2.89	0.10	0.92	0.03	0.01	1.05
Control Delay	899.3	13.1	47.1	8.4	25.6	74.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	899.3	13.1	47.1	8.4	25.6	74.8
LOS	F	B	D	A	C	E
Approach Delay		506.4	46.1		73.8	
Approach LOS		F	D		E	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 112.6

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.89

Intersection Signal Delay: 153.3

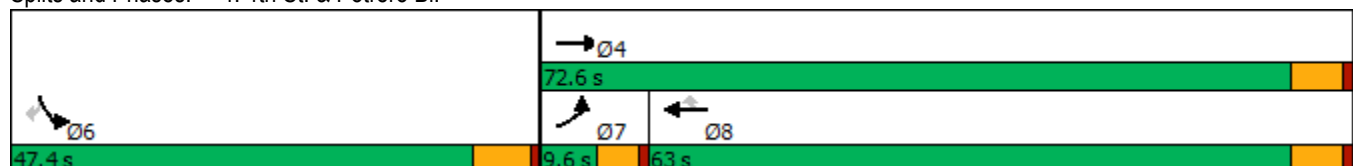
Intersection LOS: F

Intersection Capacity Utilization 68.7%

ICU Level of Service C

Analysis Period (min) 15

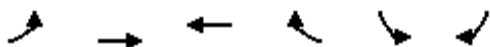
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	155	123	516	14	11	510
Future Volume (veh/h)	155	123	516	14	11	510
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	231	184	770	21	16	761
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	81	1890	831	704	1296	594
Arrive On Green	0.04	0.52	0.44	0.44	0.37	0.37
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610
Grp Volume(v), veh/h	231	184	770	21	16	761
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610
Q Serve(g_s), s	5.0	2.9	42.8	0.8	0.3	41.2
Cycle Q Clear(g_c), s	5.0	2.9	42.8	0.8	0.3	41.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	81	1890	831	704	1296	594
V/C Ratio(X)	2.85	0.10	0.93	0.03	0.01	1.28
Avail Cap(c_a), veh/h	81	2160	974	825	1296	594
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.3	13.4	29.7	17.9	22.3	35.2
Incr Delay (d2), s/veh	865.4	0.0	13.1	0.0	0.0	138.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.7	1.1	21.0	0.3	0.1	22.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	918.7	13.4	42.8	17.9	22.3	174.0
LnGrp LOS	F	B	D	B	C	F
Approach Vol, veh/h		415	791		777	
Approach Delay, s/veh		517.3	42.2		170.9	
Approach LOS		F	D		F	
Timer - Assigned Phs			4	6	7	8
Phs Duration (G+Y+Rc), s			64.2	47.4	9.6	54.6
Change Period (Y+Rc), s			5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s			66.8	41.2	5.0	57.2
Max Q Clear Time (g_c+I1), s			4.9	43.2	7.0	44.8
Green Ext Time (p_c), s			0.7	0.0	0.0	4.0
Intersection Summary						
HCM 6th Ctrl Delay			192.1			
HCM 6th LOS			F			

Intersection	
Intersection Delay, s/veh	79.3
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	59	311	368	307	458	77
Future Vol, veh/h	59	311	368	307	458	77
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	68	357	423	353	526	89
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	36.3	17.1	187.6
HCM LOS	E	C	F

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	86%
Vol Thru, %	0%	100%	100%	100%	19%	0%
Vol Right, %	0%	0%	0%	0%	81%	14%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	59	311	147	147	381	535
LT Vol	59	0	0	0	0	458
Through Vol	0	311	147	147	74	0
RT Vol	0	0	0	0	307	77
Lane Flow Rate	68	357	169	169	437	615
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.162	0.806	0.347	0.347	0.624	1.334
Departure Headway (Hd)	9.692	9.163	8.43	8.43	6.062	7.807
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	372	397	430	430	599	467
Service Time	7.392	6.863	6.13	6.13	3.762	5.568
HCM Lane V/C Ratio	0.183	0.899	0.393	0.393	0.73	1.317
HCM Control Delay	14.3	40.5	15.5	15.5	18.3	187.6
HCM Lane LOS	B	E	C	C	C	F
HCM 95th-tile Q	0.6	7.1	1.5	1.5	4.3	27.4

Intersection												
Int Delay, s/veh	9.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶			↷			↶↷			↶↷	
Traffic Vol, veh/h	0	5	145	0	16	0	370	0	1	0	0	0
Future Vol, veh/h	0	5	145	0	16	0	370	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	8	223	0	25	0	569	0	2	0	0	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	1142	2	1257	1141	-	2	0	0	2	0	0
Stage 1	-	2	-	1139	1139	-	-	-	-	-	-	-
Stage 2	-	1140	-	118	2	-	-	-	-	-	-	-
Critical Hdwy	-	6.5	6.2	7.1	6.2	-	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	4	3.3	3.5	4	-	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	202	1088	149	223	0	1634	-	-	1634	-	-
Stage 1	0	898	-	247	278	0	-	-	-	-	-	-
Stage 2	0	278	-	891	898	0	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	132	1088	83	145	-	1634	-	-	1634	-	-
Mov Cap-2 Maneuver	-	132	-	83	145	-	-	-	-	-	-	-
Stage 1	-	898	-	161	181	-	-	-	-	-	-	-
Stage 2	-	181	-	702	898	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.6		34.8		8.4		0	
HCM LOS	B		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1634	-	-	876	145	1634	-
HCM Lane V/C Ratio	0.348	-	-	0.263	0.17	-	-
HCM Control Delay (s)	8.4	0	-	10.6	34.8	0	-
HCM Lane LOS	A	A	-	B	D	A	-
HCM 95th %tile Q(veh)	1.6	-	-	1.1	0.6	0	-

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/10/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	↔	↔	↔	↔
Traffic Volume (vph)	355	235	491	3
Future Volume (vph)	355	235	491	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	43.1	14.5	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	0.97	0.91	0.42	1.36
Control Delay	46.1	63.2	3.4	209.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	46.1	63.2	3.4	209.6
LOS	D	E	A	F
Approach Delay	46.1		22.8	209.6
Approach LOS	D		C	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.36

Intersection Signal Delay: 72.9

Intersection LOS: E

Intersection Capacity Utilization 94.7%

ICU Level of Service F

Analysis Period (min) 15

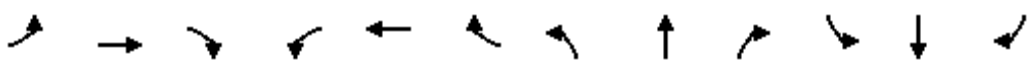
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/10/2020

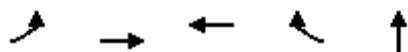
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩	
Traffic Volume (veh/h)	0	355	414	235	491	0	0	0	0	229	3	185
Future Volume (veh/h)	0	355	414	235	491	0	0	0	0	229	3	185
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	399	378	264	552	0				257	3	189
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	429	407	292	1313	0				177	2	130
Arrive On Green	0.00	0.48	0.48	0.32	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	897	850	1810	1900	0				985	11	724
Grp Volume(v), veh/h	0	0	777	264	552	0				449	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1747	1810	1900	0				1720	0	0
Q Serve(g_s), s	0.0	0.0	37.6	12.5	0.0	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	37.6	12.5	0.0	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.49	1.00		0.00				0.57		0.42
Lane Grp Cap(c), veh/h	0	0	836	292	1313	0				310	0	0
V/C Ratio(X)	0.00	0.00	0.93	0.90	0.42	0.00				1.45	0.00	0.00
Avail Cap(c_a), veh/h	0	0	836	298	1313	0				310	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	0.46	0.46	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	22.0	29.8	0.0	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	18.1	15.4	0.5	0.0				219.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	17.5	5.5	0.2	0.0				25.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	40.1	45.2	0.5	0.0				256.6	0.0	0.0
LnGrp LOS	A	A	D	D	A	A				F	A	A
Approach Vol, veh/h		777			816						449	
Approach Delay, s/veh		40.1			14.9						256.6	
Approach LOS		D			B						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.1	48.9		22.0		68.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2						
Max Q Clear Time (g_c+l1), s	14.5	39.6		18.2		2.0						
Green Ext Time (p_c), s	0.0	1.6		0.0		3.6						
Intersection Summary												
HCM 6th Ctrl Delay				77.7								
HCM 6th LOS				E								

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/10/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	124	459	413	394	4
Future Volume (vph)	124	459	413	394	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	5.4	34.2	24.2	24.2	44.2
Actuated g/C Ratio	0.06	0.38	0.27	0.27	0.49
v/c Ratio	1.18	0.65	0.82	0.55	0.76
Control Delay	127.6	16.1	44.9	5.9	24.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	127.6	16.1	44.9	5.9	24.3
LOS	F	B	D	A	C
Approach Delay		39.9	25.8		24.3
Approach LOS		D	C		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.18

Intersection Signal Delay: 29.3

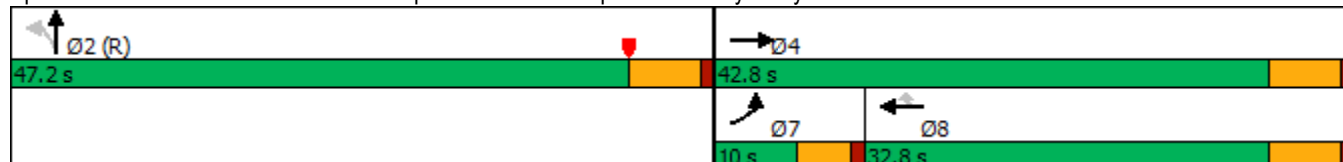
Intersection LOS: C

Intersection Capacity Utilization 94.7%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	124	459	0	0	413	394	313	4	348	0	0	0
Future Volume (veh/h)	124	459	0	0	413	394	313	4	348	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	127	468	0	0	421	286	319	4	233			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	694	0	0	483	409	500	6	365			
Arrive On Green	0.04	0.24	0.00	0.00	0.25	0.25	0.51	0.51	0.51			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	987	12	721			
Grp Volume(v), veh/h	127	468	0	0	421	286	556	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1721	0	0			
Q Serve(g_s), s	5.4	20.1	0.0	0.0	19.1	14.5	21.2	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	20.1	0.0	0.0	19.1	14.5	21.2	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.57		0.42			
Lane Grp Cap(c), veh/h	109	694	0	0	483	409	871	0	0			
V/C Ratio(X)	1.17	0.67	0.00	0.00	0.87	0.70	0.64	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	871	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.16	0.16	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	29.2	0.0	0.0	32.2	30.4	16.2	0.0	0.0			
Incr Delay (d2), s/veh	91.6	0.3	0.0	0.0	12.4	3.6	3.6	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.1	9.3	0.0	0.0	9.8	5.7	8.1	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	134.8	29.5	0.0	0.0	44.5	34.0	19.8	0.0	0.0			
LnGrp LOS	F	C	A	A	D	C	B	A	A			
Approach Vol, veh/h	595			707			556					
Approach Delay, s/veh	52.0			40.3			19.8					
Approach LOS	D			D			B					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	51.3			38.7			10.0			28.7		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	41.4			37.0			5.4			27.0		
Max Q Clear Time (g_c+I1), s	23.2			22.1			7.4			21.1		
Green Ext Time (p_c), s	3.3			2.3			0.0			1.8		
Intersection Summary												
HCM 6th Ctrl Delay	37.9											
HCM 6th LOS	D											

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑				↑			↑
Traffic Vol, veh/h	107	505	542	149	845	25	0	0	59	0	0	151
Future Vol, veh/h	107	505	542	149	845	25	0	0	59	0	0	151
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	118	555	596	164	929	27	0	0	65	0	0	166

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	956	0	0	1151	0	0	-	-	576	-	-	478
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	727	-	-	614	-	-	0	0	466	0	0	539
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	727	-	-	614	-	-	-	-	466	-	-	539
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1			1.9			14			14.6		
HCM LOS							B			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	466	727	-	-	614	-	-	539
HCM Lane V/C Ratio	0.139	0.162	-	-	0.267	-	-	0.308
HCM Control Delay (s)	14	10.9	-	-	13	-	-	14.6
HCM Lane LOS	B	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	0.5	0.6	-	-	1.1	-	-	1.3

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	143	22	3	158	19	68	27	6	21	29	469
Future Volume (vph)	31	143	22	3	158	19	68	27	6	21	29	469
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	21.0	43.0	43.0	15.0	37.0	37.0	31.0	43.0	43.0	19.0	31.0	31.0
Total Split (%)	17.5%	35.8%	35.8%	12.5%	30.8%	30.8%	25.8%	35.8%	35.8%	15.8%	25.8%	25.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	6.6	16.0	16.0	5.7	13.7	13.7	8.1	20.6	20.6	6.3	13.9	13.9
Actuated g/C Ratio	0.12	0.29	0.29	0.10	0.25	0.25	0.15	0.38	0.38	0.12	0.26	0.26
v/c Ratio	0.19	0.34	0.05	0.02	0.44	0.05	0.34	0.05	0.01	0.13	0.08	0.73
Control Delay	31.0	19.9	0.2	33.0	24.8	0.2	30.0	16.3	0.0	31.6	20.4	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.0	19.9	0.2	33.0	24.8	0.2	30.0	16.3	0.0	31.6	20.4	8.7
LOS	C	B	A	C	C	A	C	B	A	C	C	A
Approach Delay		19.5			22.4			24.5			10.3	
Approach LOS		B			C			C			B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 54.3

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 15.7

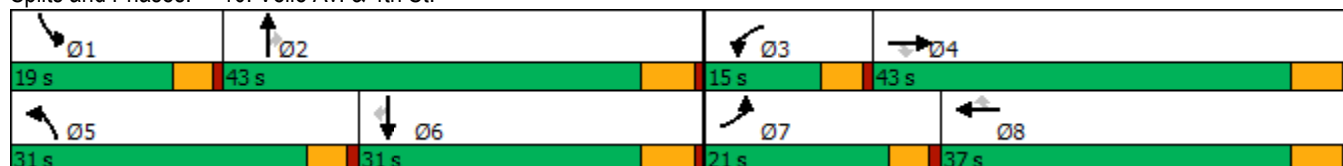
Intersection LOS: B

Intersection Capacity Utilization 55.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	143	22	3	158	19	68	27	6	21	29	469
Future Volume (veh/h)	31	143	22	3	158	19	68	27	6	21	29	469
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	41	191	29	4	211	25	91	36	8	28	39	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	80	483	410	10	410	347	135	490	415	59	411	
Arrive On Green	0.04	0.25	0.25	0.01	0.22	0.22	0.07	0.26	0.26	0.03	0.22	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	41	191	29	4	211	25	91	36	8	28	39	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	1.0	3.9	0.6	0.1	4.5	0.6	2.3	0.7	0.2	0.7	0.8	0.0
Cycle Q Clear(g_c), s	1.0	3.9	0.6	0.1	4.5	0.6	2.3	0.7	0.2	0.7	0.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	80	483	410	10	410	347	135	490	415	59	411	
V/C Ratio(X)	0.51	0.40	0.07	0.41	0.52	0.07	0.67	0.07	0.02	0.47	0.09	
Avail Cap(c_a), veh/h	641	1528	1295	407	1281	1086	1032	1528	1295	563	1035	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.6	14.3	13.1	22.9	16.0	14.5	20.9	13.0	12.8	22.0	14.5	0.0
Incr Delay (d2), s/veh	1.9	0.5	0.1	9.8	1.0	0.1	2.2	0.1	0.0	2.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.3	0.2	0.1	1.7	0.2	0.9	0.2	0.1	0.3	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.5	14.8	13.2	32.7	17.0	14.5	23.1	13.0	12.8	24.2	14.6	0.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	
Approach Vol, veh/h		261			240			135			67	
Approach Delay, s/veh		16.0			17.0			19.8			18.6	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.1	17.7	4.9	17.6	8.0	15.8	6.6	15.8				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	14.4	37.2	10.4	37.2	26.4	25.2	16.4	31.2				
Max Q Clear Time (g_c+I1), s	2.7	2.7	2.1	5.9	4.3	2.8	3.0	6.5				
Green Ext Time (p_c), s	0.0	0.2	0.0	1.1	0.1	0.1	0.0	1.1				

Intersection Summary

HCM 6th Ctrl Delay 17.3

HCM 6th LOS B

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	272	113	55	272	19	382	89	43	131
Future Volume (vph)	4	272	113	55	272	19	382	89	43	131
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	23.8	23.8	13.0	27.2	27.2	28.0	42.2	11.0	25.2
Total Split (%)	10.7%	26.4%	26.4%	14.4%	30.2%	30.2%	31.1%	46.9%	12.2%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.1	16.7	16.7	7.0	24.0	24.0	21.4	40.5	6.0	20.5
Actuated g/C Ratio	0.06	0.20	0.20	0.08	0.29	0.29	0.26	0.49	0.07	0.25
v/c Ratio	0.04	0.77	0.26	0.39	0.54	0.03	0.89	0.17	0.36	0.31
Control Delay	41.0	47.2	2.2	46.4	29.3	0.1	53.6	12.5	47.7	30.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.0	47.2	2.2	46.4	29.3	0.1	53.6	12.5	47.7	30.5
LOS	D	D	A	D	C	A	D	B	D	C
Approach Delay		34.1			30.4			42.7		34.7
Approach LOS		C			C			D		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 82.6

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 36.4

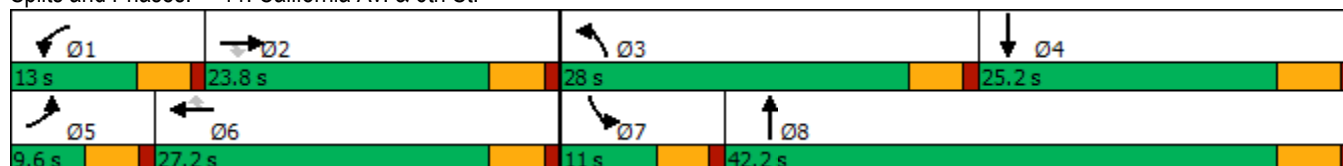
Intersection LOS: D

Intersection Capacity Utilization 64.0%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	272	113	55	272	19	382	89	49	43	131	4
Future Volume (veh/h)	4	272	113	55	272	19	382	89	49	43	131	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	296	122	60	296	12	415	97	31	47	142	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	358	304	85	437	370	456	657	210	74	496	7
Arrive On Green	0.01	0.19	0.19	0.05	0.23	0.23	0.25	0.48	0.48	0.04	0.27	0.27
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1380	441	1810	1869	26
Grp Volume(v), veh/h	4	296	122	60	296	12	415	0	128	47	0	144
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1821	1810	0	1895
Q Serve(g_s), s	0.2	11.6	5.2	2.5	11.0	0.4	17.3	0.0	3.1	2.0	0.0	4.7
Cycle Q Clear(g_c), s	0.2	11.6	5.2	2.5	11.0	0.4	17.3	0.0	3.1	2.0	0.0	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		0.01
Lane Grp Cap(c), veh/h	10	358	304	85	437	370	456	0	867	74	0	503
V/C Ratio(X)	0.42	0.83	0.40	0.71	0.68	0.03	0.91	0.00	0.15	0.63	0.00	0.29
Avail Cap(c_a), veh/h	116	465	394	196	548	464	545	0	867	149	0	503
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.5	30.3	27.7	36.5	27.3	23.2	28.2	0.0	11.5	36.7	0.0	22.7
Incr Delay (d2), s/veh	10.3	9.2	0.9	4.0	2.4	0.0	16.0	0.0	0.4	3.3	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	6.0	1.9	1.2	5.1	0.2	8.8	0.0	1.1	0.9	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.8	39.5	28.5	40.5	29.6	23.2	44.2	0.0	11.8	40.0	0.0	24.1
LnGrp LOS	D	D	C	D	C	C	D	A	B	D	A	C
Approach Vol, veh/h	422			368			543			191		
Approach Delay, s/veh	36.4			31.2			36.6			28.0		
Approach LOS	D			C			D			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.2	19.4	24.2	25.8	5.0	22.7	7.8	42.2				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	8.4	* 19	23.4	20.0	5.0	* 22	6.4	37.0				
Max Q Clear Time (g_c+I1), s	4.5	13.6	19.3	6.7	2.2	13.0	4.0	5.1				
Green Ext Time (p_c), s	0.0	1.0	0.3	0.5	0.0	1.2	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay	34.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	15.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↖	↗		↖	↗		↖	↗
Traffic Vol, veh/h	2	3	71	54	9	29	283	516	112	12	245	2
Future Vol, veh/h	2	3	71	54	9	29	283	516	112	12	245	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	50	-	-	50
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	90	68	11	37	358	653	142	15	310	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1804	1851	310	1758	1712	653	313	0	0	795	0	0
Stage 1	340	340	-	1369	1369	-	-	-	-	-	-	-
Stage 2	1464	1511	-	389	343	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	62	75	735	~ 67	91	471	1259	-	-	835	-	-
Stage 1	679	643	-	183	216	-	-	-	-	-	-	-
Stage 2	161	185	-	639	641	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	30	35	735	~ 33	42	471	1259	-	-	835	-	-
Mov Cap-2 Maneuver	43	65	-	~ 67	82	-	-	-	-	-	-	-
Stage 1	323	629	-	87	103	-	-	-	-	-	-	-
Stage 2	63	88	-	545	627	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.2	182.6	2.8	0.4
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1259	-	-	54	735	69	471	835	-	-
HCM Lane V/C Ratio	0.285	-	-	0.117	0.122	1.156	0.078	0.018	-	-
HCM Control Delay (s)	9	0	-	80.3	10.6	260.6	13.3	9.4	0	-
HCM Lane LOS	A	A	-	F	B	F	B	A	A	-
HCM 95th %tile Q(veh)	1.2	-	-	0.4	0.4	6.2	0.3	0.1	-	-

Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						

Intersection						
Int Delay, s/veh	43.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	163	26	52	772	172	163
Future Vol, veh/h	163	26	52	772	172	163
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	212	34	68	1003	223	212
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1468	329	435	0	-	0
Stage 1	329	-	-	-	-	-
Stage 2	1139	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 142	717	1135	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 133	717	1135	-	-	-
Mov Cap-2 Maneuver	~ 133	-	-	-	-	-
Stage 1	690	-	-	-	-	-
Stage 2	308	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	\$ 310	0.5		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1135	-	133	717	-	-
HCM Lane V/C Ratio	0.059	-	1.592	0.047	-	-
HCM Control Delay (s)	8.4	-	\$ 357.8	10.3	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.2	-	15.1	0.1	-	-
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)
07/10/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	16	15	18	3	56	279	3	368
Future Volume (vph)	16	15	18	3	56	279	3	368
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		10.4		10.2	6.7	42.1	5.0	36.7
Actuated g/C Ratio		0.17		0.17	0.11	0.70	0.08	0.61
v/c Ratio		0.41		0.14	0.30	0.13	0.02	0.20
Control Delay		10.8		17.8	28.5	4.9	25.7	8.2
Queue Delay		0.3		0.1	0.1	0.4	0.0	0.1
Total Delay		11.1		17.9	28.6	5.3	25.7	8.3
LOS		B		B	C	A	C	A
Approach Delay		11.1		17.9		9.1		8.4
Approach LOS		B		B		A		A

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.41

Intersection Signal Delay: 9.4

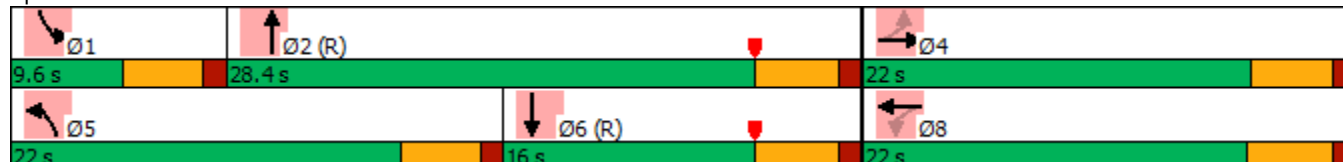
Intersection LOS: A

Intersection Capacity Utilization 35.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Volume (veh/h)	16	15	114	18	3	10	56	279	13	3	368	37
Future Volume (veh/h)	16	15	114	18	3	10	56	279	13	3	368	37
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	17	16	124	20	3	11	61	303	14	3	400	40
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	40	206	224	47	84	96	2107	97	7	1825	182
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.11	1.00	1.00	0.00	0.55	0.55
Sat Flow, veh/h	93	251	1292	806	296	527	1810	3514	162	1810	3316	330
Grp Volume(v), veh/h	157	0	0	34	0	0	61	155	162	3	217	223
Grp Sat Flow(s),veh/h/ln	1636	0	0	1629	0	0	1810	1805	1871	1810	1805	1841
Q Serve(g_s), s	0.8	0.0	0.0	0.0	0.0	0.0	1.9	0.0	0.0	0.1	3.7	3.7
Cycle Q Clear(g_c), s	5.3	0.0	0.0	1.0	0.0	0.0	1.9	0.0	0.0	0.1	3.7	3.7
Prop In Lane	0.11		0.79	0.59		0.32	1.00		0.09	1.00		0.18
Lane Grp Cap(c), veh/h	328	0	0	356	0	0	96	1082	1122	7	993	1013
V/C Ratio(X)	0.48	0.00	0.00	0.10	0.00	0.00	0.63	0.14	0.14	0.41	0.22	0.22
Avail Cap(c_a), veh/h	538	0	0	534	0	0	525	1082	1122	151	993	1013
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	0.0	0.0	21.6	0.0	0.0	26.2	0.0	0.0	29.8	6.9	6.9
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.1	0.0	0.0	2.6	0.3	0.3	12.9	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0	0.4	0.0	0.0	0.8	0.1	0.1	0.1	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.5	0.0	0.0	21.7	0.0	0.0	28.8	0.3	0.3	42.7	7.4	7.4
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		157			34			378			443	
Approach Delay, s/veh		24.5			21.7			4.9			7.6	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	40.8		14.4	7.8	37.8		14.4				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		7.3	3.9	5.7		3.0				
Green Ext Time (p_c), s	0.0	1.8		0.6	0.0	1.2		0.1				

Intersection Summary

HCM 6th Ctrl Delay	9.7
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	464	9	345	216	408
Future Volume (vph)	464	9	345	216	408
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	20.0	20.0	21.0	40.0	19.0
Total Split (%)	33.3%	33.3%	35.0%	66.7%	31.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	14.4	14.4	15.0	36.0	16.4
Actuated g/C Ratio	0.24	0.24	0.25	0.60	0.27
v/c Ratio	0.82	0.72	0.83	0.11	0.55
Control Delay	40.2	27.2	43.1	5.6	16.4
Queue Delay	0.0	2.0	0.0	0.0	3.9
Total Delay	40.2	29.2	43.1	5.6	20.3
LOS	D	C	D	A	C
Approach Delay		34.9		28.6	20.3
Approach LOS		C		C	C

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 28.4

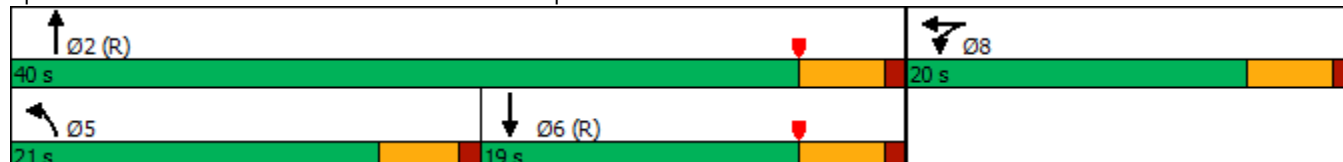
Intersection LOS: C

Intersection Capacity Utilization 66.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary

15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	408	93
Future Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	408	93
Initial Q (Qb), veh				0	0	0	75	100	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				328	256	143	375	235	0	0	443	101
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				454	287	160	495	2127	0	0	748	169
Arrive On Green				0.25	0.25	0.25	0.39	0.98	0.00	0.00	0.09	0.09
Sat Flow, veh/h				1810	1145	640	1810	3705	0	0	3019	662
Grp Volume(v), veh/h				328	0	399	375	235	0	0	272	272
Grp Sat Flow(s),veh/h/ln				1810	0	1785	1810	1805	0	0	1805	1781
Q Serve(g_s), s				10.0	0.0	12.9	11.7	0.1	0.0	0.0	8.6	8.7
Cycle Q Clear(g_c), s				10.0	0.0	12.9	11.7	0.1	0.0	0.0	8.6	8.7
Prop In Lane				1.00		0.36	1.00		0.00	0.00		0.37
Lane Grp Cap(c), veh/h				454	0	448	495	2127	0	0	462	456
V/C Ratio(X)				0.72	0.00	0.89	0.76	0.11	0.00	0.00	0.59	0.60
Avail Cap(c_a), veh/h				458	0	452	495	2127	0	0	508	502
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.74	0.74	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.6	0.0	21.7	16.3	0.3	0.0	0.0	24.4	24.5
Incr Delay (d2), s/veh				5.5	0.0	19.3	4.5	0.1	0.0	0.0	5.4	5.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	437.1	17.9	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.3	0.0	7.0	65.0	5.4	0.0	0.0	4.6	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				26.1	0.0	41.0	457.9	18.2	0.0	0.0	29.8	30.1
LnGrp LOS				C	A	D	F	B	A	A	C	C
Approach Vol, veh/h					727			610			544	
Approach Delay, s/veh					34.3			288.5			29.9	
Approach LOS					C			F			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		40.2			18.5	21.7		19.8				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 35			16.4	* 14		15.2				
Max Q Clear Time (g_c+I1), s		2.1			13.7	10.7		14.9				
Green Ext Time (p_c), s		1.6			0.2	1.1		0.1				
Intersection Summary												
HCM 6th Ctrl Delay				115.5								
HCM 6th LOS				F								
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕↕	↗	↕↕	↙	↕↕
Traffic Volume (vph)	11	569	567	117	810
Future Volume (vph)	11	569	567	117	810
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	20.0	20.0	27.0	13.0	40.0
Total Split (%)	33.3%	33.3%	45.0%	21.7%	66.7%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	12.8	12.8	27.5	7.4	37.6
Actuated g/C Ratio	0.21	0.21	0.46	0.12	0.63
v/c Ratio	0.74	0.74	0.62	0.55	0.37
Control Delay	21.5	21.6	10.6	23.2	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	21.6	10.6	23.2	10.7
LOS	C	C	B	C	B
Approach Delay	21.6		10.6		12.2
Approach LOS	C		B		B

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 13.9

Intersection LOS: B

Intersection Capacity Utilization 66.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary

16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	11	569	0	0	0	0	567	484	117	810	0
Future Volume (veh/h)	78	11	569	0	0	0	0	567	484	117	810	0
Initial Q (Qb), veh	0	0	0				0	175	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	687				0	591	504	122	844	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	463	785				0	1385	189	155	2153	0
Arrive On Green	0.00	0.00	0.24				0.00	0.43	0.43	0.17	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1944	1573	1810	3705	0
Grp Volume(v), veh/h	0	0	687				0	577	518	122	844	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1617	1810	1805	0
Q Serve(g_s), s	0.0	0.0	12.3				0.0	16.0	16.0	3.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	12.3				0.0	16.0	16.0	3.9	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	0	463	785				0	783	791	155	2153	0
V/C Ratio(X)	0.00	0.00	0.88				0.00	0.74	0.66	0.79	0.39	0.00
Avail Cap(c_a), veh/h	0	481	816				0	783	702	253	2153	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.71	0.71	0.00
Uniform Delay (d), s/veh	0.0	0.0	21.8				0.0	17.0	17.0	24.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	10.3				0.0	6.1	4.2	2.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	283.4	243.3	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	5.1				0.0	72.1	63.5	1.6	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	32.1				0.0	306.5	264.4	26.7	0.4	0.0
LnGrp LOS	A	A	C				A	F	F	C	A	A
Approach Vol, veh/h	687						1095			966		
Approach Delay, s/veh	32.1						286.6			3.7		
Approach LOS	C						F			A		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.7	30.8		19.4		40.6						
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8						
Max Green Setting (Gmax), s	8.4	* 22		* 15		* 35						
Max Q Clear Time (g_c+I1), s	5.9	18.0		14.3		2.0						
Green Ext Time (p_c), s	0.0	2.6		0.3		7.0						

Intersection Summary

HCM 6th Ctrl Delay 123.5

HCM 6th LOS F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

09/21/2023



Lane Group	EBT	WBT	WBR	SBL
Lane Configurations	↑	↑	↰	↱
Traffic Volume (vph)	878	266	322	297
Future Volume (vph)	878	266	322	297
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	23.8	23.8	23.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effect Green (s)	41.6	41.6	41.6	18.1
Actuated g/C Ratio	0.58	0.58	0.58	0.25
v/c Ratio	0.87	0.26	0.32	0.71
Control Delay	23.7	8.5	1.8	36.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.7	8.5	1.8	36.4
LOS	C	A	A	D
Approach Delay	23.7	4.8		36.4
Approach LOS	C	A		D

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 72.1

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 19.5

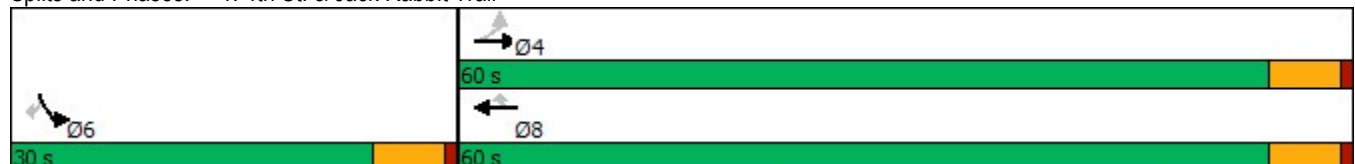
Intersection LOS: B

Intersection Capacity Utilization 72.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: 4th St. & Jack Rabbit Trail

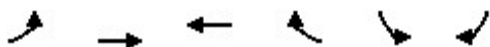


HCM 6th Signalized Intersection Summary

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

09/21/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	878	266	322	297	0
Future Volume (veh/h)	0	878	266	322	297	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	954	289	350	323	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	123	1112	1112	942	391	348
Arrive On Green	0.00	0.59	0.59	0.59	0.22	0.00
Sat Flow, veh/h	802	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	954	289	350	323	0
Grp Sat Flow(s),veh/h/ln	802	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	24.4	4.3	6.7	9.9	0.0
Cycle Q Clear(g_c), s	0.0	24.4	4.3	6.7	9.9	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	123	1112	1112	942	391	348
V/C Ratio(X)	0.00	0.86	0.26	0.37	0.83	0.00
Avail Cap(c_a), veh/h	398	1763	1763	1494	750	667
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	10.1	5.9	6.4	21.8	0.0
Incr Delay (d2), s/veh	0.0	2.6	0.1	0.2	4.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.9	1.1	1.5	4.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	12.7	6.0	6.7	26.3	0.0
LnGrp LOS	A	B	A	A	C	A
Approach Vol, veh/h		954	639		323	
Approach Delay, s/veh		12.7	6.4		26.3	
Approach LOS		B	A		C	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				40.0	18.4	40.0
Change Period (Y+Rc), s				5.8	5.8	5.8
Max Green Setting (Gmax), s				54.2	24.2	54.2
Max Q Clear Time (g_c+I1), s				26.4	11.9	8.7
Green Ext Time (p_c), s				7.8	0.7	2.9
Intersection Summary						
HCM 6th Ctrl Delay			12.9			
HCM 6th LOS			B			

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	115	12	153	185	75	273
Future Vol, veh/h	115	12	153	185	75	273
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	126	13	168	203	82	300
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	9.8	10.3	11.6
HCM LOS	A	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	75	273	58	58	12	153	93	93
LT Vol	75	0	0	0	0	153	0	0
Through Vol	0	0	58	58	0	0	93	93
RT Vol	0	273	0	0	12	0	0	0
Lane Flow Rate	82	300	63	63	13	168	102	102
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.147	0.436	0.114	0.114	0.015	0.305	0.17	0.121
Departure Headway (Hd)	6.434	5.237	6.485	6.485	4.044	6.527	6.02	4.296
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	558	687	553	553	882	551	597	834
Service Time	4.165	2.968	4.222	4.222	1.781	4.259	3.751	2.027
HCM Lane V/C Ratio	0.147	0.437	0.114	0.114	0.015	0.305	0.171	0.122
HCM Control Delay	10.3	12	10.1	10.1	6.8	12.1	10	7.6
HCM Lane LOS	B	B	B	B	A	B	A	A
HCM 95th-tile Q	0.5	2.2	0.4	0.4	0	1.3	0.6	0.4

Intersection	
Intersection Delay, s/veh	86
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	161	0	91	0	240	443	9	146	0
Future Vol, veh/h	0	0	0	161	0	91	0	240	443	9	146	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	209	0	118	0	312	575	12	190	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	17.3	128.1	12.4
HCM LOS	C	F	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	64%	6%
Vol Thru, %	35%	0%	94%
Vol Right, %	65%	36%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	683	252	155
LT Vol	0	161	9
Through Vol	240	0	146
RT Vol	443	91	0
Lane Flow Rate	887	327	201
Geometry Grp	1	1	1
Degree of Util (X)	1.217	0.55	0.329
Departure Headway (Hd)	4.941	6.555	6.295
Convergence, Y/N	Yes	Yes	Yes
Cap	745	553	576
Service Time	2.941	4.555	4.295
HCM Lane V/C Ratio	1.191	0.591	0.349
HCM Control Delay	128.1	17.3	12.4
HCM Lane LOS	F	C	B
HCM 95th-tile Q	30.6	3.3	1.4

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

09/21/2023

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	681	497	278	2	3	304
Future Volume (vph)	681	497	278	2	3	304
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	9.6	51.6	42.0	42.0	38.4	38.4
Total Split (%)	10.7%	57.3%	46.7%	46.7%	42.7%	42.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	5.1	26.1	16.2	16.2	12.0	12.0
Actuated g/C Ratio	0.10	0.52	0.32	0.32	0.24	0.24
v/c Ratio	5.55	0.40	0.68	0.01	0.00	0.67
Control Delay	2067.1	8.3	21.2	8.5	16.3	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2067.1	8.3	21.2	8.5	16.3	9.7
LOS	F	A	C	A	B	A
Approach Delay		1198.1	21.1		9.8	
Approach LOS		F	C		A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 50.4

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 5.55

Intersection Signal Delay: 804.7

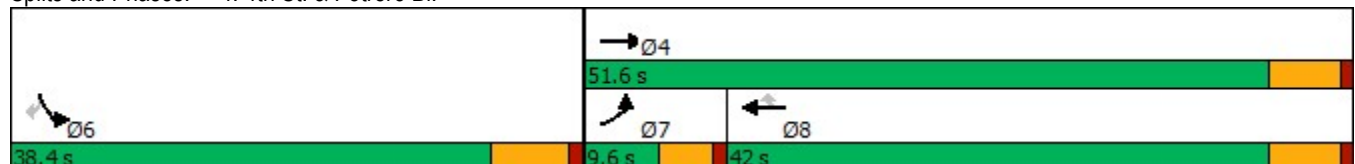
Intersection LOS: F

Intersection Capacity Utilization 74.5%

ICU Level of Service D

Analysis Period (min) 15

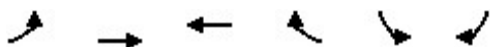
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

09/21/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	681	497	278	2	3	304
Future Volume (veh/h)	681	497	278	2	3	304
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	1016	742	415	3	4	454
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	165	1640	531	450	1147	526
Arrive On Green	0.09	0.45	0.28	0.28	0.33	0.33
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610
Grp Volume(v), veh/h	1016	742	415	3	4	454
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610
Q Serve(g_s), s	5.0	7.7	11.0	0.1	0.0	14.5
Cycle Q Clear(g_c), s	5.0	7.7	11.0	0.1	0.0	14.5
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	165	1640	531	450	1147	526
V/C Ratio(X)	6.16	0.45	0.78	0.01	0.00	0.86
Avail Cap(c_a), veh/h	165	3015	1254	1063	2062	946
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.9	10.3	18.2	14.3	12.4	17.3
Incr Delay (d2), s/veh	2333.7	0.1	2.6	0.0	0.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	108.8	2.2	4.3	0.0	0.0	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	2358.6	10.3	20.8	14.3	12.4	21.7
LnGrp LOS	F	B	C	B	B	C
Approach Vol, veh/h		1758	418		458	
Approach Delay, s/veh		1367.5	20.7		21.6	
Approach LOS		F	C		C	
Timer - Assigned Phs			4	6	7	8
Phs Duration (G+Y+Rc), s			30.7	24.1	9.6	21.1
Change Period (Y+Rc), s			5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s			45.8	32.2	5.0	36.2
Max Q Clear Time (g_c+l1), s			9.7	16.5	7.0	13.0
Green Ext Time (p_c), s			3.2	1.4	0.0	2.3
Intersection Summary						
HCM 6th Ctrl Delay			919.7			
HCM 6th LOS			F			

Intersection

Intersection Delay, s/veh 15.9

Intersection LOS C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	394	389	294	177	33
Future Vol, veh/h	50	394	389	294	177	33
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	52	406	401	303	182	34
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	25.1	9.9	15.8
HCM LOS	D	A	C

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	84%
Vol Thru, %	0%	100%	100%	100%	21%	0%
Vol Right, %	0%	0%	0%	0%	79%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	50	394	156	156	372	210
LT Vol	50	0	0	0	0	177
Through Vol	0	394	156	156	78	0
RT Vol	0	0	0	0	294	33
Lane Flow Rate	52	406	160	160	383	216
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.102	0.75	0.269	0.269	0.399	0.441
Departure Headway (Hd)	7.155	6.647	6.039	6.039	3.748	7.328
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	499	540	592	592	951	489
Service Time	4.924	4.415	3.803	3.803	1.509	5.097
HCM Lane V/C Ratio	0.104	0.752	0.27	0.27	0.403	0.442
HCM Control Delay	10.7	26.9	11	11	9	15.8
HCM Lane LOS	B	D	B	B	A	C
HCM 95th-tile Q	0.3	6.5	1.1	1.1	1.9	2.2

Intersection												
Int Delay, s/veh	11											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	2	451	3	14	0	239	0	2	0	0	0
Future Vol, veh/h	0	2	451	3	14	0	239	0	2	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	3	593	4	18	0	314	0	3	0	0	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	-	632	1	929	631	-	1	0	0	3	0	0
Stage 1	-	1	-	630	630	-	-	-	-	-	-	-
Stage 2	-	631	-	299	1	-	-	-	-	-	-	-
Critical Hdwy	-	6.5	6.2	7.1	6.5	-	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	-	4	3.3	3.5	4	-	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	0	400	1090	250	401	0	1635	-	-	1632	-	-
Stage 1	0	899	-	473	478	0	-	-	-	-	-	-
Stage 2	0	477	-	714	899	0	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	323	1090	97	324	-	1635	-	-	1632	-	-
Mov Cap-2 Maneuver	-	323	-	97	324	-	-	-	-	-	-	-
Stage 1	-	899	-	382	386	-	-	-	-	-	-	-
Stage 2	-	385	-	324	899	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	12.4		22.4		7.7		0					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1635	-	-	1079	229	1632	-	-				
HCM Lane V/C Ratio	0.192	-	-	0.552	0.098	-	-	-				
HCM Control Delay (s)	7.7	0	-	12.4	22.4	0	-	-				
HCM Lane LOS	A	A	-	B	C	A	-	-				
HCM 95th %tile Q(veh)	0.7	-	-	3.5	0.3	0	-	-				

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/10/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	↶	↷	↴
Traffic Volume (vph)	364	129	481	1
Future Volume (vph)	364	129	481	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	27.5	9.8	41.9	36.5
Actuated g/C Ratio	0.31	0.11	0.47	0.41
v/c Ratio	1.31	0.87	0.72	1.15
Control Delay	178.8	73.6	20.3	109.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	178.8	73.6	20.3	109.7
LOS	F	E	C	F
Approach Delay	178.8		31.6	109.7
Approach LOS	F		C	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.31

Intersection Signal Delay: 105.2

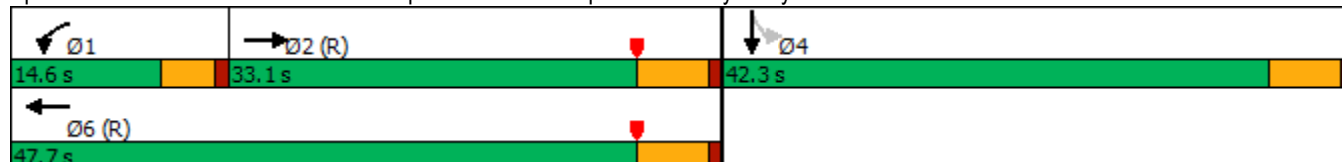
Intersection LOS: F

Intersection Capacity Utilization 89.0%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/10/2020

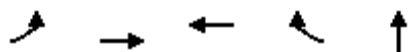
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩	
Traffic Volume (veh/h)	0	364	207	129	481	0	0	0	0	436	1	202
Future Volume (veh/h)	0	364	207	129	481	0	0	0	0	436	1	202
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	479	200	170	633	0				574	1	200
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	386	161	201	885	0				527	1	184
Arrive On Green	0.00	0.30	0.30	0.04	0.15	0.00				0.41	0.41	0.41
Sat Flow, veh/h	0	1273	531	1810	1900	0				1299	2	453
Grp Volume(v), veh/h	0	0	679	170	633	0				775	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1804	1810	1900	0				1754	0	0
Q Serve(g_s), s	0.0	0.0	27.3	8.4	28.5	0.0				36.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	27.3	8.4	28.5	0.0				36.5	0.0	0.0
Prop In Lane	0.00		0.29	1.00		0.00				0.74		0.26
Lane Grp Cap(c), veh/h	0	0	547	201	885	0				711	0	0
V/C Ratio(X)	0.00	0.00	1.24	0.85	0.72	0.00				1.09	0.00	0.00
Avail Cap(c_a), veh/h	0	0	547	201	885	0				711	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.59	0.59	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	31.4	42.6	32.4	0.0				26.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	123.2	16.7	3.0	0.0				60.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	29.6	4.8	14.9	0.0				25.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	154.5	59.3	35.4	0.0				87.5	0.0	0.0
LnGrp LOS	A	A	F	E	D	A				F	A	A
Approach Vol, veh/h		679			803						775	
Approach Delay, s/veh		154.5			40.4						87.5	
Approach LOS		F			D						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.6	33.1		42.3		47.7						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9						
Max Q Clear Time (g_c+I1), s	10.4	29.3		38.5		30.5						
Green Ext Time (p_c), s	0.0	0.0		0.0		2.9						
Intersection Summary												
HCM 6th Ctrl Delay			90.9									
HCM 6th LOS			F									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/10/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	236	564	286	238	4
Future Volume (vph)	236	564	286	238	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	14.4	44.0	29.6	29.6	46.0
Total Split (%)	16.0%	48.9%	32.9%	32.9%	51.1%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	9.8	33.3	18.9	18.9	45.1
Actuated g/C Ratio	0.11	0.37	0.21	0.21	0.50
v/c Ratio	1.24	0.83	0.74	0.46	0.67
Control Delay	148.9	22.2	44.3	6.7	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	148.9	22.2	44.3	6.7	20.7
LOS	F	C	D	A	C
Approach Delay		59.6	27.2		20.7
Approach LOS		E	C		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.24

Intersection Signal Delay: 38.8

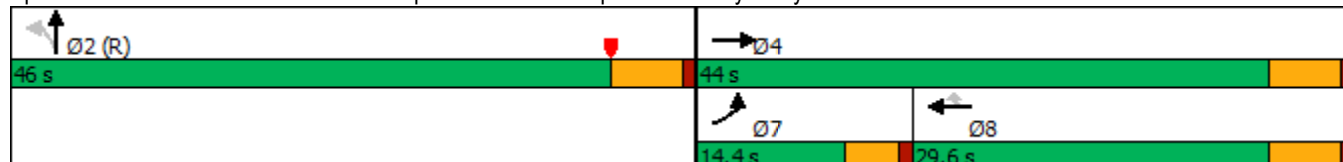
Intersection LOS: D

Intersection Capacity Utilization 89.0%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	236	564	0	0	286	238	324	4	254	0	0	0
Future Volume (veh/h)	236	564	0	0	286	238	324	4	254	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	243	581	0	0	295	175	334	4	210			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	197	663	0	0	359	304	550	7	346			
Arrive On Green	0.04	0.12	0.00	0.00	0.19	0.19	0.52	0.52	0.52			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1053	13	662			
Grp Volume(v), veh/h	243	581	0	0	295	175	548	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1728	0	0			
Q Serve(g_s), s	9.8	27.1	0.0	0.0	13.4	8.9	20.0	0.0	0.0			
Cycle Q Clear(g_c), s	9.8	27.1	0.0	0.0	13.4	8.9	20.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.61		0.38			
Lane Grp Cap(c), veh/h	197	663	0	0	359	304	902	0	0			
V/C Ratio(X)	1.23	0.88	0.00	0.00	0.82	0.58	0.61	0.00	0.00			
Avail Cap(c_a), veh/h	197	806	0	0	502	426	902	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.4	37.9	0.0	0.0	35.0	33.2	15.0	0.0	0.0			
Incr Delay (d2), s/veh	109.2	1.0	0.0	0.0	7.5	1.7	3.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.5	13.7	0.0	0.0	6.6	3.4	7.5	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	152.5	38.9	0.0	0.0	42.5	34.9	18.1	0.0	0.0			
LnGrp LOS	F	D	A	A	D	C	B	A	A			
Approach Vol, veh/h	824			470			548					
Approach Delay, s/veh	72.4			39.7			18.1					
Approach LOS	E			D			B					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	52.8			37.2			14.4			22.8		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	40.2			38.2			9.8			23.8		
Max Q Clear Time (g_c+I1), s	22.0			29.1			11.8			15.4		
Green Ext Time (p_c), s	3.2			2.3			0.0			1.4		
Intersection Summary												
HCM 6th Ctrl Delay	47.9											
HCM 6th LOS	D											

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑				↑			↑
Traffic Vol, veh/h	236	770	327	104	624	53	0	0	112	0	0	63
Future Vol, veh/h	236	770	327	104	624	53	0	0	112	0	0	63
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	254	828	352	112	671	57	0	0	120	0	0	68
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	728	0	0	1180	0	0	-	-	590	-	-	364
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	885	-	-	599	-	-	0	0	456	0	0	639
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	885	-	-	599	-	-	-	-	456	-	-	639
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.9			1.6			15.7			11.3		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	456	885	-	-	599	-	-	639				
HCM Lane V/C Ratio	0.264	0.287	-	-	0.187	-	-	0.106				
HCM Control Delay (s)	15.7	10.7	-	-	12.4	-	-	11.3				
HCM Lane LOS	C	B	-	-	B	-	-	B				
HCM 95th %tile Q(veh)	1.1	1.2	-	-	0.7	-	-	0.4				

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	100	543	9	97	29	38	36	11	13	57	223
Future Volume (vph)	100	543	9	97	29	38	36	11	13	57	223
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	36.0	54.0	15.0	33.0	33.0	23.0	34.0	34.0	17.0	28.0	28.0
Total Split (%)	30.0%	45.0%	12.5%	27.5%	27.5%	19.2%	28.3%	28.3%	14.2%	23.3%	23.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	10.2	24.3	5.8	14.0	14.0	7.1	16.6	16.6	6.0	11.8	11.8
Actuated g/C Ratio	0.18	0.43	0.10	0.25	0.25	0.13	0.29	0.29	0.11	0.21	0.21
v/c Ratio	0.44	0.58	0.07	0.30	0.08	0.24	0.09	0.03	0.10	0.21	0.54
Control Delay	29.7	15.2	32.8	23.8	0.3	31.4	20.0	0.1	32.7	26.4	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.7	15.2	32.8	23.8	0.3	31.4	20.0	0.1	32.7	26.4	7.9
LOS	C	B	C	C	A	C	B	A	C	C	A
Approach Delay		17.2		19.4			22.5			12.6	
Approach LOS		B		B			C			B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 56.7

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 16.7

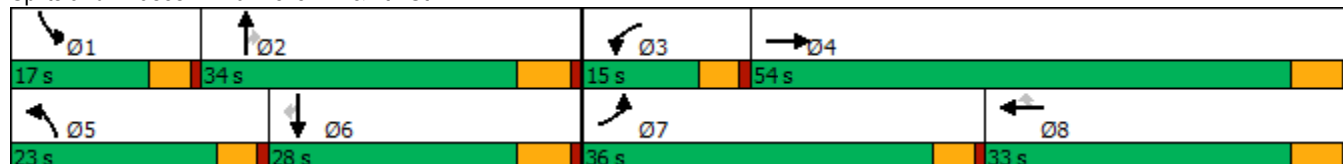
Intersection LOS: B

Intersection Capacity Utilization 43.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	543	74	9	97	29	38	36	11	13	57	223
Future Volume (veh/h)	100	543	74	9	97	29	38	36	11	13	57	223
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	143	776	106	13	139	41	54	51	16	19	81	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	187	1127	154	30	506	429	93	411	349	42	357	
Arrive On Green	0.10	0.35	0.35	0.02	0.27	0.27	0.05	0.22	0.22	0.02	0.19	0.00
Sat Flow, veh/h	1810	3191	436	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	143	439	443	13	139	41	54	51	16	19	81	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1822	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	4.1	11.1	11.1	0.4	3.1	1.0	1.6	1.2	0.4	0.6	1.9	0.0
Cycle Q Clear(g_c), s	4.1	11.1	11.1	0.4	3.1	1.0	1.6	1.2	0.4	0.6	1.9	0.0
Prop In Lane	1.00		0.24	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	187	638	643	30	506	429	93	411	349	42	357	
V/C Ratio(X)	0.76	0.69	0.69	0.44	0.27	0.10	0.58	0.12	0.05	0.46	0.23	
Avail Cap(c_a), veh/h	1068	1635	1650	354	971	823	626	1007	853	422	792	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.2	14.7	14.7	25.9	15.5	14.7	24.7	16.8	16.5	25.7	18.3	0.0
Incr Delay (d2), s/veh	2.4	1.3	1.3	3.7	0.3	0.1	2.1	0.1	0.1	2.9	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	3.7	3.7	0.2	1.1	0.3	0.6	0.4	0.1	0.2	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	16.0	16.0	29.7	15.7	14.8	26.8	16.9	16.6	28.6	18.7	0.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	
Approach Vol, veh/h		1025			193			121			100	
Approach Delay, s/veh		17.4			16.5			21.3			20.5	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	17.3	5.5	24.6	7.3	15.8	10.1	20.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	12.4	28.2	10.4	48.2	18.4	22.2	31.4	27.2				
Max Q Clear Time (g_c+I1), s	2.6	3.2	2.4	13.1	3.6	3.9	6.1	5.1				
Green Ext Time (p_c), s	0.0	0.2	0.0	5.7	0.0	0.3	0.2	0.7				

Intersection Summary

HCM 6th Ctrl Delay 17.8

HCM 6th LOS B

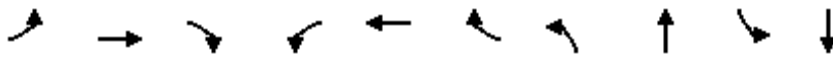
Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	19	432	164	60	256	10	249	113	13	59
Future Volume (vph)	19	432	164	60	256	10	249	113	13	59
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	19.0	36.6	9.6	27.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	21.1%	40.7%	10.7%	30.2%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.2	24.1	24.1	5.7	28.3	28.3	14.0	39.3	5.1	22.4
Actuated g/C Ratio	0.06	0.29	0.29	0.07	0.34	0.34	0.17	0.47	0.06	0.27
v/c Ratio	0.18	0.83	0.29	0.51	0.42	0.02	0.87	0.22	0.13	0.15
Control Delay	44.1	41.9	4.0	55.9	23.9	0.0	64.5	14.0	43.1	24.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.1	41.9	4.0	55.9	23.9	0.0	64.5	14.0	43.1	24.4
LOS	D	D	A	E	C	A	E	B	D	C
Approach Delay		31.9			29.0			43.2		27.4
Approach LOS		C			C			D		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 83.2

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 34.3

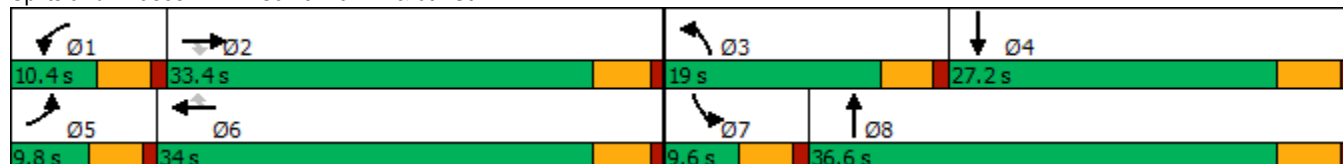
Intersection LOS: C

Intersection Capacity Utilization 59.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary

11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	432	164	60	256	10	249	113	68	13	59	11
Future Volume (veh/h)	19	432	164	60	256	10	249	113	68	13	59	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	20	455	169	63	269	6	262	119	41	14	62	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	40	530	449	85	577	489	300	568	196	30	463	45
Arrive On Green	0.02	0.28	0.28	0.05	0.30	0.30	0.17	0.42	0.42	0.02	0.27	0.27
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1351	465	1810	1705	165
Grp Volume(v), veh/h	20	455	169	63	269	6	262	0	160	14	0	68
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1816	1810	0	1870
Q Serve(g_s), s	0.9	18.4	6.9	2.8	9.3	0.2	11.4	0.0	4.5	0.6	0.0	2.2
Cycle Q Clear(g_c), s	0.9	18.4	6.9	2.8	9.3	0.2	11.4	0.0	4.5	0.6	0.0	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.26	1.00		0.09
Lane Grp Cap(c), veh/h	40	530	449	85	577	489	300	0	764	30	0	508
V/C Ratio(X)	0.49	0.86	0.38	0.74	0.47	0.01	0.87	0.00	0.21	0.46	0.00	0.13
Avail Cap(c_a), veh/h	116	670	568	129	684	580	321	0	764	112	0	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.2	27.7	23.5	38.2	22.9	19.7	33.0	0.0	14.9	39.5	0.0	22.3
Incr Delay (d2), s/veh	3.4	8.9	0.5	4.8	0.6	0.0	20.1	0.0	0.6	4.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	9.3	2.4	1.3	4.1	0.1	6.3	0.0	1.8	0.3	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.6	36.6	24.1	42.9	23.5	19.7	53.0	0.0	15.5	43.6	0.0	22.9
LnGrp LOS	D	D	C	D	C	B	D	A	B	D	A	C
Approach Vol, veh/h		644			338			422			82	
Approach Delay, s/veh		33.5			27.1			38.8			26.4	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.4	27.4	18.1	27.2	6.4	29.4	6.0	39.3				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	5.8	* 29	14.4	22.0	5.2	* 29	5.0	31.4				
Max Q Clear Time (g_c+I1), s	4.8	20.4	13.4	4.2	2.9	11.3	2.6	6.5				
Green Ext Time (p_c), s	0.0	2.2	0.0	0.2	0.0	1.4	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay	33.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↖	↗	↖	↗	↖		↖	↗
Traffic Vol, veh/h	4	3	82	59	3	20	169	403	414	6	223	6
Future Vol, veh/h	4	3	82	59	3	20	169	403	414	6	223	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	120	-	50	-	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	3	86	62	3	21	178	424	436	6	235	6

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1257	1463	235	1075	1033	424	241	0	0	860	0	0
Stage 1	247	247	-	780	780	-	-	-	-	-	-	-
Stage 2	1010	1216	-	295	253	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	149	130	809	199	234	634	1337	-	-	790	-	-
Stage 1	761	706	-	391	409	-	-	-	-	-	-	-
Stage 2	292	256	-	718	701	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	127	112	809	157	201	634	1337	-	-	790	-	-
Mov Cap-2 Maneuver	199	183	-	246	278	-	-	-	-	-	-	-
Stage 1	660	700	-	339	355	-	-	-	-	-	-	-
Stage 2	243	222	-	633	695	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.1		21.3		1.4		0.2	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1337	-	-	192	809	247	634	790	-	-
HCM Lane V/C Ratio	0.133	-	-	0.038	0.107	0.264	0.033	0.008	-	-
HCM Control Delay (s)	8.1	-	-	24.5	10	24.7	10.9	9.6	0	-
HCM Lane LOS	A	-	-	C	B	C	B	A	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.1	0.4	1	0.1	0	-	-

Intersection						
Int Delay, s/veh	517.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	527	74	29	476	922	125
Future Vol, veh/h	527	74	29	476	922	125
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	573	80	32	517	1002	136
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1651	1070	1138	0	-	0
Stage 1	1070	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 110	271	621	-	-	-
Stage 1	~ 332	-	-	-	-	-
Stage 2	~ 563	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 104	271	621	-	-	-
Mov Cap-2 Maneuver	~ 104	-	-	-	-	-
Stage 1	~ 315	-	-	-	-	-
Stage 2	~ 563	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, \$	1852.8	0.6		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	621	-	104	271	-	-
HCM Lane V/C Ratio	0.051	-	5.508	0.297	-	-
HCM Control Delay (s)	11.1	\$	2109.6	23.8	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.2	-	62.1	1.2	-	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)
07/10/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	60	15	69	4	22	356	9	410
Future Volume (vph)	60	15	69	4	22	356	9	410
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		12.8		12.6	5.5	35.8	5.2	35.6
Actuated g/C Ratio		0.21		0.21	0.09	0.60	0.09	0.59
v/c Ratio		0.74		0.74	0.14	0.19	0.06	0.21
Control Delay		12.2		55.7	36.3	5.4	25.9	7.0
Queue Delay		62.7		112.1	1.0	0.5	0.0	0.3
Total Delay		74.9		167.9	37.3	5.9	25.9	7.4
LOS		E		F	D	A	C	A
Approach Delay		74.9		167.9		7.6		7.7
Approach LOS		E		F		A		A

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 39.9

Intersection LOS: D

Intersection Capacity Utilization 53.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	15	398	69	4	15	22	356	29	9	410	32
Future Volume (veh/h)	60	15	398	69	4	15	22	356	29	9	410	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	62	15	410	71	4	15	23	367	30	9	423	33
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	104	26	332	234	21	29	48	1730	141	21	1686	131
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.05	1.00	1.00	0.01	0.50	0.50
Sat Flow, veh/h	151	109	1384	527	87	123	1810	3381	275	1810	3394	264
Grp Volume(v), veh/h	487	0	0	90	0	0	23	195	202	9	224	232
Grp Sat Flow(s),veh/h/ln	1644	0	0	736	0	0	1810	1805	1851	1810	1805	1853
Q Serve(g_s), s	8.6	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.3	4.3	4.3
Cycle Q Clear(g_c), s	14.4	0.0	0.0	5.8	0.0	0.0	0.7	0.0	0.0	0.3	4.3	4.3
Prop In Lane	0.13		0.84	0.79		0.17	1.00		0.15	1.00		0.14
Lane Grp Cap(c), veh/h	462	0	0	284	0	0	48	924	947	21	897	920
V/C Ratio(X)	1.05	0.00	0.00	0.32	0.00	0.00	0.48	0.21	0.21	0.43	0.25	0.25
Avail Cap(c_a), veh/h	462	0	0	284	0	0	223	924	947	223	897	920
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	0.0	0.0	19.2	0.0	0.0	28.0	0.0	0.0	29.5	8.7	8.7
Incr Delay (d2), s/veh	56.8	0.0	0.0	0.6	0.0	0.0	2.7	0.5	0.5	5.1	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.7	0.0	0.0	1.1	0.0	0.0	0.3	0.1	0.1	0.2	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	80.5	0.0	0.0	19.9	0.0	0.0	30.7	0.5	0.5	34.5	9.3	9.3
LnGrp LOS	F	A	A	B	A	A	C	A	A	C	A	A
Approach Vol, veh/h		487			90			420			465	
Approach Delay, s/veh		80.5			19.9			2.2			9.8	
Approach LOS		F			B			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.3	35.5		19.2	6.2	34.6		19.2				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		16.4	2.7	6.3		7.8				
Green Ext Time (p_c), s	0.0	2.3		0.0	0.0	2.5		0.2				

Intersection Summary

HCM 6th Ctrl Delay	31.8
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	685	0	272	309	707
Future Volume (vph)	685	0	272	309	707
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	23.0	23.0	21.0	37.0	16.0
Total Split (%)	38.3%	38.3%	35.0%	61.7%	26.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	17.1	17.1	13.1	33.3	15.6
Actuated g/C Ratio	0.28	0.28	0.22	0.56	0.26
v/c Ratio	0.83	0.71	0.71	0.16	0.96
Control Delay	37.1	21.1	34.8	7.9	46.5
Queue Delay	0.0	0.7	0.0	0.0	44.0
Total Delay	37.1	21.8	34.8	7.9	90.5
LOS	D	C	C	A	F
Approach Delay		29.6		20.5	90.5
Approach LOS		C		C	F

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 51.0

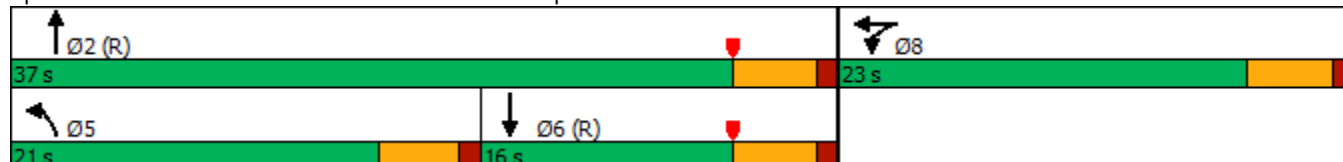
Intersection LOS: D

Intersection Capacity Utilization 111.1%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary

15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	707	169
Future Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	707	169
Initial Q (Qb), veh				75	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				800	0	0	280	319	0	0	729	174
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1098	576	0	324	1937	0	0	812	194
Arrive On Green				0.26	0.00	0.00	0.36	1.00	0.00	0.00	0.11	0.11
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	2986	690
Grp Volume(v), veh/h				800	0	0	280	319	0	0	455	448
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1776
Q Serve(g_s), s				12.6	0.0	0.0	8.6	0.0	0.0	0.0	14.7	14.8
Cycle Q Clear(g_c), s				12.6	0.0	0.0	8.6	0.0	0.0	0.0	14.7	14.8
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.39
Lane Grp Cap(c), veh/h				1098	576	0	324	1937	0	0	507	499
V/C Ratio(X)				0.73	0.00	0.00	0.86	0.16	0.00	0.00	0.90	0.90
Avail Cap(c_a), veh/h				1098	576	0	495	2085	0	0	581	571
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	0.00	0.65	0.65	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.9	0.0	0.0	18.6	0.0	0.0	0.0	26.4	26.4
Incr Delay (d2), s/veh				2.5	0.0	0.0	4.3	0.1	0.0	0.0	21.2	21.5
Initial Q Delay(d3),s/veh				123.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				25.6	0.0	0.0	3.1	0.0	0.0	0.0	10.0	9.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				147.3	0.0	0.0	22.9	0.1	0.0	0.0	47.5	47.8
LnGrp LOS				F	A	A	C	A	A	A	D	D
Approach Vol, veh/h					800			599			903	
Approach Delay, s/veh					147.3			10.8			47.7	
Approach LOS					F			B			D	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		39.5			15.4	24.1		20.5				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 32			16.4	* 11		18.2				
Max Q Clear Time (g_c+I1), s		2.0			10.6	16.8		14.6				
Green Ext Time (p_c), s		2.2			0.2	0.0		1.2				
Intersection Summary												
HCM 6th Ctrl Delay				72.7								
HCM 6th LOS				E								
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕	↗	↕	↖	↕
Traffic Volume (vph)	11	856	555	129	1152
Future Volume (vph)	11	856	555	129	1152
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	25.0	25.0	24.0	11.0	35.0
Total Split (%)	41.7%	41.7%	40.0%	18.3%	58.3%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	19.9	19.9	21.7	6.2	30.5
Actuated g/C Ratio	0.33	0.33	0.36	0.10	0.51
v/c Ratio	0.92	0.84	0.70	0.71	0.65
Control Delay	44.2	30.1	14.6	35.3	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.2
Total Delay	44.2	30.1	14.6	35.3	19.9
LOS	D	C	B	D	B
Approach Delay	37.3		14.6		21.4
Approach LOS	D		B		C

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 24.2

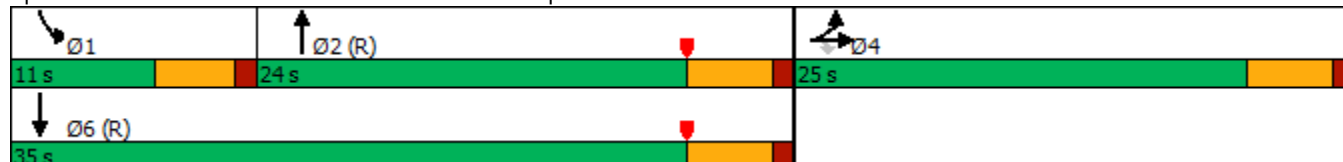
Intersection LOS: C

Intersection Capacity Utilization 111.1%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary

16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	11	856	0	0	0	0	555	416	129	1152	0
Future Volume (veh/h)	111	11	856	0	0	0	0	555	416	129	1152	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	1011				0	572	429	133	1188	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	640	1084				0	657	493	167	1817	0
Arrive On Green	0.00	0.00	0.34				0.00	0.33	0.33	0.18	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2061	1474	1810	3705	0
Grp Volume(v), veh/h	0	0	1011				0	525	476	133	1188	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	18.2				0.0	16.4	16.4	4.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	18.2				0.0	16.4	16.4	4.2	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	640	1084				0	603	547	167	1817	0
V/C Ratio(X)	0.00	0.00	0.93				0.00	0.87	0.87	0.80	0.65	0.00
Avail Cap(c_a), veh/h	0	640	1084				0	603	547	193	1817	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.27	0.27	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.9				0.0	18.8	18.8	23.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	14.0				0.0	15.8	17.1	4.6	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	218.7				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	41.2				0.0	8.7	8.1	1.8	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	252.6				0.0	34.5	35.9	28.5	0.5	0.0
LnGrp LOS	A	A	F				A	C	D	C	A	A
Approach Vol, veh/h	1011						1001			1321		
Approach Delay, s/veh	252.6						35.2			3.3		
Approach LOS	F						D			A		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	10.1	24.9	25.0		35.0							
Change Period (Y+Rc), s	4.6	* 4.8	* 4.8		* 4.8							
Max Green Setting (Gmax), s	6.4	* 19	* 20		* 30							
Max Q Clear Time (g_c+I1), s	6.2	18.4	20.2		2.0							
Green Ext Time (p_c), s	0.0	0.5	0.0		10.4							

Intersection Summary

HCM 6th Ctrl Delay 88.5

HCM 6th LOS F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 5.4:

E+P (PHASE 1) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	CALC	TRAFFIC CONDITIONS	E+P Phase 1
Jurisdiction: <u>City of Beaumont</u>				CHK <u>CH</u>		DATE <u>07/16/20</u>
Major Street: <u>4th Street</u>					Critical Approach Speed (Major)	<u>45</u> mph
Minor Street: <u>Jack Rabbit Trail</u>					Critical Approach Speed (Minor)	<u>25</u> mph
Major Street Approach Lanes = <u>2</u> lane				Minor Street Approach Lanes: <u>2</u> lane		
Major Street Future ADT = <u>3,760</u> vpd				Minor Street Future ADT = <u>0</u> vpd		
Speed limit or critical speed on major street traffic > 64 km/h (40 mph);						☒
						or
In built up area of isolated community of < 10,000 population						☐

RURAL (R)**(Based on Estimated Average Daily Traffic - See Note)**

URBAN		RURAL		Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume		XX		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>		<u>Not Satisfied</u>	XX				
Number of lanes for moving traffic on each approach		Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Major Street		Minor Street					
1		1		8,000	5,600	2,400	1,680
2 +		1		9,600	6,720	2,400	1,680
2 + 3,760		2 + 0		9,600	6,720	3,200	2,240
1		2 +		8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		XX		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>		<u>Not Satisfied</u>	XX				
Number of lanes for moving traffic on each approach		Number of lanes for moving traffic on each approach		Urban	Rural	Urban	Rural
Major Street		Minor Street					
1		1		12,000	8,400	1,200	850
2 +		1		14,400	10,080	1,200	850
2 + 3,760		2 + 0		14,400	10,080	1,600	1,120
1		2 +		12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		XX		2 CONDITIONS 80%		2 CONDITIONS 80%	
<u>Satisfied</u>		<u>Not Satisfied</u>	XX				
No one condition satisfied, but following conditions fulfilled 80% of more							
		A	B				
		56%	37%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 1) Conditions - Weekday PM Peak Hour**

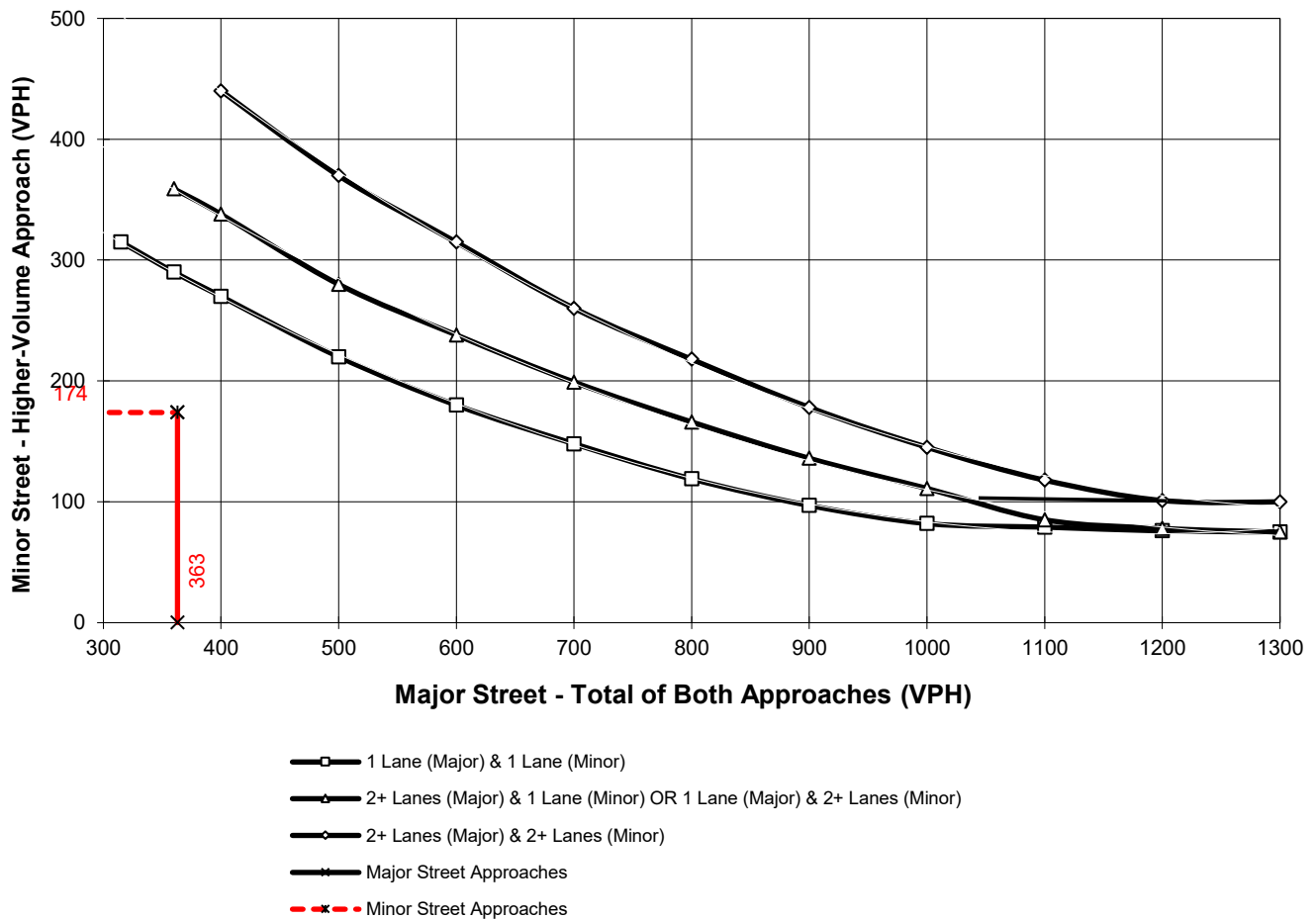
Major Street Name = **Oak Valley Pkwy.**

Total of Both Approaches (VPH) = **363**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Potrero Bl.**

High Volume Approach (VPH) = **174**
Number of Approach Lanes Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 1) Conditions - Weekday PM Peak Hour**

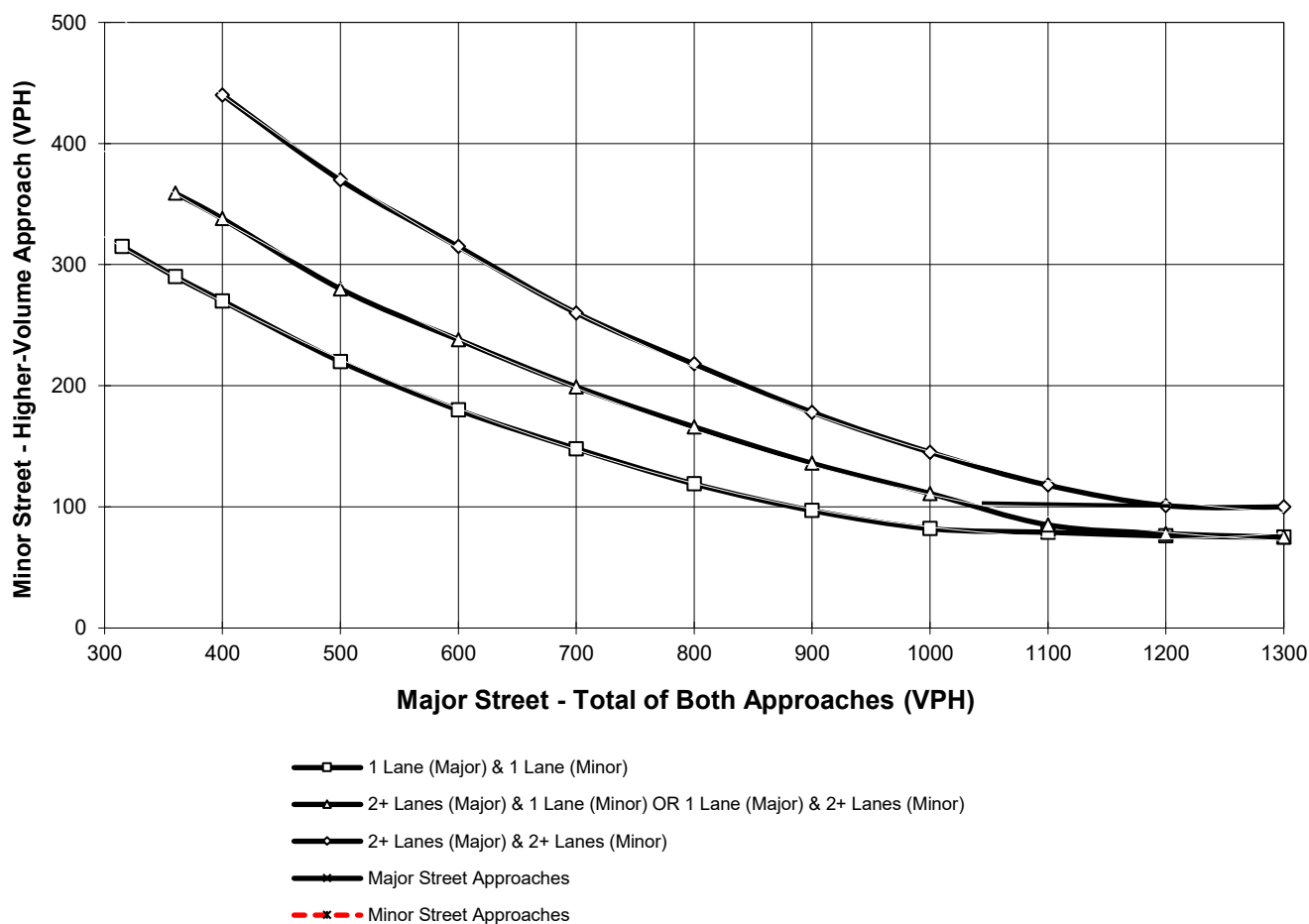
Major Street Name = **Western Knolls Av.**

Total of Both Approaches (VPH) = **139**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Potrero Bl.**

High Volume Approach (VPH) = **117**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 1) Conditions - Weekday AM Peak Hour**

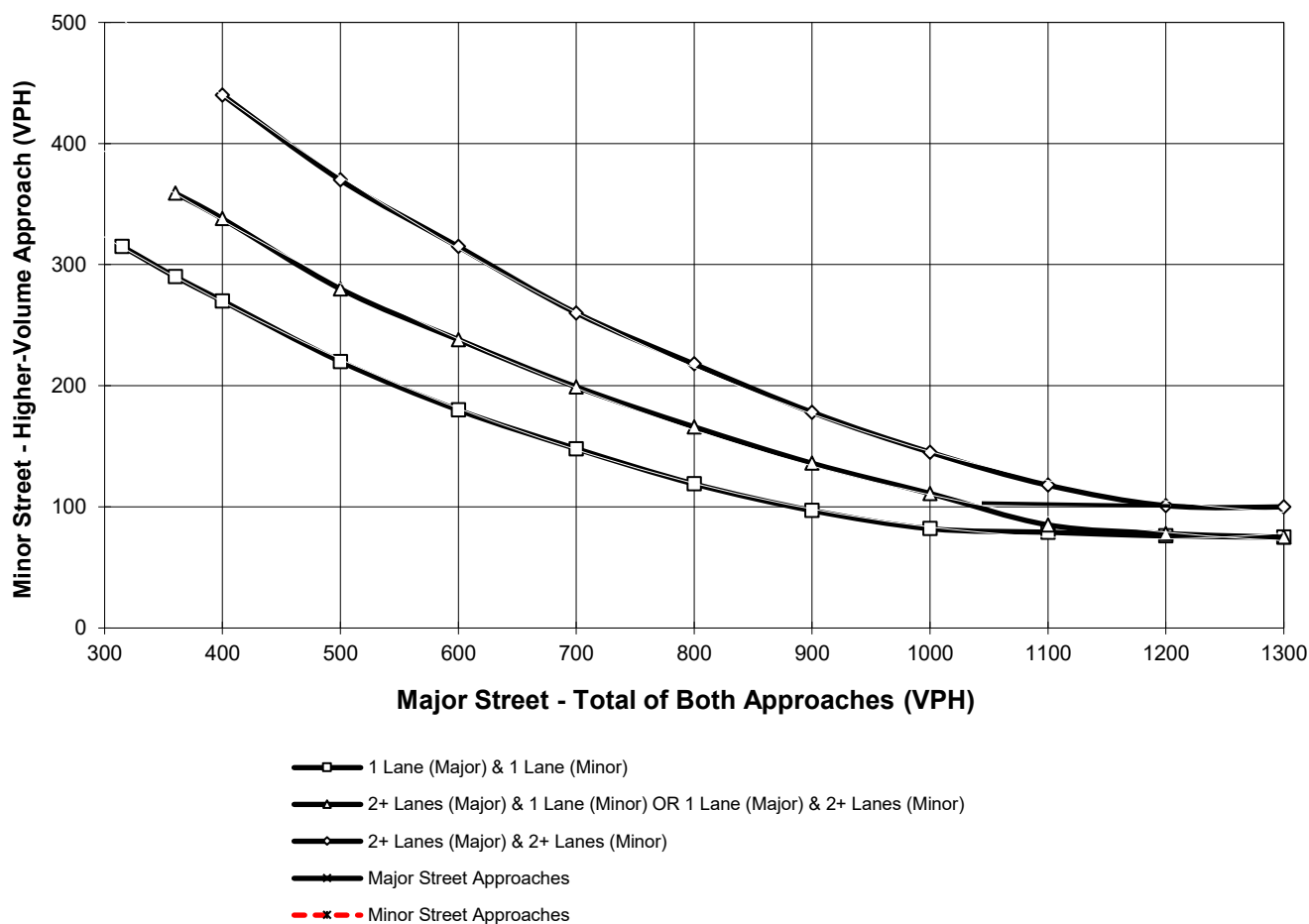
Major Street Name = **4th St.**

Total of Both Approaches (VPH) = **158**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Potrero Bl.**

High Volume Approach (VPH) = **92**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 1) Conditions - Weekday PM Peak Hour**

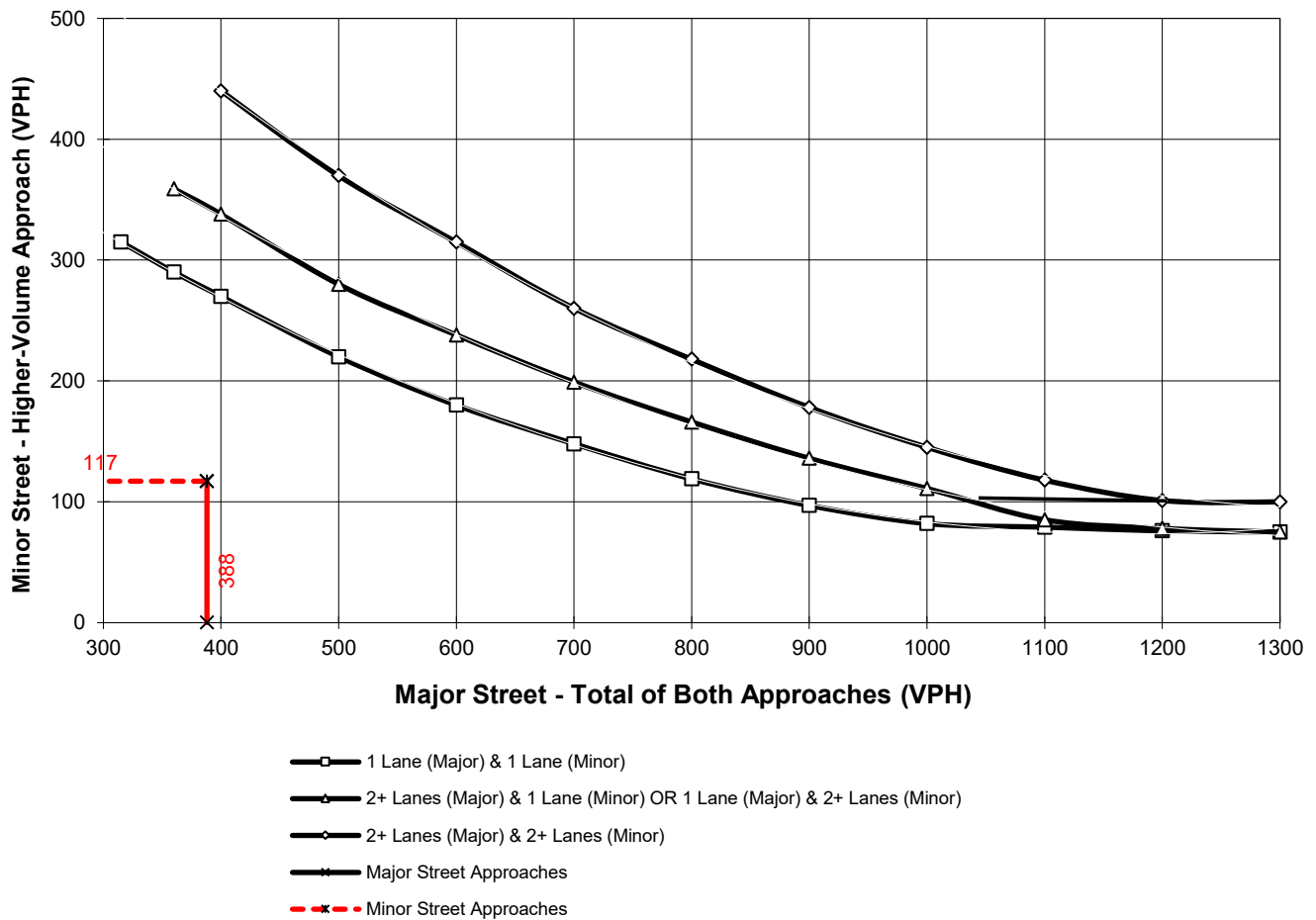
Major Street Name = **4th St.**

Total of Both Approaches (VPH) = **388**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Veile Av.**

High Volume Approach (VPH) = **117**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 1) Conditions - Weekday PM Peak Hour**

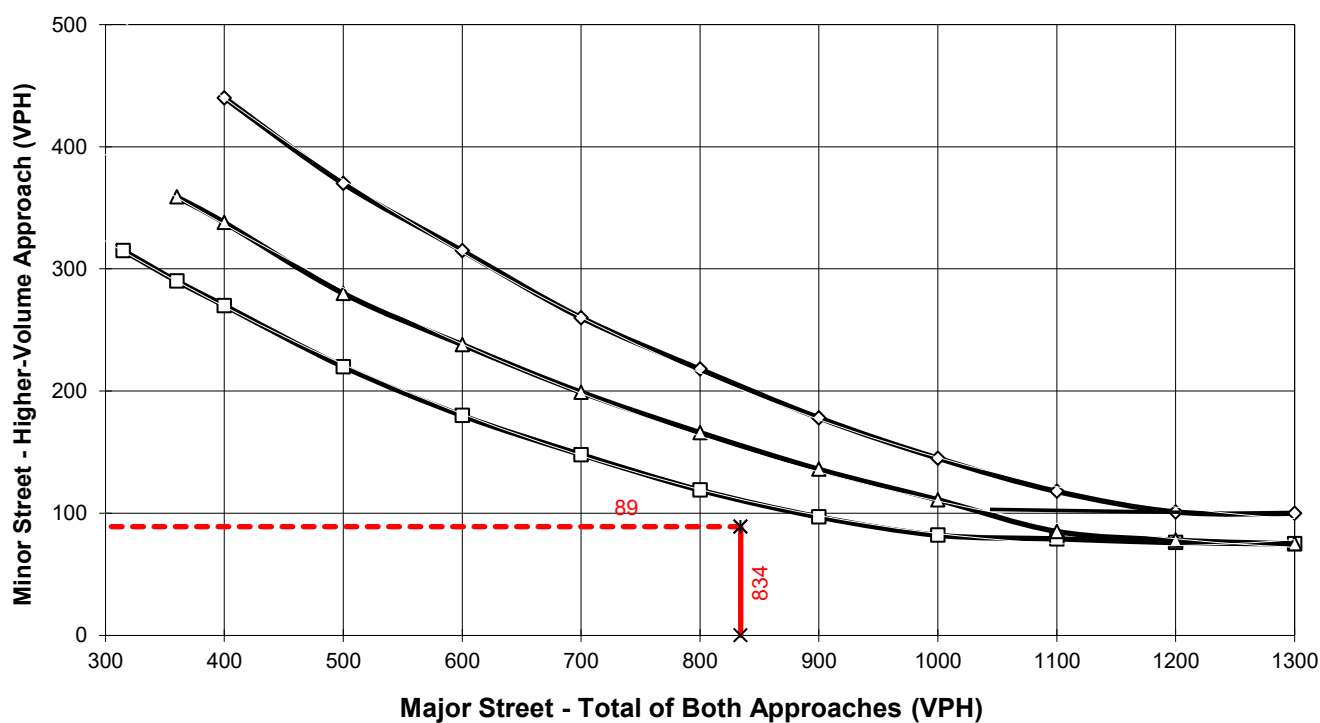
Major Street Name = **California Av.**

Total of Both Approaches (VPH) = **834**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **5th St.**

High Volume Approach (VPH) = **89**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 5.5:

E+P (PHASE 2) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

<u>DIST</u>	<u>CO</u>	<u>RTE</u>	<u>PM</u>	CALC <u>CH</u>	TRAFFIC CONDITIONS	E+P Phase 2
Jurisdiction: <u>City of Beaumont</u>				CHK <u>CH</u>		DATE <u>07/16/20</u>
Major Street: <u>4th Street</u>					Critical Approach Speed (Major)	<u>45</u> mph
Minor Street: <u>Jack Rabbit Trail</u>					Critical Approach Speed (Minor)	<u>25</u> mph
Major Street Approach Lanes = <u>2</u> lane				Minor Street Approach Lanes: <u>2</u> lane		
Major Street Future ADT = <u>15,414</u> vpd				Minor Street Future ADT = <u>0</u> vpd		
Speed limit or critical speed on major street traffic > 64 km/h (40 mph);						☒
						or
In built up area of isolated community of < 10,000 population						☐

RURAL (R)**(Based on Estimated Average Daily Traffic - See Note)**

<u>URBAN</u>		<u>RURAL</u>		Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume		XX		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>		<u>Not Satisfied</u>	XX				
Number of lanes for moving traffic on each approach		Number of lanes for moving traffic on each approach		<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
<u>Major Street</u>		<u>Minor Street</u>					
<u>1</u>		<u>1</u>		8,000	5,600	2,400	1,680
<u>2 +</u>		<u>1</u>		9,600	6,720	2,400	1,680
<u>2 + 15,414</u>		<u>2 + 0</u>		9,600	6,720 *	3,200	2,240
<u>1</u>		<u>2 +</u>		8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		XX		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>		<u>Not Satisfied</u>					
Number of lanes for moving traffic on each approach		Number of lanes for moving traffic on each approach		<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
<u>Major Street</u>		<u>Minor Street</u>					
<u>1</u>		<u>1</u>		12,000	8,400	1,200	850
<u>2 +</u>		<u>1</u>		14,400	10,080	1,200	850
<u>2 + 15,414</u>		<u>2 + 0</u>		14,400	10,080 *	1,600	1,120
<u>1</u>		<u>2 +</u>		12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		XX		2 CONDITIONS 80%		2 CONDITIONS 80%	
<u>Satisfied</u>		<u>Not Satisfied</u>					
No one condition satisfied, but following conditions fulfilled 80% of more							
		<u>A</u>	<u>B</u>				
		100%	100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 2) Conditions - Weekday PM Peak Hour**

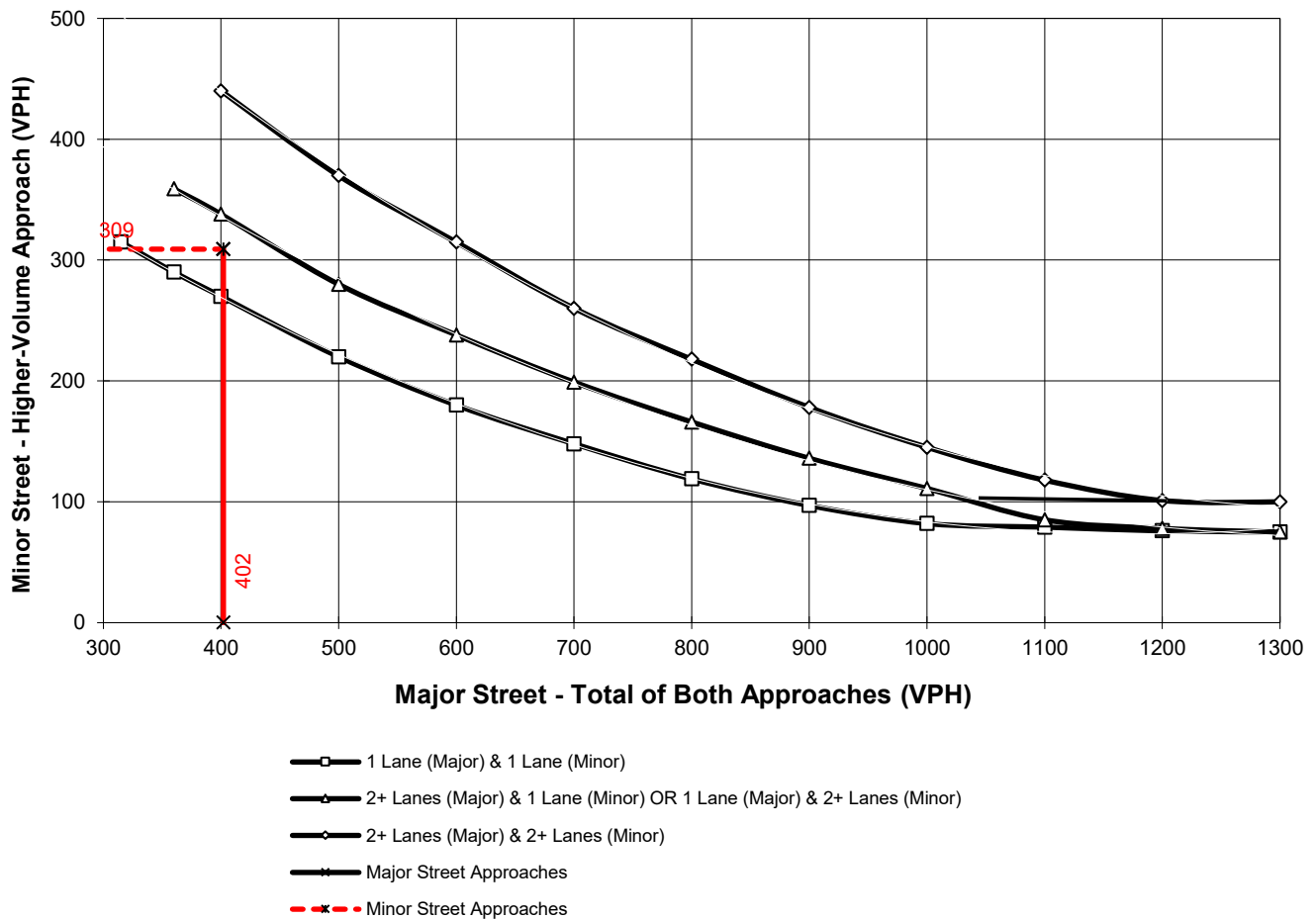
Major Street Name = **Oak Valley Pkwy.**

Total of Both Approaches (VPH) = **402**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Potrero Bl.**

High Volume Approach (VPH) = **309**
Number of Approach Lanes Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 2) Conditions - Weekday AM Peak Hour**

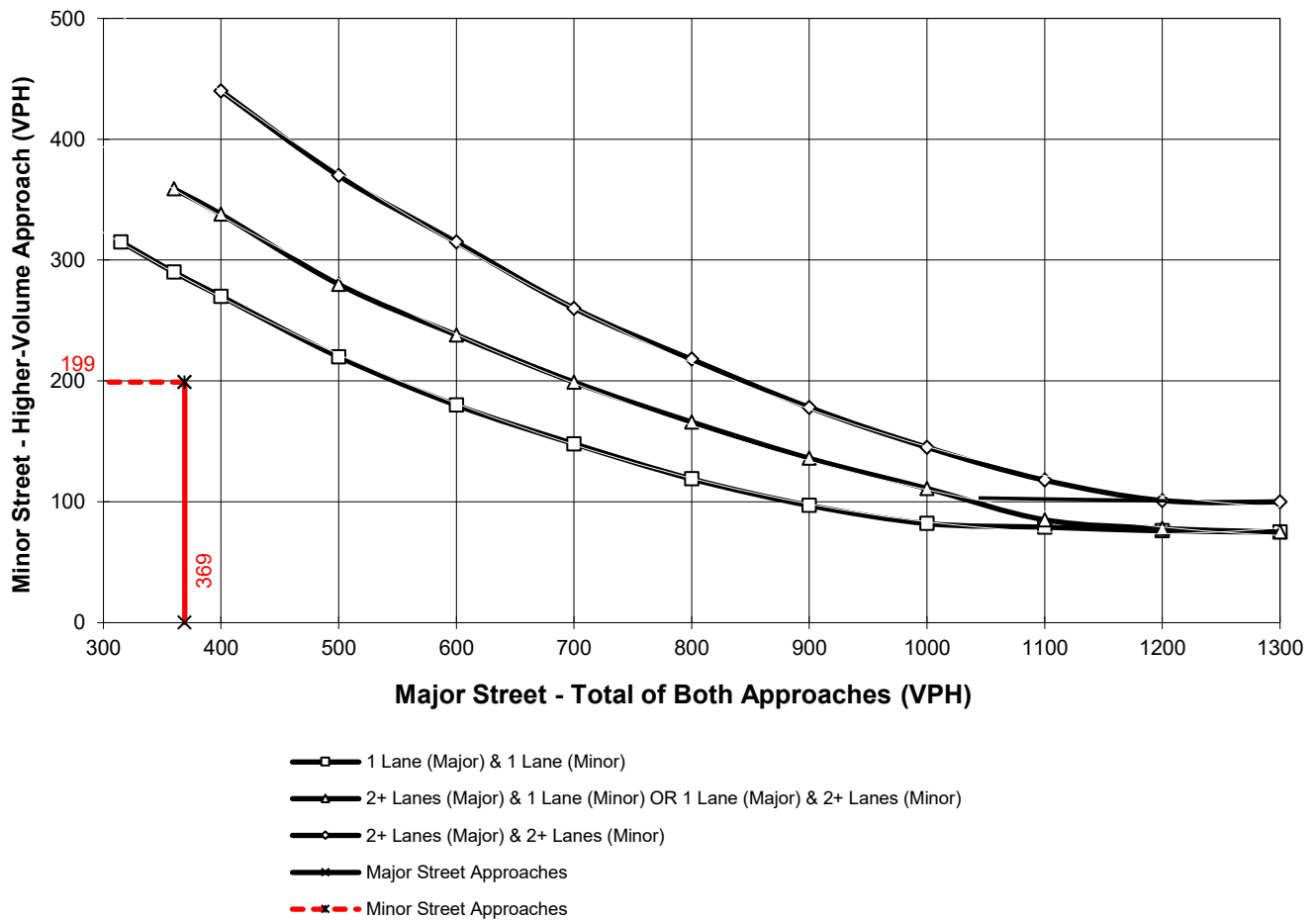
Major Street Name = **Potrero Bl.**

Total of Both Approaches (VPH) = **369**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Western Knolls Av.**

High Volume Approach (VPH) = **199**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

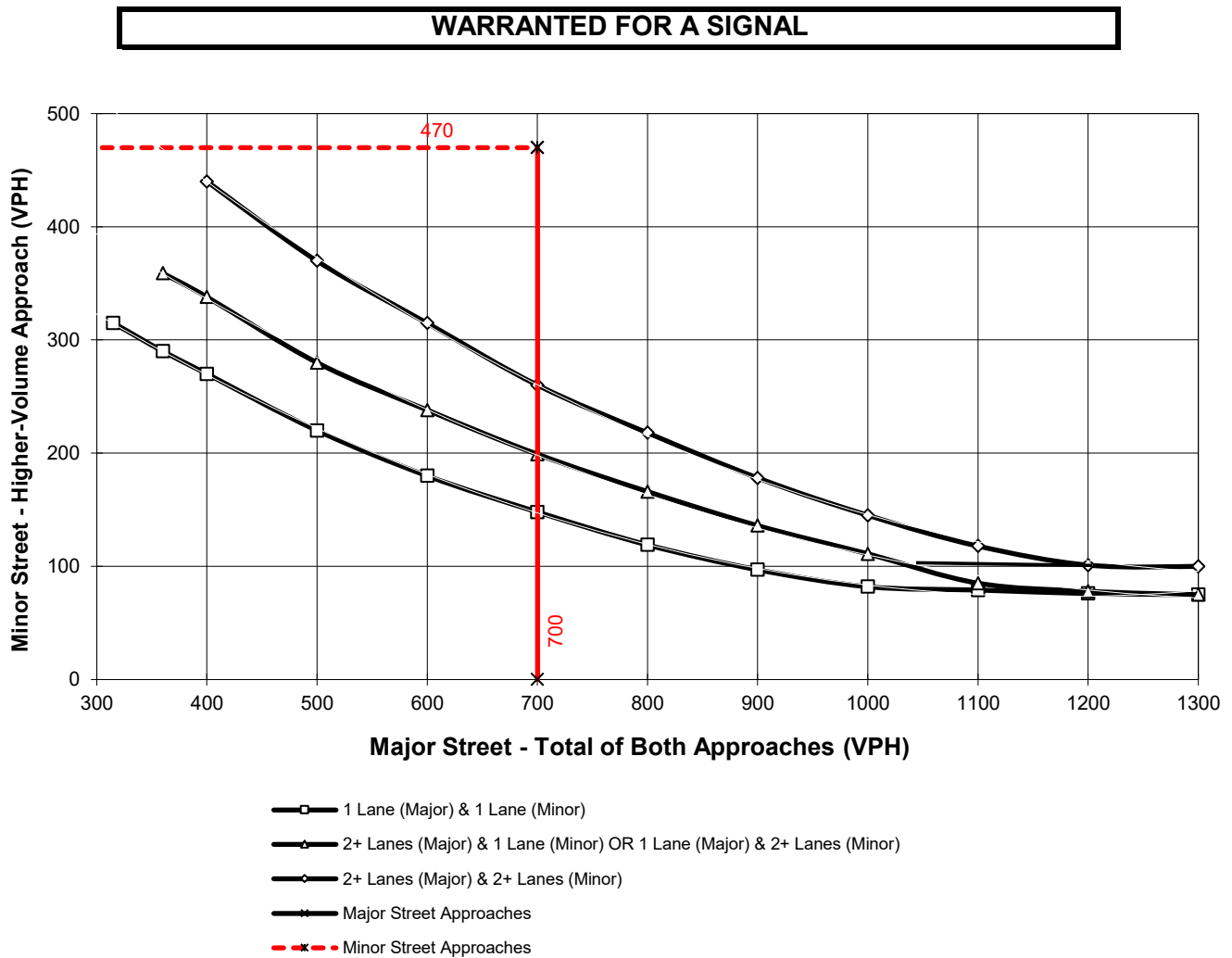
Traffic Conditions = **E+P (Phase 2) Conditions - Weekday AM Peak Hour**

Major Street Name = **4th St.**

Total of Both Approaches (VPH) = **700**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Potrero Bl.**

High Volume Approach (VPH) = **470**
Number of Approach Lanes Minor Street = **1**



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase 2) Conditions - Weekday AM Peak Hour**

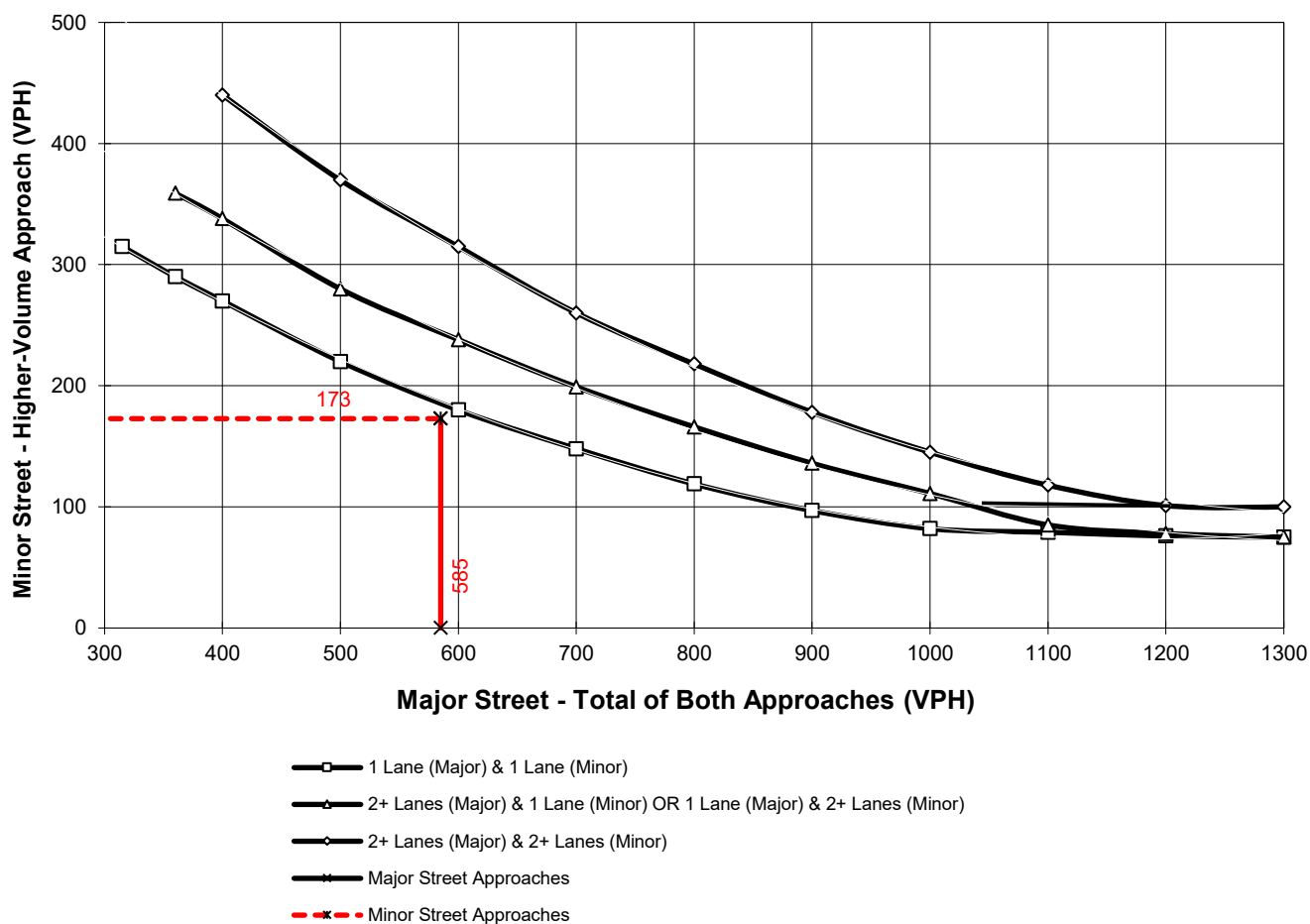
Major Street Name = **Veile Av.**

Total of Both Approaches (VPH) = **585**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **4th St.**

High Volume Approach (VPH) = **173**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

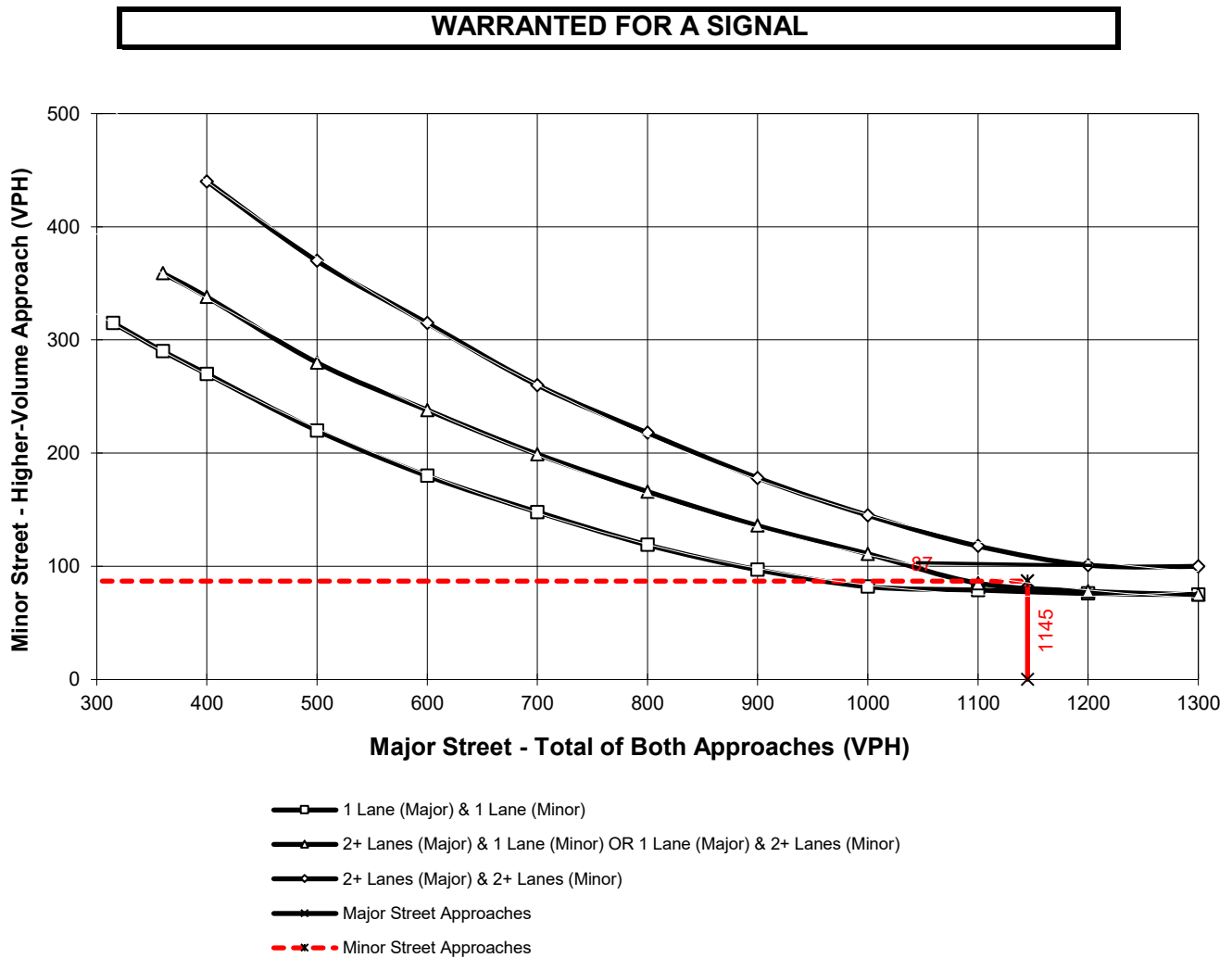
Traffic Conditions = **E+P (Phase 2) Conditions - Weekday AM Peak Hour**

Major Street Name = **California Av.**

Total of Both Approaches (VPH) = **1145**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **5th St.**

High Volume Approach (VPH) = **87**
Number of Approach Lanes Minor Street = **1**



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 5.6:

**E+P (PROJECT BUILDOUT) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS
WORKSHEETS**

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase BO) Conditions - Weekday PM Peak Hour**

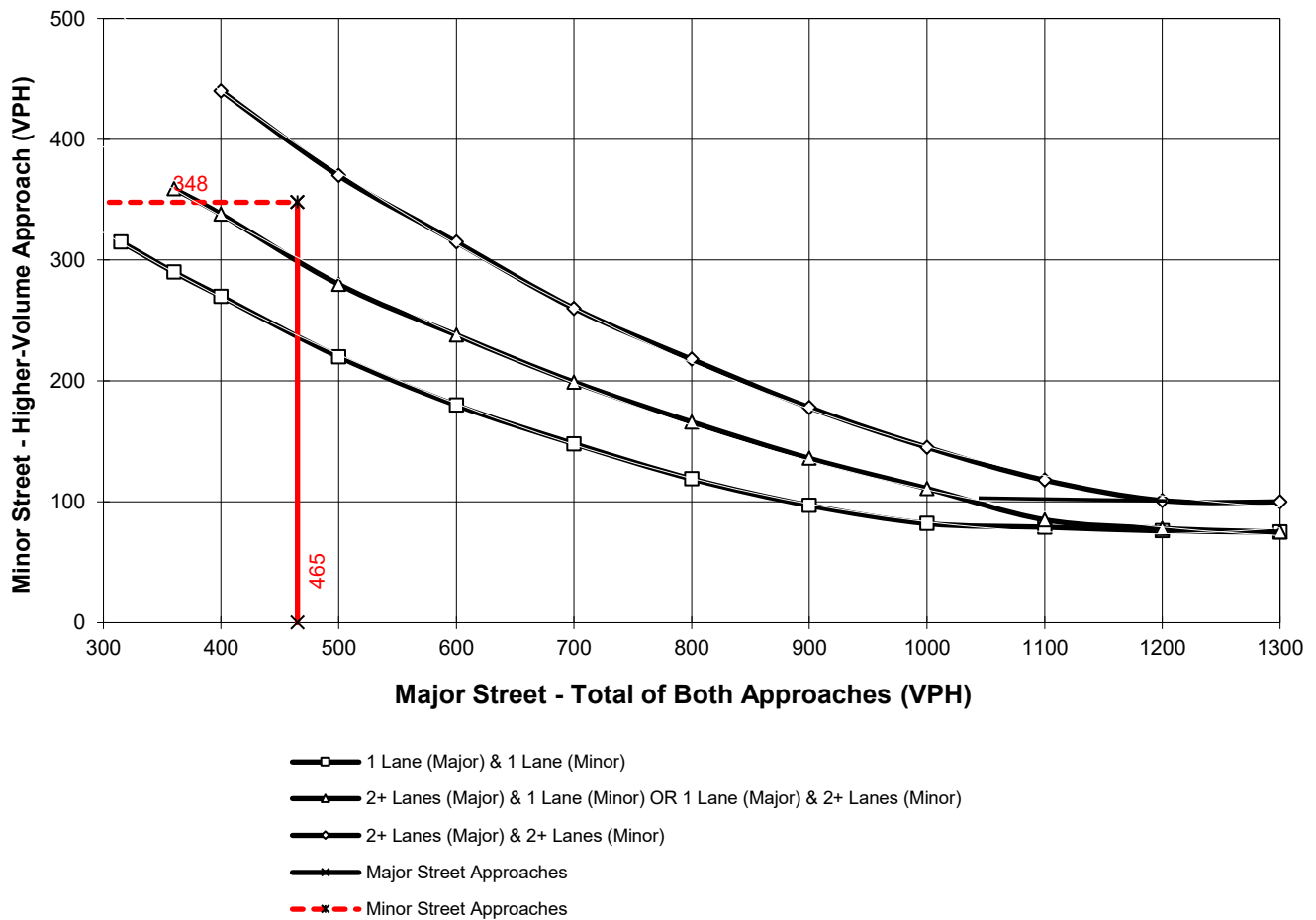
Major Street Name = **Oak Valley Pkwy.**

Total of Both Approaches (VPH) = **465**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Potrero Bl.**

High Volume Approach (VPH) = **348**
Number of Approach Lanes Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P (Phase BO) Conditions - Weekday AM Peak Hour**

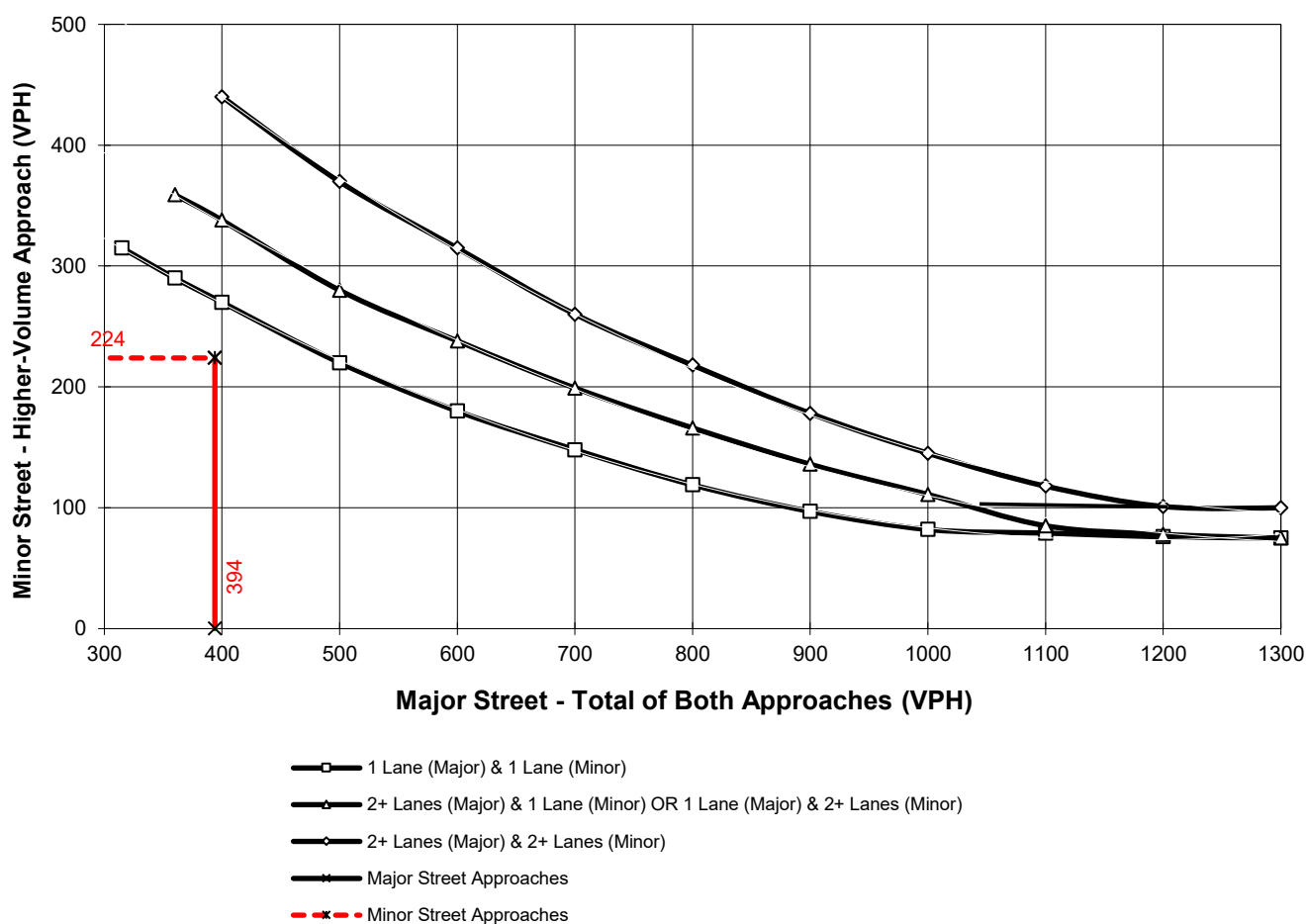
Major Street Name = **Potrero Bl.**

Total of Both Approaches (VPH) = **394**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Western Knolls Av.**

High Volume Approach (VPH) = **224**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

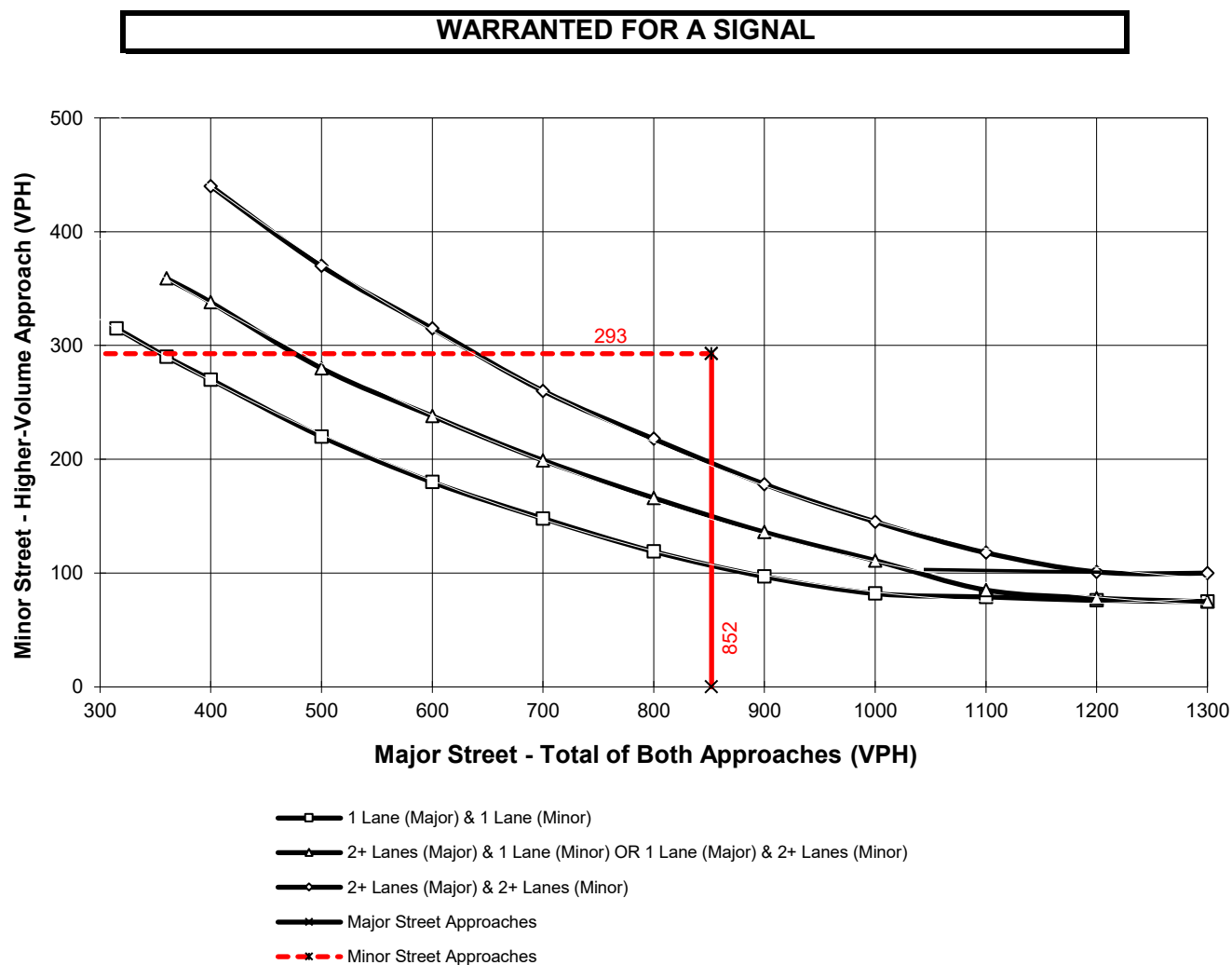
Traffic Conditions = **E+P (Phase BO) Conditions - Weekday PM Peak Hour**

Major Street Name = **4th St.**

Total of Both Approaches (VPH) = **852**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Veile Av.**

High Volume Approach (VPH) = **293**
Number of Approach Lanes Minor Street = **1**



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 5.7:

E+P (PHASE 1) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Queues

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/09/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	827	264	552	335
v/c Ratio	0.93	0.91	0.42	1.02
Control Delay	37.9	64.9	3.8	90.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	37.9	64.9	3.8	90.7
Queue Length 50th (ft)	387	112	29	~189
Queue Length 95th (ft)	#639	m#228	m64	#357
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	892	296	1313	330
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.93	0.89	0.42	1.02

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

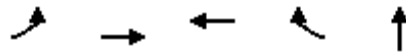
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/09/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	93	468	421	402	678
v/c Ratio	0.68	0.67	0.85	0.56	0.75
Control Delay	51.0	16.9	48.0	6.1	23.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	16.9	48.0	6.1	23.5
Queue Length 50th (ft)	54	168	221	0	286
Queue Length 95th (ft)	m54	m175	#365	67	#468
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	144	781	532	741	909
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.65	0.60	0.79	0.54	0.75

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/09/2020

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	338	319	375	235	469
v/c Ratio	0.79	0.70	0.81	0.11	0.50
Control Delay	36.3	24.7	41.7	5.6	16.0
Queue Delay	0.0	1.1	0.0	0.0	2.3
Total Delay	36.3	25.8	41.7	5.6	18.2
Queue Length 50th (ft)	115	83	144	14	75
Queue Length 95th (ft)	#232	163	#244	m31	121
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	463	492	523	2134	935
Starvation Cap Reductn	0	0	0	0	325
Spillback Cap Reductn	0	50	0	56	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.73	0.72	0.72	0.11	0.77

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/09/2020

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	334	325	1051	116	811
v/c Ratio	0.70	0.70	0.59	0.52	0.36
Control Delay	18.8	18.6	9.9	22.2	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	18.6	9.9	22.2	10.5
Queue Length 50th (ft)	52	49	86	33	131
Queue Length 95th (ft)	127	124	159	m63	201
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	534	521	1773	252	2272
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.63	0.62	0.59	0.46	0.36

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	568	170	633	733
v/c Ratio	0.98	0.87	0.72	1.00
Control Delay	63.3	73.8	21.4	62.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	63.3	73.8	21.4	62.2
Queue Length 50th (ft)	295	103	258	~403
Queue Length 95th (ft)	#375	#163	286	#479
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	578	200	884	730
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.98	0.85	0.72	1.00

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

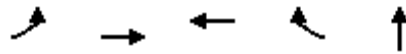
Queue shown is maximum after two cycles.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/09/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	100	581	295	245	600
v/c Ratio	0.63	0.86	0.65	0.43	0.65
Control Delay	50.5	26.0	38.4	6.2	19.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	50.5	26.0	38.4	6.2	19.6
Queue Length 50th (ft)	57	226	155	0	220
Queue Length 95th (ft)	m57	m201	230	55	376
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	176	785	503	608	924
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.57	0.74	0.59	0.40	0.65

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/09/2020

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	409	398	280	319	596
v/c Ratio	0.83	0.71	0.77	0.16	0.60
Control Delay	37.1	21.1	40.2	6.9	20.4
Queue Delay	0.0	0.8	0.0	0.0	19.4
Total Delay	37.1	21.9	40.2	6.9	39.8
Queue Length 50th (ft)	140	90	108	21	101
Queue Length 95th (ft)	#278	182	m#188	m45	152
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	520	588	403	2001	1000
Starvation Cap Reductn	0	0	0	0	404
Spillback Cap Reductn	0	45	0	54	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.79	0.73	0.69	0.16	1.00

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/09/2020

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	448	431	871	159	1033
v/c Ratio	0.84	0.79	0.63	0.77	0.53
Control Delay	32.5	25.4	12.7	43.2	14.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	25.4	12.7	43.2	14.8
Queue Length 50th (ft)	126	101	82	64	175
Queue Length 95th (ft)	#272	#236	140	m#117	241
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	580	593	1380	207	1934
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.77	0.73	0.63	0.77	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 5.8:

E+P (PHASE 2) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	850	264	552	445
v/c Ratio	0.96	0.91	0.42	1.30
Control Delay	42.8	63.2	3.4	186.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	42.8	63.2	3.4	186.0
Queue Length 50th (ft)	412	111	29	~312
Queue Length 95th (ft)	#671	m#240	64	#491
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	890	296	1313	342
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.96	0.89	0.42	1.30

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

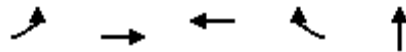
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/10/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	114	468	421	402	678
v/c Ratio	1.06	0.65	0.82	0.55	0.76
Control Delay	85.4	15.8	44.9	5.9	24.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	85.4	15.8	44.9	5.9	24.3
Queue Length 50th (ft)	~72	177	216	0	282
Queue Length 95th (ft)	m61	m166	#324	65	#468
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	765	888
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.06	0.60	0.74	0.53	0.76

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/10/2020

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	338	319	375	235	528
v/c Ratio	0.79	0.70	0.83	0.11	0.55
Control Delay	36.3	24.7	44.1	5.6	16.7
Queue Delay	0.0	1.1	0.0	0.0	3.3
Total Delay	36.3	25.8	44.1	5.6	20.1
Queue Length 50th (ft)	115	83	145	14	85
Queue Length 95th (ft)	#232	163	#257	m31	134
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	463	492	493	2134	961
Starvation Cap Reductn	0	0	0	0	327
Spillback Cap Reductn	0	51	0	48	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.73	0.72	0.76	0.11	0.83

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/10/2020

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	334	325	1051	116	811
v/c Ratio	0.70	0.70	0.59	0.52	0.36
Control Delay	18.8	18.6	9.9	22.0	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	18.6	9.9	22.0	10.3
Queue Length 50th (ft)	52	49	86	33	131
Queue Length 95th (ft)	127	124	159	m61	196
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	534	521	1773	252	2272
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.63	0.62	0.59	0.46	0.36

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	709	170	633	775
v/c Ratio	1.23	0.87	0.72	1.06
Control Delay	148.6	73.7	20.6	78.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	148.6	73.7	20.6	78.3
Queue Length 50th (ft)	~494	103	258	~483
Queue Length 95th (ft)	#543	#163	286	#524
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	575	200	884	730
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.23	0.85	0.72	1.06

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

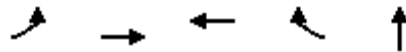
Queue shown is maximum after two cycles.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/10/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	210	581	295	245	600
v/c Ratio	1.19	0.84	0.73	0.46	0.66
Control Delay	131.2	22.9	43.2	6.7	20.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	131.2	22.9	43.2	6.7	20.0
Queue Length 50th (ft)	~149	247	155	0	220
Queue Length 95th (ft)	m#119	m197	230	55	376
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	176	785	502	607	913
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.19	0.74	0.59	0.40	0.66

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	409	398	280	319	863
v/c Ratio	0.83	0.71	0.71	0.16	0.91
Control Delay	37.1	21.1	35.3	7.6	39.9
Queue Delay	0.0	0.7	0.0	0.0	47.6
Total Delay	37.1	21.9	35.3	7.6	87.5
Queue Length 50th (ft)	140	90	109	22	~165
Queue Length 95th (ft)	#278	182	m164	m48	#316
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	520	588	493	2001	944
Starvation Cap Reductn	0	0	0	0	310
Spillback Cap Reductn	0	43	0	75	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.79	0.73	0.57	0.17	1.36

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	494	475	961	124	1141
v/c Ratio	0.90	0.83	0.66	0.67	0.61
Control Delay	40.8	28.7	13.5	33.4	19.0
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	40.8	28.7	13.5	33.4	19.1
Queue Length 50th (ft)	155	121	101	49	205
Queue Length 95th (ft)	#329	#281	164	m56	m266
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	567	593	1462	192	1867
Starvation Cap Reductn	0	0	0	0	123
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.87	0.80	0.66	0.65	0.65

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 5.9:

E+P (PROJECT BUILDOUT) CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	864	264	552	468
v/c Ratio	0.97	0.91	0.42	1.36
Control Delay	46.1	63.2	3.4	209.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	46.1	63.2	3.4	209.6
Queue Length 50th (ft)	428	111	29	~337
Queue Length 95th (ft)	#691	m#240	64	#519
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	890	296	1313	344
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.97	0.89	0.42	1.36

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

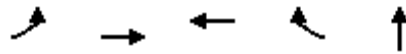
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/10/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	127	468	421	402	678
v/c Ratio	1.18	0.65	0.82	0.55	0.76
Control Delay	127.6	16.1	44.9	5.9	24.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	127.6	16.1	44.9	5.9	24.3
Queue Length 50th (ft)	~88	181	216	0	282
Queue Length 95th (ft)	m#74	m164	#324	65	#468
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	765	888
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.18	0.60	0.74	0.53	0.76

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/10/2020

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	338	319	375	235	544
v/c Ratio	0.79	0.70	0.83	0.11	0.57
Control Delay	36.3	24.7	43.5	5.9	17.3
Queue Delay	0.0	1.1	0.0	0.0	3.9
Total Delay	36.3	25.8	43.5	5.9	21.2
Queue Length 50th (ft)	115	83	146	14	90
Queue Length 95th (ft)	#232	163	#257	m32	140
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	463	492	493	2134	960
Starvation Cap Reductn	0	0	0	0	323
Spillback Cap Reductn	0	51	0	54	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.73	0.72	0.76	0.11	0.85

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/10/2020

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	347	338	1095	122	844
v/c Ratio	0.74	0.74	0.62	0.55	0.37
Control Delay	21.5	21.6	10.6	23.2	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	21.6	10.6	23.2	10.7
Queue Length 50th (ft)	61	57	100	38	138
Queue Length 95th (ft)	#143	#141	173	m64	202
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	525	511	1759	252	2260
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.66	0.66	0.62	0.48	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	751	170	633	841
v/c Ratio	1.31	0.87	0.72	1.15
Control Delay	178.8	73.6	20.3	109.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	178.8	73.6	20.3	109.7
Queue Length 50th (ft)	~547	103	255	~560
Queue Length 95th (ft)	#591	#162	287	#594
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	574	200	884	731
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.31	0.85	0.72	1.15

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

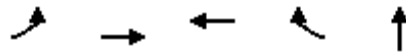
Queue shown is maximum after two cycles.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/10/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	243	581	295	245	600
v/c Ratio	1.24	0.83	0.74	0.46	0.67
Control Delay	148.9	22.2	44.3	6.7	20.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	148.9	22.2	44.3	6.7	20.7
Queue Length 50th (ft)	~179	254	158	0	222
Queue Length 95th (ft)	m#126	m184	230	55	386
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	196	806	502	607	899
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.24	0.72	0.59	0.40	0.67

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	409	398	280	319	903
v/c Ratio	0.83	0.71	0.71	0.16	0.96
Control Delay	37.1	21.1	34.8	7.9	46.5
Queue Delay	0.0	0.7	0.0	0.0	44.0
Total Delay	37.1	21.8	34.8	7.9	90.5
Queue Length 50th (ft)	140	90	109	23	~191
Queue Length 95th (ft)	#278	182	m154	m46	#336
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	520	588	493	2001	943
Starvation Cap Reductn	0	0	0	0	300
Spillback Cap Reductn	0	42	0	75	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.79	0.73	0.57	0.17	1.40

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	513	494	1001	133	1188
v/c Ratio	0.92	0.84	0.70	0.71	0.65
Control Delay	44.2	30.1	14.6	35.3	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.2
Total Delay	44.2	30.1	14.6	35.3	19.9
Queue Length 50th (ft)	168	130	110	53	212
Queue Length 95th (ft)	#351	#298	177	m60	m268
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	563	593	1435	192	1836
Starvation Cap Reductn	0	0	0	0	119
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.91	0.83	0.70	0.69	0.69

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 5.10:

E+P (PHASE 1) CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2056		7161		0.29		68.7		10.0		A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2056	328	7200	2100	0.29	0.16	64.2	60.8	10.7	13.4	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1732		7161		0.24		68.7		8.4		A

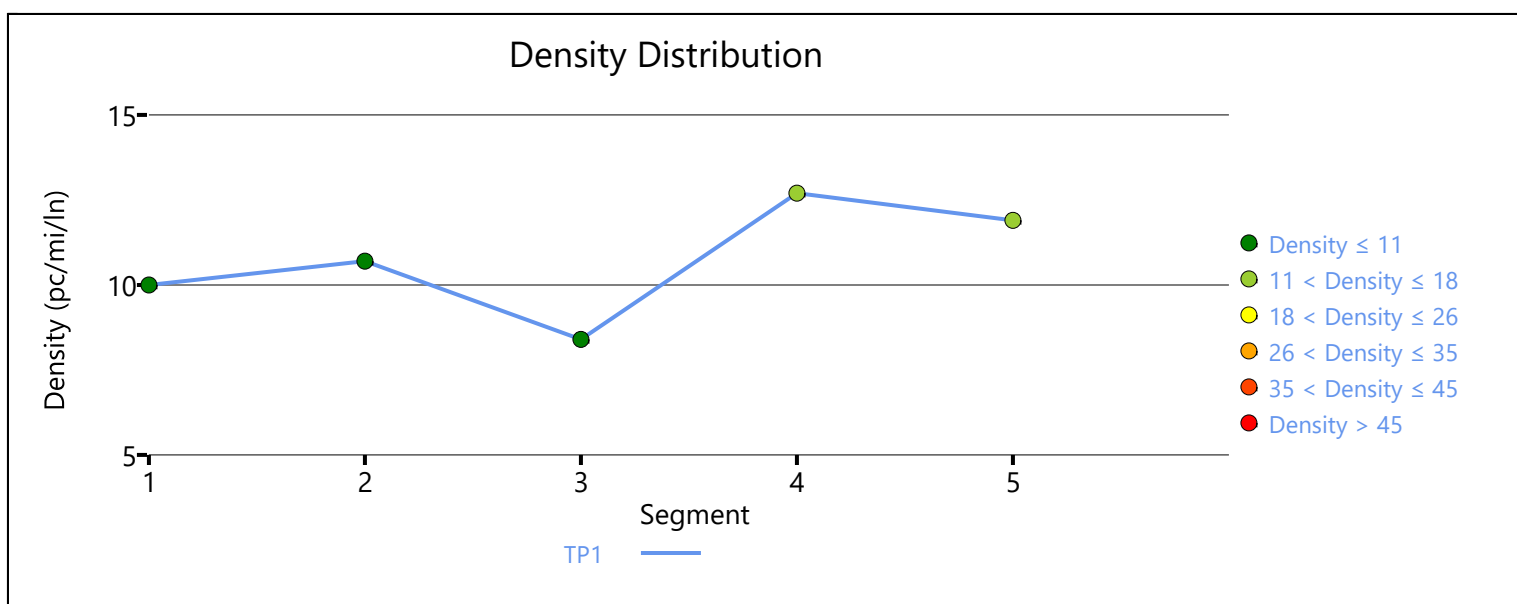
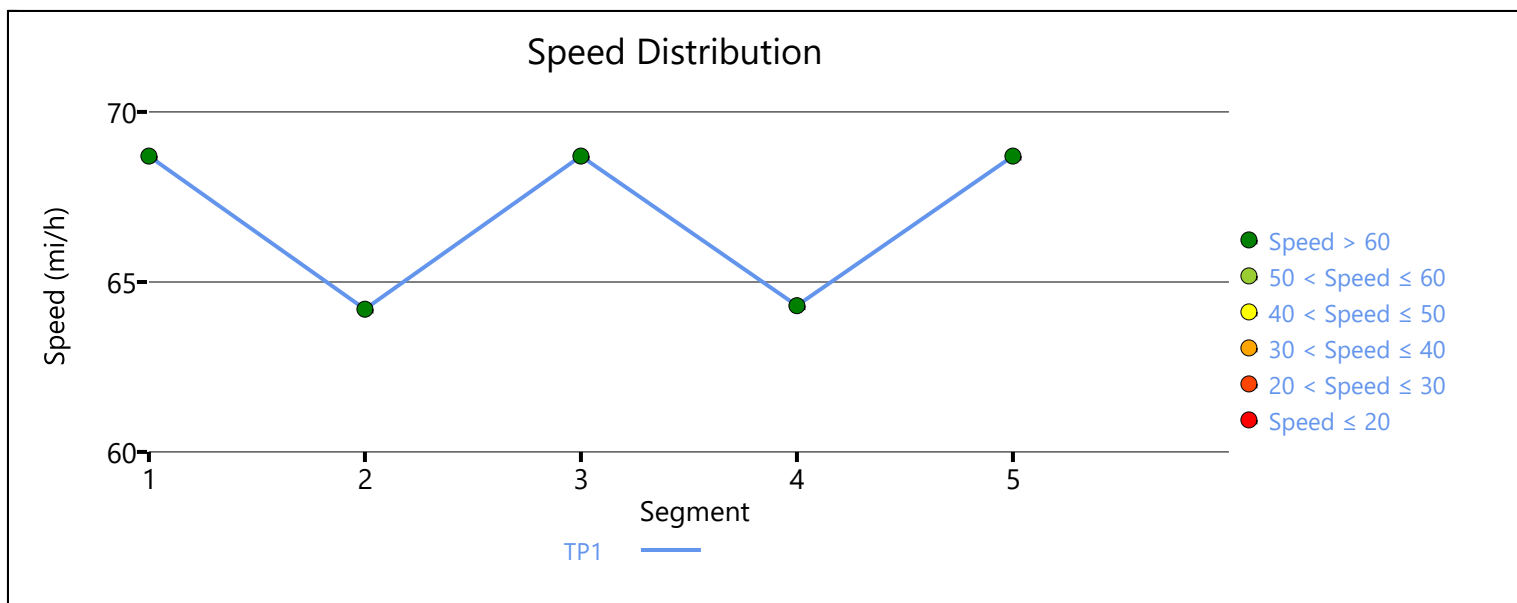
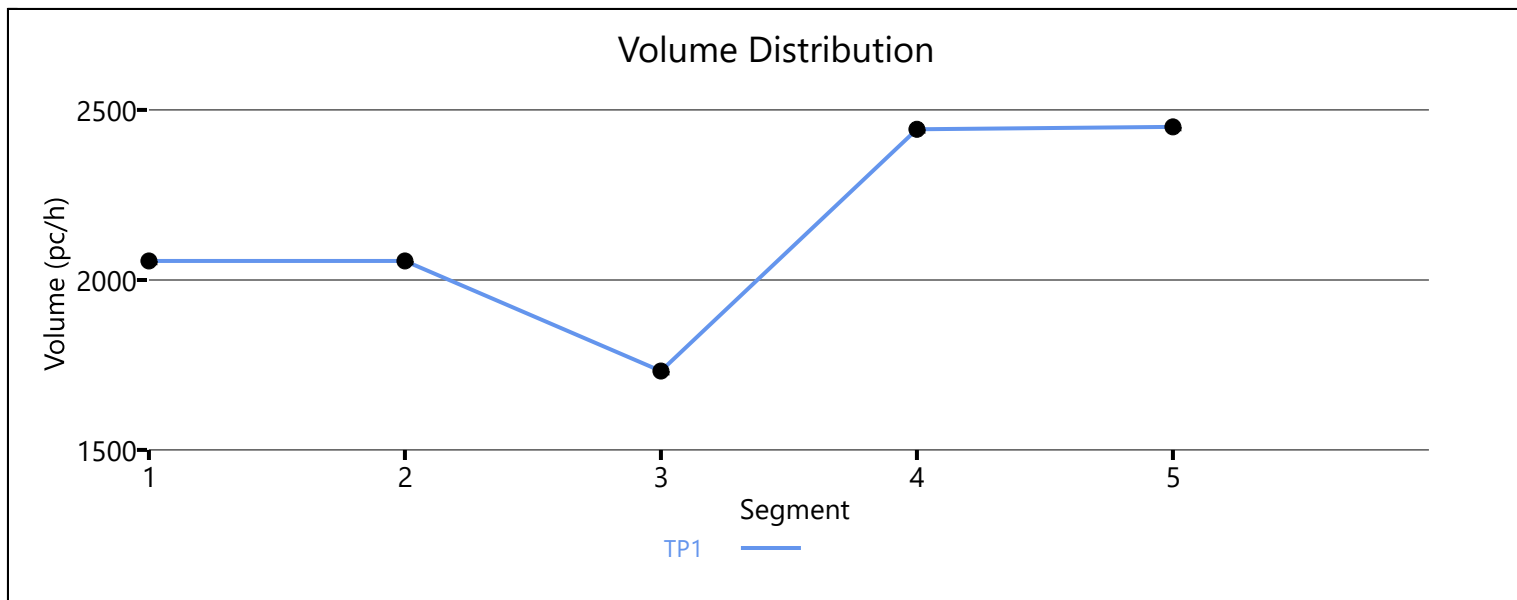
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2443	711	7200	2100	0.34	0.34	64.3	62.5	12.7	13.6	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2450		7161		0.34		68.7		11.9		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	10.5	10.1	2.1	A
Facility Overall Results					
Space Mean Speed, mi/h		67.5	Density, veh/mi/ln		10.1
Average Travel Time, min		2.1	Density, pc/mi/ln		10.5



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		2523		7161		0.35		68.7		12.2		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2523	728	7200	2100	0.35	0.35	63.2	59.8	13.3	16.7	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.901		1808		7161		0.25		68.7		8.8		A

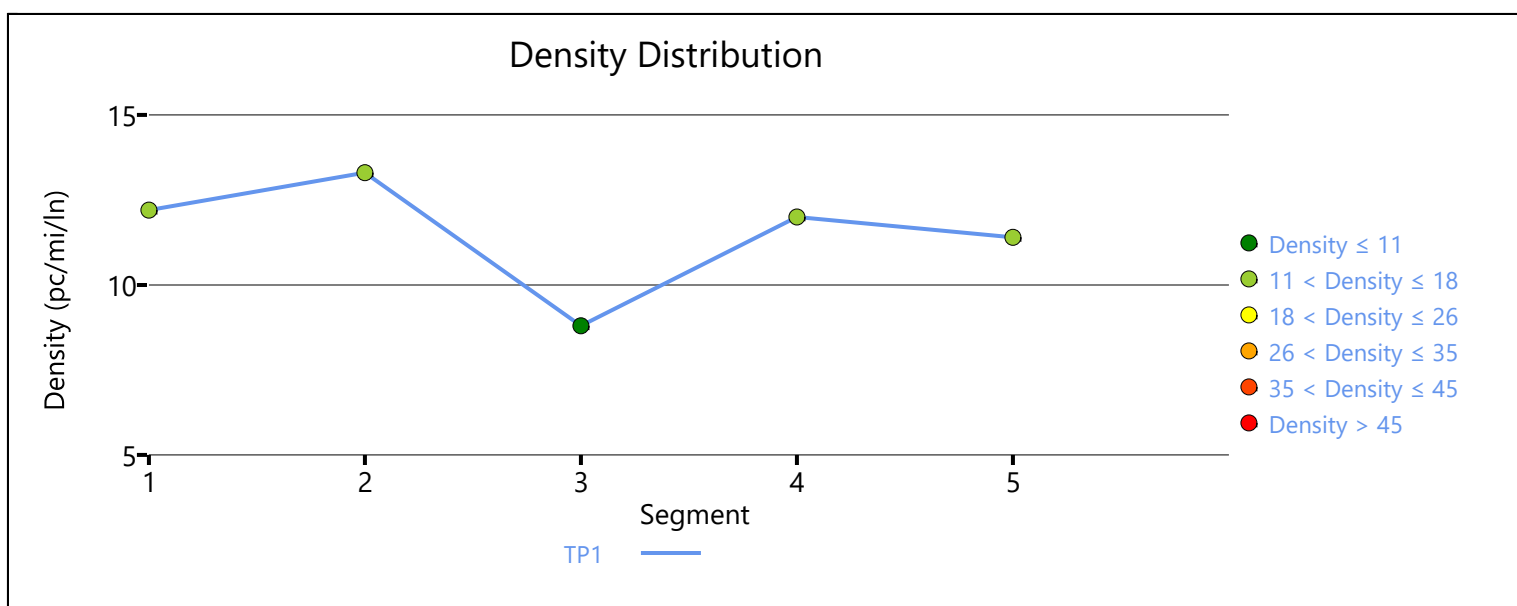
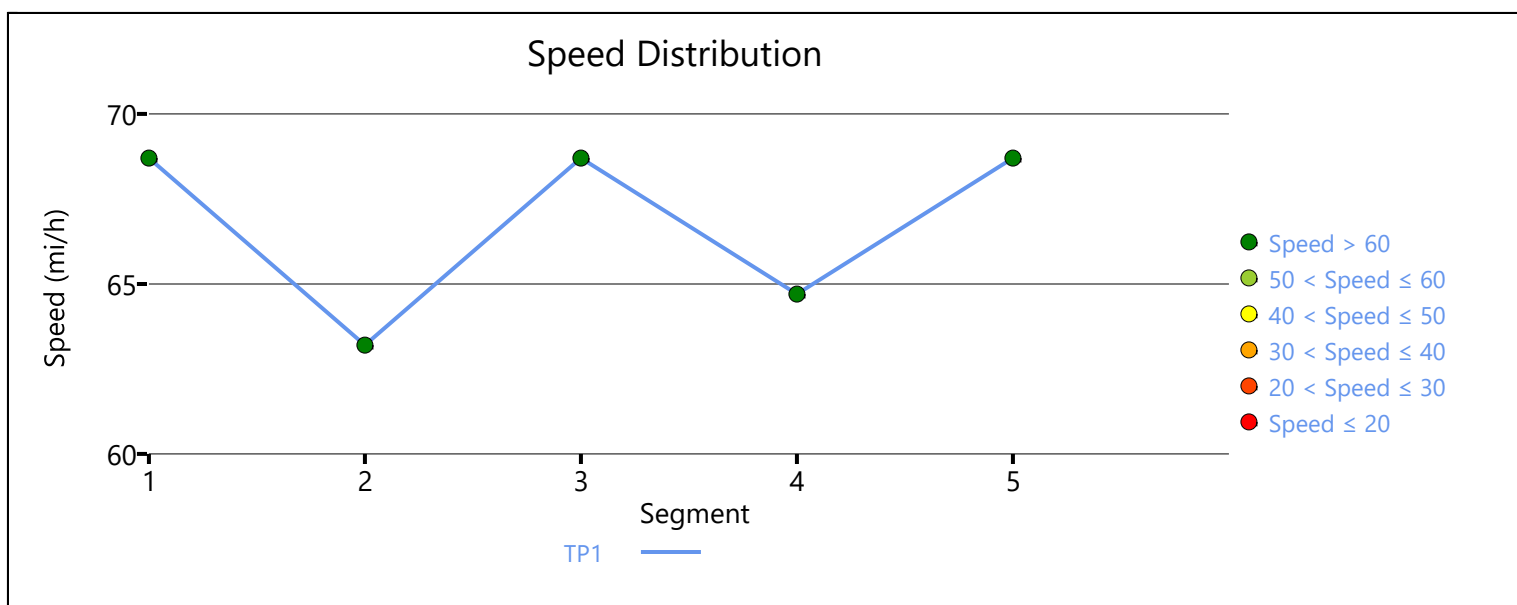
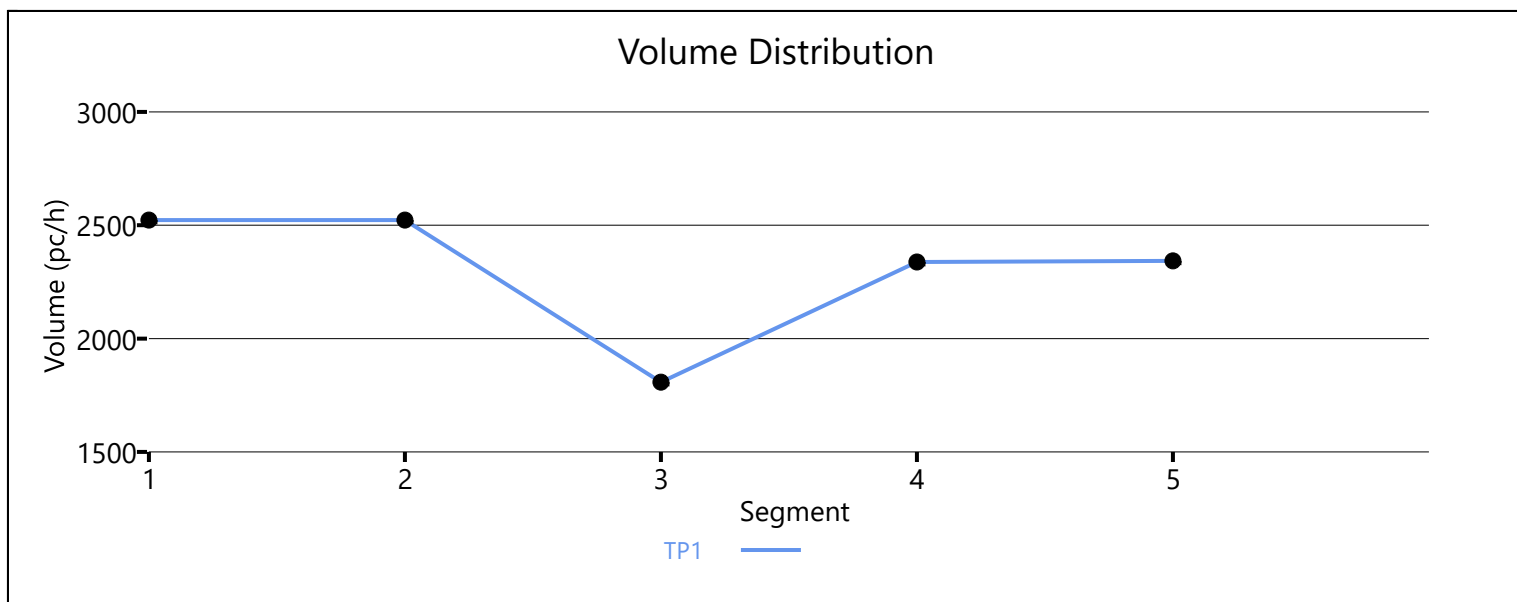
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.980	2338	530	7200	2100	0.32	0.25	64.7	62.9	12.0	12.0	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.917		2343		7161		0.33		68.7		11.4		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	11.6	10.7	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.5	Density, veh/mi/ln		10.7
Average Travel Time, min		2.2	Density, pc/mi/ln		11.6



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Beaumont	3040	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1000	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	East of Beaumont	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.893		4998		9548		0.52		68.7		18.2		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.893	0.926	4998	628	9600	2100	0.52	0.30	67.0	60.1	18.6	20.9	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.893		4347		9548		0.46		68.7		15.8		B

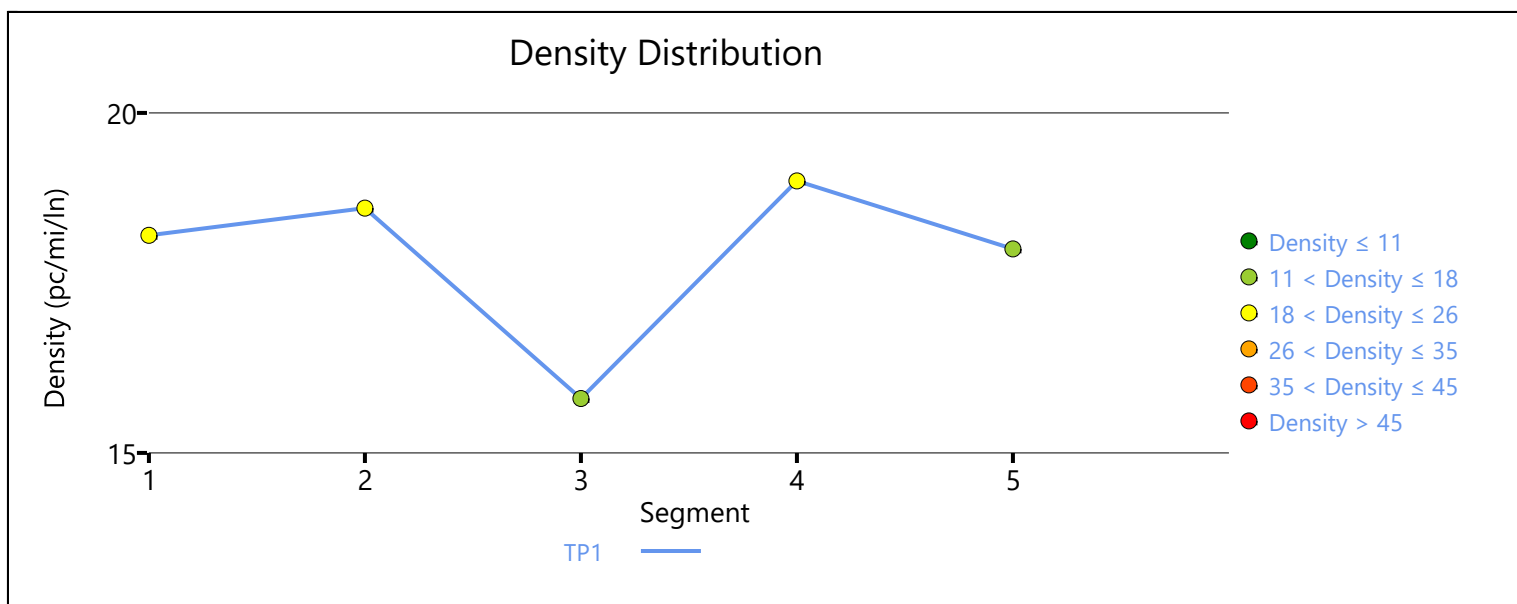
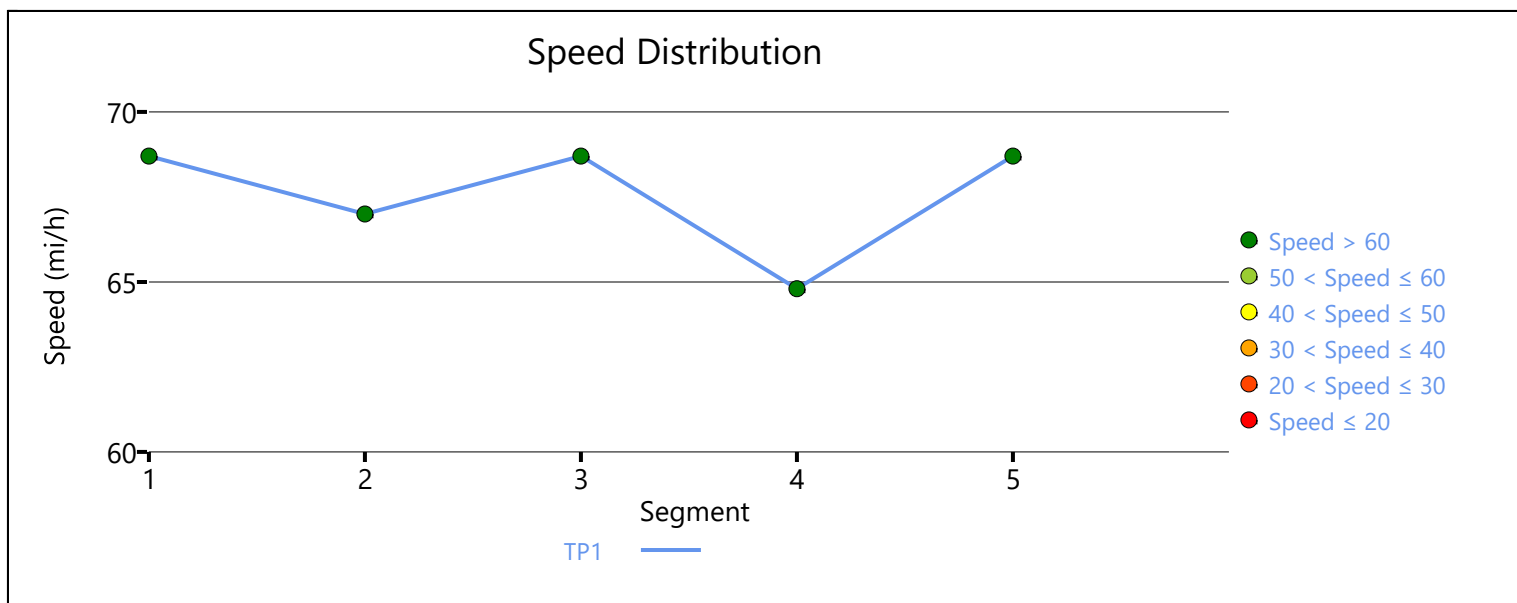
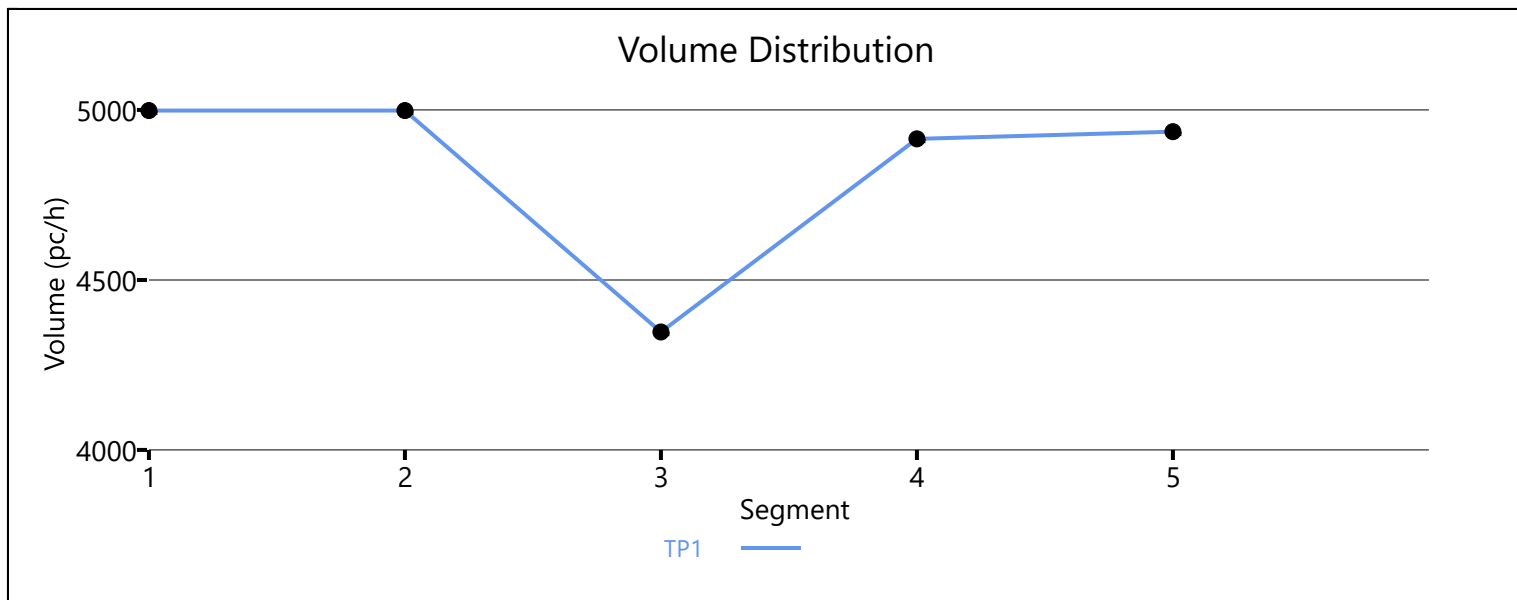
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.893	0.926	4915	568	9600	2100	0.51	0.27	64.8	62.3	19.0	17.3	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.893		4936		9548		0.52		68.7		18.0		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.8	18.1	16.2	1.7	C
Facility Overall Results					
Space Mean Speed, mi/h		67.8	Density, veh/mi/ln		16.2
Average Travel Time, min		1.7	Density, pc/mi/ln		18.1



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Beaumont	3125	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1300	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	West of Beaumont	3250	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		3852		9548		0.40		68.7		14.0		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.901	3705	626	9600	2100	0.39	0.30	66.9	60.1	13.8	16.2	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		3205		9548		0.34		68.7		11.7		B

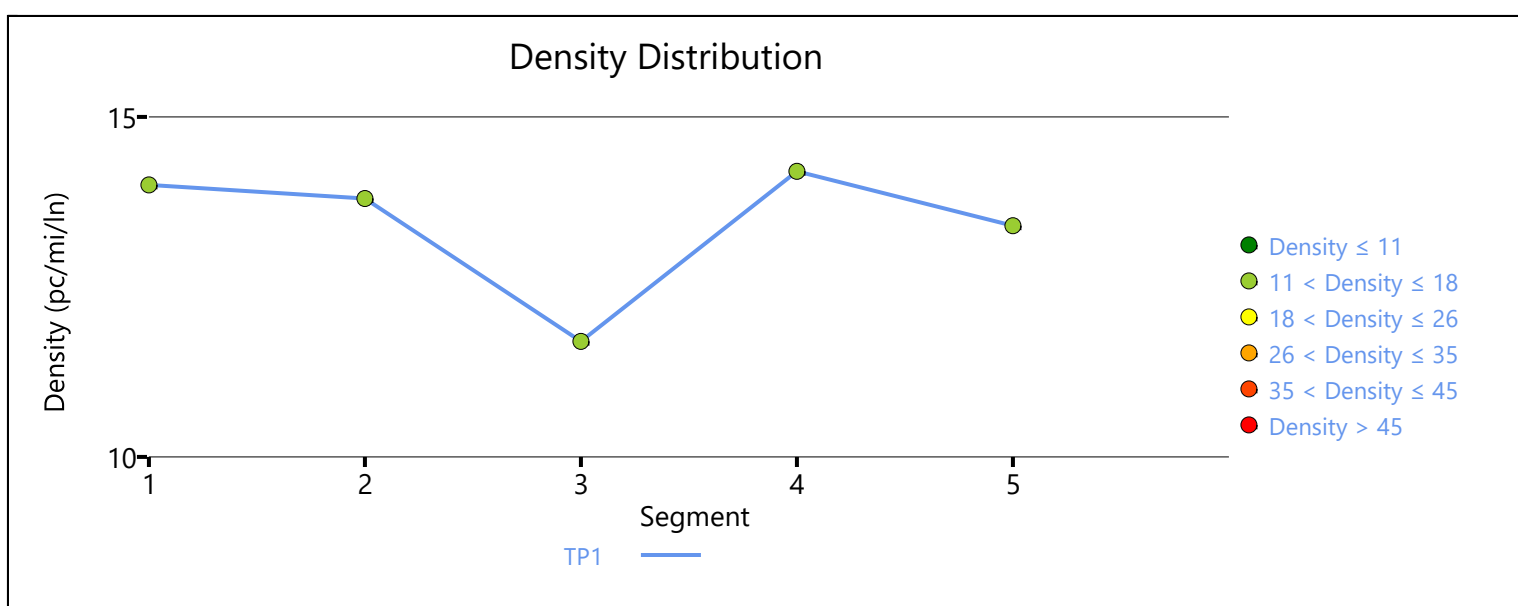
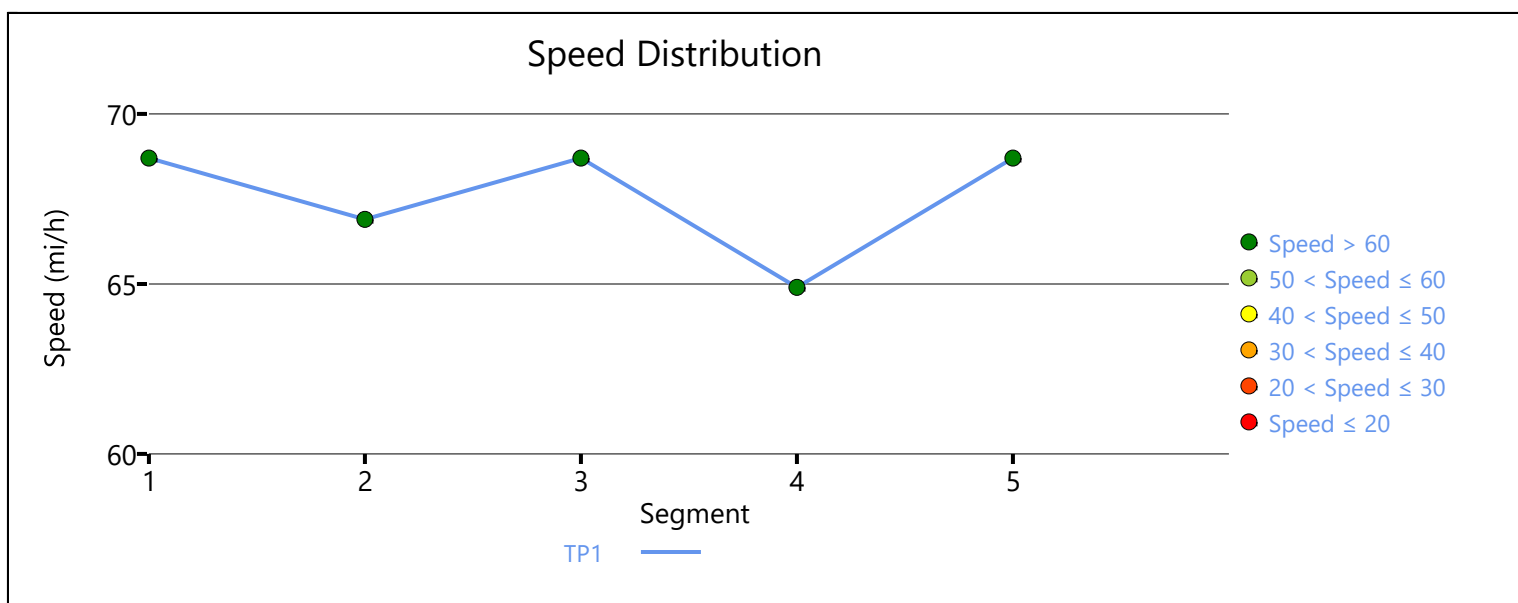
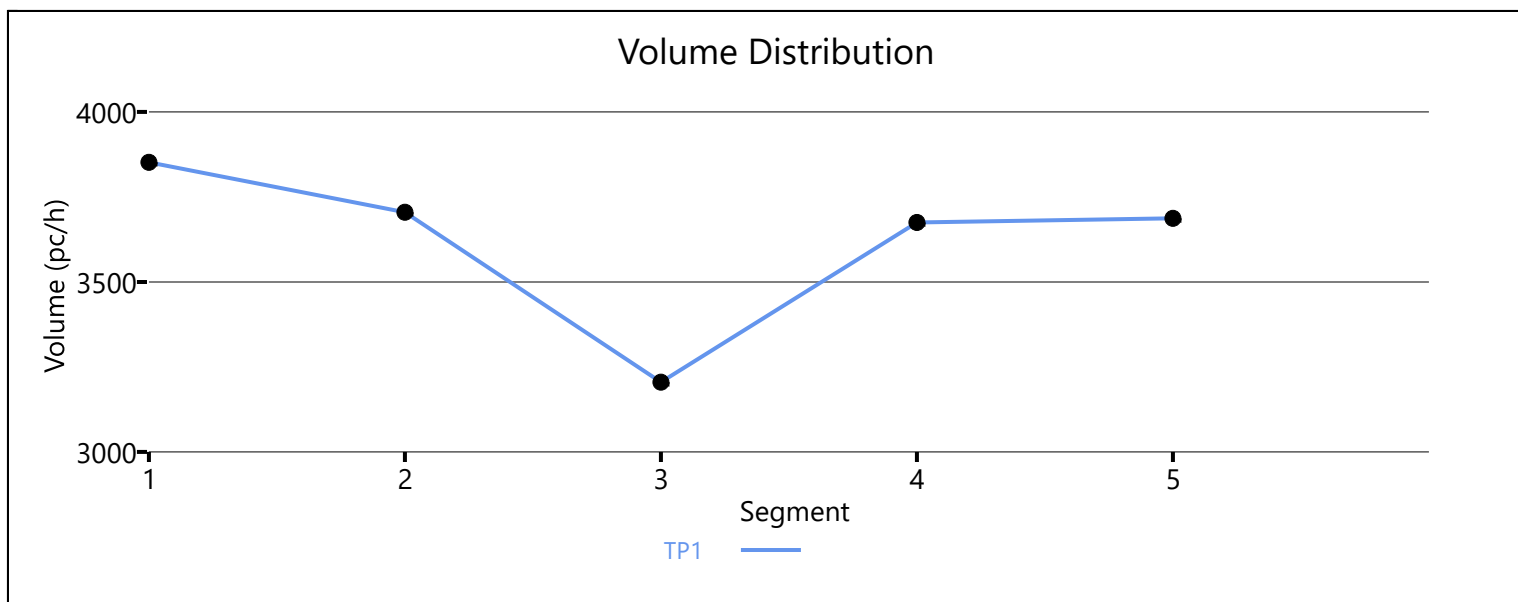
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.935	3675	470	9600	2100	0.38	0.22	64.9	61.5	14.2	16.3	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3687		9548		0.39		68.7		13.4		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.9	13.5	13.2	1.8	B
Facility Overall Results					
Space Mean Speed, mi/h		67.9	Density, veh/mi/ln		13.2
Average Travel Time, min		1.8	Density, pc/mi/ln		13.5



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of I-10	5280	2
2	Diverge	Diverge	Off-Ramp at 6th Street	1500	2
3	Basic	Basic	East of I-10	1000	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	1359	4786	0.28	69.3	9.8	A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.935	1359	871	4800	2100	0.28	0.41	59.5	59.5	11.4	11.9	B

Segment 3: Basic

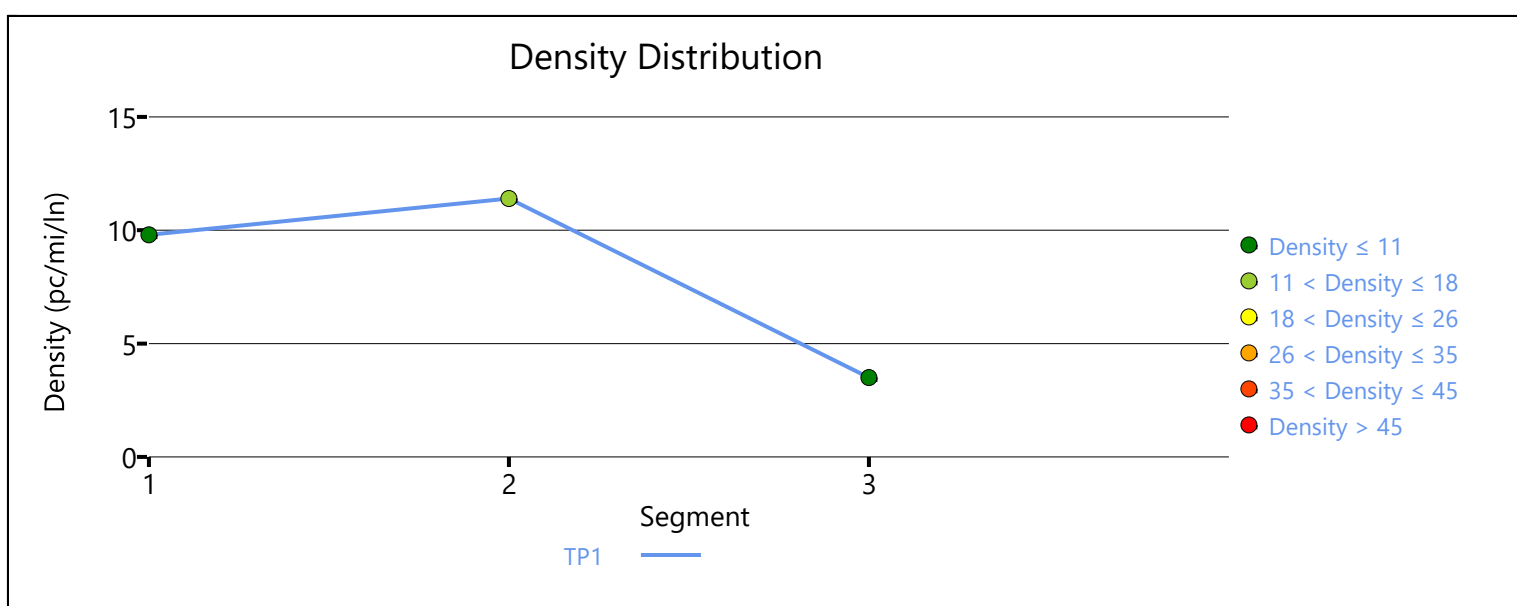
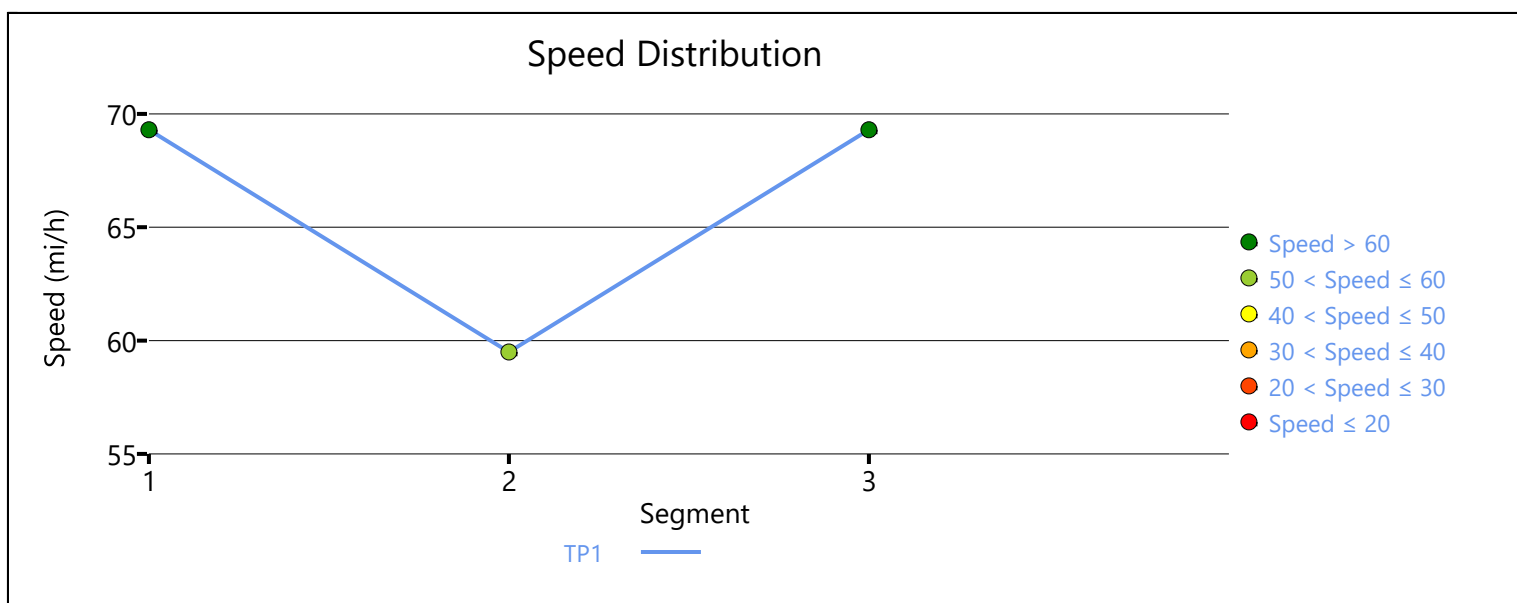
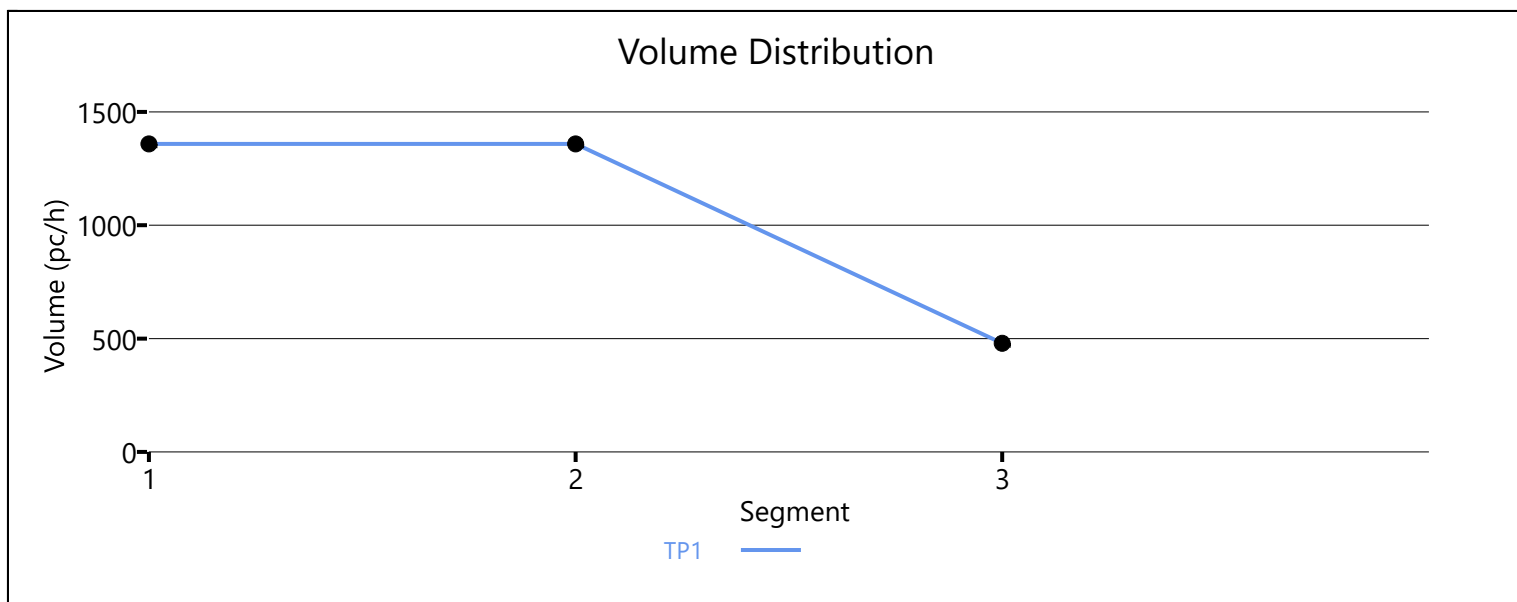
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	479	4786	0.10	69.3	3.5	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.0	9.3	8.9	1.3	A

Facility Overall Results

Space Mean Speed, mi/h	67.0	Density, veh/mi/ln	8.9
Average Travel Time, min	1.3	Density, pc/mi/ln	9.3



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Western Knolls	3500	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	100	2
4	Merge	Merge	On-Ramp	1500	2
5	Basic	Basic	West of Western Knolls	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		1294		4774		0.27		68.7		9.4		A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.870	1294	91	4800	2100	0.27	0.04	61.4	61.4	10.5	8.2	A

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		1202		4774		0.25		68.7		8.7		A

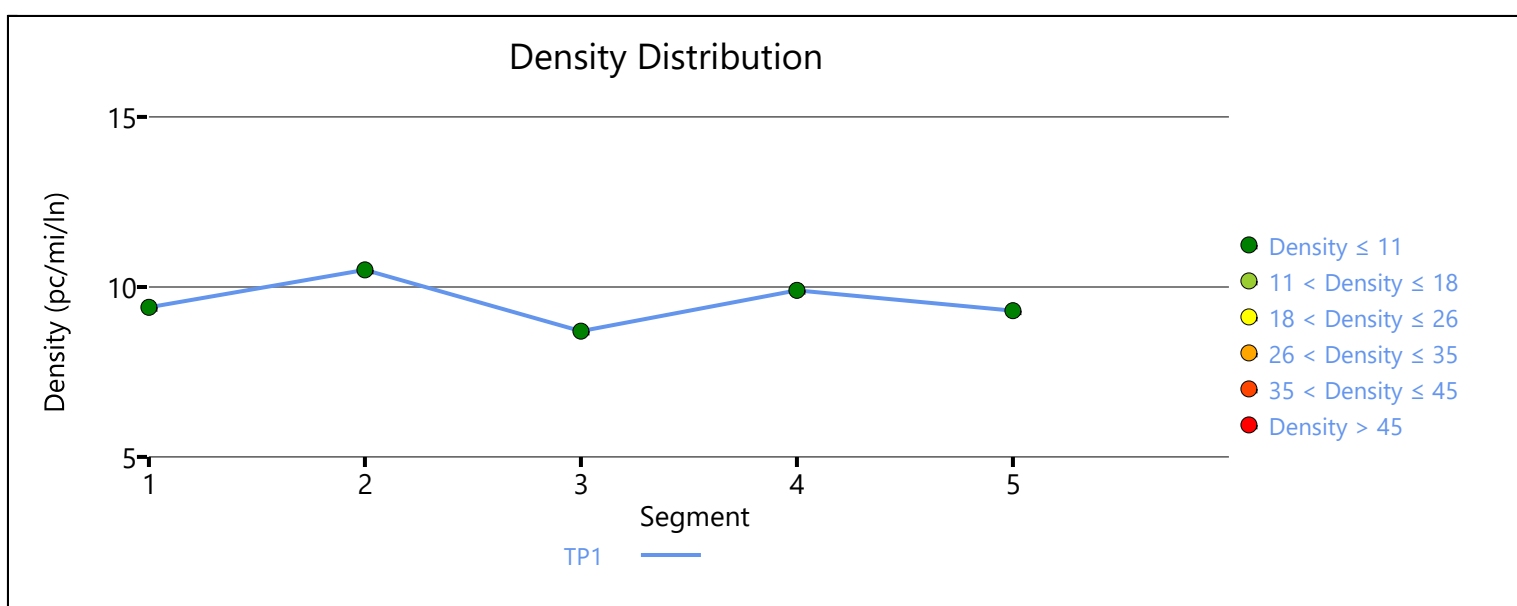
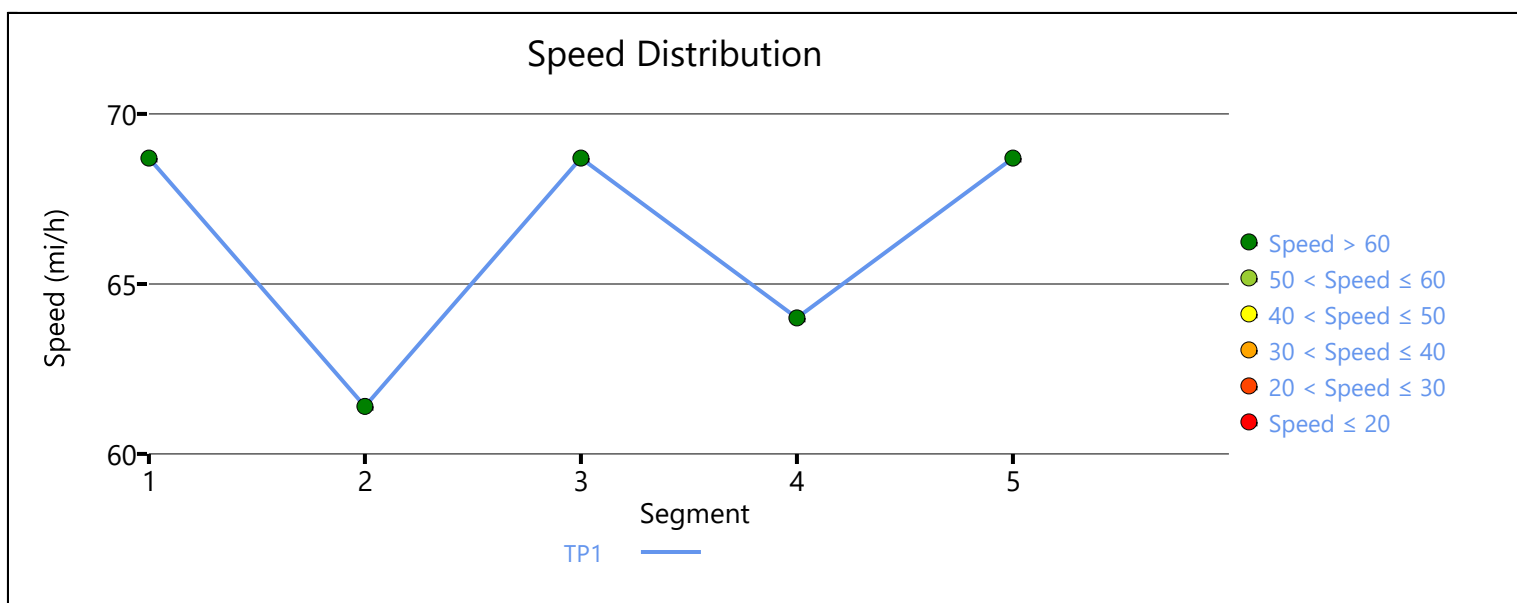
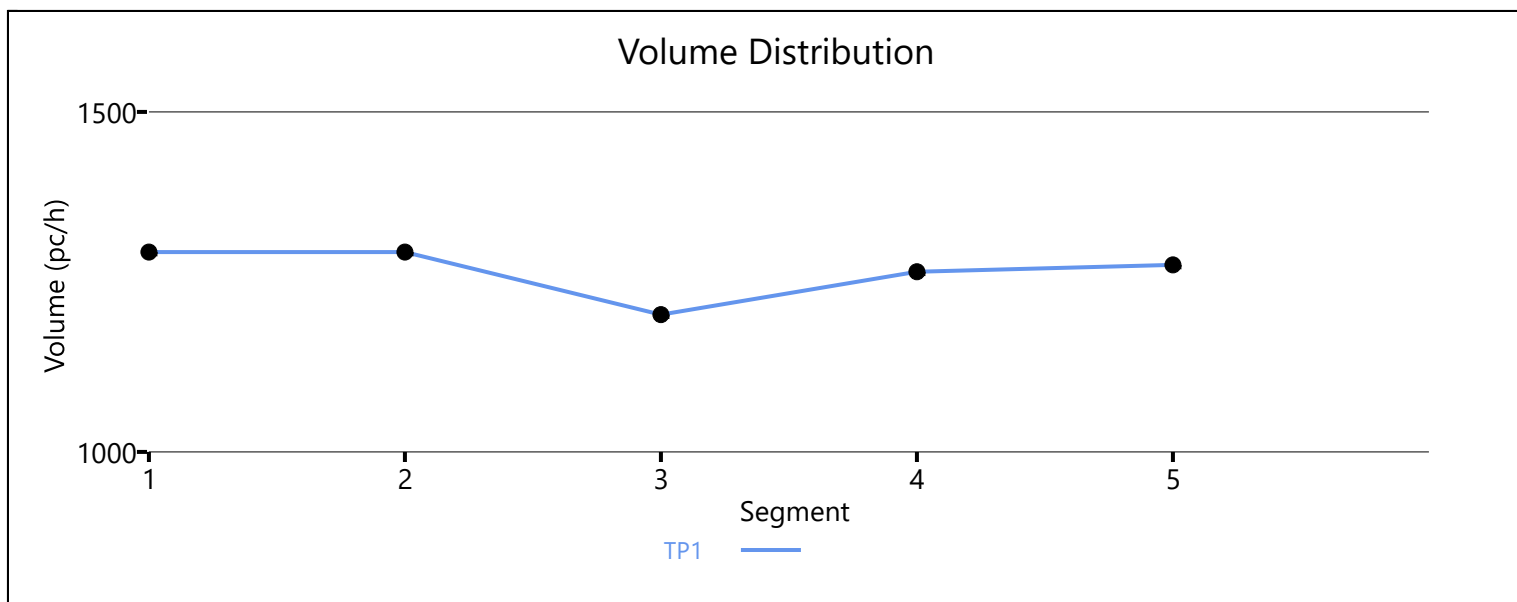
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	1265	63	4800	2100	0.26	0.03	64.0	64.0	9.9	7.1	A

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		1275		4774		0.27		68.7		9.3		A

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.1	9.6	9.5	2.0	A
Facility Overall Results					
Space Mean Speed, mi/h		67.1	Density, veh/mi/ln		9.5
Average Travel Time, min		2.0	Density, pc/mi/ln		9.6



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		2786		7161		0.39		68.7		13.5		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	2786	606	7200	2100	0.39	0.29	63.8	60.1	14.6	17.9	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2189		7161		0.31		68.7		10.6		A

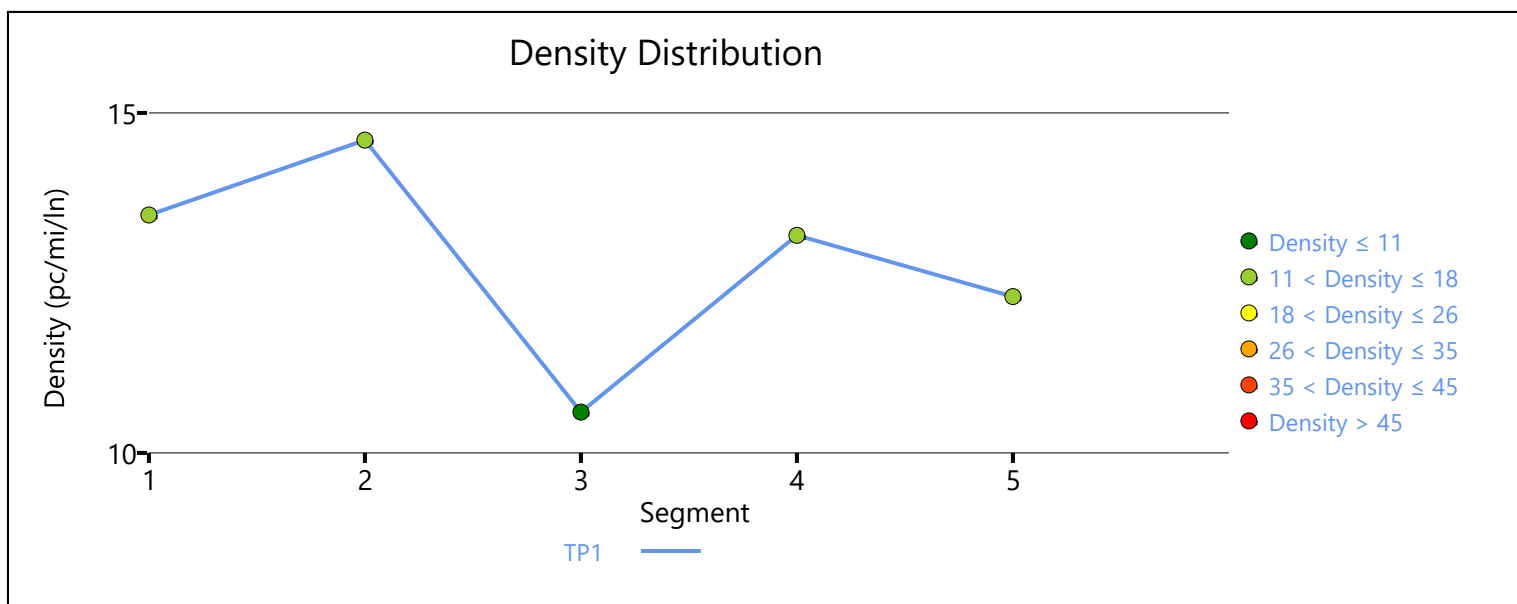
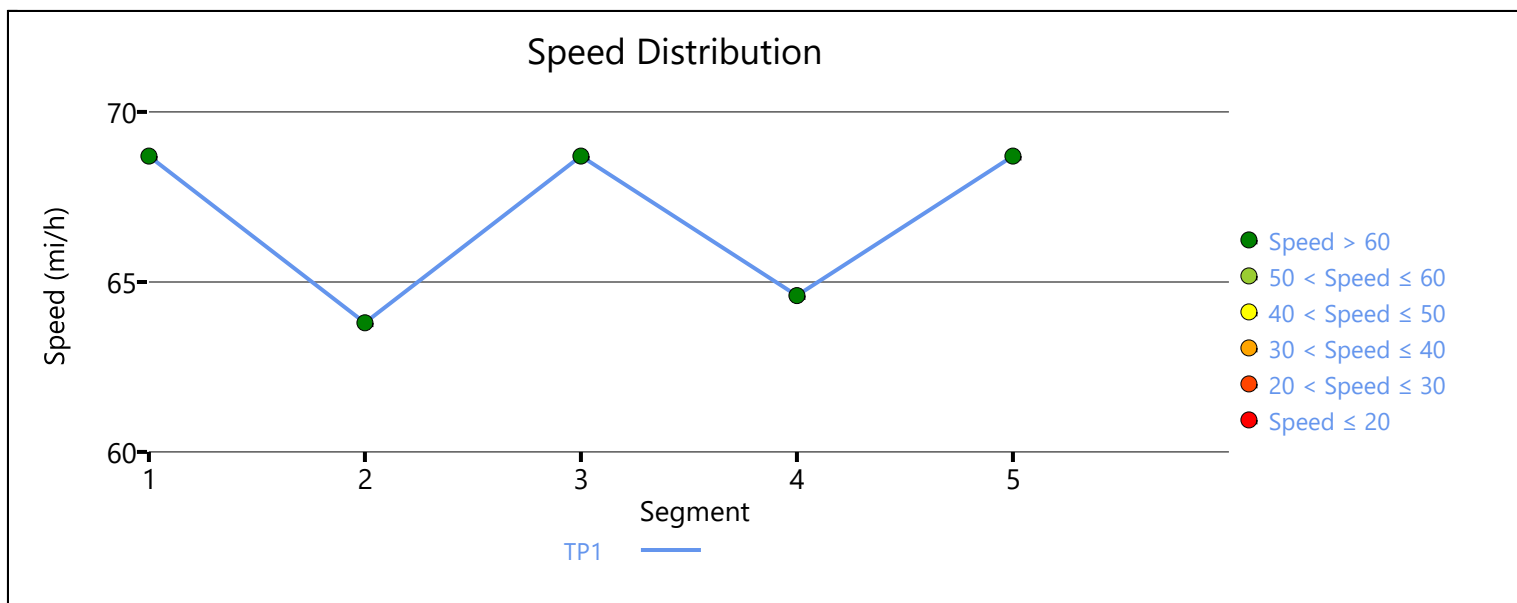
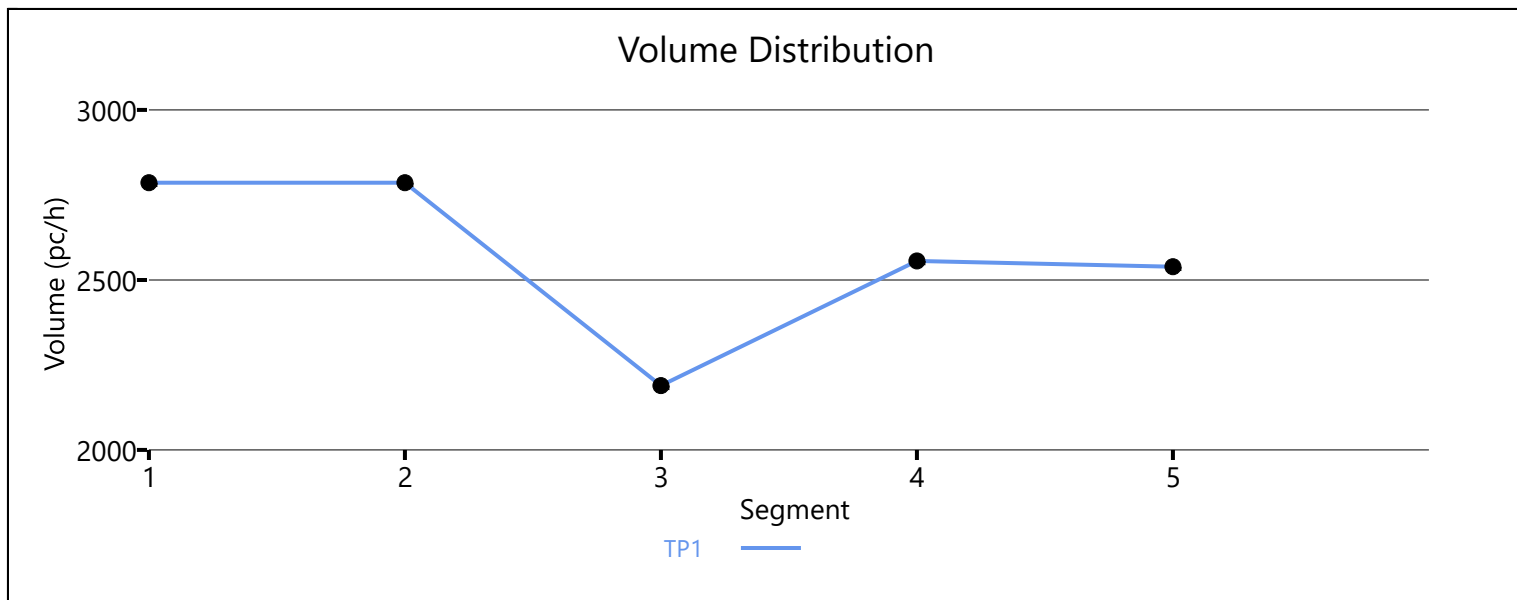
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	2556	367	7200	2100	0.36	0.17	64.6	62.6	13.2	13.2	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		2539		7161		0.35		68.7		12.3		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	13.0	12.6	2.1	B
Facility Overall Results					
Space Mean Speed, mi/h		67.5	Density, veh/mi/ln		12.6
Average Travel Time, min		2.1	Density, pc/mi/ln		13.0



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		3005		7161		0.42		68.7		14.6		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	3005	634	7200	2100	0.42	0.30	63.9	60.1	15.7	19.0	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.917		2380		7161		0.33		68.7		11.5		B

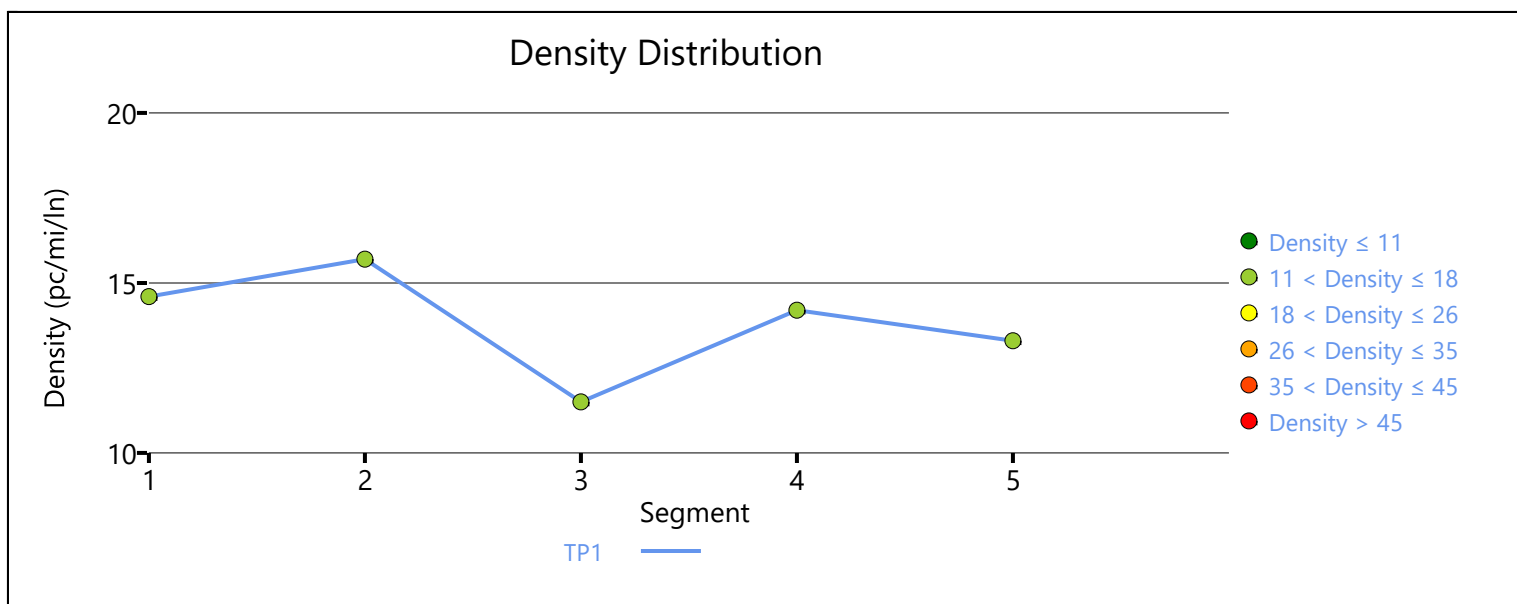
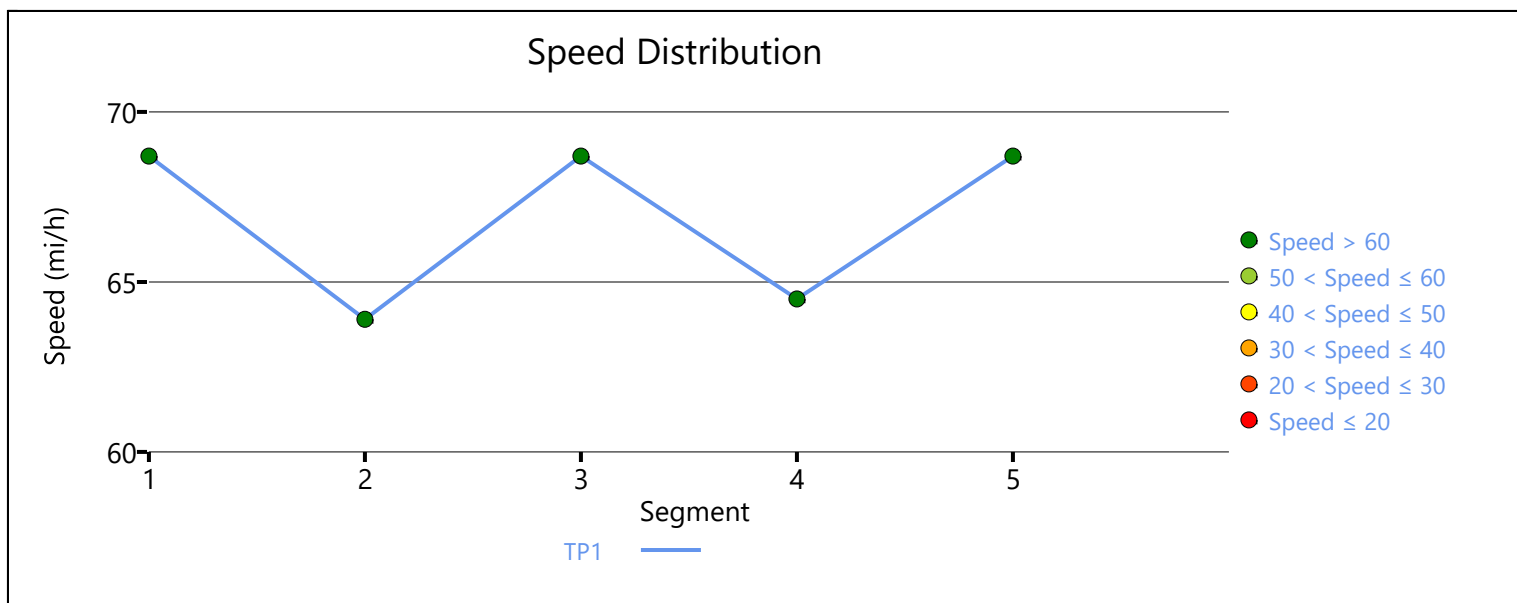
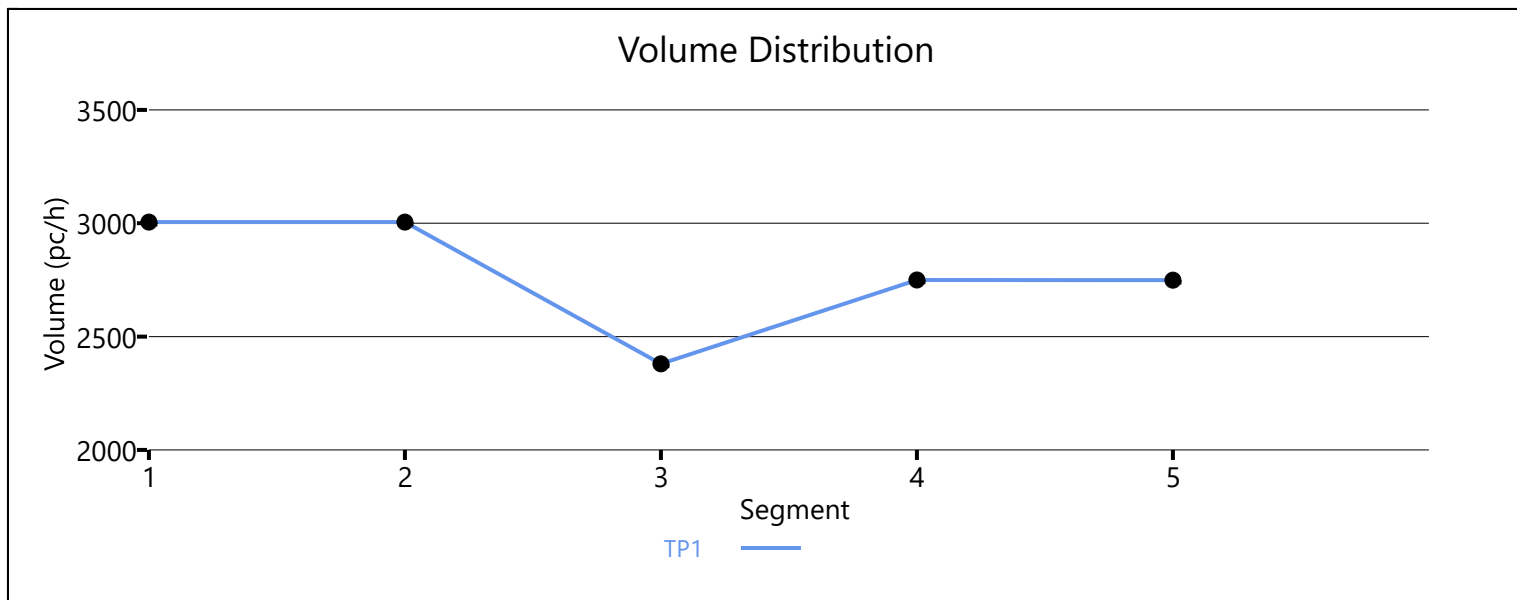
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.980	2750	370	7200	2100	0.38	0.18	64.5	62.7	14.2	13.5	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		2749		7161		0.38		68.7		13.3		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.6	13.9	12.9	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.6	Density, veh/mi/ln		12.9
Average Travel Time, min		2.2	Density, pc/mi/ln		13.9



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Beaumont	3040	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1000	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	East of Beaumont	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.917		5071		9548		0.53		68.7		18.5		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.943	5071	836	9600	2100	0.53	0.40	66.3	59.6	19.1	22.2	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.909		4249		9548		0.45		68.7		15.5		B

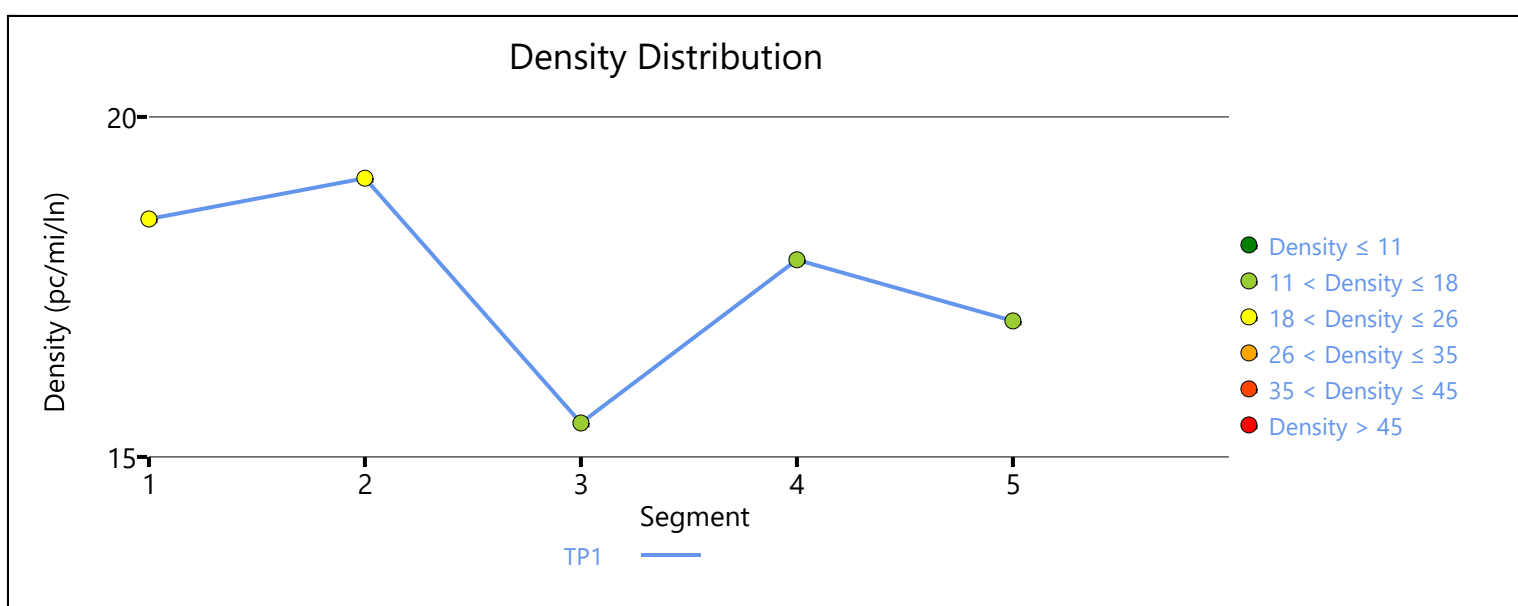
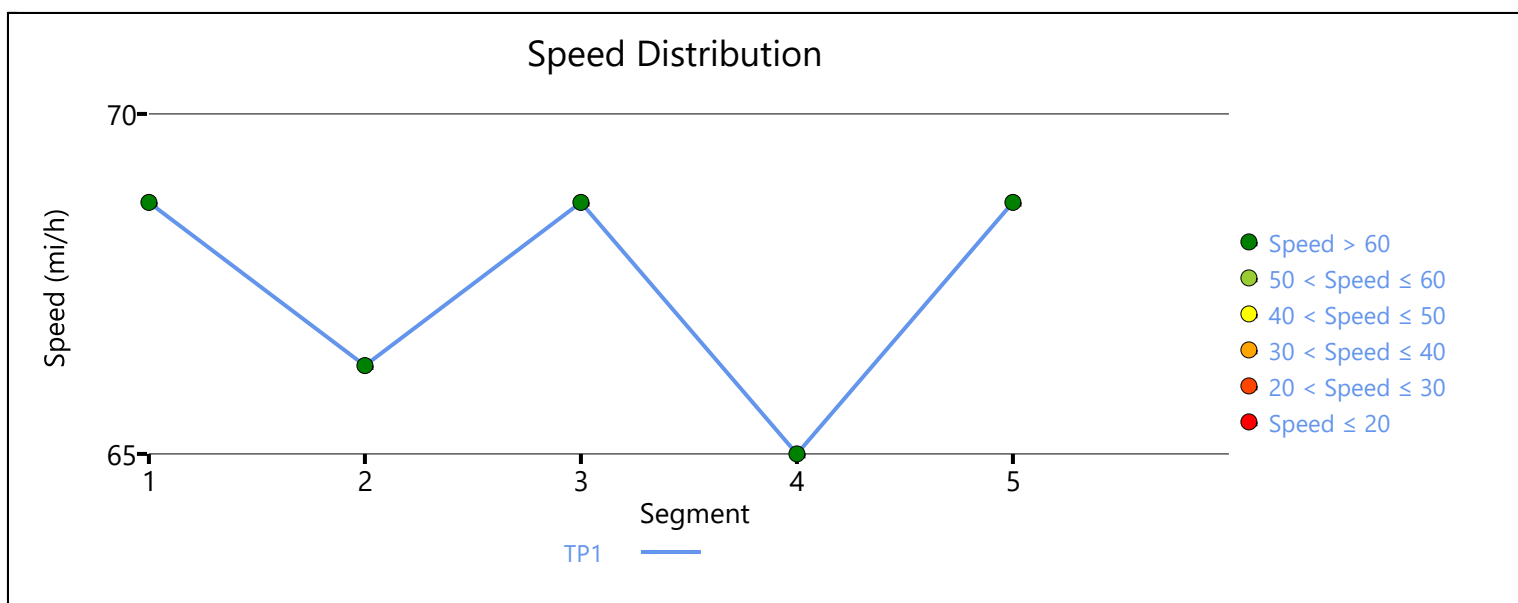
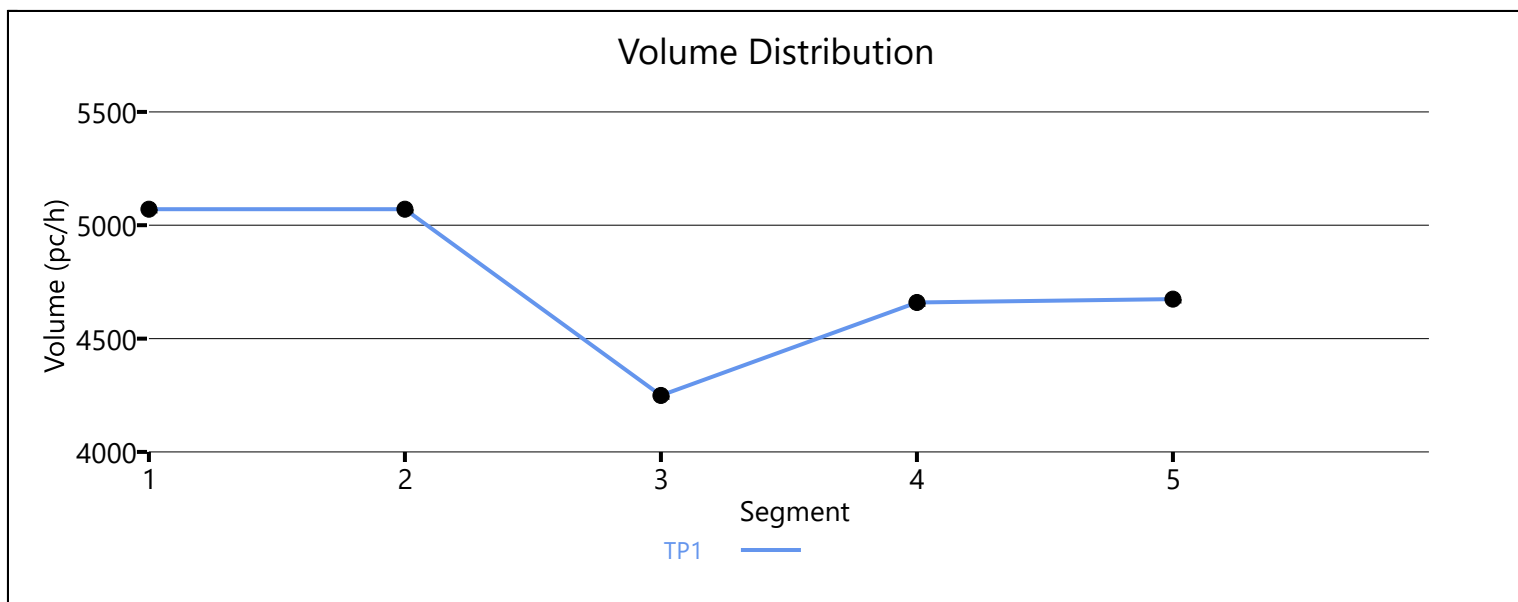
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.909	0.943	4659	410	9600	2100	0.49	0.20	65.0	62.5	17.9	15.9	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.909		4674		9548		0.49		68.7		17.0		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.8	17.8	16.2	1.7	B
Facility Overall Results					
Space Mean Speed, mi/h		67.8	Density, veh/mi/ln		16.2
Average Travel Time, min		1.7	Density, pc/mi/ln		17.8



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Beaumont	3125	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1300	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	West of Beaumont	3250	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		4676		9548		0.49		68.7		17.0		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	4676	923	9600	2100	0.49	0.44	66.1	59.3	17.7	21.3	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3734		9548		0.39		68.7		13.6		B

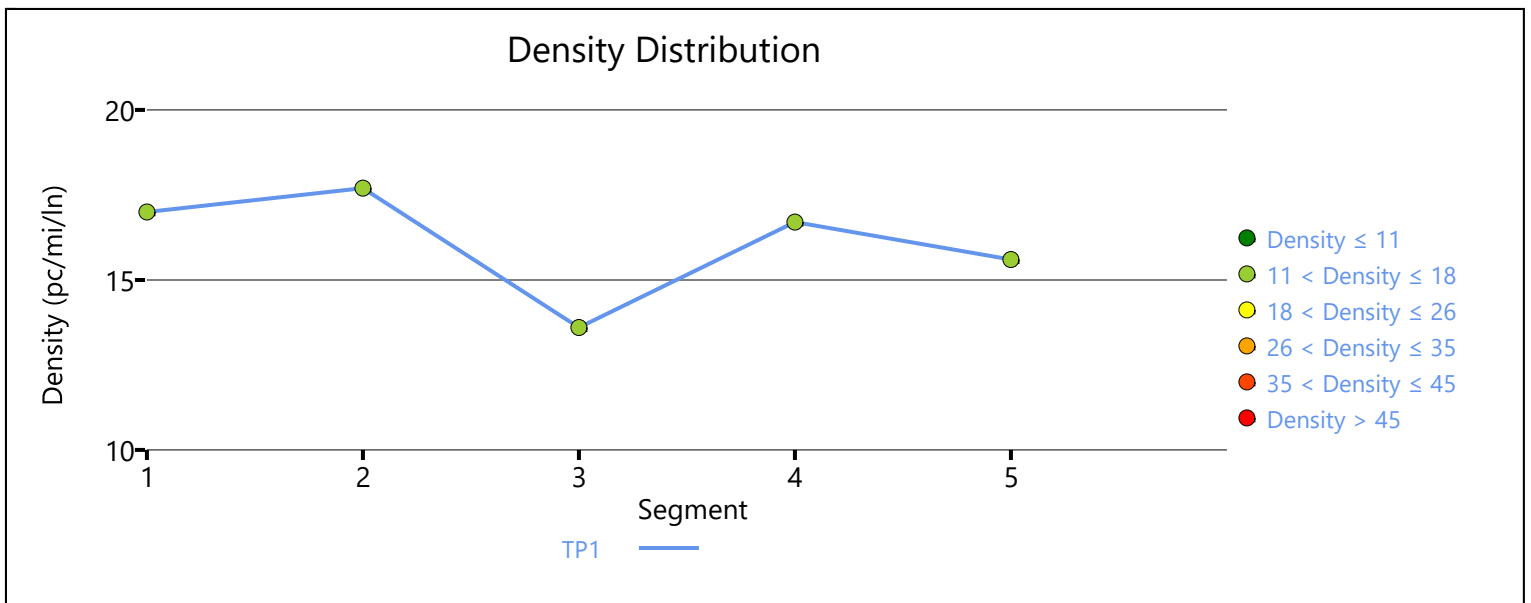
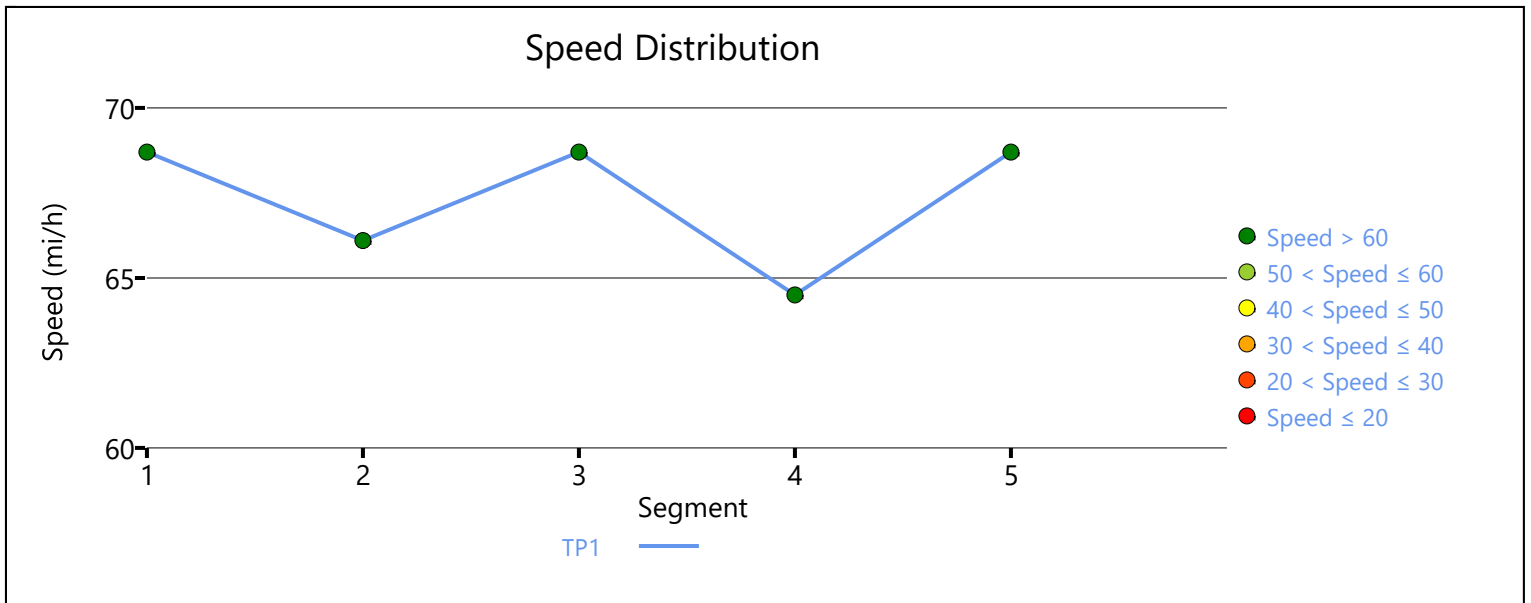
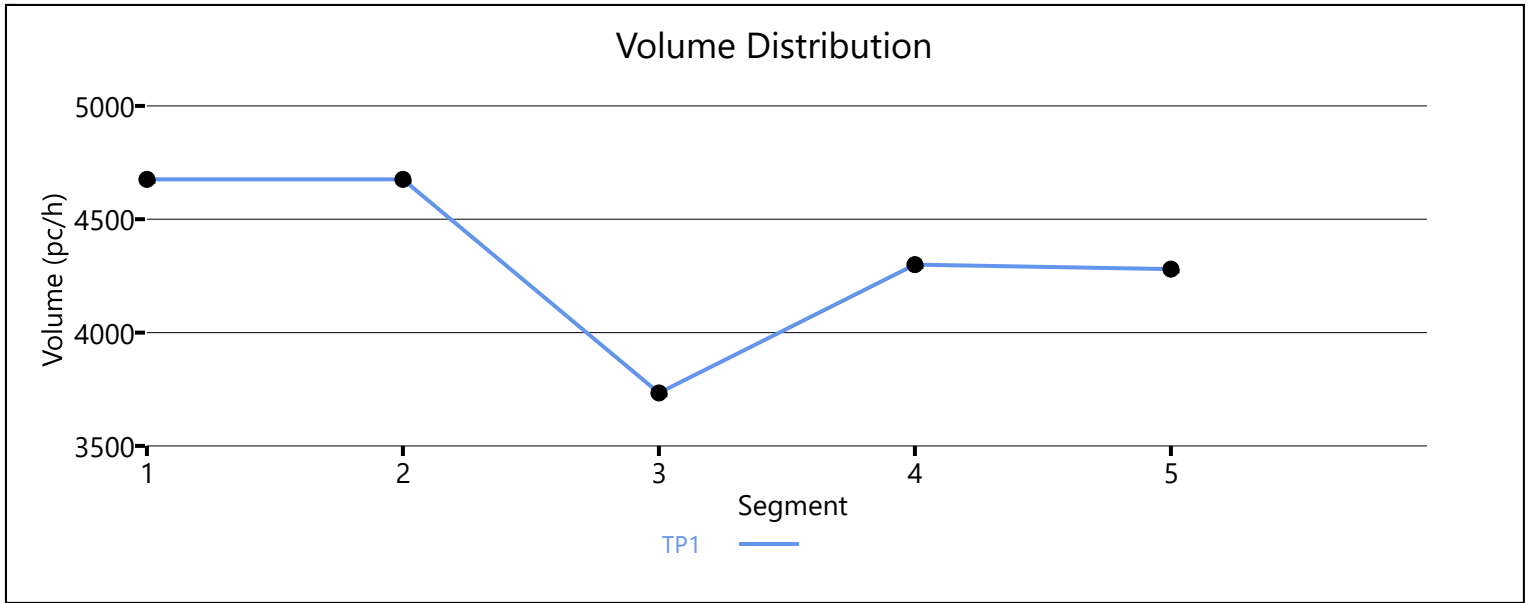
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.935	4300	566	9600	2100	0.45	0.27	64.5	61.2	16.7	18.7	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		4280		9548		0.45		68.7		15.6		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.7	16.2	15.7	1.8	B
Facility Overall Results					
Space Mean Speed, mi/h		67.7	Density, veh/mi/ln		15.7
Average Travel Time, min		1.8	Density, pc/mi/ln		16.2



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of I-10	5280	2
2	Diverge	Diverge	Off-Ramp at 6th Street	1500	2
3	Basic	Basic	East of I-10	1000	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	1536	4786	0.32	69.3	11.1	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.971	1536	1247	4800	2100	0.32	0.59	58.5	58.5	13.1	13.5	B

Segment 3: Basic

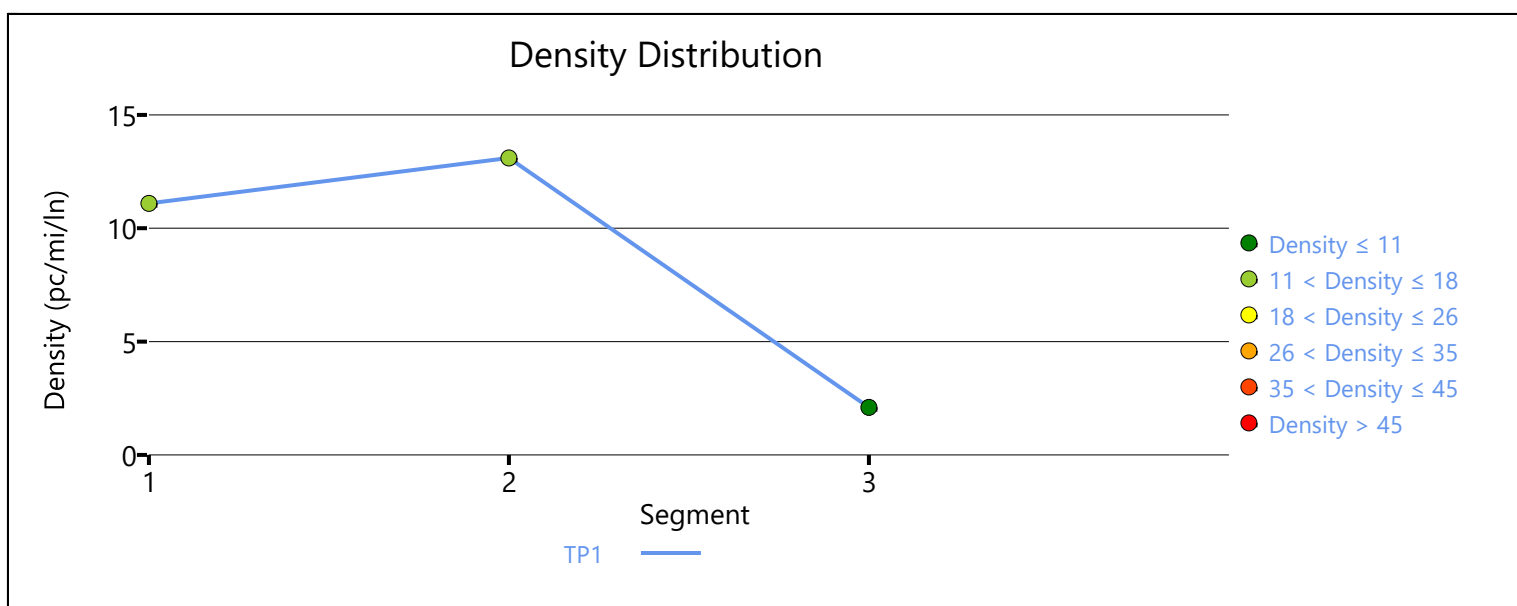
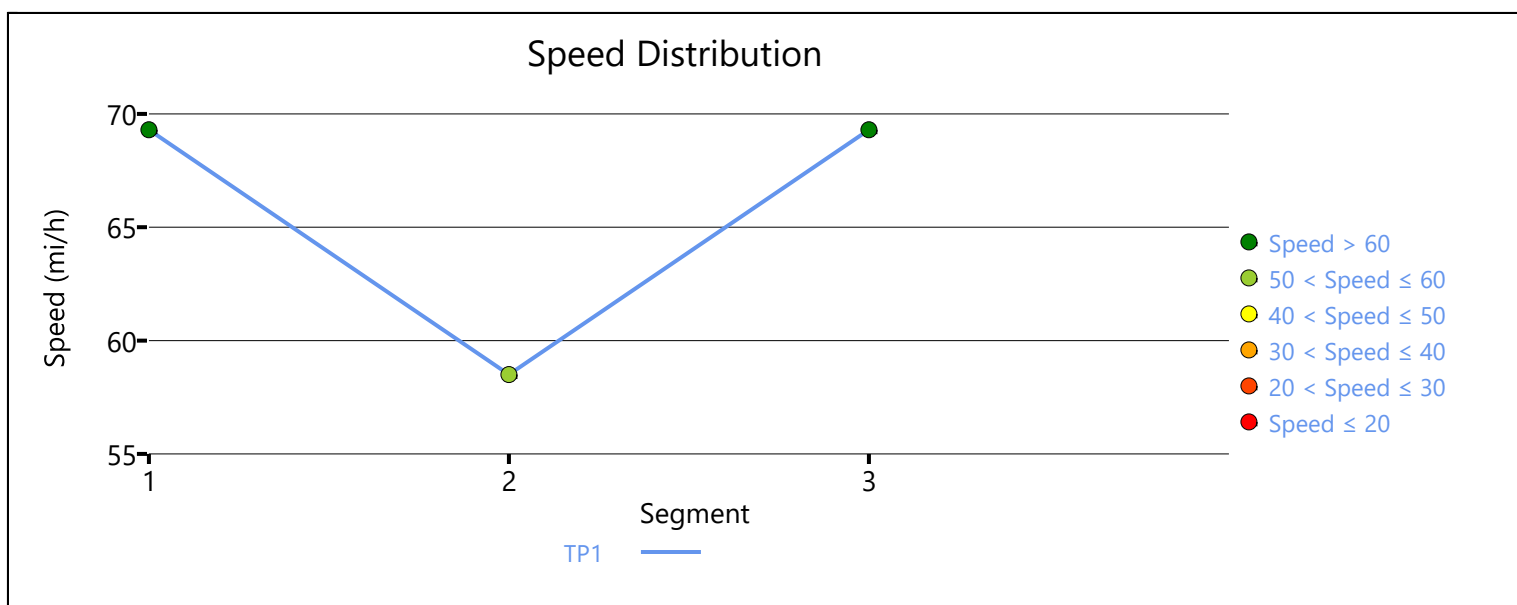
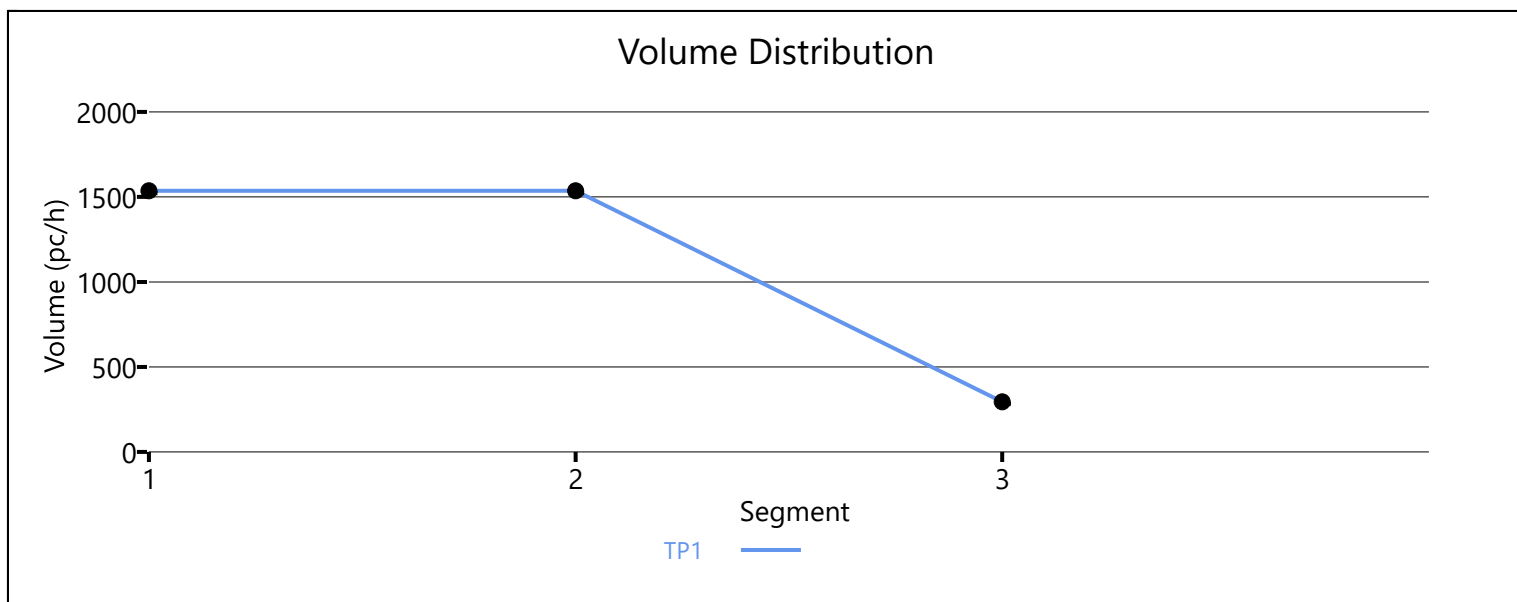
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	295	4786	0.06	69.3	2.1	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.7	10.3	10.1	1.3	A

Facility Overall Results

Space Mean Speed, mi/h	66.7	Density, veh/mi/ln	10.1
Average Travel Time, min	1.3	Density, pc/mi/ln	10.3



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 1
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Western Knolls	3500	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	100	2
4	Merge	Merge	On-Ramp	1500	2
5	Basic	Basic	West of Western Knolls	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		1514		4774		0.32		68.7		11.0		A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.952	1514	113	4800	2100	0.32	0.05	61.4	61.4	12.3	10.1	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		1391		4774		0.29		68.7		10.1		A

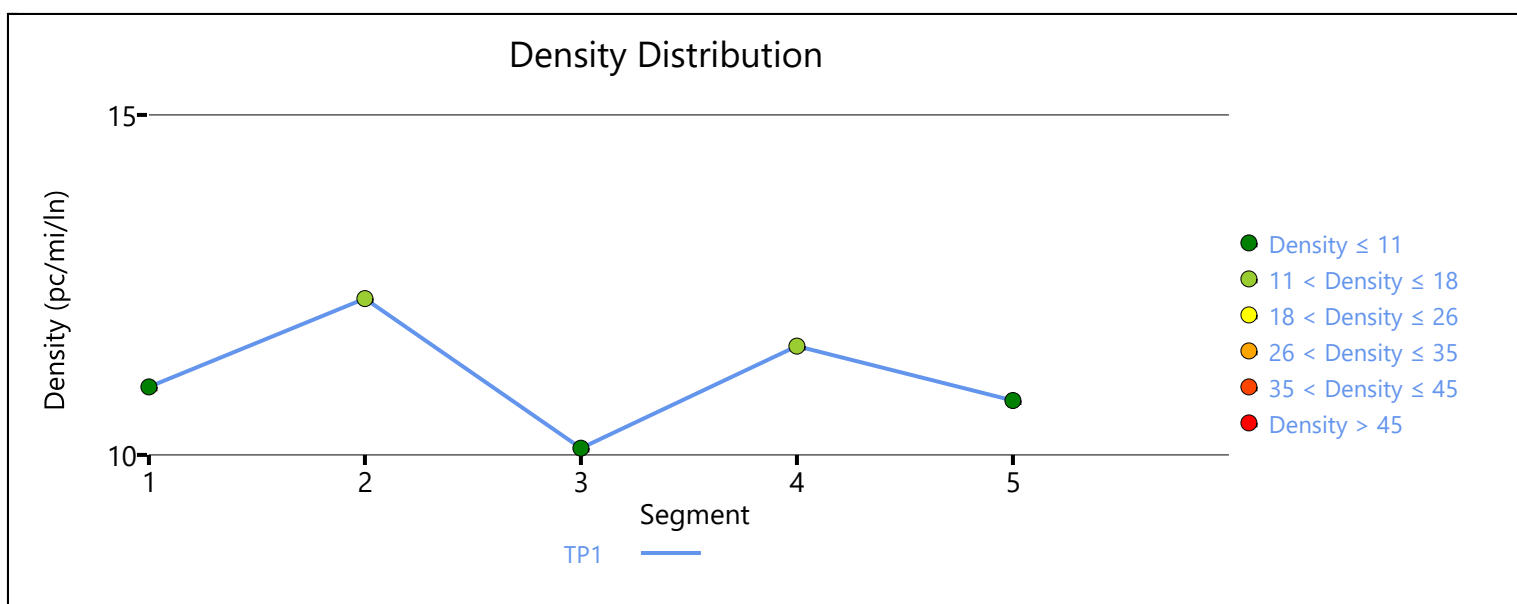
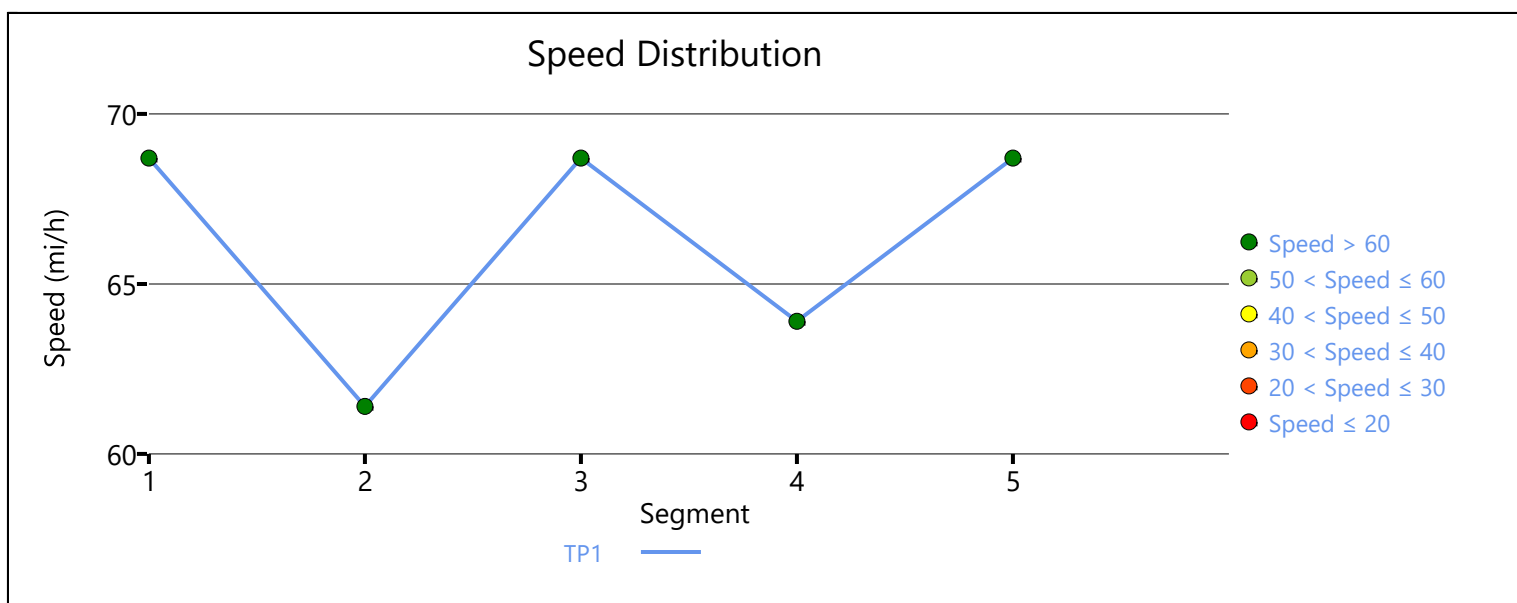
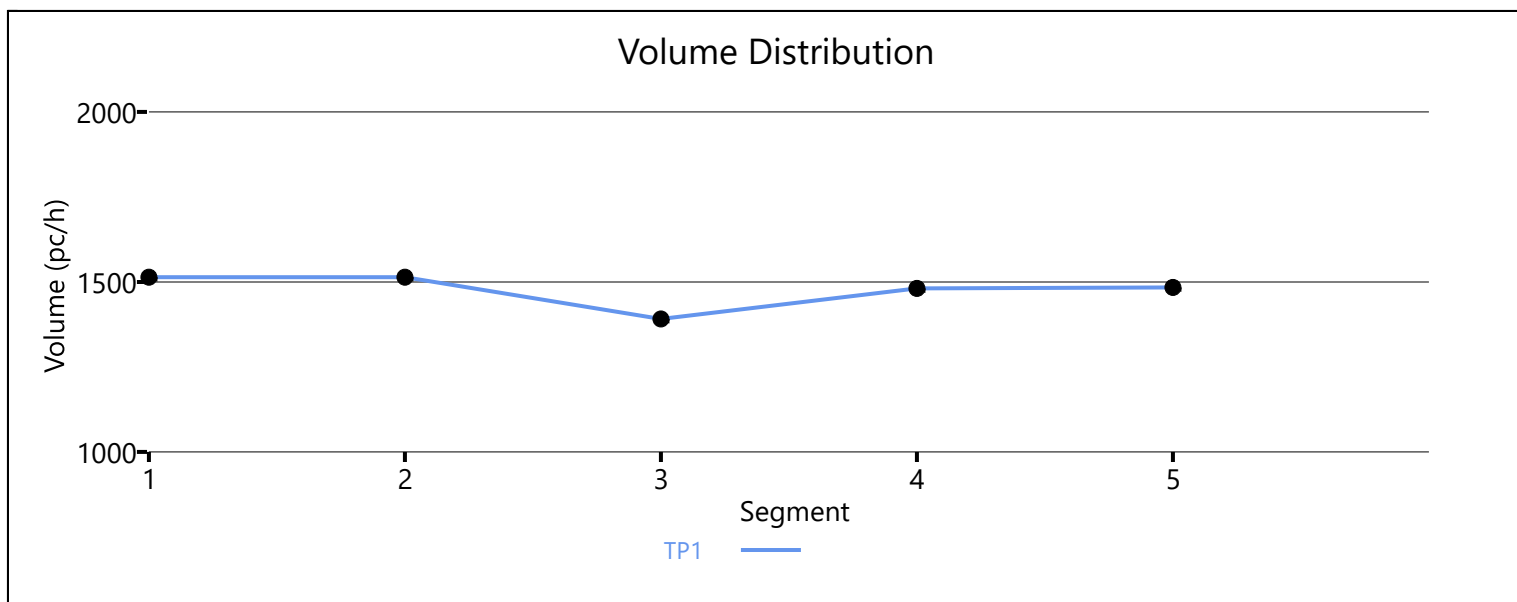
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.870	1481	90	4800	2100	0.31	0.04	63.9	63.9	11.6	8.8	A

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		1484		4774		0.31		68.7		10.8		A

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.1	11.1	11.1	2.0	B
Facility Overall Results					
Space Mean Speed, mi/h		67.1	Density, veh/mi/ln		11.1
Average Travel Time, min		2.0	Density, pc/mi/ln		11.1



APPENDIX 5.11:

E+P (PHASE 2) CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2167		7161		0.30		68.7		10.5		A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2167	431	7200	2100	0.30	0.21	64.0	60.6	11.3	14.2	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1732		7161		0.24		68.7		8.4		A

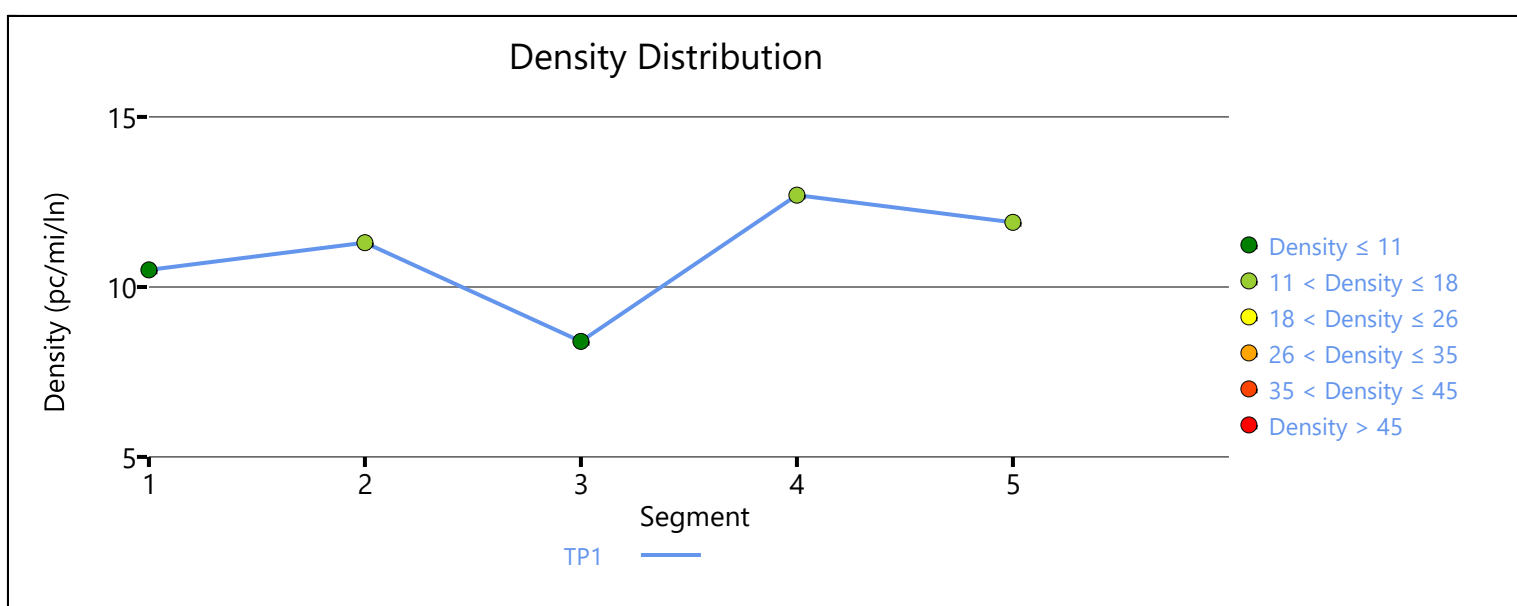
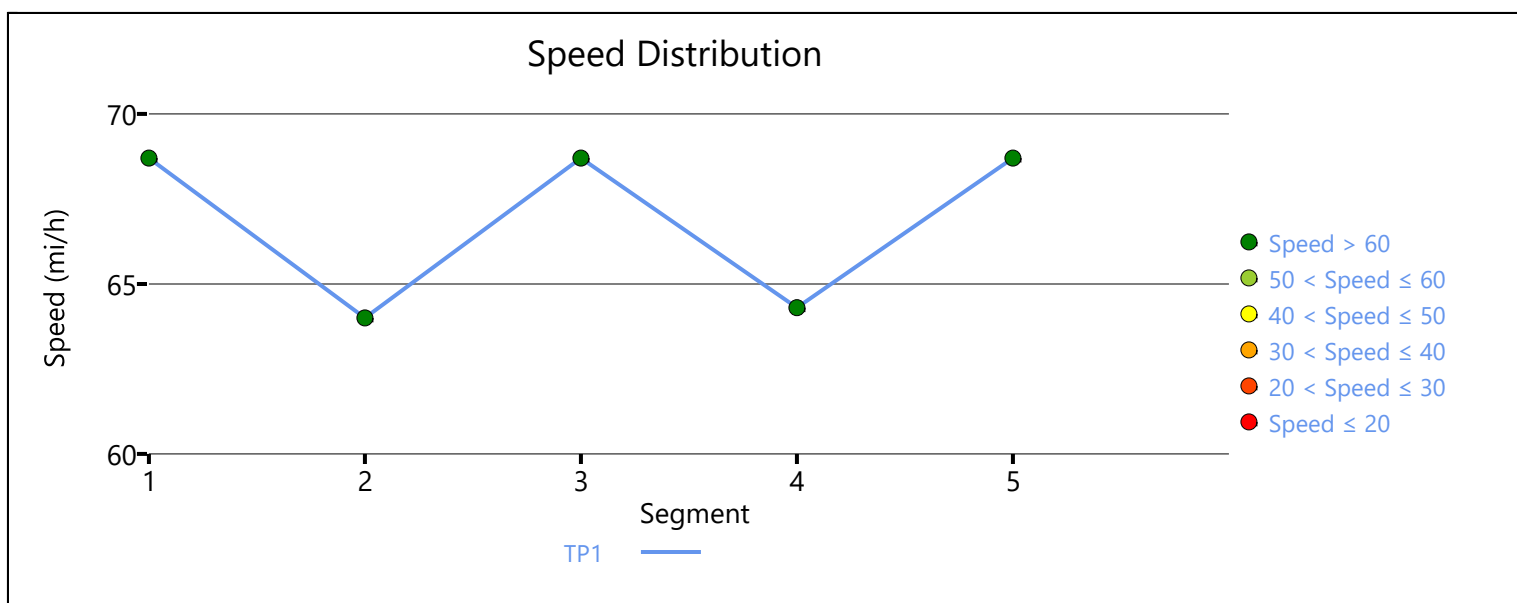
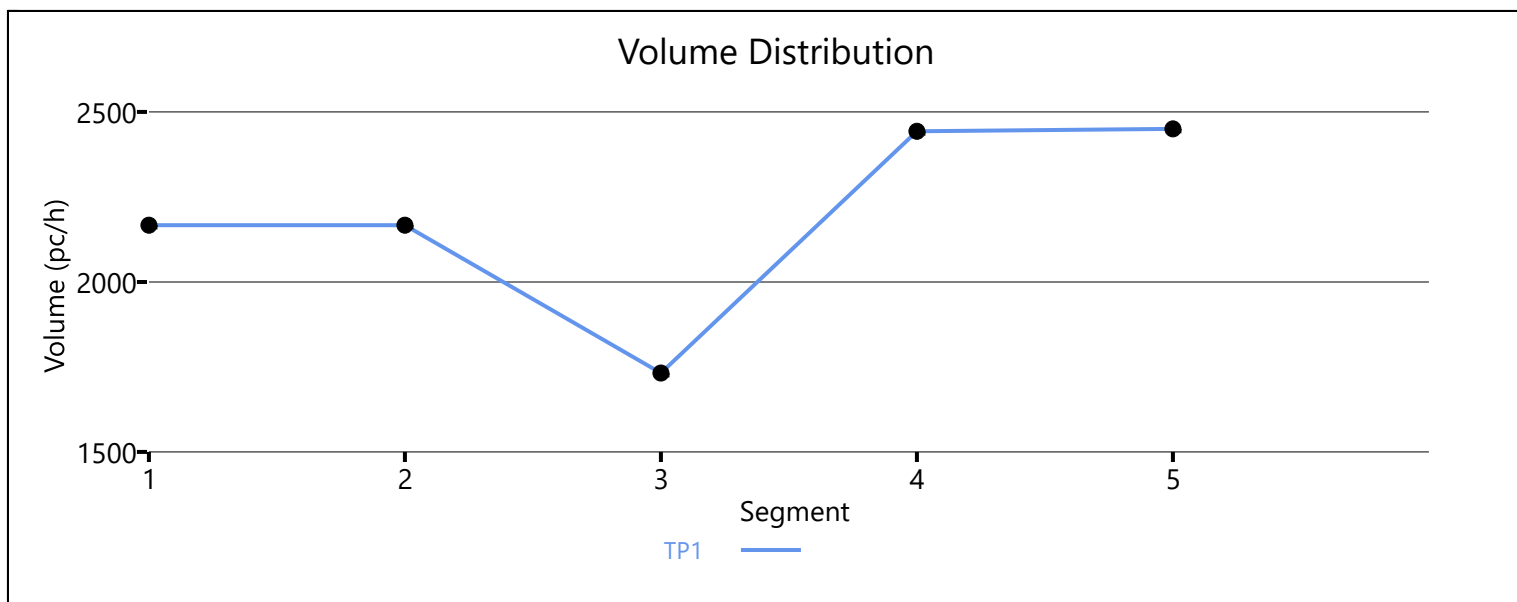
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2443	711	7200	2100	0.34	0.34	64.3	62.5	12.7	13.6	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2450		7161		0.34		68.7		11.9		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	10.8	10.4	2.1	A
Facility Overall Results					
Space Mean Speed, mi/h		67.5	Density, veh/mi/ln		10.4
Average Travel Time, min		2.1	Density, pc/mi/ln		10.8



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		2523		7161		0.35		68.7		12.2		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2523	728	7200	2100	0.35	0.35	63.2	59.8	13.3	16.7	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.901		1808		7161		0.25		68.7		8.8		A

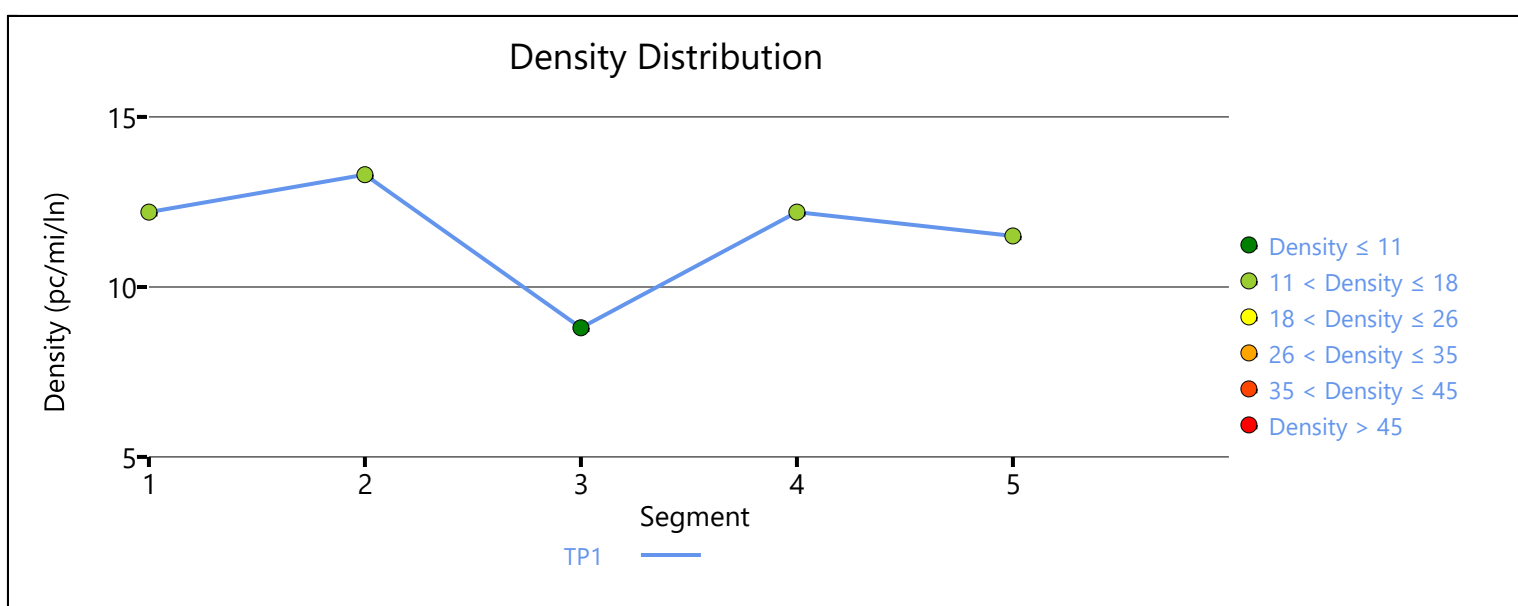
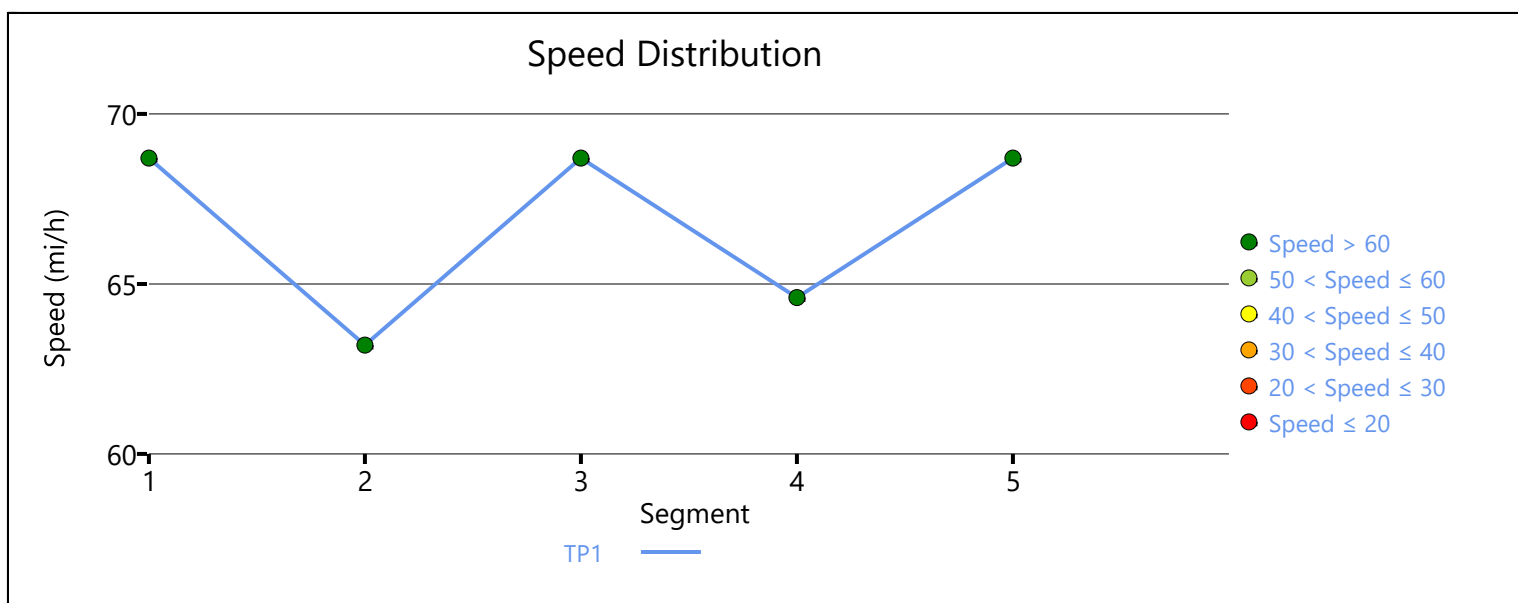
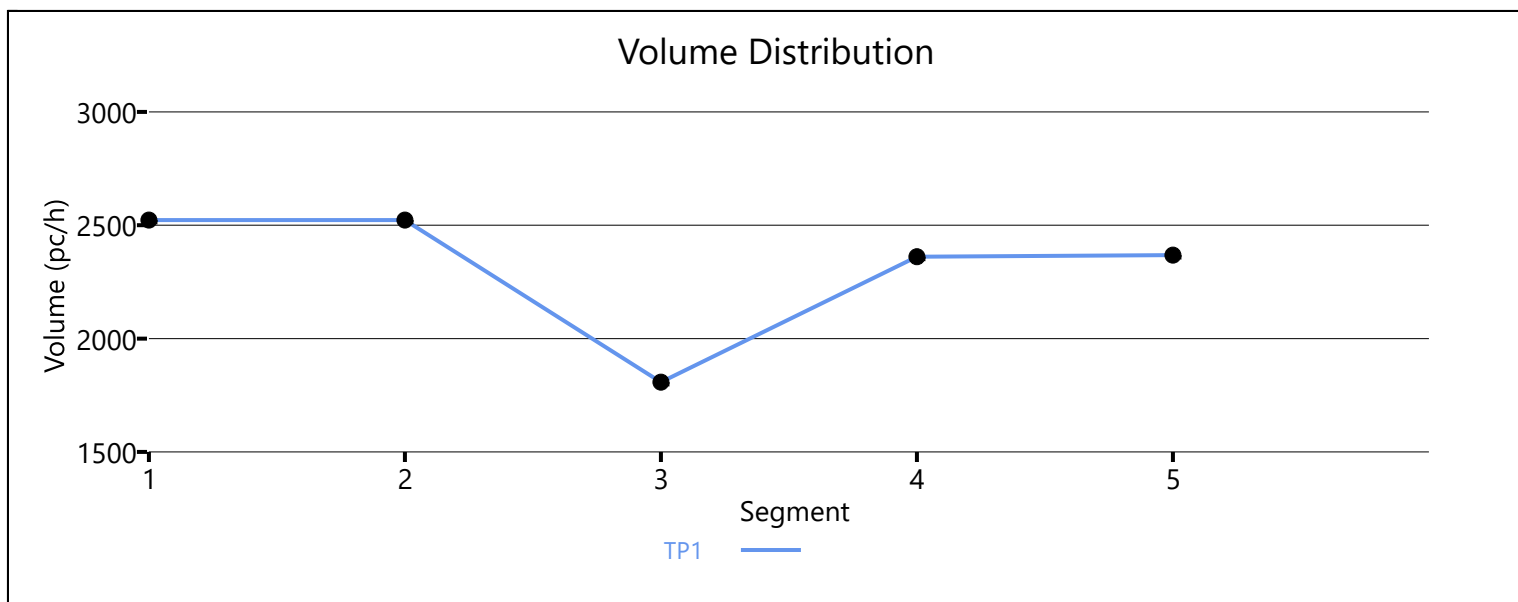
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.980	2361	553	7200	2100	0.33	0.26	64.6	62.8	12.2	12.2	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.917		2368		7161		0.33		68.7		11.5		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	11.7	10.7	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.5	Density, veh/mi/ln		10.7
Average Travel Time, min		2.2	Density, pc/mi/ln		11.7



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Beaumont	3040	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1000	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	East of Beaumont	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.893		4998		9548		0.52		68.7		18.2		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.893	0.926	4998	628	9600	2100	0.52	0.30	67.0	60.1	18.6	20.9	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.893		4347		9548		0.46		68.7		15.8		B

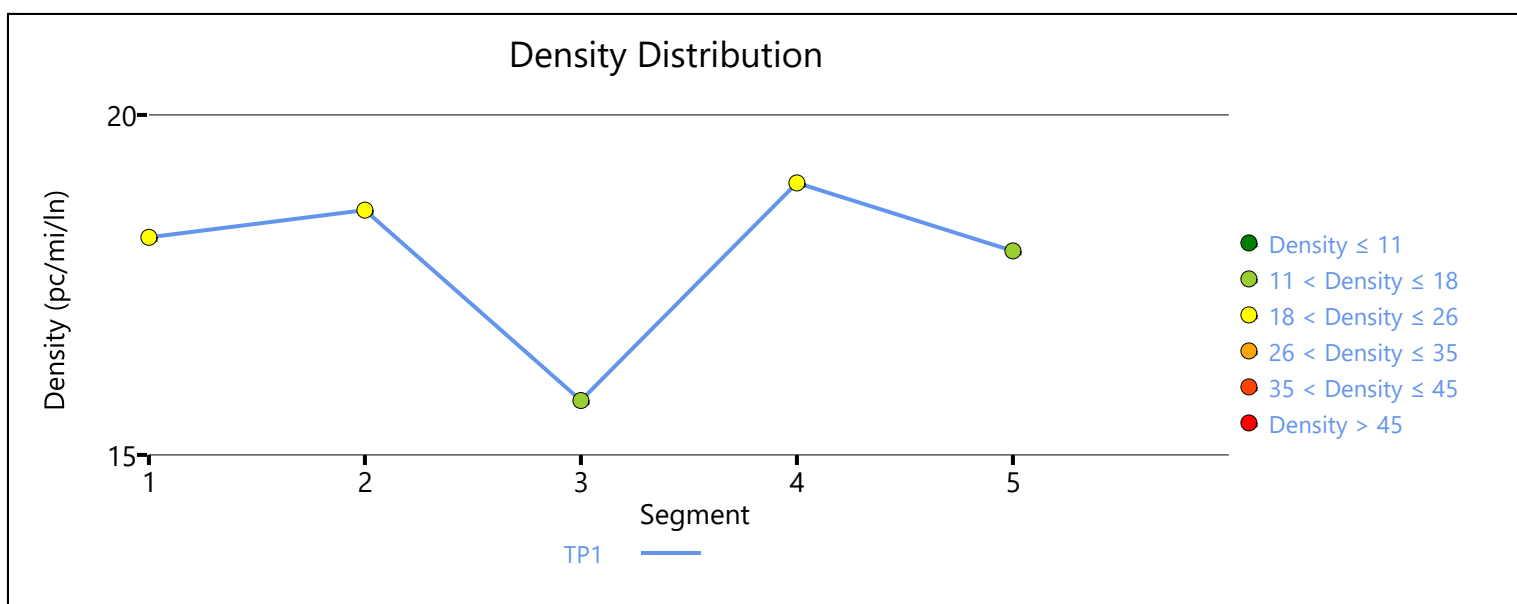
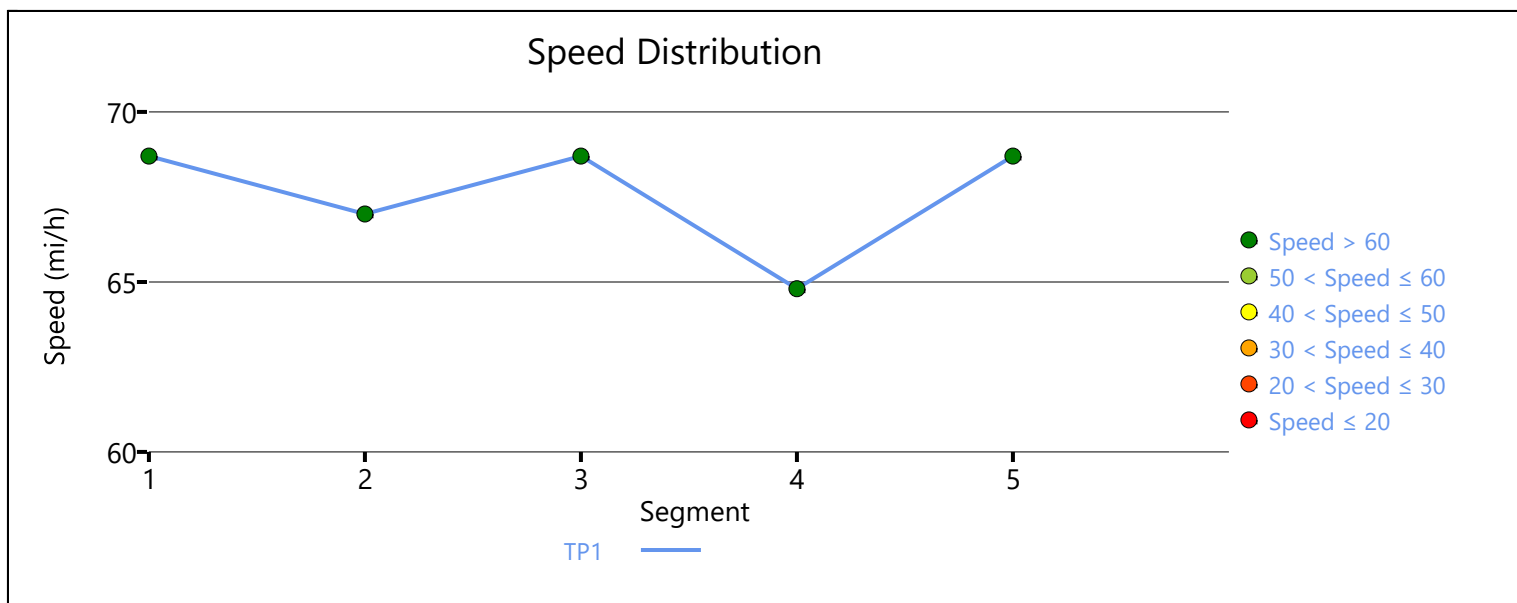
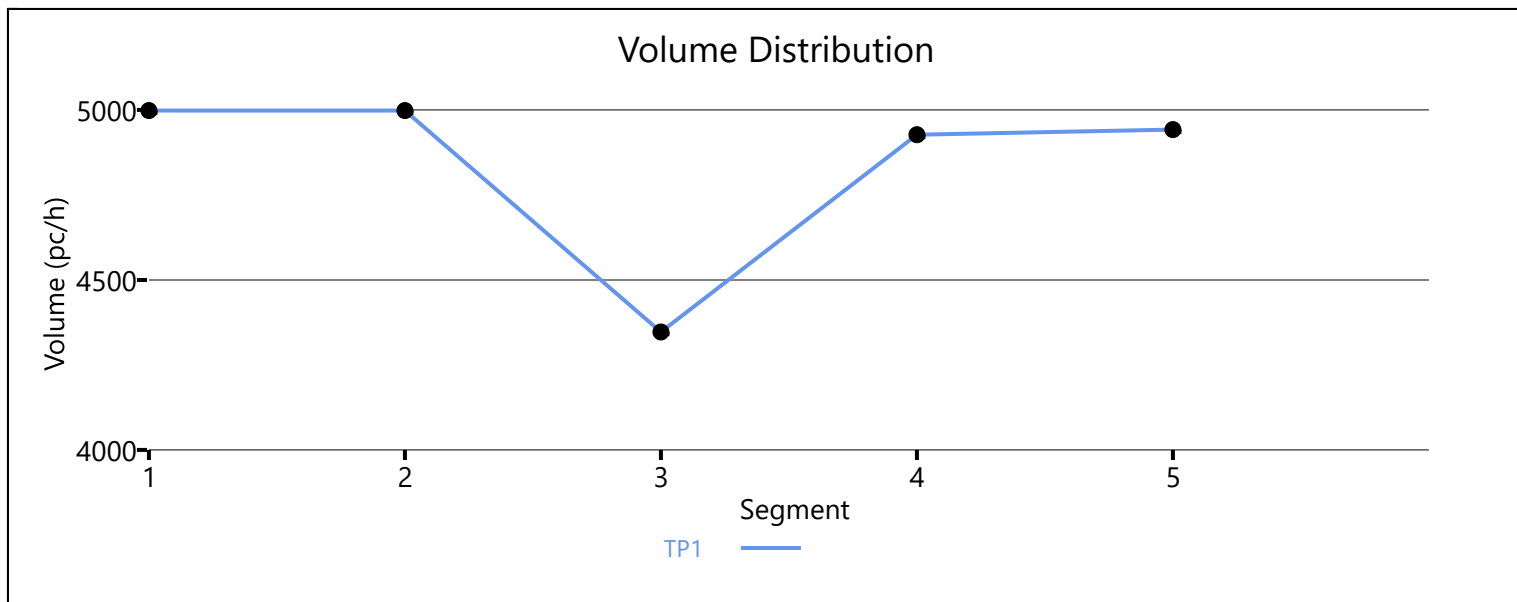
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.893	0.917	4927	580	9600	2100	0.51	0.28	64.8	62.3	19.0	17.4	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.893		4942		9548		0.52		68.7		18.0		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.8	18.1	16.2	1.7	C
Facility Overall Results					
Space Mean Speed, mi/h		67.8	Density, veh/mi/ln		16.2
Average Travel Time, min		1.7	Density, pc/mi/ln		18.1



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Beaumont	3125	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1300	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	West of Beaumont	3250	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		3852		9548		0.40		68.7		14.0		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.901	3705	626	9600	2100	0.39	0.30	66.9	60.1	13.8	16.2	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		3205		9548		0.34		68.7		11.7		B

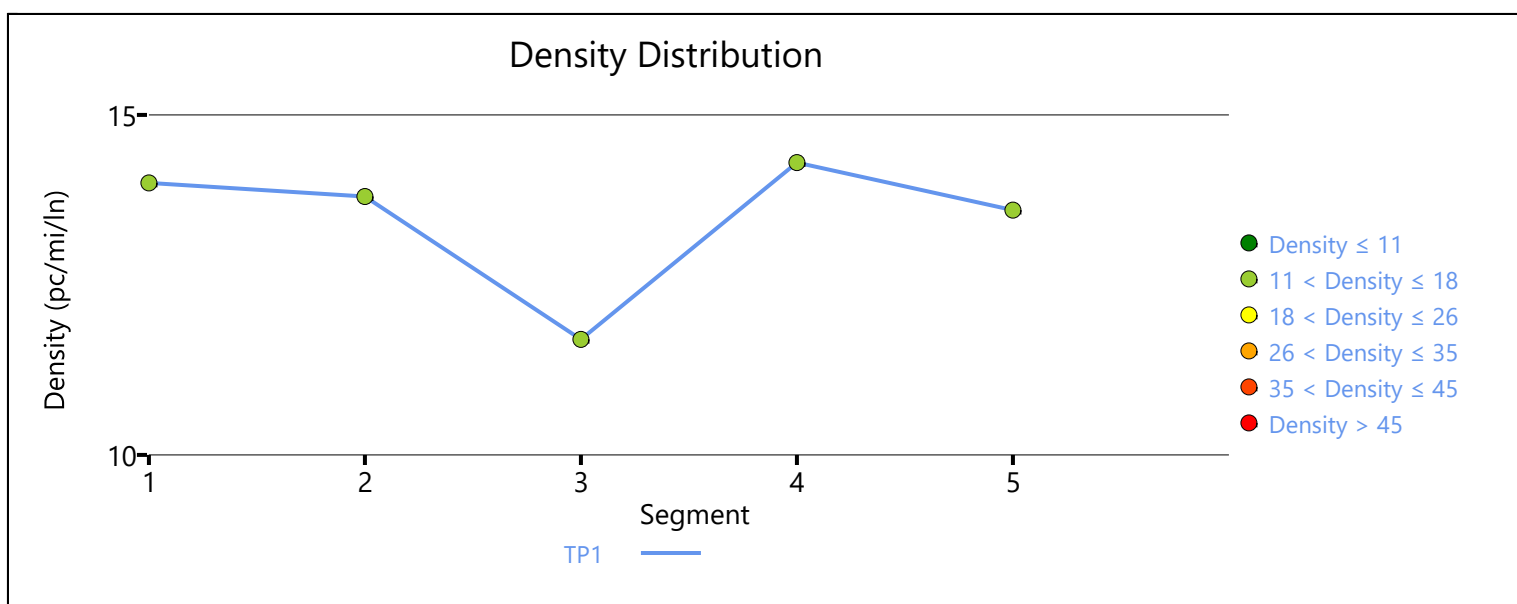
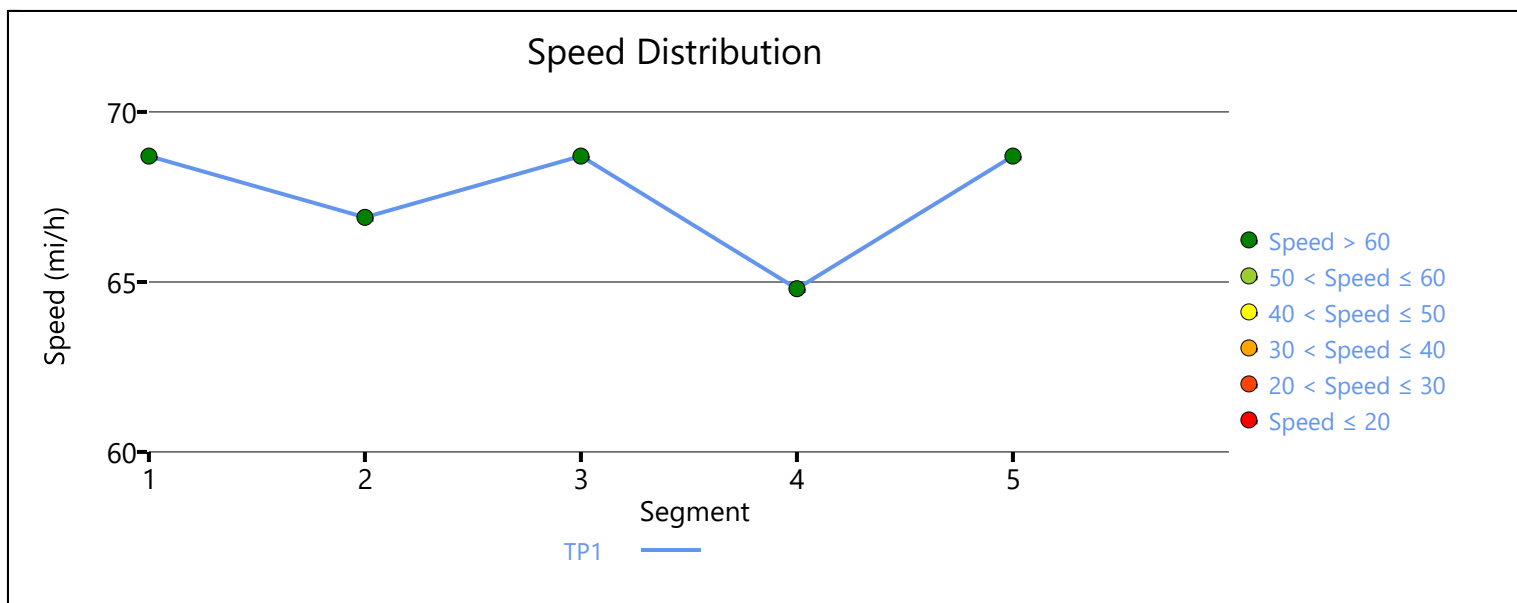
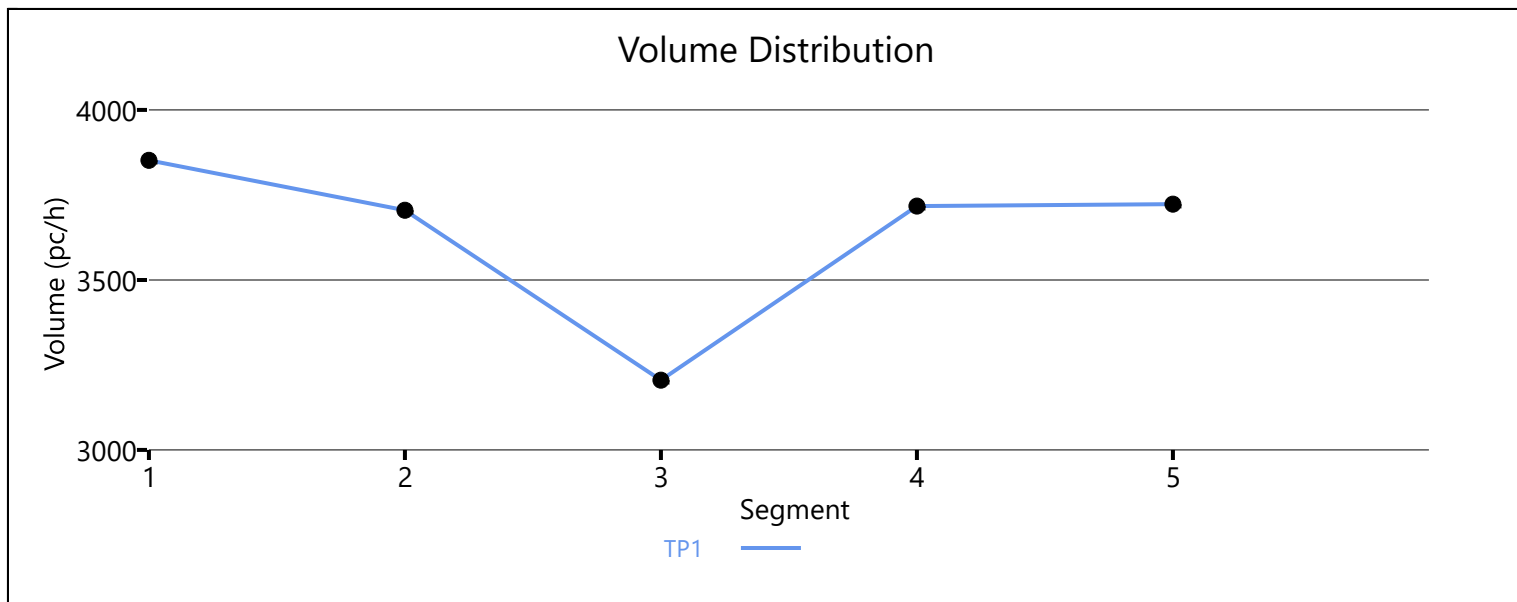
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.926	3717	512	9600	2100	0.39	0.24	64.8	61.4	14.3	16.6	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3723		9548		0.39		68.7		13.6		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.9	13.6	13.3	1.8	B
Facility Overall Results					
Space Mean Speed, mi/h		67.9	Density, veh/mi/ln		13.3
Average Travel Time, min		1.8	Density, pc/mi/ln		13.6



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of I-10	5280	2
2	Diverge	Diverge	Off-Ramp at 6th Street	1500	2
3	Basic	Basic	East of I-10	1000	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	1664	4786	0.35	69.3	12.0	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.901	1664	1179	4800	2100	0.35	0.56	58.7	58.7	14.2	14.6	B

Segment 3: Basic

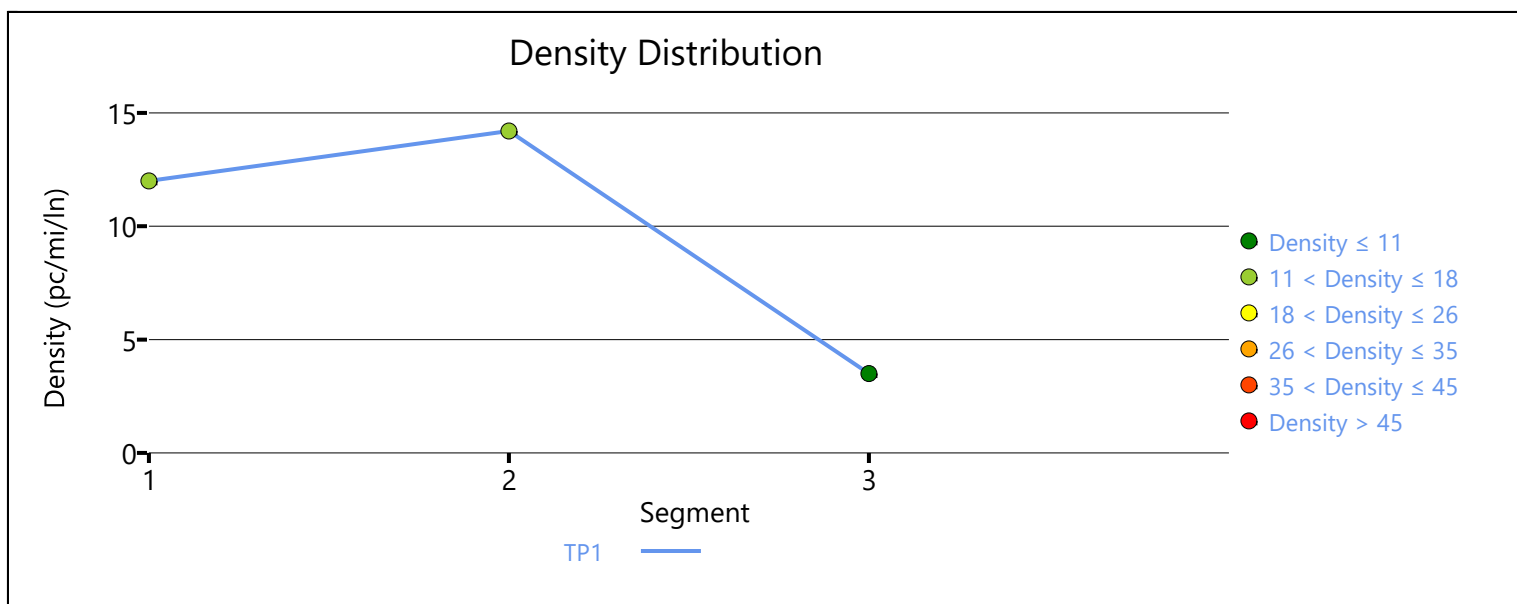
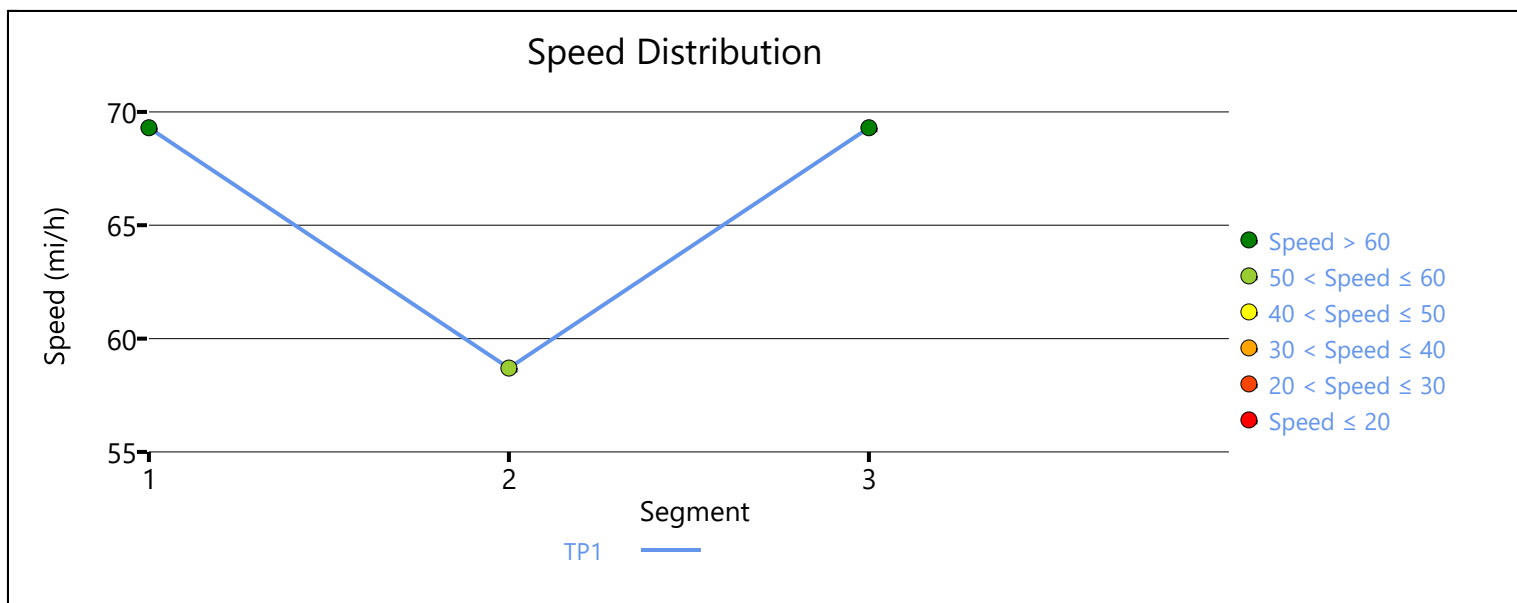
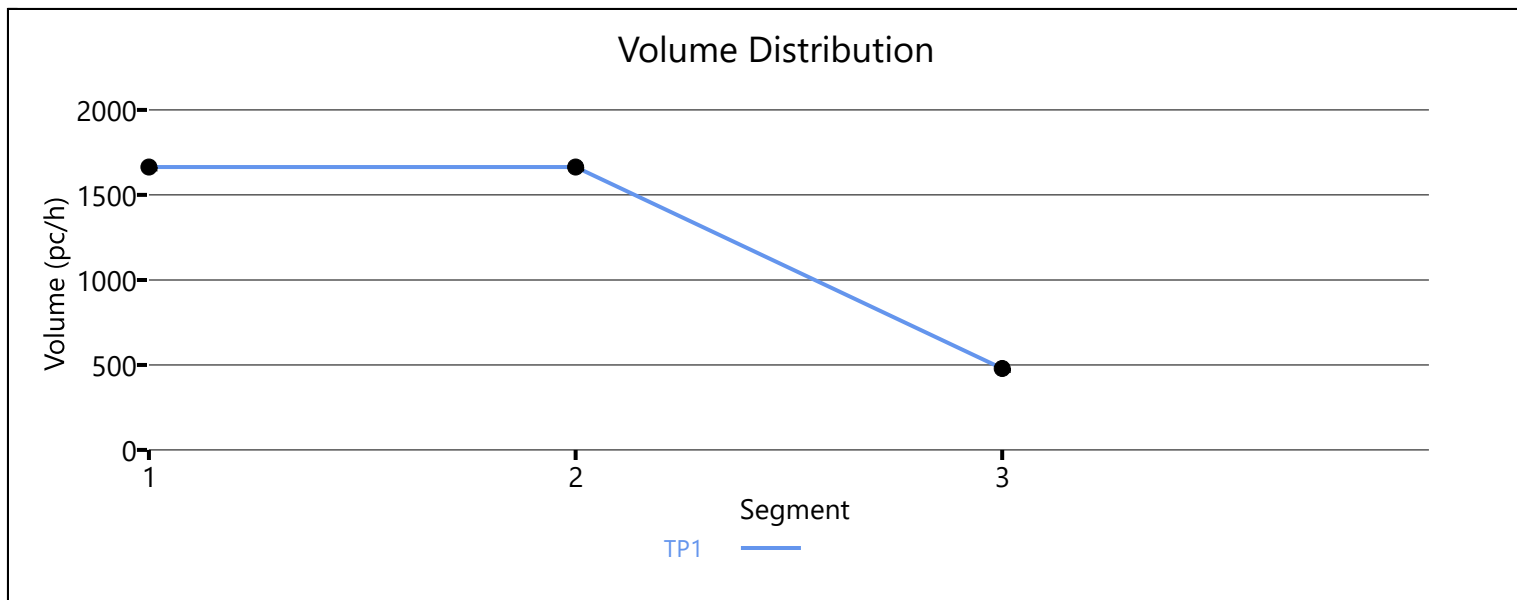
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	479	4786	0.10	69.3	3.5	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.8	11.3	10.5	1.3	B

Facility Overall Results

Space Mean Speed, mi/h	66.8	Density, veh/mi/ln	10.5
Average Travel Time, min	1.3	Density, pc/mi/ln	11.3



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Western Knolls	3500	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	100	2
4	Merge	Merge	On-Ramp	1500	2
5	Basic	Basic	West of Western Knolls	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		1551		4774		0.32		68.7		11.3		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.787	1551	348	4800	2100	0.32	0.17	60.8	60.8	12.8	10.4	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		1202		4774		0.25		68.7		8.7		A

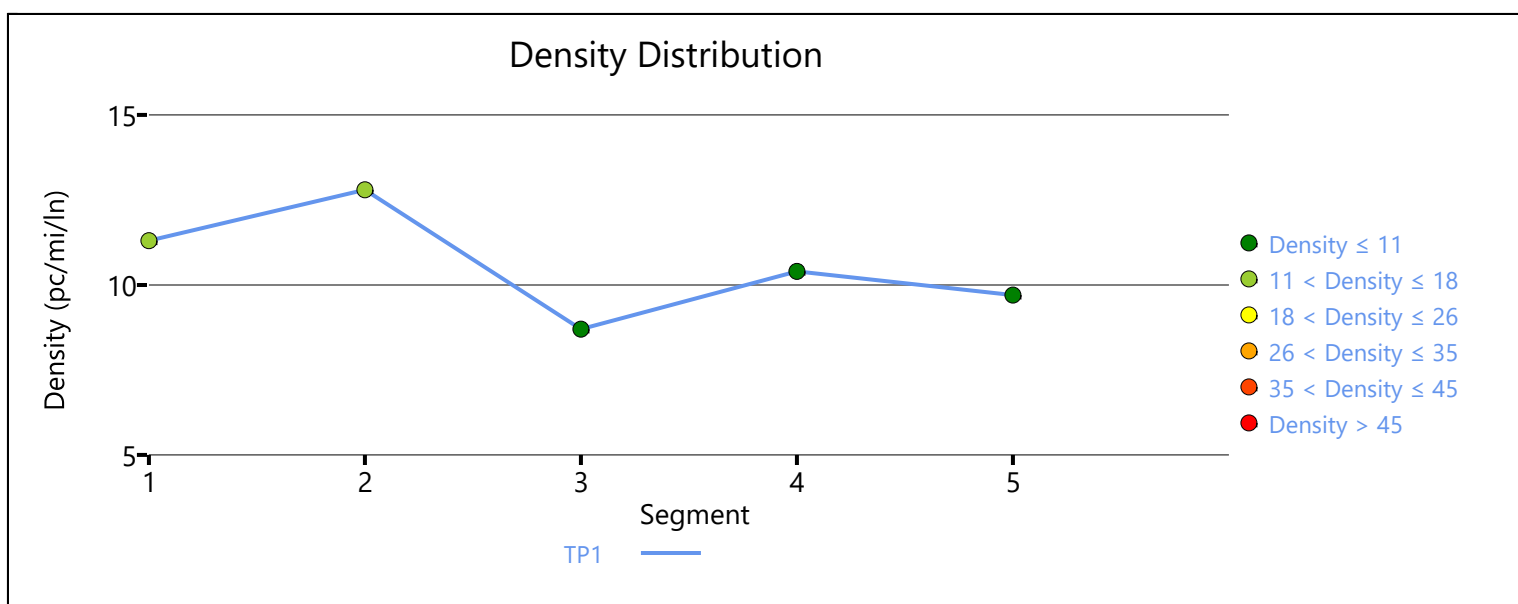
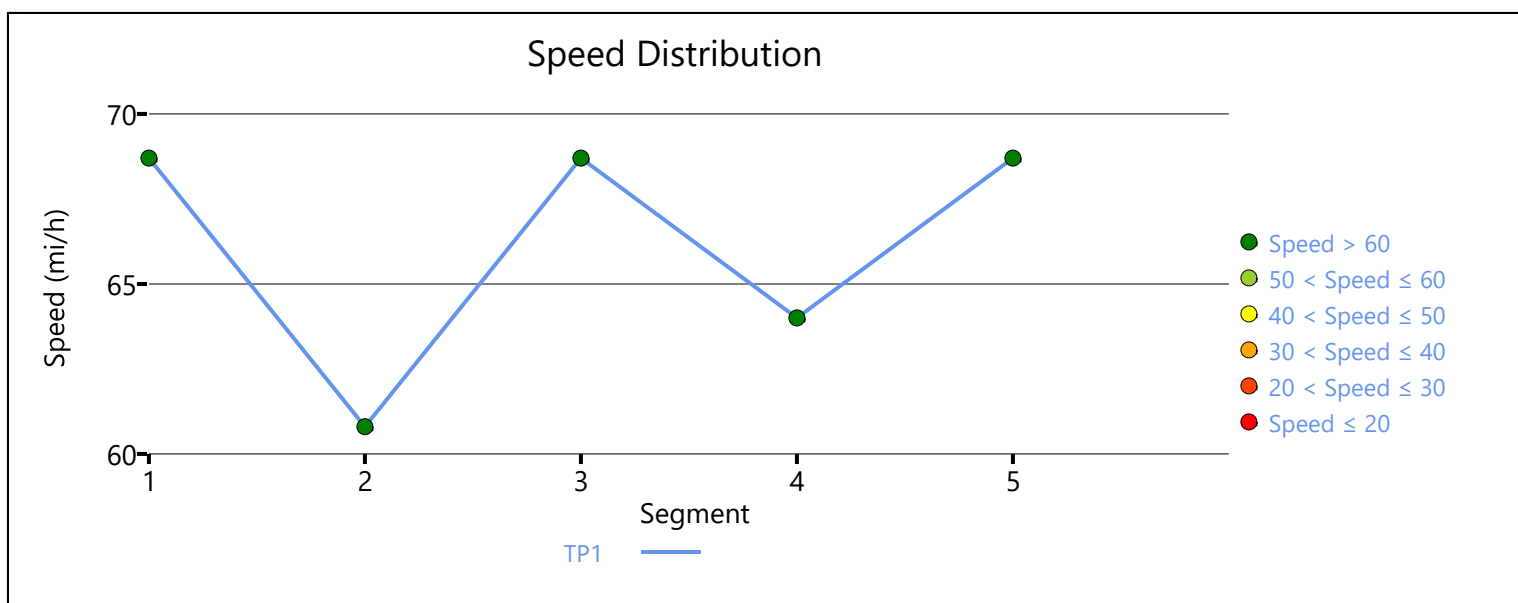
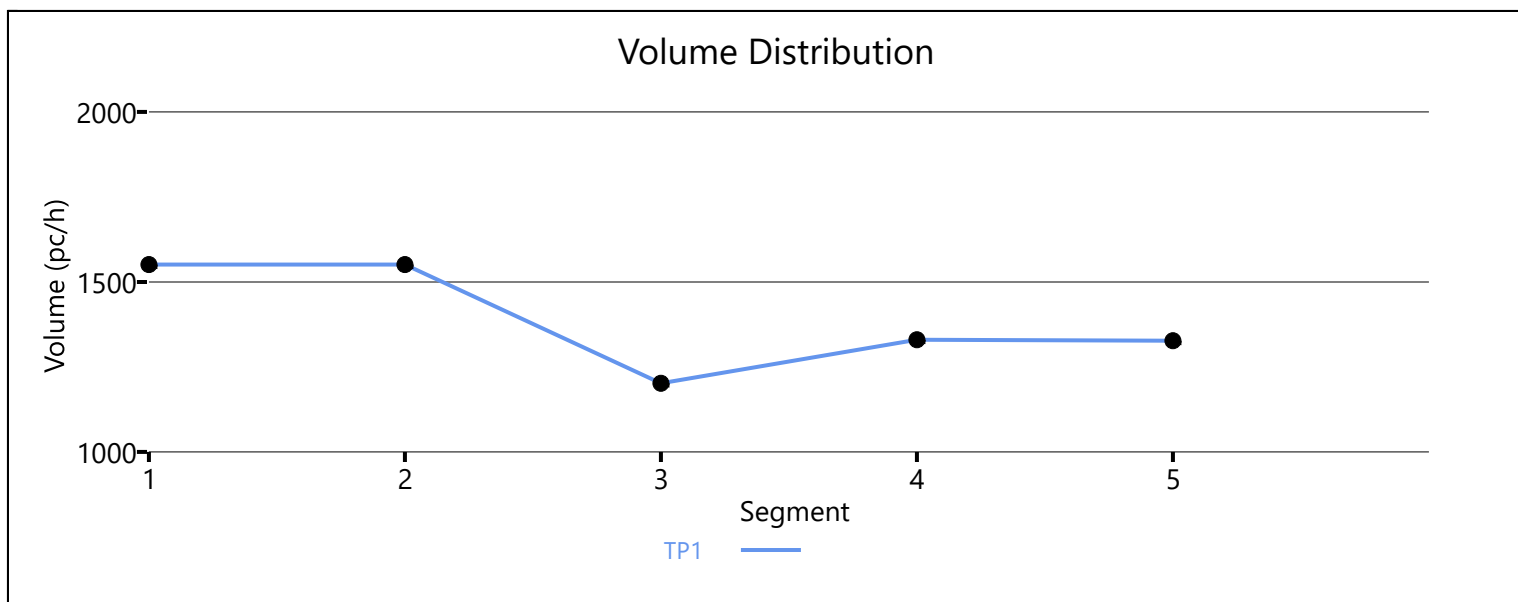
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.877	1330	128	4800	2100	0.28	0.06	64.0	64.0	10.4	7.6	A

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		1327		4774		0.28		68.7		9.7		A

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.9	10.6	10.4	2.0	A
Facility Overall Results					
Space Mean Speed, mi/h		66.9	Density, veh/mi/ln		10.4
Average Travel Time, min		2.0	Density, pc/mi/ln		10.6



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		2822		7161		0.39		68.7		13.7		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	2822	641	7200	2100	0.39	0.31	63.7	60.0	14.8	18.1	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2189		7161		0.31		68.7		10.6		A

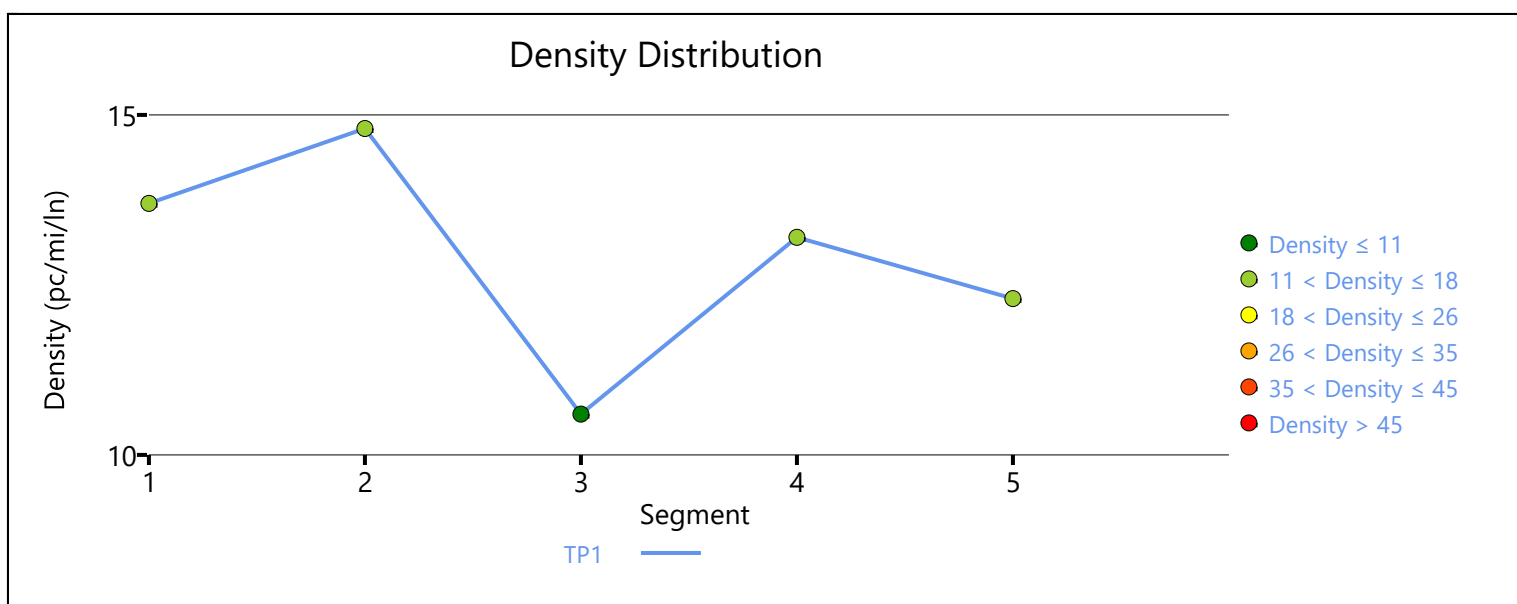
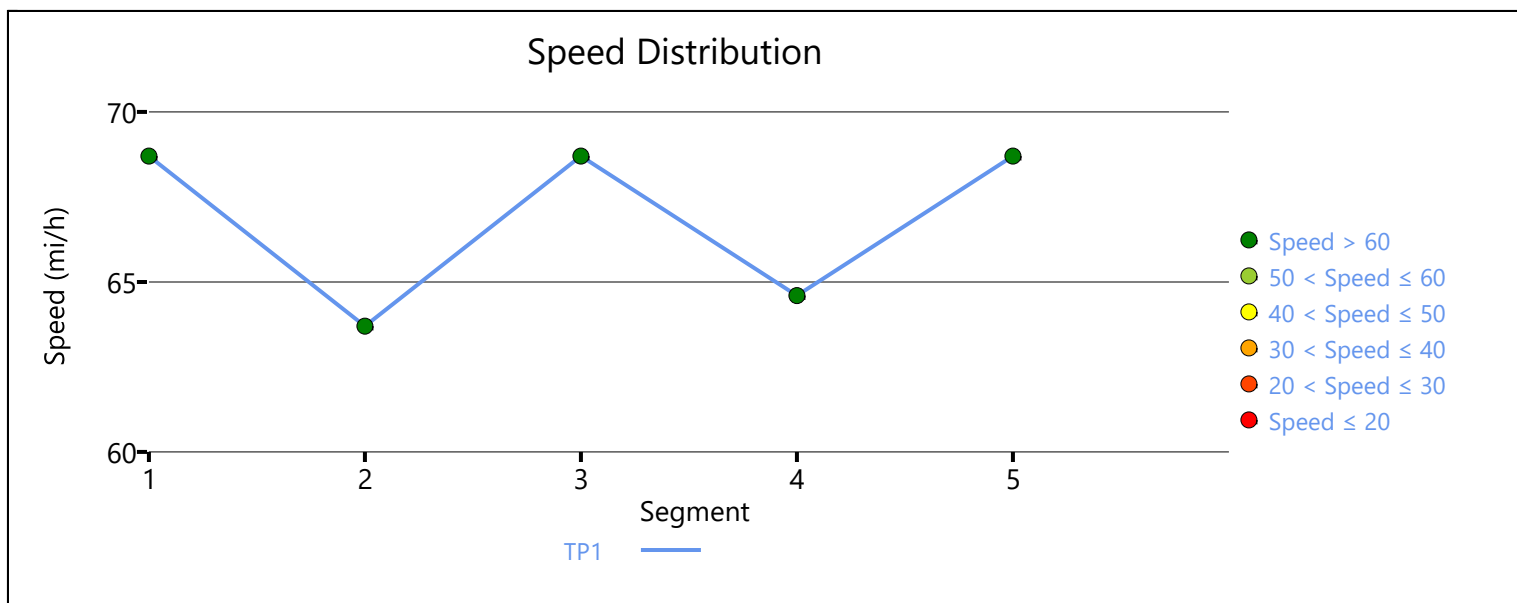
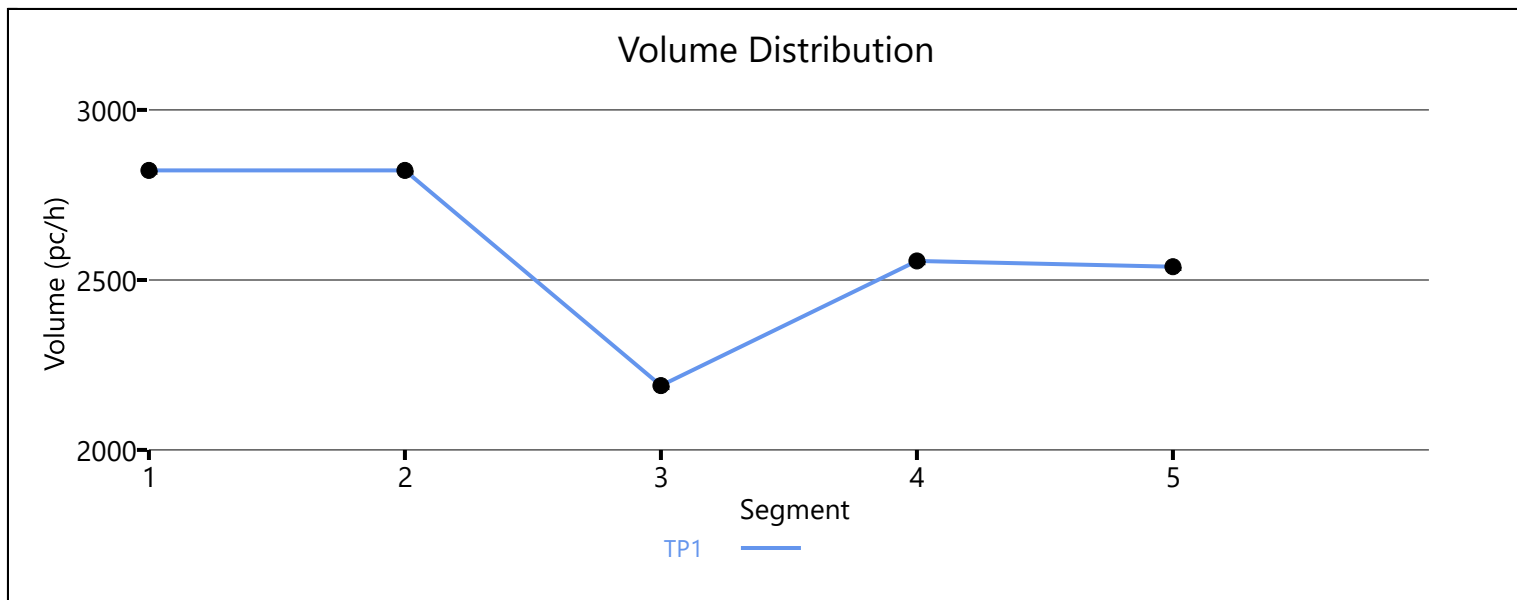
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	2556	367	7200	2100	0.36	0.17	64.6	62.6	13.2	13.2	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		2539		7161		0.35		68.7		12.3		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	13.1	12.7	2.1	B
Facility Overall Results					
Space Mean Speed, mi/h		67.5	Density, veh/mi/ln		12.7
Average Travel Time, min		2.1	Density, pc/mi/ln		13.1



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		3005		7161		0.42		68.7		14.6		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	3005	634	7200	2100	0.42	0.30	63.9	60.1	15.7	19.0	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.917		2380		7161		0.33		68.7		11.5		B

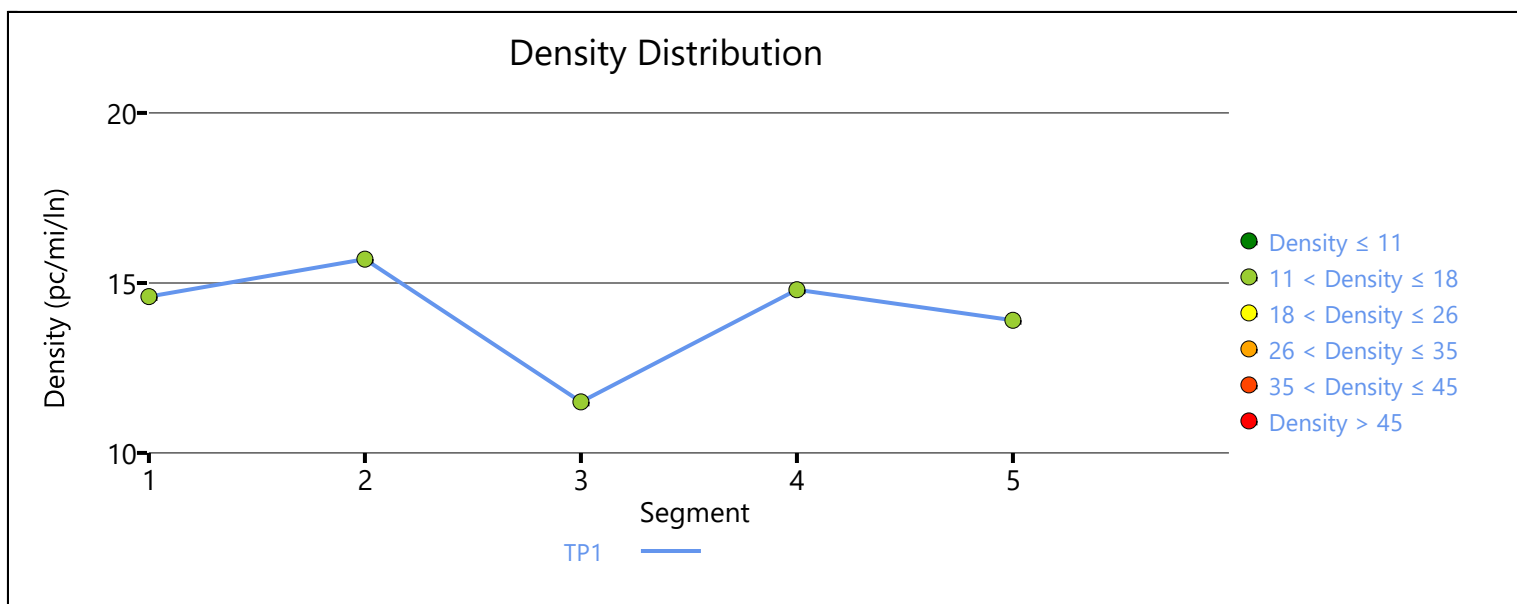
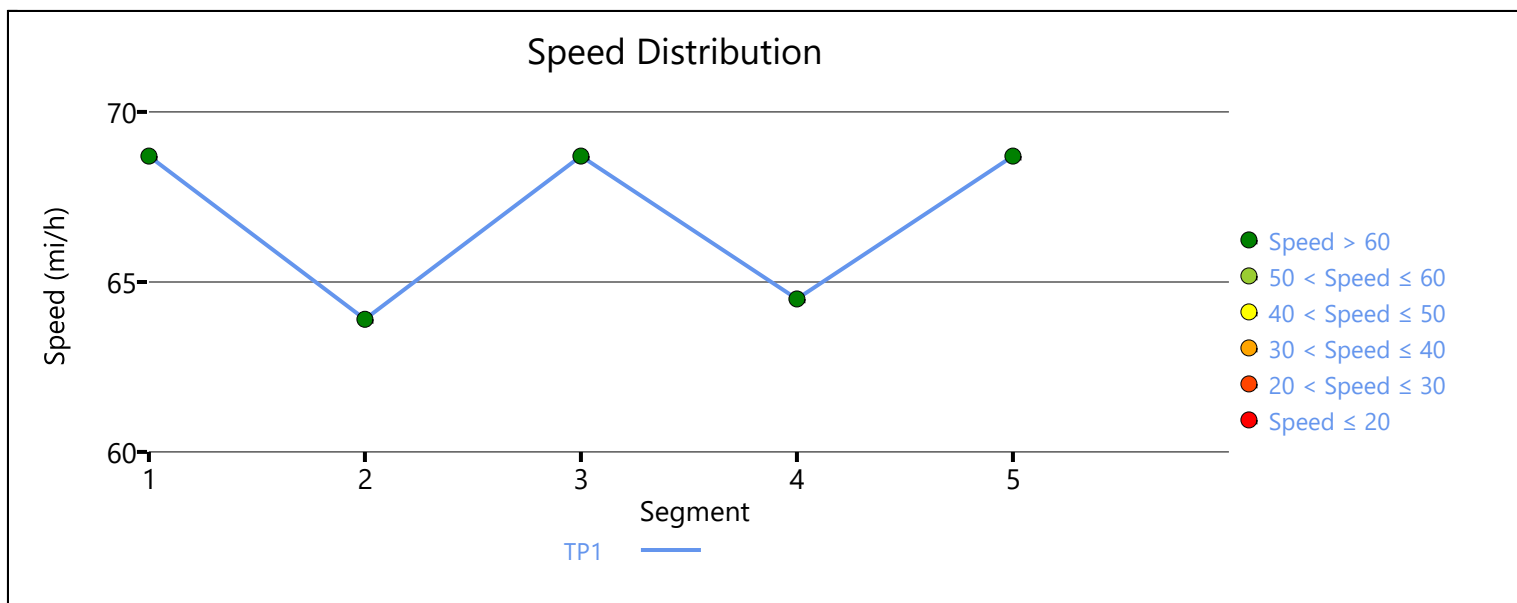
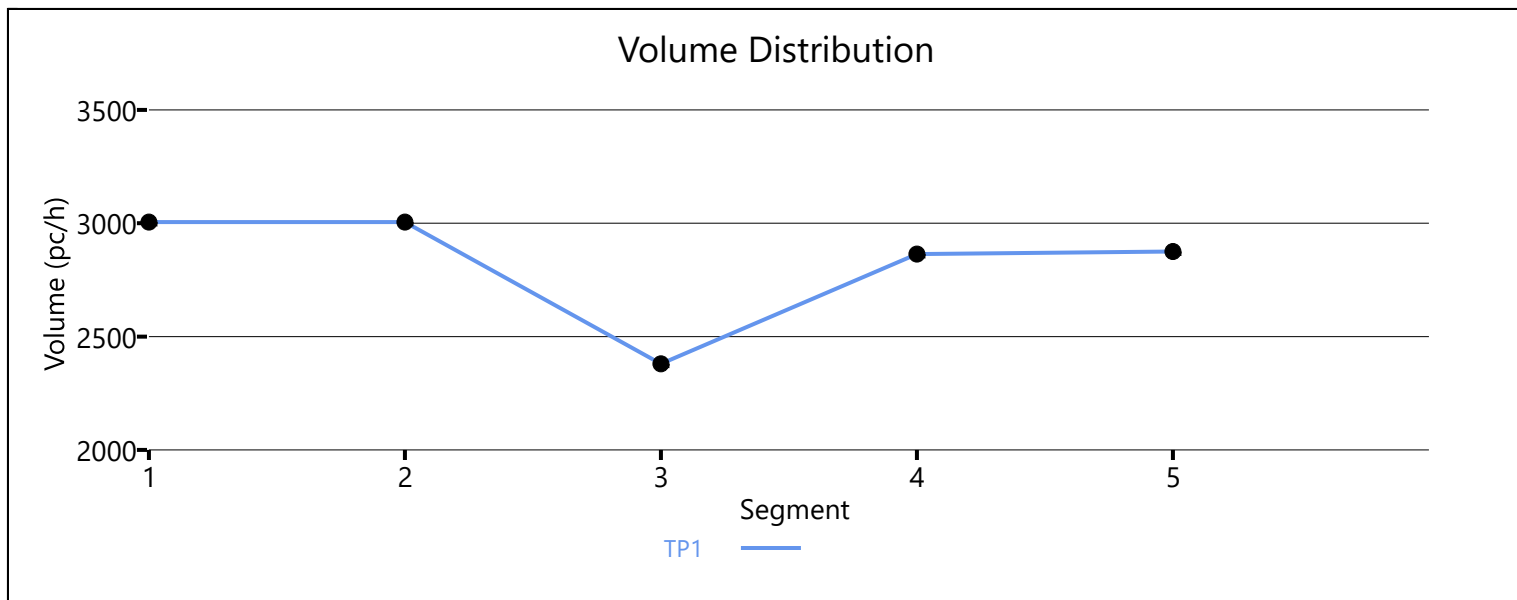
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.990	2864	484	7200	2100	0.40	0.23	64.5	62.7	14.8	14.4	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		2875		7161		0.40		68.7		13.9		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.6	14.1	13.1	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.6	Density, veh/mi/ln		13.1
Average Travel Time, min		2.2	Density, pc/mi/ln		14.1



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Beaumont	3040	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1000	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	East of Beaumont	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.917		5071		9548		0.53		68.7		18.5		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.943	5071	836	9600	2100	0.53	0.40	66.3	59.6	19.1	22.2	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.909		4249		9548		0.45		68.7		15.5		B

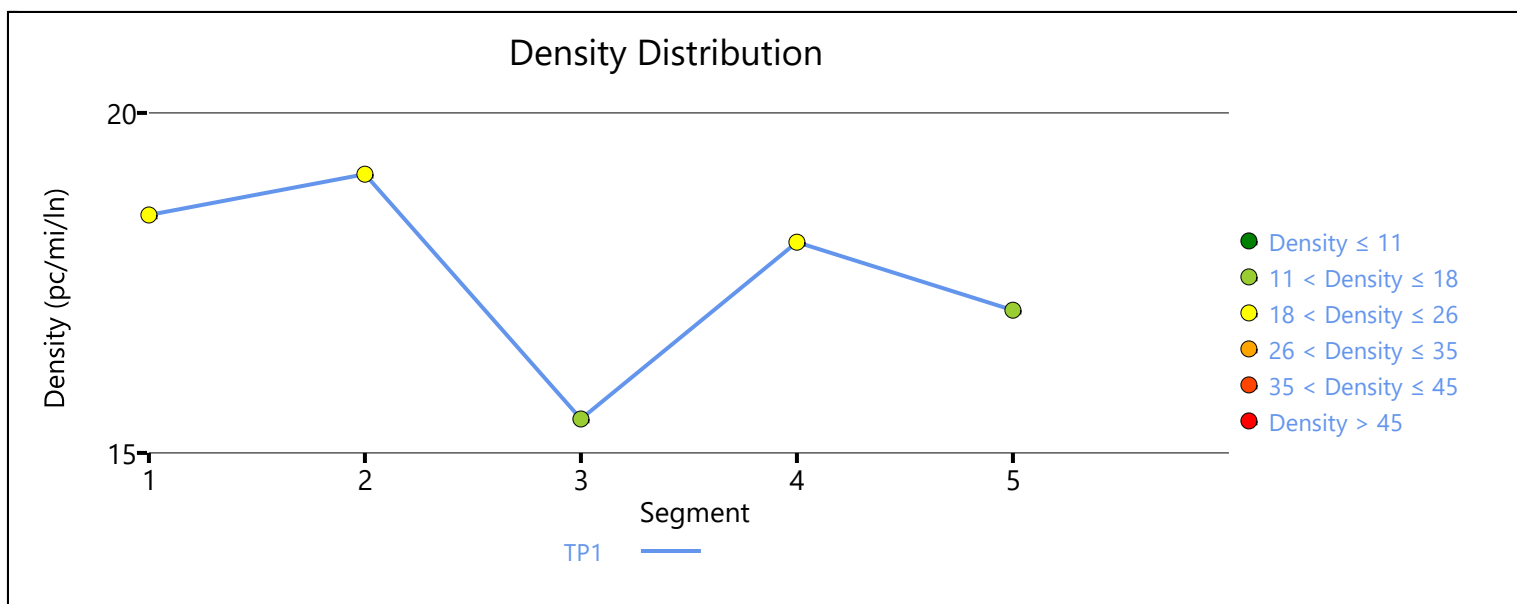
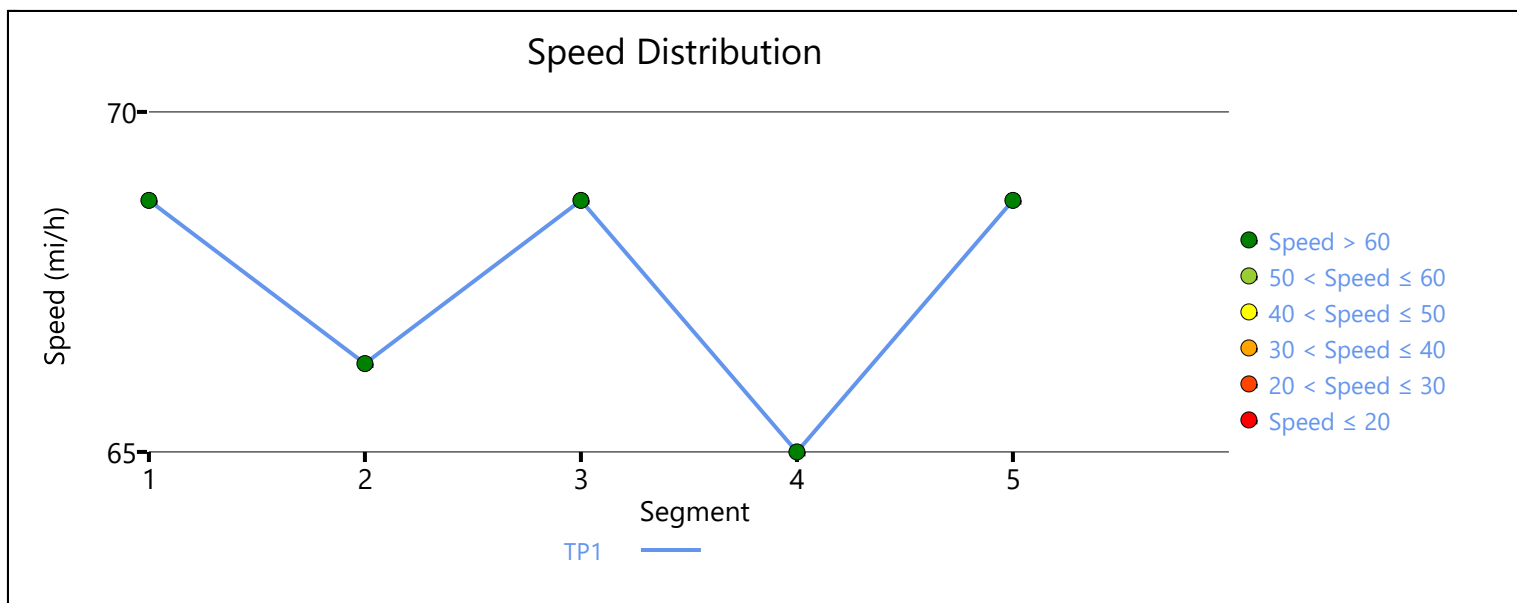
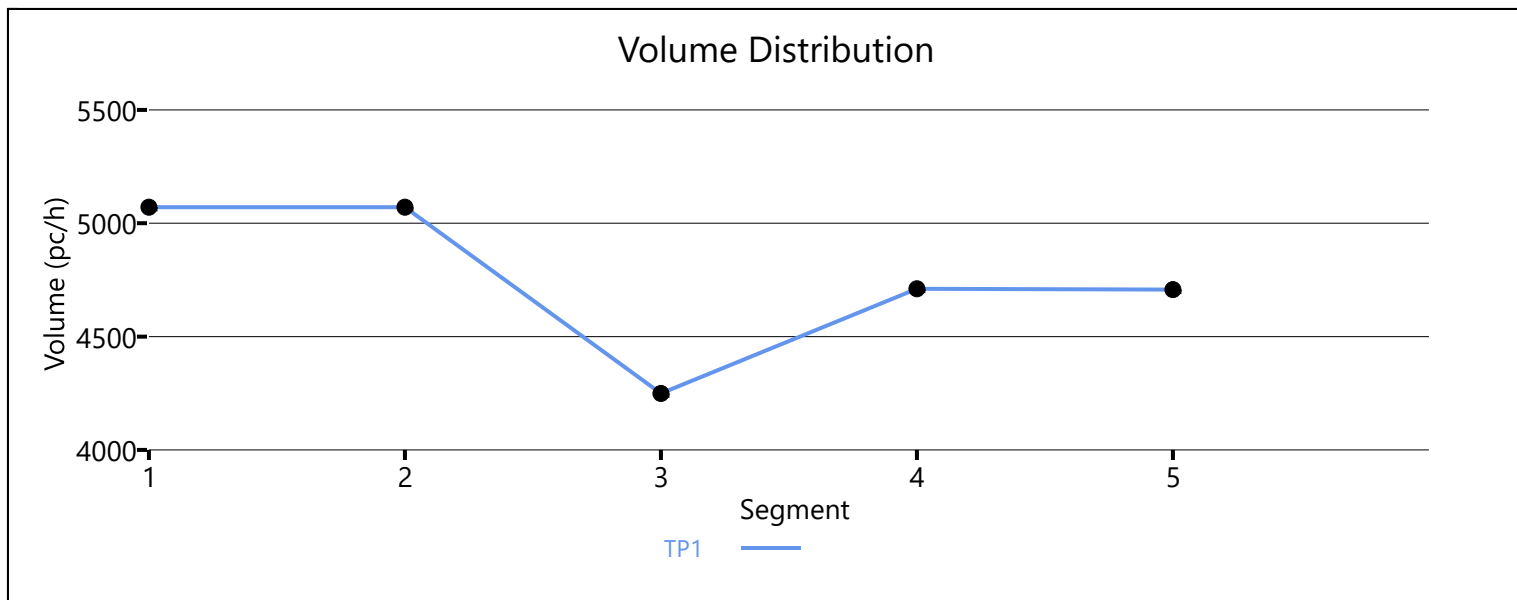
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.909	0.901	4711	462	9600	2100	0.49	0.22	65.0	62.5	18.1	16.2	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.909		4707		9548		0.49		68.7		17.1		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.8	17.8	16.3	1.7	B
Facility Overall Results					
Space Mean Speed, mi/h		67.8	Density, veh/mi/ln		16.3
Average Travel Time, min		1.7	Density, pc/mi/ln		17.8



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Beaumont	3125	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1300	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	West of Beaumont	3250	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		4676		9548		0.49		68.7		17.0		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	4676	923	9600	2100	0.49	0.44	66.1	59.3	17.7	21.3	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3734		9548		0.39		68.7		13.6		B

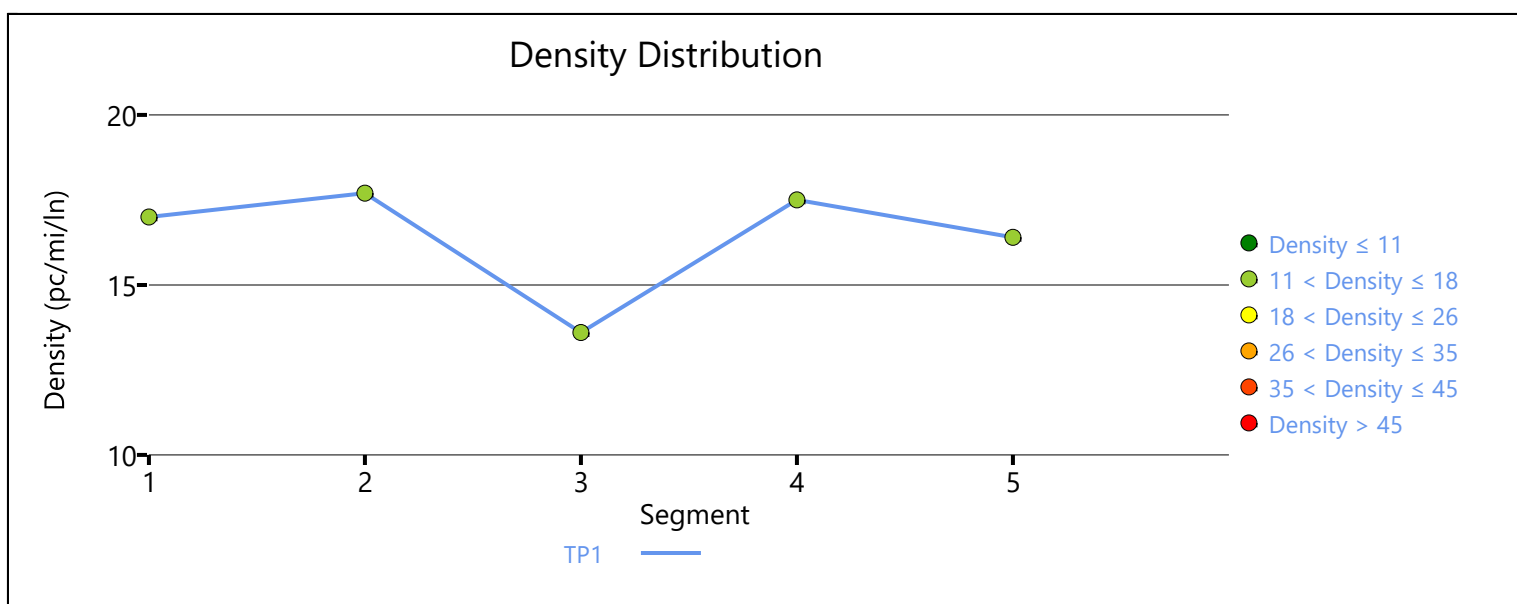
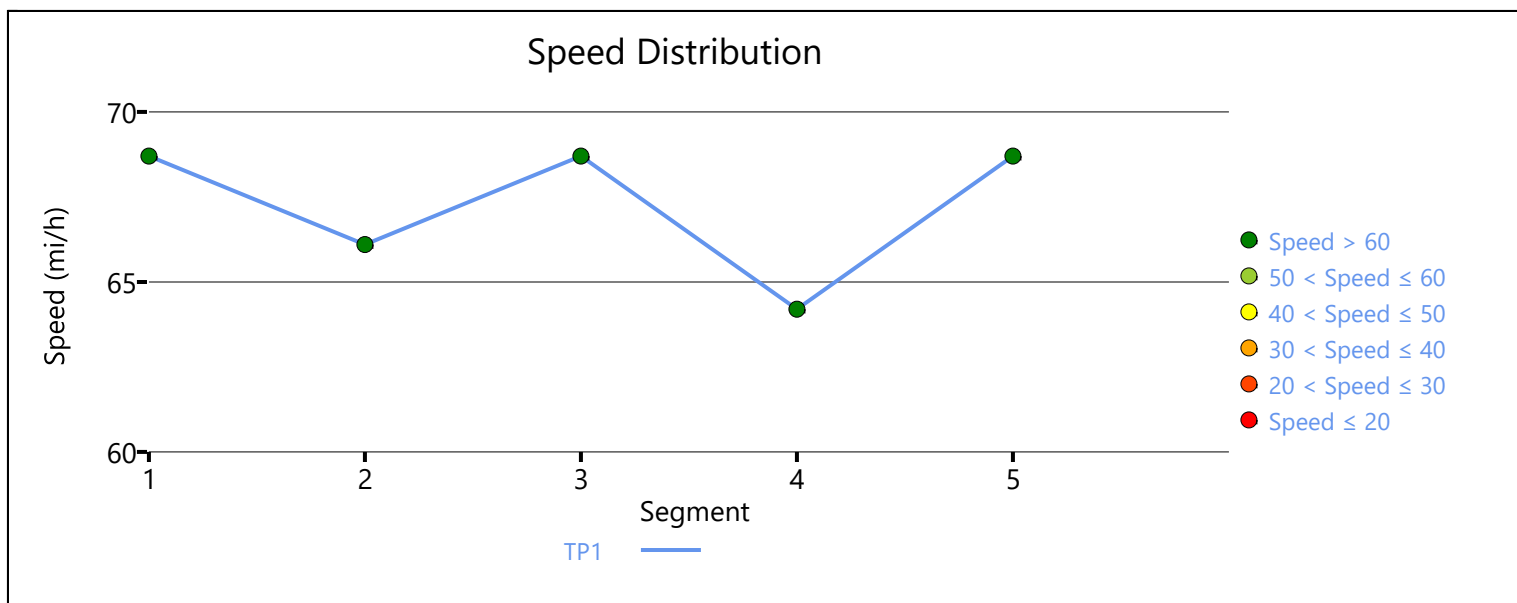
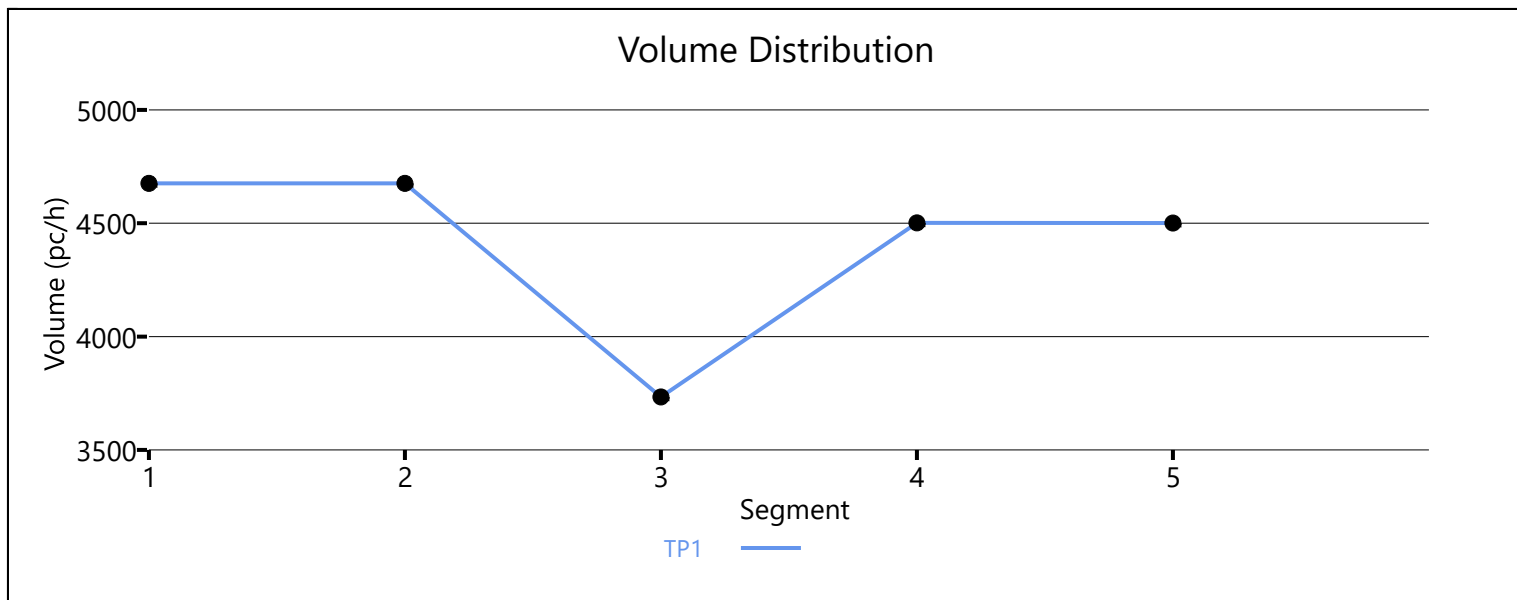
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.917	4502	768	9600	2100	0.47	0.37	64.2	61.0	17.5	20.2	C

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		4501		9548		0.47		68.7		16.4		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.6	16.6	16.1	1.8	B
Facility Overall Results					
Space Mean Speed, mi/h		67.6	Density, veh/mi/ln		16.1
Average Travel Time, min		1.8	Density, pc/mi/ln		16.6



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of I-10	5280	2
2	Diverge	Diverge	Off-Ramp at 6th Street	1500	2
3	Basic	Basic	East of I-10	1000	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	1628	4786	0.34	69.3	11.7	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.962	1628	1337	4800	2100	0.34	0.64	58.3	58.3	14.0	14.2	B

Segment 3: Basic

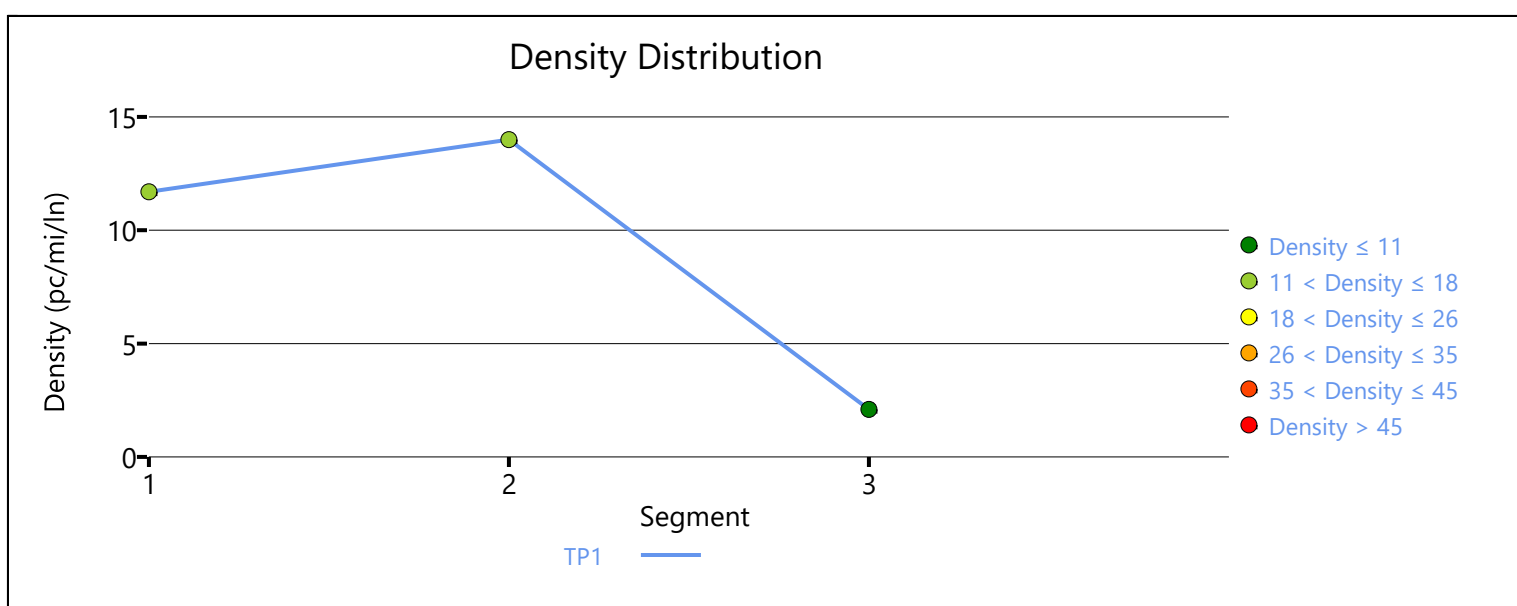
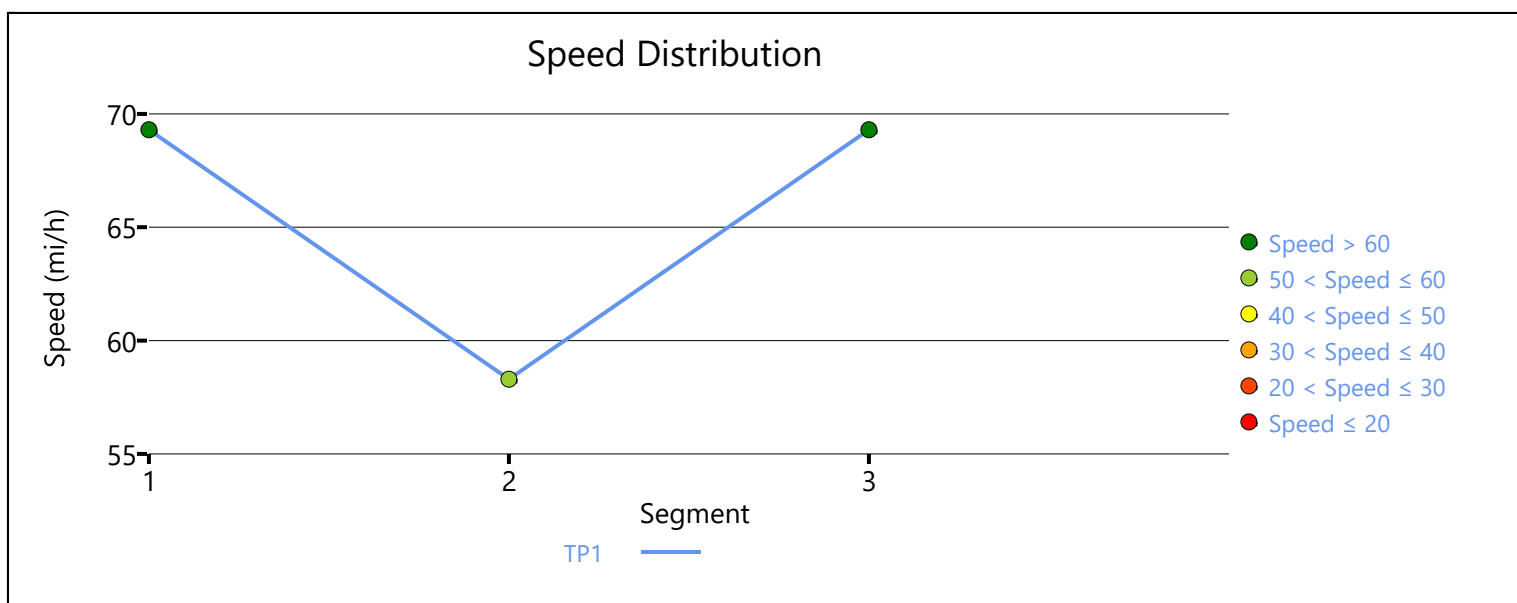
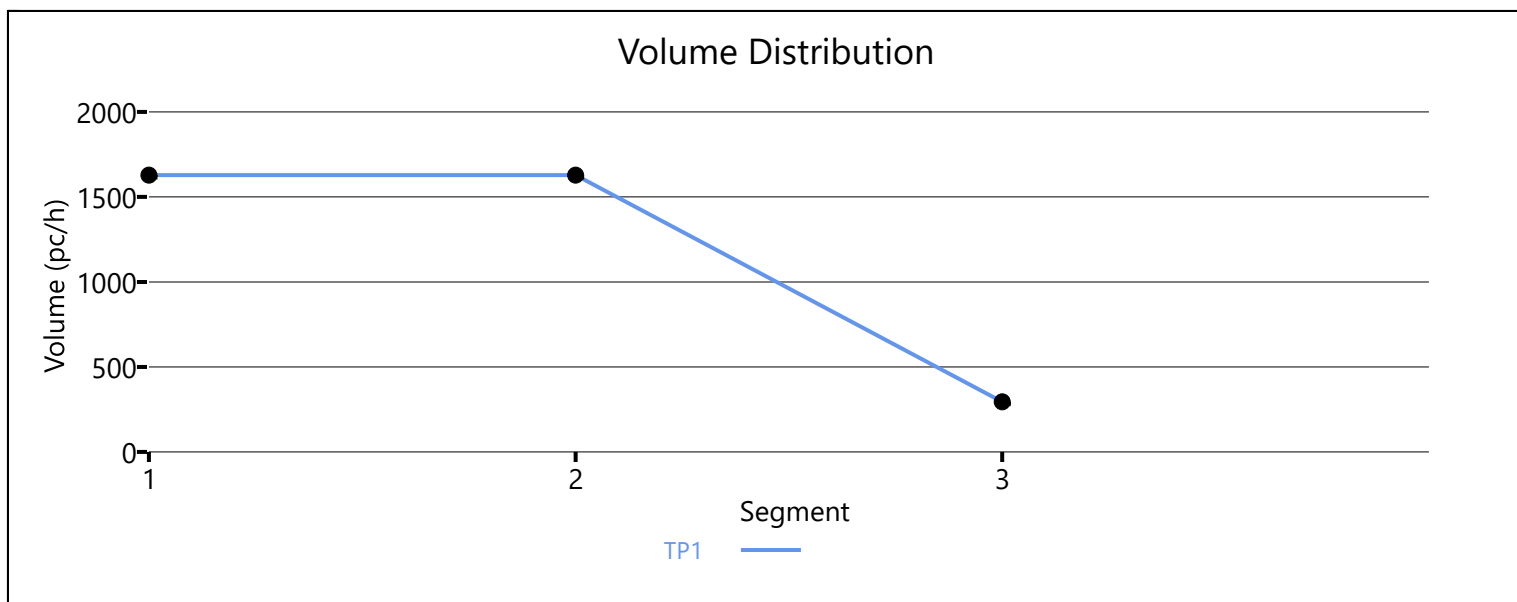
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	295	4786	0.06	69.3	2.1	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.6	10.9	10.6	1.3	A

Facility Overall Results

Space Mean Speed, mi/h	66.6	Density, veh/mi/ln	10.6
Average Travel Time, min	1.3	Density, pc/mi/ln	10.9



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase 2
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Western Knolls	3500	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	100	2
4	Merge	Merge	On-Ramp	1500	2
5	Basic	Basic	West of Western Knolls	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		1588		4774		0.33		68.7		11.6		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.885	1588	187	4800	2100	0.33	0.09	61.2	61.2	13.0	10.7	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		1391		4774		0.29		68.7		10.1		A

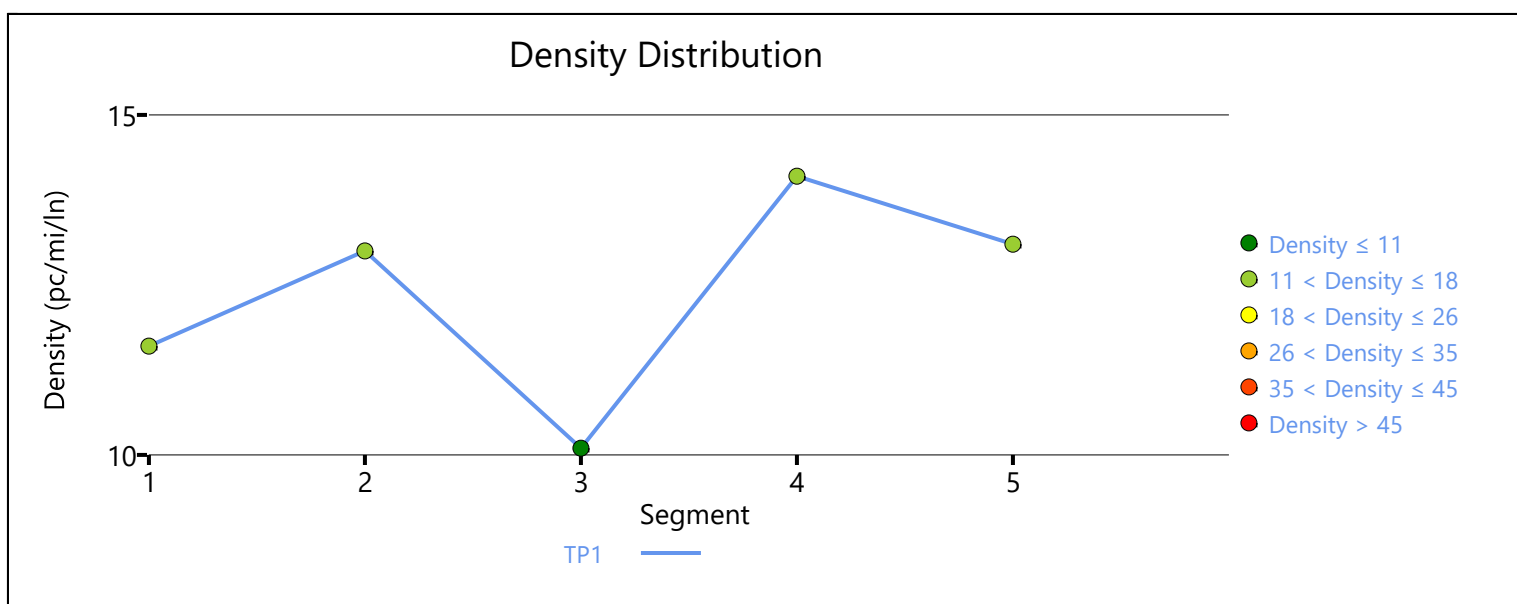
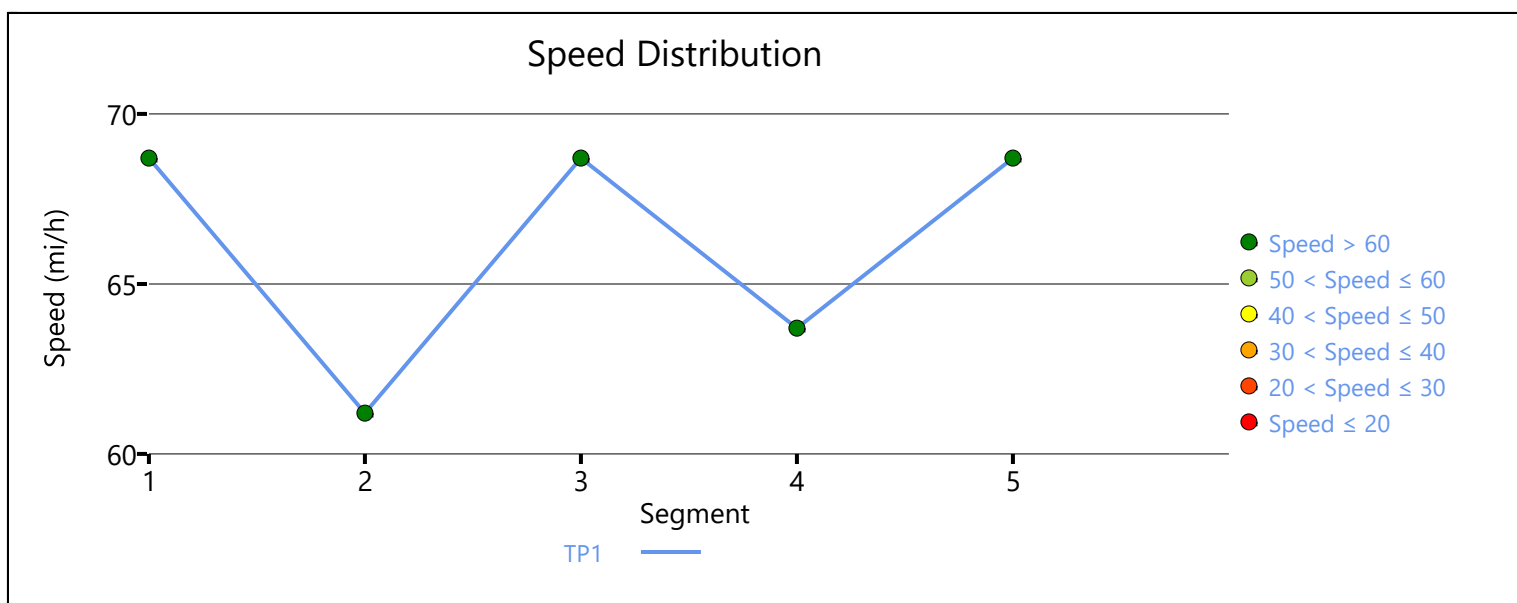
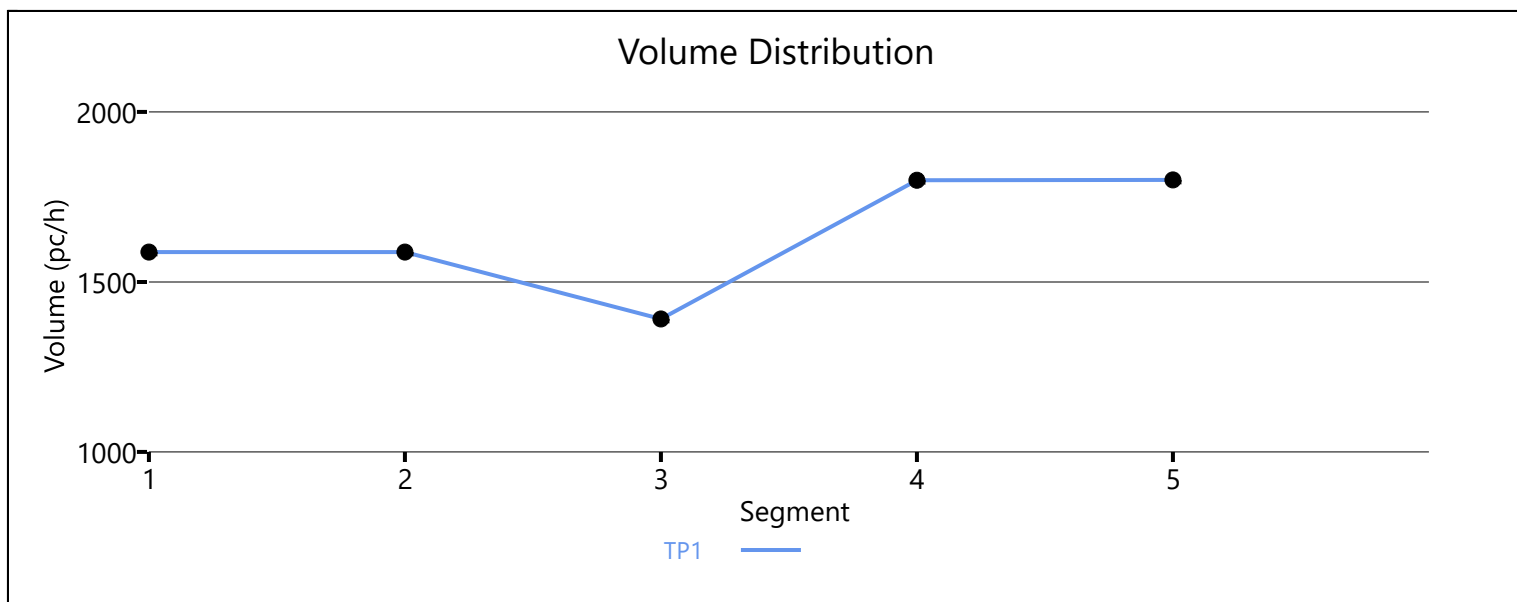
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.833	1799	408	4800	2100	0.37	0.19	63.7	63.7	14.1	11.1	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1800		4774		0.38		68.7		13.1		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.0	12.8	12.4	2.0	B
Facility Overall Results					
Space Mean Speed, mi/h		67.0	Density, veh/mi/ln		12.4
Average Travel Time, min		2.0	Density, pc/mi/ln		12.8



APPENDIX 5.12:

E+P (PROJECT BUILDOUT) CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2190		7161		0.31		68.7		10.6		A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2190	453	7200	2100	0.30	0.22	63.9	60.5	11.4	14.4	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1732		7161		0.24		68.7		8.4		A

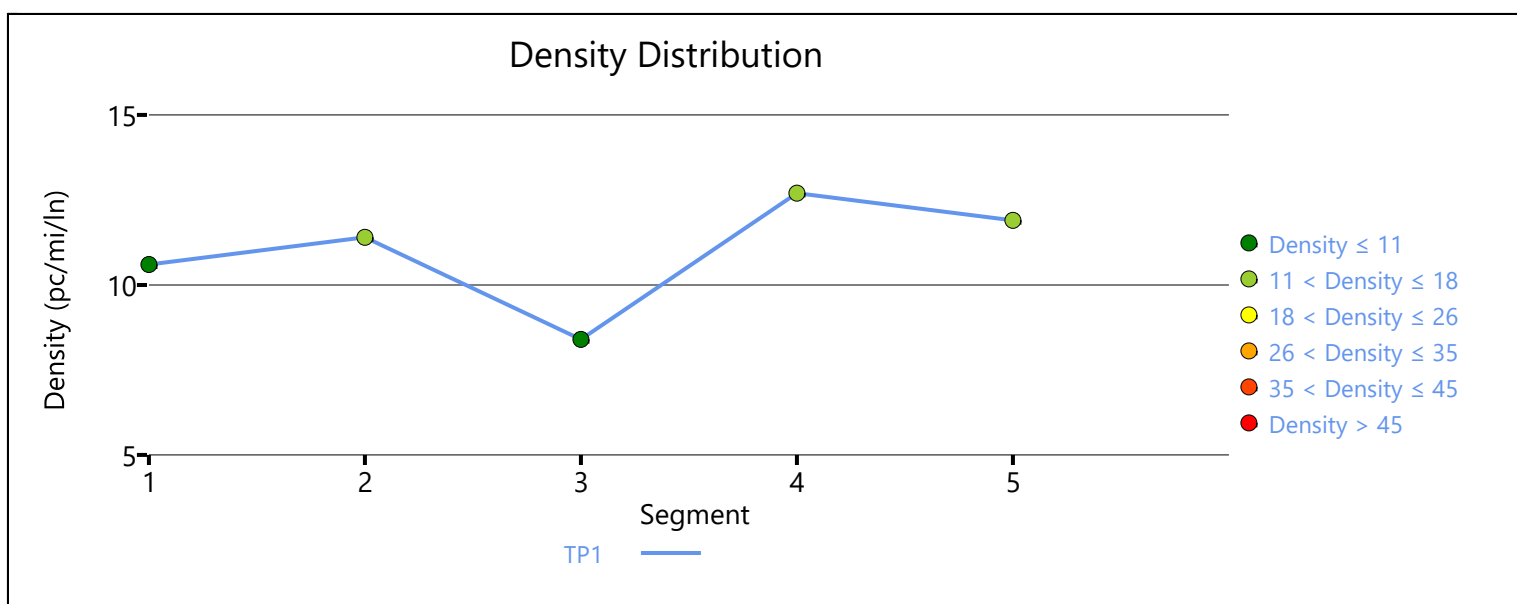
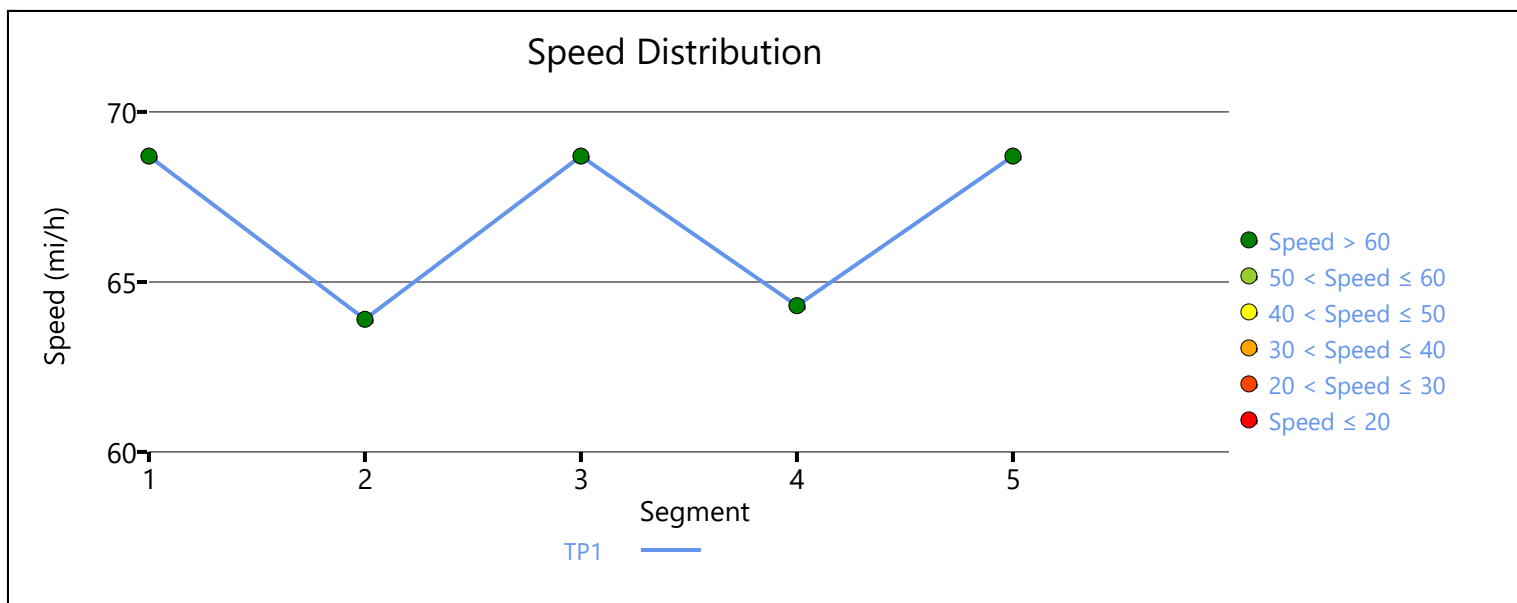
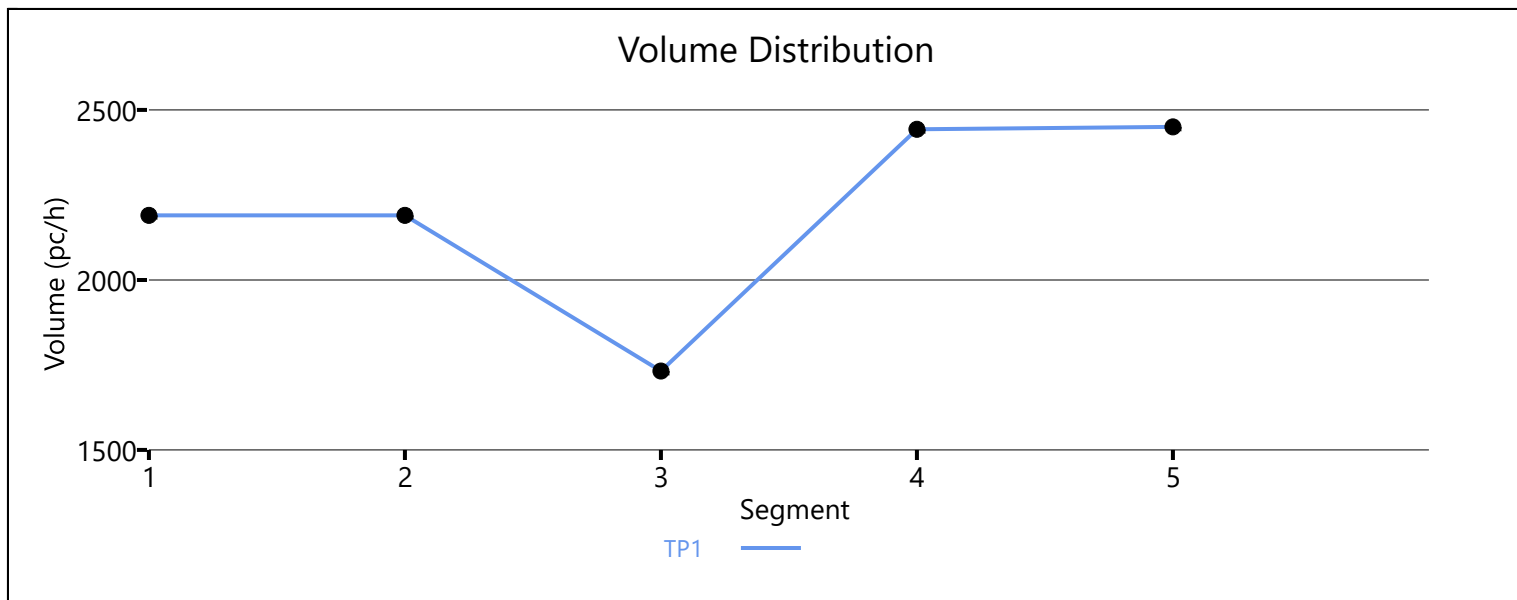
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2443	711	7200	2100	0.34	0.34	64.3	62.5	12.7	13.6	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2450		7161		0.34		68.7		11.9		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	10.9	10.5	2.1	A
Facility Overall Results					
Space Mean Speed, mi/h		67.5	Density, veh/mi/ln		10.5
Average Travel Time, min		2.1	Density, pc/mi/ln		10.9



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		2523		7161		0.35		68.7		12.2		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2523	728	7200	2100	0.35	0.35	63.2	59.8	13.3	16.7	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.901		1808		7161		0.25		68.7		8.8		A

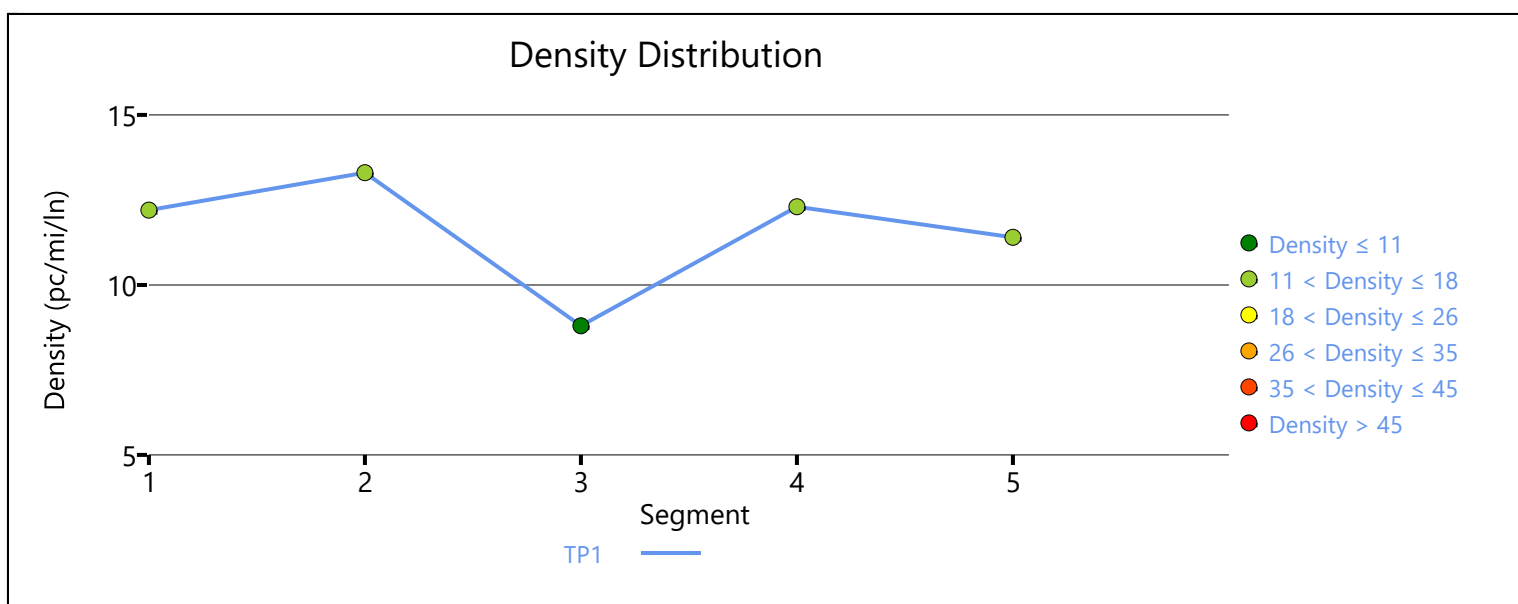
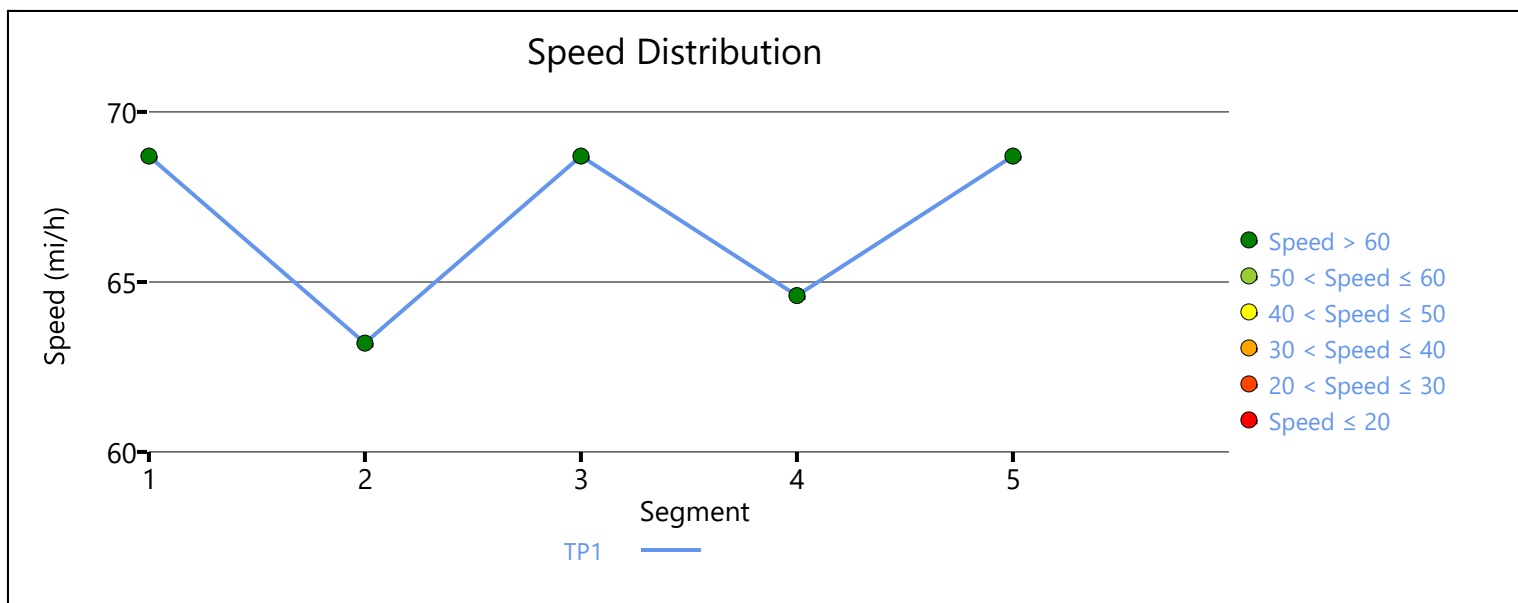
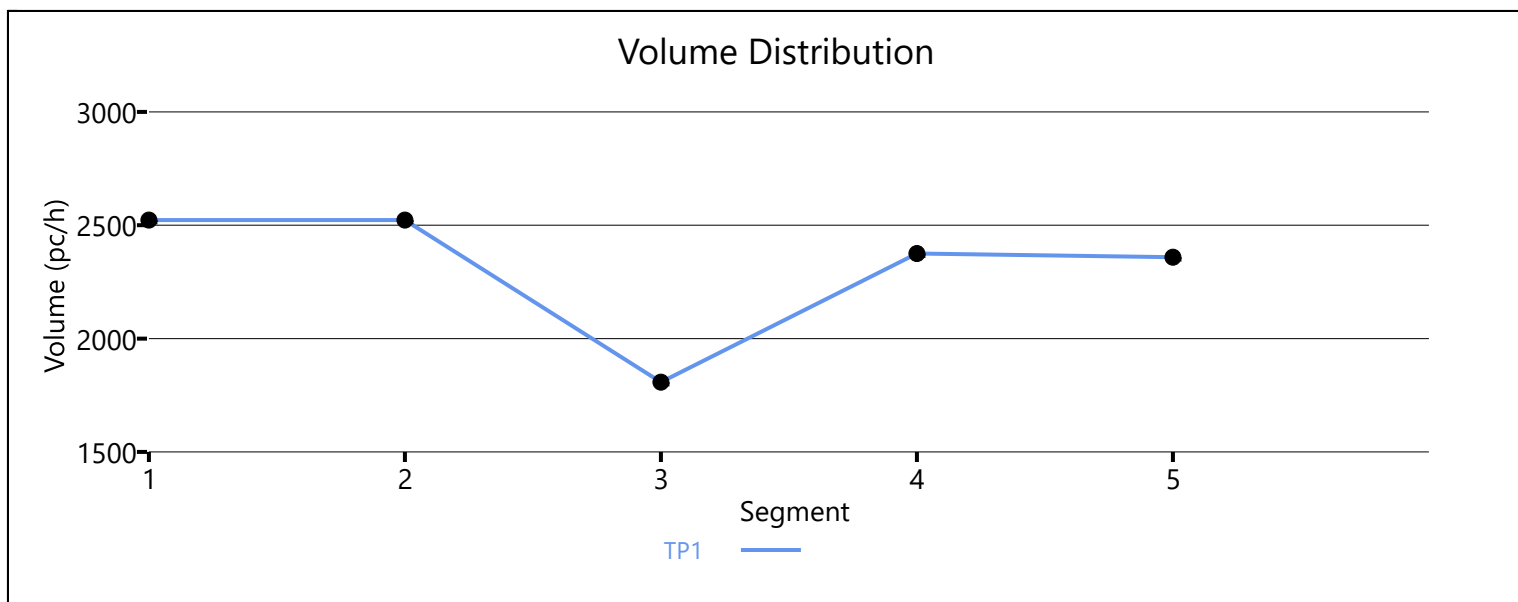
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.980	2375	567	7200	2100	0.33	0.27	64.6	62.8	12.3	12.3	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		2359		7161		0.33		68.7		11.4		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	11.6	10.7	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.5	Density, veh/mi/ln		10.7
Average Travel Time, min		2.2	Density, pc/mi/ln		11.6



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Beaumont	3040	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1000	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	East of Beaumont	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.893		4998		9548		0.52		68.7		18.2		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.893	0.926	4998	628	9600	2100	0.52	0.30	67.0	60.1	18.6	20.9	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.893		4347		9548		0.46		68.7		15.8		B

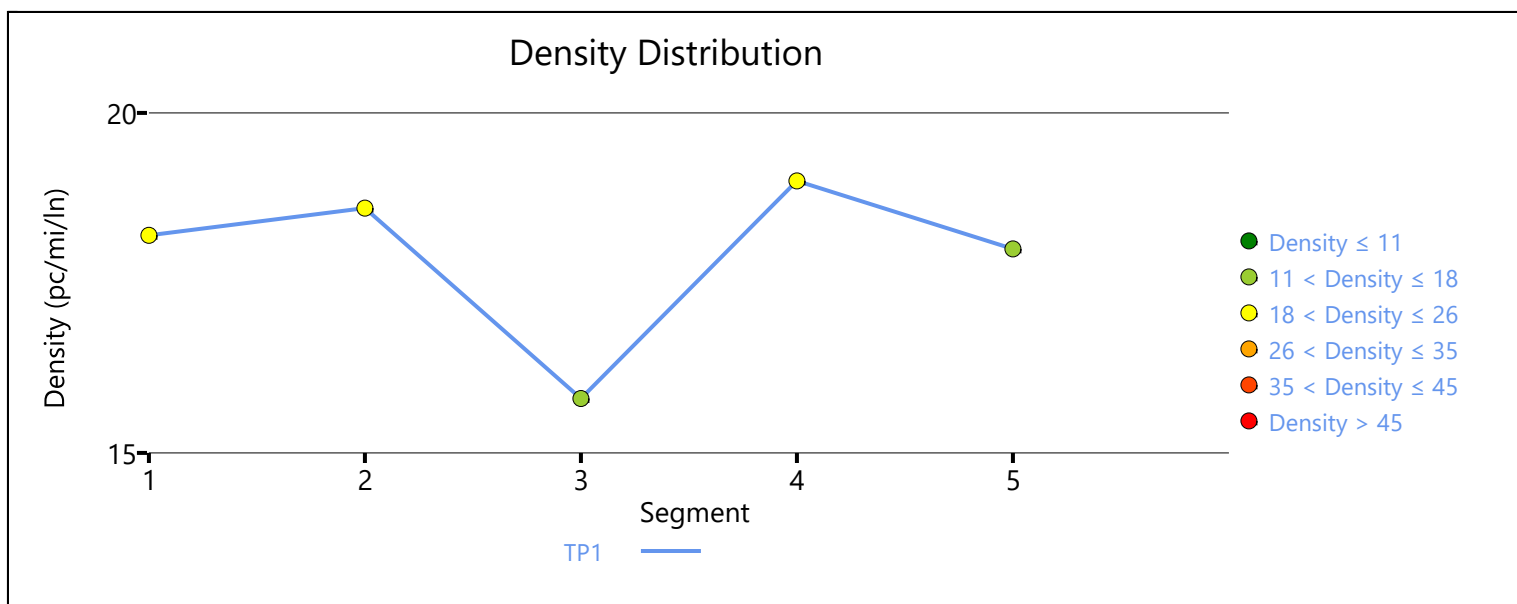
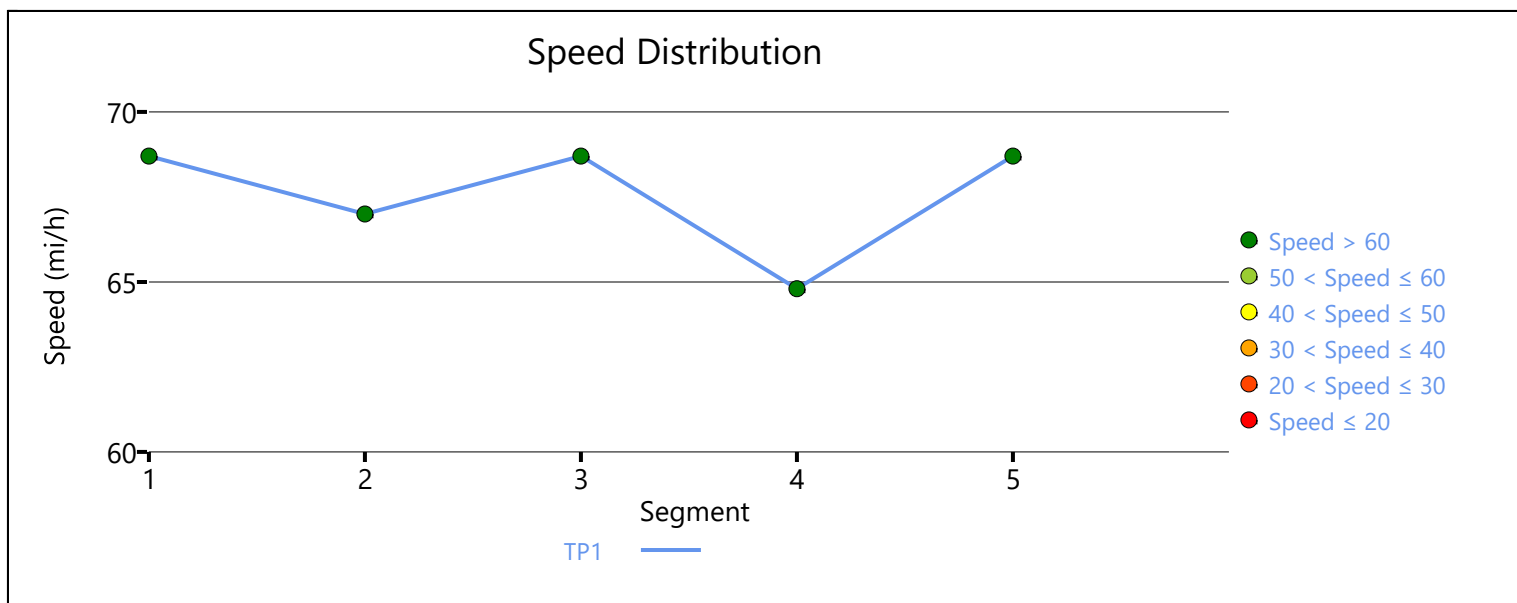
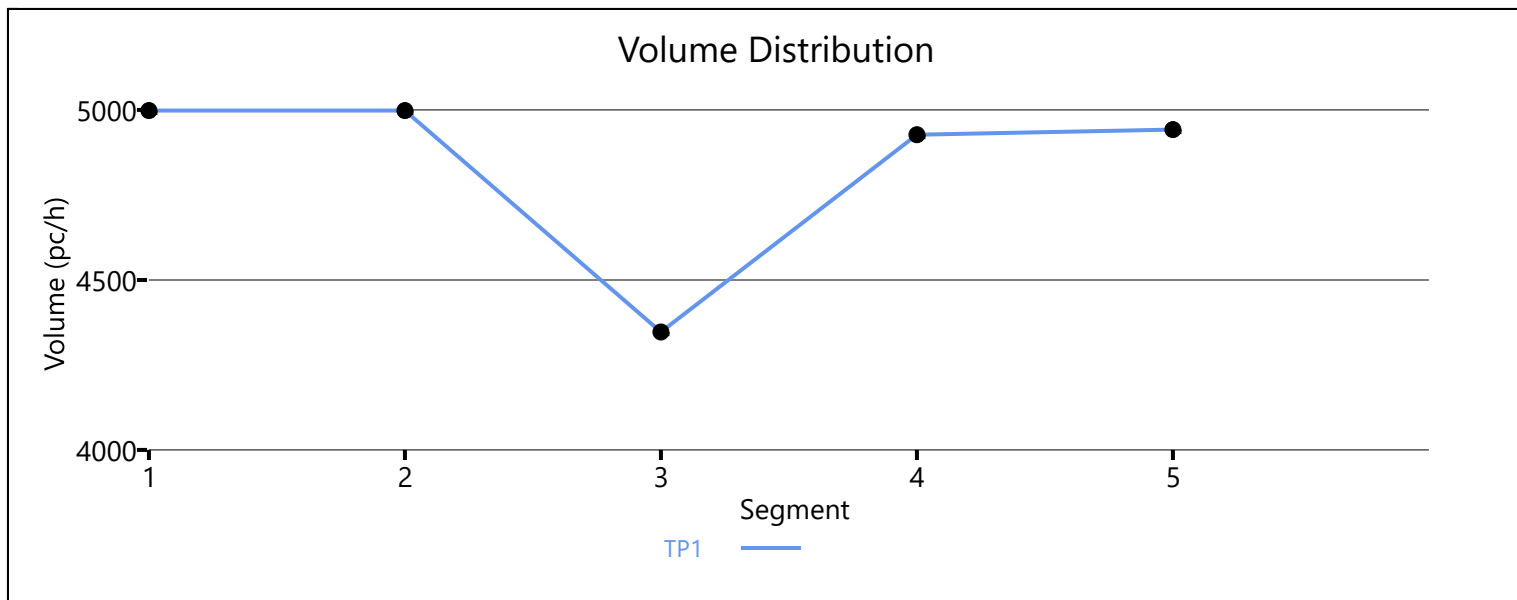
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.893	0.917	4927	580	9600	2100	0.51	0.28	64.8	62.3	19.0	17.4	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.893		4942		9548		0.52		68.7		18.0		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.8	18.1	16.2	1.7	C
Facility Overall Results					
Space Mean Speed, mi/h		67.8	Density, veh/mi/ln		16.2
Average Travel Time, min		1.7	Density, pc/mi/ln		18.1



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Beaumont	3125	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1300	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	West of Beaumont	3250	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		3852		9548		0.40		68.7		14.0		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.901	3705	626	9600	2100	0.39	0.30	66.9	60.1	13.8	16.2	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		3205		9548		0.34		68.7		11.7		B

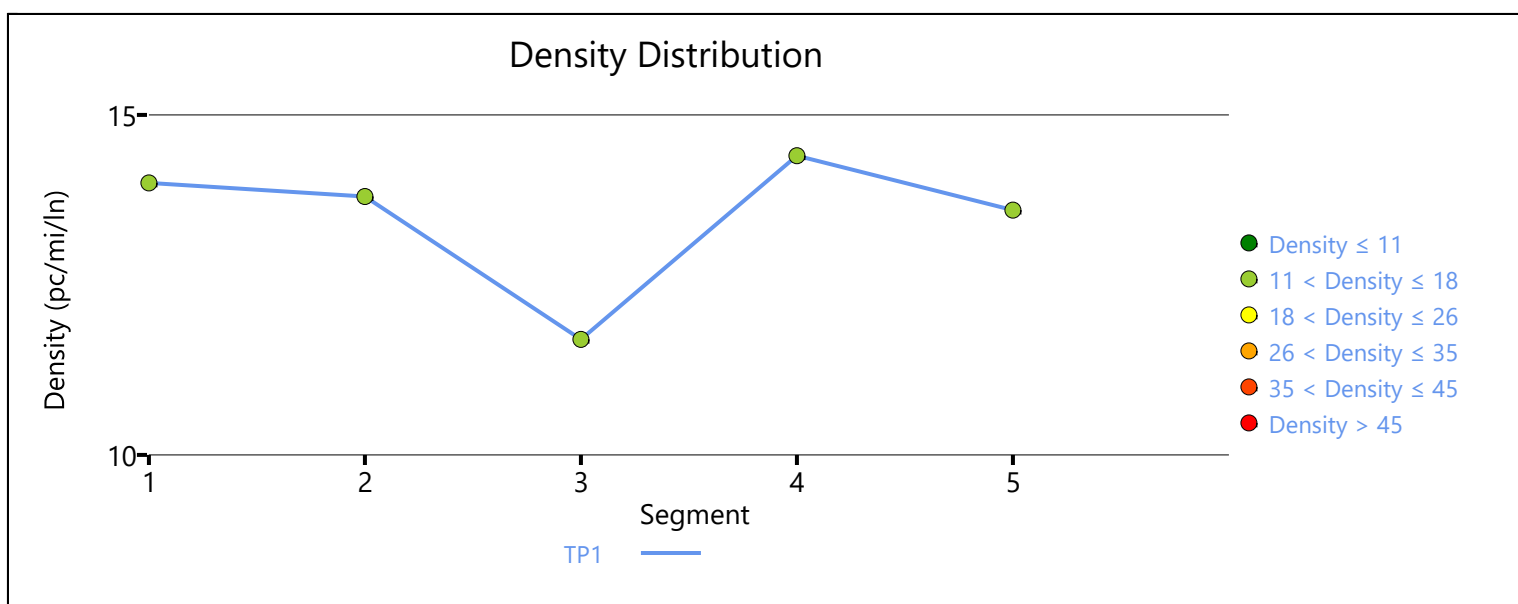
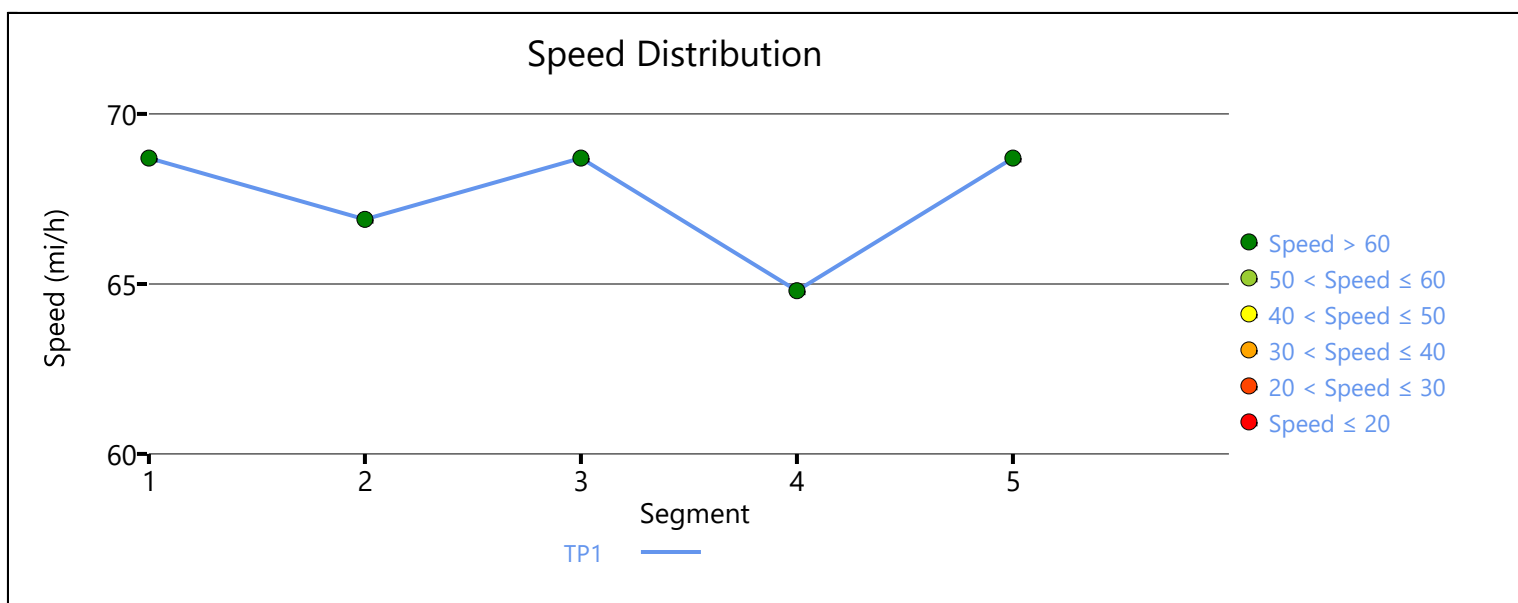
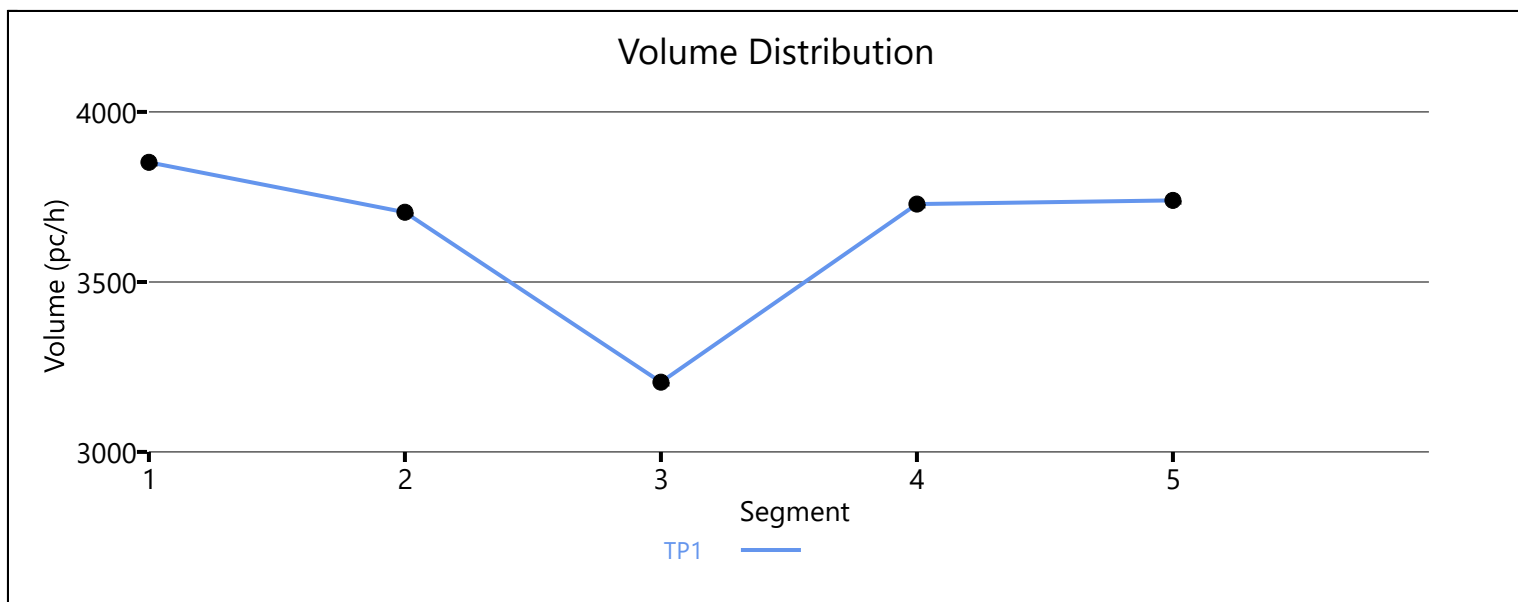
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.935	3729	524	9600	2100	0.39	0.25	64.8	61.4	14.4	16.7	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3740		9548		0.39		68.7		13.6		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.9	13.6	13.3	1.8	B
Facility Overall Results					
Space Mean Speed, mi/h		67.9	Density, veh/mi/ln		13.3
Average Travel Time, min		1.8	Density, pc/mi/ln		13.6



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of I-10	5280	2
2	Diverge	Diverge	Off-Ramp at 6th Street	1500	2
3	Basic	Basic	East of I-10	1000	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.926	1706	4786	0.36	69.3	12.3	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.901	1706	1221	4800	2100	0.36	0.58	58.6	58.6	14.6	14.9	B

Segment 3: Basic

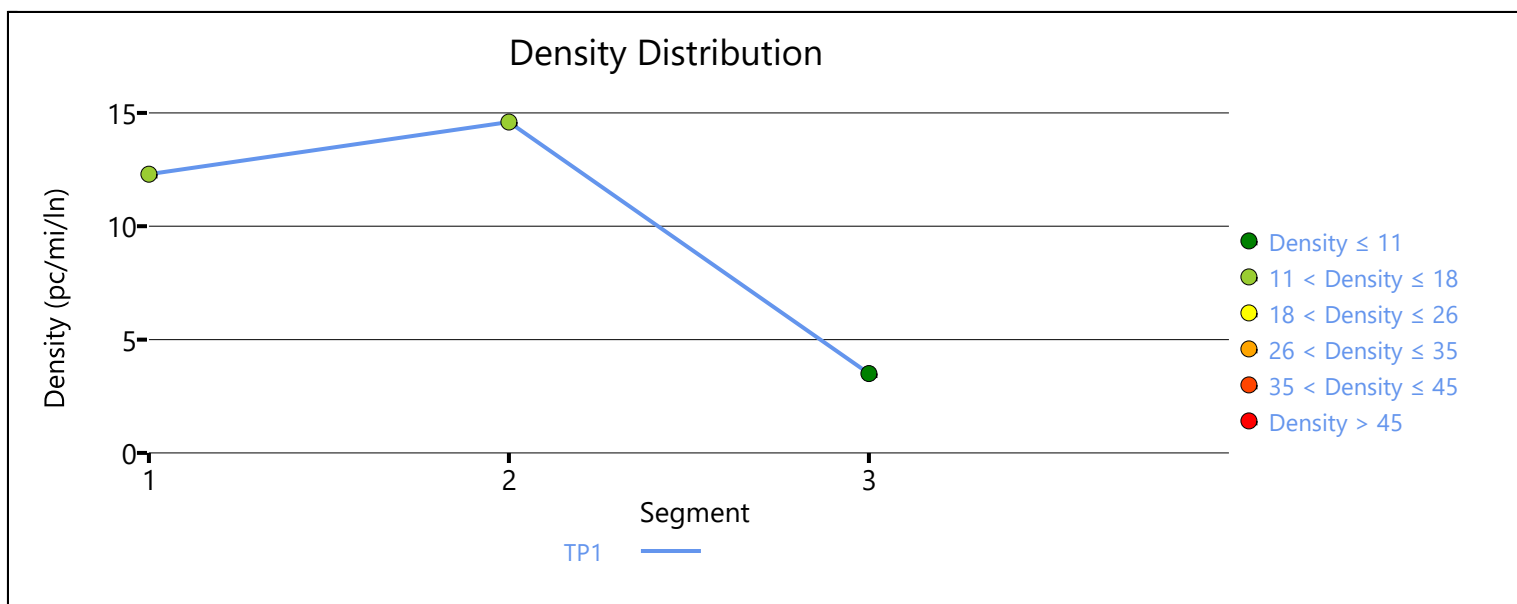
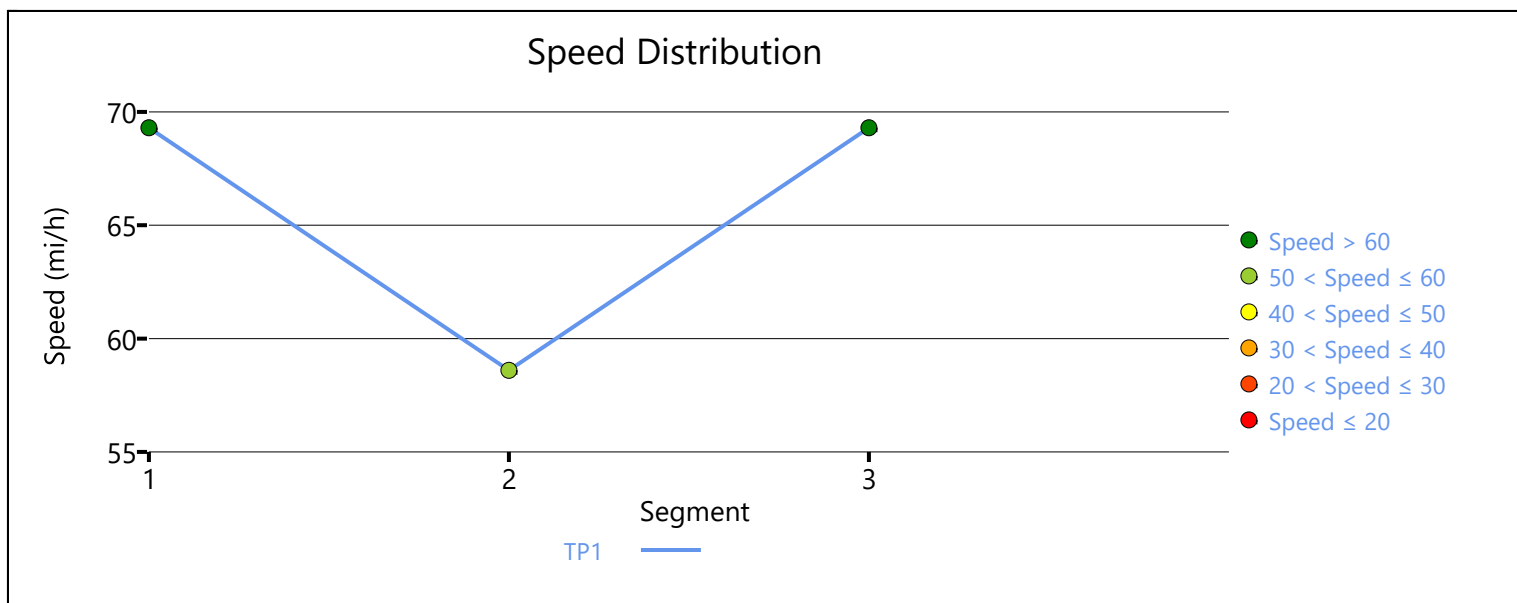
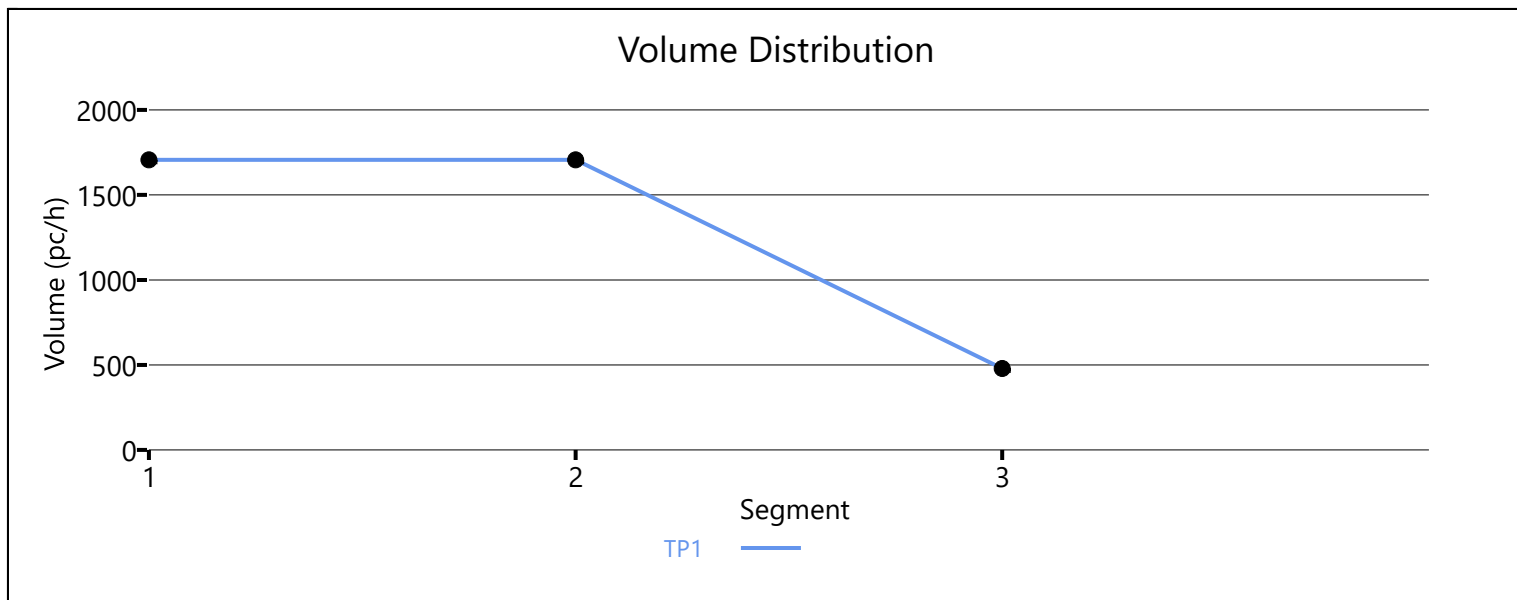
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	479	4786	0.10	69.3	3.5	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.7	11.6	10.8	1.3	B

Facility Overall Results

Space Mean Speed, mi/h	66.7	Density, veh/mi/ln	10.8
Average Travel Time, min	1.3	Density, pc/mi/ln	11.6



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Western Knolls	3500	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	100	2
4	Merge	Merge	On-Ramp	1500	2
5	Basic	Basic	West of Western Knolls	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		1579		4774		0.33		68.7		11.5		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.806	1579	374	4800	2100	0.33	0.18	60.7	60.7	13.0	10.6	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		1202		4774		0.25		68.7		8.7		A

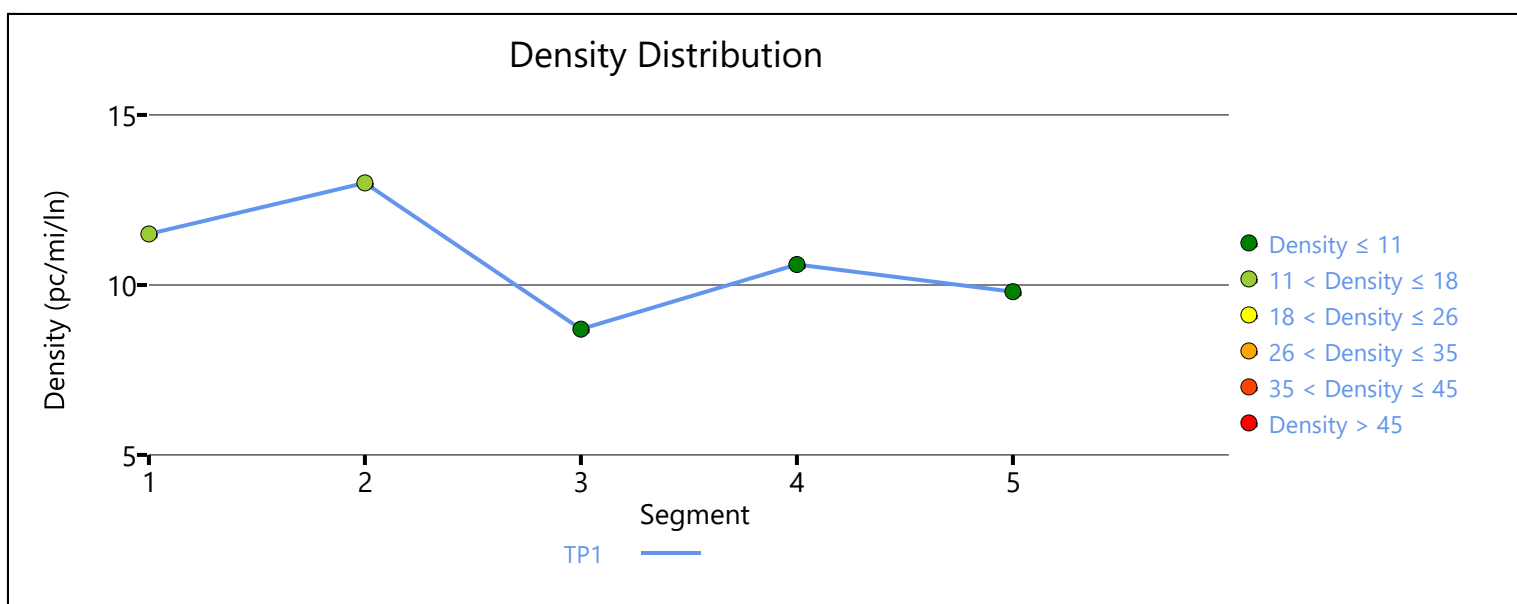
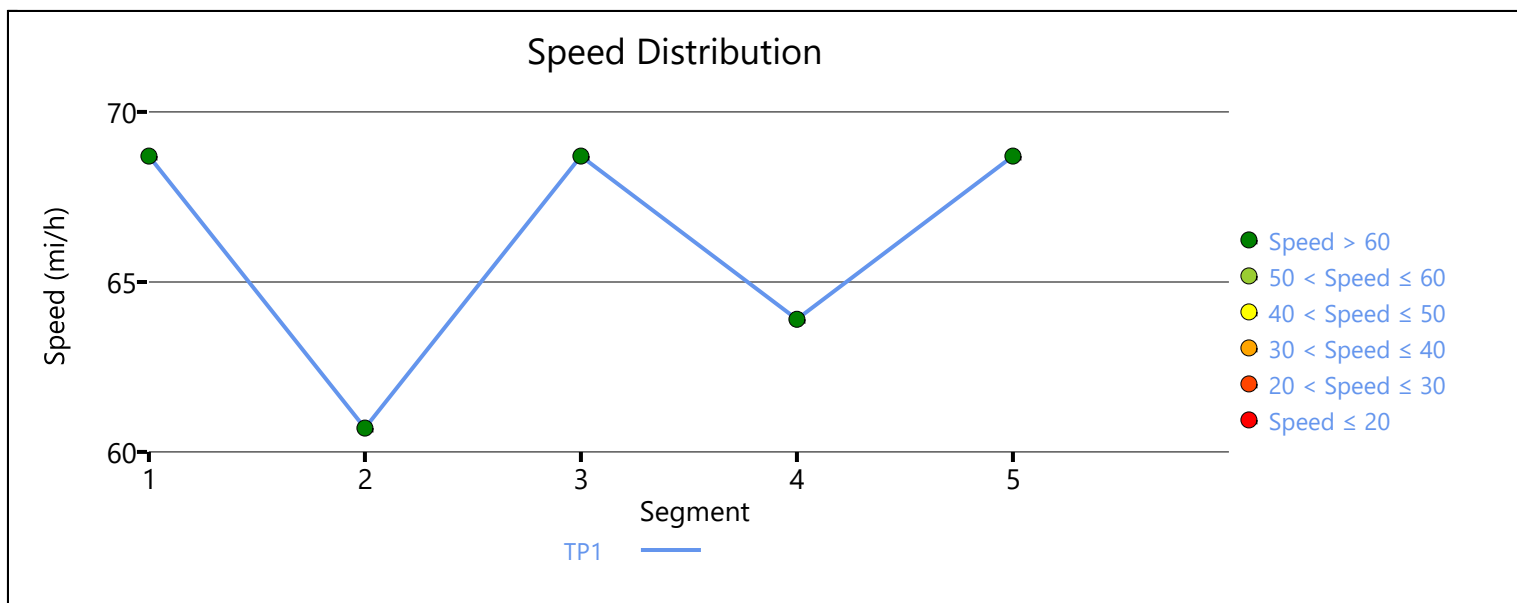
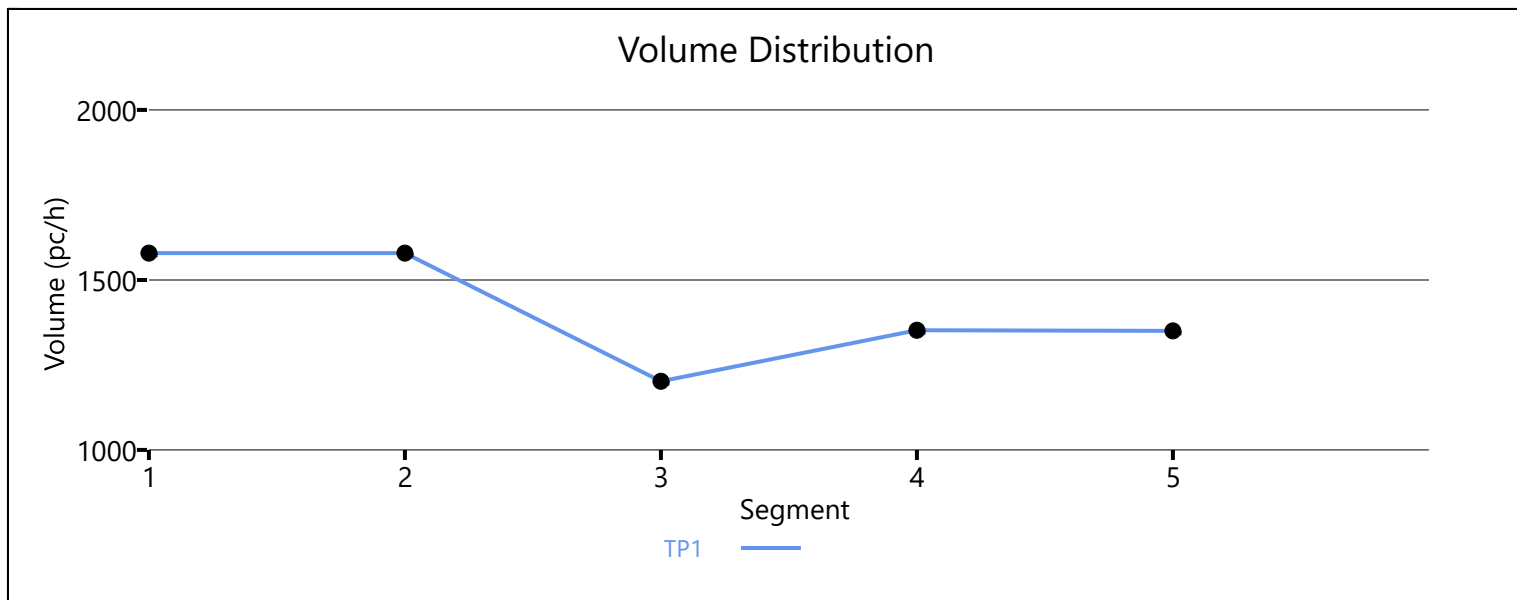
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.901	1352	150	4800	2100	0.28	0.07	63.9	63.9	10.6	7.7	A

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		1350		4774		0.28		68.7		9.8		A

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.9	10.8	10.5	2.0	A
Facility Overall Results					
Space Mean Speed, mi/h		66.9	Density, veh/mi/ln		10.5
Average Travel Time, min		2.0	Density, pc/mi/ln		10.8



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		2878		7161		0.40		68.7		14.0		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	2878	696	7200	2100	0.40	0.33	63.5	59.9	15.1	18.5	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2189		7161		0.31		68.7		10.6		A

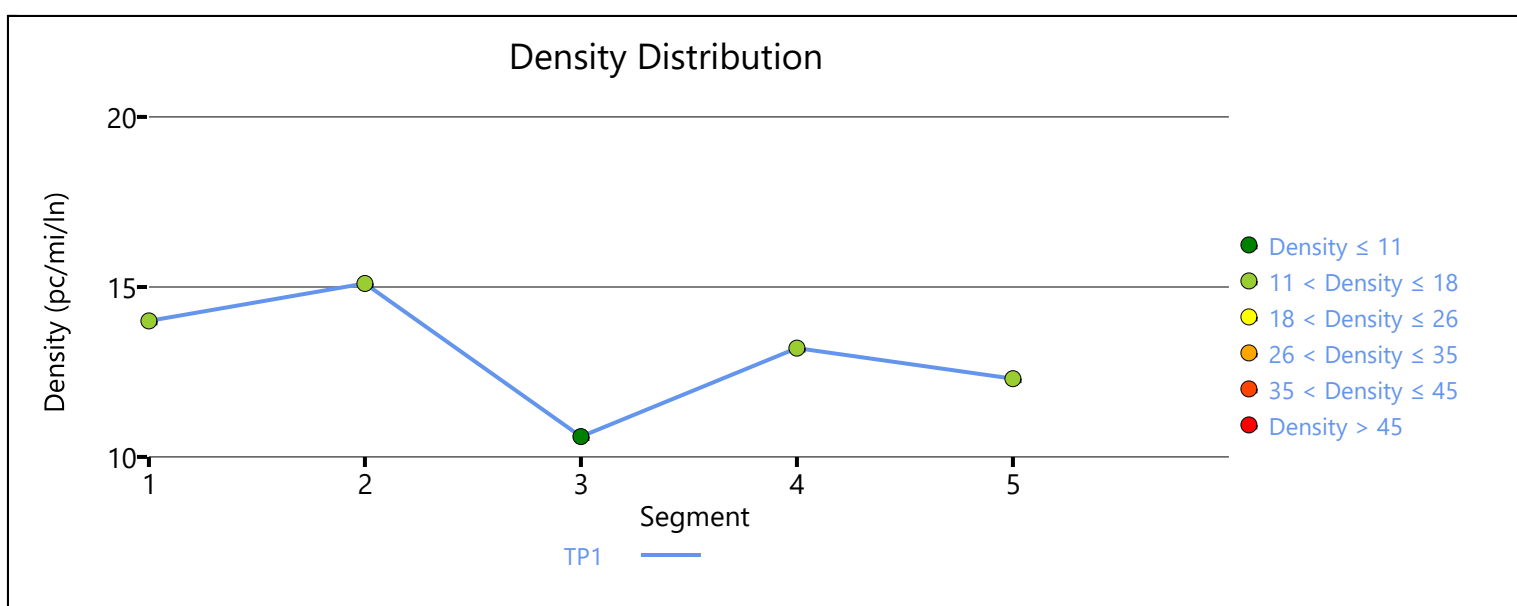
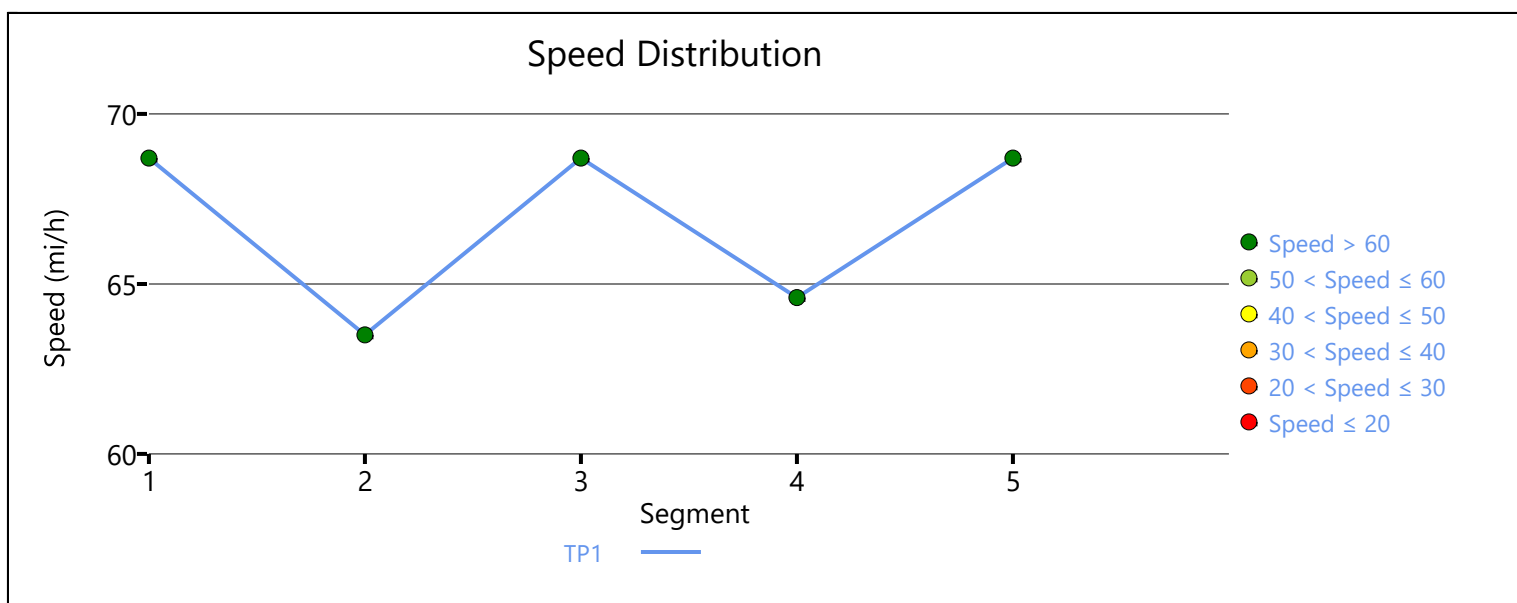
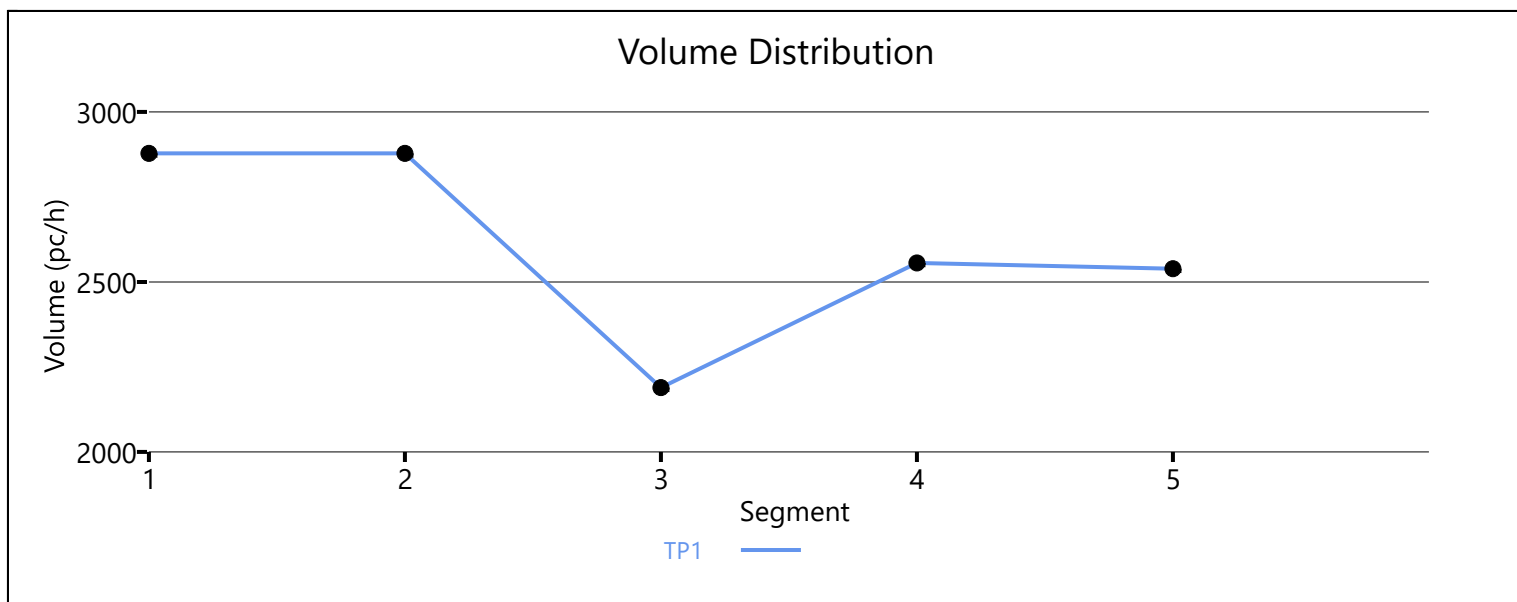
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	2556	367	7200	2100	0.36	0.17	64.6	62.6	13.2	13.2	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		2539		7161		0.35		68.7		12.3		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	13.2	12.8	2.1	B
Facility Overall Results					
Space Mean Speed, mi/h		67.5	Density, veh/mi/ln		12.8
Average Travel Time, min		2.1	Density, pc/mi/ln		13.2



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		3005		7161		0.42		68.7		14.6		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	3005	634	7200	2100	0.42	0.30	63.9	60.1	15.7	19.0	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.917		2380		7161		0.33		68.7		11.5		B

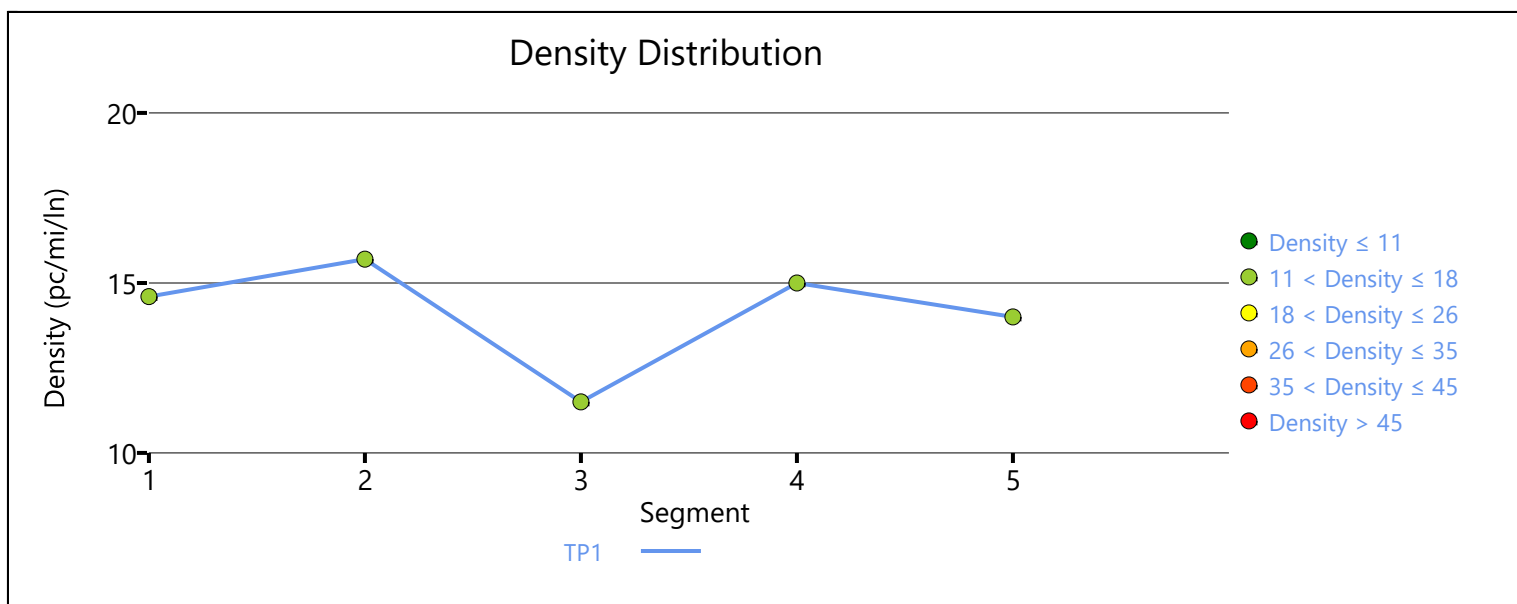
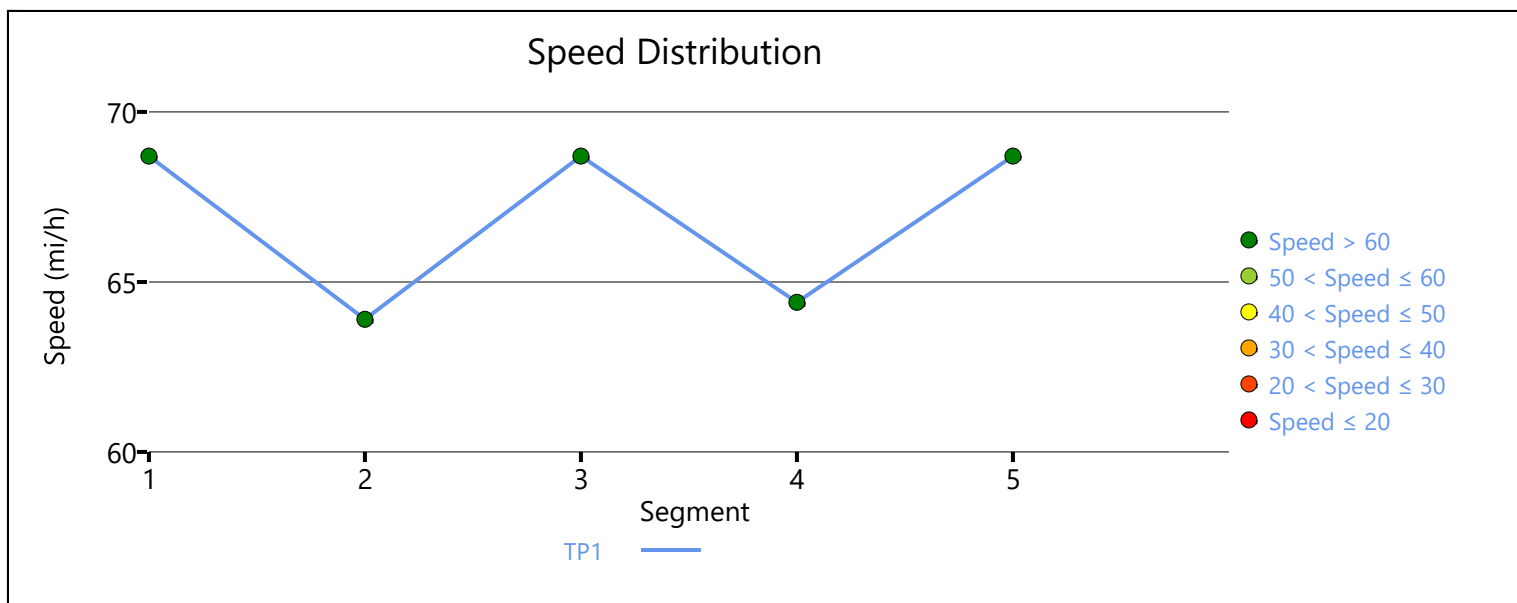
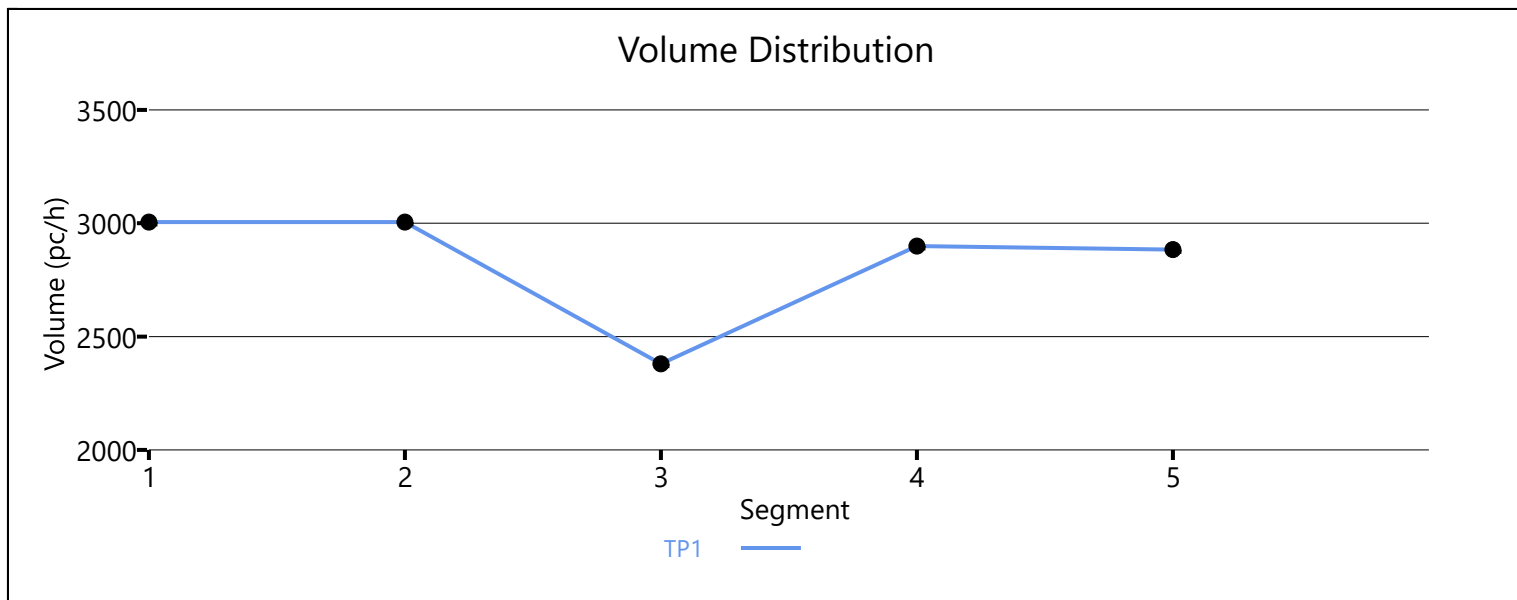
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.990	2899	519	7200	2100	0.40	0.25	64.4	62.6	15.0	14.6	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		2884		7161		0.40		68.7		14.0		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.6	14.2	13.2	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.6	Density, veh/mi/ln		13.2
Average Travel Time, min		2.2	Density, pc/mi/ln		14.2



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Beaumont	3040	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1000	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	East of Beaumont	3000	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.917		5071		9548		0.53		68.7		18.5		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.943	5071	836	9600	2100	0.53	0.40	66.3	59.6	19.1	22.2	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.909		4249		9548		0.45		68.7		15.5		B

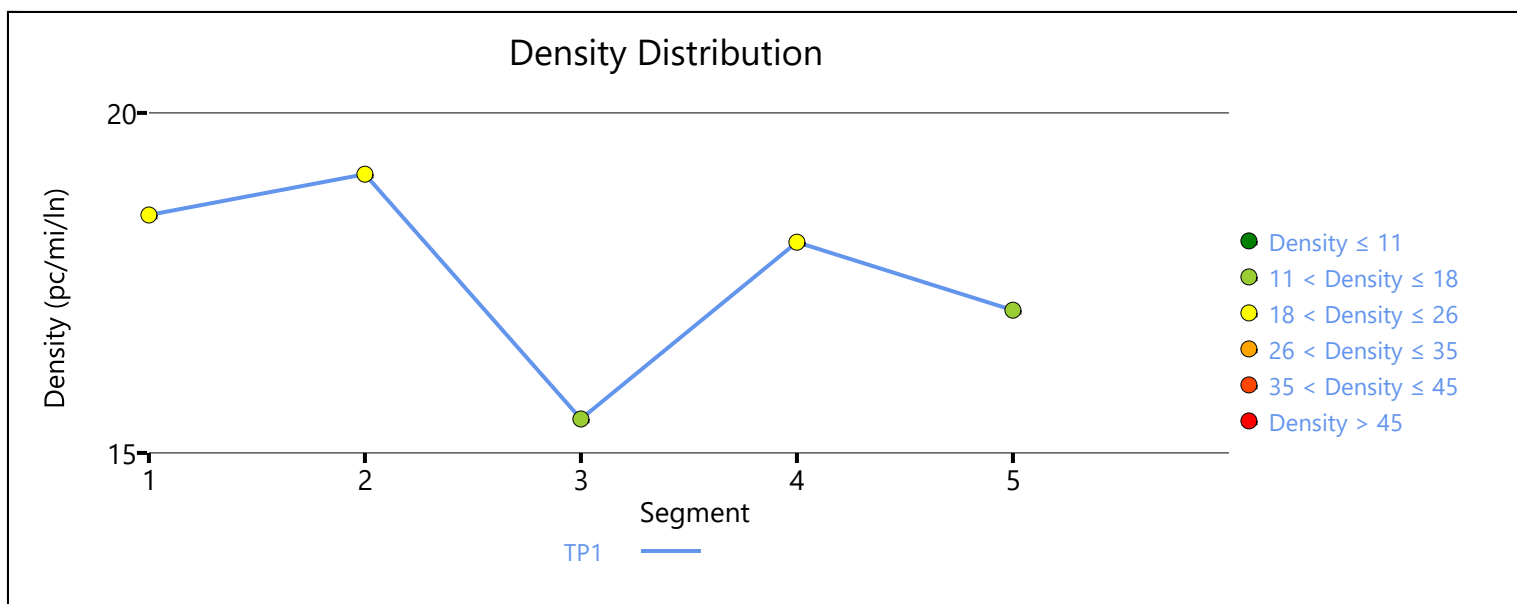
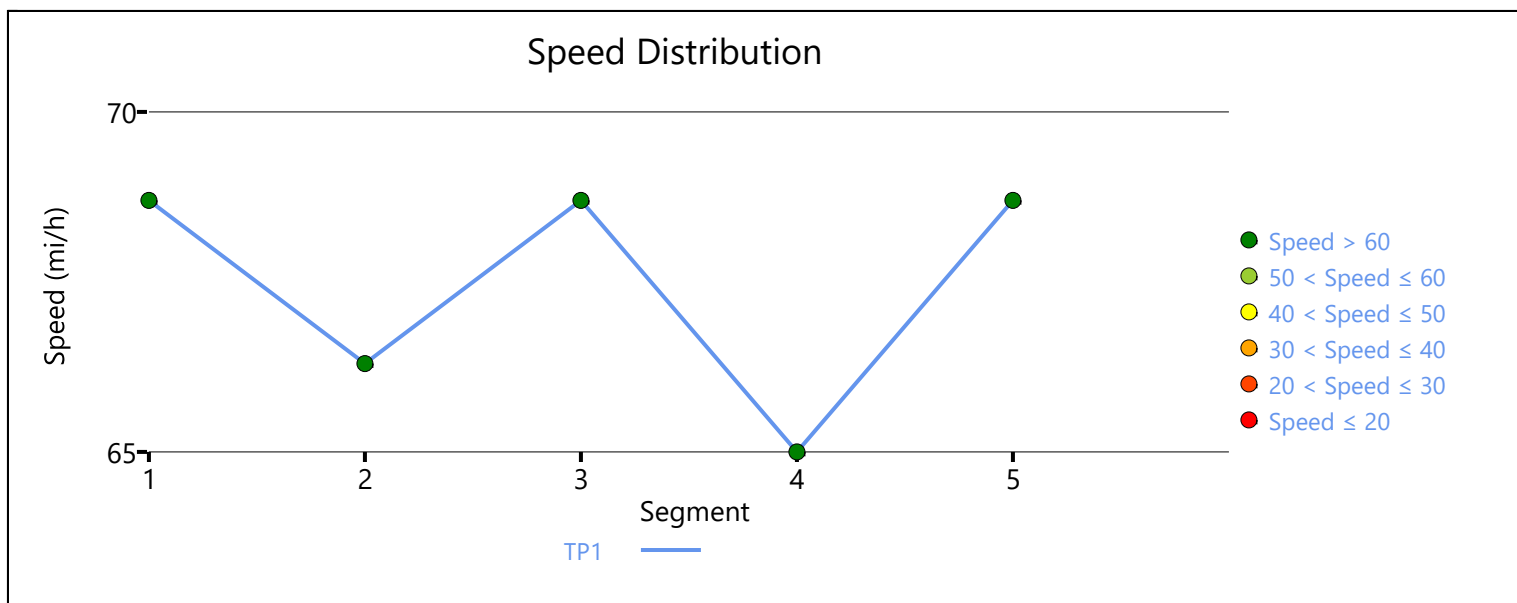
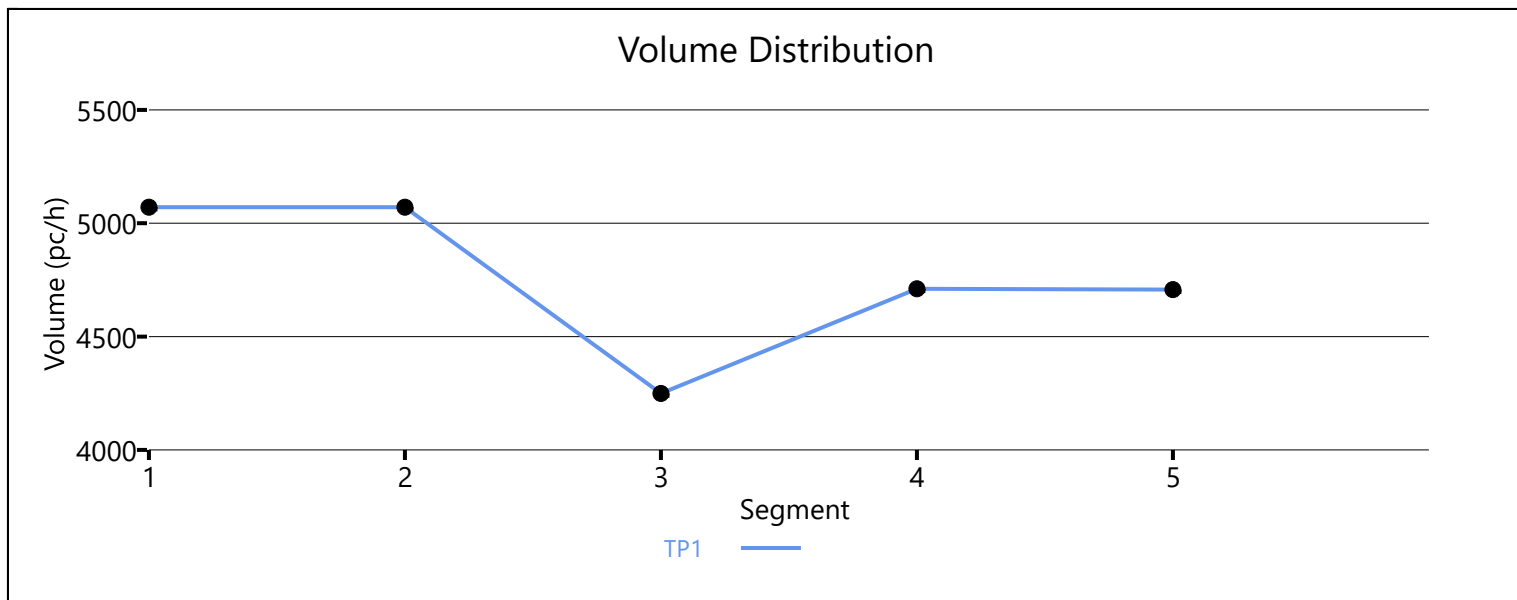
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.909	0.901	4711	462	9600	2100	0.49	0.22	65.0	62.5	18.1	16.2	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.909		4707		9548		0.49		68.7		17.1		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.8	17.8	16.3	1.7	B
Facility Overall Results					
Space Mean Speed, mi/h		67.8	Density, veh/mi/ln		16.3
Average Travel Time, min		1.7	Density, pc/mi/ln		17.8



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Beaumont		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Beaumont	3125	4
2	Diverge	Diverge	Off-Ramp	1500	4
3	Basic	Basic	Between	1300	4
4	Merge	Merge	On-Ramp	1500	4
5	Basic	Basic	West of Beaumont	3250	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		4676		9548		0.49		68.7		17.0		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	4676	923	9600	2100	0.49	0.44	66.1	59.3	17.7	21.3	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3734		9548		0.39		68.7		13.6		B

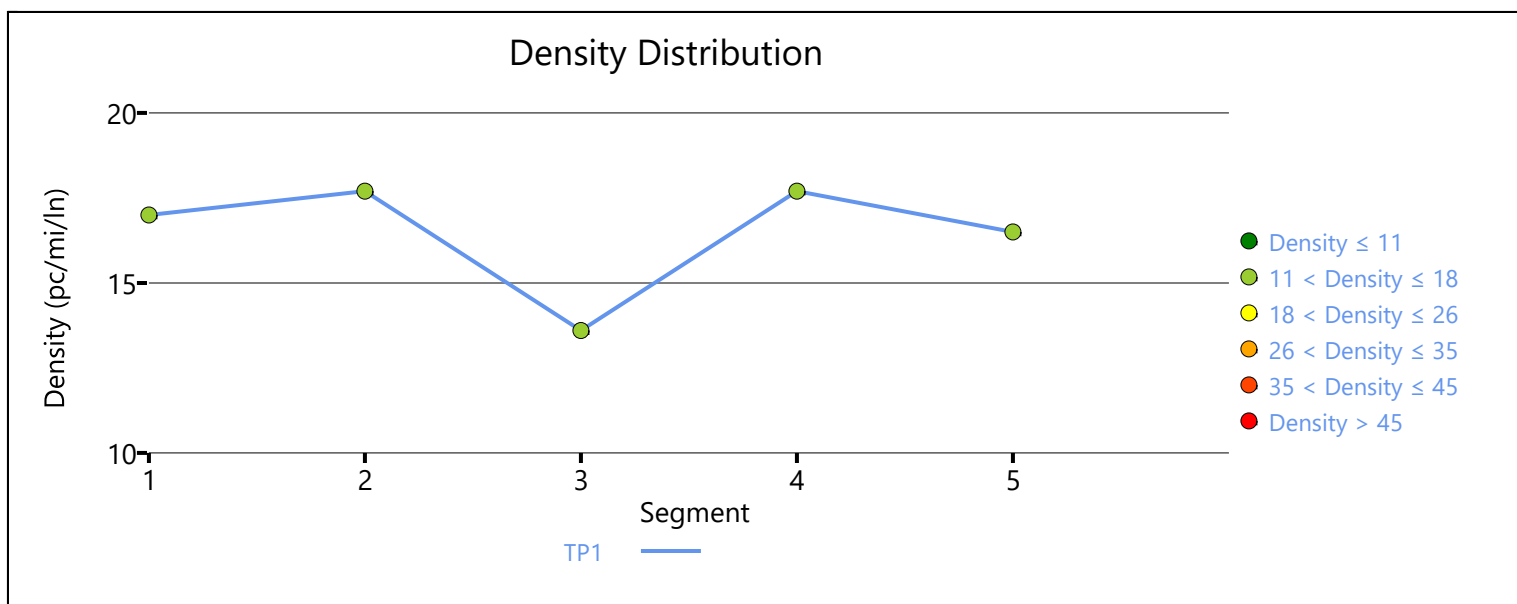
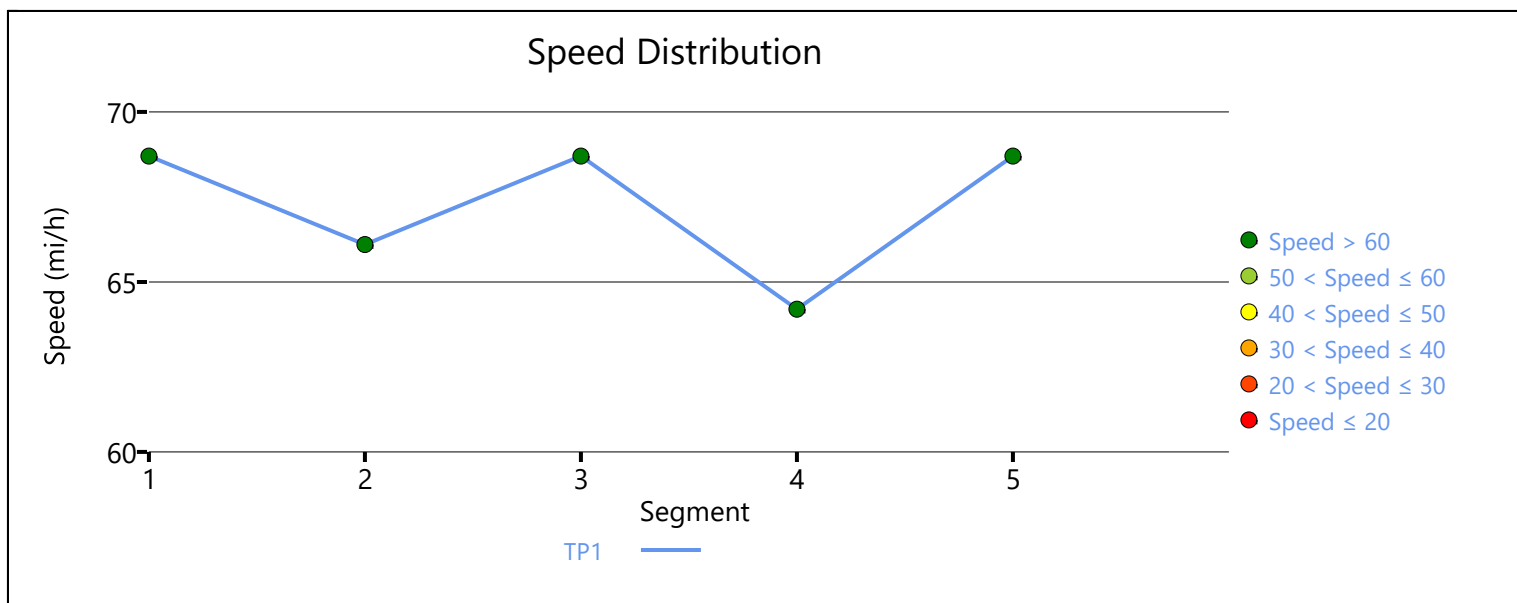
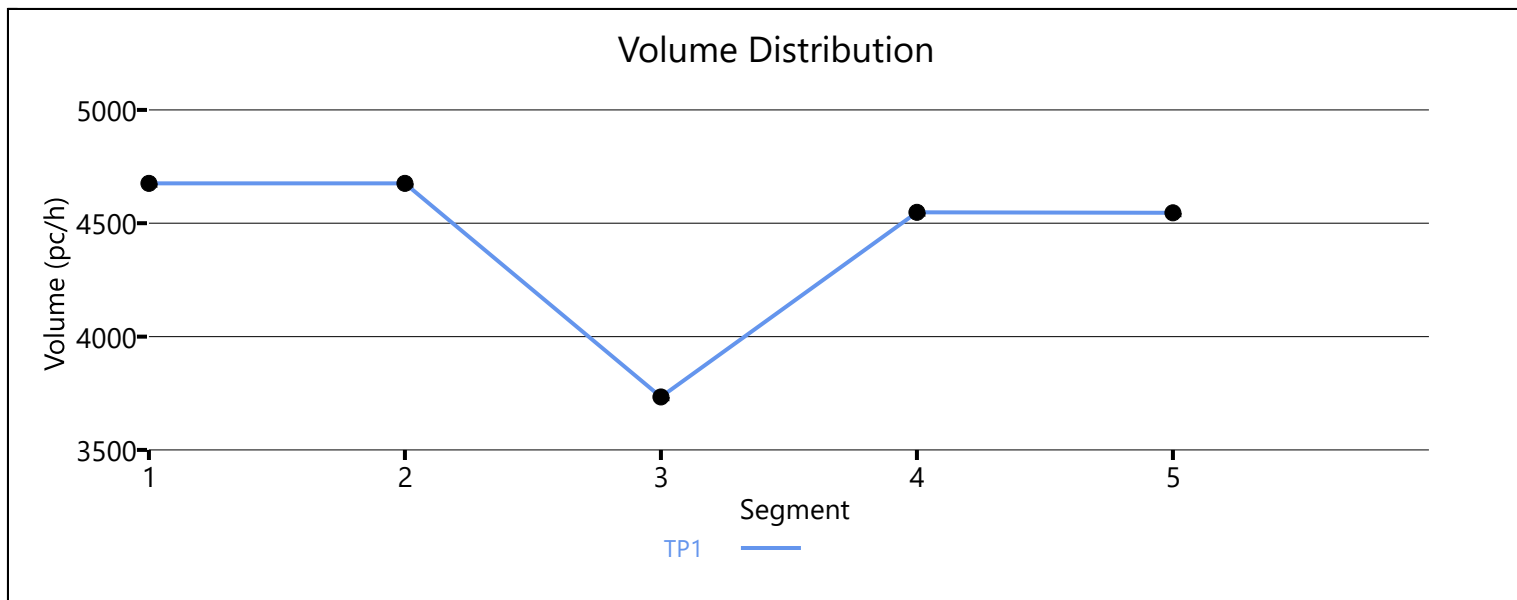
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.917	4548	814	9600	2100	0.47	0.39	64.2	61.0	17.7	20.5	C

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		4546		9548		0.48		68.7		16.5		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.6	16.6	16.1	1.8	B
Facility Overall Results					
Space Mean Speed, mi/h		67.6	Density, veh/mi/ln		16.1
Average Travel Time, min		1.8	Density, pc/mi/ln		16.6



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	3
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of I-10	5280	2
2	Diverge	Diverge	Off-Ramp at 6th Street	1500	2
3	Basic	Basic	East of I-10	1000	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.971	1726	4786	0.36	69.3	12.5	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.971	1726	1423	4800	2100	0.36	0.68	58.1	58.1	14.9	15.1	B

Segment 3: Basic

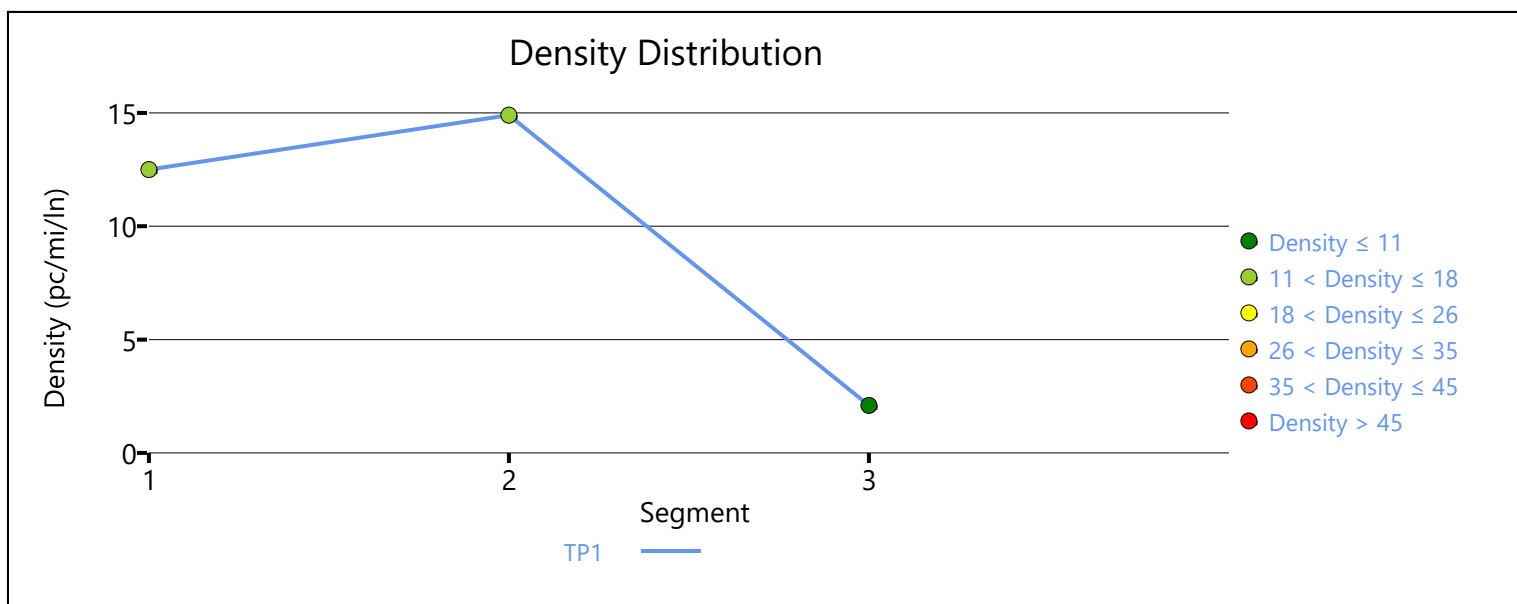
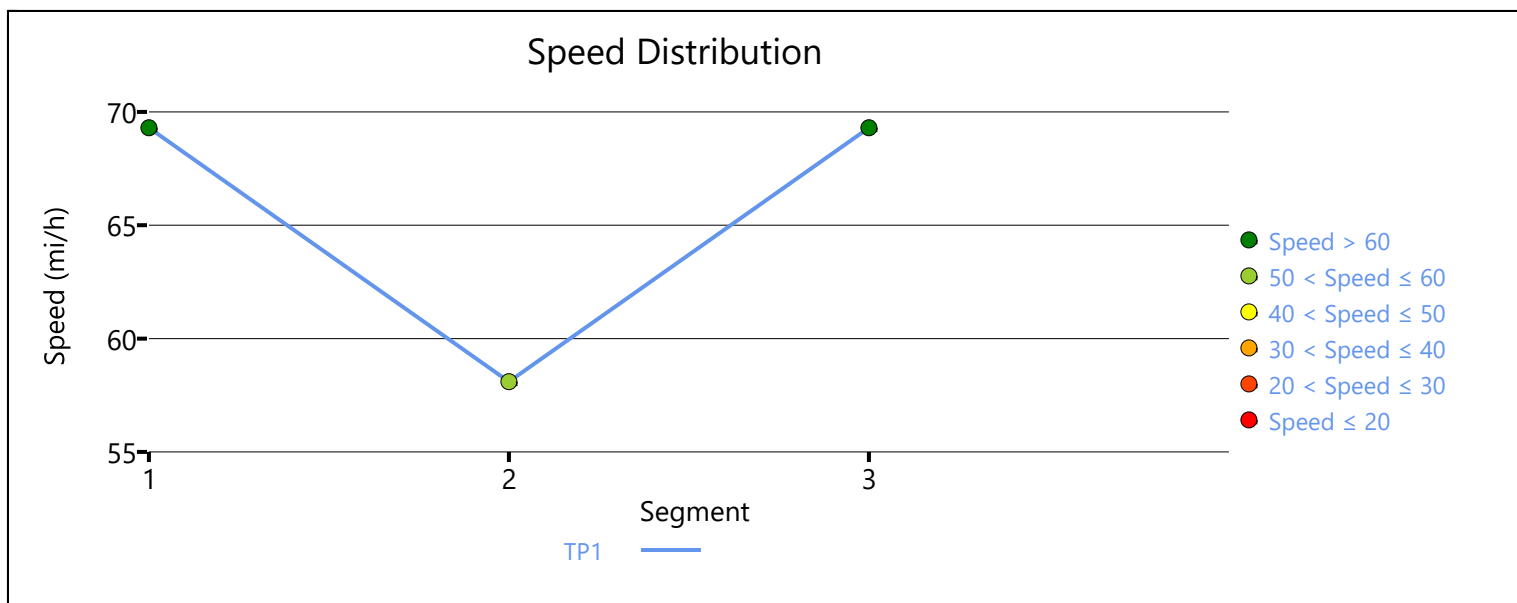
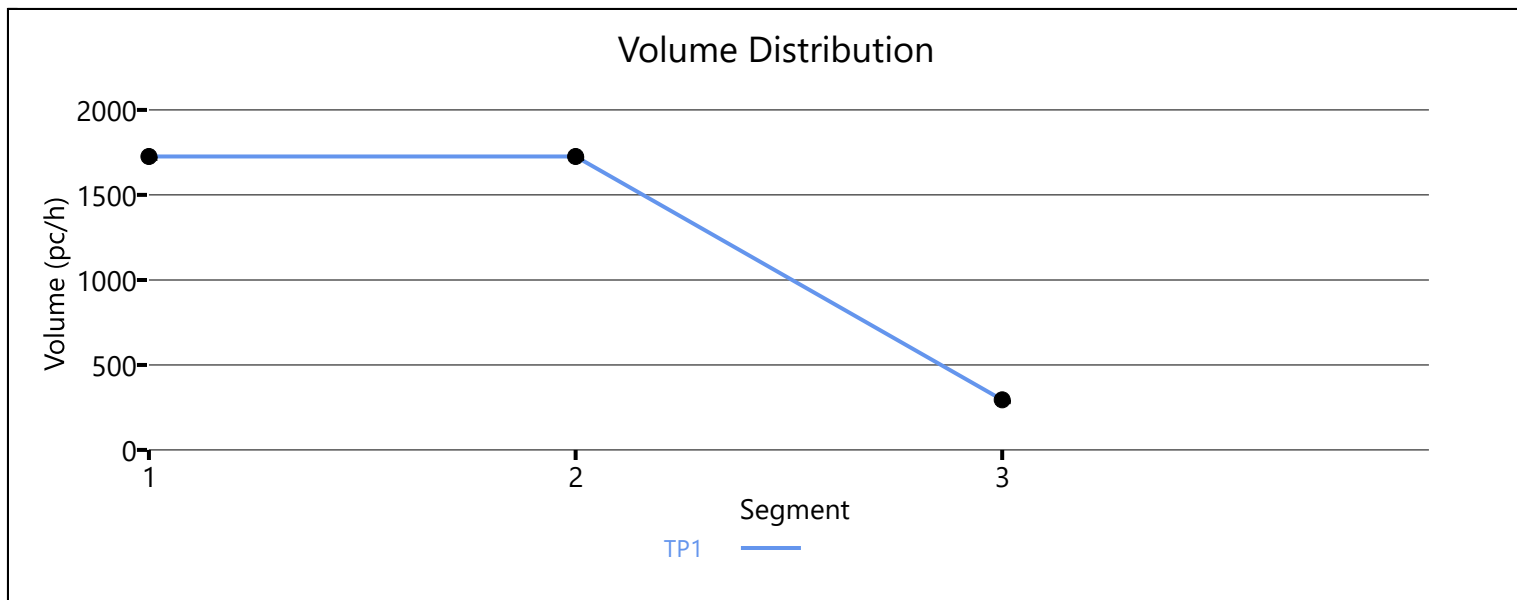
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	295	4786	0.06	69.3	2.1	A

Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.5	11.6	11.3	1.3	B

Facility Overall Results

Space Mean Speed, mi/h	66.5	Density, veh/mi/ln	11.3
Average Travel Time, min	1.3	Density, pc/mi/ln	11.6



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/10/2020
Agency	Urban Crossroads, Inc.	Analysis Year	E+P Phase BO
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Western Knolls	3500	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	100	2
4	Merge	Merge	On-Ramp	1500	2
5	Basic	Basic	West of Western Knolls	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		1641		4774		0.34		68.7		11.9		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.917	1641	255	4800	2100	0.34	0.12	61.0	61.0	13.5	11.2	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		1391		4774		0.29		68.7		10.1		A

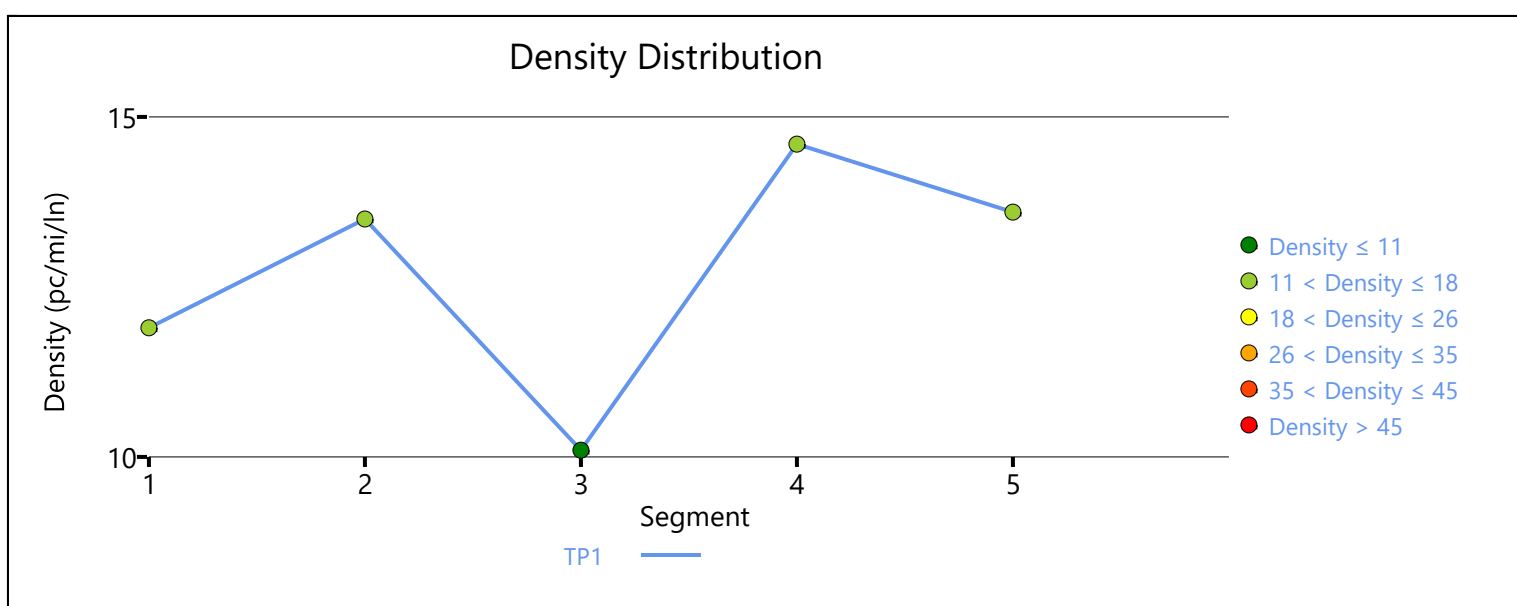
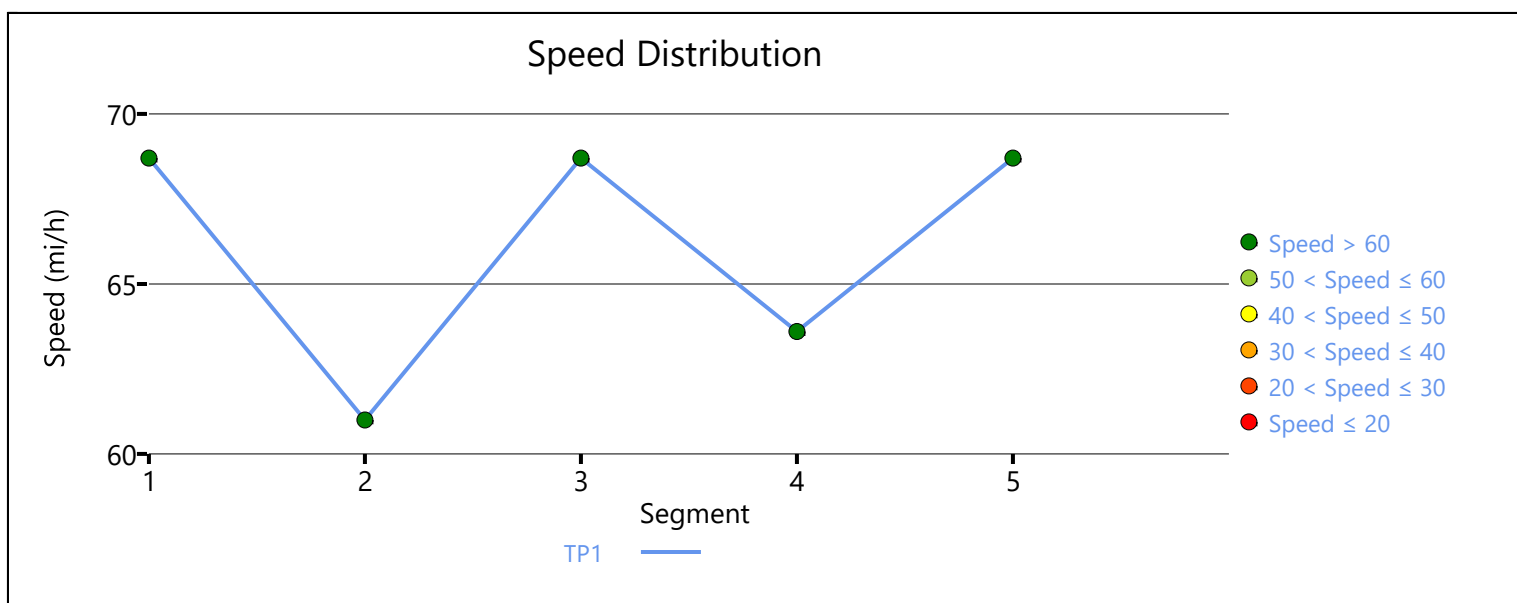
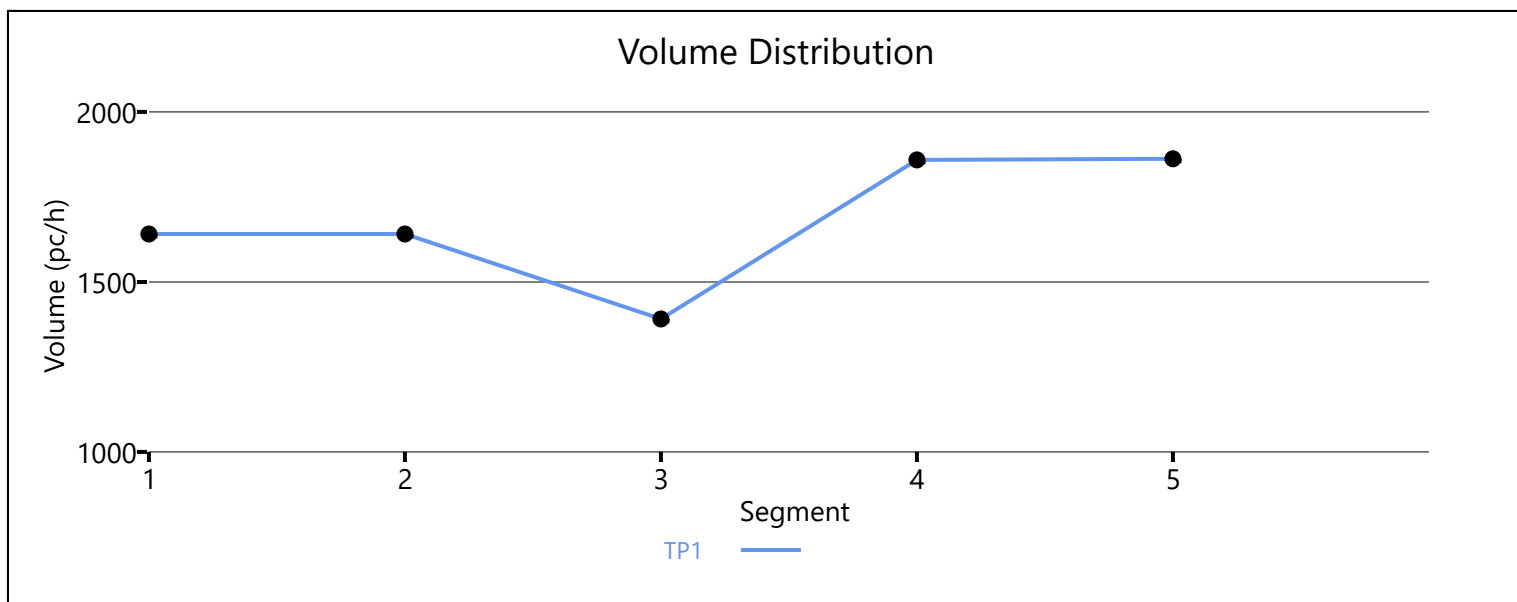
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.855	1859	468	4800	2100	0.39	0.22	63.6	63.6	14.6	11.5	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1862		4774		0.39		68.7		13.6		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.0	13.2	12.9	2.0	B
Facility Overall Results					
Space Mean Speed, mi/h		67.0	Density, veh/mi/ln		12.9
Average Travel Time, min		2.0	Density, pc/mi/ln		13.2



APPENDIX 5.13:

**E+P (PHASE 1) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS
WITH IMPROVEMENTS**

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Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

01/30/2020



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	51	278	250	458
Future Volume (vph)	51	278	250	458
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	10.0	38.2	28.2	41.8
Total Split (%)	12.5%	47.8%	35.3%	52.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min

Intersection Summary

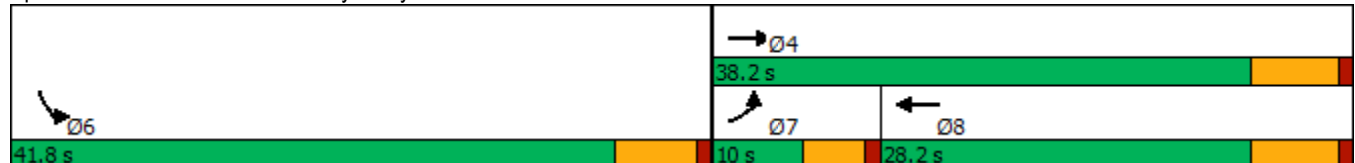
Cycle Length: 80

Actuated Cycle Length: 53.5

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

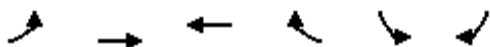


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

01/30/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations			 				
Traffic Volume (veh/h)	51	278	250	307	458	47	
Future Volume (veh/h)	51	278	250	307	458	47	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	59	320	287	353	526	54	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	97	792	975	454	599	61	
Arrive On Green	0.05	0.42	0.28	0.28	0.37	0.37	
Sat Flow, veh/h	1810	1900	3629	1610	1620	166	
Grp Volume(v), veh/h	59	320	287	353	581	0	
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1789	0	
Q Serve(g_s), s	1.8	6.6	3.7	11.4	17.1	0.0	
Cycle Q Clear(g_c), s	1.8	6.6	3.7	11.4	17.1	0.0	
Prop In Lane	1.00			1.00	0.91	0.09	
Lane Grp Cap(c), veh/h	97	792	975	454	662	0	
V/C Ratio(X)	0.61	0.40	0.29	0.78	0.88	0.00	
Avail Cap(c_a), veh/h	174	1080	1351	629	1144	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	26.1	11.5	15.8	18.6	16.6	0.0	
Incr Delay (d2), s/veh	2.3	0.3	0.2	4.2	4.2	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.7	2.1	1.2	4.0	6.2	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	28.4	11.8	16.0	22.8	20.7	0.0	
LnGrp LOS	C	B	B	C	C	A	
Approach Vol, veh/h		379	640		581		
Approach Delay, s/veh		14.4	19.7		20.7		
Approach LOS		B	B		C		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				29.7	26.6	7.6	22.1
Change Period (Y+Rc), s				6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s				32.0	36.0	5.4	22.0
Max Q Clear Time (g_c+I1), s				8.6	19.1	3.8	13.4
Green Ext Time (p_c), s				1.6	1.8	0.0	2.5
Intersection Summary							
HCM 6th Ctrl Delay			18.8				
HCM 6th LOS			B				
Notes							

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)
06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	Ø1
Lane Configurations												
Traffic Volume (vph)	2	3	71	24	9	29	283	508	34	215	2	
Future Volume (vph)	2	3	71	24	9	29	283	508	34	215	2	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	NA	Perm	
Protected Phases		4			8		5	2		6		1
Permitted Phases	4		4	8		8			2		6	
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.6	27.8	27.8	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	13.0	33.8	33.8	30.4	30.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	18.6%	48.3%	48.3%	43.4%	43.4%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6	4.6	4.6	5.8	5.8	5.8	5.8	
Lead/Lag							Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	Min	Min	None

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 57.5

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 12: California Av. & 5th St.

 Ø1	 Ø2	 Ø4
9.6 s	33.8 s	26.6 s
 Ø5	 Ø6	 Ø8
13 s	30.4 s	26.6 s

HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	71	24	9	29	283	508	34	12	215	2
Future Volume (veh/h)	2	3	71	24	9	29	283	508	34	12	215	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	90	30	11	37	358	643	43	15	272	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	227	249	333	348	106	333	361	1038	879	0	451	382
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.20	0.55	0.55	0.00	0.24	0.24
Sat Flow, veh/h	505	1204	1610	965	513	1610	1810	1900	1610	0	1900	1610
Grp Volume(v), veh/h	7	0	90	41	0	37	358	643	43	0	272	3
Grp Sat Flow(s),veh/h/ln	1709	0	1610	1479	0	1610	1810	1900	1610	0	1900	1610
Q Serve(g_s), s	0.0	0.0	2.0	0.0	0.0	0.8	8.3	9.8	0.5	0.0	5.4	0.1
Cycle Q Clear(g_c), s	0.1	0.0	2.0	0.7	0.0	0.8	8.3	9.8	0.5	0.0	5.4	0.1
Prop In Lane	0.43		1.00	0.73		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	476	0	333	454	0	333	361	1038	879	0	451	382
V/C Ratio(X)	0.01	0.00	0.27	0.09	0.00	0.11	0.99	0.62	0.05	0.00	0.60	0.01
Avail Cap(c_a), veh/h	992	0	841	908	0	841	361	1263	1071	0	1110	941
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	13.3	0.0	14.0	13.5	0.0	13.6	16.8	6.6	4.5	0.0	14.3	12.3
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.1	0.0	0.1	45.0	0.6	0.0	0.0	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.7	0.3	0.0	0.3	7.1	1.9	0.1	0.0	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.3	0.0	14.5	13.6	0.0	13.7	61.8	7.2	4.5	0.0	15.6	12.3
LnGrp LOS	B	A	B	B	A	B	E	A	A	A	B	B
Approach Vol, veh/h		97			78			1044			275	
Approach Delay, s/veh		14.4			13.7			25.8			15.5	
Approach LOS		B			B			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	28.8		13.3	13.0	15.8		13.3				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	8.4	24.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	11.8		4.0	10.3	7.4		2.8				
Green Ext Time (p_c), s	0.0	3.7		0.2	0.0	1.2		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			22.6									
HCM 6th LOS			C									

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
01/30/2020

					
Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	77	18	22	772	172
Future Volume (vph)	77	18	22	772	172
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8
Total Split (s)	27.8	27.8	10.1	52.2	42.1
Total Split (%)	34.8%	34.8%	12.6%	65.3%	52.6%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Min	Min

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 63.9

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

01/30/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	77	18	22	772	172	104
Future Volume (veh/h)	77	18	22	772	172	104
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	100	23	29	1003	223	135
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	289	257	60	1172	549	332
Arrive On Green	0.16	0.16	0.03	0.62	0.50	0.50
Sat Flow, veh/h	1810	1610	1810	1900	1108	671
Grp Volume(v), veh/h	100	23	29	1003	0	358
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	0	1779
Q Serve(g_s), s	2.6	0.6	0.8	22.3	0.0	6.6
Cycle Q Clear(g_c), s	2.6	0.6	0.8	22.3	0.0	6.6
Prop In Lane	1.00	1.00	1.00			0.38
Lane Grp Cap(c), veh/h	289	257	60	1172	0	882
V/C Ratio(X)	0.35	0.09	0.49	0.86	0.00	0.41
Avail Cap(c_a), veh/h	766	682	192	1697	0	1243
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.4	18.6	24.7	8.1	0.0	8.3
Incr Delay (d2), s/veh	0.7	0.1	2.3	3.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.6	0.3	5.2	0.0	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.1	18.8	27.0	11.2	0.0	8.6
LnGrp LOS	C	B	C	B	A	A
Approach Vol, veh/h	123			1032	358	
Approach Delay, s/veh	19.9			11.6	8.6	
Approach LOS	B			B	A	
Timer - Assigned Phs	2		4		5	6
Phs Duration (G+Y+Rc), s	37.9		14.1		6.3	31.5
Change Period (Y+Rc), s	5.8		5.8		4.6	5.8
Max Green Setting (Gmax), s	46.4		22.0		5.5	36.3
Max Q Clear Time (g_c+I1), s	24.3		4.6		2.8	8.6
Green Ext Time (p_c), s	7.8		0.3		0.0	2.1
Intersection Summary						
HCM 6th Ctrl Delay			11.6			
HCM 6th LOS			B			

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	464	9	345	216	352
Future Volume (vph)	464	9	345	216	352
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	51.0	51.0	45.0	69.0	24.0
Total Split (%)	42.5%	42.5%	37.5%	57.5%	20.0%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	30.3	30.3	29.6	80.1	45.9
Actuated g/C Ratio	0.25	0.25	0.25	0.67	0.38
v/c Ratio	0.78	0.72	0.84	0.10	0.35
Control Delay	53.9	44.2	56.4	5.7	25.1
Queue Delay	0.0	0.3	0.4	0.0	2.4
Total Delay	53.9	44.4	56.7	5.7	27.5
LOS	D	D	E	A	C
Approach Delay		49.3		37.1	27.5
Approach LOS		D		D	C

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 39.1

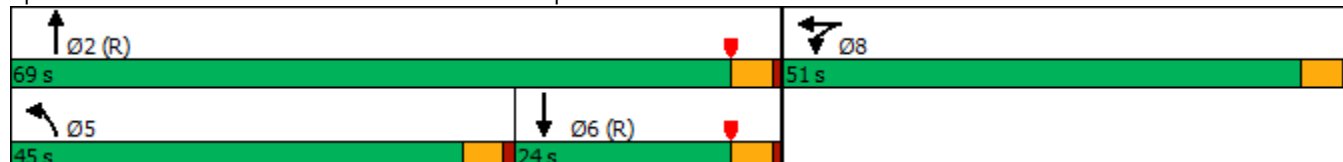
Intersection LOS: D

Intersection Capacity Utilization 60.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary

15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	352	79
Future Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	352	79
Initial Q (Qb), veh				0	0	0	25	50	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				328	256	143	375	235	0	0	383	86
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				464	294	164	489	2395	0	0	1098	244
Arrive On Green				0.26	0.26	0.26	0.37	1.00	0.00	0.00	0.81	0.81
Sat Flow, veh/h				1810	1145	640	1810	3705	0	0	3030	652
Grp Volume(v), veh/h				328	0	399	375	235	0	0	234	235
Grp Sat Flow(s),veh/h/ln				1810	0	1785	1810	1805	0	0	1805	1783
Q Serve(g_s), s				19.8	0.0	25.7	24.0	0.0	0.0	0.0	4.0	4.1
Cycle Q Clear(g_c), s				19.8	0.0	25.7	24.0	0.0	0.0	0.0	4.0	4.1
Prop In Lane				1.00		0.36	1.00		0.00	0.00		0.37
Lane Grp Cap(c), veh/h				464	0	458	489	2395	0	0	675	667
V/C Ratio(X)				0.71	0.00	0.87	0.77	0.10	0.00	0.00	0.35	0.35
Avail Cap(c_a), veh/h				697	0	687	609	2395	0	0	730	721
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.89	0.89	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				40.5	0.0	42.7	32.5	0.0	0.0	0.0	10.5	10.6
Incr Delay (d2), s/veh				2.0	0.0	8.0	3.1	0.1	0.0	0.0	1.4	1.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	80.6	3.5	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				8.8	0.0	11.9	22.5	1.2	0.0	0.0	2.1	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				42.5	0.0	50.7	116.1	3.6	0.0	0.0	11.9	12.0
LnGrp LOS				D	A	D	F	A	A	A	B	B
Approach Vol, veh/h					727			610			469	
Approach Delay, s/veh					47.0			72.8			12.0	
Approach LOS					D			E			B	
Timer - Assigned Phs	2			5			6			8		
Phs Duration (G+Y+Rc), s	84.4			31.1			53.3			35.6		
Change Period (Y+Rc), s	* 4.8			4.6			* 4.8			4.8		
Max Green Setting (Gmax), s	* 64			40.4			* 19			46.2		
Max Q Clear Time (g_c+I1), s	2.0			26.0			6.1			27.7		
Green Ext Time (p_c), s	1.7			0.5			2.3			3.1		
Intersection Summary												
HCM 6th Ctrl Delay				46.6								
HCM 6th LOS				D								
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

01/30/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕↕	↗	↕↕	↖	↕↕
Traffic Volume (vph)	10	495	493	111	706
Future Volume (vph)	10	495	493	111	706
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	41.0	41.0	56.0	23.0	79.0
Total Split (%)	34.2%	34.2%	46.7%	19.2%	65.8%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps

↘ Ø1	↑ Ø2 (R)	↗ Ø4
23 s	56 s	41 s
↓ Ø6 (R)		
79 s		

HCM 6th Signalized Intersection Summary

16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

01/30/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	10	495	0	0	0	0	493	421	111	706	0
Future Volume (veh/h)	68	10	495	0	0	0	0	493	421	111	706	0
Initial Q (Qb), veh	0	0	0				0	75	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	599				0	514	439	116	735	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	405	687				0	1310	764	141	2551	0
Arrive On Green	0.00	0.00	0.21				0.00	0.59	0.59	0.16	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1940	1576	1810	3705	0
Grp Volume(v), veh/h	0	0	599				0	503	450	116	735	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1616	1810	1805	0
Q Serve(g_s), s	0.0	0.0	21.6				0.0	19.0	19.0	7.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	21.6				0.0	19.0	19.0	7.5	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.98	1.00		0.00
Lane Grp Cap(c), veh/h	0	405	687				0	1066	985	141	2551	0
V/C Ratio(X)	0.00	0.00	0.87				0.00	0.47	0.46	0.82	0.29	0.00
Avail Cap(c_a), veh/h	0	573	971				0	1066	955	277	2551	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.83	0.83	0.00
Uniform Delay (d), s/veh	0.0	0.0	45.6				0.0	16.8	16.5	49.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	6.4				0.0	1.5	1.5	3.8	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	16.9	19.2	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	9.0				0.0	18.4	17.6	3.3	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	52.0				0.0	35.1	37.2	53.7	0.2	0.0
LnGrp LOS	A	A	D				A	D	D	D	A	A
Approach Vol, veh/h	599						953			851		
Approach Delay, s/veh	52.0						36.1			7.5		
Approach LOS	D						D			A		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	13.9	75.7		30.4			89.6					
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8			* 4.8					
Max Green Setting (Gmax), s	18.4	* 51		* 36			* 74					
Max Q Clear Time (g_c+I1), s	9.5	21.0		23.6			2.0					
Green Ext Time (p_c), s	0.1	7.6		2.0			6.2					

Intersection Summary

HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

01/30/2020



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	15	255	307	177
Future Volume (vph)	15	255	307	177
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	10.0	39.0	29.0	41.0
Total Split (%)	12.5%	48.8%	36.3%	51.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min

Intersection Summary

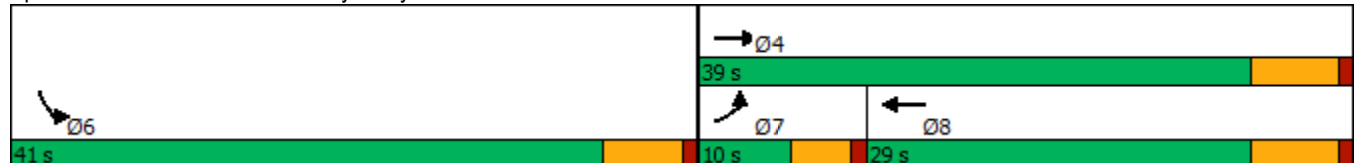
Cycle Length: 80

Actuated Cycle Length: 41

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

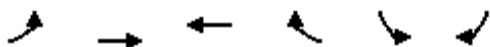


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

01/30/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	15	255	307	294	177	13
Future Volume (veh/h)	15	255	307	294	177	13
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	15	263	316	303	182	13
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	35	825	1026	478	429	31
Arrive On Green	0.02	0.43	0.30	0.30	0.26	0.26
Sat Flow, veh/h	1810	1900	3629	1610	1667	119
Grp Volume(v), veh/h	15	263	316	303	196	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1795	0
Q Serve(g_s), s	0.3	3.5	2.8	6.3	3.5	0.0
Cycle Q Clear(g_c), s	0.3	3.5	2.8	6.3	3.5	0.0
Prop In Lane	1.00			1.00	0.93	0.07
Lane Grp Cap(c), veh/h	35	825	1026	478	462	0
V/C Ratio(X)	0.43	0.32	0.31	0.63	0.42	0.00
Avail Cap(c_a), veh/h	251	1603	2028	944	1625	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.9	7.2	10.6	11.8	12.0	0.0
Incr Delay (d2), s/veh	3.1	0.2	0.2	1.4	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.8	0.7	1.7	1.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.0	7.4	10.8	13.2	12.7	0.0
LnGrp LOS	C	A	B	B	B	A
Approach Vol, veh/h		278	619		196	
Approach Delay, s/veh		8.2	12.0		12.7	
Approach LOS		A	B		B	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			23.1		15.8	5.3
Change Period (Y+Rc), s			6.2		5.8	4.6
Max Green Setting (Gmax), s			32.8		35.2	5.4
Max Q Clear Time (g_c+I1), s			5.5		5.5	2.3
Green Ext Time (p_c), s			1.3		0.5	0.0
Intersection Summary						
HCM 6th Ctrl Delay			11.1			
HCM 6th LOS			B			

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)
06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	Ø1
Lane Configurations												
Traffic Volume (vph)	4	3	82	39	3	20	169	368	82	203	6	
Future Volume (vph)	4	3	82	39	3	20	169	368	82	203	6	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	NA	Perm	
Protected Phases		4			8		5	2		6		1
Permitted Phases	4		4	8		8			2		6	
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.6	27.8	27.8	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	10.0	33.8	33.8	33.4	33.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	14.3%	48.3%	48.3%	47.7%	47.7%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6	4.6	4.6	5.8	5.8	5.8	5.8	
Lead/Lag							Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	Min	Min	None

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 60.5

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

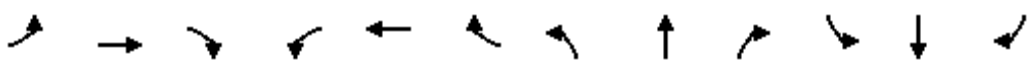
Splits and Phases: 12: California Av. & 5th St.

 Ø1	 Ø2	 Ø4
9.6 s	33.8 s	26.6 s
 Ø5	 Ø6	 Ø8
10 s	33.4 s	26.6 s

HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗	↘		↗	↘	↘	↗	↘		↗	↘
Traffic Volume (veh/h)	4	3	82	39	3	20	169	368	82	6	203	6
Future Volume (veh/h)	4	3	82	39	3	20	169	368	82	6	203	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	3	86	41	3	21	178	387	86	6	214	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	309	192	345	449	27	345	227	971	823	0	502	425
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.13	0.51	0.51	0.00	0.26	0.26
Sat Flow, veh/h	743	898	1610	1241	125	1610	1810	1900	1610	0	1900	1610
Grp Volume(v), veh/h	7	0	86	44	0	21	178	387	86	0	214	6
Grp Sat Flow(s),veh/h/ln	1641	0	1610	1366	0	1610	1810	1900	1610	0	1900	1610
Q Serve(g_s), s	0.0	0.0	1.7	0.8	0.0	0.4	3.6	4.7	1.0	0.0	3.5	0.1
Cycle Q Clear(g_c), s	0.1	0.0	1.7	0.9	0.0	0.4	3.6	4.7	1.0	0.0	3.5	0.1
Prop In Lane	0.57		1.00	0.93		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	501	0	345	476	0	345	227	971	823	0	502	425
V/C Ratio(X)	0.01	0.00	0.25	0.09	0.00	0.06	0.78	0.40	0.10	0.00	0.43	0.01
Avail Cap(c_a), veh/h	1083	0	936	974	0	936	258	1406	1191	0	1386	1174
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	11.7	0.0	12.3	12.0	0.0	11.8	16.1	5.7	4.8	0.0	11.5	10.3
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.1	0.0	0.1	11.1	0.3	0.1	0.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.5	0.3	0.0	0.1	1.8	0.8	0.2	0.0	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.7	0.0	12.7	12.1	0.0	11.9	27.1	5.9	4.8	0.0	12.1	10.3
LnGrp LOS	B	A	B	B	A	B	C	A	A	A	B	B
Approach Vol, veh/h	93				65				651			
Approach Delay, s/veh	12.7				12.1				11.6			
Approach LOS	B				B				B			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	25.1		12.7	9.3	15.8		12.7				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	5.4	27.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	6.7		3.7	5.6	5.5		2.9				
Green Ext Time (p_c), s	0.0	2.3		0.2	0.0	1.0		0.2				
Intersection Summary												
HCM 6th Ctrl Delay	11.8											
HCM 6th LOS	B											

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
01/30/2020

					
Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	160	39	9	476	922
Future Volume (vph)	160	39	9	476	922
Turn Type	Prot	Perm	Prot	NA	NA
Protected Phases	4		5	2	6
Permitted Phases		4			
Detector Phase	4	4	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8
Total Split (s)	28.0	28.0	9.6	72.0	62.4
Total Split (%)	28.0%	28.0%	9.6%	72.0%	62.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Min	Min

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 87.3
Natural Cycle: 100
Control Type: Actuated-Uncoordinated

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

01/30/2020

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	160	39	9	476	922	84
Future Volume (veh/h)	160	39	9	476	922	84
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	174	42	10	517	1002	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	239	213	23	1354	1096	100
Arrive On Green	0.13	0.13	0.01	0.71	0.64	0.64
Sat Flow, veh/h	1810	1610	1810	1900	1716	156
Grp Volume(v), veh/h	174	42	10	517	0	1093
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	0	1872
Q Serve(g_s), s	6.9	1.7	0.4	8.0	0.0	37.9
Cycle Q Clear(g_c), s	6.9	1.7	0.4	8.0	0.0	37.9
Prop In Lane	1.00	1.00	1.00			0.08
Lane Grp Cap(c), veh/h	239	213	23	1354	0	1196
V/C Ratio(X)	0.73	0.20	0.44	0.38	0.00	0.91
Avail Cap(c_a), veh/h	537	478	121	1681	0	1416
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.2	28.9	36.7	4.2	0.0	11.7
Incr Delay (d2), s/veh	4.2	0.4	4.9	0.2	0.0	8.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.2	1.8	0.0	13.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	35.4	29.4	41.6	4.4	0.0	20.2
LnGrp LOS	D	C	D	A	A	C
Approach Vol, veh/h	216			527	1093	
Approach Delay, s/veh	34.2			5.1	20.2	
Approach LOS	C			A	C	
Timer - Assigned Phs	2		4		5	6
Phs Duration (G+Y+Rc), s	59.1		15.7		5.5	53.6
Change Period (Y+Rc), s	5.8		5.8		4.6	5.8
Max Green Setting (Gmax), s	66.2		22.2		5.0	56.6
Max Q Clear Time (g_c+I1), s	10.0		8.9		2.4	39.9
Green Ext Time (p_c), s	3.3		0.5		0.0	7.9
Intersection Summary						
HCM 6th Ctrl Delay			17.5			
HCM 6th LOS			B			

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	685	0	272	309	471
Future Volume (vph)	685	0	272	309	471
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	67.0	67.0	32.0	53.0	21.0
Total Split (%)	55.8%	55.8%	26.7%	44.2%	17.5%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	37.4	37.4	22.8	73.0	45.6
Actuated g/C Ratio	0.31	0.31	0.19	0.61	0.38
v/c Ratio	0.77	0.71	0.82	0.15	0.44
Control Delay	46.3	37.1	86.4	7.7	30.4
Queue Delay	0.4	0.3	0.6	0.0	5.0
Total Delay	46.6	37.4	87.0	7.7	35.3
LOS	D	D	F	A	D
Approach Delay		42.1		44.8	35.3
Approach LOS		D		D	D

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 40.9

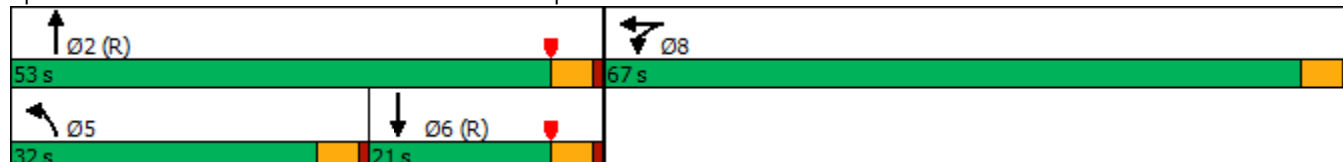
Intersection LOS: D

Intersection Capacity Utilization 94.3%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary

15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	471	107
Future Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	471	107
Initial Q (Qb), veh				45	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				800	0	0	280	319	0	0	486	110
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1080	567	0	304	2244	0	0	1217	274
Arrive On Green				0.25	0.00	0.00	0.34	1.00	0.00	0.00	0.92	0.92
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	3023	659
Grp Volume(v), veh/h				800	0	0	280	319	0	0	299	297
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1781
Q Serve(g_s), s				25.4	0.0	0.0	17.9	0.0	0.0	0.0	2.4	2.4
Cycle Q Clear(g_c), s				25.4	0.0	0.0	17.9	0.0	0.0	0.0	2.4	2.4
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.37
Lane Grp Cap(c), veh/h				1080	567	0	304	2244	0	0	750	740
V/C Ratio(X)				0.74	0.00	0.00	0.92	0.14	0.00	0.00	0.40	0.40
Avail Cap(c_a), veh/h				1876	985	0	413	2404	0	0	830	819
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	0.00	0.84	0.84	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				40.5	0.0	0.0	39.1	1.2	0.0	0.0	8.1	8.1
Incr Delay (d2), s/veh				1.0	0.0	0.0	16.4	0.1	0.0	0.0	1.6	1.6
Initial Q Delay(d3),s/veh				48.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				20.6	0.0	0.0	8.0	0.2	0.0	0.0	2.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				89.8	0.0	0.0	55.5	1.3	0.0	0.0	9.6	9.7
LnGrp LOS				F	A	A	E	A	A	A	A	A
Approach Vol, veh/h				800			599				596	
Approach Delay, s/veh				89.8			26.7				9.7	
Approach LOS				F			C				A	
Timer - Assigned Phs	2			5		6	8					
Phs Duration (G+Y+Rc), s	84.7			24.7		60.0	35.3					
Change Period (Y+Rc), s	* 4.8			4.6		* 4.8	4.8					
Max Green Setting (Gmax), s	* 48			27.4		* 16	62.2					
Max Q Clear Time (g_c+I1), s	2.0			19.9		4.4	27.4					
Green Ext Time (p_c), s	2.3			0.3		2.9	3.1					
Intersection Summary												
HCM 6th Ctrl Delay	46.9											
HCM 6th LOS	D											
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕↕	↗	↕↕	↙	↕↕
Traffic Volume (vph)	10	746	483	105	1002
Future Volume (vph)	10	746	483	105	1002
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	55.9	55.9	44.0	20.1	64.1
Total Split (%)	46.6%	46.6%	36.7%	16.8%	53.4%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	37.8	37.8	56.5	11.5	72.6
Actuated g/C Ratio	0.32	0.32	0.47	0.10	0.60
v/c Ratio	0.82	0.81	0.52	0.62	0.47
Control Delay	44.1	43.6	21.0	60.0	21.4
Queue Delay	0.0	0.0	0.0	0.0	0.6
Total Delay	44.1	43.6	21.0	60.0	22.0
LOS	D	D	C	E	C
Approach Delay	43.9		21.0		25.6
Approach LOS	D		C		C

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 29.8

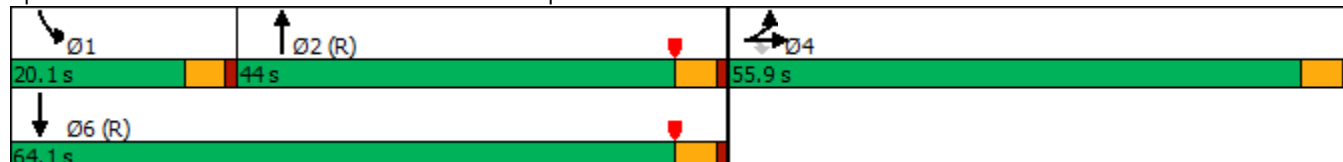
Intersection LOS: C

Intersection Capacity Utilization 94.3%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary

16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	10	746	0	0	0	0	483	362	105	1002	0
Future Volume (veh/h)	97	10	746	0	0	0	0	483	362	105	1002	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	883				0	498	373	108	1033	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	723	1225				0	843	630	132	1948	0
Arrive On Green	0.00	0.00	0.31				0.00	0.50	0.50	0.15	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2063	1472	1810	3705	0
Grp Volume(v), veh/h	0	0	883				0	457	414	108	1033	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	31.4				0.0	20.3	20.3	6.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	31.4				0.0	20.3	20.3	6.9	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	723	1225				0	773	700	132	1948	0
V/C Ratio(X)	0.00	0.00	0.72				0.00	0.59	0.59	0.82	0.53	0.00
Avail Cap(c_a), veh/h	0	809	1371				0	904	819	234	2209	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.79	0.79	0.00
Uniform Delay (d), s/veh	0.0	0.0	36.4				0.0	26.5	26.5	50.5	0.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.7				0.0	3.3	3.7	3.7	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	96.7				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	32.7				0.0	10.6	9.7	3.1	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	134.7				0.0	29.8	30.2	54.2	1.0	0.0
LnGrp LOS	A	A	F				A	C	C	D	A	A
Approach Vol, veh/h	883						871			1141		
Approach Delay, s/veh	134.7						30.0			6.1		
Approach LOS	F						C			A		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	13.4	64.9	41.8		78.2							
Change Period (Y+Rc), s	4.6	* 4.8	* 4.8		* 4.8							
Max Green Setting (Gmax), s	15.5	* 39	* 51		* 59							
Max Q Clear Time (g_c+I1), s	8.9	22.3	33.4		2.0							
Green Ext Time (p_c), s	0.1	5.5	3.6		10.0							

Intersection Summary

HCM 6th Ctrl Delay 52.5

HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 5.14:

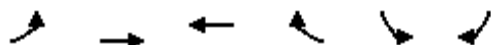
**E+P (PHASE 2) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS
WITH IMPROVEMENTS**

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Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	120	100	465	14	11	459	
Future Volume (vph)	120	100	465	14	11	459	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	8	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	32.8	33.2	9.6	9.6
Total Split (s)	54.0	77.2	32.8	32.8	33.2	54.0	9.6
Total Split (%)	45.0%	64.3%	27.3%	27.3%	27.7%	45.0%	8%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	4.6	
Lead/Lag	Lead	Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None
Act Effect Green (s)	19.2	51.2	27.4	27.4	13.0	38.4	
Actuated g/C Ratio	0.25	0.67	0.36	0.36	0.17	0.50	
v/c Ratio	0.19	0.11	0.96	0.03	0.03	0.78	
Control Delay	23.6	5.7	52.2	13.6	26.7	21.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	23.6	5.7	52.2	13.6	26.7	21.9	
LOS	C	A	D	B	C	C	
Approach Delay		15.4	51.1		22.0		
Approach LOS		B	D		C		

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 76.4

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 32.7

Intersection LOS: C

Intersection Capacity Utilization 61.6%

ICU Level of Service B

Analysis Period (min) 15

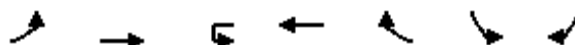
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	120	100	0	465	14	11	459
Future Volume (veh/h)	120	100	0	465	14	11	459
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	179	149		694	-203	16	88
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	321	1153		808	684	691	464
Arrive On Green	0.09	0.58		0.41	0.00	0.19	0.19
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	179	149		694	-203	16	88
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	2.5	1.8		16.9	0.0	0.2	2.1
Cycle Q Clear(g_c), s	2.5	1.8		16.9	0.0	0.2	2.1
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	321	1153		808	684	691	464
V/C Ratio(X)	0.56	0.13		0.86	-0.30	0.02	0.19
Avail Cap(c_a), veh/h	3414	2671		1010	856	1866	1003
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	5.0		14.2	0.0	17.4	14.6
Incr Delay (d2), s/veh	0.6	0.1		6.3	0.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.4		6.9	0.0	0.1	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	23.7	5.0		20.5	0.0	17.5	14.8
LnGrp LOS	C	A		C	A	B	B
Approach Vol, veh/h		328		491		104	
Approach Delay, s/veh		15.2		29.0		15.2	
Approach LOS		B		C		B	
Timer - Assigned Phs				4		6	7 8
Phs Duration (G+Y+Rc), s				36.6		16.2	9.2 27.4
Change Period (Y+Rc), s				5.8		6.2	4.6 5.8
Max Green Setting (Gmax), s				71.4		27.0	49.4 27.0
Max Q Clear Time (g_c+I1), s				3.8		4.1	4.5 18.9
Green Ext Time (p_c), s				0.8		0.3	0.3 2.7

Intersection Summary

HCM 6th Ctrl Delay	22.6
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	56	299	348	458
Future Volume (vph)	56	299	348	458
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	10.0	38.2	28.2	41.8
Total Split (%)	12.5%	47.8%	35.3%	52.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effect Green (s)	5.8	20.0	15.0	24.7
Actuated g/C Ratio	0.10	0.35	0.26	0.43
v/c Ratio	0.36	0.52	0.52	0.79
Control Delay	37.8	19.1	14.2	23.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	37.8	19.1	14.2	23.8
LOS	D	B	B	C
Approach Delay		22.0	14.2	23.8
Approach LOS		C	B	C

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 57.8

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 19.3

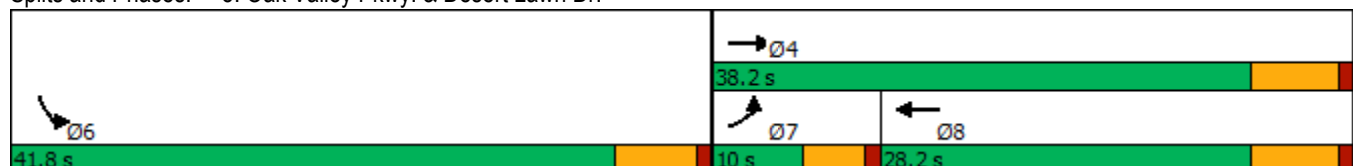
Intersection LOS: B

Intersection Capacity Utilization 61.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

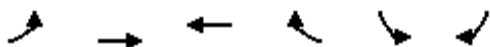


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations			  		 		
Traffic Volume (veh/h)	56	299	348	307	458	72	
Future Volume (veh/h)	56	299	348	307	458	72	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	64	344	400	353	526	83	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	99	787	976	455	591	93	
Arrive On Green	0.05	0.41	0.28	0.28	0.38	0.38	
Sat Flow, veh/h	1810	1900	3629	1610	1535	242	
Grp Volume(v), veh/h	64	344	400	353	610	0	
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1780	0	
Q Serve(g_s), s	2.1	7.7	5.6	12.0	19.1	0.0	
Cycle Q Clear(g_c), s	2.1	7.7	5.6	12.0	19.1	0.0	
Prop In Lane	1.00			1.00	0.86	0.14	
Lane Grp Cap(c), veh/h	99	787	976	455	685	0	
V/C Ratio(X)	0.65	0.44	0.41	0.78	0.89	0.00	
Avail Cap(c_a), veh/h	164	1019	1274	593	1073	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	27.6	12.5	17.4	19.7	17.2	0.0	
Incr Delay (d2), s/veh	2.6	0.4	0.3	4.8	6.2	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.9	2.6	1.9	4.4	7.4	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	30.3	12.9	17.7	24.5	23.3	0.0	
LnGrp LOS	C	B	B	C	C	A	
Approach Vol, veh/h		408	753		610		
Approach Delay, s/veh		15.6	20.9		23.3		
Approach LOS		B	C		C		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				30.9	28.8	7.9	23.1
Change Period (Y+Rc), s				6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s				32.0	36.0	5.4	22.0
Max Q Clear Time (g_c+l1), s				9.7	21.1	4.1	14.0
Green Ext Time (p_c), s				1.7	1.8	0.0	2.8
Intersection Summary							
HCM 6th Ctrl Delay			20.5				
HCM 6th LOS			C				
Notes							
User approved volume balancing among the lanes for turning movement.							

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations	↑	↗	↖	↑	↗	↗
Traffic Volume (vph)	343	414	235	491	229	3
Future Volume (vph)	343	414	235	491	229	3
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	31.0	31.0	28.0	59.0	31.0	31.0
Total Split (%)	34.4%	34.4%	31.1%	65.6%	34.4%	34.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effect Green (s)	38.2	38.2	17.4	60.2	18.2	18.2
Actuated g/C Ratio	0.42	0.42	0.19	0.67	0.20	0.20
v/c Ratio	0.48	0.49	0.76	0.43	0.71	0.40
Control Delay	24.1	4.5	43.0	4.9	43.6	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.1	4.5	43.0	4.9	43.6	7.1
LOS	C	A	D	A	D	A
Approach Delay	13.4			17.2		28.2
Approach LOS	B			B		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 18.0

Intersection LOS: B

Intersection Capacity Utilization 65.9%

ICU Level of Service C

Analysis Period (min) 15

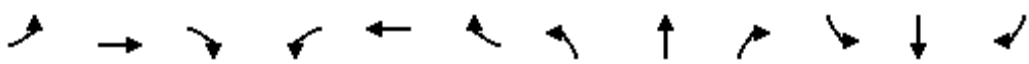
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑					↖	↗	
Traffic Volume (veh/h)	0	343	414	235	491	0	0	0	0	229	3	165
Future Volume (veh/h)	0	343	414	235	491	0	0	0	0	229	3	165
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	385	378	264	552	0				257	3	166
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	912	773	302	1326	0				314	5	275
Arrive On Green	0.00	0.48	0.48	0.17	0.70	0.00				0.17	0.17	0.17
Sat Flow, veh/h	0	1900	1610	1810	1900	0				1810	29	1586
Grp Volume(v), veh/h	0	385	378	264	552	0				257	0	169
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1615
Q Serve(g_s), s	0.0	11.9	14.4	12.8	11.1	0.0				12.3	0.0	8.7
Cycle Q Clear(g_c), s	0.0	11.9	14.4	12.8	11.1	0.0				12.3	0.0	8.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.98
Lane Grp Cap(c), veh/h	0	912	773	302	1326	0				314	0	280
V/C Ratio(X)	0.00	0.42	0.49	0.87	0.42	0.00				0.82	0.00	0.60
Avail Cap(c_a), veh/h	0	912	773	470	1326	0				507	0	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.66	0.66	0.77	0.77	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.3	15.9	36.6	5.8	0.0				35.8	0.0	34.4
Incr Delay (d2), s/veh	0.0	0.9	1.5	5.6	0.7	0.0				5.6	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.8	5.0	5.8	3.4	0.0				5.6	0.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.2	17.4	42.1	6.5	0.0				41.4	0.0	36.5
LnGrp LOS	A	B	B	D	A	A				D	A	D
Approach Vol, veh/h		763			816						426	
Approach Delay, s/veh		16.8			18.1						39.4	
Approach LOS		B			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.6	49.0		21.4		68.6						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	23.4	25.2		25.2		53.2						
Max Q Clear Time (g_c+I1), s	14.8	16.4		14.3		13.1						
Green Ext Time (p_c), s	0.2	2.4		1.3		3.5						
Intersection Summary												
HCM 6th Ctrl Delay				22.1								
HCM 6th LOS				C								

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	Ø1
Lane Configurations												
Traffic Volume (vph)	2	3	71	49	9	29	283	513	95	240	2	
Future Volume (vph)	2	3	71	49	9	29	283	513	95	240	2	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	NA	Perm	
Protected Phases		4			8		5	2		6		1
Permitted Phases	4		4	8		8			2		6	
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.6	27.8	27.8	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	15.0	33.8	33.8	28.4	28.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	21.4%	48.3%	48.3%	40.6%	40.6%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6	4.6	4.6	5.8	5.8	5.8	5.8	
Lead/Lag							Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	Min	Min	None
Act Effect Green (s)		12.2	12.2		12.2	12.2	10.7	40.0	40.0	23.1	23.1	
Actuated g/C Ratio		0.21	0.21		0.21	0.21	0.19	0.70	0.70	0.40	0.40	
v/c Ratio		0.02	0.18		0.24	0.08	1.07	0.49	0.10	35.44	0.00	
Control Delay		18.3	0.8		21.9	0.3	100.0	8.6	2.5	15353.8	0.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		18.3	0.8		21.9	0.3	100.0	8.6	2.5	15353.8	0.0	
LOS		B	A		C	A	F	A	A	F	A	
Approach Delay		2.1			14.6			37.0		15210.8		
Approach LOS		A			B			D		F		

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 57.5

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 35.44

Intersection Signal Delay: 2983.9

Intersection LOS: F

Intersection Capacity Utilization 63.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 12: California Av. & 5th St.

		
9.6 s	33.8 s	26.6 s
		
15 s	28.4 s	26.6 s

HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	71	49	9	29	283	513	95	12	240	2
Future Volume (veh/h)	2	3	71	49	9	29	283	513	95	12	240	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	90	62	11	37	358	649	120	15	304	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	222	247	334	384	57	334	419	1063	901	0	427	361
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.23	0.56	0.56	0.00	0.22	0.22
Sat Flow, veh/h	514	1192	1610	1132	274	1610	1810	1900	1610	0	1900	1610
Grp Volume(v), veh/h	7	0	90	73	0	37	358	649	120	0	304	3
Grp Sat Flow(s),veh/h/ln	1706	0	1610	1406	0	1610	1810	1900	1610	0	1900	1610
Q Serve(g_s), s	0.0	0.0	2.1	1.5	0.0	0.8	8.4	10.2	1.6	0.0	6.6	0.1
Cycle Q Clear(g_c), s	0.1	0.0	2.1	1.8	0.0	0.8	8.4	10.2	1.6	0.0	6.6	0.1
Prop In Lane	0.43		1.00	0.85		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	469	0	334	441	0	334	419	1063	901	0	427	361
V/C Ratio(X)	0.01	0.00	0.27	0.17	0.00	0.11	0.85	0.61	0.13	0.00	0.71	0.01
Avail Cap(c_a), veh/h	938	0	795	838	0	795	422	1194	1012	0	964	817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	14.1	0.0	14.8	14.7	0.0	14.3	16.4	6.6	4.7	0.0	15.9	13.4
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.2	0.0	0.1	14.8	0.8	0.1	0.0	2.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.7	0.6	0.0	0.3	4.4	2.1	0.3	0.0	2.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.1	0.0	15.3	14.9	0.0	14.5	31.2	7.3	4.7	0.0	18.2	13.4
LnGrp LOS	B	A	B	B	A	B	C	A	A	A	B	B
Approach Vol, veh/h		97			110			1127			307	
Approach Delay, s/veh		15.2			14.7			14.6			18.1	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	30.7		13.8	14.9	15.8		13.8				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	10.4	22.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	12.2		4.1	10.4	8.6		3.8				
Green Ext Time (p_c), s	0.0	3.9		0.2	0.0	1.3		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			15.3									
HCM 6th LOS			B									

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
07/14/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	143	23	47	772	172	153
Future Volume (vph)	143	23	47	772	172	153
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	27.8	27.8	17.9	62.2	44.3	44.3
Total Split (%)	30.9%	30.9%	19.9%	69.1%	49.2%	49.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effect Green (s)	13.9	13.9	7.2	44.1	37.0	37.0
Actuated g/C Ratio	0.20	0.20	0.10	0.63	0.53	0.53
v/c Ratio	0.52	0.09	0.33	0.84	0.22	0.21
Control Delay	32.1	11.0	37.7	18.8	12.0	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	11.0	37.7	18.8	12.0	2.7
LOS	C	B	D	B	B	A
Approach Delay	29.2			19.9	7.6	
Approach LOS	C			B	A	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 70	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 18.0	Intersection LOS: B
Intersection Capacity Utilization 58.6%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.

 Ø2	 Ø4
62.2 s	27.8 s
 Ø5	 Ø6
17.9 s	44.3 s

HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	143	23	47	772	172	153
Future Volume (veh/h)	143	23	47	772	172	153
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	186	30	61	1003	223	199
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	313	279	99	1176	915	776
Arrive On Green	0.17	0.17	0.05	0.62	0.48	0.48
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	186	30	61	1003	223	199
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	5.3	0.9	1.8	23.8	3.8	4.1
Cycle Q Clear(g_c), s	5.3	0.9	1.8	23.8	3.8	4.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	313	279	99	1176	915	776
V/C Ratio(X)	0.59	0.11	0.62	0.85	0.24	0.26
Avail Cap(c_a), veh/h	714	635	432	1922	1312	1112
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.3	19.4	25.8	8.6	8.5	8.5
Incr Delay (d2), s/veh	1.8	0.2	2.3	2.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.9	0.8	5.7	1.2	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.1	19.6	28.1	10.7	8.6	8.7
LnGrp LOS	C	B	C	B	A	A
Approach Vol, veh/h	216			1064	422	
Approach Delay, s/veh	22.6			11.7	8.7	
Approach LOS	C			B	A	
Timer - Assigned Phs	2		4		5	6
Phs Duration (G+Y+Rc), s	40.3		15.4		7.7	32.7
Change Period (Y+Rc), s	5.8		5.8		4.6	5.8
Max Green Setting (Gmax), s	56.4		22.0		13.3	38.5
Max Q Clear Time (g_c+I1), s	25.8		7.3		3.8	6.1
Green Ext Time (p_c), s	8.8		0.5		0.0	1.8
Intersection Summary						
HCM 6th Ctrl Delay			12.3			
HCM 6th LOS			B			

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	464	9	345	216	393
Future Volume (vph)	464	9	345	216	393
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	43.0	43.0	45.0	77.0	32.0
Total Split (%)	35.8%	35.8%	37.5%	64.2%	26.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	29.7	29.7	29.6	80.7	46.5
Actuated g/C Ratio	0.25	0.25	0.25	0.67	0.39
v/c Ratio	0.80	0.74	0.84	0.10	0.39
Control Delay	55.9	46.4	64.5	5.2	25.6
Queue Delay	0.0	0.7	0.4	0.0	3.6
Total Delay	55.9	47.2	65.0	5.2	29.2
LOS	E	D	E	A	C
Approach Delay		51.6		41.9	29.2
Approach LOS		D		D	C

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 41.7

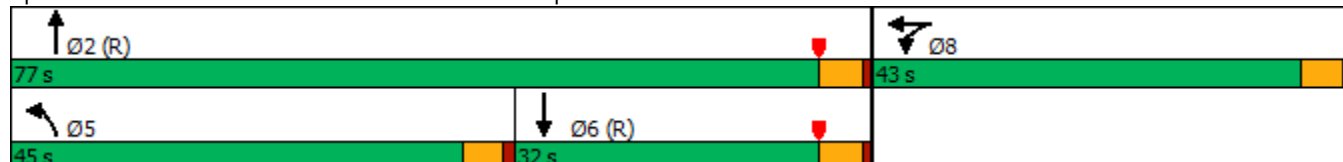
Intersection LOS: D

Intersection Capacity Utilization 63.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary

15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	393	93
Future Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	393	93
Initial Q (Qb), veh				0	0	0	25	50	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				328	256	143	375	235	0	0	427	101
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				457	289	162	489	2410	0	0	1098	257
Arrive On Green				0.25	0.25	0.25	0.37	1.00	0.00	0.00	0.82	0.82
Sat Flow, veh/h				1810	1145	640	1810	3705	0	0	2997	681
Grp Volume(v), veh/h				328	0	399	375	235	0	0	264	264
Grp Sat Flow(s),veh/h/ln				1810	0	1785	1810	1805	0	0	1805	1777
Q Serve(g_s), s				19.9	0.0	25.8	24.0	0.0	0.0	0.0	4.6	4.6
Cycle Q Clear(g_c), s				19.9	0.0	25.8	24.0	0.0	0.0	0.0	4.6	4.6
Prop In Lane				1.00		0.36	1.00		0.00	0.00		0.38
Lane Grp Cap(c), veh/h				457	0	451	489	2410	0	0	683	672
V/C Ratio(X)				0.72	0.00	0.89	0.77	0.10	0.00	0.00	0.39	0.39
Avail Cap(c_a), veh/h				576	0	568	609	2410	0	0	737	726
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.85	0.85	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				41.0	0.0	43.2	32.5	0.0	0.0	0.0	10.3	10.3
Incr Delay (d2), s/veh				3.2	0.0	13.1	2.9	0.1	0.0	0.0	1.6	1.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	80.6	3.4	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.0	0.0	12.6	22.5	1.2	0.0	0.0	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				44.1	0.0	56.3	116.0	3.5	0.0	0.0	11.9	12.0
LnGrp LOS				D	A	E	F	A	A	A	B	B
Approach Vol, veh/h					727			610			528	
Approach Delay, s/veh					50.8			72.7			11.9	
Approach LOS					D			E			B	
Timer - Assigned Phs	2			5		6	8					
Phs Duration (G+Y+Rc), s	84.9			31.1		53.8	35.1					
Change Period (Y+Rc), s	* 4.8			4.6		* 4.8	4.8					
Max Green Setting (Gmax), s	* 72			40.4		* 27	38.2					
Max Q Clear Time (g_c+I1), s	2.0			26.0		6.6	27.8					
Green Ext Time (p_c), s	1.7			0.5		3.2	2.5					
Intersection Summary												
HCM 6th Ctrl Delay				47.0								
HCM 6th LOS				D								
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕	↗	↕	↖	↕
Traffic Volume (vph)	11	547	544	111	779
Future Volume (vph)	11	547	544	111	779
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	41.0	41.0	56.0	23.0	79.0
Total Split (%)	34.2%	34.2%	46.7%	19.2%	65.8%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	23.9	23.9	69.8	12.1	86.5
Actuated g/C Ratio	0.20	0.20	0.58	0.10	0.72
v/c Ratio	0.81	0.70	0.51	0.64	0.31
Control Delay	44.2	24.6	14.1	50.4	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.4
Total Delay	44.3	24.6	14.1	50.4	11.1
LOS	D	C	B	D	B
Approach Delay	34.6		14.1		16.0
Approach LOS	C		B		B

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 19.9

Intersection LOS: B

Intersection Capacity Utilization 63.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps

↙ Ø1	↑ Ø2 (R)	↗ Ø4
23 s	56 s	41 s
↓ Ø6 (R)		
79 s		

HCM 6th Signalized Intersection Summary 16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	75	11	547	0	0	0	0	544	465	111	779	0
Future Volume (veh/h)	75	11	547	0	0	0	0	544	465	111	779	0
Initial Q (Qb), veh	0	0	0				0	75	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	661				0	567	484	116	811	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	441	748				0	1300	719	141	2483	0
Arrive On Green	0.00	0.00	0.23				0.00	0.57	0.57	0.16	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1942	1575	1810	3705	0
Grp Volume(v), veh/h	0	0	661				0	554	497	116	811	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1617	1810	1805	0
Q Serve(g_s), s	0.0	0.0	23.8				0.0	22.8	22.8	7.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	23.8				0.0	22.8	22.8	7.5	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	0	441	748				0	1032	957	141	2483	0
V/C Ratio(X)	0.00	0.00	0.88				0.00	0.54	0.52	0.82	0.33	0.00
Avail Cap(c_a), veh/h	0	573	971				0	1032	924	277	2483	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.82	0.82	0.00
Uniform Delay (d), s/veh	0.0	0.0	44.5				0.0	19.0	18.6	49.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	7.9				0.0	2.0	2.0	3.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	20.6	23.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	10.0				0.0	21.4	20.2	3.3	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	52.4				0.0	41.5	43.6	53.6	0.3	0.0
LnGrp LOS	A	A	D				A	D	D	D	A	A
Approach Vol, veh/h	661						1051			927		
Approach Delay, s/veh	52.4						42.5			7.0		
Approach LOS	D						D			A		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	13.9	73.4		32.7			87.3					
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8			* 4.8					
Max Green Setting (Gmax), s	18.4	* 51		* 36			* 74					
Max Q Clear Time (g_c+I1), s	9.5	24.8		25.8			2.0					
Green Ext Time (p_c), s	0.1	8.3		2.1			7.1					

Intersection Summary

HCM 6th Ctrl Delay	32.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023

							
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	559	435	152	2	3	150	
Future Volume (vph)	559	435	152	2	3	150	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	8	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	32.8	33.2	9.6	9.6
Total Split (s)	64.0	87.2	32.8	32.8	33.2	64.0	9.6
Total Split (%)	49.2%	67.1%	25.2%	25.2%	25.5%	49.2%	7%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	4.6	
Lead/Lag	Lead	Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None
Act Effect Green (s)	20.2	39.6	14.5	14.5	12.8	39.7	
Actuated g/C Ratio	0.31	0.61	0.22	0.22	0.20	0.61	
v/c Ratio	0.72	0.53	0.51	0.01	0.01	0.20	
Control Delay	25.1	9.5	28.5	17.5	25.3	1.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	25.1	9.5	28.5	17.5	25.3	1.4	
LOS	C	A	C	B	C	A	
Approach Delay		18.2	28.3		1.9		
Approach LOS		B	C		A		

Intersection Summary

Cycle Length: 130	
Actuated Cycle Length: 65.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 17.5	Intersection LOS: B
Intersection Capacity Utilization 49.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary

4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	559	435	0	152	2	3	150
Future Volume (veh/h)	559	435	0	152	2	3	150
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	834	649		227	-258	4	-373
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	1033	1124		387	328	715	802
Arrive On Green	0.28	0.57		0.20	0.00	0.20	0.00
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	834	649		227	-258	4	-373
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	10.8	10.8		5.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	10.8	10.8		5.3	0.0	0.0	0.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1033	1124		387	328	715	802
V/C Ratio(X)	0.81	0.58		0.59	-0.79	0.01	-0.47
Avail Cap(c_a), veh/h	4249	3152		1045	886	1931	1360
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	17.0	7.1		18.6	0.0	16.5	0.0
Incr Delay (d2), s/veh	0.6	0.5		1.4	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	2.6		2.2	0.0	0.0	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	17.6	7.5		20.1	0.0	16.5	0.0
LnGrp LOS	B	A		C	A	B	A
Approach Vol, veh/h		1483		-31		-369	
Approach Delay, s/veh		13.2		0.0		0.0	
Approach LOS		B		A		A	
Timer - Assigned Phs				4		6	7
Phs Duration (G+Y+Rc), s				34.8		16.2	19.0
Change Period (Y+Rc), s				5.8		6.2	4.6
Max Green Setting (Gmax), s				81.4		27.0	59.4
Max Q Clear Time (g_c+I1), s				12.8		2.0	12.8
Green Ext Time (p_c), s				4.5		0.0	1.6

Intersection Summary

HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	42	362	339	177
Future Volume (vph)	42	362	339	177
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	10.0	39.0	29.0	41.0
Total Split (%)	12.5%	48.8%	36.3%	51.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effect Green (s)	5.8	16.3	13.1	14.0
Actuated g/C Ratio	0.13	0.37	0.30	0.32
v/c Ratio	0.18	0.53	0.40	0.35
Control Delay	25.5	14.2	8.9	13.7
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	25.5	14.2	8.9	13.7
LOS	C	B	A	B
Approach Delay		15.3	8.9	13.7
Approach LOS		B	A	B

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 43.6

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.53

Intersection Signal Delay: 11.8

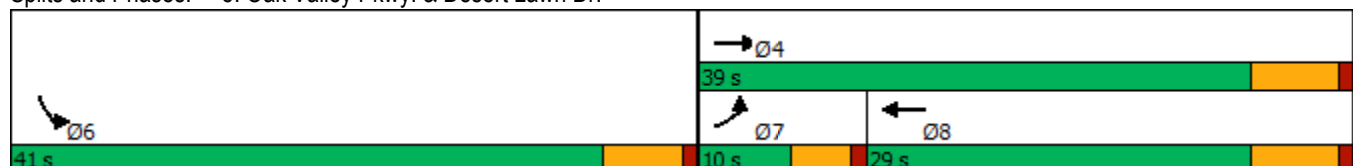
Intersection LOS: B

Intersection Capacity Utilization 42.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

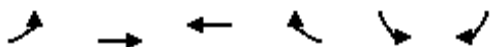


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	42	362	339	294	177	21
Future Volume (veh/h)	42	362	339	294	177	21
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	43	373	349	303	182	22
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	86	867	1022	476	392	47
Arrive On Green	0.05	0.46	0.30	0.30	0.25	0.25
Sat Flow, veh/h	1810	1900	3629	1610	1586	192
Grp Volume(v), veh/h	43	373	349	303	205	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1786	0
Q Serve(g_s), s	0.9	5.4	3.2	6.6	4.0	0.0
Cycle Q Clear(g_c), s	0.9	5.4	3.2	6.6	4.0	0.0
Prop In Lane	1.00			1.00	0.89	0.11
Lane Grp Cap(c), veh/h	86	867	1022	476	441	0
V/C Ratio(X)	0.50	0.43	0.34	0.64	0.46	0.00
Avail Cap(c_a), veh/h	241	1540	1948	907	1553	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.8	7.4	11.2	12.4	13.0	0.0
Incr Delay (d2), s/veh	1.7	0.3	0.2	1.4	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.2	0.9	1.8	1.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.5	7.8	11.4	13.8	13.7	0.0
LnGrp LOS	C	A	B	B	B	A
Approach Vol, veh/h		416	652		205	
Approach Delay, s/veh		9.1	12.5		13.7	
Approach LOS		A	B		B	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			24.7		15.8	6.5
Change Period (Y+Rc), s			6.2		5.8	4.6
Max Green Setting (Gmax), s			32.8		35.2	5.4
Max Q Clear Time (g_c+I1), s			7.4		6.0	2.9
Green Ext Time (p_c), s			1.9		0.6	0.0
Intersection Summary						
HCM 6th Ctrl Delay			11.6			
HCM 6th LOS			B			
Notes						

User approved volume balancing among the lanes for turning movement.

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	332	207	129	481	436	1
Future Volume (vph)	332	207	129	481	436	1
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	27.3	27.3	22.0	49.3	40.7	40.7
Total Split (%)	30.3%	30.3%	24.4%	54.8%	45.2%	45.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effect Green (s)	28.8	28.8	12.7	46.1	32.3	32.3
Actuated g/C Ratio	0.32	0.32	0.14	0.51	0.36	0.36
v/c Ratio	0.72	0.39	0.67	0.65	0.89	0.28
Control Delay	37.8	5.5	48.1	13.8	44.0	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.8	5.5	48.1	13.8	44.0	4.2
LOS	D	A	D	B	D	A
Approach Delay	25.4			21.1		33.7
Approach LOS	C			C		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 26.7

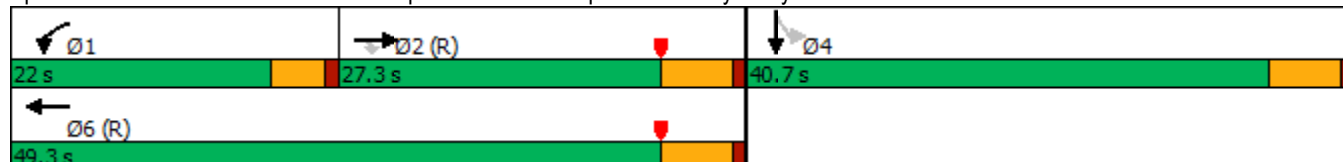
Intersection LOS: C

Intersection Capacity Utilization 62.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑	↑	↑					↑	↑	
Traffic Volume (veh/h)	0	332	207	129	481	0	0	0	0	436	1	152
Future Volume (veh/h)	0	332	207	129	481	0	0	0	0	436	1	152
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	437	193	170	633	0				574	1	134
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	688	583	208	1003	0				621	4	549
Arrive On Green	0.00	0.36	0.36	0.04	0.17	0.00				0.34	0.34	0.34
Sat Flow, veh/h	0	1900	1610	1810	1900	0				1810	12	1600
Grp Volume(v), veh/h	0	437	193	170	633	0				574	0	135
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1612
Q Serve(g_s), s	0.0	17.2	7.8	8.4	27.8	0.0				27.5	0.0	5.4
Cycle Q Clear(g_c), s	0.0	17.2	7.8	8.4	27.8	0.0				27.5	0.0	5.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	688	583	208	1003	0				621	0	553
V/C Ratio(X)	0.00	0.64	0.33	0.82	0.63	0.00				0.92	0.00	0.24
Avail Cap(c_a), veh/h	0	688	583	350	1003	0				702	0	625
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.88	0.88	0.81	0.81	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	23.8	20.8	42.3	29.0	0.0				28.4	0.0	21.2
Incr Delay (d2), s/veh	0.0	3.9	1.3	2.4	2.4	0.0				17.0	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.8	2.9	4.0	14.5	0.0				13.8	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.7	22.2	44.8	31.5	0.0				45.4	0.0	21.4
LnGrp LOS	A	C	C	D	C	A				D	A	C
Approach Vol, veh/h		630			803						709	
Approach Delay, s/veh		26.0			34.3						40.9	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	15.0	38.4		36.7		53.3						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	17.4	21.5		34.9		43.5						
Max Q Clear Time (g_c+I1), s	10.4	19.2		29.5		29.8						
Green Ext Time (p_c), s	0.1	0.8		1.4		3.2						
Intersection Summary												
HCM 6th Ctrl Delay				34.0								
HCM 6th LOS				C								

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)
06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	Ø1
Lane Configurations												
Traffic Volume (vph)	4	3	82	47	3	20	169	395	368	211	6	
Future Volume (vph)	4	3	82	47	3	20	169	395	368	211	6	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	NA	Perm	
Protected Phases		4			8		5	2		6		1
Permitted Phases	4		4	8		8			2		6	
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.6	27.8	27.8	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	10.0	33.8	33.8	33.4	33.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	14.3%	48.3%	48.3%	47.7%	47.7%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6	4.6	4.6	5.8	5.8	5.8	5.8	
Lead/Lag							Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	Min	Min	None
Act Effect Green (s)		12.1	12.1		12.1	12.1	5.4	42.1	42.1	30.9	30.9	
Actuated g/C Ratio		0.20	0.20		0.20	0.20	0.09	0.70	0.70	0.51	0.51	
v/c Ratio		0.02	0.21		0.19	0.05	1.10	0.31	0.32	5.70	0.01	
Control Delay		18.3	3.8		21.0	0.2	132.9	6.6	3.4	2190.4	0.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		18.3	3.8		21.0	0.2	132.9	6.6	3.4	2190.4	0.0	
LOS		B	A		C	A	F	A	A	F	A	
Approach Delay		4.9			15.0			28.3		2134.2		
Approach LOS		A			B			C		F		

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 60.5

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 5.70

Intersection Signal Delay: 382.8

Intersection LOS: F

Intersection Capacity Utilization 56.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 12: California Av. & 5th St.

		
9.6 s	33.8 s	26.6 s
		
10 s	33.4 s	26.6 s

HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	3	82	47	3	20	169	395	368	6	211	6
Future Volume (veh/h)	4	3	82	47	3	20	169	395	368	6	211	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	3	86	49	3	21	178	416	387	6	222	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	311	194	350	457	23	350	227	968	820	0	499	423
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.13	0.51	0.51	0.00	0.26	0.26
Sat Flow, veh/h	746	894	1610	1255	105	1610	1810	1900	1610	0	1900	1610
Grp Volume(v), veh/h	7	0	86	52	0	21	178	416	387	0	222	6
Grp Sat Flow(s),veh/h/ln	1640	0	1610	1360	0	1610	1810	1900	1610	0	1900	1610
Q Serve(g_s), s	0.0	0.0	1.7	1.0	0.0	0.4	3.6	5.2	5.9	0.0	3.7	0.1
Cycle Q Clear(g_c), s	0.1	0.0	1.7	1.1	0.0	0.4	3.6	5.2	5.9	0.0	3.7	0.1
Prop In Lane	0.57		1.00	0.94		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	505	0	350	479	0	350	227	968	820	0	499	423
V/C Ratio(X)	0.01	0.00	0.25	0.11	0.00	0.06	0.78	0.43	0.47	0.00	0.44	0.01
Avail Cap(c_a), veh/h	1077	0	931	968	0	931	257	1398	1185	0	1379	1168
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	11.7	0.0	12.3	12.1	0.0	11.8	16.1	5.9	6.0	0.0	11.7	10.4
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.1	0.0	0.1	11.2	0.3	0.4	0.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.5	0.3	0.0	0.1	1.8	0.9	0.9	0.0	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.7	0.0	12.7	12.2	0.0	11.9	27.4	6.2	6.5	0.0	12.3	10.4
LnGrp LOS	B	A	B	B	A	B	C	A	A	A	B	B
Approach Vol, veh/h		93			73			981			228	
Approach Delay, s/veh		12.6			12.1			10.1			12.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	25.2		12.9	9.4	15.8		12.9				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	5.4	27.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	7.9		3.7	5.6	5.7		3.1				
Green Ext Time (p_c), s	0.0	3.6		0.2	0.0	1.1		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			10.8									
HCM 6th LOS			B									

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
07/14/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	473	66	17	476	922	99
Future Volume (vph)	473	66	17	476	922	99
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	43.0	43.0	9.6	77.0	67.4	67.4
Total Split (%)	35.8%	35.8%	8.0%	64.2%	56.2%	56.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effect Green (s)	34.7	34.7	5.0	65.5	61.9	61.9
Actuated g/C Ratio	0.31	0.31	0.04	0.59	0.55	0.55
v/c Ratio	0.92	0.13	0.22	0.46	0.95	0.12
Control Delay	60.7	8.7	61.3	15.2	44.4	7.3
Queue Delay	0.0	0.0	0.0	0.0	38.6	0.0
Total Delay	60.7	8.7	61.3	15.2	83.0	7.3
LOS	E	A	E	B	F	A
Approach Delay	54.3			16.7	75.6	
Approach LOS	D			B	E	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 111.8
 Natural Cycle: 120
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 55.9
 Intersection LOS: E
 Intersection Capacity Utilization 84.4%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	473	66	17	476	922	99
Future Volume (veh/h)	473	66	17	476	922	99
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	514	72	18	517	1002	108
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	545	485	34	1135	1022	866
Arrive On Green	0.30	0.30	0.02	0.60	0.54	0.54
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	514	72	18	517	1002	108
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	31.6	3.7	1.1	17.2	58.9	3.8
Cycle Q Clear(g_c), s	31.6	3.7	1.1	17.2	58.9	3.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	545	485	34	1135	1022	866
V/C Ratio(X)	0.94	0.15	0.52	0.46	0.98	0.12
Avail Cap(c_a), veh/h	590	525	79	1185	1025	869
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.9	29.2	55.5	12.7	25.8	13.1
Incr Delay (d2), s/veh	23.0	0.1	4.5	0.3	23.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.8	0.0	0.5	6.6	30.2	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	61.9	29.3	60.0	13.0	49.2	13.1
LnGrp LOS	E	C	E	B	D	B
Approach Vol, veh/h	586			535	1110	
Approach Delay, s/veh	57.9			14.6	45.7	
Approach LOS	E			B	D	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	74.0			40.2	6.8	67.2
Change Period (Y+Rc), s	5.8			5.8	4.6	5.8
Max Green Setting (Gmax), s	71.2			37.2	5.0	61.6
Max Q Clear Time (g_c+I1), s	19.2			33.6	3.1	60.9
Green Ext Time (p_c), s	3.3			0.7	0.0	0.5
Intersection Summary						
HCM 6th Ctrl Delay			41.4			
HCM 6th LOS			D			

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	685	0	272	309	668
Future Volume (vph)	685	0	272	309	668
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	49.0	49.0	35.0	71.0	36.0
Total Split (%)	40.8%	40.8%	29.2%	59.2%	30.0%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	35.1	35.1	22.9	75.3	47.7
Actuated g/C Ratio	0.29	0.29	0.19	0.63	0.40
v/c Ratio	0.81	0.75	0.81	0.14	0.61
Control Delay	52.2	41.0	78.7	8.2	32.2
Queue Delay	0.8	0.6	0.4	0.0	51.1
Total Delay	53.0	41.7	79.0	8.2	83.3
LOS	D	D	E	A	F
Approach Delay		47.4		41.3	83.3
Approach LOS		D		D	F

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 59.4

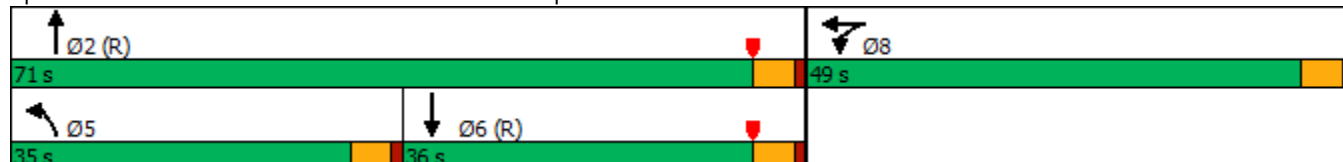
Intersection LOS: E

Intersection Capacity Utilization 107.5%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary 15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	668	169
Future Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	668	169
Initial Q (Qb), veh				50	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				800	0	0	280	319	0	0	689	174
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1070	562	0	304	2254	0	0	1193	301
Arrive On Green				0.25	0.00	0.00	0.34	1.00	0.00	0.00	0.92	0.92
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	2950	721
Grp Volume(v), veh/h				800	0	0	280	319	0	0	435	428
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1770
Q Serve(g_s), s				25.5	0.0	0.0	17.9	0.0	0.0	0.0	4.3	4.3
Cycle Q Clear(g_c), s				25.5	0.0	0.0	17.9	0.0	0.0	0.0	4.3	4.3
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.41
Lane Grp Cap(c), veh/h				1070	562	0	304	2254	0	0	754	740
V/C Ratio(X)				0.75	0.00	0.00	0.92	0.14	0.00	0.00	0.58	0.58
Avail Cap(c_a), veh/h				1333	700	0	458	2411	0	0	833	817
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	0.00	0.73	0.73	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				41.1	0.0	0.0	39.1	0.0	0.0	0.0	7.2	7.2
Incr Delay (d2), s/veh				1.8	0.0	0.0	10.9	0.1	0.0	0.0	3.2	3.2
Initial Q Delay(d3),s/veh				62.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				23.3	0.0	0.0	7.6	0.0	0.0	0.0	2.9	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				105.3	0.0	0.0	50.0	0.1	0.0	0.0	10.4	10.5
LnGrp LOS				F	A	A	D	A	A	A	B	B
Approach Vol, veh/h					800			599			863	
Approach Delay, s/veh					105.3			23.4			10.4	
Approach LOS					F			C			B	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		85.0			24.8	60.2		35.0				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 66			30.4	* 31		44.2				
Max Q Clear Time (g_c+I1), s		2.0			19.9	6.3		27.5				
Green Ext Time (p_c), s		2.3			0.3	6.1		2.8				
Intersection Summary												
HCM 6th Ctrl Delay				47.4								
HCM 6th LOS				D								
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕↕	↗	↕↕	↙	↕↕
Traffic Volume (vph)	11	823	533	120	1107
Future Volume (vph)	11	823	533	120	1107
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	59.0	59.0	42.0	19.0	61.0
Total Split (%)	49.2%	49.2%	35.0%	15.8%	50.8%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	43.2	43.2	50.6	11.9	67.2
Actuated g/C Ratio	0.36	0.36	0.42	0.10	0.56
v/c Ratio	0.83	0.77	0.63	0.69	0.56
Control Delay	43.6	37.4	26.7	70.9	22.9
Queue Delay	0.0	0.0	0.0	0.0	0.7
Total Delay	43.6	37.4	26.7	70.9	23.6
LOS	D	D	C	E	C
Approach Delay	40.5		26.7		28.3
Approach LOS	D		C		C

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 31.5

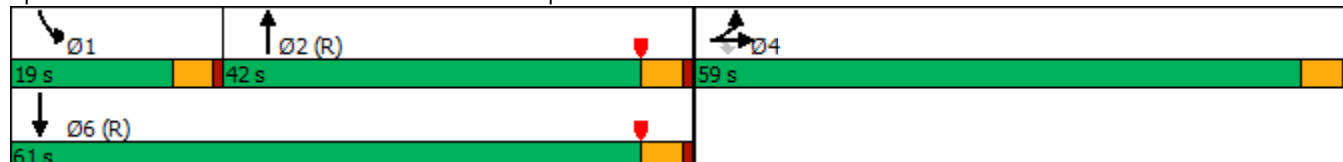
Intersection LOS: C

Intersection Capacity Utilization 107.5%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary

16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	11	823	0	0	0	0	533	400	120	1107	0
Future Volume (veh/h)	107	11	823	0	0	0	0	533	400	120	1107	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	973				0	549	412	124	1141	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	776	1316				0	768	576	149	1846	0
Arrive On Green	0.00	0.00	0.34				0.00	0.46	0.46	0.16	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2060	1475	1810	3705	0
Grp Volume(v), veh/h	0	0	973				0	504	457	124	1141	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	34.4				0.0	25.0	25.0	8.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	34.4				0.0	25.0	25.0	8.0	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	776	1316				0	706	639	149	1846	0
V/C Ratio(X)	0.00	0.00	0.74				0.00	0.71	0.71	0.83	0.62	0.00
Avail Cap(c_a), veh/h	0	858	1455				0	834	755	217	2103	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.68	0.68	0.00
Uniform Delay (d), s/veh	0.0	0.0	34.7				0.0	31.1	31.1	49.3	1.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	1.8				0.0	6.1	6.7	7.9	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	89.8				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	33.8				0.0	13.4	12.2	3.7	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	126.4				0.0	37.2	37.8	57.2	2.5	0.0
LnGrp LOS	A	A	F				A	D	D	E	A	A
Approach Vol, veh/h	973						961			1265		
Approach Delay, s/veh	126.4						37.5			7.8		
Approach LOS	F						D			A		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.5	60.3		45.3		74.7						
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8						
Max Green Setting (Gmax), s	14.4	* 37		* 54		* 56						
Max Q Clear Time (g_c+I1), s	10.0	27.0		36.4		2.0						
Green Ext Time (p_c), s	0.1	4.6		4.1		11.6						

Intersection Summary

HCM 6th Ctrl Delay 52.8

HCM 6th LOS D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 5.15:

E+P (PROJECT BUILDOUT) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Intersection												
Int Delay, s/veh	17.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	343	0	51	0	52	110	43	181	0
Future Vol, veh/h	0	0	0	343	0	51	0	52	110	43	181	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	528	0	78	0	80	169	66	278	0

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	436	575	125
Stage 1	165	165	-
Stage 2	271	410	-
Critical Hdwy	6.8	6.5	6.9
Critical Hdwy Stg 1	5.8	5.5	-
Critical Hdwy Stg 2	5.8	5.5	-
Follow-up Hdwy	3	4	3.3
Pot Cap-1 Maneuver	628	431	909
Stage 1	985	766	-
Stage 2	866	599	-
Platoon blocked, %			-
Mov Cap-1 Maneuver	597	0	909
Mov Cap-2 Maneuver	675	0	-
Stage 1	985	0	-
Stage 2	823	0	-

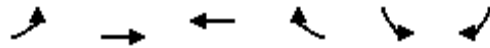
Approach	WB	NB	SB
HCM Control Delay, s	34.3	0	1.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	698	1328
HCM Lane V/C Ratio	-	-	0.868	0.05
HCM Control Delay (s)	-	-	34.3	7.9
HCM Lane LOS	-	-	D	A
HCM 95th %tile Q(veh)	-	-	10.4	0.2

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	155	123	516	14	11	510	
Future Volume (vph)	155	123	516	14	11	510	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	8	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	32.8	33.2	9.6	9.6
Total Split (s)	54.0	77.2	32.8	32.8	33.2	54.0	9.6
Total Split (%)	45.0%	64.3%	27.3%	27.3%	27.7%	45.0%	8%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	4.6	
Lead/Lag	Lead	Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None
Act Effect Green (s)	25.7	58.0	27.6	27.6	13.0	45.0	
Actuated g/C Ratio	0.31	0.70	0.33	0.33	0.16	0.54	
v/c Ratio	0.20	0.13	1.15	0.04	0.03	0.81	
Control Delay	21.7	5.2	112.8	16.7	31.0	22.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	21.7	5.2	112.8	16.7	31.0	22.6	
LOS	C	A	F	B	C	C	
Approach Delay		14.4	110.2		22.8		
Approach LOS		B	F		C		

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 83.2	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay: 55.9	Intersection LOS: E
Intersection Capacity Utilization 67.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations	←←	↑	←	↑	→	←←	→
Traffic Volume (veh/h)	155	123	0	516	14	11	510
Future Volume (veh/h)	155	123	0	516	14	11	510
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	231	184		770	-203	16	164
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	366	1211		853	723	642	462
Arrive On Green	0.10	0.61		0.43	0.00	0.18	0.18
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	231	184		770	-203	16	164
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	3.5	2.3		20.6	0.0	0.2	4.5
Cycle Q Clear(g_c), s	3.5	2.3		20.6	0.0	0.2	4.5
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	366	1211		853	723	642	462
V/C Ratio(X)	0.63	0.15		0.90	-0.28	0.02	0.35
Avail Cap(c_a), veh/h	3173	2482		939	795	1734	963
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	4.7		15.0	0.0	19.4	16.5
Incr Delay (d2), s/veh	0.7	0.1		11.2	0.0	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.5		9.4	0.0	0.1	0.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	25.2	4.8		26.2	0.0	19.4	17.0
LnGrp LOS	C	A		C	A	B	B
Approach Vol, veh/h		415		567		180	
Approach Delay, s/veh		16.2		35.6		17.2	
Approach LOS		B		D		B	
Timer - Assigned Phs				4		6	7 8
Phs Duration (G+Y+Rc), s				40.6		16.2	10.3 30.3
Change Period (Y+Rc), s				5.8		6.2	4.6 5.8
Max Green Setting (Gmax), s				71.4		27.0	49.4 27.0
Max Q Clear Time (g_c+I1), s				4.3		6.5	5.5 22.6
Green Ext Time (p_c), s				1.0		0.5	0.4 1.9
Intersection Summary							
HCM 6th Ctrl Delay			25.8				
HCM 6th LOS			C				
Notes							
User approved ignoring U-Turning movement.							

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	59	311	368	458
Future Volume (vph)	59	311	368	458
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	10.0	38.2	28.2	41.8
Total Split (%)	12.5%	47.8%	35.3%	52.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effect Green (s)	5.8	20.3	15.3	25.2
Actuated g/C Ratio	0.10	0.35	0.26	0.43
v/c Ratio	0.38	0.54	0.53	0.79
Control Delay	39.3	19.6	15.0	24.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	39.3	19.6	15.0	24.1
LOS	D	B	B	C
Approach Delay		22.8	15.0	24.1
Approach LOS		C	B	C

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 58.7

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 19.9

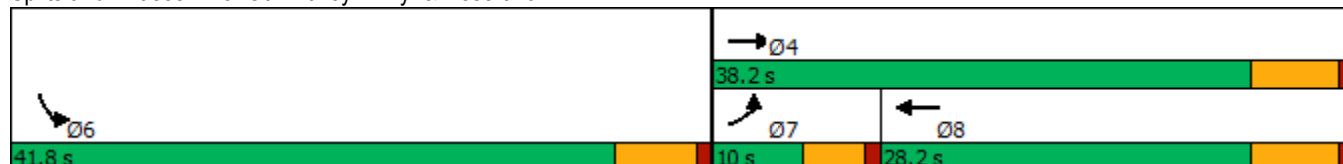
Intersection LOS: B

Intersection Capacity Utilization 62.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

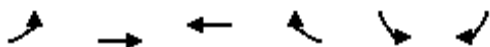


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations			  		 		
Traffic Volume (veh/h)	59	311	368	307	458	77	
Future Volume (veh/h)	59	311	368	307	458	77	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	68	357	423	353	526	89	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	102	787	975	454	589	100	
Arrive On Green	0.06	0.41	0.28	0.28	0.39	0.39	
Sat Flow, veh/h	1810	1900	3629	1610	1518	257	
Grp Volume(v), veh/h	68	357	423	353	616	0	
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1778	0	
Q Serve(g_s), s	2.2	8.2	6.1	12.2	19.7	0.0	
Cycle Q Clear(g_c), s	2.2	8.2	6.1	12.2	19.7	0.0	
Prop In Lane	1.00			1.00	0.85	0.14	
Lane Grp Cap(c), veh/h	102	787	975	454	689	0	
V/C Ratio(X)	0.67	0.45	0.43	0.78	0.89	0.00	
Avail Cap(c_a), veh/h	161	1004	1256	585	1057	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	28.0	12.8	17.8	20.0	17.4	0.0	
Incr Delay (d2), s/veh	2.8	0.4	0.3	5.0	6.7	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.9	2.7	2.1	4.5	7.6	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	30.8	13.2	18.1	25.0	24.0	0.0	
LnGrp LOS	C	B	B	C	C	A	
Approach Vol, veh/h		425	776		616		
Approach Delay, s/veh		16.0	21.2		24.0		
Approach LOS		B	C		C		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				31.3	29.3	8.0	23.3
Change Period (Y+Rc), s				6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s				32.0	36.0	5.4	22.0
Max Q Clear Time (g_c+I1), s				10.2	21.7	4.2	14.2
Green Ext Time (p_c), s				1.8	1.8	0.0	2.9
Intersection Summary							
HCM 6th Ctrl Delay			21.0				
HCM 6th LOS			C				
Notes							

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations	↑	↗	↖	↑	↗	↗
Traffic Volume (vph)	355	414	235	491	229	3
Future Volume (vph)	355	414	235	491	229	3
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	31.0	31.0	28.0	59.0	31.0	31.0
Total Split (%)	34.4%	34.4%	31.1%	65.6%	34.4%	34.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effect Green (s)	38.0	38.0	17.4	60.1	18.3	18.3
Actuated g/C Ratio	0.42	0.42	0.19	0.67	0.20	0.20
v/c Ratio	0.50	0.49	0.76	0.44	0.70	0.43
Control Delay	24.8	4.5	45.2	4.6	43.1	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	4.5	45.2	4.6	43.1	7.0
LOS	C	A	D	A	D	A
Approach Delay	13.8			17.7		26.8
Approach LOS	B			B		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 18.2

Intersection LOS: B

Intersection Capacity Utilization 66.5%

ICU Level of Service C

Analysis Period (min) 15

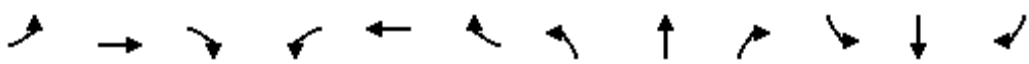
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑	↑	↑					↑	↑	
Traffic Volume (veh/h)	0	355	414	235	491	0	0	0	0	229	3	185
Future Volume (veh/h)	0	355	414	235	491	0	0	0	0	229	3	185
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	399	378	264	552	0				257	3	189
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	910	771	302	1324	0				315	4	277
Arrive On Green	0.00	0.48	0.48	0.17	0.70	0.00				0.17	0.17	0.17
Sat Flow, veh/h	0	1900	1610	1810	1900	0				1810	25	1589
Grp Volume(v), veh/h	0	399	378	264	552	0				257	0	192
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1614
Q Serve(g_s), s	0.0	12.5	14.4	12.8	11.2	0.0				12.3	0.0	10.0
Cycle Q Clear(g_c), s	0.0	12.5	14.4	12.8	11.2	0.0				12.3	0.0	10.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.98
Lane Grp Cap(c), veh/h	0	910	771	302	1324	0				315	0	281
V/C Ratio(X)	0.00	0.44	0.49	0.87	0.42	0.00				0.81	0.00	0.68
Avail Cap(c_a), veh/h	0	910	771	470	1324	0				507	0	452
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.65	0.65	0.76	0.76	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.5	16.0	36.6	5.8	0.0				35.8	0.0	34.8
Incr Delay (d2), s/veh	0.0	1.0	1.5	5.5	0.7	0.0				5.4	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.0	5.0	5.8	3.4	0.0				5.6	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.5	17.4	42.1	6.6	0.0				41.1	0.0	37.7
LnGrp LOS	A	B	B	D	A	A				D	A	D
Approach Vol, veh/h		777			816						449	
Approach Delay, s/veh		16.9			18.1						39.7	
Approach LOS		B			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.6	48.9		21.5		68.5						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	23.4	25.2		25.2		53.2						
Max Q Clear Time (g_c+I1), s	14.8	16.4		14.3		13.2						
Green Ext Time (p_c), s	0.2	2.4		1.4		3.5						
Intersection Summary												
HCM 6th Ctrl Delay			22.4									
HCM 6th LOS			C									

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	Ø1
Lane Configurations												
Traffic Volume (vph)	2	3	71	54	9	29	283	516	112	245	2	
Future Volume (vph)	2	3	71	54	9	29	283	516	112	245	2	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	NA	Perm	
Protected Phases		4			8		5	2		6		1
Permitted Phases	4		4	8		8			2		6	
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.6	27.8	27.8	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	15.0	33.8	33.8	28.4	28.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	21.4%	48.3%	48.3%	40.6%	40.6%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6	4.6	4.6	5.8	5.8	5.8	5.8	
Lead/Lag							Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	Min	Min	None
Act Effect Green (s)		12.2	12.2		12.2	12.2	10.7	40.0	40.0	23.1	23.1	
Actuated g/C Ratio		0.21	0.21		0.21	0.21	0.19	0.70	0.70	0.40	0.40	
v/c Ratio		0.02	0.18		0.26	0.08	1.07	0.49	0.12	32.50	0.00	
Control Delay		18.3	0.8		22.2	0.3	100.0	8.6	2.9	14069.9	0.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		18.3	0.8		22.2	0.3	100.0	8.6	2.9	14069.9	0.0	
LOS		B	A		C	A	F	A	A	F	A	
Approach Delay		2.1			15.2			36.3		13941.2		
Approach LOS		A			B			D		F		

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 57.5

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 32.50

Intersection Signal Delay: 2725.2

Intersection LOS: F

Intersection Capacity Utilization 64.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 12: California Av. & 5th St.

		
9.6 s	33.8 s	26.6 s
		
15 s	28.4 s	26.6 s

HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	71	54	9	29	283	516	112	12	245	2
Future Volume (veh/h)	2	3	71	54	9	29	283	516	112	12	245	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	90	68	11	37	358	653	142	15	310	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	222	247	334	388	52	334	419	1063	901	0	428	363
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.23	0.56	0.56	0.00	0.23	0.23
Sat Flow, veh/h	515	1191	1610	1147	252	1610	1810	1900	1610	0	1900	1610
Grp Volume(v), veh/h	7	0	90	79	0	37	358	653	142	0	310	3
Grp Sat Flow(s),veh/h/ln	1706	0	1610	1399	0	1610	1810	1900	1610	0	1900	1610
Q Serve(g_s), s	0.0	0.0	2.1	1.7	0.0	0.8	8.5	10.3	1.9	0.0	6.8	0.1
Cycle Q Clear(g_c), s	0.1	0.0	2.1	2.0	0.0	0.8	8.5	10.3	1.9	0.0	6.8	0.1
Prop In Lane	0.43		1.00	0.86		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	469	0	334	440	0	334	419	1063	901	0	428	363
V/C Ratio(X)	0.01	0.00	0.27	0.18	0.00	0.11	0.85	0.61	0.16	0.00	0.72	0.01
Avail Cap(c_a), veh/h	934	0	792	833	0	792	421	1190	1008	0	960	814
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	14.1	0.0	14.9	14.8	0.0	14.4	16.5	6.6	4.8	0.0	16.0	13.4
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.2	0.0	0.1	14.9	0.8	0.1	0.0	2.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.7	0.6	0.0	0.3	4.4	2.1	0.3	0.0	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.1	0.0	15.3	15.0	0.0	14.5	31.4	7.4	4.8	0.0	18.4	13.5
LnGrp LOS	B	A	B	B	A	B	C	A	A	A	B	B
Approach Vol, veh/h		97			116			1153			313	
Approach Delay, s/veh		15.2			14.8			14.5			18.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	30.8		13.9	15.0	15.9		13.9				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	10.4	22.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	12.3		4.1	10.5	8.8		4.0				
Green Ext Time (p_c), s	0.0	4.0		0.2	0.0	1.3		0.5				
Intersection Summary												
HCM 6th Ctrl Delay			15.3									
HCM 6th LOS			B									

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
07/14/2020

												
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR						
Lane Configurations												
Traffic Volume (vph)	163	26	52	772	172	163						
Future Volume (vph)	163	26	52	772	172	163						
Turn Type	Prot	Perm	Prot	NA	NA	Perm						
Protected Phases	4		5	2	6							
Permitted Phases		4				6						
Detector Phase	4	4	5	2	6	6						
Switch Phase												
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0						
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8						
Total Split (s)	27.8	27.8	17.9	62.2	44.3	44.3						
Total Split (%)	30.9%	30.9%	19.9%	69.1%	49.2%	49.2%						
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8						
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0						
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8						
Lead/Lag			Lead		Lag	Lag						
Lead-Lag Optimize?			Yes		Yes	Yes						
Recall Mode	None	None	None	Min	Min	Min						
Act Effect Green (s)	14.6	14.6	7.5	43.9	36.7	36.7						
Actuated g/C Ratio	0.21	0.21	0.11	0.62	0.52	0.52						
v/c Ratio	0.57	0.09	0.36	0.85	0.23	0.23						
Control Delay	33.5	10.5	38.7	19.8	12.5	2.8						
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0						
Total Delay	33.5	10.5	38.7	19.8	12.5	2.8						
LOS	C	B	D	B	B	A						
Approach Delay	30.3			21.0	7.8							
Approach LOS	C			C	A							

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 70.6

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 19.0

Intersection LOS: B

Intersection Capacity Utilization 59.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	163	26	52	772	172	163
Future Volume (veh/h)	163	26	52	772	172	163
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	212	34	68	1003	223	212
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	316	281	105	1175	908	770
Arrive On Green	0.17	0.17	0.06	0.62	0.48	0.48
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	212	34	68	1003	223	212
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	6.1	1.0	2.1	23.9	3.9	4.4
Cycle Q Clear(g_c), s	6.1	1.0	2.1	23.9	3.9	4.4
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	316	281	105	1175	908	770
V/C Ratio(X)	0.67	0.12	0.64	0.85	0.25	0.28
Avail Cap(c_a), veh/h	710	632	430	1912	1305	1106
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	19.5	25.8	8.6	8.6	8.8
Incr Delay (d2), s/veh	2.5	0.2	2.5	2.2	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.9	5.8	1.2	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.1	19.7	28.3	10.8	8.8	9.0
LnGrp LOS	C	B	C	B	A	A
Approach Vol, veh/h	246			1071	435	
Approach Delay, s/veh	23.5			11.9	8.9	
Approach LOS	C			B	A	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	40.4			15.6	7.9	32.6
Change Period (Y+Rc), s	5.8			5.8	4.6	5.8
Max Green Setting (Gmax), s	56.4			22.0	13.3	38.5
Max Q Clear Time (g_c+I1), s	25.9			8.1	4.1	6.4
Green Ext Time (p_c), s	8.7			0.6	0.0	1.9
Intersection Summary						
HCM 6th Ctrl Delay			12.8			
HCM 6th LOS			B			

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

04/01/2022

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	464	9	345	216	408
Future Volume (vph)	464	9	345	216	408
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	43.0	43.0	42.0	77.0	35.0
Total Split (%)	35.8%	35.8%	35.0%	64.2%	29.2%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	29.7	29.7	29.3	80.7	46.8
Actuated g/C Ratio	0.25	0.25	0.24	0.67	0.39
v/c Ratio	0.80	0.74	0.85	0.10	0.39
Control Delay	55.9	46.4	70.0	5.1	25.6
Queue Delay	0.0	0.8	0.8	0.0	4.1
Total Delay	55.9	47.2	70.8	5.1	29.7
LOS	E	D	E	A	C
Approach Delay		51.7		45.5	29.7
Approach LOS		D		D	C

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 43.0

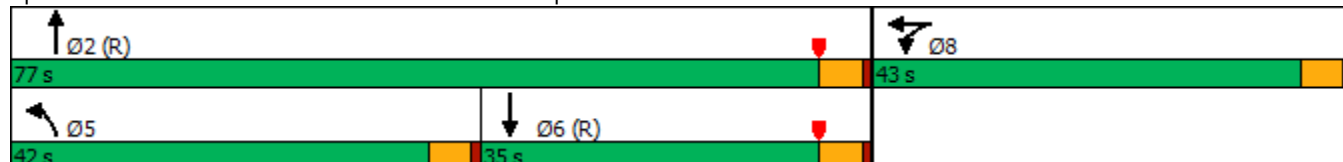
Intersection LOS: D

Intersection Capacity Utilization 66.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary

15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

04/01/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	408	93
Future Volume (veh/h)	0	0	0	464	9	132	345	216	0	0	408	93
Initial Q (Qb), veh				0	0	0	25	50	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				328	256	143	375	235	0	0	443	101
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				457	289	162	486	2410	0	0	1112	252
Arrive On Green				0.25	0.25	0.25	0.37	1.00	0.00	0.00	0.82	0.82
Sat Flow, veh/h				1810	1145	640	1810	3705	0	0	3019	662
Grp Volume(v), veh/h				328	0	399	375	235	0	0	272	272
Grp Sat Flow(s),veh/h/ln				1810	0	1785	1810	1805	0	0	1805	1781
Q Serve(g_s), s				19.9	0.0	25.8	24.0	0.0	0.0	0.0	4.7	4.8
Cycle Q Clear(g_c), s				19.9	0.0	25.8	24.0	0.0	0.0	0.0	4.7	4.8
Prop In Lane				1.00		0.36	1.00		0.00	0.00		0.37
Lane Grp Cap(c), veh/h				457	0	451	486	2410	0	0	686	677
V/C Ratio(X)				0.72	0.00	0.89	0.77	0.10	0.00	0.00	0.40	0.40
Avail Cap(c_a), veh/h				576	0	568	564	2410	0	0	737	728
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	1.00	0.82	0.82	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				41.0	0.0	43.2	32.7	0.0	0.0	0.0	10.0	10.0
Incr Delay (d2), s/veh				3.2	0.0	13.1	3.8	0.1	0.0	0.0	1.7	1.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	83.0	3.4	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				9.0	0.0	12.6	23.1	1.2	0.0	0.0	2.3	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				44.1	0.0	56.3	119.5	3.5	0.0	0.0	11.6	11.7
LnGrp LOS				D	A	E	F	A	A	A	B	B
Approach Vol, veh/h					727			610			544	
Approach Delay, s/veh					50.8			74.8			11.7	
Approach LOS					D			E			B	
Timer - Assigned Phs	2			5		6	8					
Phs Duration (G+Y+Rc), s	84.9			31.1		53.8	35.1					
Change Period (Y+Rc), s	* 4.8			4.6		* 4.8	4.8					
Max Green Setting (Gmax), s	* 72			37.4		* 30	38.2					
Max Q Clear Time (g_c+I1), s	2.0			26.0		6.8	27.8					
Green Ext Time (p_c), s	1.7			0.5		3.4	2.5					
Intersection Summary												
HCM 6th Ctrl Delay				47.3								
HCM 6th LOS				D								
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕↕	↗	↕↕	↙	↕↕
Traffic Volume (vph)	11	569	567	117	810
Future Volume (vph)	11	569	567	117	810
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	41.0	41.0	56.0	23.0	79.0
Total Split (%)	34.2%	34.2%	46.7%	19.2%	65.8%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	25.0	25.0	68.4	12.5	85.4
Actuated g/C Ratio	0.21	0.21	0.57	0.10	0.71
v/c Ratio	0.82	0.73	0.54	0.65	0.33
Control Delay	44.3	28.4	15.5	52.4	11.4
Queue Delay	0.3	0.0	0.0	0.0	0.4
Total Delay	44.6	28.4	15.5	52.4	11.9
LOS	D	C	B	D	B
Approach Delay	36.6		15.5		17.0
Approach LOS	D		B		B

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 21.3

Intersection LOS: C

Intersection Capacity Utilization 66.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary 16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	11	569	0	0	0	0	567	484	117	810	0
Future Volume (veh/h)	78	11	569	0	0	0	0	567	484	117	810	0
Initial Q (Qb), veh	0	0	0				0	75	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	687				0	591	504	122	844	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	456	773				0	1296	691	147	2455	0
Arrive On Green	0.00	0.00	0.24				0.00	0.56	0.56	0.16	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1944	1573	1810	3705	0
Grp Volume(v), veh/h	0	0	687				0	577	518	122	844	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1617	1810	1805	0
Q Serve(g_s), s	0.0	0.0	24.7				0.0	24.8	24.9	7.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	24.7				0.0	24.8	24.9	7.8	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	0	456	773				0	1011	940	147	2455	0
V/C Ratio(X)	0.00	0.00	0.89				0.00	0.57	0.55	0.83	0.34	0.00
Avail Cap(c_a), veh/h	0	573	971				0	1011	906	277	2455	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.82	0.82	0.00
Uniform Delay (d), s/veh	0.0	0.0	44.1				0.0	20.3	19.8	49.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	8.6				0.0	2.3	2.3	3.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	23.0	25.5	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	10.4				0.0	23.0	21.7	3.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	52.6				0.0	45.6	47.7	53.2	0.3	0.0
LnGrp LOS	A	A	D				A	D	D	D	A	A
Approach Vol, veh/h		687						1095			966	
Approach Delay, s/veh		52.6						46.6			7.0	
Approach LOS		D						D			A	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	14.4	72.0	33.6	86.4								
Change Period (Y+Rc), s	4.6	* 4.8	* 4.8	* 4.8								
Max Green Setting (Gmax), s	18.4	* 51	* 36	* 74								
Max Q Clear Time (g_c+I1), s	9.8	26.9	26.7	2.0								
Green Ext Time (p_c), s	0.1	8.5	2.1	7.5								
Intersection Summary												
HCM 6th Ctrl Delay			34.2									
HCM 6th LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	161	0	91	0	240	443	9	146	0
Future Vol, veh/h	0	0	0	161	0	91	0	240	443	9	146	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	209	0	118	0	312	575	12	190	0
Major/Minor				Minor1		Major1			Major2			
Conflicting Flow All				719	814	444	-	0	0	887	0	0
Stage 1				600	600	-	-	-	-	-	-	-
Stage 2				119	214	-	-	-	-	-	-	-
Critical Hdwy				6.8	6.5	6.9	-	-	-	4.1	-	-
Critical Hdwy Stg 1				5.8	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2				5.8	5.5	-	-	-	-	-	-	-
Follow-up Hdwy				3.5	4	3.3	-	-	-	2.2	-	-
Pot Cap-1 Maneuver				368	315	567	0	-	-	772	-	0
Stage 1				516	493	-	0	-	-	-	-	0
Stage 2				899	729	-	0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver				362	0	567	-	-	-	772	-	-
Mov Cap-2 Maneuver				439	0	-	-	-	-	-	-	-
Stage 1				516	0	-	-	-	-	-	-	-
Stage 2				885	0	-	-	-	-	-	-	-
Approach				WB		NB			SB			
HCM Control Delay, s				27.3		0			0.6			
HCM LOS				D								
Minor Lane/Major Mvmt		NBT	NBR	WBLn1	SBL	SBT						
Capacity (veh/h)		-	-	478	772	-						
HCM Lane V/C Ratio		-	-	0.685	0.015	-						
HCM Control Delay (s)		-	-	27.3	9.7	-						
HCM Lane LOS		-	-	D	A	-						
HCM 95th %tile Q(veh)		-	-	5.1	0	-						

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

09/21/2023

							
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	681	497	278	2	3	304	
Future Volume (vph)	681	497	278	2	3	304	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	8	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	32.8	33.2	9.6	9.6
Total Split (s)	64.0	87.2	32.8	32.8	33.2	64.0	9.6
Total Split (%)	49.2%	67.1%	25.2%	25.2%	25.5%	49.2%	7%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	4.6	
Lead/Lag	Lead	Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None
Act Effect Green (s)	28.3	59.2	26.1	26.1	12.8	47.5	
Actuated g/C Ratio	0.34	0.70	0.31	0.31	0.15	0.56	
v/c Ratio	0.81	0.52	0.66	0.01	0.01	0.45	
Control Delay	31.7	8.1	33.9	19.5	32.3	10.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	31.7	8.1	33.9	19.5	32.3	10.0	
LOS	C	A	C	B	C	A	
Approach Delay		21.7	33.8		10.2		
Approach LOS		C	C		B		

Intersection Summary

Cycle Length: 130

Actuated Cycle Length: 84.3

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 21.6

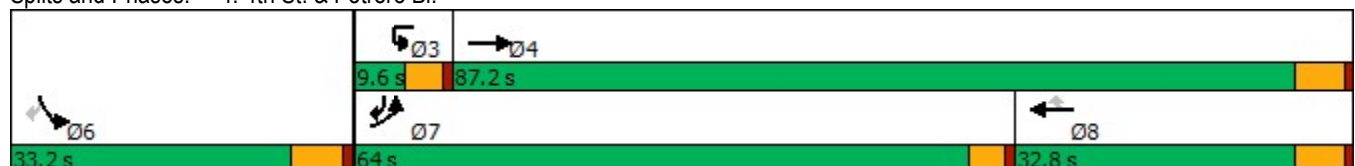
Intersection LOS: C

Intersection Capacity Utilization 56.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 4: 4th St. & Potrero Bl.

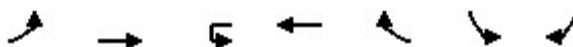


HCM 6th Signalized Intersection Summary

4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

09/21/2023



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations	←←	↑	←	↑	←	←←	↑
Traffic Volume (veh/h)	681	497	0	278	2	3	304
Future Volume (veh/h)	681	497	0	278	2	3	304
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	1016	742		415	-258	4	-143
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	1184	1292		508	431	574	806
Arrive On Green	0.32	0.65		0.26	0.00	0.16	0.00
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	1016	742		415	-258	4	-143
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	16.6	13.2		12.5	0.0	0.1	0.0
Cycle Q Clear(g_c), s	16.6	13.2		12.5	0.0	0.1	0.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1184	1292		508	431	574	806
V/C Ratio(X)	0.86	0.57		0.82	-0.60	0.01	-0.18
Avail Cap(c_a), veh/h	3412	2531		839	711	1551	1254
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	20.1	6.1		22.2	0.0	22.6	0.0
Incr Delay (d2), s/veh	0.7	0.4		3.3	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.0	3.2		5.5	0.0	0.0	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	20.8	6.5		25.5	0.0	22.6	0.0
LnGrp LOS	C	A		C	A	C	A
Approach Vol, veh/h		1758		157		-139	
Approach Delay, s/veh		14.8		67.3		0.0	
Approach LOS		B		E		A	
Timer - Assigned Phs				4		6	7 8
Phs Duration (G+Y+Rc), s				47.4		16.2	25.2 22.1
Change Period (Y+Rc), s				5.8		6.2	4.6 5.8
Max Green Setting (Gmax), s				81.4		27.0	59.4 27.0
Max Q Clear Time (g_c+l1), s				15.2		2.1	18.6 14.5
Green Ext Time (p_c), s				5.6		0.0	2.0 1.8

Intersection Summary

HCM 6th Ctrl Delay	20.6
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	50	394	389	177
Future Volume (vph)	50	394	389	177
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	10.0	39.0	29.0	41.0
Total Split (%)	12.5%	48.8%	36.3%	51.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effect Green (s)	5.8	16.9	13.9	14.2
Actuated g/C Ratio	0.13	0.38	0.31	0.32
v/c Ratio	0.22	0.56	0.42	0.37
Control Delay	26.5	14.7	10.0	14.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	26.5	14.7	10.0	14.0
LOS	C	B	B	B
Approach Delay		16.1	10.0	14.0
Approach LOS		B	B	B

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 44.5

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 12.7

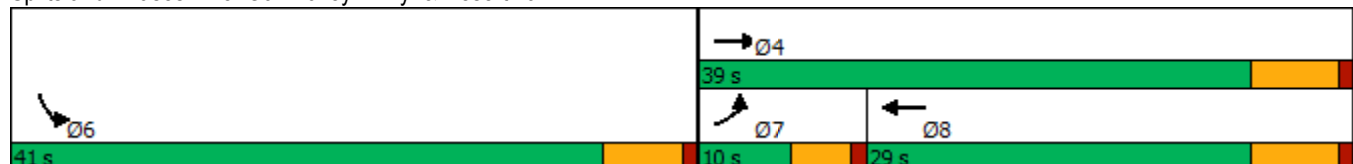
Intersection LOS: B

Intersection Capacity Utilization 43.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

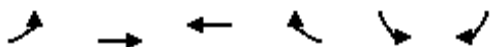


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	50	394	389	294	177	33
Future Volume (veh/h)	50	394	389	294	177	33
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	52	406	401	303	182	34
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	99	884	1035	482	362	68
Arrive On Green	0.05	0.47	0.30	0.30	0.24	0.24
Sat Flow, veh/h	1810	1900	3629	1610	1489	278
Grp Volume(v), veh/h	52	406	401	303	217	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1775	0
Q Serve(g_s), s	1.2	6.0	3.8	6.7	4.3	0.0
Cycle Q Clear(g_c), s	1.2	6.0	3.8	6.7	4.3	0.0
Prop In Lane	1.00			1.00	0.84	0.16
Lane Grp Cap(c), veh/h	99	884	1035	482	431	0
V/C Ratio(X)	0.53	0.46	0.39	0.63	0.50	0.00
Avail Cap(c_a), veh/h	237	1514	1916	892	1518	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.9	7.5	11.4	12.4	13.4	0.0
Incr Delay (d2), s/veh	1.6	0.4	0.2	1.4	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	1.3	1.0	1.8	1.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.6	7.9	11.7	13.8	14.3	0.0
LnGrp LOS	C	A	B	B	B	A
Approach Vol, veh/h		458	704		217	
Approach Delay, s/veh		9.3	12.6		14.3	
Approach LOS		A	B		B	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			25.4		15.8	6.8
Change Period (Y+Rc), s			6.2		5.8	4.6
Max Green Setting (Gmax), s			32.8		35.2	5.4
Max Q Clear Time (g_c+I1), s			8.0		6.3	3.2
Green Ext Time (p_c), s			2.2		0.6	0.0
Intersection Summary						
HCM 6th Ctrl Delay			11.8			
HCM 6th LOS			B			
Notes						

User approved volume balancing among the lanes for turning movement.

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	364	207	129	481	436	1
Future Volume (vph)	364	207	129	481	436	1
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	29.0	29.0	20.3	49.3	40.7	40.7
Total Split (%)	32.2%	32.2%	22.6%	54.8%	45.2%	45.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effect Green (s)	29.2	29.2	12.3	46.1	32.3	32.3
Actuated g/C Ratio	0.32	0.32	0.14	0.51	0.36	0.36
v/c Ratio	0.78	0.38	0.69	0.65	0.89	0.38
Control Delay	40.7	5.3	49.3	13.4	44.0	7.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.7	5.3	49.3	13.4	44.0	7.4
LOS	D	A	D	B	D	A
Approach Delay	27.9			21.0		32.4
Approach LOS	C			C		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 27.2

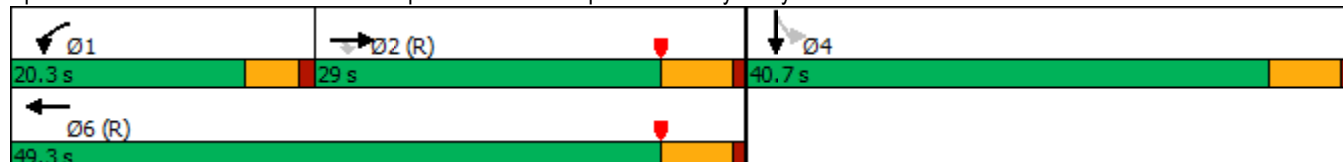
Intersection LOS: C

Intersection Capacity Utilization 64.0%

ICU Level of Service B

Analysis Period (min) 15

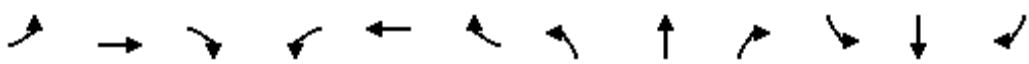
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↗	↑					↗	↗	
Traffic Volume (veh/h)	0	364	207	129	481	0	0	0	0	436	1	202
Future Volume (veh/h)	0	364	207	129	481	0	0	0	0	436	1	202
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	479	214	170	633	0				574	1	200
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	685	580	208	1000	0				624	3	553
Arrive On Green	0.00	0.36	0.36	0.04	0.17	0.00				0.34	0.34	0.34
Sat Flow, veh/h	0	1900	1610	1810	1900	0				1810	8	1603
Grp Volume(v), veh/h	0	479	214	170	633	0				574	0	201
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1611
Q Serve(g_s), s	0.0	19.4	8.8	8.4	27.8	0.0				27.4	0.0	8.4
Cycle Q Clear(g_c), s	0.0	19.4	8.8	8.4	27.8	0.0				27.4	0.0	8.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	685	580	208	1000	0				624	0	555
V/C Ratio(X)	0.00	0.70	0.37	0.82	0.63	0.00				0.92	0.00	0.36
Avail Cap(c_a), veh/h	0	685	580	316	1000	0				702	0	625
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.86	0.86	0.81	0.81	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	24.6	21.2	42.4	29.1	0.0				28.3	0.0	22.1
Incr Delay (d2), s/veh	0.0	5.1	1.5	4.5	2.5	0.0				16.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.9	3.3	4.1	14.6	0.0				13.6	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.7	22.8	46.9	31.6	0.0				44.7	0.0	22.5
LnGrp LOS	A	C	C	D	C	A				D	A	C
Approach Vol, veh/h		693			803						775	
Approach Delay, s/veh		27.5			34.8						38.9	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.9	38.2		36.8		53.2						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	15.7	23.2		34.9		43.5						
Max Q Clear Time (g_c+I1), s	10.4	21.4		29.4		29.8						
Green Ext Time (p_c), s	0.1	0.7		1.6		3.2						
Intersection Summary												
HCM 6th Ctrl Delay			34.0									
HCM 6th LOS			C									

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	100	543	74	9	97	38	36	11	13	57	223
Future Volume (vph)	100	543	74	9	97	38	36	11	13	57	223
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		2			6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Total Split (s)	14.0	37.2	37.2	9.6	32.8	33.2	33.2	33.2	33.2	33.2	33.2
Total Split (%)	17.5%	46.5%	46.5%	12.0%	41.0%	41.5%	41.5%	41.5%	41.5%	41.5%	41.5%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effect Green (s)	14.2	32.2	32.2	5.1	18.2		12.8	12.8	12.8	12.8	12.8
Actuated g/C Ratio	0.24	0.55	0.55	0.09	0.31		0.22	0.22	0.22	0.22	0.22
v/c Ratio	0.33	0.74	0.11	0.08	0.31		0.32	0.04	0.07	0.20	0.53
Control Delay	28.2	18.9	3.3	30.1	15.2		21.8	0.2	18.5	19.6	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	28.2	18.9	3.3	30.1	15.2		21.8	0.2	18.5	19.6	6.2
LOS	C	B	A	C	B		C	A	B	B	A
Approach Delay		18.6			16.2		19.0			9.3	
Approach LOS		B			B		B			A	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 58.3

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 16.2

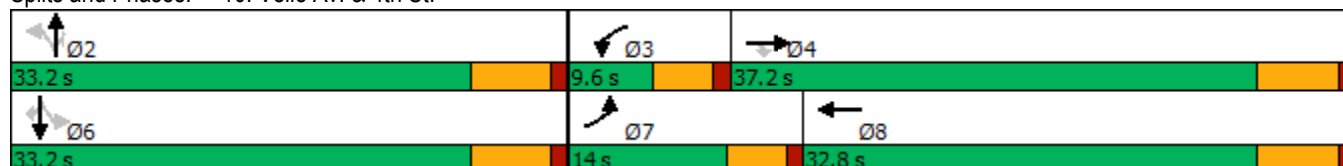
Intersection LOS: B

Intersection Capacity Utilization 59.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	543	74	9	97	29	38	36	11	13	57	223
Future Volume (veh/h)	100	543	74	9	97	29	38	36	11	13	57	223
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	143	776	106	13	139	41	54	51	16	19	81	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	184	906	768	30	552	163	232	187	311	333	368	
Arrive On Green	0.10	0.48	0.48	0.02	0.39	0.39	0.19	0.19	0.19	0.19	0.19	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1409	416	654	967	1610	1355	1900	1610
Grp Volume(v), veh/h	143	776	106	13	0	180	105	0	16	19	81	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1825	1622	0	1610	1355	1900	1610
Q Serve(g_s), s	4.0	18.7	1.9	0.4	0.0	3.4	0.7	0.0	0.4	0.6	1.9	0.0
Cycle Q Clear(g_c), s	4.0	18.7	1.9	0.4	0.0	3.4	2.6	0.0	0.4	3.2	1.9	0.0
Prop In Lane	1.00		1.00	1.00		0.23	0.51		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	184	906	768	30	0	714	419	0	311	333	368	
V/C Ratio(X)	0.78	0.86	0.14	0.44	0.00	0.25	0.25	0.00	0.05	0.06	0.22	
Avail Cap(c_a), veh/h	329	1154	978	175	0	953	945	0	853	790	1007	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.6	12.0	7.6	25.2	0.0	10.6	17.8	0.0	17.0	19.2	17.6	0.0
Incr Delay (d2), s/veh	2.7	5.3	0.1	3.7	0.0	0.2	0.3	0.0	0.1	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	6.5	0.5	0.2	0.0	1.1	0.9	0.0	0.1	0.2	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.3	17.3	7.7	28.9	0.0	10.8	18.1	0.0	17.1	19.3	17.9	0.0
LnGrp LOS	C	B	A	C	A	B	B	A	B	B	B	
Approach Vol, veh/h		1025			193			121			100	A
Approach Delay, s/veh		17.4			12.0			18.0			18.1	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.8	5.5	30.4		15.8	9.9	26.0				
Change Period (Y+Rc), s		5.8	4.6	5.8		5.8	4.6	5.8				
Max Green Setting (Gmax), s		27.4	5.0	31.4		27.4	9.4	27.0				
Max Q Clear Time (g_c+I1), s		4.6	2.4	20.7		5.2	6.0	5.4				
Green Ext Time (p_c), s		0.5	0.0	4.0		0.4	0.1	0.8				

Intersection Summary

HCM 6th Ctrl Delay 16.8

HCM 6th LOS B

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	Ø1
Lane Configurations												
Traffic Volume (vph)	4	3	82	59	3	20	169	403	414	223	6	
Future Volume (vph)	4	3	82	59	3	20	169	403	414	223	6	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	NA	Perm	
Protected Phases		4			8		5	2		6		1
Permitted Phases	4		4	8		8			2		6	
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.6	27.8	27.8	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	10.0	33.8	33.8	33.4	33.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	14.3%	48.3%	48.3%	47.7%	47.7%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6	4.6	4.6	5.8	5.8	5.8	5.8	
Lead/Lag							Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	Min	Min	None
Act Effect Green (s)		12.1	12.1		12.1	12.1	5.4	42.1	42.1	30.9	30.9	
Actuated g/C Ratio		0.20	0.20		0.20	0.20	0.09	0.70	0.70	0.51	0.51	
v/c Ratio		0.02	0.21		0.23	0.05	1.10	0.32	0.36	5.88	0.01	
Control Delay		18.3	3.8		21.8	0.2	132.9	6.7	3.6	2268.8	0.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		18.3	3.8		21.8	0.2	132.9	6.7	3.6	2268.8	0.0	
LOS		B	A		C	A	F	A	A	F	A	
Approach Delay		4.9			16.6			27.0		2213.7		
Approach LOS		A			B			C		F		

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 60.5

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 5.88

Intersection Signal Delay: 393.9

Intersection LOS: F

Intersection Capacity Utilization 59.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 12: California Av. & 5th St.

		
9.6 s	33.8 s	26.6 s
		
10 s	33.4 s	26.6 s

HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	3	82	59	3	20	169	403	414	6	223	6
Future Volume (veh/h)	4	3	82	59	3	20	169	403	414	6	223	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	3	86	62	3	21	178	424	436	6	235	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	159	82	374	227	7	374	224	950	805	0	489	414
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.12	0.50	0.50	0.00	0.26	0.26
Sat Flow, veh/h	57	351	1610	197	30	1610	1810	1900	1610	0	1900	1610
Grp Volume(v), veh/h	7	0	86	65	0	21	178	424	436	0	235	6
Grp Sat Flow(s),veh/h/ln	408	0	1610	227	0	1610	1810	1900	1610	0	1900	1610
Q Serve(g_s), s	0.0	0.0	1.7	1.4	0.0	0.4	3.7	5.6	7.2	0.0	4.1	0.1
Cycle Q Clear(g_c), s	8.5	0.0	1.7	9.0	0.0	0.4	3.7	5.6	7.2	0.0	4.1	0.1
Prop In Lane	0.57		1.00	0.95		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	241	0	374	234	0	374	224	950	805	0	489	414
V/C Ratio(X)	0.03	0.00	0.23	0.28	0.00	0.06	0.79	0.45	0.54	0.00	0.48	0.01
Avail Cap(c_a), veh/h	769	0	912	683	0	912	251	1369	1160	0	1350	1144
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	12.1	0.0	12.1	18.3	0.0	11.6	16.5	6.3	6.7	0.0	12.2	10.8
Incr Delay (d2), s/veh	0.0	0.0	0.3	0.6	0.0	0.1	12.5	0.3	0.6	0.0	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.5	0.6	0.0	0.1	1.9	1.1	1.2	0.0	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.2	0.0	12.4	18.9	0.0	11.7	29.0	6.6	7.2	0.0	13.0	10.8
LnGrp LOS	B	A	B	B	A	B	C	A	A	A	B	B
Approach Vol, veh/h		93			86			1038			241	
Approach Delay, s/veh		12.4			17.1			10.7			12.9	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	25.2		13.9	9.4	15.8		13.9				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	5.4	27.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	9.2		10.5	5.7	6.1		11.0				
Green Ext Time (p_c), s	0.0	3.8		0.2	0.0	1.1		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			11.6									
HCM 6th LOS			B									

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
07/14/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	527	74	29	476	922	125
Future Volume (vph)	527	74	29	476	922	125
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	43.0	43.0	9.6	77.0	67.4	67.4
Total Split (%)	35.8%	35.8%	8.0%	64.2%	56.2%	56.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effect Green (s)	37.3	37.3	5.0	67.3	61.7	61.7
Actuated g/C Ratio	0.32	0.32	0.04	0.58	0.53	0.53
v/c Ratio	0.99	0.14	0.42	0.47	0.99	0.15
Control Delay	75.5	10.1	71.8	15.7	55.1	7.6
Queue Delay	0.0	0.0	0.0	0.0	36.9	0.0
Total Delay	75.5	10.1	71.8	15.7	92.0	7.6
LOS	E	B	E	B	F	A
Approach Delay	67.5			19.0	81.9	
Approach LOS	E			B	F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 116.2
 Natural Cycle: 140
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 63.1
 Intersection LOS: E
 Intersection Capacity Utilization 87.4%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	527	74	29	476	922	125
Future Volume (veh/h)	527	74	29	476	922	125
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	573	80	32	517	1002	136
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	569	507	50	1116	990	839
Arrive On Green	0.31	0.31	0.03	0.59	0.52	0.52
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	573	80	32	517	1002	136
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	37.2	4.2	2.1	18.2	61.6	5.2
Cycle Q Clear(g_c), s	37.2	4.2	2.1	18.2	61.6	5.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	569	507	50	1116	990	839
V/C Ratio(X)	1.01	0.16	0.64	0.46	1.01	0.16
Avail Cap(c_a), veh/h	569	507	77	1144	990	839
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.5	29.2	56.9	13.8	28.3	14.8
Incr Delay (d2), s/veh	39.4	0.1	5.1	0.3	31.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.0	4.4	1.0	7.2	33.9	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	79.9	29.4	62.0	14.1	60.0	14.9
LnGrp LOS	F	C	E	B	F	B
Approach Vol, veh/h	653			549	1138	
Approach Delay, s/veh	73.7			16.9	54.6	
Approach LOS	E			B	D	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	75.3			43.0	7.9	67.4
Change Period (Y+Rc), s	5.8			5.8	4.6	5.8
Max Green Setting (Gmax), s	71.2			37.2	5.0	61.6
Max Q Clear Time (g_c+I1), s	20.2			39.2	4.1	63.6
Green Ext Time (p_c), s	3.3			0.0	0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			51.1			
HCM 6th LOS			D			

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

04/01/2022

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	685	0	272	309	707
Future Volume (vph)	685	0	272	309	707
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	49.0	49.0	29.0	71.0	42.0
Total Split (%)	40.8%	40.8%	24.2%	59.2%	35.0%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	35.1	35.1	22.0	75.3	48.7
Actuated g/C Ratio	0.29	0.29	0.18	0.63	0.41
v/c Ratio	0.81	0.75	0.85	0.14	0.63
Control Delay	52.2	41.0	80.1	8.4	31.5
Queue Delay	0.7	0.6	0.0	0.0	51.0
Total Delay	52.9	41.6	80.1	8.4	82.6
LOS	D	D	F	A	F
Approach Delay		47.3		41.9	82.6
Approach LOS		D		D	F

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 59.7

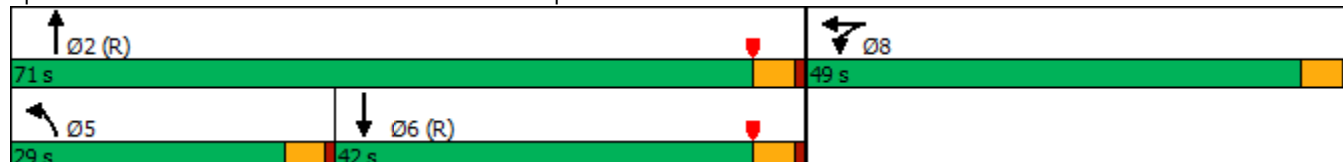
Intersection LOS: E

Intersection Capacity Utilization 111.1%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary

15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

04/01/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	707	169
Future Volume (veh/h)	0	0	0	685	0	98	272	309	0	0	707	169
Initial Q (Qb), veh				50	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				800	0	0	280	319	0	0	729	174
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1070	562	0	303	2254	0	0	1210	289
Arrive On Green				0.25	0.00	0.00	0.33	1.00	0.00	0.00	0.92	0.92
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	2986	690
Grp Volume(v), veh/h				800	0	0	280	319	0	0	455	448
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1776
Q Serve(g_s), s				25.5	0.0	0.0	17.9	0.0	0.0	0.0	4.6	4.6
Cycle Q Clear(g_c), s				25.5	0.0	0.0	17.9	0.0	0.0	0.0	4.6	4.6
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.39
Lane Grp Cap(c), veh/h				1070	562	0	303	2254	0	0	756	743
V/C Ratio(X)				0.75	0.00	0.00	0.92	0.14	0.00	0.00	0.60	0.60
Avail Cap(c_a), veh/h				1333	700	0	368	2411	0	0	834	821
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	0.00	0.68	0.68	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				41.1	0.0	0.0	39.2	0.0	0.0	0.0	7.2	7.3
Incr Delay (d2), s/veh				1.8	0.0	0.0	18.1	0.1	0.0	0.0	3.5	3.6
Initial Q Delay(d3),s/veh				62.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				23.3	0.0	0.0	8.2	0.0	0.0	0.0	3.1	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				105.3	0.0	0.0	57.3	0.1	0.0	0.0	10.8	10.8
LnGrp LOS				F	A	A	E	A	A	A	B	B
Approach Vol, veh/h					800			599			903	
Approach Delay, s/veh					105.3			26.8			10.8	
Approach LOS					F			C			B	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		85.0			24.7	60.3		35.0				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 66			24.4	* 37		44.2				
Max Q Clear Time (g_c+I1), s		2.0			19.9	6.6		27.5				
Green Ext Time (p_c), s		2.3			0.2	6.8		2.8				
Intersection Summary												
HCM 6th Ctrl Delay				47.8								
HCM 6th LOS				D								
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕↕	↗	↕↕	↙	↕↕
Traffic Volume (vph)	11	856	555	129	1152
Future Volume (vph)	11	856	555	129	1152
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	59.0	59.0	42.0	19.0	61.0
Total Split (%)	49.2%	49.2%	35.0%	15.8%	50.8%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	44.5	44.5	48.9	12.4	65.9
Actuated g/C Ratio	0.37	0.37	0.41	0.10	0.55
v/c Ratio	0.84	0.78	0.68	0.72	0.60
Control Delay	44.4	37.4	28.8	73.4	23.7
Queue Delay	0.0	0.0	0.0	0.0	0.8
Total Delay	44.4	37.4	28.8	73.4	24.5
LOS	D	D	C	E	C
Approach Delay	41.0		28.8		29.4
Approach LOS	D		C		C

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 32.7

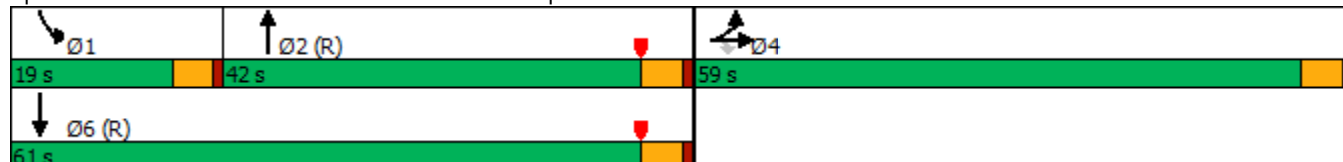
Intersection LOS: C

Intersection Capacity Utilization 111.1%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary

16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	11	856	0	0	0	0	555	416	129	1152	0
Future Volume (veh/h)	111	11	856	0	0	0	0	555	416	129	1152	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	1011				0	572	429	133	1188	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	795	1348				0	739	554	158	1811	0
Arrive On Green	0.00	0.00	0.35				0.00	0.45	0.45	0.17	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2061	1474	1810	3705	0
Grp Volume(v), veh/h	0	0	1011				0	525	476	133	1188	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	35.7				0.0	27.3	27.3	8.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	35.7				0.0	27.3	27.3	8.5	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	795	1348				0	679	615	158	1811	0
V/C Ratio(X)	0.00	0.00	0.75				0.00	0.77	0.77	0.84	0.66	0.00
Avail Cap(c_a), veh/h	0	858	1455				0	804	728	217	2061	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.66	0.66	0.00
Uniform Delay (d), s/veh	0.0	0.0	34.2				0.0	33.1	33.1	48.7	1.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	2.1				0.0	8.4	9.2	10.1	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	89.3				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	34.6				0.0	14.9	13.6	4.0	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	125.6				0.0	41.5	42.4	58.9	2.8	0.0
LnGrp LOS	A	A	F				A	D	D	E	A	A
Approach Vol, veh/h		1011						1001			1321	
Approach Delay, s/veh		125.6						41.9			8.4	
Approach LOS		F						D			A	
Timer - Assigned Phs	1	2	4	6								
Phs Duration (G+Y+Rc), s	15.1	58.2	46.7	73.3								
Change Period (Y+Rc), s	4.6	* 4.8	* 4.8	* 4.8								
Max Green Setting (Gmax), s	14.4	* 37	* 54	* 56								
Max Q Clear Time (g_c+I1), s	10.5	29.3	37.7	2.0								
Green Ext Time (p_c), s	0.1	4.0	4.1	12.3								
Intersection Summary												
HCM 6th Ctrl Delay			54.0									
HCM 6th LOS			D									
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

APPENDIX 6.1:

OPENING YEAR (2023) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	235	29	127	254	42	147
Future Vol, veh/h	235	29	127	254	42	147
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	273	34	148	295	49	171
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	10.3	10	10.6
HCM LOS	B	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	42	147	118	118	29	127	127	127
LT Vol	42	0	0	0	0	127	0	0
Through Vol	0	0	118	118	0	0	127	127
RT Vol	0	147	0	0	29	0	0	0
Lane Flow Rate	49	171	137	137	34	148	148	148
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.094	0.273	0.234	0.234	0.035	0.265	0.244	0.173
Departure Headway (Hd)	6.947	5.748	6.158	6.158	3.73	6.451	5.946	4.228
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	516	624	583	583	956	557	604	846
Service Time	4.69	3.49	3.897	3.897	1.469	4.187	3.681	1.963
HCM Lane V/C Ratio	0.095	0.274	0.235	0.235	0.036	0.266	0.245	0.175
HCM Control Delay	10.4	10.6	10.8	10.8	6.6	11.5	10.6	7.9
HCM Lane LOS	B	B	B	B	A	B	B	A
HCM 95th-tile Q	0.3	1.1	0.9	0.9	0.1	1.1	1	0.6

Intersection

Intersection Delay, s/veh 9.3

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	10	0	54	0	24	5	45	175	0
Future Vol, veh/h	0	0	0	10	0	54	0	24	5	45	175	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	15	0	83	0	37	8	69	269	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.8	7.6	9.9
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	16%	20%
Vol Thru, %	83%	0%	80%
Vol Right, %	17%	84%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	29	64	220
LT Vol	0	10	45
Through Vol	24	0	175
RT Vol	5	54	0
Lane Flow Rate	45	98	338
Geometry Grp	1	1	1
Degree of Util (X)	0.054	0.117	0.39
Departure Headway (Hd)	4.36	4.271	4.149
Convergence, Y/N	Yes	Yes	Yes
Cap	824	844	860
Service Time	2.371	2.274	2.219
HCM Lane V/C Ratio	0.055	0.116	0.393
HCM Control Delay	7.6	7.8	9.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.2	0.4	1.9

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/05/2023

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		 			 	
Traffic Volume (vph)	37	14	29	24	138	150
Future Volume (vph)	37	14	29	24	138	150
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	9.6	72.6	63.0	63.0	47.4	47.4
Total Split (%)	8.0%	60.5%	52.5%	52.5%	39.5%	39.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	6.2	15.7	10.2	10.2	17.9	17.9
Actuated g/C Ratio	0.15	0.39	0.25	0.25	0.45	0.45
v/c Ratio	0.20	0.01	0.09	0.08	0.13	0.27
Control Delay	18.4	5.9	13.0	6.2	11.9	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.4	5.9	13.0	6.2	11.9	3.8
LOS	B	A	B	A	B	A
Approach Delay		15.0	9.9		7.7	
Approach LOS		B	A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 40.2

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.27

Intersection Signal Delay: 8.9

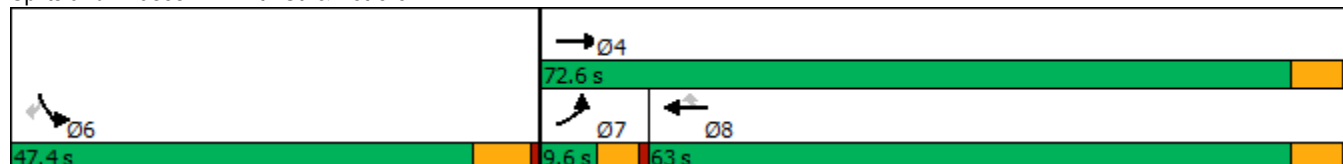
Intersection LOS: A

Intersection Capacity Utilization 27.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: 4th St. & Potrero Bl.

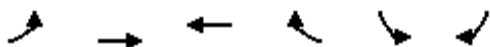


HCM 6th Signalized Intersection Summary

4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/05/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	37	14	29	24	138	150	
Future Volume (veh/h)	37	14	29	24	138	150	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	55	21	43	36	206	224	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	107	1332	338	286	1007	462	
Arrive On Green	0.06	0.37	0.18	0.18	0.29	0.29	
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610	
Grp Volume(v), veh/h	55	21	43	36	206	224	
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610	
Q Serve(g_s), s	1.0	0.1	0.7	0.7	1.6	4.0	
Cycle Q Clear(g_c), s	1.0	0.1	0.7	0.7	1.6	4.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	107	1332	338	286	1007	462	
V/C Ratio(X)	0.51	0.02	0.13	0.13	0.20	0.49	
Avail Cap(c_a), veh/h	259	6916	3117	2641	4148	1903	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	15.9	7.0	12.1	12.1	9.4	10.3	
Incr Delay (d2), s/veh	3.8	0.0	0.2	0.2	0.1	0.8	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.2	0.2	0.4	3.8	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	19.7	7.0	12.2	12.2	9.5	11.1	
LnGrp LOS	B	A	B	B	A	B	
Approach Vol, veh/h		76	79	430			
Approach Delay, s/veh		16.2	12.2	10.3			
Approach LOS		B	B	B			
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				18.7	16.2	6.7	12.0
Change Period (Y+Rc), s				5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s				66.8	41.2	5.0	57.2
Max Q Clear Time (g_c+I1), s				2.1	6.0	3.0	2.7
Green Ext Time (p_c), s				0.1	1.4	0.0	0.3
Intersection Summary							
HCM 6th Ctrl Delay			11.4				
HCM 6th LOS			B				

Intersection

Intersection Delay, s/veh 106.9

Intersection LOS F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	62	426	348	330	495	56
Future Vol, veh/h	62	426	348	330	495	56
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	71	490	400	379	569	64
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	98.2	19.5	222.3
HCM LOS	F	C	F

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	90%
Vol Thru, %	0%	100%	100%	100%	17%	0%
Vol Right, %	0%	0%	0%	0%	83%	10%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	62	426	139	139	400	551
LT Vol	62	0	0	0	0	495
Through Vol	0	426	139	139	70	0
RT Vol	0	0	0	0	330	56
Lane Flow Rate	71	490	160	160	459	633
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.172	1.112	0.335	0.335	0.671	1.414
Departure Headway (Hd)	9.906	9.375	9.023	9.023	6.624	8.311
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	364	392	402	402	551	443
Service Time	7.606	7.075	6.723	6.723	4.324	6.011
HCM Lane V/C Ratio	0.195	1.25	0.398	0.398	0.833	1.429
HCM Control Delay	14.7	110.3	16.2	16.2	21.8	222.3
HCM Lane LOS	B	F	C	C	C	F
HCM 95th-tile Q	0.6	15.6	1.4	1.4	5	30.1

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/10/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	←	→	→
Traffic Volume (vph)	453	260	575	3
Future Volume (vph)	453	260	575	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	42.8	14.8	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	1.17	0.99	0.49	1.23
Control Delay	114.0	74.8	4.0	158.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	114.0	74.8	4.0	158.0
LOS	F	E	A	F
Approach Delay	114.0		26.1	158.0
Approach LOS	F		C	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.23

Intersection Signal Delay: 86.9

Intersection LOS: F

Intersection Capacity Utilization 101.1%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/10/2020

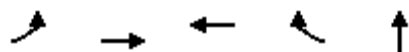
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩	
Traffic Volume (veh/h)	0	453	469	260	575	0	0	0	0	258	3	102
Future Volume (veh/h)	0	453	469	260	575	0	0	0	0	258	3	102
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	509	440	292	646	0				290	3	96
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	447	387	298	1313	0				236	2	78
Arrive On Green	0.00	0.48	0.48	0.33	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	941	813	1810	1900	0				1309	14	433
Grp Volume(v), veh/h	0	0	949	292	646	0				389	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1754	1810	1900	0				1756	0	0
Q Serve(g_s), s	0.0	0.0	42.8	14.4	0.0	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	42.8	14.4	0.0	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.46	1.00		0.00				0.75		0.25
Lane Grp Cap(c), veh/h	0	0	834	298	1313	0				316	0	0
V/C Ratio(X)	0.00	0.00	1.14	0.98	0.49	0.00				1.23	0.00	0.00
Avail Cap(c_a), veh/h	0	0	834	298	1313	0				316	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.29	0.29	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	23.6	30.1	0.0	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	76.5	23.5	0.4	0.0				128.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	32.9	6.6	0.1	0.0				17.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	100.1	53.5	0.4	0.0				165.1	0.0	0.0
LnGrp LOS	A	A	F	D	A	A				F	A	A
Approach Vol, veh/h		949			938						389	
Approach Delay, s/veh		100.1			16.9						165.1	
Approach LOS		F			B						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.4	48.6		22.0		68.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2						
Max Q Clear Time (g_c+I1), s	16.4	44.8		18.2		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		4.5						
Intersection Summary												
HCM 6th Ctrl Delay			76.9									
HCM 6th LOS			E									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/10/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations	←	→	←	→	→
Traffic Volume (vph)	143	567	493	445	4
Future Volume (vph)	143	567	493	445	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	5.4	36.2	26.2	26.2	42.2
Actuated g/C Ratio	0.06	0.40	0.29	0.29	0.47
v/c Ratio	1.35	0.76	0.91	0.57	0.87
Control Delay	198.5	17.9	53.2	5.7	32.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	198.5	17.9	53.2	5.7	32.5
LOS	F	B	D	A	C
Approach Delay		54.3	30.7		32.5
Approach LOS		D	C		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.35

Intersection Signal Delay: 38.3

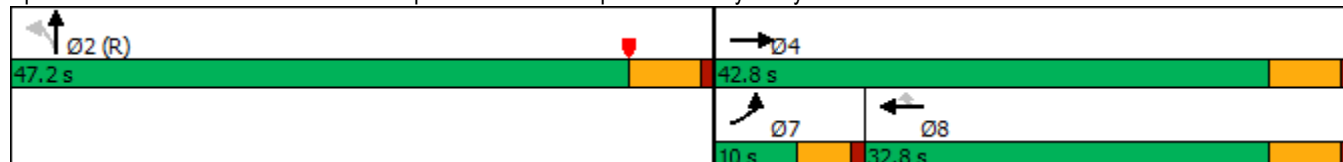
Intersection LOS: D

Intersection Capacity Utilization 101.1%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	567	0	0	493	445	343	4	379	0	0	0
Future Volume (veh/h)	143	567	0	0	493	445	343	4	379	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	146	579	0	0	503	338	350	4	265			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	758	0	0	547	464	459	5	347			
Arrive On Green	0.04	0.27	0.00	0.00	0.29	0.29	0.47	0.47	0.47			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	972	11	736			
Grp Volume(v), veh/h	146	579	0	0	503	338	619	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1719	0	0			
Q Serve(g_s), s	5.4	25.2	0.0	0.0	23.1	17.0	26.7	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	25.2	0.0	0.0	23.1	17.0	26.7	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.57		0.43			
Lane Grp Cap(c), veh/h	109	758	0	0	547	464	811	0	0			
V/C Ratio(X)	1.34	0.76	0.00	0.00	0.92	0.73	0.76	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	811	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	29.1	0.0	0.0	31.0	28.9	19.6	0.0	0.0			
Incr Delay (d2), s/veh	160.7	0.4	0.0	0.0	19.7	5.3	6.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.2	11.7	0.0	0.0	12.7	6.8	10.9	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	203.9	29.5	0.0	0.0	50.8	34.2	26.3	0.0	0.0			
LnGrp LOS	F	C	A	A	D	C	C	A	A			
Approach Vol, veh/h	725			841			619					
Approach Delay, s/veh	64.6			44.1			26.3					
Approach LOS	E			D			C					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	48.3			41.7			10.0			31.7		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	41.4			37.0			5.4			27.0		
Max Q Clear Time (g_c+I1), s	28.7			27.2			7.4			25.1		
Green Ext Time (p_c), s	3.2			2.4			0.0			0.9		
Intersection Summary												
HCM 6th Ctrl Delay	45.9											
HCM 6th LOS	D											

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱		↱	↑↑				↱			↱
Traffic Vol, veh/h	3	556	146	158	900	27	0	0	63	0	0	160
Future Vol, veh/h	3	556	146	158	900	27	0	0	63	0	0	160
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	611	160	174	989	30	0	0	69	0	0	176
Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	1019	0	0	771	0	0	-	-	386	-	-	510
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	689	-	-	853	-	-	0	0	618	0	0	514
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	689	-	-	853	-	-	-	-	618	-	-	514
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0		1.5			11.6			15.6			
HCM LOS						B			C			
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	618	689	-	-	853	-	-	514				
HCM Lane V/C Ratio	0.112	0.005	-	-	0.204	-	-	0.342				
HCM Control Delay (s)	11.6	10.2	-	-	10.3	-	-	15.6				
HCM Lane LOS	B	B	-	-	B	-	-	C				
HCM 95th %tile Q(veh)	0.4	0	-	-	0.8	-	-	1.5				

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	41	24	3	213	20	72	29	6	22	31	88
Future Volume (vph)	34	41	24	3	213	20	72	29	6	22	31	88
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	21.0	43.0	43.0	15.0	37.0	37.0	31.0	43.0	43.0	19.0	31.0	31.0
Total Split (%)	17.5%	35.8%	35.8%	12.5%	30.8%	30.8%	25.8%	35.8%	35.8%	15.8%	25.8%	25.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	6.6	19.5	19.5	5.5	15.0	15.0	8.2	17.1	17.1	6.1	10.9	10.9
Actuated g/C Ratio	0.12	0.36	0.36	0.10	0.28	0.28	0.15	0.31	0.31	0.11	0.20	0.20
v/c Ratio	0.21	0.08	0.05	0.02	0.54	0.05	0.35	0.07	0.01	0.14	0.11	0.24
Control Delay	29.1	13.5	0.1	29.7	23.8	0.1	28.6	20.2	0.0	29.3	25.2	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.1	13.5	0.1	29.7	23.8	0.1	28.6	20.2	0.0	29.3	25.2	2.3
LOS	C	B	A	C	C	A	C	C	A	C	C	A
Approach Delay		15.6			21.8			24.7			11.5	
Approach LOS		B			C			C			B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 54.4

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 18.8

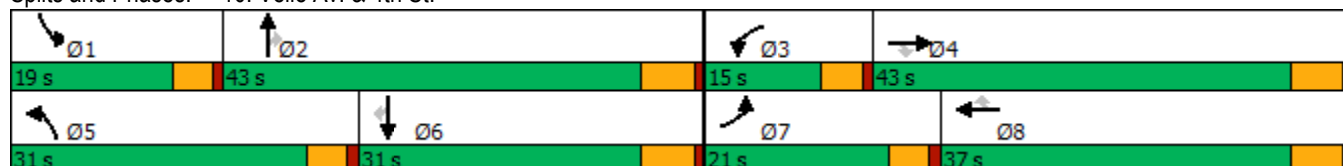
Intersection LOS: B

Intersection Capacity Utilization 39.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	41	24	3	213	20	72	29	6	22	31	88
Future Volume (veh/h)	34	41	24	3	213	20	72	29	6	22	31	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	55	32	4	284	27	96	39	8	29	41	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	86	486	412	10	406	344	138	490	415	61	409	
Arrive On Green	0.05	0.26	0.26	0.01	0.21	0.21	0.08	0.26	0.26	0.03	0.22	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	45	55	32	4	284	27	96	39	8	29	41	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	1.1	1.0	0.7	0.1	6.4	0.6	2.4	0.7	0.2	0.7	0.8	0.0
Cycle Q Clear(g_c), s	1.1	1.0	0.7	0.1	6.4	0.6	2.4	0.7	0.2	0.7	0.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	86	486	412	10	406	344	138	490	415	61	409	
V/C Ratio(X)	0.52	0.11	0.08	0.41	0.70	0.08	0.69	0.08	0.02	0.48	0.10	
Avail Cap(c_a), veh/h	638	1520	1288	405	1275	1080	1027	1520	1288	560	1030	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.6	13.3	13.1	23.1	16.9	14.6	20.9	13.1	12.9	22.1	14.6	0.0
Incr Delay (d2), s/veh	1.8	0.1	0.1	9.8	2.2	0.1	2.3	0.1	0.0	2.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	0.2	0.1	2.4	0.2	0.9	0.2	0.1	0.3	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.5	13.4	13.2	32.9	19.1	14.7	23.3	13.1	12.9	24.2	14.7	0.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	
Approach Vol, veh/h	132				315				143			
Approach Delay, s/veh	16.8				18.9				19.9			
Approach LOS	B				B				B			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.2	17.8	4.9	17.7	8.2	15.8	6.8	15.7				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	14.4	37.2	10.4	37.2	26.4	25.2	16.4	31.2				
Max Q Clear Time (g_c+l1), s	2.7	2.7	2.1	3.0	4.4	2.8	3.1	8.4				
Green Ext Time (p_c), s	0.0	0.2	0.0	0.3	0.1	0.1	0.0	1.5				

Intersection Summary

HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	289	119	140	288	20	409	85	46	122
Future Volume (vph)	4	289	119	140	288	20	409	85	46	122
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	23.8	23.8	13.0	27.2	27.2	28.0	42.2	11.0	25.2
Total Split (%)	10.7%	26.4%	26.4%	14.4%	30.2%	30.2%	31.1%	46.9%	12.2%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.0	17.5	17.5	8.4	28.7	28.7	22.9	41.1	6.0	20.0
Actuated g/C Ratio	0.06	0.20	0.20	0.10	0.33	0.33	0.26	0.47	0.07	0.23
v/c Ratio	0.04	0.83	0.27	0.88	0.51	0.03	0.95	0.18	0.41	0.32
Control Delay	41.2	53.8	2.6	86.2	28.5	0.1	65.0	12.0	50.4	31.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	53.8	2.6	86.2	28.5	0.1	65.0	12.0	50.4	31.0
LOS	D	D	A	F	C	A	E	B	D	C
Approach Delay		38.9			45.2			51.6		36.2
Approach LOS		D			D			D		D

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 88.1

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 44.8

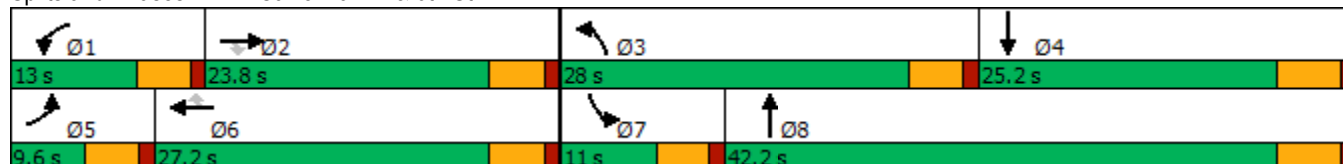
Intersection LOS: D

Intersection Capacity Utilization 70.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary

11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	289	119	140	288	20	409	85	53	46	122	4
Future Volume (veh/h)	4	289	119	140	288	20	409	85	53	46	122	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	314	128	152	313	13	445	92	36	50	133	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	363	308	174	536	454	477	588	230	73	428	6
Arrive On Green	0.01	0.19	0.19	0.10	0.28	0.28	0.26	0.45	0.45	0.04	0.23	0.23
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1300	509	1810	1867	28
Grp Volume(v), veh/h	4	314	128	152	313	13	445	0	128	50	0	135
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1808	1810	0	1895
Q Serve(g_s), s	0.2	14.0	6.1	7.2	12.4	0.5	21.0	0.0	3.6	2.4	0.0	5.2
Cycle Q Clear(g_c), s	0.2	14.0	6.1	7.2	12.4	0.5	21.0	0.0	3.6	2.4	0.0	5.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.28	1.00		0.01
Lane Grp Cap(c), veh/h	10	363	308	174	536	454	477	0	818	73	0	434
V/C Ratio(X)	0.42	0.87	0.42	0.87	0.58	0.03	0.93	0.00	0.16	0.69	0.00	0.31
Avail Cap(c_a), veh/h	104	414	351	174	536	454	485	0	818	133	0	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.3	34.2	31.0	38.9	26.9	22.7	31.4	0.0	14.1	41.3	0.0	27.9
Incr Delay (d2), s/veh	10.4	15.7	0.9	34.0	1.6	0.0	24.5	0.0	0.4	4.2	0.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	7.9	2.3	4.8	5.7	0.2	11.7	0.0	1.4	1.1	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.7	50.0	31.9	72.9	28.6	22.7	55.9	0.0	14.5	45.6	0.0	29.8
LnGrp LOS	D	D	C	E	C	C	E	A	B	D	A	C
Approach Vol, veh/h		446			478			573			185	
Approach Delay, s/veh		44.8			42.5			46.7			34.0	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	21.5	27.6	25.2	5.1	29.4	8.1	44.7				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	8.4	* 19	23.4	20.0	5.0	* 22	6.4	37.0				
Max Q Clear Time (g_c+I1), s	9.2	16.0	23.0	7.2	2.2	14.4	4.4	5.6				
Green Ext Time (p_c), s	0.0	0.7	0.0	0.4	0.0	1.1	0.0	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			43.6									
HCM 6th LOS			D									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Intersection												
Int Delay, s/veh	9.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗		↕	↗		↕	↗
Traffic Vol, veh/h	2	3	75	27	10	30	300	544	19	13	325	2
Future Vol, veh/h	2	3	75	27	10	30	300	544	19	13	325	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	50	-	-	50
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	95	34	13	38	380	689	24	16	411	3
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1930	1916	411	1943	1895	689	414	0	0	713	0	0
Stage 1	443	443	-	1449	1449	-	-	-	-	-	-	-
Stage 2	1487	1473	-	494	446	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	51	68	645	50	70	449	1156	-	-	896	-	-
Stage 1	598	579	-	165	198	-	-	-	-	-	-	-
Stage 2	157	193	-	561	577	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	23	30	645	~ 23	31	449	1156	-	-	896	-	-
Mov Cap-2 Maneuver	36	62	-	47	67	-	-	-	-	-	-	-
Stage 1	271	566	-	75	90	-	-	-	-	-	-	-
Stage 2	56	87	-	464	564	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	16.5		132.6			3.3			0.3			
HCM LOS	C		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1156	-	-	48	645	51	449	896	-	-		
HCM Lane V/C Ratio	0.329	-	-	0.132	0.147	0.918	0.085	0.018	-	-		
HCM Control Delay (s)	9.6	0	-	91.1	11.5	229	13.8	9.1	0	-		
HCM Lane LOS	A	A	-	F	B	F	B	A	A	-		
HCM 95th %tile Q(veh)	1.4	-	-	0.4	0.5	3.9	0.3	0.1	-	-		
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon			

Intersection						
Int Delay, s/veh	6.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	70	20	65	819	182	207
Future Vol, veh/h	70	20	65	819	182	207
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	91	26	84	1064	236	269

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1603	371	505	0	-	0
Stage 1	371	-	-	-	-	-
Stage 2	1232	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	117	679	1070	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	278	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	108	679	1070	-	-	-
Mov Cap-2 Maneuver	108	-	-	-	-	-
Stage 1	647	-	-	-	-	-
Stage 2	278	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	96.1	0.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1070	-	108	679	-	-
HCM Lane V/C Ratio	0.079	-	0.842	0.038	-	-
HCM Control Delay (s)	8.7	-	120.6	10.5	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.3	-	4.9	0.1	-	-

Timings
14: Beaumont Av. & 5th St.

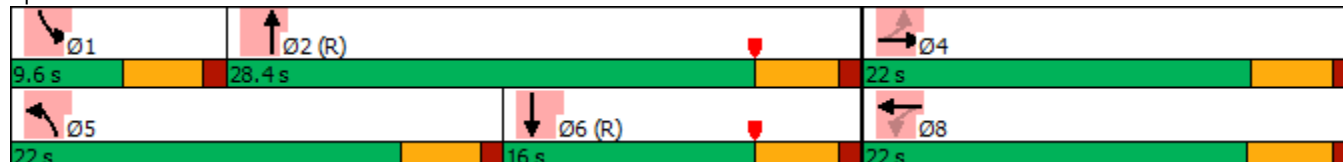
Jack Rabbit Trail (JN 12396)
07/10/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	8	16	19	3	59	325	3	391
Future Volume (vph)	8	16	19	3	59	325	3	391
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		10.1		10.0	6.7	46.3	5.0	40.8
Actuated g/C Ratio		0.17		0.17	0.11	0.77	0.08	0.68
v/c Ratio		0.20		0.15	0.32	0.13	0.02	0.18
Control Delay		14.2		17.9	27.7	4.5	25.7	7.6
Queue Delay		0.0		0.0	0.2	0.2	0.0	0.1
Total Delay		14.2		17.9	27.8	4.8	25.7	7.6
LOS		B		B	C	A	C	A
Approach Delay		14.2		17.9		8.2		7.7
Approach LOS		B		B		A		A

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.32
Intersection Signal Delay: 8.7
Intersection Capacity Utilization 35.4%
Analysis Period (min) 15
Intersection LOS: A
ICU Level of Service A

Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Volume (veh/h)	8	16	31	19	3	11	59	325	14	3	391	9
Future Volume (veh/h)	8	16	31	19	3	11	59	325	14	3	391	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	9	17	34	21	3	12	64	353	15	3	425	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	85	81	127	192	41	69	99	2210	94	7	2075	49
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.11	1.00	1.00	0.00	0.58	0.58
Sat Flow, veh/h	119	613	956	727	311	519	1810	3529	150	1810	3605	85
Grp Volume(v), veh/h	60	0	0	36	0	0	64	180	188	3	213	222
Grp Sat Flow(s),veh/h/ln	1688	0	0	1558	0	0	1810	1805	1873	1810	1805	1885
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.1	3.4	3.4
Cycle Q Clear(g_c), s	1.9	0.0	0.0	1.1	0.0	0.0	2.0	0.0	0.0	0.1	3.4	3.4
Prop In Lane	0.15		0.57	0.58		0.33	1.00		0.08	1.00		0.04
Lane Grp Cap(c), veh/h	294	0	0	302	0	0	99	1130	1173	7	1039	1085
V/C Ratio(X)	0.20	0.00	0.00	0.12	0.00	0.00	0.65	0.16	0.16	0.41	0.20	0.21
Avail Cap(c_a), veh/h	552	0	0	530	0	0	525	1130	1173	151	1039	1085
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	0.0	0.0	23.0	0.0	0.0	26.2	0.0	0.0	29.8	6.1	6.1
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	2.6	0.3	0.3	12.9	0.4	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.4	0.0	0.0	0.9	0.1	0.1	0.1	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	0.0	0.0	23.2	0.0	0.0	28.8	0.3	0.3	42.7	6.6	6.6
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		60			36			432			438	
Approach Delay, s/veh		23.7			23.2			4.5			6.8	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	42.4		12.8	7.9	39.3		12.8				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		3.9	4.0	5.4		3.1				
Green Ext Time (p_c), s	0.0	2.1		0.2	0.0	1.2		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			7.4									
HCM 6th LOS			A									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

Jack Rabbit Trail (JN 12396)

17: Potrero Bl. & SR-60 WB Ramps

07/10/2020

	↖	↗	↑	↘	↓	↙
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↖↖	↖↖	↑↑↑	↖	↑↑↑	↖↖
Traffic Volume (vph)	341	97	708	135	410	317
Future Volume (vph)	341	97	708	135	410	317
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	11.3	10.1	13.1	13.1	13.1	13.1
Actuated g/C Ratio	0.32	0.29	0.38	0.38	0.38	0.38
v/c Ratio	0.33	0.12	0.40	0.21	0.23	0.27
Control Delay	10.6	3.8	8.5	2.6	7.6	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.6	3.8	8.5	2.6	7.6	1.8
LOS	B	A	A	A	A	A
Approach Delay			7.6		5.0	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 34.8

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.40

Intersection Signal Delay: 7.0

Intersection LOS: A

Intersection Capacity Utilization 31.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps



HCM 6th Signalized Intersection Summary

17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	341	0	97	0	708	135	0	410	317
Future Volume (veh/h)	0	0	0	341	0	97	0	708	135	0	410	317
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				371	0	78	0	770	0	0	446	263
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				702	0	567	0	2040		0	2040	1115
Arrive On Green				0.20	0.00	0.20	0.00	0.40	0.00	0.00	0.40	0.40
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				371	0	78	0	770	0	0	446	263
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				2.5	0.0	0.6	0.0	2.8	0.0	0.0	1.5	1.6
Cycle Q Clear(g_c), s				2.5	0.0	0.6	0.0	2.8	0.0	0.0	1.5	1.6
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				702	0	567	0	2040		0	2040	1115
V/C Ratio(X)				0.53	0.00	0.14	0.00	0.38		0.00	0.22	0.24
Avail Cap(c_a), veh/h				5332	0	4304	0	13494		0	13494	7372
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				9.3	0.0	8.6	0.0	5.6	0.0	0.0	5.2	5.2
Incr Delay (d2), s/veh				0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.5	0.0	0.1	0.0	0.3	0.0	0.0	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				9.5	0.0	8.6	0.0	5.7	0.0	0.0	5.2	5.3
LnGrp LOS				A	A	A	A	A		A	A	A
Approach Vol, veh/h					449			770	A		709	
Approach Delay, s/veh					9.4			5.7			5.3	
Approach LOS					A			A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		16.3				16.3		9.9				
Change Period (Y+Rc), s		5.8				5.8		4.6				
Max Green Setting (Gmax), s		69.2				69.2		40.4				
Max Q Clear Time (g_c+I1), s		4.8				3.6		4.5				
Green Ext Time (p_c), s		5.7				4.2		0.8				
Intersection Summary												
HCM 6th Ctrl Delay			6.4									
HCM 6th LOS			A									
Notes												
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.												

Timings
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

						
Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	264	308	580	187	690	67
Future Volume (vph)	264	308	580	187	690	67
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	49.0	49.0	71.0	71.0	71.0	71.0
Total Split (%)	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	10.0	8.8	12.1	12.1	12.1	12.1
Actuated g/C Ratio	0.31	0.27	0.37	0.37	0.37	0.37
v/c Ratio	0.27	0.34	0.33	0.17	0.40	0.12
Control Delay	9.9	3.4	7.7	1.8	8.1	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	3.4	7.7	1.8	8.1	2.7
LOS	A	A	A	A	A	A
Approach Delay			6.3		7.6	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 32.6

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.40

Intersection Signal Delay: 6.8

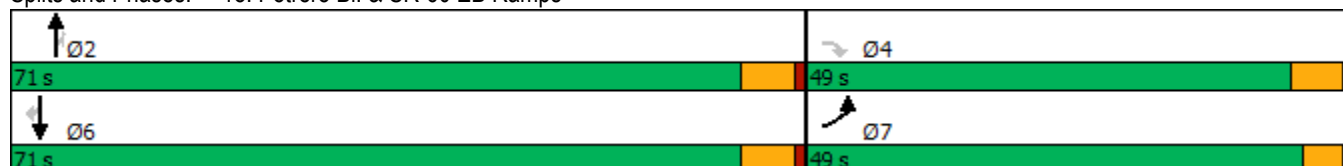
Intersection LOS: A

Intersection Capacity Utilization 33.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps



HCM 6th Signalized Intersection Summary
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	264	0	308	0	0	0	0	580	187	0	690	67	
Future Volume (veh/h)	264	0	308	0	0	0	0	580	187	0	690	67	
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No						No			No			
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870	
Adj Flow Rate, veh/h	287	0	253				0	630	160	0	750	0	
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2	
Cap, veh/h	1101	0	889				0	1788	977	0	1788		
Arrive On Green	0.32	0.00	0.32				0.00	0.35	0.35	0.00	0.35	0.00	
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585	
Grp Volume(v), veh/h	287	0	253				0	630	160	0	750	0	
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585	
Q Serve(g_s), s	1.9	0.0	2.1				0.0	2.9	1.2	0.0	3.5	0.0	
Cycle Q Clear(g_c), s	1.9	0.0	2.1				0.0	2.9	1.2	0.0	3.5	0.0	
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00	
Lane Grp Cap(c), veh/h	1101	0	889				0	1788	977	0	1788		
V/C Ratio(X)	0.26	0.00	0.28				0.00	0.35	0.16	0.00	0.42		
Avail Cap(c_a), veh/h	4887	0	3945				0	10604	5794	0	10604		
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00	
Uniform Delay (d), s/veh	7.9	0.0	8.0				0.0	7.6	7.0	0.0	7.8	0.0	
Incr Delay (d2), s/veh	0.0	0.0	0.1				0.0	0.1	0.1	0.0	0.2	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.3				0.0	0.5	0.2	0.0	0.7	0.0	
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh	8.0	0.0	8.1				0.0	7.7	7.1	0.0	7.9	0.0	
LnGrp LOS	A	A	A				A	A	A	A	A		
Approach Vol, veh/h	540						790			750			A
Approach Delay, s/veh	8.0						7.6			7.9			
Approach LOS	A						A			A			
Timer - Assigned Phs	2			4			6						
Phs Duration (G+Y+Rc), s	16.8			14.6			16.8						
Change Period (Y+Rc), s	5.8			4.6			5.8						
Max Green Setting (Gmax), s	65.2			44.4			65.2						
Max Q Clear Time (g_c+I1), s	4.9			4.1			5.5						
Green Ext Time (p_c), s	5.2			1.0			5.5						
Intersection Summary													
HCM 6th Ctrl Delay	7.8												
HCM 6th LOS	A												
Notes													

Intersection	
Intersection Delay, s/veh	10.1
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	192	30	115	266	95	157
Future Vol, veh/h	192	30	115	266	95	157
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	211	33	126	292	104	173
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	9.9	9.8	10.6
HCM LOS	A	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	95	157	96	96	30	115	133	133
LT Vol	95	0	0	0	0	115	0	0
Through Vol	0	0	96	96	0	0	133	133
RT Vol	0	157	0	0	30	0	0	0
Lane Flow Rate	104	173	105	105	33	126	146	146
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.196	0.266	0.184	0.184	0.035	0.228	0.243	0.173
Departure Headway (Hd)	6.747	5.549	6.282	6.282	3.849	6.491	5.985	4.264
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	532	647	571	571	926	554	601	839
Service Time	4.482	3.284	4.023	4.023	1.589	4.226	3.72	1.999
HCM Lane V/C Ratio	0.195	0.267	0.184	0.184	0.036	0.227	0.243	0.174
HCM Control Delay	11.1	10.3	10.4	10.4	6.7	11.1	10.6	7.9
HCM Lane LOS	B	B	B	B	A	B	B	A
HCM 95th-tile Q	0.7	1.1	0.7	0.7	0.1	0.9	0.9	0.6

Intersection

Intersection Delay, s/veh 9.2

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	2	0	96	0	221	0	10	139	0
Future Vol, veh/h	0	0	0	2	0	96	0	221	0	10	139	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	125	0	287	0	13	181	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

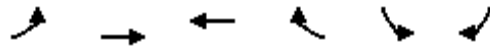
Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.2	9.8	9
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	2%	7%
Vol Thru, %	100%	0%	93%
Vol Right, %	0%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	221	98	149
LT Vol	0	2	10
Through Vol	221	0	139
RT Vol	0	96	0
Lane Flow Rate	287	127	194
Geometry Grp	1	1	1
Degree of Util (X)	0.351	0.155	0.242
Departure Headway (Hd)	4.397	4.38	4.507
Convergence, Y/N	Yes	Yes	Yes
Cap	818	818	797
Service Time	2.423	2.411	2.535
HCM Lane V/C Ratio	0.351	0.155	0.243
HCM Control Delay	9.8	8.2	9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.6	0.5	0.9

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	154	36	10	177	124	52
Future Volume (vph)	154	36	10	177	124	52
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	28.0	58.0	30.0	30.0	32.0	32.0
Total Split (%)	31.1%	64.4%	33.3%	33.3%	35.6%	35.6%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	11.4	26.2	10.3	10.3	10.1	10.1
Actuated g/C Ratio	0.24	0.54	0.21	0.21	0.21	0.21
v/c Ratio	0.54	0.03	0.04	0.48	0.25	0.20
Control Delay	21.4	5.0	16.8	6.5	18.0	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.4	5.0	16.8	6.5	18.0	7.0
LOS	C	A	B	A	B	A
Approach Delay		18.2	7.0		14.7	
Approach LOS		B	A		B	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 48.4

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 13.3

Intersection LOS: B

Intersection Capacity Utilization 33.5%

ICU Level of Service A

Analysis Period (min) 15

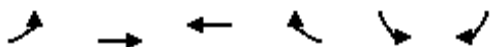
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	154	36	10	177	124	52	
Future Volume (veh/h)	154	36	10	177	124	52	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	230	54	15	264	185	78	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	304	1796	426	361	802	368	
Arrive On Green	0.17	0.50	0.22	0.22	0.23	0.23	
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610	
Grp Volume(v), veh/h	230	54	15	264	185	78	
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610	
Q Serve(g_s), s	5.3	0.3	0.3	6.7	1.9	1.7	
Cycle Q Clear(g_c), s	5.3	0.3	0.3	6.7	1.9	1.7	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	304	1796	426	361	802	368	
V/C Ratio(X)	0.76	0.03	0.04	0.73	0.23	0.21	
Avail Cap(c_a), veh/h	967	4303	1050	890	2068	949	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	17.4	5.6	13.3	15.8	13.8	13.7	
Incr Delay (d2), s/veh	3.8	0.0	0.0	2.9	0.1	0.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.1	0.1	0.1	2.1	0.6	1.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.2	5.6	13.3	18.6	13.9	14.0	
LnGrp LOS	C	A	B	B	B	B	
Approach Vol, veh/h		284	279	263			
Approach Delay, s/veh		18.2	18.3	13.9			
Approach LOS		B	B	B			
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				27.6	16.2	12.0	15.6
Change Period (Y+Rc), s				5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s				52.2	25.8	23.4	24.2
Max Q Clear Time (g_c+I1), s				2.3	3.9	7.3	8.7
Green Ext Time (p_c), s				0.2	0.8	0.5	0.8
Intersection Summary							
HCM 6th Ctrl Delay			16.9				
HCM 6th LOS			B				

Intersection	
Intersection Delay, s/veh	18.6
Intersection LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	24	409	500	325	198	25
Future Vol, veh/h	24	409	500	325	198	25
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	25	422	515	335	204	26
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	33.1	11.2	17.5
HCM LOS	D	B	C

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	89%
Vol Thru, %	0%	100%	100%	100%	24%	0%
Vol Right, %	0%	0%	0%	0%	76%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	24	409	200	200	425	223
LT Vol	24	0	0	0	0	198
Through Vol	0	409	200	200	100	0
RT Vol	0	0	0	0	325	25
Lane Flow Rate	25	422	206	206	438	230
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.052	0.819	0.353	0.353	0.473	0.487
Departure Headway (Hd)	7.499	6.989	6.162	6.162	3.885	7.632
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	475	514	579	579	916	469
Service Time	5.286	4.776	3.941	3.941	1.662	5.419
HCM Lane V/C Ratio	0.053	0.821	0.356	0.356	0.478	0.49
HCM Control Delay	10.7	34.4	12.3	12.3	10.2	17.5
HCM Lane LOS	B	D	B	B	B	C
HCM 95th-tile Q	0.2	8	1.6	1.6	2.6	2.6

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/10/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	↵	→	↕
Traffic Volume (vph)	366	163	641	1
Future Volume (vph)	366	163	641	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	27.3	10.0	41.9	36.5
Actuated g/C Ratio	0.30	0.11	0.47	0.41
v/c Ratio	1.40	1.07	0.95	1.25
Control Delay	217.3	111.4	37.9	150.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	217.3	111.4	37.9	150.3
LOS	F	F	D	F
Approach Delay	217.3		52.7	150.3
Approach LOS	F		D	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.40

Intersection Signal Delay: 132.4

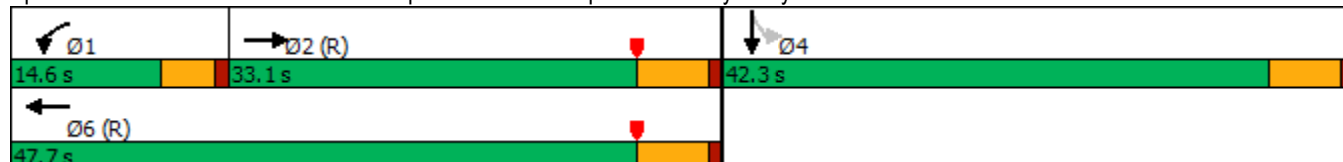
Intersection LOS: F

Intersection Capacity Utilization 96.0%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/10/2020

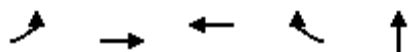
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶		↶	↶						↶	
Traffic Volume (veh/h)	0	366	241	163	641	0	0	0	0	509	1	184
Future Volume (veh/h)	0	366	241	163	641	0	0	0	0	509	1	184
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	482	245	214	843	0				670	1	176
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	360	183	201	885	0				566	1	149
Arrive On Green	0.00	0.30	0.30	0.07	0.31	0.00				0.41	0.41	0.41
Sat Flow, veh/h	0	1188	604	1810	1900	0				1396	2	367
Grp Volume(v), veh/h	0	0	727	214	843	0				847	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1791	1810	1900	0				1764	0	0
Q Serve(g_s), s	0.0	0.0	27.3	10.0	39.1	0.0				36.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	27.3	10.0	39.1	0.0				36.5	0.0	0.0
Prop In Lane	0.00		0.34	1.00		0.00				0.79		0.21
Lane Grp Cap(c), veh/h	0	0	543	201	885	0				715	0	0
V/C Ratio(X)	0.00	0.00	1.34	1.06	0.95	0.00				1.18	0.00	0.00
Avail Cap(c_a), veh/h	0	0	543	201	885	0				715	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.32	0.32	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	31.4	41.7	30.0	0.0				26.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	164.2	54.3	9.2	0.0				96.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	35.6	7.4	20.0	0.0				32.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	195.6	95.9	39.2	0.0				123.3	0.0	0.0
LnGrp LOS	A	A	F	F	D	A				F	A	A
Approach Vol, veh/h		727			1057						847	
Approach Delay, s/veh		195.6			50.7						123.3	
Approach LOS		F			D						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.6	33.1		42.3		47.7						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9						
Max Q Clear Time (g_c+I1), s	12.0	29.3		38.5		41.1						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.5						
Intersection Summary												
HCM 6th Ctrl Delay			114.1									
HCM 6th LOS			F									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/10/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations	←	→	←	→	→
Traffic Volume (vph)	148	726	426	291	4
Future Volume (vph)	148	726	426	291	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	14.4	44.0	29.6	29.6	46.0
Total Split (%)	16.0%	48.9%	32.9%	32.9%	51.1%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	9.4	37.2	23.2	23.2	41.2
Actuated g/C Ratio	0.10	0.41	0.26	0.26	0.46
v/c Ratio	0.81	0.95	0.90	0.47	0.85
Control Delay	46.9	24.7	55.2	6.0	32.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	46.9	24.7	55.2	6.0	32.2
LOS	D	C	E	A	C
Approach Delay		28.4	35.2		32.2
Approach LOS		C	D		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 31.7

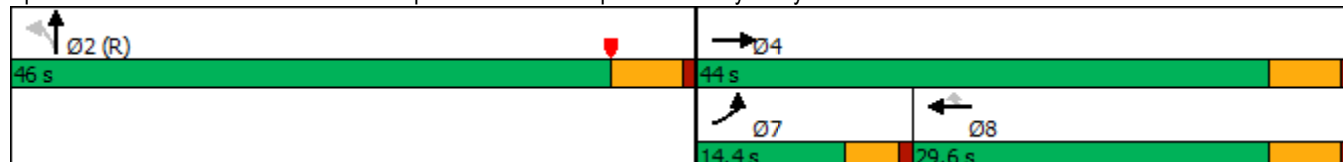
Intersection LOS: C

Intersection Capacity Utilization 96.0%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	726	0	0	426	291	379	4	298	0	0	0
Future Volume (veh/h)	148	726	0	0	426	291	379	4	298	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	153	748	0	0	439	230	391	4	255			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	188	795	0	0	500	424	470	5	307			
Arrive On Green	0.03	0.14	0.00	0.00	0.26	0.26	0.45	0.45	0.45			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1038	11	677			
Grp Volume(v), veh/h	153	748	0	0	439	230	650	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1726	0	0			
Q Serve(g_s), s	7.6	35.1	0.0	0.0	19.9	11.1	29.7	0.0	0.0			
Cycle Q Clear(g_c), s	7.6	35.1	0.0	0.0	19.9	11.1	29.7	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.60		0.39			
Lane Grp Cap(c), veh/h	188	795	0	0	500	424	782	0	0			
V/C Ratio(X)	0.81	0.94	0.00	0.00	0.88	0.54	0.83	0.00	0.00			
Avail Cap(c_a), veh/h	197	806	0	0	502	426	782	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	42.6	37.7	0.0	0.0	31.8	28.5	21.6	0.0	0.0			
Incr Delay (d2), s/veh	2.2	2.6	0.0	0.0	16.1	1.4	10.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.5	18.1	0.0	0.0	10.7	4.2	12.7	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.7	40.3	0.0	0.0	47.8	29.9	31.6	0.0	0.0			
LnGrp LOS	D	D	A	A	D	C	C	A	A			
Approach Vol, veh/h	901				669				650			
Approach Delay, s/veh	41.1				41.7				31.6			
Approach LOS	D				D				C			
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	46.6			43.4			14.0			29.5		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	40.2			38.2			9.8			23.8		
Max Q Clear Time (g_c+I1), s	31.7			37.1			9.6			21.9		
Green Ext Time (p_c), s	2.7			0.5			0.0			0.7		
Intersection Summary												
HCM 6th Ctrl Delay	38.5											
HCM 6th LOS	D											

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑				↗			↗
Traffic Vol, veh/h	9	833	128	110	668	56	0	0	119	0	0	66
Future Vol, veh/h	9	833	128	110	668	56	0	0	119	0	0	66
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	896	138	118	718	60	0	0	128	0	0	71
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	778	0	0	1034	0	0	-	-	517	-	-	389
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	848	-	-	680	-	-	0	0	509	0	0	615
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	848	-	-	680	-	-	-	-	509	-	-	615
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			1.5			14.4			11.6		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	509	848	-	-	680	-	-	615				
HCM Lane V/C Ratio	0.251	0.011	-	-	0.174	-	-	0.115				
HCM Control Delay (s)	14.4	9.3	-	-	11.4	-	-	11.6				
HCM Lane LOS	B	A	-	-	B	-	-	B				
HCM 95th %tile Q(veh)	1	0	-	-	0.6	-	-	0.4				

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	107	206	9	166	31	40	38	11	14	60	34
Future Volume (vph)	107	206	9	166	31	40	38	11	14	60	34
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	36.0	54.0	15.0	33.0	33.0	23.0	34.0	34.0	17.0	28.0	28.0
Total Split (%)	30.0%	45.0%	12.5%	27.5%	27.5%	19.2%	28.3%	28.3%	14.2%	23.3%	23.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	10.3	27.6	5.5	14.1	14.1	7.0	15.7	15.7	5.7	10.9	10.9
Actuated g/C Ratio	0.17	0.47	0.09	0.24	0.24	0.12	0.27	0.27	0.10	0.19	0.19
v/c Ratio	0.49	0.25	0.08	0.52	0.08	0.27	0.11	0.03	0.11	0.24	0.11
Control Delay	30.2	10.2	32.0	26.5	0.3	31.4	20.5	0.1	32.1	27.5	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.2	10.2	32.0	26.5	0.3	31.4	20.5	0.1	32.1	27.5	0.5
LOS	C	B	C	C	A	C	C	A	C	C	A
Approach Delay		15.7		22.8			22.8			19.5	
Approach LOS		B		C			C			B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 58.9

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 18.9

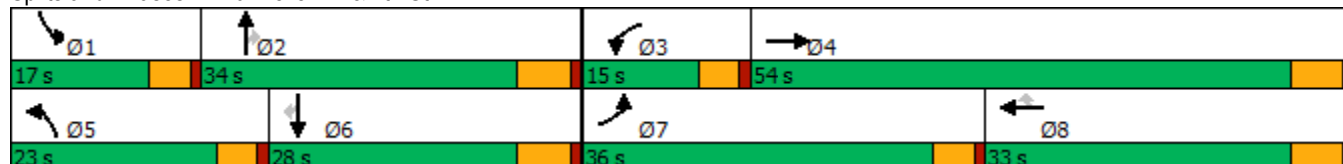
Intersection LOS: B

Intersection Capacity Utilization 37.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	206	78	9	166	31	40	38	11	14	60	34
Future Volume (veh/h)	107	206	78	9	166	31	40	38	11	14	60	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	153	294	111	13	237	44	57	54	16	20	86	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	201	771	285	30	388	329	100	447	379	44	388	
Arrive On Green	0.11	0.30	0.30	0.02	0.20	0.20	0.06	0.24	0.24	0.02	0.20	0.00
Sat Flow, veh/h	1810	2580	953	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	153	204	201	13	237	44	57	54	16	20	86	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1728	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	4.0	4.4	4.5	0.3	5.5	1.1	1.5	1.1	0.4	0.5	1.8	0.0
Cycle Q Clear(g_c), s	4.0	4.4	4.5	0.3	5.5	1.1	1.5	1.1	0.4	0.5	1.8	0.0
Prop In Lane	1.00		0.55	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	201	539	516	30	388	329	100	447	379	44	388	
V/C Ratio(X)	0.76	0.38	0.39	0.43	0.61	0.13	0.57	0.12	0.04	0.45	0.22	
Avail Cap(c_a), veh/h	1162	1779	1703	385	1057	895	681	1095	928	459	862	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.1	13.6	13.6	23.8	17.7	15.9	22.5	14.7	14.4	23.5	16.2	0.0
Incr Delay (d2), s/veh	2.3	0.4	0.5	3.6	1.6	0.2	1.9	0.1	0.0	2.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.4	1.4	0.2	2.1	0.3	0.6	0.4	0.1	0.2	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.4	14.0	14.1	27.5	19.2	16.1	24.5	14.8	14.5	26.2	16.5	0.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	
Approach Vol, veh/h		558			294			127			106	
Approach Delay, s/veh		16.6			19.1			19.1			18.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	17.3	5.4	20.4	7.3	15.8	10.0	15.8				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	12.4	28.2	10.4	48.2	18.4	22.2	31.4	27.2				
Max Q Clear Time (g_c+I1), s	2.5	3.1	2.3	6.5	3.5	3.8	6.0	7.5				
Green Ext Time (p_c), s	0.0	0.2	0.0	2.3	0.0	0.3	0.2	1.2				

Intersection Summary

HCM 6th Ctrl Delay	17.8
HCM 6th LOS	B

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	20	459	174	142	272	11	271	96	14	54
Future Volume (vph)	20	459	174	142	272	11	271	96	14	54
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	19.0	36.6	9.6	27.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	21.1%	40.7%	10.7%	30.2%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.1	25.7	25.7	5.8	32.3	32.3	14.4	39.2	5.0	22.0
Actuated g/C Ratio	0.06	0.29	0.29	0.07	0.37	0.37	0.17	0.45	0.06	0.25
v/c Ratio	0.20	0.86	0.30	1.24	0.41	0.02	0.96	0.29	0.15	0.15
Control Delay	45.0	45.9	4.5	198.8	23.5	0.0	81.4	12.2	43.8	24.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.0	45.9	4.5	198.8	23.5	0.0	81.4	12.2	43.8	24.0
LOS	D	D	A	F	C	A	F	B	D	C
Approach Delay		34.9			81.3			49.9		27.6
Approach LOS		C			F			D		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 87.2

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.24

Intersection Signal Delay: 51.0

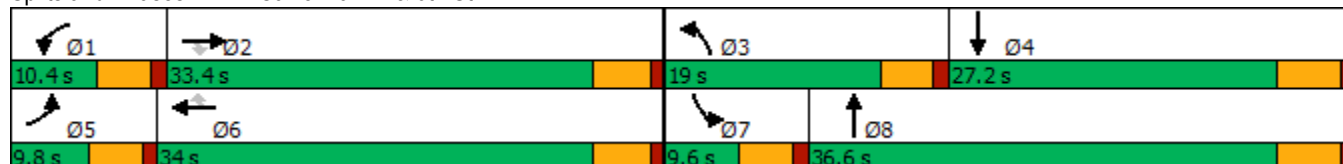
Intersection LOS: D

Intersection Capacity Utilization 65.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	459	174	142	272	11	271	96	130	14	54	11
Future Volume (veh/h)	20	459	174	142	272	11	271	96	130	14	54	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	483	179	149	286	7	285	101	106	15	57	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	41	546	463	122	631	534	302	344	361	32	431	45
Arrive On Green	0.02	0.29	0.29	0.07	0.33	0.33	0.17	0.40	0.40	0.02	0.26	0.26
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	849	891	1810	1690	178
Grp Volume(v), veh/h	21	483	179	149	286	7	285	0	207	15	0	63
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1740	1810	0	1868
Q Serve(g_s), s	1.0	20.9	7.7	5.8	10.2	0.3	13.4	0.0	6.9	0.7	0.0	2.2
Cycle Q Clear(g_c), s	1.0	20.9	7.7	5.8	10.2	0.3	13.4	0.0	6.9	0.7	0.0	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.51	1.00		0.10
Lane Grp Cap(c), veh/h	41	546	463	122	631	534	302	0	704	32	0	477
V/C Ratio(X)	0.51	0.88	0.39	1.22	0.45	0.01	0.94	0.00	0.29	0.47	0.00	0.13
Avail Cap(c_a), veh/h	109	631	534	122	644	546	302	0	704	105	0	477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.6	29.3	24.6	40.2	22.6	19.3	35.5	0.0	17.3	41.9	0.0	24.7
Incr Delay (d2), s/veh	3.5	12.8	0.5	153.5	0.5	0.0	36.3	0.0	1.1	4.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	11.1	2.8	7.7	4.5	0.1	8.6	0.0	2.7	0.3	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	42.1	25.1	193.7	23.2	19.3	71.8	0.0	18.4	46.0	0.0	25.3
LnGrp LOS	D	D	C	F	C	B	E	A	B	D	A	C
Approach Vol, veh/h	683				442				492			
Approach Delay, s/veh	37.8				80.6				49.3			
Approach LOS	D				F				D			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.4	29.6	19.0	27.2	6.6	33.4	6.1	40.1				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	5.8	* 29	14.4	22.0	5.2	* 29	5.0	31.4				
Max Q Clear Time (g_c+I1), s	7.8	22.9	15.4	4.2	3.0	12.2	2.7	8.9				
Green Ext Time (p_c), s	0.0	1.8	0.0	0.2	0.0	1.5	0.0	1.0				

Intersection Summary

HCM 6th Ctrl Delay	51.9
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↖	↗	↖	↗	↖		↖	↗
Traffic Vol, veh/h	4	3	86	41	3	21	179	468	21	6	305	6
Future Vol, veh/h	4	3	86	41	3	21	179	468	21	6	305	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	120	-	50	-	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	3	91	43	3	22	188	493	22	6	321	6

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1226	1224	321	1252	1208	493	327	0	0	515	0	0
Stage 1	333	333	-	869	869	-	-	-	-	-	-	-
Stage 2	893	891	-	383	339	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	157	181	724	151	185	580	1244	-	-	1061	-	-
Stage 1	685	647	-	349	372	-	-	-	-	-	-	-
Stage 2	339	363	-	644	643	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	132	153	724	115	156	580	1244	-	-	1061	-	-
Mov Cap-2 Maneuver	216	244	-	201	237	-	-	-	-	-	-	-
Stage 1	582	642	-	296	316	-	-	-	-	-	-	-
Stage 2	274	308	-	557	638	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.5		22.6		2.3		0.2	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1244	-	-	227	724	203	580	1061	-	-
HCM Lane V/C Ratio	0.151	-	-	0.032	0.125	0.228	0.038	0.006	-	-
HCM Control Delay (s)	8.4	-	-	21.4	10.7	27.9	11.5	8.4	0	-
HCM Lane LOS	A	-	-	C	B	D	B	A	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.1	0.4	0.8	0.1	0	-	-

Intersection						
Int Delay, s/veh	74.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	182	85	48	505	978	179
Future Vol, veh/h	182	85	48	505	978	179
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	198	92	52	549	1063	195
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1814	1161	1258	0	-	0
Stage 1	1161	-	-	-	-	-
Stage 2	653	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 87	240	560	-	-	-
Stage 1	301	-	-	-	-	-
Stage 2	522	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 79	240	560	-	-	-
Mov Cap-2 Maneuver	~ 79	-	-	-	-	-
Stage 1	273	-	-	-	-	-
Stage 2	522	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	552.1	1		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	560	-	79	240	-	-
HCM Lane V/C Ratio	0.093	-	2.504	0.385	-	-
HCM Control Delay (s)	12.1	-	796.3	29.1	-	-
HCM Lane LOS	B	-	F	D	-	-
HCM 95th %tile Q(veh)	0.3	-	18.8	1.7	-	-
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)
07/10/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	27	16	73	4	23	405	10	438
Future Volume (vph)	27	16	73	4	23	405	10	438
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		10.9		10.7	5.6	41.5	5.2	41.3
Actuated g/C Ratio		0.18		0.18	0.09	0.69	0.09	0.69
v/c Ratio		0.27		0.34	0.14	0.18	0.06	0.19
Control Delay		14.8		21.8	33.1	4.8	26.0	5.8
Queue Delay		0.3		0.4	1.0	0.3	0.0	0.2
Total Delay		15.1		22.1	34.1	5.1	26.0	6.0
LOS		B		C	C	A	C	A
Approach Delay		15.1		22.1		6.6		6.4
Approach LOS		B		C		A		A

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.34
Intersection Signal Delay: 8.5
Intersection Capacity Utilization 38.3%
Analysis Period (min) 15
Intersection LOS: A
ICU Level of Service A

Splits and Phases: 14: Beaumont Av. & 5th St.

 Ø1	 Ø2 (R)	 Ø4
12 s	29 s	19 s
 Ø5	 Ø6 (R)	 Ø8
12 s	29 s	19 s

HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	16	40	73	4	16	23	405	31	10	438	12
Future Volume (veh/h)	27	16	40	73	4	16	23	405	31	10	438	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	16	41	75	4	16	24	418	32	10	452	12
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	132	82	126	286	23	41	50	2013	154	23	2075	55
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.05	1.00	1.00	0.01	0.58	0.58
Sat Flow, veh/h	332	519	793	1128	146	258	1810	3399	259	1810	3593	95
Grp Volume(v), veh/h	85	0	0	95	0	0	24	221	229	10	227	237
Grp Sat Flow(s),veh/h/ln	1643	0	0	1532	0	0	1810	1805	1853	1810	1805	1883
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.8	0.0	0.0	0.3	3.6	3.7
Cycle Q Clear(g_c), s	2.6	0.0	0.0	2.8	0.0	0.0	0.8	0.0	0.0	0.3	3.6	3.7
Prop In Lane	0.33		0.48	0.79		0.17	1.00		0.14	1.00		0.05
Lane Grp Cap(c), veh/h	340	0	0	350	0	0	50	1069	1097	23	1042	1087
V/C Ratio(X)	0.25	0.00	0.00	0.27	0.00	0.00	0.48	0.21	0.21	0.43	0.22	0.22
Avail Cap(c_a), veh/h	469	0	0	461	0	0	223	1069	1097	223	1042	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.3	0.0	0.0	22.4	0.0	0.0	27.9	0.0	0.0	29.4	6.1	6.1
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.4	0.0	0.0	2.7	0.4	0.4	4.7	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	1.2	0.0	0.0	0.4	0.1	0.1	0.2	1.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	0.0	0.0	22.8	0.0	0.0	30.6	0.4	0.4	34.1	6.6	6.6
LnGrp LOS	C	A	A	C	A	A	C	A	A	C	A	A
Approach Vol, veh/h		85			95			474			474	
Approach Delay, s/veh		22.7			22.8			2.0			7.2	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	40.3		14.3	6.2	39.4		14.3				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		4.6	2.8	5.7		4.8				
Green Ext Time (p_c), s	0.0	2.7		0.2	0.0	2.6		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			7.5									
HCM 6th LOS			A									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

Jack Rabbit Trail (JN 12396)

07/10/2020

17: Potrero Bl. & SR-60 WB Ramps

	↖	↗	↑	↘	↓	↙
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↖↖	↖↖	↑↑↑	↖	↑↑↑	↖↖
Traffic Volume (vph)	305	137	924	366	610	370
Future Volume (vph)	305	137	924	366	610	370
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	40.0	40.0	80.0	80.0	80.0	80.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	11.4	10.2	18.9	18.9	18.9	18.9
Actuated g/C Ratio	0.28	0.25	0.46	0.46	0.46	0.46
v/c Ratio	0.35	0.18	0.43	0.42	0.28	0.27
Control Delay	14.3	4.5	7.7	2.3	6.8	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.3	4.5	7.7	2.3	6.8	1.3
LOS	B	A	A	A	A	A
Approach Delay			6.2		4.7	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 40.9

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 6.5

Intersection LOS: A

Intersection Capacity Utilization 35.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps

↑ Ø2	↖ Ø3
80 s	40 s
↓ Ø6	↘ Ø8
80 s	40 s

HCM 6th Signalized Intersection Summary 17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	305	0	137	0	924	366	0	610	370
Future Volume (veh/h)	0	0	0	305	0	137	0	924	366	0	610	370
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				332	0	122	0	1004	0	0	663	320
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				629	0	508	0	2391		0	2391	1306
Arrive On Green				0.18	0.00	0.18	0.00	0.47	0.00	0.00	0.47	0.47
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				332	0	122	0	1004	0	0	663	320
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				2.6	0.0	1.1	0.0	3.9	0.0	0.0	2.4	2.0
Cycle Q Clear(g_c), s				2.6	0.0	1.1	0.0	3.9	0.0	0.0	2.4	2.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				629	0	508	0	2391		0	2391	1306
V/C Ratio(X)				0.53	0.00	0.24	0.00	0.42		0.00	0.28	0.24
Avail Cap(c_a), veh/h				4114	0	3321	0	12740		0	12740	6961
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				11.0	0.0	10.4	0.0	5.2	0.0	0.0	4.8	4.7
Incr Delay (d2), s/veh				0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.6	0.0	0.2	0.0	0.4	0.0	0.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				11.3	0.0	10.5	0.0	5.4	0.0	0.0	4.9	4.8
LnGrp LOS				B	A	B	A	A		A	A	A
Approach Vol, veh/h					454			1004	A		983	
Approach Delay, s/veh					11.1			5.4			4.9	
Approach LOS					B			A			A	
Timer - Assigned Phs	2			6			8					
Phs Duration (G+Y+Rc), s	19.7			19.7			10.0					
Change Period (Y+Rc), s	5.8			5.8			4.6					
Max Green Setting (Gmax), s	74.2			74.2			35.4					
Max Q Clear Time (g_c+I1), s	5.9			4.4			4.6					
Green Ext Time (p_c), s	8.1			6.4			0.8					
Intersection Summary												
HCM 6th Ctrl Delay	6.2											
HCM 6th LOS	A											

Timings
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

						
Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	381	357	917	351	843	75
Future Volume (vph)	381	357	917	351	843	75
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	10.9	9.7	18.9	18.9	18.9	18.9
Actuated g/C Ratio	0.27	0.24	0.47	0.47	0.47	0.47
v/c Ratio	0.45	0.46	0.42	0.25	0.39	0.10
Control Delay	15.1	8.2	7.6	1.4	7.4	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.1	8.2	7.6	1.4	7.4	2.2
LOS	B	A	A	A	A	A
Approach Delay			5.8		6.9	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 40.5

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.46

Intersection Signal Delay: 7.7

Intersection LOS: A

Intersection Capacity Utilization 38.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps



HCM 6th Signalized Intersection Summary 18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/10/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	381	0	357	0	0	0	0	917	351	0	843	75
Future Volume (veh/h)	381	0	357	0	0	0	0	917	351	0	843	75
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	414	0	306				0	997	300	0	916	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	927	0	748				0	2312	1263	0	2312	
Arrive On Green	0.27	0.00	0.27				0.00	0.45	0.45	0.00	0.45	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	414	0	306				0	997	300	0	916	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	3.7	0.0	3.4				0.0	4.9	2.5	0.0	4.5	0.0
Cycle Q Clear(g_c), s	3.7	0.0	3.4				0.0	4.9	2.5	0.0	4.5	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	927	0	748				0	2312	1263	0	2312	
V/C Ratio(X)	0.45	0.00	0.41				0.00	0.43	0.24	0.00	0.40	
Avail Cap(c_a), veh/h	3745	0	3023				0	9479	5179	0	9479	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	11.3	0.0	11.2				0.0	6.9	6.3	0.0	6.8	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.1				0.0	0.1	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.7				0.0	0.9	0.4	0.0	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.5	0.0	11.3				0.0	7.1	6.4	0.0	6.9	0.0
LnGrp LOS	B	A	B				A	A	A	A	A	
Approach Vol, veh/h	720						1297			916		
Approach Delay, s/veh	11.4						6.9			6.9		
Approach LOS	B						A			A		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	22.7			14.6			22.7					
Change Period (Y+Rc), s	5.8			4.6			5.8					
Max Green Setting (Gmax), s	69.2			40.4			69.2					
Max Q Clear Time (g_c+I1), s	6.9			5.7			6.5					
Green Ext Time (p_c), s	9.9			1.4			7.1					
Intersection Summary												
HCM 6th Ctrl Delay	8.0											
HCM 6th LOS	A											

APPENDIX 6.2:

OPENING YEAR (2023) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Timings

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

07/16/2020



Lane Group	EBT	WBT	Ø6
Lane Configurations	↑	↑	
Traffic Volume (vph)	48	161	
Future Volume (vph)	48	161	
Turn Type	NA	NA	
Protected Phases	4	8	6
Permitted Phases			
Detector Phase	4	8	
Switch Phase			
Minimum Initial (s)	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8
Total Split (s)	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	33%
Yellow Time (s)	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	5.8	5.8	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	None	None
Act Effect Green (s)	11.6	11.6	
Actuated g/C Ratio	0.79	0.79	
v/c Ratio	0.03	0.12	
Control Delay	0.2	0.4	
Queue Delay	0.0	0.0	
Total Delay	0.2	0.4	
LOS	A	A	
Approach Delay	0.2	0.4	
Approach LOS	A	A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 14.7

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.12

Intersection Signal Delay: 0.4

Intersection LOS: A

Intersection Capacity Utilization 13.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: 4th St. & Jack Rabbit Trail

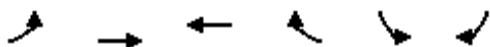


HCM 6th Signalized Intersection Summary

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

07/16/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	48	161	0	0	0
Future Volume (veh/h)	0	48	161	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	52	175	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	672	871	871	738	17	15
Arrive On Green	0.00	0.46	0.46	0.00	0.00	0.00
Sat Flow, veh/h	1229	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	52	175	0	0	0
Grp Sat Flow(s),veh/h/ln	1229	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	0.2	0.6	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.2	0.6	0.0	0.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	672	871	871	738	17	15
V/C Ratio(X)	0.00	0.06	0.20	0.00	0.00	0.00
Avail Cap(c_a), veh/h	6327	9615	9615	8148	4089	3638
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	1.6	1.7	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	1.6	1.8	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		52	175		0	
Approach Delay, s/veh		1.6	1.8		0.0	
Approach LOS		A	A			
Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			10.7		0.0	10.7
Change Period (Y+Rc), s			5.8		5.8	5.8
Max Green Setting (Gmax), s			54.2		24.2	54.2
Max Q Clear Time (g_c+I1), s			2.2		0.0	2.6
Green Ext Time (p_c), s			0.2		0.0	0.9
Intersection Summary						
HCM 6th Ctrl Delay			1.8			
HCM 6th LOS			A			

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	235	29	154	254	42	155
Future Vol, veh/h	235	29	154	254	42	155
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	273	34	179	295	49	180
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	10.5	10.4	10.9
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	42	155	118	118	29	154	127	127
LT Vol	42	0	0	0	0	154	0	0
Through Vol	0	0	118	118	0	0	127	127
RT Vol	0	155	0	0	29	0	0	0
Lane Flow Rate	49	180	137	137	34	179	148	148
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.096	0.293	0.238	0.238	0.036	0.323	0.246	0.175
Departure Headway (Hd)	7.045	5.845	6.272	6.272	3.843	6.502	5.996	4.277
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	508	615	572	572	926	553	598	836
Service Time	4.79	3.59	4.018	4.018	1.588	4.245	3.739	2.019
HCM Lane V/C Ratio	0.096	0.293	0.24	0.24	0.037	0.324	0.247	0.177
HCM Control Delay	10.5	11	11	11	6.7	12.3	10.7	7.9
HCM Lane LOS	B	B	B	B	A	B	B	A
HCM 95th-tile Q	0.3	1.2	0.9	0.9	0.1	1.4	1	0.6

Intersection

Intersection Delay, s/veh 9.8

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	10	0	54	0	32	5	45	202	0
Future Vol, veh/h	0	0	0	10	0	54	0	32	5	45	202	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	15	0	83	0	49	8	69	311	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8	7.8	10.5
HCM LOS	A	A	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	16%	18%
Vol Thru, %	86%	0%	82%
Vol Right, %	14%	84%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	37	64	247
LT Vol	0	10	45
Through Vol	32	0	202
RT Vol	5	54	0
Lane Flow Rate	57	98	380
Geometry Grp	1	1	1
Degree of Util (X)	0.07	0.12	0.438
Departure Headway (Hd)	4.429	4.389	4.154
Convergence, Y/N	Yes	Yes	Yes
Cap	811	821	855
Service Time	2.442	2.392	2.235
HCM Lane V/C Ratio	0.07	0.119	0.444
HCM Control Delay	7.8	8	10.5
HCM Lane LOS	A	A	B
HCM 95th-tile Q	0.2	0.4	2.3

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

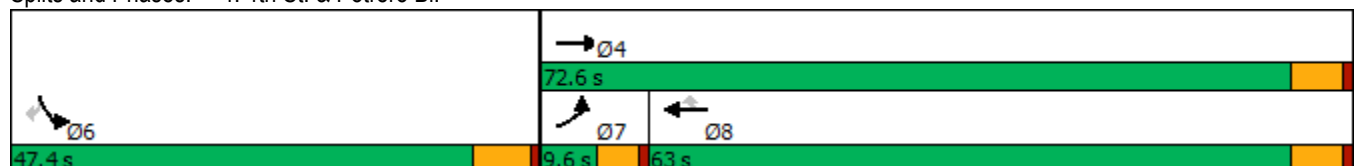
06/05/2023

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	80	19	45	24	138	295
Future Volume (vph)	80	19	45	24	138	295
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	9.6	72.6	63.0	63.0	47.4	47.4
Total Split (%)	8.0%	60.5%	52.5%	52.5%	39.5%	39.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	7.8	15.8	10.2	10.2	13.0	13.0
Actuated g/C Ratio	0.19	0.39	0.25	0.25	0.32	0.32
v/c Ratio	0.35	0.02	0.14	0.08	0.19	0.54
Control Delay	22.3	6.2	13.4	6.4	12.3	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.3	6.2	13.4	6.4	12.3	4.8
LOS	C	A	B	A	B	A
Approach Delay		19.2	10.9		7.2	
Approach LOS		B	B		A	

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 41
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 9.6
Intersection Capacity Utilization 36.6%
Analysis Period (min) 15
Intersection LOS: A
ICU Level of Service A

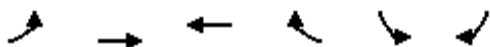
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/05/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	80	19	45	24	138	295
Future Volume (veh/h)	80	19	45	24	138	295
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	119	28	67	36	206	440
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	159	1364	348	295	1210	555
Arrive On Green	0.09	0.38	0.18	0.18	0.34	0.34
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610
Grp Volume(v), veh/h	119	28	67	36	206	440
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610
Q Serve(g_s), s	2.8	0.2	1.3	0.8	1.8	10.7
Cycle Q Clear(g_c), s	2.8	0.2	1.3	0.8	1.8	10.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	159	1364	348	295	1210	555
V/C Ratio(X)	0.75	0.02	0.19	0.12	0.17	0.79
Avail Cap(c_a), veh/h	209	5578	2514	2130	3346	1535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	19.2	8.4	14.9	14.7	9.9	12.8
Incr Delay (d2), s/veh	10.0	0.0	0.3	0.2	0.1	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.1	0.5	0.2	0.5	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	29.2	8.4	15.2	14.9	9.9	15.4
LnGrp LOS	C	A	B	B	A	B
Approach Vol, veh/h		147	103		646	
Approach Delay, s/veh		25.3	15.1		13.6	
Approach LOS		C	B		B	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			22.1		21.1	8.4
Change Period (Y+Rc), s			5.8		6.2	4.6
Max Green Setting (Gmax), s			66.8		41.2	5.0
Max Q Clear Time (g_c+I1), s			2.2		12.7	4.8
Green Ext Time (p_c), s			0.1		2.3	0.0
Intersection Summary						
HCM 6th Ctrl Delay			15.7			
HCM 6th LOS			B			

Intersection

Intersection Delay, s/veh 111.1

Intersection LOS F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	64	433	370	330	495	61
Future Vol, veh/h	64	433	370	330	495	61
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	74	498	425	379	569	70
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	105.7	20.1	230.5
HCM LOS	F	C	F

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	89%
Vol Thru, %	0%	100%	100%	100%	18%	0%
Vol Right, %	0%	0%	0%	0%	82%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	64	433	148	148	404	556
LT Vol	64	0	0	0	0	495
Through Vol	0	433	148	148	74	0
RT Vol	0	0	0	0	330	61
Lane Flow Rate	74	498	170	170	464	639
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.178	1.137	0.357	0.357	0.682	1.433
Departure Headway (Hd)	10.001	9.468	9.103	9.103	6.707	8.373
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	361	388	398	398	543	441
Service Time	7.701	7.168	6.803	6.803	4.407	6.073
HCM Lane V/C Ratio	0.205	1.284	0.427	0.427	0.855	1.449
HCM Control Delay	14.9	119.1	16.8	16.8	22.6	230.5
HCM Lane LOS	B	F	C	C	C	F
HCM 95th-tile Q	0.6	16.4	1.6	1.6	5.2	30.8

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	←	→	→
Traffic Volume (vph)	460	260	575	3
Future Volume (vph)	460	260	575	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	42.8	14.8	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	1.18	0.99	0.49	1.29
Control Delay	117.2	74.8	4.0	182.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	117.2	74.8	4.0	182.5
LOS	F	E	A	F
Approach Delay	117.2		26.1	182.5
Approach LOS	F		C	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.29

Intersection Signal Delay: 93.5

Intersection LOS: F

Intersection Capacity Utilization 102.8%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/13/2020

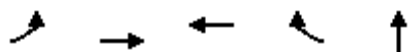
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩	
Traffic Volume (veh/h)	0	460	469	260	575	0	0	0	0	258	3	124
Future Volume (veh/h)	0	460	469	260	575	0	0	0	0	258	3	124
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	517	440	292	646	0				290	3	120
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	451	384	298	1313	0				221	2	91
Arrive On Green	0.00	0.48	0.48	0.33	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	948	807	1810	1900	0				1227	13	508
Grp Volume(v), veh/h	0	0	957	292	646	0				413	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1755	1810	1900	0				1747	0	0
Q Serve(g_s), s	0.0	0.0	42.8	14.4	0.0	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	42.8	14.4	0.0	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.46	1.00		0.00				0.70		0.29
Lane Grp Cap(c), veh/h	0	0	834	298	1313	0				315	0	0
V/C Ratio(X)	0.00	0.00	1.15	0.98	0.49	0.00				1.31	0.00	0.00
Avail Cap(c_a), veh/h	0	0	834	298	1313	0				315	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.29	0.29	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	23.6	30.1	0.0	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	80.0	23.5	0.4	0.0				161.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	33.7	6.6	0.1	0.0				20.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	103.6	53.5	0.4	0.0				198.7	0.0	0.0
LnGrp LOS	A	A	F	D	A	A				F	A	A
Approach Vol, veh/h		957			938						413	
Approach Delay, s/veh		103.6			16.9						198.7	
Approach LOS		F			B						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.4	48.6		22.0		68.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2						
Max Q Clear Time (g_c+I1), s	16.4	44.8		18.2		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		4.5						
Intersection Summary												
HCM 6th Ctrl Delay			85.4									
HCM 6th LOS			F									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations	←	→	←	→	→
Traffic Volume (vph)	150	567	493	445	4
Future Volume (vph)	150	567	493	445	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	5.4	36.2	26.2	26.2	42.2
Actuated g/C Ratio	0.06	0.40	0.29	0.29	0.47
v/c Ratio	1.42	0.76	0.91	0.57	0.87
Control Delay	225.6	18.1	53.2	5.7	32.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	225.6	18.1	53.2	5.7	32.5
LOS	F	B	D	A	C
Approach Delay		61.5	30.7		32.5
Approach LOS		E	C		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.42

Intersection Signal Delay: 40.5

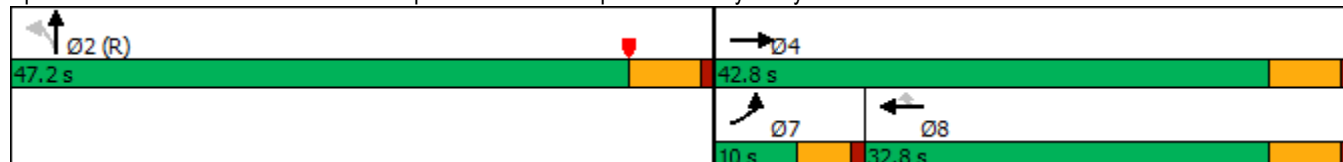
Intersection LOS: D

Intersection Capacity Utilization 102.8%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	567	0	0	493	445	343	4	379	0	0	0
Future Volume (veh/h)	150	567	0	0	493	445	343	4	379	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	153	579	0	0	503	338	350	4	265			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	758	0	0	547	464	459	5	347			
Arrive On Green	0.04	0.27	0.00	0.00	0.29	0.29	0.47	0.47	0.47			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	972	11	736			
Grp Volume(v), veh/h	153	579	0	0	503	338	619	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1719	0	0			
Q Serve(g_s), s	5.4	25.2	0.0	0.0	23.1	17.0	26.7	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	25.2	0.0	0.0	23.1	17.0	26.7	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.57		0.43			
Lane Grp Cap(c), veh/h	109	758	0	0	547	464	811	0	0			
V/C Ratio(X)	1.41	0.76	0.00	0.00	0.92	0.73	0.76	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	811	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	29.1	0.0	0.0	31.0	28.9	19.6	0.0	0.0			
Incr Delay (d2), s/veh	189.1	0.4	0.0	0.0	19.7	5.3	6.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.1	11.7	0.0	0.0	12.7	6.8	10.9	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	232.3	29.5	0.0	0.0	50.8	34.2	26.3	0.0	0.0			
LnGrp LOS	F	C	A	A	D	C	C	A	A			
Approach Vol, veh/h	732			841			619					
Approach Delay, s/veh	71.9			44.1			26.3					
Approach LOS	E			D			C					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	48.3			41.7			10.0			31.7		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	41.4			37.0			5.4			27.0		
Max Q Clear Time (g_c+I1), s	28.7			27.2			7.4			25.1		
Green Ext Time (p_c), s	3.2			2.4			0.0			0.9		
Intersection Summary												
HCM 6th Ctrl Delay	48.4											
HCM 6th LOS	D											

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑				↑			↑
Traffic Vol, veh/h	7	556	146	158	900	27	0	0	63	0	0	160
Future Vol, veh/h	7	556	146	158	900	27	0	0	63	0	0	160
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	611	160	174	989	30	0	0	69	0	0	176
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1019	0	0	771	0	0	-	-	386	-	-	510
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	689	-	-	853	-	-	0	0	618	0	0	514
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	689	-	-	853	-	-	-	-	618	-	-	514
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			1.5			11.6			15.6		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	618	689	-	-	853	-	-	514				
HCM Lane V/C Ratio	0.112	0.011	-	-	0.204	-	-	0.342				
HCM Control Delay (s)	11.6	10.3	-	-	10.3	-	-	15.6				
HCM Lane LOS	B	B	-	-	B	-	-	C				
HCM 95th %tile Q(veh)	0.4	0	-	-	0.8	-	-	1.5				

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	46	24	3	229	20	72	29	6	22	31	88
Future Volume (vph)	34	46	24	3	229	20	72	29	6	22	31	88
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	21.0	43.0	43.0	15.0	37.0	37.0	31.0	43.0	43.0	19.0	31.0	31.0
Total Split (%)	17.5%	35.8%	35.8%	12.5%	30.8%	30.8%	25.8%	35.8%	35.8%	15.8%	25.8%	25.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	6.7	20.1	20.1	5.5	15.7	15.7	8.3	17.2	17.2	6.2	10.9	10.9
Actuated g/C Ratio	0.12	0.36	0.36	0.10	0.28	0.28	0.15	0.31	0.31	0.11	0.20	0.20
v/c Ratio	0.21	0.09	0.05	0.02	0.56	0.05	0.35	0.07	0.01	0.14	0.11	0.25
Control Delay	29.7	13.4	0.1	30.3	24.0	0.1	29.2	20.8	0.0	30.0	25.9	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.7	13.4	0.1	30.3	24.0	0.1	29.2	20.8	0.0	30.0	25.9	2.3
LOS	C	B	A	C	C	A	C	C	A	C	C	A
Approach Delay		15.6			22.2			25.2			11.7	
Approach LOS		B			C			C			B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 55.2

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 19.2

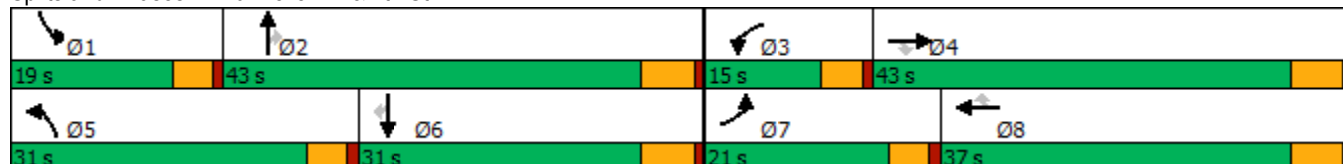
Intersection LOS: B

Intersection Capacity Utilization 40.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	46	24	3	229	20	72	29	6	22	31	88
Future Volume (veh/h)	34	46	24	3	229	20	72	29	6	22	31	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	45	61	32	4	305	27	96	39	8	29	41	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	85	506	429	10	426	361	137	483	409	61	403	
Arrive On Green	0.05	0.27	0.27	0.01	0.22	0.22	0.08	0.25	0.25	0.03	0.21	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	45	61	32	4	305	27	96	39	8	29	41	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	1.1	1.1	0.7	0.1	7.0	0.6	2.4	0.7	0.2	0.7	0.8	0.0
Cycle Q Clear(g_c), s	1.1	1.1	0.7	0.1	7.0	0.6	2.4	0.7	0.2	0.7	0.8	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	85	506	429	10	426	361	137	483	409	61	403	
V/C Ratio(X)	0.53	0.12	0.07	0.41	0.72	0.07	0.70	0.08	0.02	0.48	0.10	
Avail Cap(c_a), veh/h	629	1498	1269	399	1256	1064	1012	1498	1269	552	1014	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.0	13.1	13.0	23.4	16.9	14.4	21.3	13.4	13.2	22.4	15.0	0.0
Incr Delay (d2), s/veh	1.9	0.1	0.1	9.8	2.3	0.1	2.4	0.1	0.0	2.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.4	0.2	0.1	2.7	0.2	1.0	0.3	0.1	0.3	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	13.2	13.0	33.2	19.2	14.5	23.7	13.5	13.2	24.6	15.1	0.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	
Approach Vol, veh/h	138			336			143			70		
Approach Delay, s/veh	16.6			19.0			20.3			19.0		
Approach LOS	B			B			C			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.2	17.8	4.9	18.4	8.2	15.8	6.8	16.4				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	14.4	37.2	10.4	37.2	26.4	25.2	16.4	31.2				
Max Q Clear Time (g_c+I1), s	2.7	2.7	2.1	3.1	4.4	2.8	3.1	9.0				
Green Ext Time (p_c), s	0.0	0.2	0.0	0.4	0.1	0.1	0.0	1.6				
Intersection Summary												
HCM 6th Ctrl Delay	18.8											
HCM 6th LOS	B											

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/15/2020

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	289	119	140	288	20	409	87	46	127
Future Volume (vph)	4	289	119	140	288	20	409	87	46	127
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	23.8	23.8	13.0	27.2	27.2	28.0	43.2	10.0	25.2
Total Split (%)	10.7%	26.4%	26.4%	14.4%	30.2%	30.2%	31.1%	48.0%	11.1%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.0	17.5	17.5	8.4	28.7	28.7	22.9	41.7	5.3	20.0
Actuated g/C Ratio	0.06	0.20	0.20	0.10	0.33	0.33	0.26	0.47	0.06	0.23
v/c Ratio	0.04	0.83	0.27	0.88	0.51	0.03	0.95	0.18	0.46	0.33
Control Delay	41.2	53.8	2.6	86.2	28.5	0.1	65.0	11.8	54.8	31.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	53.8	2.6	86.2	28.5	0.1	65.0	11.8	54.8	31.5
LOS	D	D	A	F	C	A	E	B	D	C
Approach Delay		38.9			45.2			51.4		37.5
Approach LOS		D			D			D		D

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 88.1

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 44.9

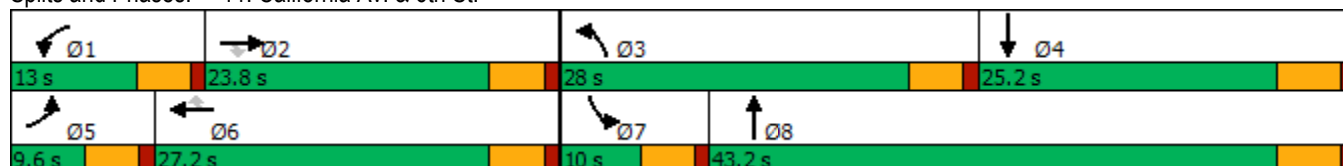
Intersection LOS: D

Intersection Capacity Utilization 70.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/15/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	289	119	140	288	20	409	87	53	46	127	4
Future Volume (veh/h)	4	289	119	140	288	20	409	87	53	46	127	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	314	128	152	313	13	445	95	15	50	138	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	363	308	174	536	454	477	725	114	73	428	6
Arrive On Green	0.01	0.19	0.19	0.10	0.28	0.28	0.26	0.45	0.45	0.04	0.23	0.23
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1602	253	1810	1868	27
Grp Volume(v), veh/h	4	314	128	152	313	13	445	0	110	50	0	140
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1854	1810	0	1895
Q Serve(g_s), s	0.2	14.0	6.1	7.2	12.4	0.5	21.0	0.0	3.0	2.4	0.0	5.4
Cycle Q Clear(g_c), s	0.2	14.0	6.1	7.2	12.4	0.5	21.0	0.0	3.0	2.4	0.0	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.14	1.00		0.01
Lane Grp Cap(c), veh/h	10	363	308	174	536	454	477	0	839	73	0	434
V/C Ratio(X)	0.42	0.87	0.42	0.87	0.58	0.03	0.93	0.00	0.13	0.69	0.00	0.32
Avail Cap(c_a), veh/h	104	414	351	174	536	454	485	0	839	112	0	434
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.3	34.2	31.0	38.9	26.9	22.7	31.4	0.0	13.9	41.3	0.0	28.0
Incr Delay (d2), s/veh	10.4	15.7	0.9	34.0	1.6	0.0	24.5	0.0	0.3	4.2	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	7.9	2.3	4.8	5.7	0.2	11.7	0.0	1.2	1.1	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.7	50.0	31.9	72.9	28.6	22.7	55.9	0.0	14.2	45.6	0.0	30.0
LnGrp LOS	D	D	C	E	C	C	E	A	B	D	A	C
Approach Vol, veh/h		446			478			555			190	
Approach Delay, s/veh		44.8			42.5			47.7			34.1	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	21.5	27.6	25.2	5.1	29.4	8.1	44.7				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	8.4	* 19	23.4	20.0	5.0	* 22	5.4	38.0				
Max Q Clear Time (g_c+I1), s	9.2	16.0	23.0	7.4	2.2	14.4	4.4	5.0				
Green Ext Time (p_c), s	0.0	0.7	0.0	0.4	0.0	1.1	0.0	0.5				

Intersection Summary

HCM 6th Ctrl Delay 43.9

HCM 6th LOS D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	12.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗		↕	↗		↕	↗
Traffic Vol, veh/h	2	3	75	32	10	30	300	546	21	13	330	2
Future Vol, veh/h	2	3	75	32	10	30	300	546	21	13	330	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	50	-	-	50
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	95	41	13	38	380	691	27	16	418	3
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1940	1928	418	1952	1904	691	421	0	0	718	0	0
Stage 1	450	450	-	1451	1451	-	-	-	-	-	-	-
Stage 2	1490	1478	-	501	453	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	50	67	639	49	70	448	1149	-	-	892	-	-
Stage 1	592	575	-	164	197	-	-	-	-	-	-	-
Stage 2	156	192	-	556	573	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	22	29	639	~ 22	31	448	1149	-	-	892	-	-
Mov Cap-2 Maneuver	35	61	-	45	66	-	-	-	-	-	-	-
Stage 1	265	562	-	73	88	-	-	-	-	-	-	-
Stage 2	55	86	-	459	560	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	16.7		173.8		3.3		0.3					
HCM LOS	C		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1149	-	-	47	639	49	448	892	-	-		
HCM Lane V/C Ratio	0.331	-	-	0.135	0.149	1.085	0.085	0.018	-	-		
HCM Control Delay (s)	9.7	0	-	93.2	11.6	288	13.8	9.1	0	-		
HCM Lane LOS	A	A	-	F	B	F	B	A	A	-		
HCM 95th %tile Q(veh)	1.5	-	-	0.4	0.5	4.7	0.3	0.1	-	-		
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon			

Intersection						
Int Delay, s/veh	8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	73	22	70	819	182	218
Future Vol, veh/h	73	22	70	819	182	218
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	95	29	91	1064	236	283

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1624	378	519	0	-	0
Stage 1	378	-	-	-	-	-
Stage 2	1246	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	114	673	1057	-	-	-
Stage 1	697	-	-	-	-	-
Stage 2	274	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	104	673	1057	-	-	-
Mov Cap-2 Maneuver	104	-	-	-	-	-
Stage 1	637	-	-	-	-	-
Stage 2	274	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	110.4	0.7	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1057	-	104	673	-	-
HCM Lane V/C Ratio	0.086	-	0.912	0.042	-	-
HCM Control Delay (s)	8.7	-	140.5	10.6	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.3	-	5.4	0.1	-	-

Timings
14: Beaumont Av. & 5th St.

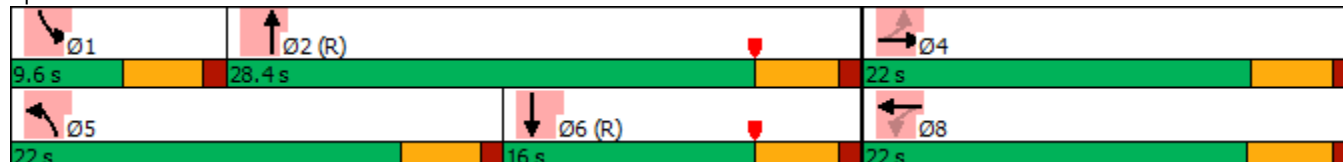
Jack Rabbit Trail (JN 12396)
07/13/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	10	16	19	3	59	325	3	391
Future Volume (vph)	10	16	19	3	59	325	3	391
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		10.1		10.0	6.7	46.3	5.0	40.8
Actuated g/C Ratio		0.17		0.17	0.11	0.77	0.08	0.68
v/c Ratio		0.20		0.15	0.32	0.13	0.02	0.18
Control Delay		14.5		17.9	27.5	4.5	25.7	7.5
Queue Delay		0.0		0.0	0.2	0.2	0.0	0.1
Total Delay		14.5		17.9	27.7	4.7	25.7	7.6
LOS		B		B	C	A	C	A
Approach Delay		14.5		17.9		8.1		7.7
Approach LOS		B		B		A		A

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.32
Intersection Signal Delay: 8.7
Intersection Capacity Utilization 35.6%
Analysis Period (min) 15
Intersection LOS: A
ICU Level of Service A

Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Volume (veh/h)	10	16	31	19	3	11	59	325	14	3	391	14
Future Volume (veh/h)	10	16	31	19	3	11	59	325	14	3	391	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	17	34	21	3	12	64	353	15	3	425	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	90	82	124	193	42	70	99	2206	93	7	2044	72
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.11	1.00	1.00	0.00	0.57	0.57
Sat Flow, veh/h	147	614	924	730	310	520	1810	3529	150	1810	3557	125
Grp Volume(v), veh/h	62	0	0	36	0	0	64	180	188	3	215	225
Grp Sat Flow(s),veh/h/ln	1684	0	0	1560	0	0	1810	1805	1873	1810	1805	1877
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.1	3.5	3.5
Cycle Q Clear(g_c), s	1.9	0.0	0.0	1.1	0.0	0.0	2.0	0.0	0.0	0.1	3.5	3.5
Prop In Lane	0.18		0.55	0.58		0.33	1.00		0.08	1.00		0.07
Lane Grp Cap(c), veh/h	297	0	0	304	0	0	99	1128	1171	7	1037	1079
V/C Ratio(X)	0.21	0.00	0.00	0.12	0.00	0.00	0.65	0.16	0.16	0.41	0.21	0.21
Avail Cap(c_a), veh/h	552	0	0	530	0	0	525	1128	1171	151	1037	1079
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.3	0.0	0.0	23.0	0.0	0.0	26.2	0.0	0.0	29.8	6.2	6.2
Incr Delay (d2), s/veh	0.3	0.0	0.0	0.2	0.0	0.0	2.6	0.3	0.3	12.9	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.4	0.0	0.0	0.9	0.1	0.1	0.1	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.7	0.0	0.0	23.1	0.0	0.0	28.8	0.3	0.3	42.7	6.6	6.6
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		62			36			432			443	
Approach Delay, s/veh		23.7			23.1			4.5			6.9	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	42.3		12.8	7.9	39.3		12.8				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		3.9	4.0	5.5		3.1				
Green Ext Time (p_c), s	0.0	2.1		0.2	0.0	1.3		0.1				

Intersection Summary

HCM 6th Ctrl Delay	7.5
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	492	9	366	230	362
Future Volume (vph)	492	9	366	230	362
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	20.0	20.0	21.0	40.0	19.0
Total Split (%)	33.3%	33.3%	35.0%	66.7%	31.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	14.8	14.8	15.4	35.6	15.6
Actuated g/C Ratio	0.25	0.25	0.26	0.59	0.26
v/c Ratio	0.88	0.76	0.86	0.12	0.51
Control Delay	47.2	28.5	46.6	5.2	14.7
Queue Delay	0.0	17.9	0.0	0.0	3.4
Total Delay	47.2	46.4	46.6	5.2	18.2
LOS	D	D	D	A	B
Approach Delay		46.8		30.6	18.2
Approach LOS		D		C	B

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 33.8

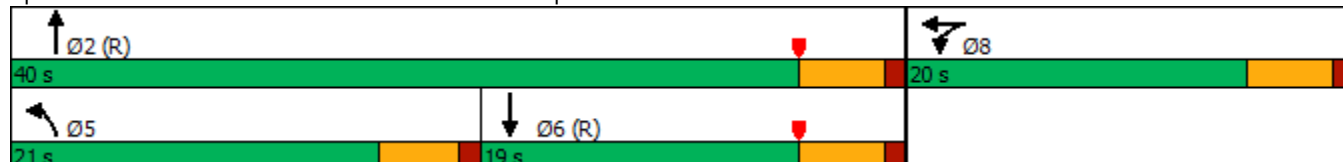
Intersection LOS: C

Intersection Capacity Utilization 63.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary

15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	492	9	169	366	230	0	0	362	79
Future Volume (veh/h)	0	0	0	492	9	169	366	230	0	0	362	79
Initial Q (Qb), veh				0	0	0	75	100	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				364	249	184	398	250	0	0	393	86
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				458	257	190	495	2118	0	0	734	159
Arrive On Green				0.25	0.25	0.25	0.41	0.98	0.00	0.00	0.09	0.09
Sat Flow, veh/h				1810	1015	750	1810	3705	0	0	3045	639
Grp Volume(v), veh/h				364	0	433	398	250	0	0	239	240
Grp Sat Flow(s),veh/h/ln				1810	0	1765	1810	1805	0	0	1805	1785
Q Serve(g_s), s				11.3	0.0	14.6	12.4	0.1	0.0	0.0	7.6	7.7
Cycle Q Clear(g_c), s				11.3	0.0	14.6	12.4	0.1	0.0	0.0	7.6	7.7
Prop In Lane				1.00		0.42	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				458	0	447	495	2118	0	0	449	444
V/C Ratio(X)				0.79	0.00	0.97	0.80	0.12	0.00	0.00	0.53	0.54
Avail Cap(c_a), veh/h				458	0	447	495	2118	0	0	483	477
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.80	0.80	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.9	0.0	22.2	16.3	0.3	0.0	0.0	24.2	24.2
Incr Delay (d2), s/veh				9.3	0.0	34.3	7.1	0.1	0.0	0.0	4.4	4.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	458.0	18.2	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.2	0.0	9.4	68.2	5.4	0.0	0.0	3.9	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.3	0.0	56.5	481.4	18.6	0.0	0.0	28.6	28.9
LnGrp LOS				C	A	E	F	B	A	A	C	C
Approach Vol, veh/h					797			648			479	
Approach Delay, s/veh					44.5			302.9			28.7	
Approach LOS					D			F			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		40.0			19.2	20.8		20.0				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 35			16.4	* 14		15.2				
Max Q Clear Time (g_c+I1), s		2.1			14.4	9.7		16.6				
Green Ext Time (p_c), s		1.7			0.2	1.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				127.6								
HCM 6th LOS				F								
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕↕	↗	↕↕	↙	↕↕
Traffic Volume (vph)	11	525	523	106	749
Future Volume (vph)	11	525	523	106	749
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	20.0	20.0	27.0	13.0	40.0
Total Split (%)	33.3%	33.3%	45.0%	21.7%	66.7%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	12.4	12.4	28.0	7.3	38.0
Actuated g/C Ratio	0.21	0.21	0.47	0.12	0.63
v/c Ratio	0.67	0.67	0.57	0.50	0.34
Control Delay	16.3	16.1	9.3	20.6	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.3	16.1	9.3	20.6	8.6
LOS	B	B	A	C	A
Approach Delay	16.2		9.3		10.1
Approach LOS	B		A		B

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 11.3

Intersection LOS: B

Intersection Capacity Utilization 63.7%

ICU Level of Service B

Analysis Period (min) 15

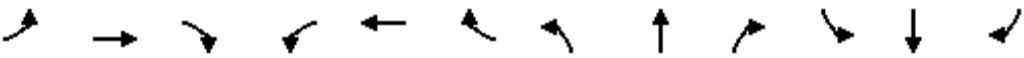
Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary 16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔					↔		↔	↔	
Traffic Volume (veh/h)	72	11	525	0	0	0	0	523	447	106	749	0
Future Volume (veh/h)	72	11	525	0	0	0	0	523	447	106	749	0
Initial Q (Qb), veh	0	0	0				0	175	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	635				0	545	466	110	780	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	440	746				0	1464	188	140	2197	0
Arrive On Green	0.00	0.00	0.23				0.00	0.45	0.45	0.16	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1939	1577	1810	3705	0
Grp Volume(v), veh/h	0	0	635				0	533	478	110	780	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1616	1810	1805	0
Q Serve(g_s), s	0.0	0.0	11.3				0.0	13.7	13.7	3.5	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	11.3				0.0	13.7	13.7	3.5	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.98	1.00		0.00
Lane Grp Cap(c), veh/h	0	440	746				0	820	829	140	2197	0
V/C Ratio(X)	0.00	0.00	0.85				0.00	0.65	0.58	0.78	0.36	0.00
Avail Cap(c_a), veh/h	0	481	816				0	820	734	253	2197	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.69	0.69	0.00
Uniform Delay (d), s/veh	0.0	0.0	22.1				0.0	16.4	16.4	24.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	8.1				0.0	4.0	2.9	2.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	227.0	189.2	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	4.5				0.0	61.9	53.7	1.4	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	30.1				0.0	247.3	208.5	27.4	0.3	0.0
LnGrp LOS	A	A	C				A	F	F	C	A	A
Approach Vol, veh/h	635						1011			890		
Approach Delay, s/veh	30.1						229.0			3.7		
Approach LOS	C						F			A		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	9.3	32.1		18.7			41.3					
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8			* 4.8					
Max Green Setting (Gmax), s	8.4	* 22		* 15			* 35					
Max Q Clear Time (g_c+I1), s	5.5	15.7		13.3			2.0					
Green Ext Time (p_c), s	0.0	3.5		0.6			6.3					

Intersection Summary

HCM 6th Ctrl Delay 100.1

HCM 6th LOS F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings

Jack Rabbit Trail (JN 12396)

17: Potrero Bl. & SR-60 WB Ramps

07/13/2020

	↖	↗	↑	↘	↓	↙
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↖↖	↖↖	↑↑↑	↖	↑↑↑	↖↖
Traffic Volume (vph)	394	97	716	154	437	317
Future Volume (vph)	394	97	716	154	437	317
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	11.4	10.1	13.6	13.6	13.6	13.6
Actuated g/C Ratio	0.32	0.29	0.38	0.38	0.38	0.38
v/c Ratio	0.39	0.12	0.40	0.24	0.24	0.27
Control Delay	11.3	3.9	8.4	2.6	7.6	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.3	3.9	8.4	2.6	7.6	1.7
LOS	B	A	A	A	A	A
Approach Delay			7.4		5.1	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 35.4

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.40

Intersection Signal Delay: 7.2

Intersection LOS: A

Intersection Capacity Utilization 33.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps

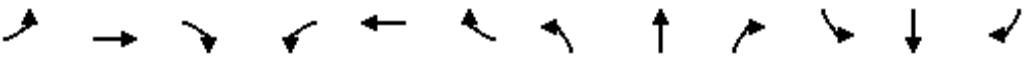


HCM 6th Signalized Intersection Summary

17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	394	0	97	0	716	154	0	437	317
Future Volume (veh/h)	0	0	0	394	0	97	0	716	154	0	437	317
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				428	0	78	0	778	0	0	475	263
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				756	0	610	0	2021		0	2021	1104
Arrive On Green				0.22	0.00	0.22	0.00	0.40	0.00	0.00	0.40	0.40
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				428	0	78	0	778	0	0	475	263
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				3.0	0.0	0.6	0.0	2.9	0.0	0.0	1.7	1.7
Cycle Q Clear(g_c), s				3.0	0.0	0.6	0.0	2.9	0.0	0.0	1.7	1.7
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				756	0	610	0	2021		0	2021	1104
V/C Ratio(X)				0.57	0.00	0.13	0.00	0.39		0.00	0.24	0.24
Avail Cap(c_a), veh/h				5175	0	4178	0	13098		0	13098	7156
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				9.4	0.0	8.5	0.0	5.8	0.0	0.0	5.4	5.4
Incr Delay (d2), s/veh				0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.6	0.0	0.1	0.0	0.3	0.0	0.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				9.6	0.0	8.5	0.0	5.9	0.0	0.0	5.5	5.5
LnGrp LOS				A	A	A	A	A		A	A	A
Approach Vol, veh/h					506			778	A		738	
Approach Delay, s/veh					9.5			5.9			5.5	
Approach LOS					A			A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		16.5				16.5		10.5				
Change Period (Y+Rc), s		5.8				5.8		4.6				
Max Green Setting (Gmax), s		69.2				69.2		40.4				
Max Q Clear Time (g_c+I1), s		4.9				3.7		5.0				
Green Ext Time (p_c), s		5.7				4.4		0.9				
Intersection Summary												
HCM 6th Ctrl Delay			6.7									
HCM 6th LOS			A									
Notes												
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.												

Timings
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

						
Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations	 	 	  	 	  	
Traffic Volume (vph)	264	372	606	203	765	67
Future Volume (vph)	264	372	606	203	765	67
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	49.0	49.0	71.0	71.0	71.0	71.0
Total Split (%)	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	10.3	9.1	12.9	12.9	12.9	12.9
Actuated g/C Ratio	0.31	0.27	0.38	0.38	0.38	0.38
v/c Ratio	0.27	0.43	0.34	0.18	0.43	0.11
Control Delay	10.3	6.1	7.8	1.8	8.4	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	6.1	7.8	1.8	8.4	2.8
LOS	B	A	A	A	A	A
Approach Delay			6.3		7.9	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 33.7

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.43

Intersection Signal Delay: 7.3

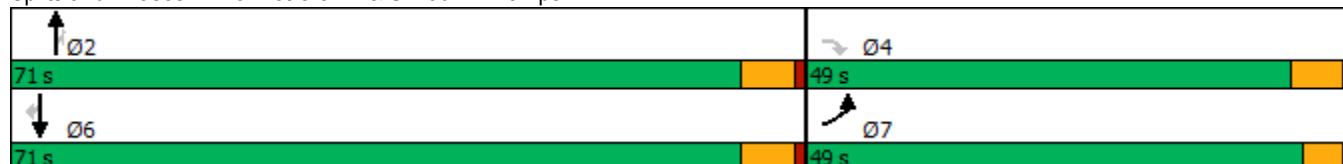
Intersection LOS: A

Intersection Capacity Utilization 37.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps



HCM 6th Signalized Intersection Summary 18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	264	0	372	0	0	0	0	606	203	0	765	67	
Future Volume (veh/h)	264	0	372	0	0	0	0	606	203	0	765	67	
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No						No			No			
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870	
Adj Flow Rate, veh/h	287	0	322				0	659	178	0	832	0	
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2	
Cap, veh/h	1060	0	855				0	1912	1045	0	1912		
Arrive On Green	0.31	0.00	0.31				0.00	0.37	0.37	0.00	0.37	0.00	
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585	
Grp Volume(v), veh/h	287	0	322				0	659	178	0	832	0	
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585	
Q Serve(g_s), s	2.0	0.0	3.0				0.0	3.0	1.4	0.0	4.0	0.0	
Cycle Q Clear(g_c), s	2.0	0.0	3.0				0.0	3.0	1.4	0.0	4.0	0.0	
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00	
Lane Grp Cap(c), veh/h	1060	0	855				0	1912	1045	0	1912		
V/C Ratio(X)	0.27	0.00	0.38				0.00	0.34	0.17	0.00	0.44		
Avail Cap(c_a), veh/h	4705	0	3798				0	10208	5577	0	10208		
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00	
Uniform Delay (d), s/veh	8.5	0.0	8.9				0.0	7.3	6.8	0.0	7.6	0.0	
Incr Delay (d2), s/veh	0.1	0.0	0.1				0.0	0.1	0.1	0.0	0.2	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.5				0.0	0.5	0.2	0.0	0.7	0.0	
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh	8.6	0.0	9.0				0.0	7.4	6.9	0.0	7.8	0.0	
LnGrp LOS	A	A	A				A	A	A	A	A		
Approach Vol, veh/h	609						837			832			A
Approach Delay, s/veh	8.8						7.3			7.8			
Approach LOS	A						A			A			
Timer - Assigned Phs	2			4			6						
Phs Duration (G+Y+Rc), s	18.0			14.6			18.0						
Change Period (Y+Rc), s	5.8			4.6			5.8						
Max Green Setting (Gmax), s	65.2			44.4			65.2						
Max Q Clear Time (g_c+I1), s	5.0			5.0			6.0						
Green Ext Time (p_c), s	5.5			1.2			6.2						
Intersection Summary													
HCM 6th Ctrl Delay	7.9												
HCM 6th LOS	A												
Notes													

Timings

Jack Rabbit Trail (JN 12396)

07/16/2020

1: 4th St. & Jack Rabbit Trail



Lane Group	EBT	WBT	Ø6
Lane Configurations	↑	↑	
Traffic Volume (vph)	195	76	
Future Volume (vph)	195	76	
Turn Type	NA	NA	
Protected Phases	4	8	6
Permitted Phases			
Detector Phase	4	8	
Switch Phase			
Minimum Initial (s)	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8
Total Split (s)	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	33%
Yellow Time (s)	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	
Total Lost Time (s)	5.8	5.8	
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	None	None	None
Act Effect Green (s)	11.5	11.5	
Actuated g/C Ratio	0.86	0.86	
v/c Ratio	0.13	0.05	
Control Delay	0.3	0.1	
Queue Delay	0.0	0.0	
Total Delay	0.3	0.1	
LOS	A	A	
Approach Delay	0.3	0.1	
Approach LOS	A	A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 13.3

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.13

Intersection Signal Delay: 0.2

Intersection LOS: A

Intersection Capacity Utilization 15.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 1: 4th St. & Jack Rabbit Trail

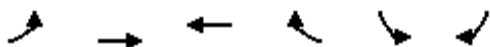


HCM 6th Signalized Intersection Summary

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

07/16/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	195	76	0	0	0
Future Volume (veh/h)	0	195	76	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	212	83	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	596	988	988	837	15	13
Arrive On Green	0.00	0.52	0.52	0.00	0.00	0.00
Sat Flow, veh/h	1336	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	212	83	0	0	0
Grp Sat Flow(s),veh/h/ln	1336	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	0.7	0.3	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.7	0.3	0.0	0.0	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	596	988	988	837	15	13
V/C Ratio(X)	0.00	0.21	0.08	0.00	0.00	0.00
Avail Cap(c_a), veh/h	5892	8521	8521	7221	3623	3224
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	1.6	1.5	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.1	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	1.7	1.5	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h		212	83		0	
Approach Delay, s/veh		1.7	1.5		0.0	
Approach LOS		A	A			
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				12.1	0.0	12.1
Change Period (Y+Rc), s				5.8	5.8	5.8
Max Green Setting (Gmax), s				54.2	24.2	54.2
Max Q Clear Time (g_c+I1), s				2.7	0.0	2.3
Green Ext Time (p_c), s				1.2	0.0	0.4
Intersection Summary						
HCM 6th Ctrl Delay			1.6			
HCM 6th LOS			A			

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	192	30	129	266	95	193
Future Vol, veh/h	192	30	129	266	95	193
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	211	33	142	292	104	212
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	10.2	10.2	11.2
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	95	193	96	96	30	129	133	133
LT Vol	95	0	0	0	0	129	0	0
Through Vol	0	0	96	96	0	0	133	133
RT Vol	0	193	0	0	30	0	0	0
Lane Flow Rate	104	212	105	105	33	142	146	146
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.198	0.331	0.189	0.189	0.037	0.261	0.249	0.179
Departure Headway (Hd)	6.818	5.619	6.457	6.457	4.02	6.63	6.123	4.4
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	526	638	555	555	885	542	586	813
Service Time	4.564	3.365	4.208	4.208	1.77	4.373	3.865	2.141
HCM Lane V/C Ratio	0.198	0.332	0.189	0.189	0.037	0.262	0.249	0.18
HCM Control Delay	11.3	11.1	10.7	10.7	6.9	11.7	10.9	8.1
HCM Lane LOS	B	B	B	B	A	B	B	A
HCM 95th-tile Q	0.7	1.4	0.7	0.7	0.1	1	1	0.6

Intersection

Intersection Delay, s/veh 9.7

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	2	0	96	0	257	0	10	153	0
Future Vol, veh/h	0	0	0	2	0	96	0	257	0	10	153	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	125	0	334	0	13	199	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.4	10.5	9.3
HCM LOS	A	B	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	2%	6%
Vol Thru, %	100%	0%	94%
Vol Right, %	0%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	257	98	163
LT Vol	0	2	10
Through Vol	257	0	153
RT Vol	0	96	0
Lane Flow Rate	334	127	212
Geometry Grp	1	1	1
Degree of Util (X)	0.41	0.16	0.268
Departure Headway (Hd)	4.426	4.523	4.563
Convergence, Y/N	Yes	Yes	Yes
Cap	814	792	785
Service Time	2.457	2.559	2.597
HCM Lane V/C Ratio	0.41	0.16	0.27
HCM Control Delay	10.5	8.4	9.3
HCM Lane LOS	B	A	A
HCM 95th-tile Q	2	0.6	1.1

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	328	57	18	177	124	120
Future Volume (vph)	328	57	18	177	124	120
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	34.0	61.8	27.8	27.8	28.2	28.2
Total Split (%)	37.8%	68.7%	30.9%	30.9%	31.3%	31.3%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	21.5	36.6	10.4	10.4	10.3	10.3
Actuated g/C Ratio	0.36	0.62	0.18	0.18	0.17	0.17
v/c Ratio	0.75	0.04	0.08	0.52	0.30	0.42
Control Delay	24.1	4.2	23.3	8.1	24.3	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.1	4.2	23.3	8.1	24.3	8.1
LOS	C	A	C	A	C	A
Approach Delay		21.1	9.5		16.4	
Approach LOS		C	A		B	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 59	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 43.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.

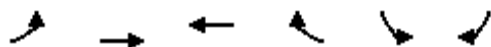


HCM 6th Signalized Intersection Summary

4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	328	57	18	177	124	120	
Future Volume (veh/h)	328	57	18	177	124	120	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	490	85	27	264	185	179	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	568	2174	389	330	635	291	
Arrive On Green	0.31	0.60	0.20	0.20	0.18	0.18	
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610	
Grp Volume(v), veh/h	490	85	27	264	185	179	
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610	
Q Serve(g_s), s	14.1	0.5	0.6	8.6	2.5	5.7	
Cycle Q Clear(g_c), s	14.1	0.5	0.6	8.6	2.5	5.7	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	568	2174	389	330	635	291	
V/C Ratio(X)	0.86	0.04	0.07	0.80	0.29	0.61	
Avail Cap(c_a), veh/h	962	3656	756	641	1397	641	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	17.8	4.5	17.7	20.9	19.6	20.9	
Incr Delay (d2), s/veh	4.3	0.0	0.1	4.5	0.3	2.1	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	5.4	0.1	0.2	3.1	0.9	5.2	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.1	4.5	17.8	25.4	19.8	23.0	
LnGrp LOS	C	A	B	C	B	C	
Approach Vol, veh/h		575	291		364		
Approach Delay, s/veh		19.5	24.7		21.4		
Approach LOS		B	C		C		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				39.1	16.2	22.0	17.1
Change Period (Y+Rc), s				5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s				56.0	22.0	29.4	22.0
Max Q Clear Time (g_c+I1), s				2.5	7.7	16.1	10.6
Green Ext Time (p_c), s				0.3	1.0	1.3	0.7
Intersection Summary							
HCM 6th Ctrl Delay			21.3				
HCM 6th LOS			C				

Intersection

Intersection Delay, s/veh 21.6

Intersection LOS C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	31	438	511	325	198	28
Future Vol, veh/h	31	438	511	325	198	28
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	32	452	527	335	204	29
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	41.2	11.6	18.1
HCM LOS	E	B	C

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	88%
Vol Thru, %	0%	100%	100%	100%	24%	0%
Vol Right, %	0%	0%	0%	0%	76%	12%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	438	204	204	427	226
LT Vol	31	0	0	0	0	198
Through Vol	0	438	204	204	102	0
RT Vol	0	0	0	0	325	28
Lane Flow Rate	32	452	211	211	440	233
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.067	0.885	0.366	0.366	0.487	0.501
Departure Headway (Hd)	7.563	7.052	6.257	6.257	3.981	7.739
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	470	510	571	571	890	464
Service Time	5.359	4.848	4.047	4.047	1.768	5.534
HCM Lane V/C Ratio	0.068	0.886	0.37	0.37	0.494	0.502
HCM Control Delay	10.9	43.3	12.7	12.7	10.6	18.1
HCM Lane LOS	B	E	B	B	B	C
HCM 95th-tile Q	0.2	9.8	1.7	1.7	2.7	2.7

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/15/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	↰	→	↱
Traffic Volume (vph)	395	163	641	1
Future Volume (vph)	395	163	641	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	30.0	14.6	44.6	45.4
Total Split (%)	33.3%	16.2%	49.6%	50.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	26.0	10.6	40.6	41.4
Actuated g/C Ratio	0.29	0.12	0.45	0.46
v/c Ratio	1.54	1.01	0.98	1.12
Control Delay	276.6	96.5	45.9	95.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	276.6	96.5	45.9	95.6
LOS	F	F	D	F
Approach Delay	276.6		56.1	95.6
Approach LOS	F		E	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.54

Intersection Signal Delay: 134.5

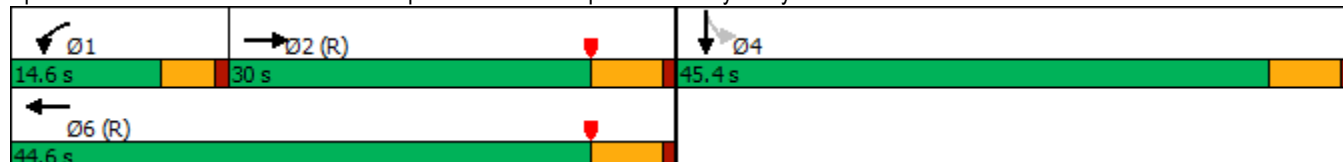
Intersection LOS: F

Intersection Capacity Utilization 94.7%

ICU Level of Service F

Analysis Period (min) 15

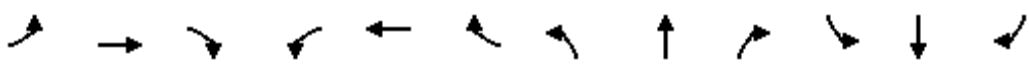
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/15/2020

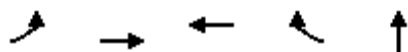
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩	
Traffic Volume (veh/h)	0	395	241	163	641	0	0	0	0	509	1	195
Future Volume (veh/h)	0	395	241	163	641	0	0	0	0	509	1	195
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	520	245	214	843	0				670	1	191
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	353	166	213	857	0				630	1	180
Arrive On Green	0.00	0.29	0.27	0.04	0.15	0.00				0.46	0.46	0.44
Sat Flow, veh/h	0	1221	575	1810	1900	0				1369	2	390
Grp Volume(v), veh/h	0	0	765	214	843	0				862	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1796	1810	1900	0				1761	0	0
Q Serve(g_s), s	0.0	0.0	26.0	10.6	39.8	0.0				41.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	26.0	10.6	39.8	0.0				41.4	0.0	0.0
Prop In Lane	0.00		0.32	1.00		0.00				0.78		0.22
Lane Grp Cap(c), veh/h	0	0	519	213	857	0				810	0	0
V/C Ratio(X)	0.00	0.00	1.47	1.00	0.98	0.00				1.06	0.00	0.00
Avail Cap(c_a), veh/h	0	0	519	213	857	0				810	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.42	0.42	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	32.3	43.3	38.0	0.0				24.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	223.6	41.0	16.4	0.0				50.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	42.7	7.3	23.7	0.0				26.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	255.9	84.2	54.4	0.0				74.5	0.0	0.0
LnGrp LOS	A	A	F	F	D	A				F	A	A
Approach Vol, veh/h		765			1057						862	
Approach Delay, s/veh		255.9			60.4						74.5	
Approach LOS		F			E						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.6	30.0		45.4		44.6						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	10.0	24.2		39.6		38.8						
Max Q Clear Time (g_c+I1), s	12.6	28.0		43.4		41.8						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.0						
Intersection Summary												
HCM 6th Ctrl Delay			120.7									
HCM 6th LOS			F									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/15/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	177	726	426	291	4
Future Volume (vph)	177	726	426	291	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	12.0	44.0	32.0	32.0	46.0
Total Split (%)	13.3%	48.9%	35.6%	35.6%	51.1%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	8.0	38.8	26.8	26.8	43.2
Actuated g/C Ratio	0.09	0.43	0.30	0.30	0.48
v/c Ratio	1.14	0.91	0.78	0.43	0.81
Control Delay	108.1	22.3	39.2	5.1	28.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	108.1	22.3	39.2	5.1	28.0
LOS	F	C	D	A	C
Approach Delay		39.1	25.4		28.0
Approach LOS		D	C		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.14

Intersection Signal Delay: 31.5

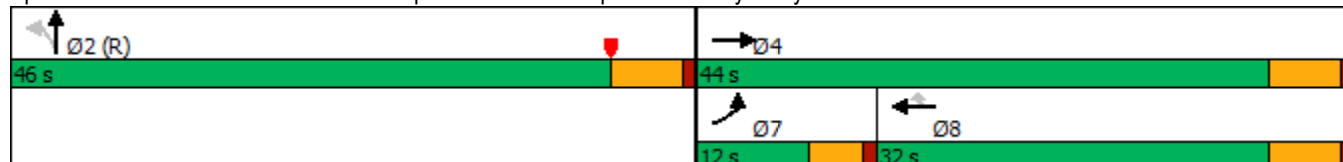
Intersection LOS: C

Intersection Capacity Utilization 94.7%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/15/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	177	726	0	0	426	291	379	4	298	0	0	0
Future Volume (veh/h)	177	726	0	0	426	291	379	4	298	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	182	748	0	0	439	230	391	4	255			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	161	830	0	0	576	489	493	5	321			
Arrive On Green	0.03	0.14	0.00	0.00	0.30	0.30	0.47	0.47	0.45			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1038	11	677			
Grp Volume(v), veh/h	182	748	0	0	439	230	650	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1726	0	0			
Q Serve(g_s), s	8.0	34.9	0.0	0.0	18.8	10.4	28.7	0.0	0.0			
Cycle Q Clear(g_c), s	8.0	34.9	0.0	0.0	18.8	10.4	28.7	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.60		0.39			
Lane Grp Cap(c), veh/h	161	830	0	0	576	489	819	0	0			
V/C Ratio(X)	1.13	0.90	0.00	0.00	0.76	0.47	0.79	0.00	0.00			
Avail Cap(c_a), veh/h	161	844	0	0	591	501	819	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.7	36.6	0.0	0.0	28.4	25.5	20.3	0.0	0.0			
Incr Delay (d2), s/veh	66.9	1.4	0.0	0.0	5.7	0.7	7.8	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.6	17.7	0.0	0.0	8.8	3.8	12.0	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	110.5	38.0	0.0	0.0	34.0	26.2	28.1	0.0	0.0			
LnGrp LOS	F	D	A	A	C	C	C	A	A			
Approach Vol, veh/h	930			669			650					
Approach Delay, s/veh	52.2			31.3			28.1					
Approach LOS	D			C			C					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	46.7			43.3			12.0			31.3		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	40.2			38.2			7.4			26.2		
Max Q Clear Time (g_c+I1), s	30.7			36.9			10.0			20.8		
Green Ext Time (p_c), s	2.9			0.7			0.0			1.6		
Intersection Summary												
HCM 6th Ctrl Delay	39.0											
HCM 6th LOS	D											

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑				↗			↗
Traffic Vol, veh/h	22	833	128	110	668	56	0	0	119	0	0	66
Future Vol, veh/h	22	833	128	110	668	56	0	0	119	0	0	66
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	24	896	138	118	718	60	0	0	128	0	0	71
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	778	0	0	1034	0	0	-	-	517	-	-	389
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	848	-	-	680	-	-	0	0	509	0	0	615
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	848	-	-	680	-	-	-	-	509	-	-	615
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			1.5			14.4			11.6		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	509	848	-	-	680	-	-	615				
HCM Lane V/C Ratio	0.251	0.028	-	-	0.174	-	-	0.115				
HCM Control Delay (s)	14.4	9.4	-	-	11.4	-	-	11.6				
HCM Lane LOS	B	A	-	-	B	-	-	B				
HCM 95th %tile Q(veh)	1	0.1	-	-	0.6	-	-	0.4				

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	107	227	9	174	31	40	38	11	14	60	34
Future Volume (vph)	107	227	9	174	31	40	38	11	14	60	34
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	36.0	54.0	15.0	33.0	33.0	23.0	34.0	34.0	17.0	28.0	28.0
Total Split (%)	30.0%	45.0%	12.5%	27.5%	27.5%	19.2%	28.3%	28.3%	14.2%	23.3%	23.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	10.4	28.1	5.6	14.4	14.4	7.0	15.7	15.7	5.8	10.9	10.9
Actuated g/C Ratio	0.18	0.47	0.09	0.24	0.24	0.12	0.26	0.26	0.10	0.18	0.18
v/c Ratio	0.49	0.26	0.08	0.54	0.08	0.27	0.11	0.03	0.11	0.25	0.11
Control Delay	30.5	10.5	32.4	26.7	0.3	31.8	20.8	0.1	32.4	27.9	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.5	10.5	32.4	26.7	0.3	31.8	20.8	0.1	32.4	27.9	0.5
LOS	C	B	C	C	A	C	C	A	C	C	A
Approach Delay		15.7		23.1			23.1			19.8	
Approach LOS		B		C			C			B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 59.4

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 19.0

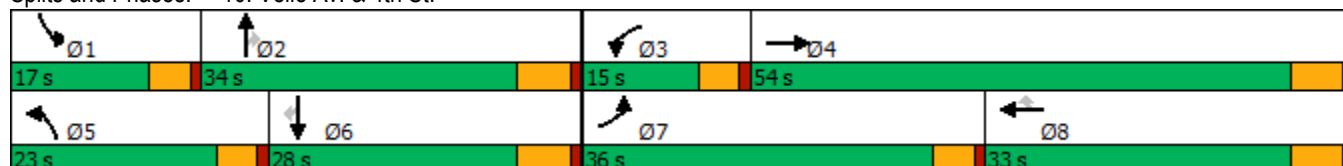
Intersection LOS: B

Intersection Capacity Utilization 37.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	107	227	78	9	174	31	40	38	11	14	60	34
Future Volume (veh/h)	107	227	78	9	174	31	40	38	11	14	60	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	153	324	111	13	249	44	57	54	16	20	86	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	201	792	267	30	388	329	100	447	379	44	388	
Arrive On Green	0.11	0.30	0.30	0.02	0.20	0.20	0.06	0.24	0.24	0.02	0.20	0.00
Sat Flow, veh/h	1810	2652	893	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	153	219	216	13	249	44	57	54	16	20	86	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1739	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	4.0	4.7	4.9	0.3	5.9	1.1	1.5	1.1	0.4	0.5	1.8	0.0
Cycle Q Clear(g_c), s	4.0	4.7	4.9	0.3	5.9	1.1	1.5	1.1	0.4	0.5	1.8	0.0
Prop In Lane	1.00		0.51	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	201	539	520	30	388	329	100	447	379	44	388	
V/C Ratio(X)	0.76	0.41	0.42	0.43	0.64	0.13	0.57	0.12	0.04	0.45	0.22	
Avail Cap(c_a), veh/h	1162	1779	1714	385	1057	895	681	1095	928	459	862	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	21.1	13.7	13.7	23.8	17.8	15.9	22.5	14.7	14.4	23.5	16.2	0.0
Incr Delay (d2), s/veh	2.3	0.5	0.5	3.6	1.8	0.2	1.9	0.1	0.0	2.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.6	1.5	0.2	2.3	0.3	0.6	0.4	0.1	0.2	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.4	14.2	14.3	27.5	19.6	16.1	24.5	14.8	14.5	26.2	16.5	0.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	
Approach Vol, veh/h	588			306			127			106		
Approach Delay, s/veh	16.6			19.4			19.1			18.3		
Approach LOS	B			B			B			B		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	17.3	5.4	20.4	7.3	15.8	10.0	15.8				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	12.4	28.2	10.4	48.2	18.4	22.2	31.4	27.2				
Max Q Clear Time (g_c+I1), s	2.5	3.1	2.3	6.9	3.5	3.8	6.0	7.9				
Green Ext Time (p_c), s	0.0	0.2	0.0	2.5	0.0	0.3	0.2	1.3				

Intersection Summary

HCM 6th Ctrl Delay 17.8

HCM 6th LOS B

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/15/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	20	459	174	142	272	11	271	103	14	57
Future Volume (vph)	20	459	174	142	272	11	271	103	14	57
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.8	33.8	10.0	34.0	34.0	17.0	36.6	9.6	29.2
Total Split (%)	10.9%	37.6%	37.6%	11.1%	37.8%	37.8%	18.9%	40.7%	10.7%	32.4%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.8	-0.8	-0.6	-0.8	-0.8	-0.6	-1.2	-0.6	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.7	26.5	26.5	6.0	32.8	32.8	13.0	40.5	5.6	25.3
Actuated g/C Ratio	0.07	0.30	0.30	0.07	0.38	0.38	0.15	0.47	0.06	0.29
v/c Ratio	0.18	0.83	0.29	1.19	0.40	0.02	1.06	0.29	0.13	0.13
Control Delay	43.5	41.8	4.3	181.7	22.9	0.0	108.9	12.0	42.6	21.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	41.8	4.3	181.7	22.9	0.0	108.9	12.0	42.6	21.9
LOS	D	D	A	F	C	A	F	B	D	C
Approach Delay		31.8			75.2			64.1		25.4
Approach LOS		C			E			E		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 86.9

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.19

Intersection Signal Delay: 52.4

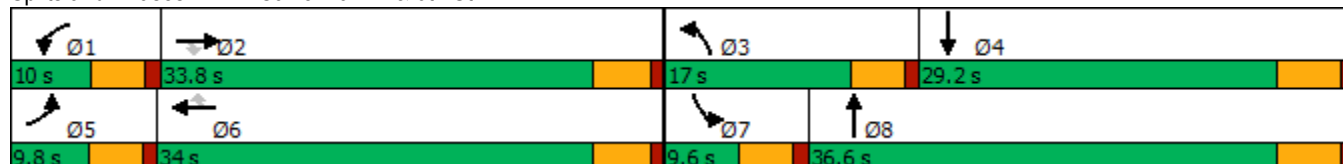
Intersection LOS: D

Intersection Capacity Utilization 63.7%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/15/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	459	174	142	272	11	271	103	130	14	57	11
Future Volume (veh/h)	20	459	174	142	272	11	271	103	130	14	57	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	483	179	149	286	7	285	108	106	15	60	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	54	563	477	127	639	542	275	372	365	44	501	50
Arrive On Green	0.03	0.30	0.30	0.07	0.34	0.34	0.15	0.42	0.41	0.02	0.29	0.28
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	880	864	1810	1699	170
Grp Volume(v), veh/h	21	483	179	149	286	7	285	0	214	15	0	66
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1744	1810	0	1869
Q Serve(g_s), s	1.0	20.5	7.5	6.0	10.1	0.2	13.0	0.0	7.0	0.7	0.0	2.2
Cycle Q Clear(g_c), s	1.0	20.5	7.5	6.0	10.1	0.2	13.0	0.0	7.0	0.7	0.0	2.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.50	1.00		0.09
Lane Grp Cap(c), veh/h	54	563	477	127	639	542	275	0	736	44	0	551
V/C Ratio(X)	0.39	0.86	0.38	1.17	0.45	0.01	1.04	0.00	0.29	0.34	0.00	0.12
Avail Cap(c_a), veh/h	123	662	561	127	666	565	275	0	736	118	0	551
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.7	28.4	23.8	39.8	22.2	18.9	36.3	0.0	16.5	41.0	0.0	22.1
Incr Delay (d2), s/veh	1.7	9.7	0.5	134.2	0.5	0.0	64.1	0.0	1.0	1.7	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	10.5	2.7	7.4	4.4	0.1	10.3	0.0	2.7	0.3	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	38.1	24.3	174.0	22.7	18.9	100.3	0.0	17.5	42.7	0.0	22.6
LnGrp LOS	D	D	C	F	C	B	F	A	B	D	A	C
Approach Vol, veh/h		683			442			499			81	
Approach Delay, s/veh		34.6			73.6			64.8			26.3	
Approach LOS		C			E			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.0	29.4	17.0	29.2	6.6	32.8	6.1	40.1				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	5.4	* 29	12.4	24.0	5.2	* 29	5.0	31.4				
Max Q Clear Time (g_c+I1), s	8.0	22.5	15.0	4.2	3.0	12.1	2.7	9.0				
Green Ext Time (p_c), s	0.0	2.0	0.0	0.2	0.0	1.5	0.0	1.1				

Intersection Summary

HCM 6th Ctrl Delay 53.2

HCM 6th LOS D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↱	↰		↰	↱
Traffic Vol, veh/h	4	3	86	44	3	21	179	475	28	6	308	6
Future Vol, veh/h	4	3	86	44	3	21	179	475	28	6	308	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	120	-	50	-	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	3	91	46	3	22	188	500	29	6	324	6

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1239	1241	324	1262	1218	500	330	0	0	529	0	0
Stage 1	336	336	-	876	876	-	-	-	-	-	-	-
Stage 2	903	905	-	386	342	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	154	176	722	148	182	575	1241	-	-	1048	-	-
Stage 1	682	645	-	346	369	-	-	-	-	-	-	-
Stage 2	335	358	-	641	642	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	129	148	722	113	153	575	1241	-	-	1048	-	-
Mov Cap-2 Maneuver	213	240	-	199	235	-	-	-	-	-	-	-
Stage 1	579	640	-	294	313	-	-	-	-	-	-	-
Stage 2	271	304	-	554	638	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	11.5		23.4		2.2		0.2	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1241	-	-	224	722	201	575	1048	-	-
HCM Lane V/C Ratio	0.152	-	-	0.033	0.125	0.246	0.038	0.006	-	-
HCM Control Delay (s)	8.4	-	-	21.6	10.7	28.7	11.5	8.5	0	-
HCM Lane LOS	A	-	-	C	B	D	B	A	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0.1	0.4	0.9	0.1	0	-	-

Intersection						
Int Delay, s/veh	91					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	196	92	51	505	978	185
Future Vol, veh/h	196	92	51	505	978	185
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	213	100	55	549	1063	201
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1823	1164	1264	0	-	0
Stage 1	1164	-	-	-	-	-
Stage 2	659	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 86	239	557	-	-	-
Stage 1	300	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 77	239	557	-	-	-
Mov Cap-2 Maneuver	~ 77	-	-	-	-	-
Stage 1	270	-	-	-	-	-
Stage 2	518	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	\$ 632	1.1		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	557	-	77	239	-	-
HCM Lane V/C Ratio	0.1	-	2.767	0.418	-	-
HCM Control Delay (s)	12.2	-	\$ 914.3	30.5	-	-
HCM Lane LOS	B	-	F	D	-	-
HCM 95th %tile Q(veh)	0.3	-	20.8	1.9	-	-
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)
07/13/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	34	16	73	4	23	405	10	438
Future Volume (vph)	34	16	73	4	23	405	10	438
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		-0.6		-0.8	-0.6	-0.8	-0.6	-0.8
Total Lost Time (s)		4.0		4.0	4.0	4.0	4.0	4.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		11.4		11.5	6.2	42.2	5.8	42.0
Actuated g/C Ratio		0.19		0.19	0.10	0.70	0.10	0.70
v/c Ratio		0.28		0.33	0.13	0.18	0.06	0.19
Control Delay		15.2		21.1	31.5	4.5	25.2	5.5
Queue Delay		0.3		0.3	1.1	0.3	0.0	0.2
Total Delay		15.4		21.4	32.6	4.8	25.2	5.6
LOS		B		C	C	A	C	A
Approach Delay		15.4		21.4		6.2		6.0
Approach LOS		B		C		A		A

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.33
 Intersection Signal Delay: 8.2
 Intersection Capacity Utilization 35.8%
 Analysis Period (min) 15

Intersection LOS: A

ICU Level of Service A

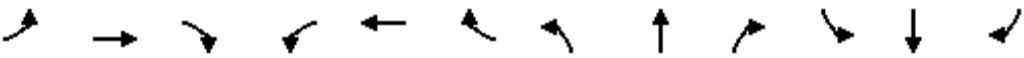
Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↕		↗	↕	
Traffic Volume (veh/h)	34	16	40	73	4	16	23	405	31	10	438	15
Future Volume (veh/h)	34	16	40	73	4	16	23	405	31	10	438	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	35	16	41	75	4	16	24	418	32	10	452	15
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	154	81	123	303	24	44	68	2055	157	41	2103	70
Arrive On Green	0.17	0.17	0.16	0.17	0.17	0.16	0.07	1.00	1.00	0.02	0.59	0.58
Sat Flow, veh/h	422	478	724	1133	139	258	1810	3399	259	1810	3566	118
Grp Volume(v), veh/h	92	0	0	95	0	0	24	221	229	10	228	239
Grp Sat Flow(s),veh/h/ln	1625	0	0	1530	0	0	1810	1805	1853	1810	1805	1879
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.3	3.6	3.6
Cycle Q Clear(g_c), s	2.8	0.0	0.0	2.7	0.0	0.0	0.8	0.0	0.0	0.3	3.6	3.6
Prop In Lane	0.38		0.45	0.79		0.17	1.00		0.14	1.00		0.06
Lane Grp Cap(c), veh/h	358	0	0	371	0	0	68	1091	1121	41	1065	1108
V/C Ratio(X)	0.26	0.00	0.00	0.26	0.00	0.00	0.35	0.20	0.20	0.24	0.21	0.22
Avail Cap(c_a), veh/h	484	0	0	481	0	0	241	1091	1121	241	1065	1108
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	0.0	21.7	0.0	0.0	27.1	0.0	0.0	28.8	5.8	5.8
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.4	0.0	0.0	1.2	0.4	0.4	1.1	0.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	1.2	0.0	0.0	0.3	0.1	0.1	0.1	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	0.0	0.0	22.1	0.0	0.0	28.2	0.4	0.4	29.9	6.2	6.2
LnGrp LOS	C	A	A	C	A	A	C	A	A	C	A	A
Approach Vol, veh/h		92			95			474			477	
Approach Delay, s/veh		22.3			22.1			1.8			6.7	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	40.3		14.4	6.2	39.4		14.4				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		4.8	2.8	5.6		4.7				
Green Ext Time (p_c), s	0.0	2.7		0.3	0.0	2.6		0.3				

Intersection Summary

HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	727	0	288	327	451
Future Volume (vph)	727	0	288	327	451
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	23.0	23.0	21.0	37.0	16.0
Total Split (%)	38.3%	38.3%	35.0%	61.7%	26.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.8	-0.8	-0.6	-0.8	-0.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	18.3	18.3	14.0	33.7	15.7
Actuated g/C Ratio	0.30	0.30	0.23	0.56	0.26
v/c Ratio	0.86	0.74	0.71	0.17	0.60
Control Delay	38.1	22.6	35.0	6.6	21.9
Queue Delay	0.0	3.6	0.0	0.0	24.6
Total Delay	38.1	26.1	35.0	6.6	46.5
LOS	D	C	D	A	D
Approach Delay		32.2		19.9	46.5
Approach LOS		C		B	D

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 32.4

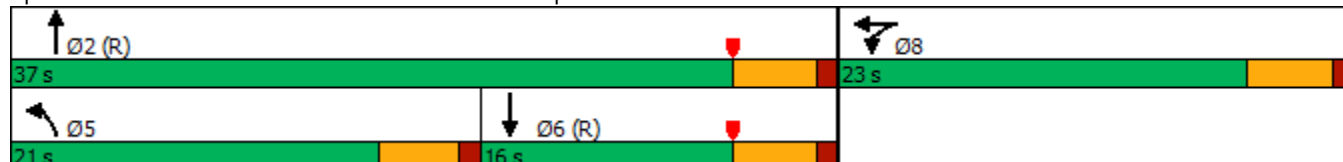
Intersection LOS: C

Intersection Capacity Utilization 96.4%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary

15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	727	0	131	288	327	0	0	451	100
Future Volume (veh/h)	0	0	0	727	0	131	288	327	0	0	451	100
Initial Q (Qb), veh				75	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				875	0	0	297	337	0	0	465	103
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1146	602	0	353	1986	0	0	848	187
Arrive On Green				0.29	0.00	0.00	0.39	1.00	0.00	0.00	0.10	0.10
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	3036	647
Grp Volume(v), veh/h				875	0	0	297	337	0	0	284	284
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1783
Q Serve(g_s), s				13.6	0.0	0.0	8.9	0.0	0.0	0.0	8.9	9.0
Cycle Q Clear(g_c), s				13.6	0.0	0.0	8.9	0.0	0.0	0.0	8.9	9.0
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				1146	602	0	353	1986	0	0	520	514
V/C Ratio(X)				0.76	0.00	0.00	0.84	0.17	0.00	0.00	0.55	0.55
Avail Cap(c_a), veh/h				1146	602	0	513	2083	0	0	569	562
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(l)				1.00	0.00	0.00	0.76	0.76	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.5	0.0	0.0	17.5	0.0	0.0	0.0	23.4	23.5
Incr Delay (d2), s/veh				3.1	0.0	0.0	4.4	0.1	0.0	0.0	4.0	4.2
Initial Q Delay(d3),s/veh				129.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				27.6	0.0	0.0	3.1	0.0	0.0	0.0	4.6	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				152.8	0.0	0.0	21.9	0.1	0.0	0.0	27.4	27.7
LnGrp LOS				F	A	A	C	A	A	A	C	C
Approach Vol, veh/h				875			634				568	
Approach Delay, s/veh				152.8			10.3				27.6	
Approach LOS				F			B				C	
Timer - Assigned Phs	2			5		6	8					
Phs Duration (G+Y+Rc), s	38.6			15.7		22.9	21.4					
Change Period (Y+Rc), s	* 4.8			4.6		* 4.8	4.8					
Max Green Setting (Gmax), s	* 32			16.4		* 11	18.2					
Max Q Clear Time (g_c+I1), s	2.0			10.9		11.0	15.6					
Green Ext Time (p_c), s	2.3			0.2		0.1	1.0					
Intersection Summary												
HCM 6th Ctrl Delay	75.0											
HCM 6th LOS	E											
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕↕	↗	↕↕	↖	↕↕
Traffic Volume (vph)	11	791	513	114	1064
Future Volume (vph)	11	791	513	114	1064
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	25.0	25.0	24.0	11.0	35.0
Total Split (%)	41.7%	41.7%	40.0%	18.3%	58.3%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.8	-0.8	-0.8	-0.6	-0.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	19.7	19.7	23.5	6.7	32.3
Actuated g/C Ratio	0.33	0.33	0.39	0.11	0.54
v/c Ratio	0.85	0.78	0.61	0.58	0.56
Control Delay	32.1	24.5	12.0	27.6	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	24.5	12.0	27.6	16.1
LOS	C	C	B	C	B
Approach Delay	28.4		12.0		17.2
Approach LOS	C		B		B

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.85

Intersection Signal Delay: 19.1

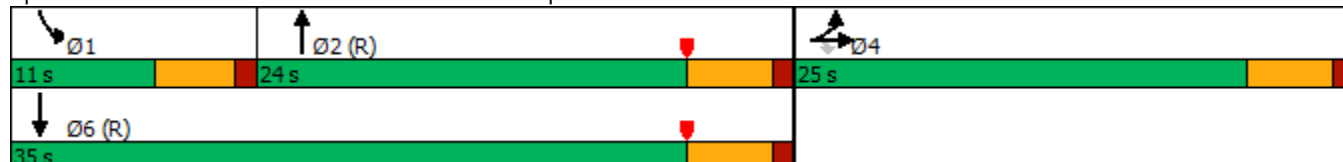
Intersection LOS: B

Intersection Capacity Utilization 96.4%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary

16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	11	791	0	0	0	0	513	384	114	1064	0
Future Volume (veh/h)	103	11	791	0	0	0	0	513	384	114	1064	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	936				0	529	396	118	1097	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	665	1127				0	705	528	166	1865	0
Arrive On Green	0.00	0.00	0.33				0.00	0.37	0.36	0.18	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2063	1472	1810	3705	0
Grp Volume(v), veh/h	0	0	936				0	485	440	118	1097	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	16.4				0.0	13.8	13.9	3.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	16.4				0.0	13.8	13.9	3.7	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	665	1127				0	647	586	166	1865	0
V/C Ratio(X)	0.00	0.00	0.83				0.00	0.75	0.75	0.71	0.59	0.00
Avail Cap(c_a), veh/h	0	665	1127				0	677	613	211	1924	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.63	0.63	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.5				0.0	16.9	17.2	23.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	5.4				0.0	7.8	8.6	3.1	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	163.2				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	32.7				0.0	6.6	6.2	1.5	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	188.1				0.0	24.7	25.8	26.9	0.9	0.0
LnGrp LOS	A	A	F				A	C	C	C	A	A
Approach Vol, veh/h	936						925			1215		
Approach Delay, s/veh	188.1						25.2			3.4		
Approach LOS	F						C			A		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.5	26.5		24.0		36.0						
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8						
Max Green Setting (Gmax), s	6.4	* 19		* 20		* 30						
Max Q Clear Time (g_c+I1), s	5.7	15.9		18.4		2.0						
Green Ext Time (p_c), s	0.0	1.8		0.8		9.4						

Intersection Summary

HCM 6th Ctrl Delay 66.2

HCM 6th LOS E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings

Jack Rabbit Trail (JN 12396)

07/13/2020

17: Potrero Bl. & SR-60 WB Ramps

						
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	329	137	960	442	624	370
Future Volume (vph)	329	137	960	442	624	370
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	40.0	40.0	80.0	80.0	80.0	80.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	11.6	10.4	20.8	20.8	20.8	20.8
Actuated g/C Ratio	0.27	0.24	0.48	0.48	0.48	0.48
v/c Ratio	0.39	0.19	0.42	0.47	0.28	0.26
Control Delay	15.7	4.7	7.5	2.4	6.6	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.7	4.7	7.5	2.4	6.6	1.2
LOS	B	A	A	A	A	A
Approach Delay			5.9		4.6	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 43

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 6.5

Intersection LOS: A

Intersection Capacity Utilization 36.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps

 Ø2	 Ø3
80 s	40 s
 Ø6	 Ø8
80 s	40 s

HCM 6th Signalized Intersection Summary
17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	329	0	137	0	960	442	0	624	370
Future Volume (veh/h)	0	0	0	329	0	137	0	960	442	0	624	370
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				358	0	122	0	1043	0	0	678	320
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				647	0	523	0	2427		0	2427	1326
Arrive On Green				0.19	0.00	0.19	0.00	0.48	0.00	0.00	0.48	0.48
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				358	0	122	0	1043	0	0	678	320
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				2.9	0.0	1.1	0.0	4.2	0.0	0.0	2.5	2.1
Cycle Q Clear(g_c), s				2.9	0.0	1.1	0.0	4.2	0.0	0.0	2.5	2.1
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				647	0	523	0	2427		0	2427	1326
V/C Ratio(X)				0.55	0.00	0.23	0.00	0.43		0.00	0.28	0.24
Avail Cap(c_a), veh/h				3969	0	3204	0	12292		0	12292	6715
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				11.4	0.0	10.6	0.0	5.3	0.0	0.0	4.9	4.8
Incr Delay (d2), s/veh				0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.7	0.0	0.2	0.0	0.4	0.0	0.0	0.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				11.6	0.0	10.7	0.0	5.5	0.0	0.0	5.0	4.9
LnGrp LOS				B	A	B	A	A		A	A	A
Approach Vol, veh/h					480			1043	A		998	
Approach Delay, s/veh					11.4			5.5			4.9	
Approach LOS					B			A			A	
Timer - Assigned Phs	2			6			8					
Phs Duration (G+Y+Rc), s	20.5			20.5			10.4					
Change Period (Y+Rc), s	5.8			5.8			4.6					
Max Green Setting (Gmax), s	74.2			74.2			35.4					
Max Q Clear Time (g_c+I1), s	6.2			4.5			4.9					
Green Ext Time (p_c), s	8.5			6.5			0.9					
Intersection Summary												
HCM 6th Ctrl Delay	6.4											
HCM 6th LOS	A											
Notes												

Timings
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

						
Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	381	387	1022	413	878	75
Future Volume (vph)	381	387	1022	413	878	75
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	11.5	10.3	22.3	22.3	22.3	22.3
Actuated g/C Ratio	0.26	0.23	0.50	0.50	0.50	0.50
v/c Ratio	0.47	0.52	0.44	0.28	0.37	0.10
Control Delay	17.1	10.8	7.5	1.3	7.1	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.1	10.8	7.5	1.3	7.1	2.1
LOS	B	B	A	A	A	A
Approach Delay			5.7		6.7	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 44.5

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 8.0

Intersection LOS: A

Intersection Capacity Utilization 40.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps

 Ø2	 Ø4
75 s	45 s
 Ø6	 Ø7
75 s	45 s

HCM 6th Signalized Intersection Summary 18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	381	0	387	0	0	0	0	1022	413	0	878	75
Future Volume (veh/h)	381	0	387	0	0	0	0	1022	413	0	878	75
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	414	0	339				0	1111	367	0	954	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	862	0	696				0	2509	1371	0	2509	
Arrive On Green	0.25	0.00	0.25				0.00	0.49	0.49	0.00	0.49	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	414	0	339				0	1111	367	0	954	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	4.1	0.0	4.2				0.0	5.7	3.1	0.0	4.7	0.0
Cycle Q Clear(g_c), s	4.1	0.0	4.2				0.0	5.7	3.1	0.0	4.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	862	0	696				0	2509	1371	0	2509	
V/C Ratio(X)	0.48	0.00	0.49				0.00	0.44	0.27	0.00	0.38	
Avail Cap(c_a), veh/h	3481	0	2811				0	8811	4814	0	8811	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	12.8	0.0	12.9				0.0	6.6	6.0	0.0	6.4	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.2				0.0	0.1	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.9				0.0	1.0	0.5	0.0	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.0	0.0	13.1				0.0	6.8	6.1	0.0	6.5	0.0
LnGrp LOS	B	A	B				A	A	A	A	A	
Approach Vol, veh/h	753						1478			954		
Approach Delay, s/veh	13.0						6.6			6.5		
Approach LOS	B						A			A		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	25.5			14.6			25.5					
Change Period (Y+Rc), s	5.8			4.6			5.8					
Max Green Setting (Gmax), s	69.2			40.4			69.2					
Max Q Clear Time (g_c+I1), s	7.7			6.2			6.7					
Green Ext Time (p_c), s	12.0			1.5			7.5					
Intersection Summary												
HCM 6th Ctrl Delay	8.1											
HCM 6th LOS	A											

APPENDIX 6.3:

OPENING YEAR (2023) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OYC 2023 NP Conditions - Weekday PM Peak Hour**

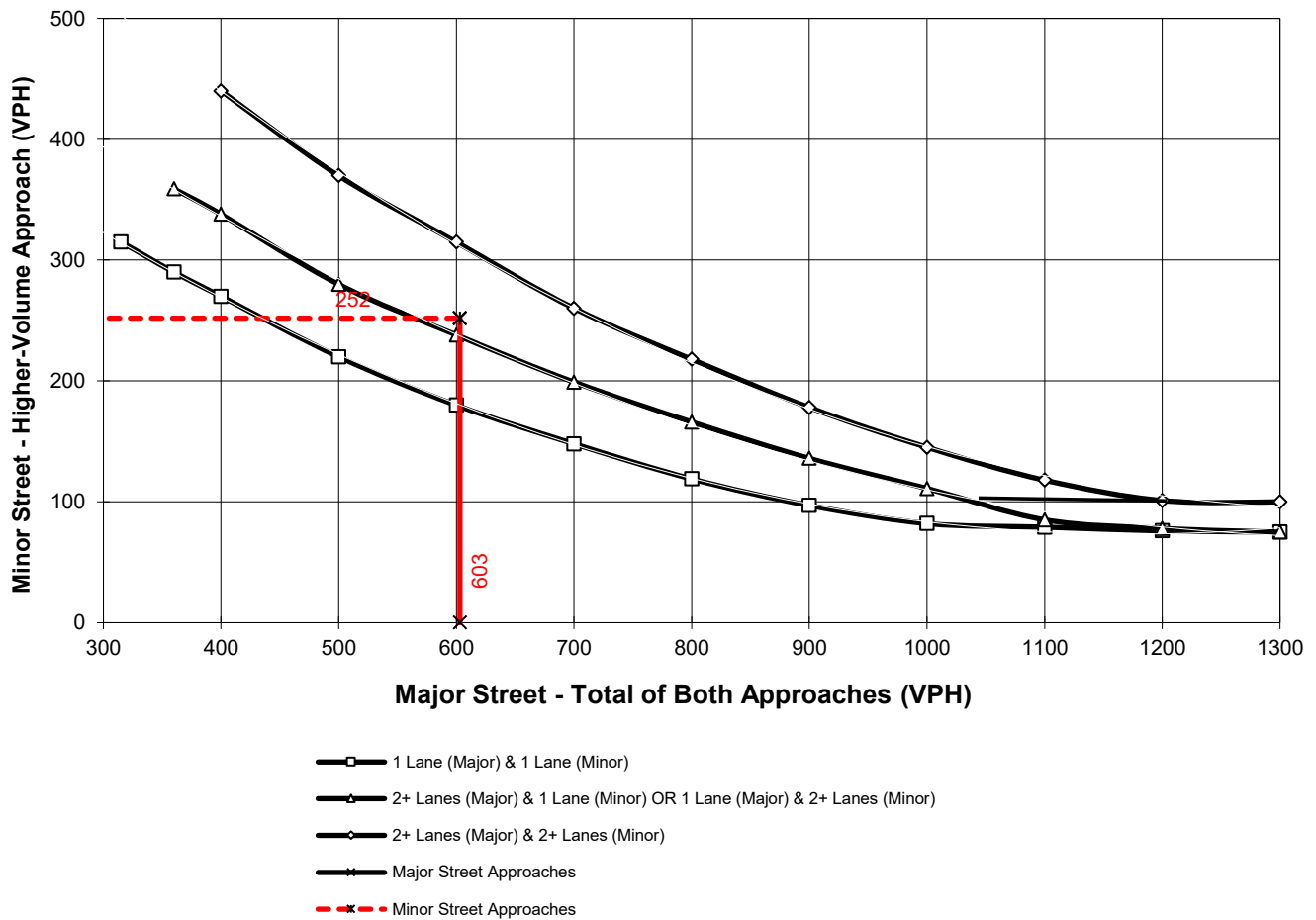
Major Street Name = **Oak Valley Pkwy.**

Total of Both Approaches (VPH) = **603**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Potrero Bl.**

High Volume Approach (VPH) = **252**
Number of Approach Lanes Minor Street = **2**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OYC 2023 NP Conditions - Weekday PM Peak Hour**

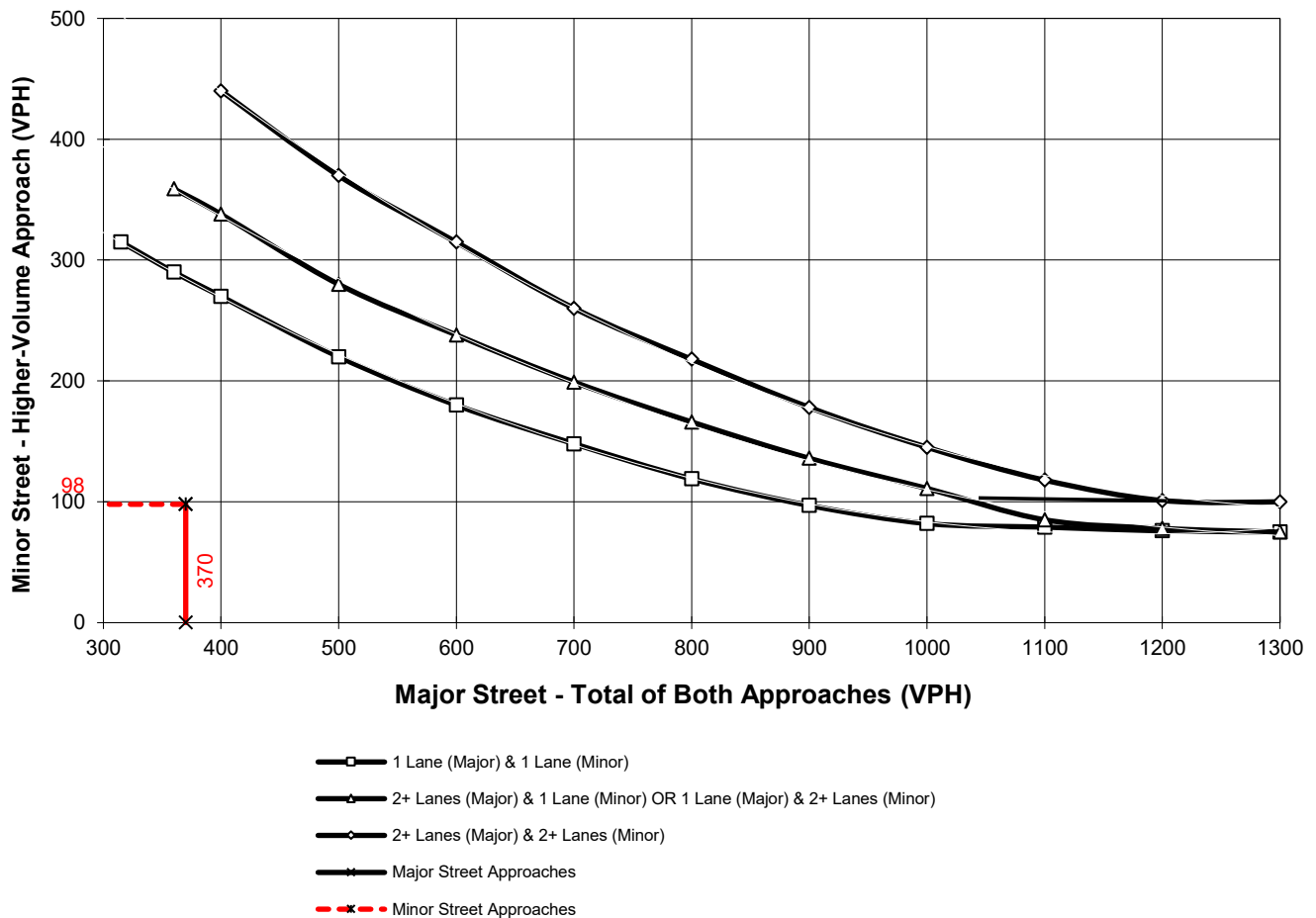
Major Street Name = **Western Knolls Av.**

Total of Both Approaches (VPH) = **370**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Potrero Bl.**

High Volume Approach (VPH) = **98**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 6.4:

OPENING YEAR (2023) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

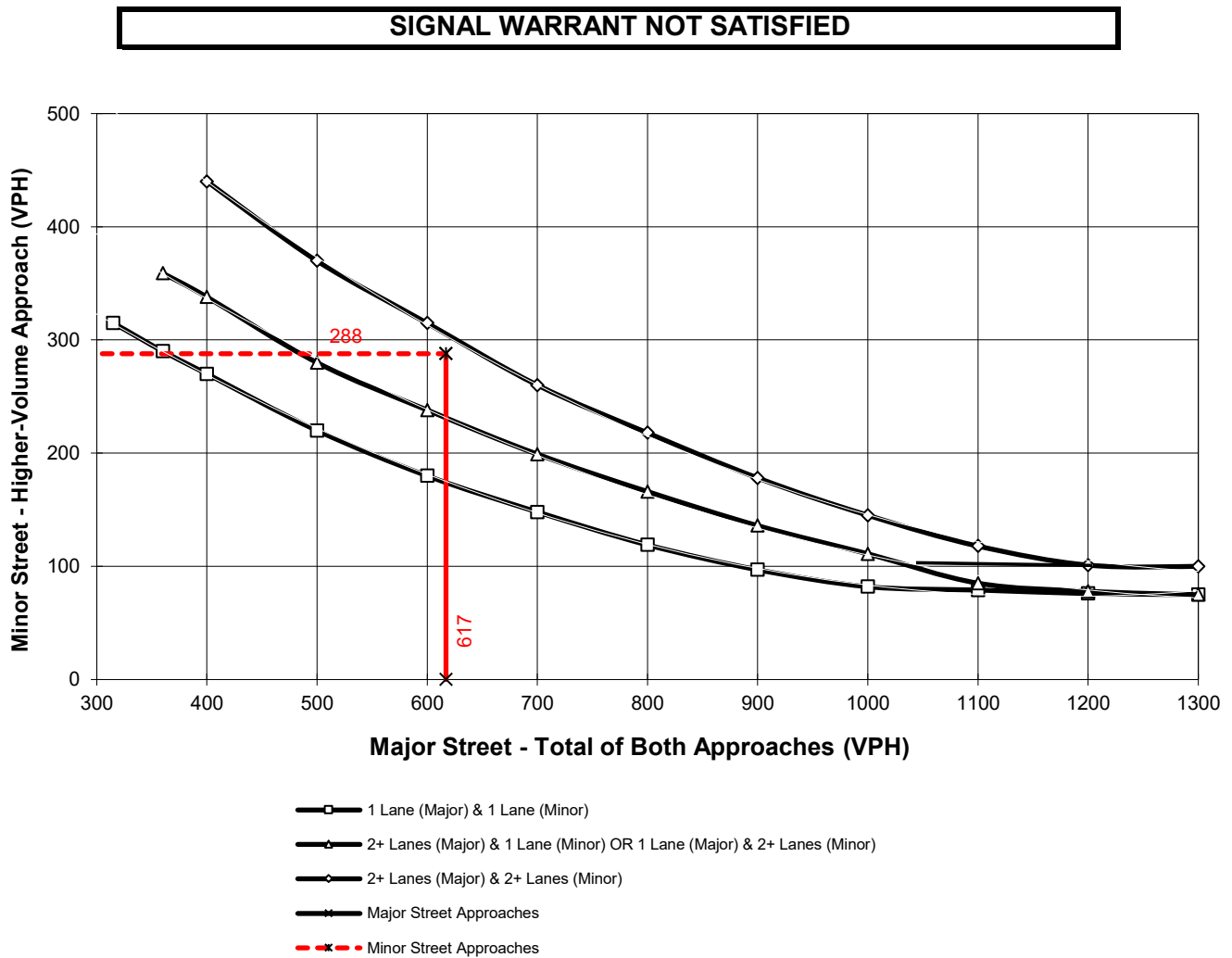
Traffic Conditions = **OYC 2023 WP Conditions - Weekday PM Peak Hour**

Major Street Name = **Oak Valley Pkwy.**

Total of Both Approaches (VPH) = **617**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Potrero Bl.**

High Volume Approach (VPH) = **288**
Number of Approach Lanes Minor Street = **2**



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

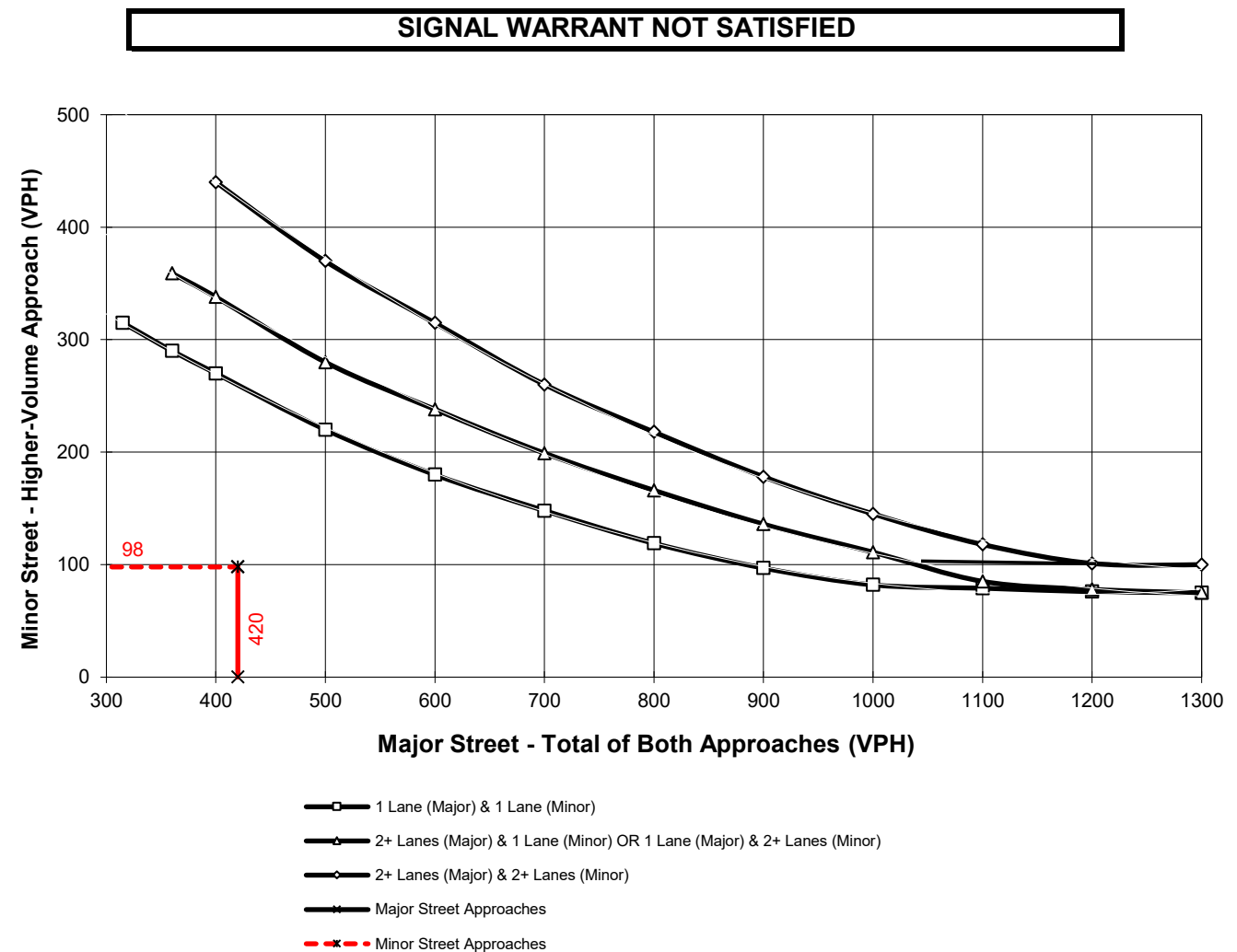
Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OYC 2023 WP Conditions - Weekday PM Peak Hour**

Major Street Name = **Western Knolls Av.** Total of Both Approaches (VPH) = **420**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Potrero Bl.** High Volume Approach (VPH) = **98**
Number of Approach Lanes Minor Street = **1**



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 6.5:

OPENING YEAR (2023) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Queues

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/10/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1036	292	646	408
v/c Ratio	1.17	0.99	0.49	1.23
Control Delay	114.0	74.8	4.0	158.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	114.0	74.8	4.0	158.0
Queue Length 50th (ft)	~689	140	42	~281
Queue Length 95th (ft)	#914	m#222	m65	#454
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	882	296	1313	333
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.17	0.99	0.49	1.23

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

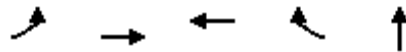
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/10/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	146	579	503	454	741
v/c Ratio	1.35	0.76	0.91	0.57	0.87
Control Delay	198.5	17.9	53.2	5.7	32.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	198.5	17.9	53.2	5.7	32.5
Queue Length 50th (ft)	~110	230	271	0	336
Queue Length 95th (ft)	m#81	m192	#451	68	#577
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	802	851
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.35	0.74	0.88	0.57	0.87

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/10/2020

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	374	355	398	250	479
v/c Ratio	0.88	0.76	0.86	0.12	0.51
Control Delay	47.2	28.5	45.6	5.7	14.7
Queue Delay	0.0	17.9	0.0	0.0	3.5
Total Delay	47.2	46.4	45.6	5.7	18.2
Queue Length 50th (ft)	135	92	155	14	74
Queue Length 95th (ft)	#278	#217	#279	m33	117
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	434	476	493	2140	944
Starvation Cap Reductn	0	0	0	0	361
Spillback Cap Reductn	0	113	0	52	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.86	0.98	0.81	0.12	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

04/01/2022

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	321	312	1011	110	780
v/c Ratio	0.67	0.67	0.57	0.50	0.34
Control Delay	16.3	16.1	9.3	20.7	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.3	16.1	9.3	20.7	8.6
Queue Length 50th (ft)	44	41	75	27	86
Queue Length 95th (ft)	112	108	148	m53	m173
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	544	531	1786	252	2284
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.59	0.59	0.57	0.44	0.34

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/10/2020

17: Potrero Bl. & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	371	105	770	147	446	345
v/c Ratio	0.33	0.12	0.40	0.21	0.23	0.27
Control Delay	10.6	3.8	8.5	2.6	7.6	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.6	3.8	8.5	2.6	7.6	1.8
Queue Length 50th (ft)	24	0	36	0	19	0
Queue Length 95th (ft)	58	13	54	19	32	15
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	3433	2784	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.04	0.15	0.09	0.09	0.12
Intersection Summary						



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	287	335	630	203	750	73
v/c Ratio	0.27	0.34	0.33	0.17	0.40	0.12
Control Delay	9.9	3.4	7.7	1.8	8.1	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	3.4	7.7	1.8	8.1	2.7
Queue Length 50th (ft)	18	1	26	0	32	0
Queue Length 95th (ft)	42	22	41	10	49	12
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3433	2787	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.12	0.12	0.07	0.15	0.05
Intersection Summary						



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	799	214	843	913
v/c Ratio	1.32	1.01	0.91	1.19
Control Delay	181.3	95.0	31.6	125.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	181.3	95.0	31.6	125.1
Queue Length 50th (ft)	~581	~129	397	~628
Queue Length 95th (ft)	#620	m#190	454	#653
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	607	212	922	766
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.32	1.01	0.91	1.19

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

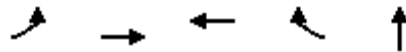
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

04/01/2022



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	153	748	439	300	702
v/c Ratio	0.77	0.91	0.84	0.45	0.81
Control Delay	45.0	21.4	46.4	5.6	28.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	45.0	21.4	46.4	5.6	28.0
Queue Length 50th (ft)	86	305	232	0	311
Queue Length 95th (ft)	m67	m219	#383	58	#530
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	208	844	540	674	865
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.74	0.89	0.81	0.45	0.81

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

04/01/2022

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	449	435	297	337	568
v/c Ratio	0.86	0.74	0.71	0.17	0.60
Control Delay	38.1	22.6	35.0	6.6	21.9
Queue Delay	0.0	3.6	0.0	0.0	24.6
Total Delay	38.1	26.1	35.0	6.6	46.5
Queue Length 50th (ft)	155	104	115	21	95
Queue Length 95th (ft)	#307	#234	m180	m46	#167
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	543	605	511	2026	945
Starvation Cap Reductn	0	0	0	0	387
Spillback Cap Reductn	0	97	0	60	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.83	0.86	0.58	0.17	1.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

04/01/2022

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	476	456	925	118	1097
v/c Ratio	0.85	0.78	0.61	0.58	0.56
Control Delay	32.1	24.5	12.0	27.6	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	24.5	12.0	27.6	16.1
Queue Length 50th (ft)	137	109	90	45	186
Queue Length 95th (ft)	#296	#253	150	m60	m268
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	595	612	1527	211	1942
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.80	0.75	0.61	0.56	0.56

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/10/2020

17: Potrero Bl. & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	332	149	1004	398	663	402
v/c Ratio	0.35	0.18	0.43	0.42	0.28	0.27
Control Delay	14.3	4.5	7.7	2.3	6.8	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.3	4.5	7.7	2.3	6.8	1.3
Queue Length 50th (ft)	30	0	49	0	30	0
Queue Length 95th (ft)	71	19	71	27	45	14
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	2996	2388	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.06	0.20	0.25	0.13	0.14
Intersection Summary						

18: Potrero Bl. & SR-60 EB Ramps



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	414	388	997	382	916	82
v/c Ratio	0.45	0.46	0.42	0.25	0.39	0.10
Control Delay	15.1	8.2	7.6	1.4	7.4	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.1	8.2	7.6	1.4	7.4	2.2
Queue Length 50th (ft)	38	15	45	0	41	0
Queue Length 95th (ft)	86	52	78	15	71	14
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3249	2624	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.15	0.20	0.14	0.18	0.05
Intersection Summary						

APPENDIX 6.6:

OPENING YEAR (2023) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1044	292	646	432
v/c Ratio	1.18	0.99	0.49	1.29
Control Delay	117.2	74.8	4.0	182.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	117.2	74.8	4.0	182.5
Queue Length 50th (ft)	~699	140	42	~307
Queue Length 95th (ft)	#924	m#222	m65	#484
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	883	296	1313	335
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.18	0.99	0.49	1.29

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

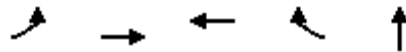
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	153	579	503	454	741
v/c Ratio	1.42	0.76	0.91	0.57	0.87
Control Delay	225.6	18.1	53.2	5.7	32.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	225.6	18.1	53.2	5.7	32.5
Queue Length 50th (ft)	~119	232	271	0	336
Queue Length 95th (ft)	m#85	m190	#451	68	#577
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	802	851
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.42	0.74	0.88	0.57	0.87

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	374	355	398	250	479
v/c Ratio	0.88	0.76	0.86	0.12	0.51
Control Delay	47.2	28.5	46.6	5.2	14.7
Queue Delay	0.0	17.9	0.0	0.0	3.4
Total Delay	47.2	46.4	46.6	5.2	18.2
Queue Length 50th (ft)	135	92	153	14	74
Queue Length 95th (ft)	#278	#217	#278	30	117
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	434	476	493	2140	944
Starvation Cap Reductn	0	0	0	0	360
Spillback Cap Reductn	0	113	0	52	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.86	0.98	0.81	0.12	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	321	312	1011	110	780
v/c Ratio	0.67	0.67	0.57	0.50	0.34
Control Delay	16.3	16.1	9.3	20.6	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	16.3	16.1	9.3	20.6	8.6
Queue Length 50th (ft)	44	41	75	27	86
Queue Length 95th (ft)	112	108	148	m53	m173
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	544	531	1786	252	2284
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.59	0.59	0.57	0.44	0.34

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

17: Potrero Bl. & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	428	105	778	167	475	345
v/c Ratio	0.39	0.12	0.40	0.24	0.24	0.27
Control Delay	11.3	3.9	8.4	2.6	7.6	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.3	3.9	8.4	2.6	7.6	1.7
Queue Length 50th (ft)	31	0	36	0	20	0
Queue Length 95th (ft)	68	13	56	20	35	15
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	3430	2768	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.04	0.15	0.11	0.09	0.12
Intersection Summary						

Queues

Jack Rabbit Trail (JN 12396)

18: Potrero Bl. & SR-60 EB Ramps

07/13/2020



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	287	404	659	221	832	73
v/c Ratio	0.27	0.43	0.34	0.18	0.43	0.11
Control Delay	10.3	6.1	7.8	1.8	8.4	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	6.1	7.8	1.8	8.4	2.8
Queue Length 50th (ft)	18	11	27	0	36	0
Queue Length 95th (ft)	44	40	47	12	60	13
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3433	2787	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.14	0.13	0.08	0.16	0.05
Intersection Summary						



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	837	214	843	928
v/c Ratio	1.38	1.01	0.91	1.21
Control Delay	207.7	94.9	31.4	132.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	207.7	94.9	31.4	132.4
Queue Length 50th (ft)	~629	~129	397	~645
Queue Length 95th (ft)	#663	m#189	454	#667
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	607	212	922	767
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.38	1.01	0.91	1.21

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

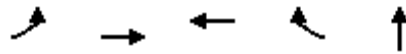
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	182	748	439	300	702
v/c Ratio	0.88	0.91	0.85	0.46	0.82
Control Delay	47.7	21.3	47.4	5.6	28.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	21.3	47.4	5.6	28.2
Queue Length 50th (ft)	104	317	232	0	311
Queue Length 95th (ft)	m79	m218	#383	58	#530
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	208	844	540	674	861
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.88	0.89	0.81	0.45	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	449	435	297	337	568
v/c Ratio	0.86	0.74	0.71	0.17	0.60
Control Delay	38.1	22.6	35.0	6.6	21.9
Queue Delay	0.0	3.6	0.0	0.0	24.6
Total Delay	38.1	26.1	35.0	6.6	46.5
Queue Length 50th (ft)	155	104	115	21	95
Queue Length 95th (ft)	#307	#234	m180	m46	#167
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	543	605	511	2026	945
Starvation Cap Reductn	0	0	0	0	387
Spillback Cap Reductn	0	97	0	60	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.83	0.86	0.58	0.17	1.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	476	456	925	118	1097
v/c Ratio	0.85	0.78	0.61	0.58	0.56
Control Delay	32.1	24.5	12.0	27.6	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	24.5	12.0	27.6	16.1
Queue Length 50th (ft)	137	109	90	45	186
Queue Length 95th (ft)	#296	#253	150	m60	m268
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	595	612	1527	211	1942
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.80	0.75	0.61	0.56	0.56

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

17: Potrero Bl. & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	358	149	1043	480	678	402
v/c Ratio	0.39	0.19	0.42	0.47	0.28	0.26
Control Delay	15.7	4.7	7.5	2.4	6.6	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.7	4.7	7.5	2.4	6.6	1.2
Queue Length 50th (ft)	35	0	52	0	31	0
Queue Length 95th (ft)	81	19	77	30	49	14
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	2875	2283	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.07	0.21	0.30	0.13	0.14
Intersection Summary						

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

18: Potrero Bl. & SR-60 EB Ramps



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	414	421	1111	449	954	82
v/c Ratio	0.47	0.52	0.44	0.28	0.37	0.10
Control Delay	17.1	10.8	7.5	1.3	7.1	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.1	10.8	7.5	1.3	7.1	2.1
Queue Length 50th (ft)	43	23	53	0	43	0
Queue Length 95th (ft)	97	71	94	17	79	14
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3085	2484	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.17	0.22	0.16	0.19	0.05
Intersection Summary						

APPENDIX 6.7:

OPENING YEAR (2023) WITHOUT PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2023 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2235		7161		0.31		68.7		10.8		A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.962	2235	398	7200	2100	0.31	0.19	64.1	60.6	11.6	14.5	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1837		7161		0.26		68.7		8.9		A

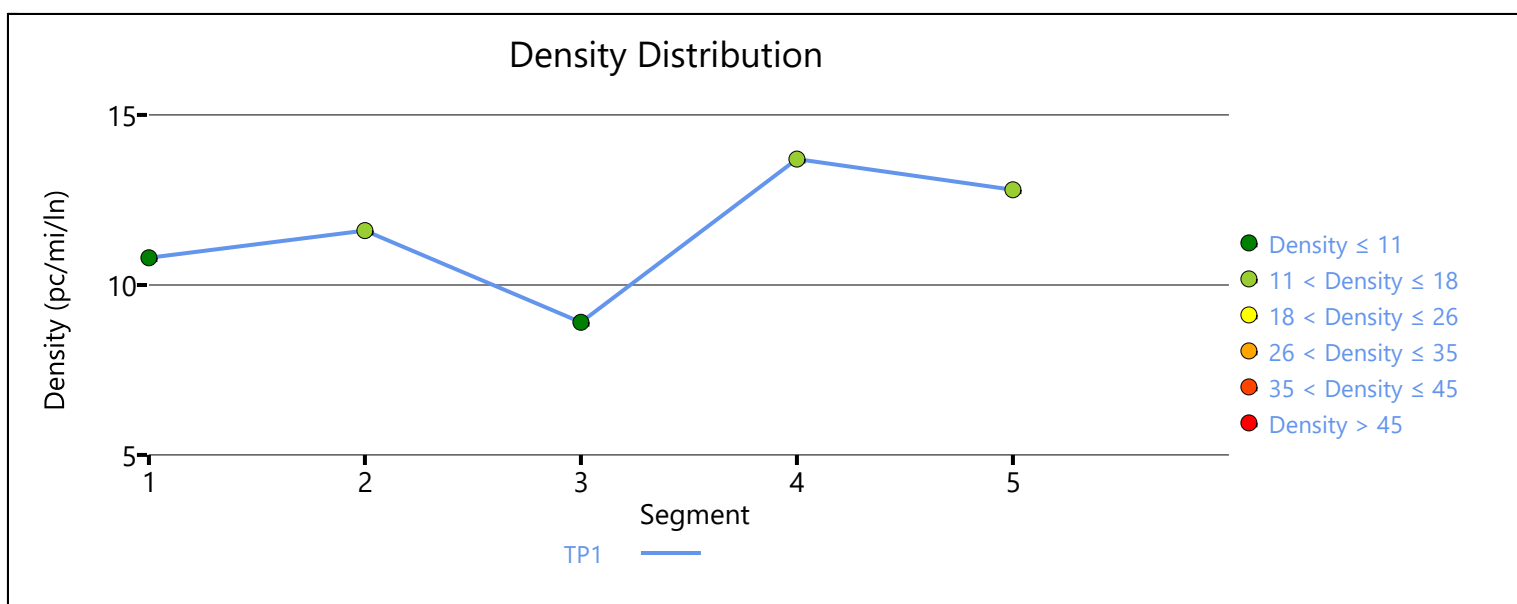
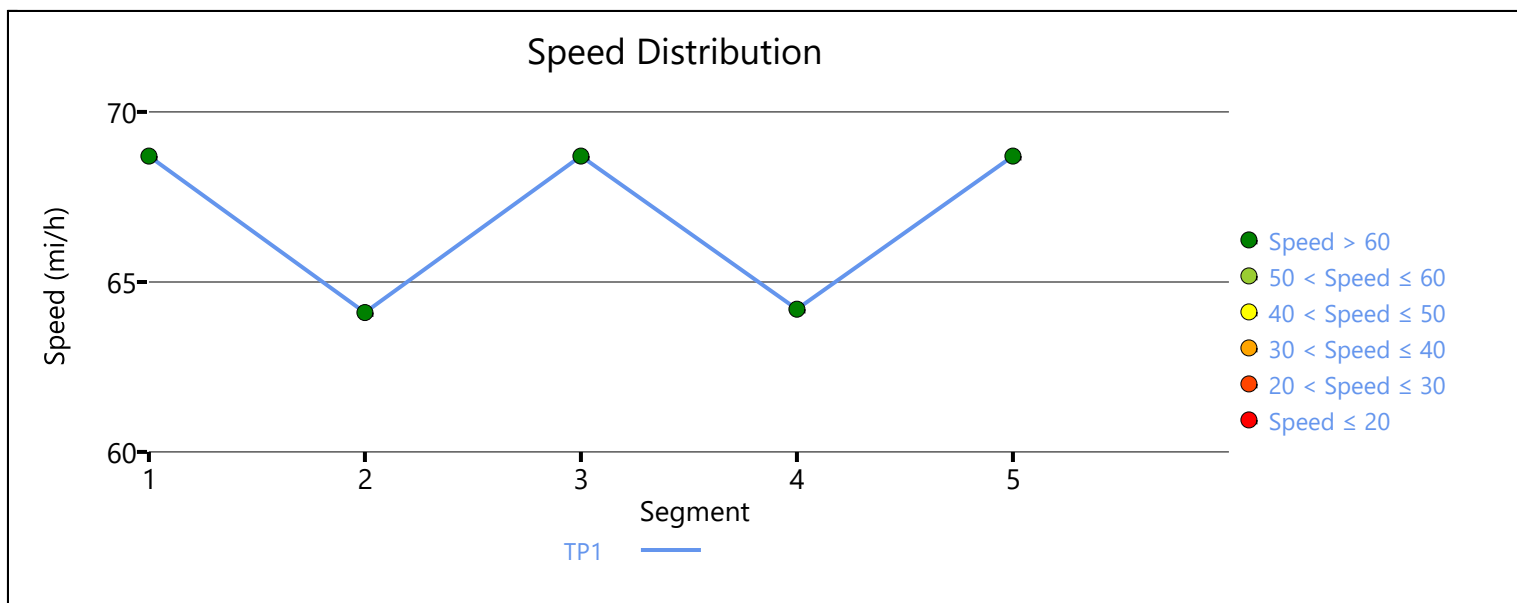
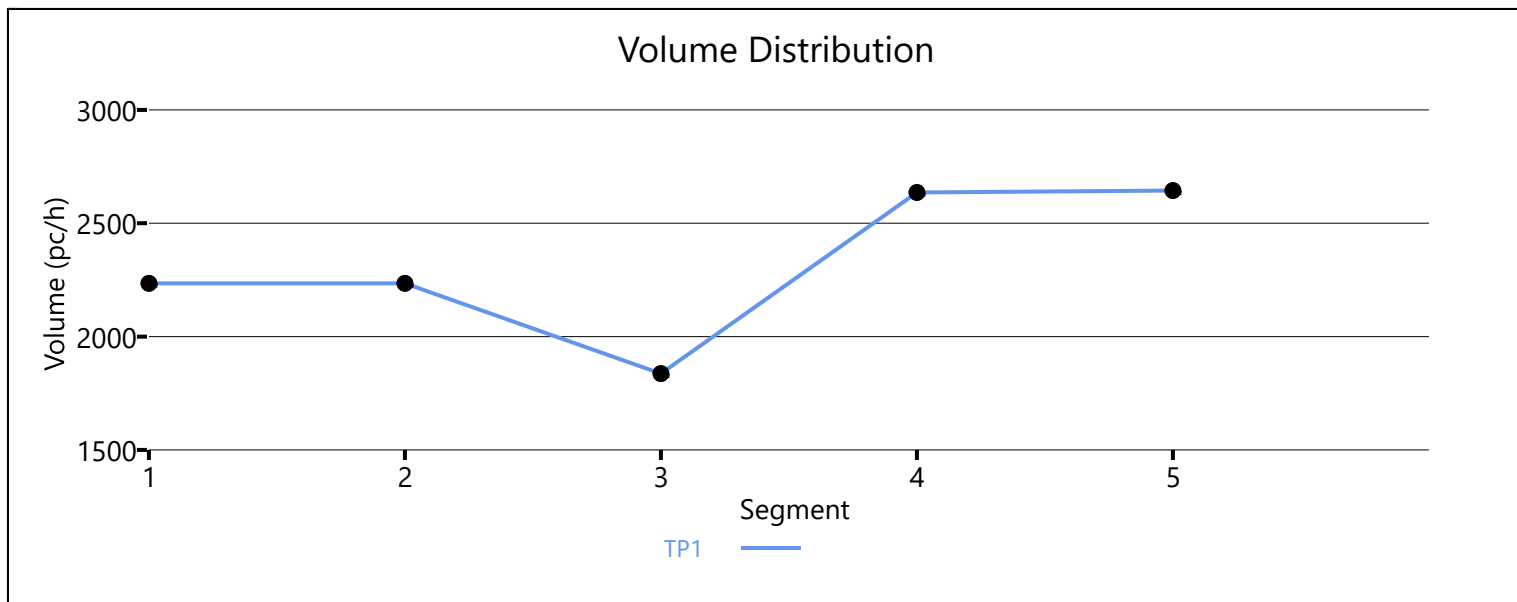
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2636	799	7200	2100	0.37	0.38	64.2	62.4	13.7	14.7	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2644		7161		0.37		68.7		12.8		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	11.3	10.9	2.1	B
Facility Overall Results					
Space Mean Speed, mi/h		67.5	Density, veh/mi/ln		10.9
Average Travel Time, min		2.1	Density, pc/mi/ln		11.3



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2023 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		2701		7161		0.38		68.7		13.1		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2701	795	7200	2100	0.38	0.38	63.0	59.6	14.3	17.8	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.901		1919		7161		0.27		68.7		9.3		A

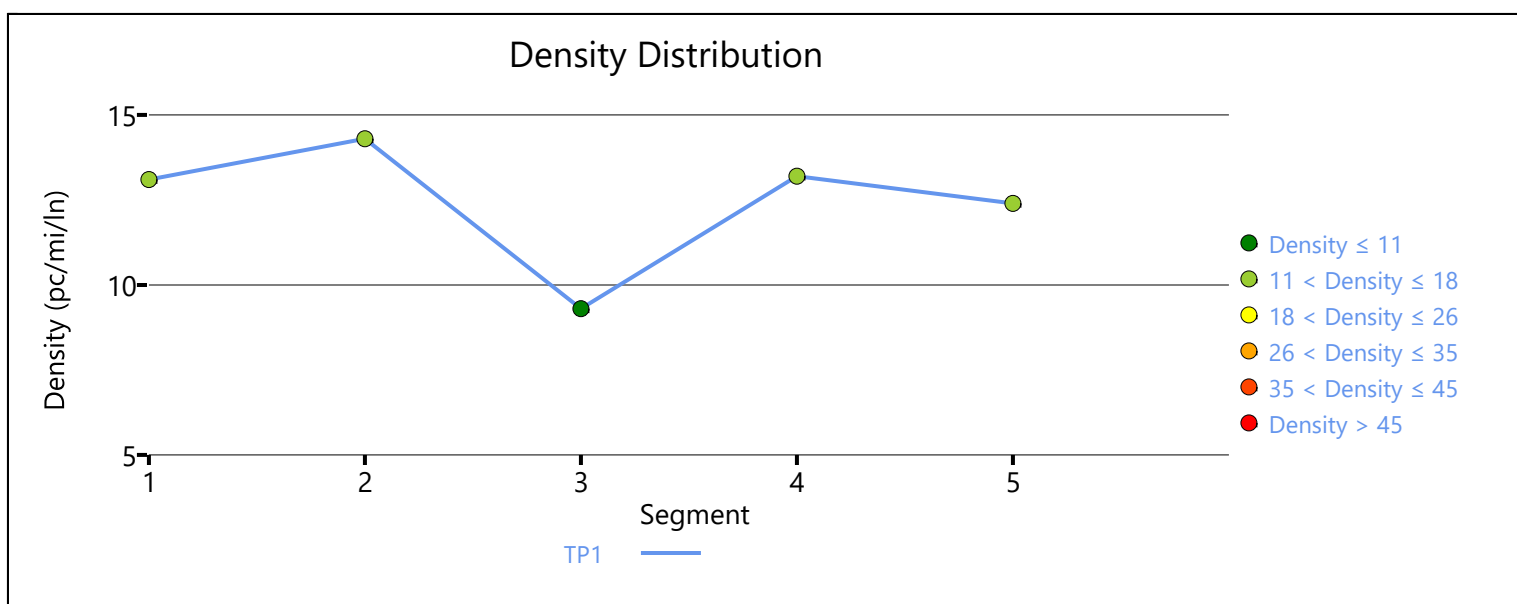
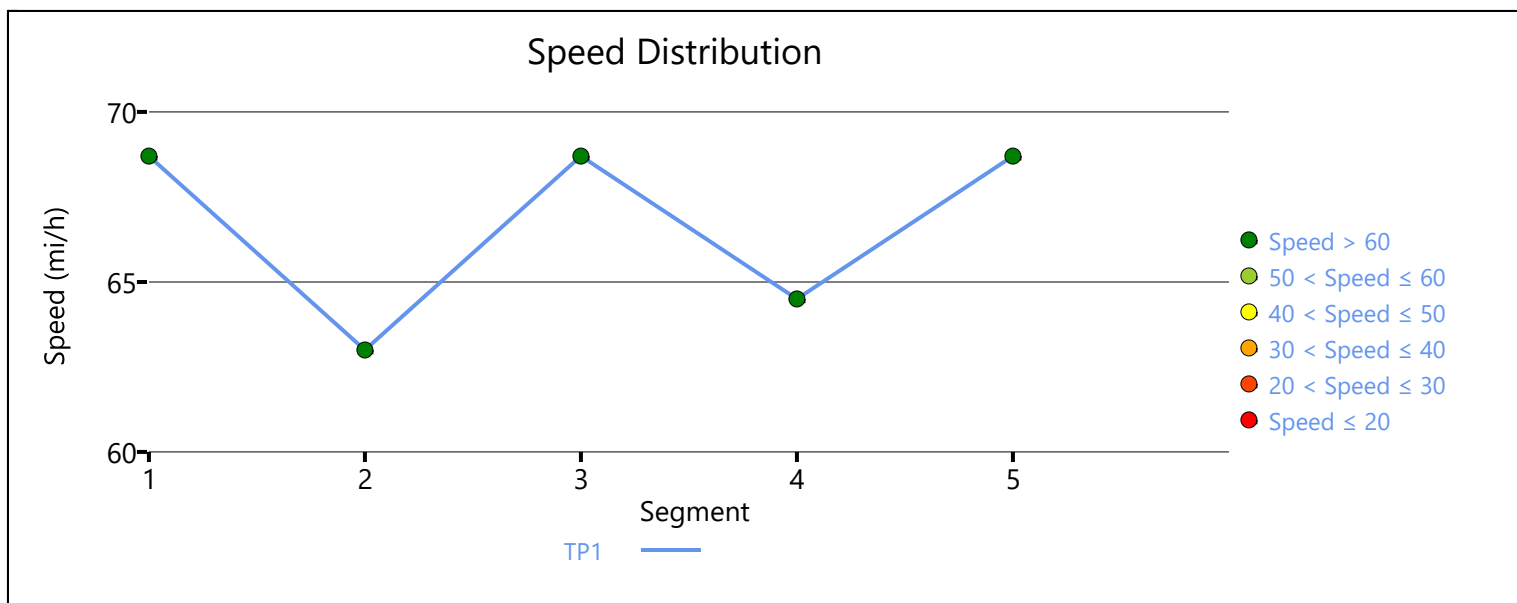
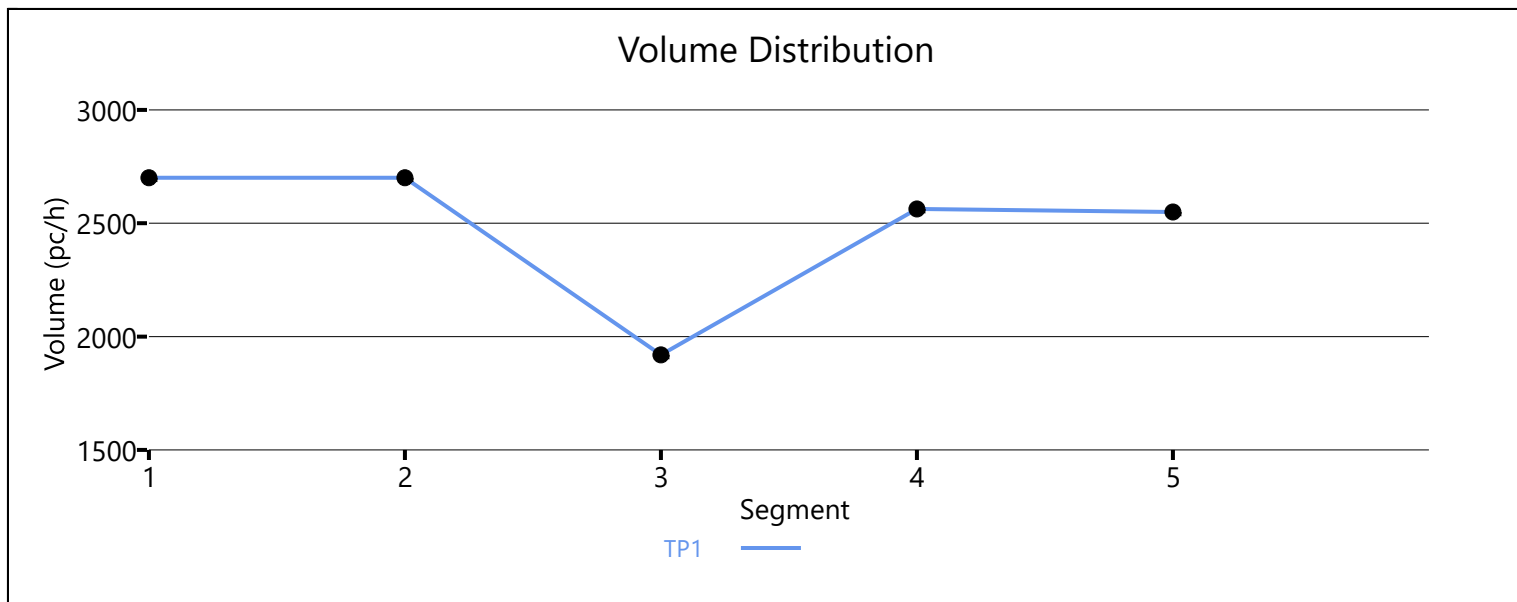
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.980	2563	644	7200	2100	0.36	0.31	64.5	62.7	13.2	13.4	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		2550		7161		0.36		68.7		12.4		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	12.5	11.5	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.4	Density, veh/mi/ln		11.5
Average Travel Time, min		2.2	Density, pc/mi/ln		12.5



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2199		4764		0.46		68.2		16.1		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2199	1755	4800	2100	0.46	0.84	57.2	57.2	19.2	21.4	C

Segment 3: Basic

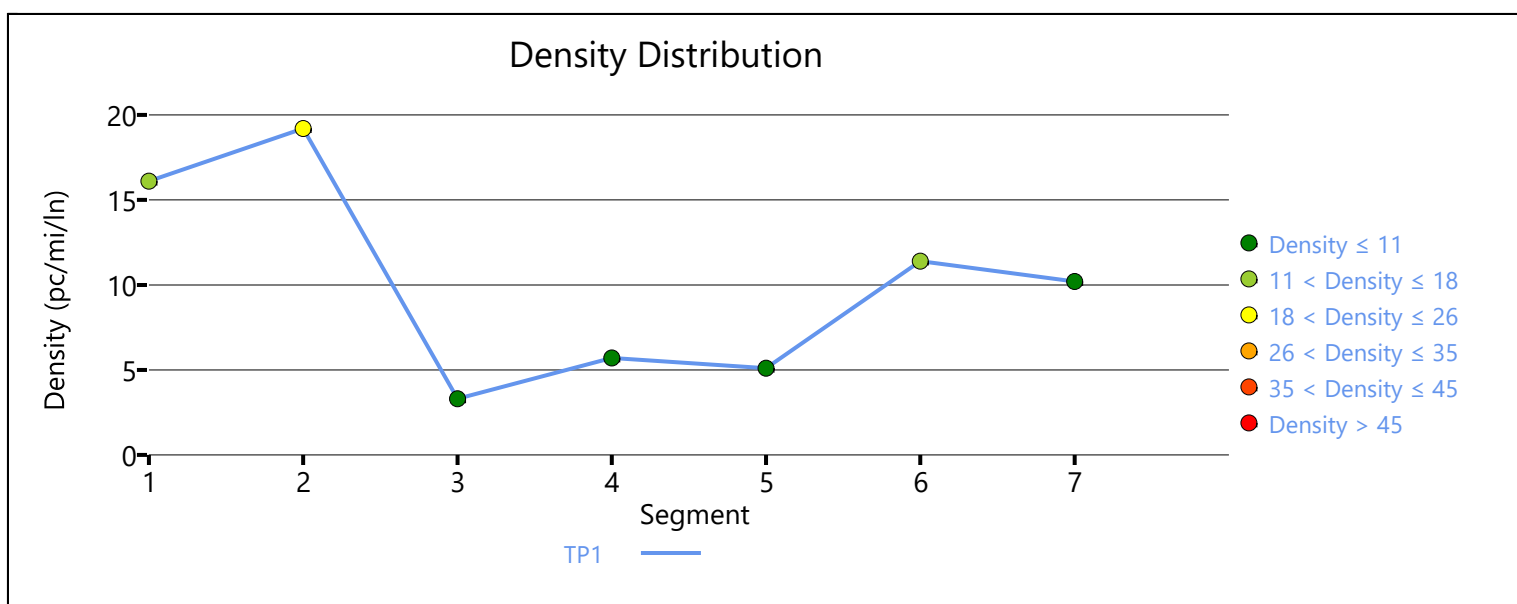
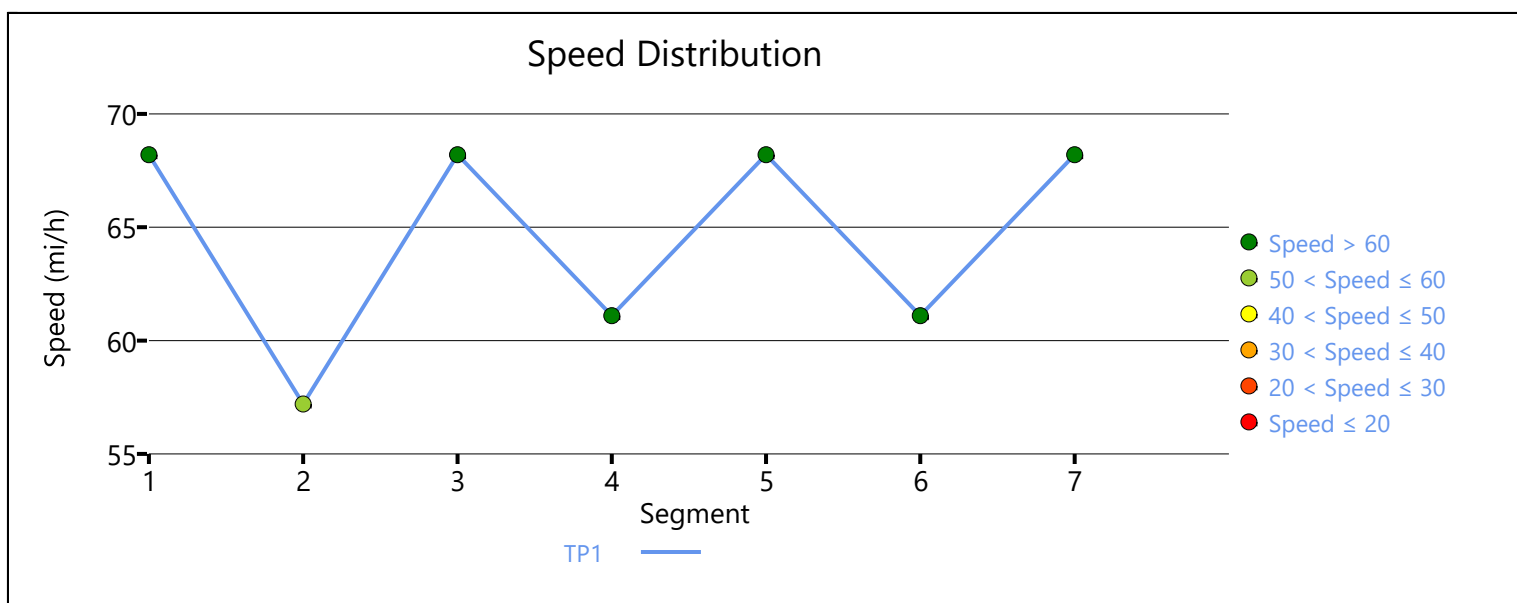
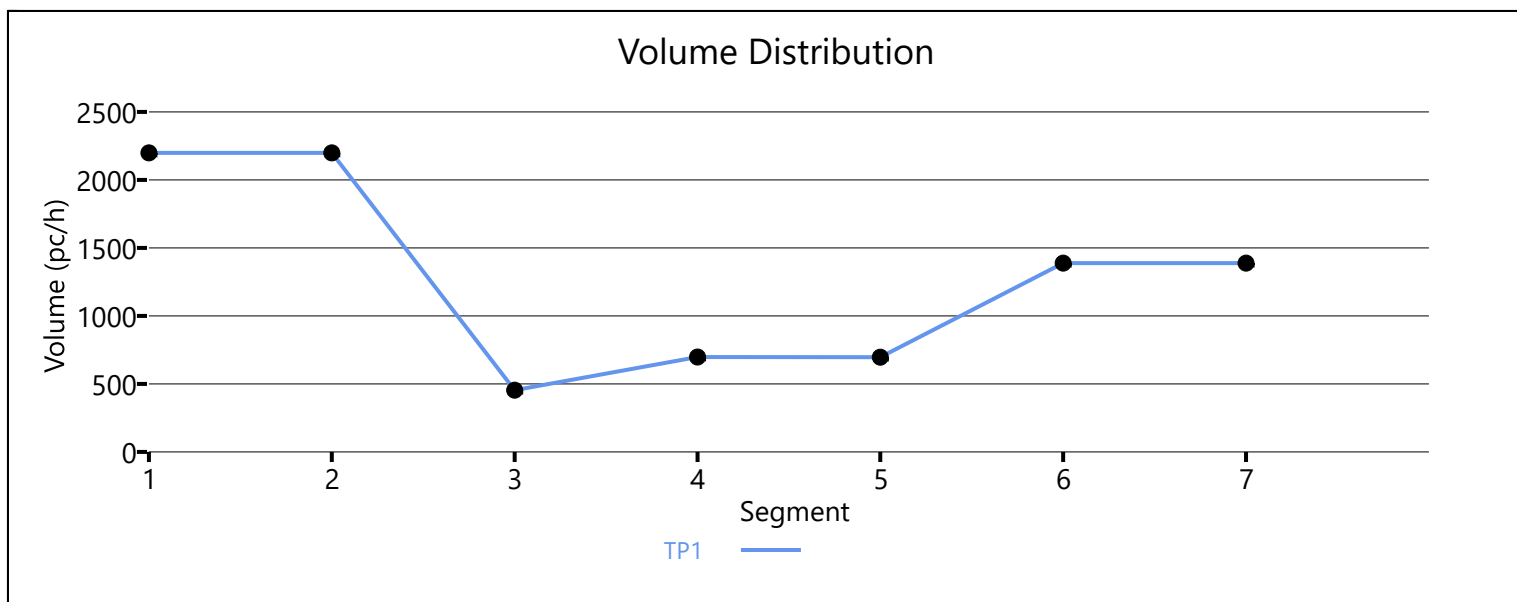
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		454		4764		0.10		68.2		3.3		A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	698	244	4800	1900	0.15	0.13	61.1	61.1	5.7	9.6	A

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		697		4764		0.15		68.2		5.1		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.952	1388	691	4800	2100	0.29	0.33	61.1	61.1	11.4	14.8	B
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1388		4764		0.29		68.2		10.2		A
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.8			11.4			11.0			3.1			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.8				Density, veh/mi/ln				11.0		
Average Travel Time, min					3.1				Density, pc/mi/ln				11.4		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1468		4764		0.31		68.2		10.8		A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	1468	1312	4800	2100	0.31	0.62	58.4	58.4	12.6	15.1	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		163		4764		0.03		68.2		1.2		A

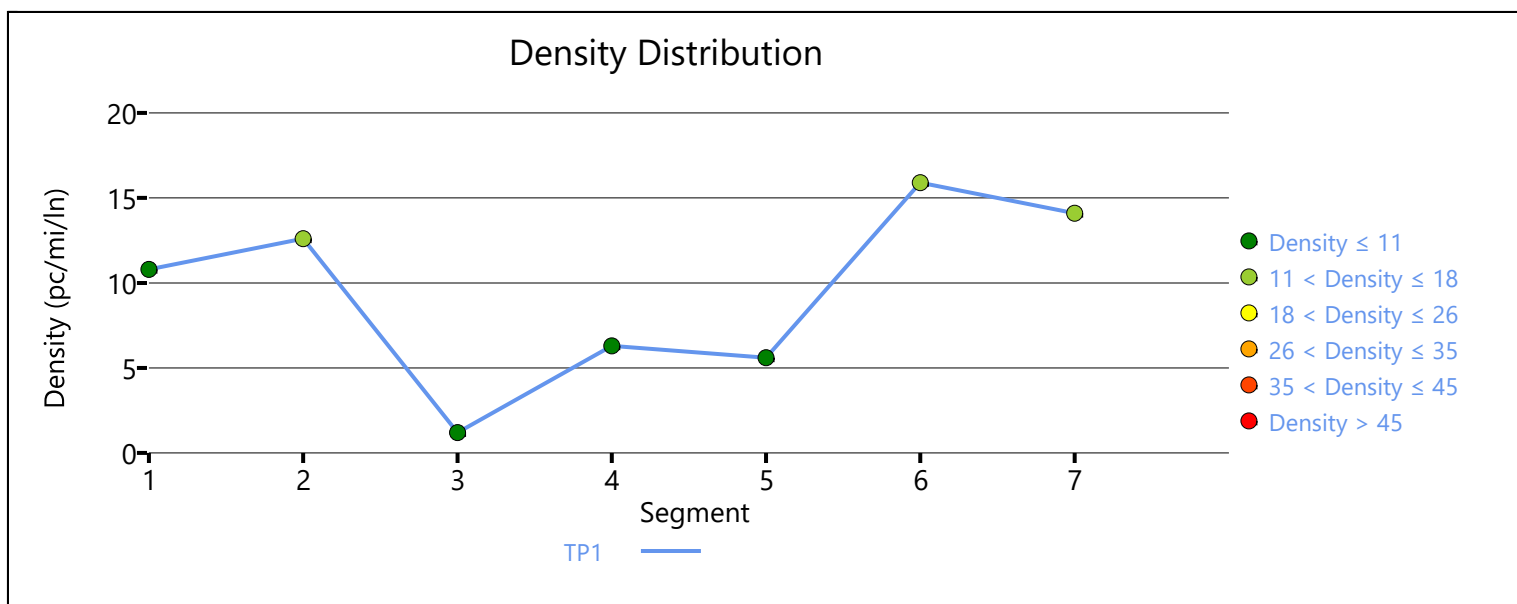
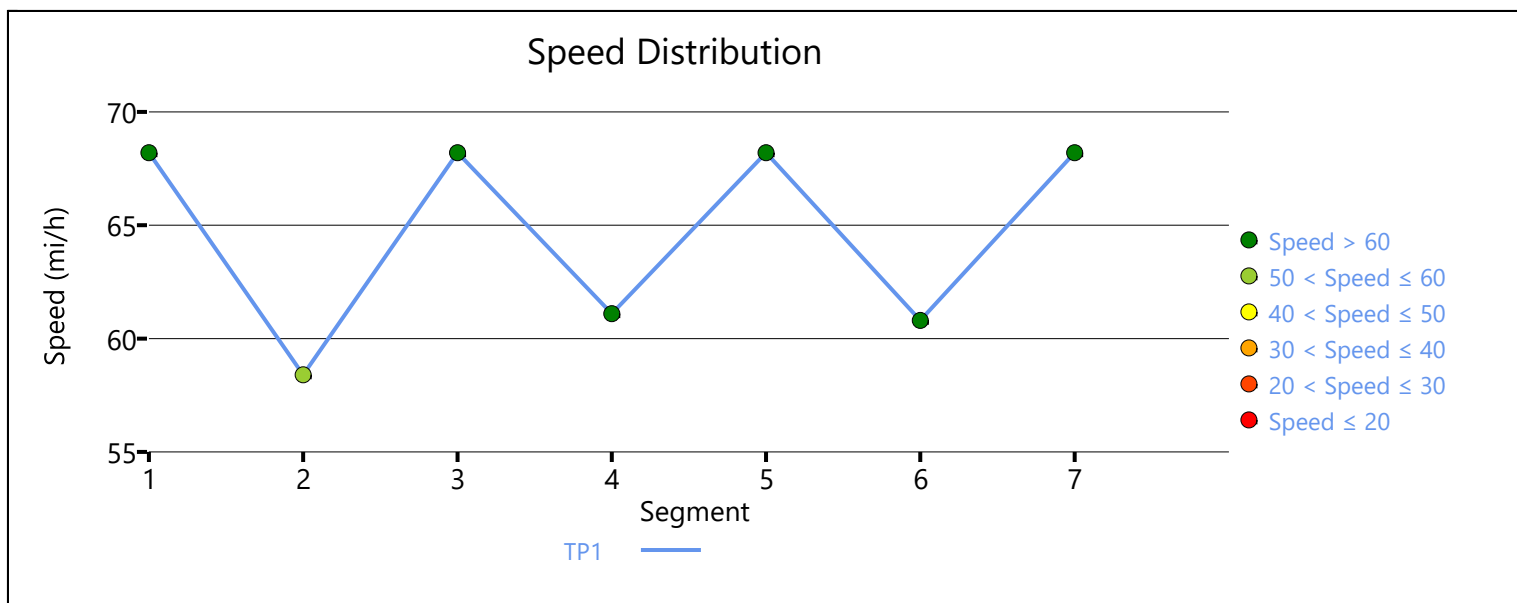
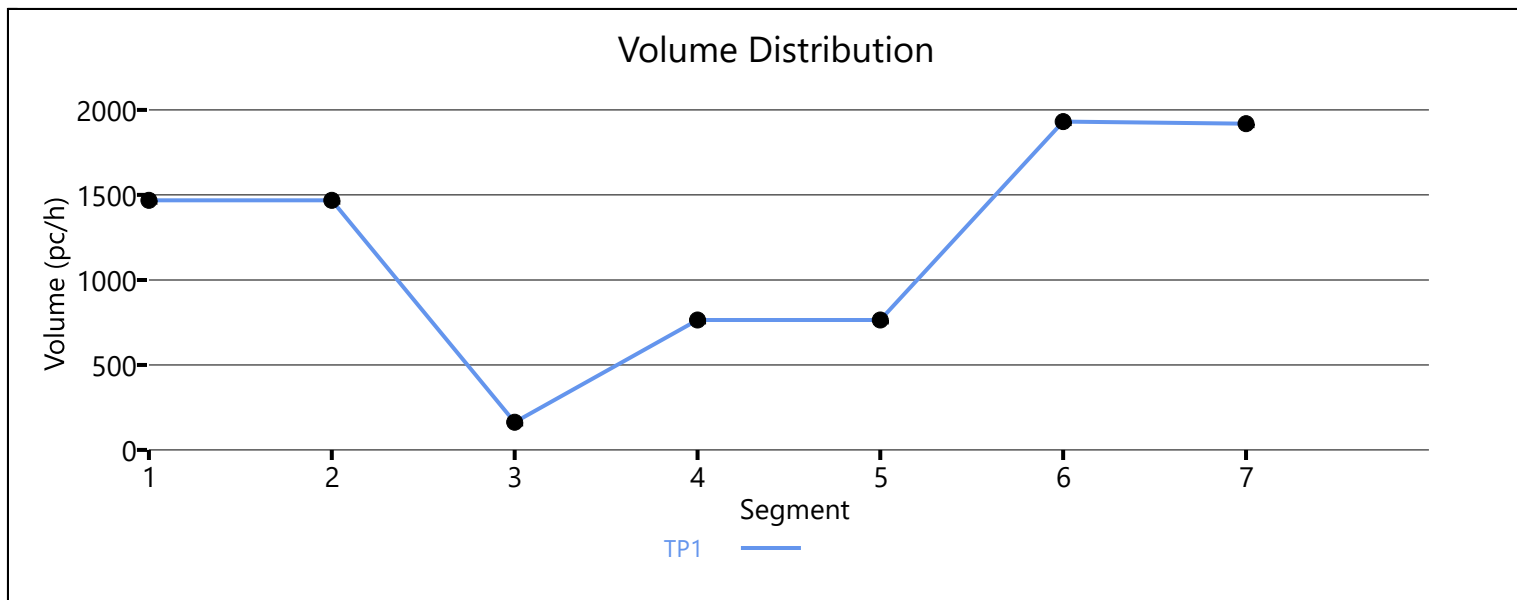
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	764	601	4800	1900	0.16	0.32	61.1	61.1	6.3	10.0	A

6.7-10

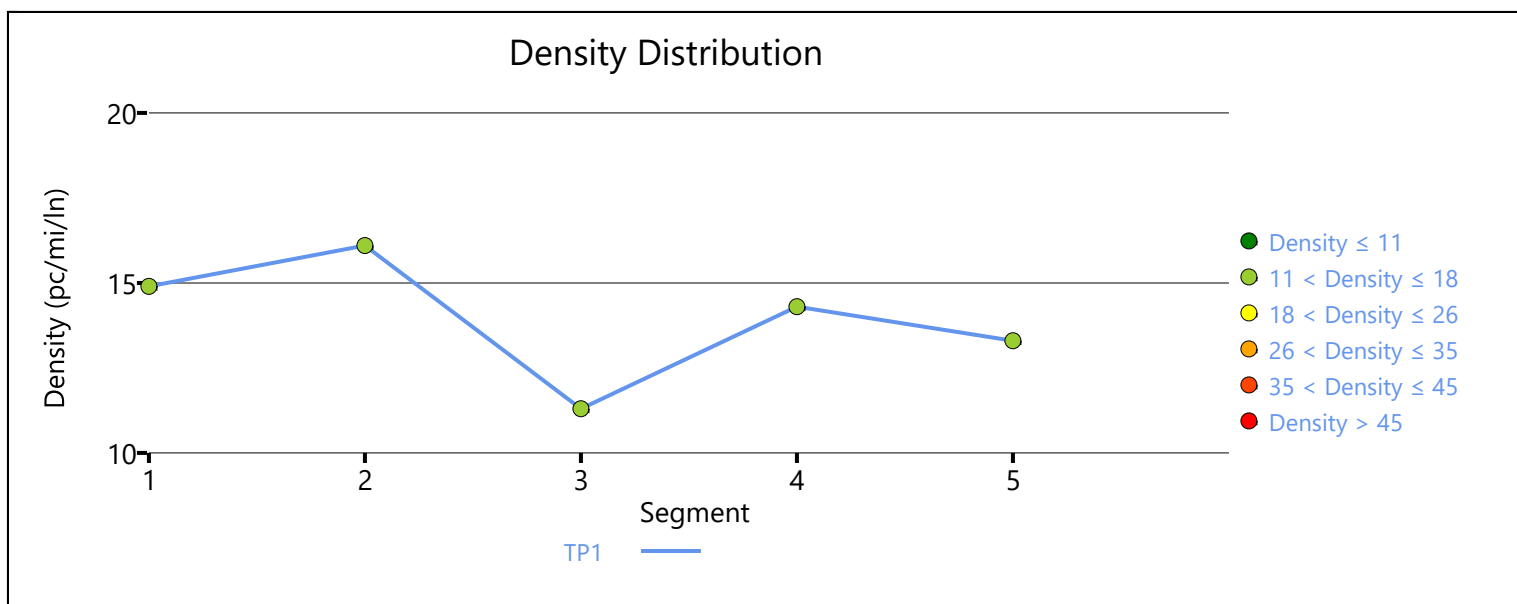
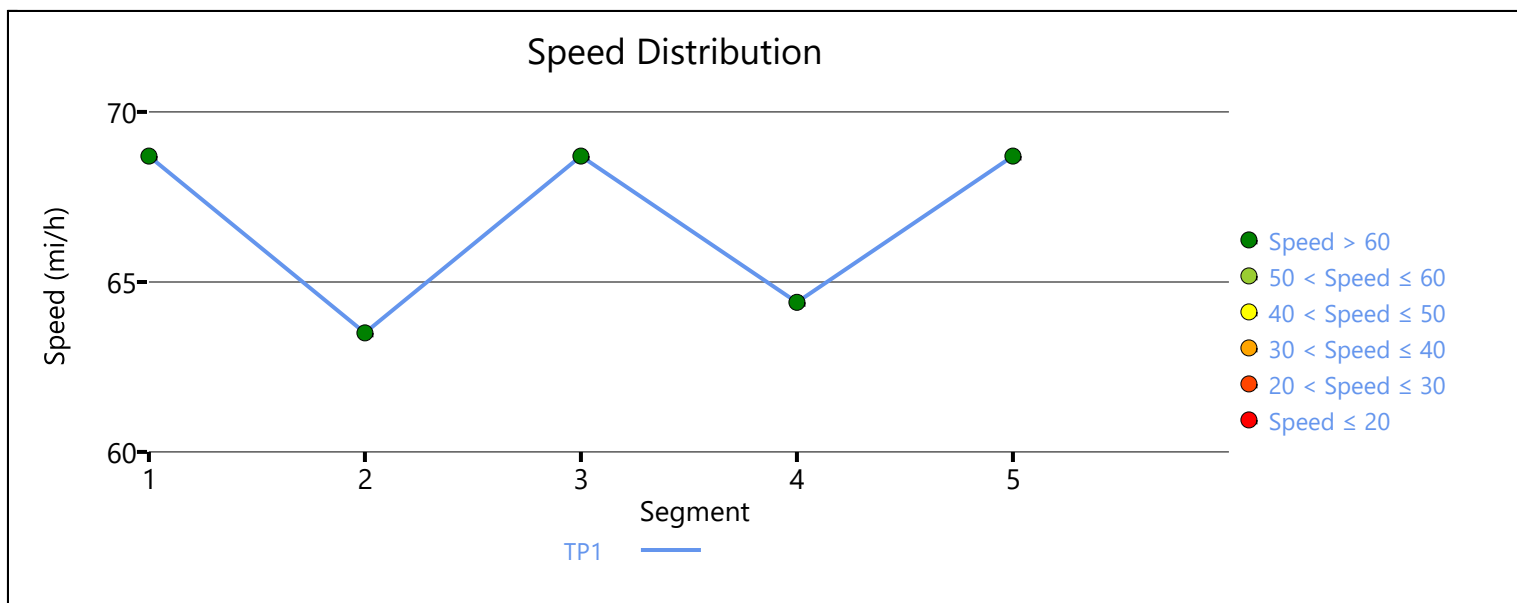
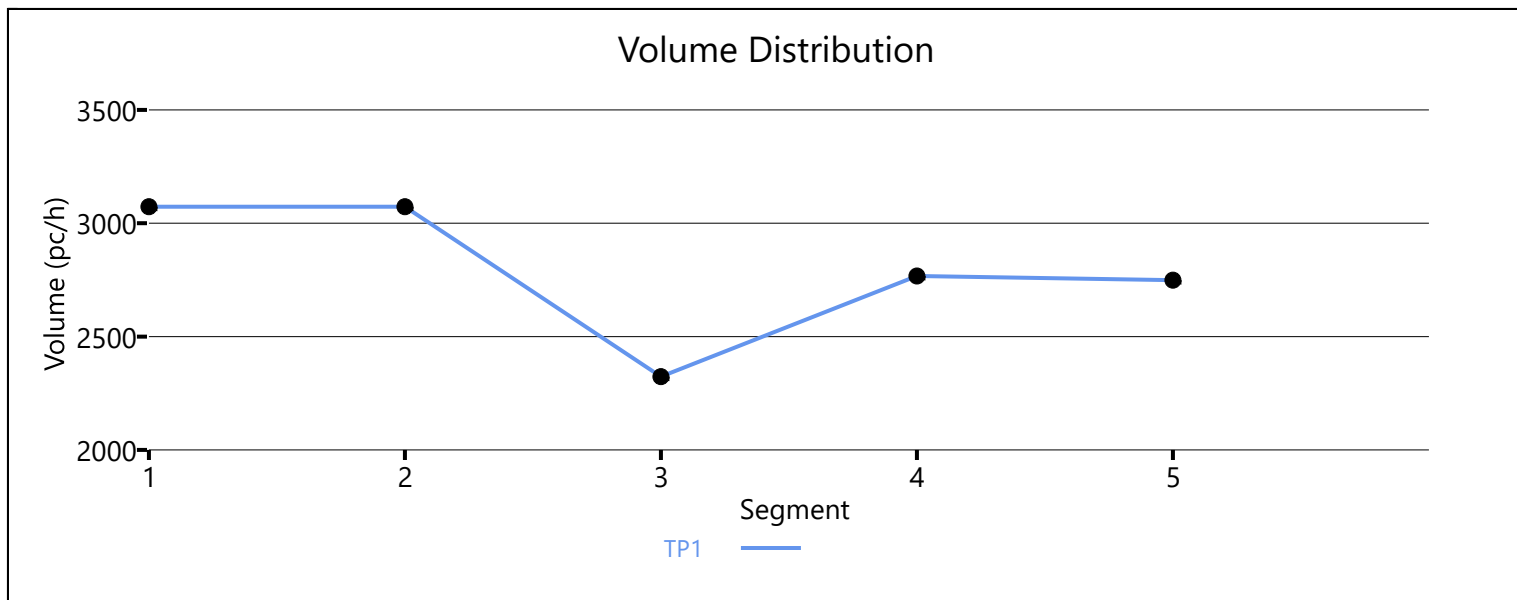
Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		764		4764		0.16		68.2		5.6		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	1931	1167	4800	2100	0.40	0.56	60.8	60.8	15.9	18.8	B
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1919		4764		0.40		68.2		14.1		B
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	66.0			10.6			10.3			3.1			A		
Facility Overall Results															
Space Mean Speed, mi/h					66.0				Density, veh/mi/ln				10.3		
Average Travel Time, min					3.1				Density, pc/mi/ln				10.6		



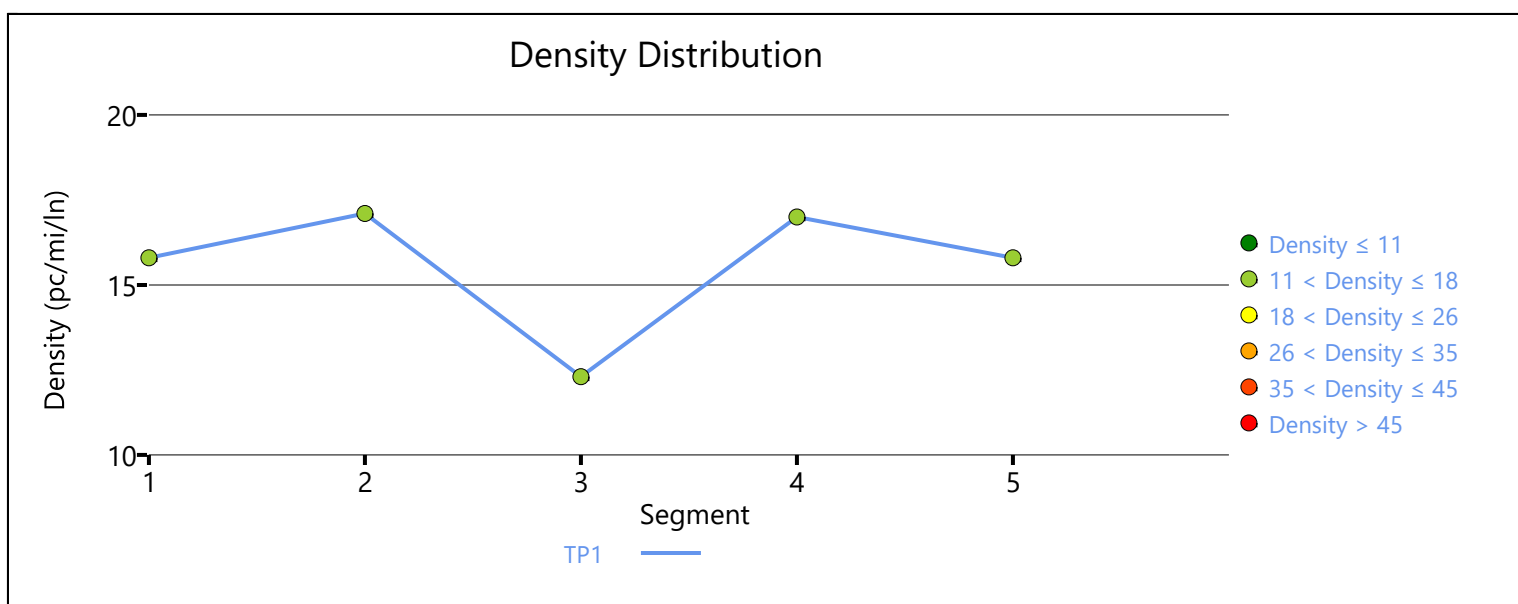
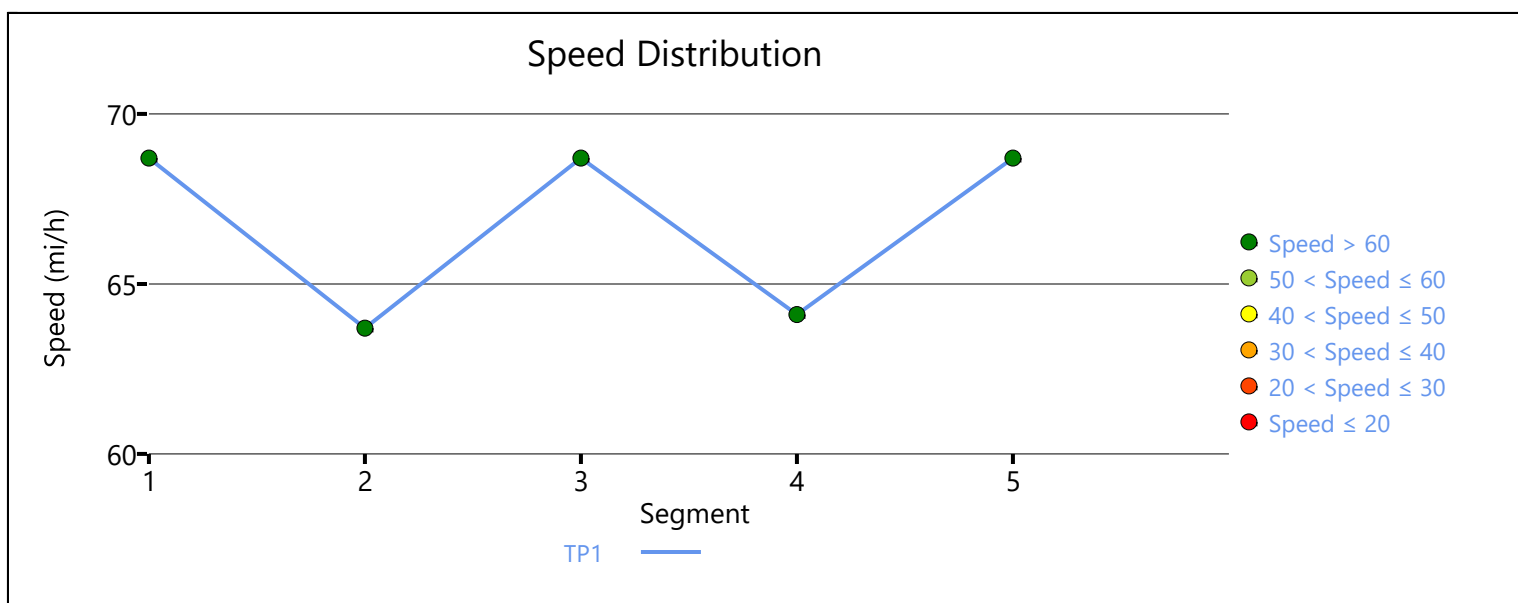
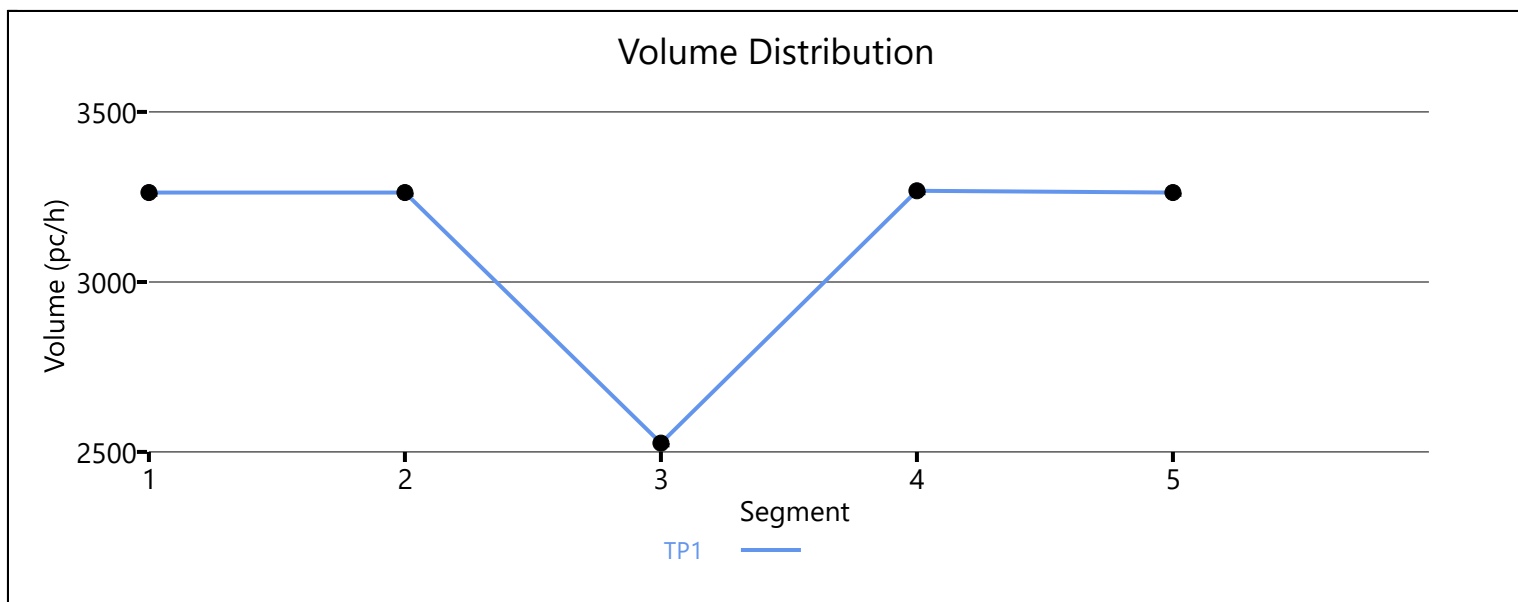
HCS7 Freeway Facilities Report																
Project Information																
Analyst				JB				Date				7/8/2020				
Agency				Urban Crossroads, Inc.				Analysis Year				Opening Year Cumulative (2023) Without Project				
Jurisdiction				Caltrans				Time Period Analyzed				PM Peak Hour				
Project Description				JN:12396 - I-10 EB												
Facility Global Input																
Jam Density, pc/mi/ln				190.0				Density at Capacity, pc/mi/ln				45.0				
Queue Discharge Capacity Drop, %				7				Total Segments				5				
Total Time Periods				1				Time Period Duration, min				15				
Facility Segment Data																
No.		Coded		Analyzed		Name				Length, ft				Lanes		
1		Basic		Basic		West of Oak Valley				5280				3		
2		Diverge		Diverge		Off-Ramp				1500				3		
3		Basic		Basic		Between				1770				3		
4		Merge		Merge		On-Ramp				1500				3		
5		Basic		Basic		East of Oak Valley				2250				3		
Facility Segment Data																
Segment 1: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.971		3073		7161		0.43		68.7		14.9		B
Segment 2: Diverge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.971	0.990	3073	756	7200	2100	0.43	0.36	63.5	59.8	16.1	19.7	B
Segment 3: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.962		2323		7161		0.32		68.7		11.3		B
Segment 4: Merge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.962	0.980	2767	444	7200	2100	0.38	0.21	64.4	62.5	14.3	14.4	B
Segment 5: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.971		2749		7161		0.38		68.7		13.3		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	14.2	13.7	2.1	B
Facility Overall Results					
Space Mean Speed, mi/h		67.5	Density, veh/mi/ln		13.7
Average Travel Time, min		2.1	Density, pc/mi/ln		14.2



HCS7 Freeway Facilities Report																
Project Information																
Analyst				JB				Date				7/8/2020				
Agency				Urban Crossroads, Inc.				Analysis Year				Opening Year Cumulative (2023) Without Project				
Jurisdiction				Caltrans				Time Period Analyzed				PM Peak Hour				
Project Description				JN:12396 - I-10 WB at Oak Valley												
Facility Global Input																
Jam Density, pc/mi/ln				190.0				Density at Capacity, pc/mi/ln				45.0				
Queue Discharge Capacity Drop, %				7				Total Segments				5				
Total Time Periods				1				Time Period Duration, min				15				
Facility Segment Data																
No.		Coded		Analyzed		Name				Length, ft				Lanes		
1		Basic		Basic		East of Oak Valley				4150				3		
2		Diverge		Diverge		Off-Ramp				1500				3		
3		Basic		Basic		Between				1700				3		
4		Merge		Merge		On-Ramp				1500				3		
5		Basic		Basic		West of Oak Valley				4000				3		
Facility Segment Data																
Segment 1: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.935		3263		7161		0.46		68.7		15.8		B
Segment 2: Diverge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.935	0.990	3263	742	7200	2100	0.45	0.35	63.7	59.8	17.1	20.5	C
Segment 3: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.917		2526		7161		0.35		68.7		12.3		B
Segment 4: Merge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.917	0.990	3268	742	7200	2100	0.45	0.35	64.1	62.4	17.0	16.9	B
Segment 5: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.935		3263		7161		0.46		68.7		15.8		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	15.6	14.6	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.5	Density, veh/mi/ln		14.6
Average Travel Time, min		2.2	Density, pc/mi/ln		15.6



HCS7 Freeway Facilities Report

Project Information

Analyst	CP	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2668		4764		0.56		68.2		19.6		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2668	2441	4800	2100	0.56	1.16	53.3	55.5	45.0	25.4	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		227		4764		0.05		67.3		1.6		A

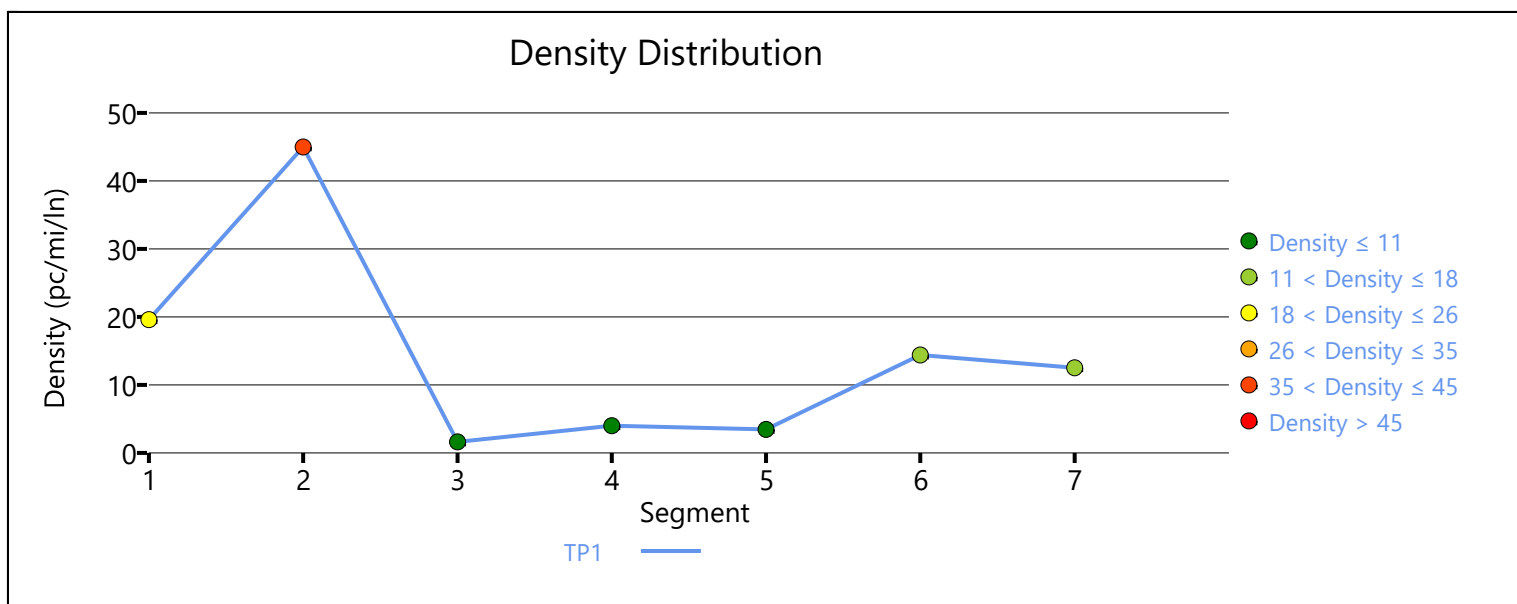
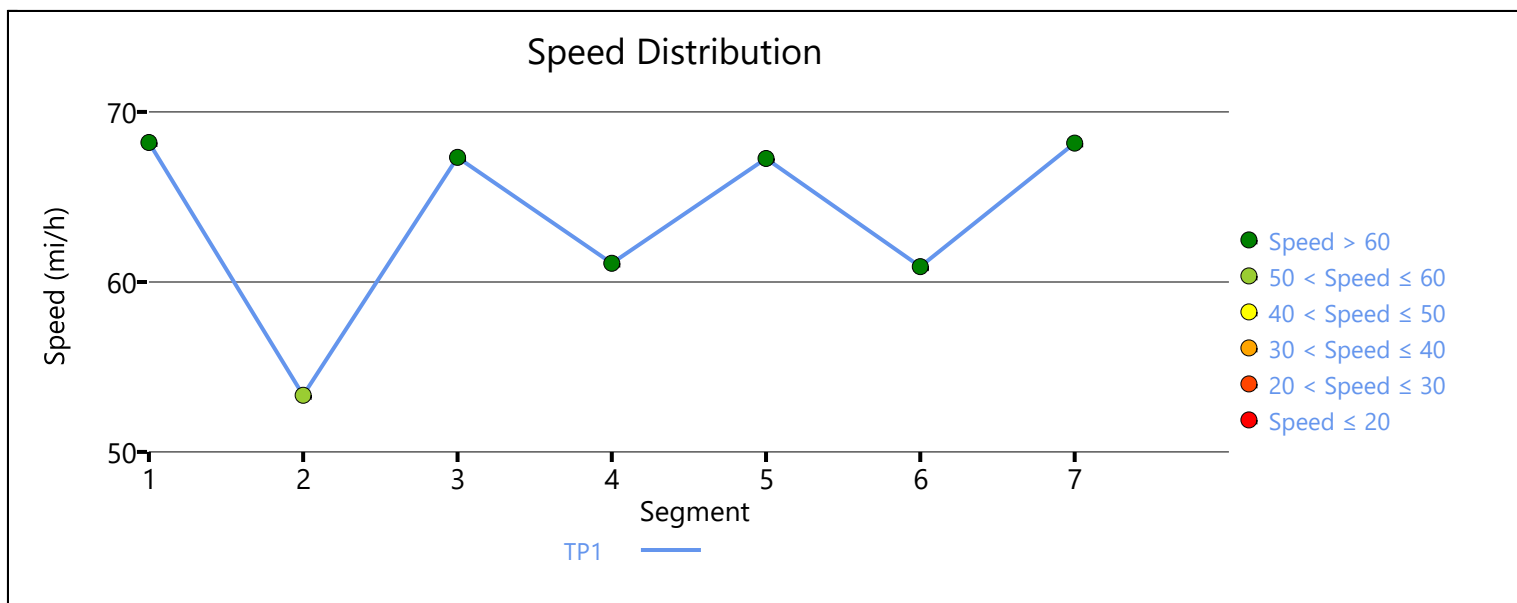
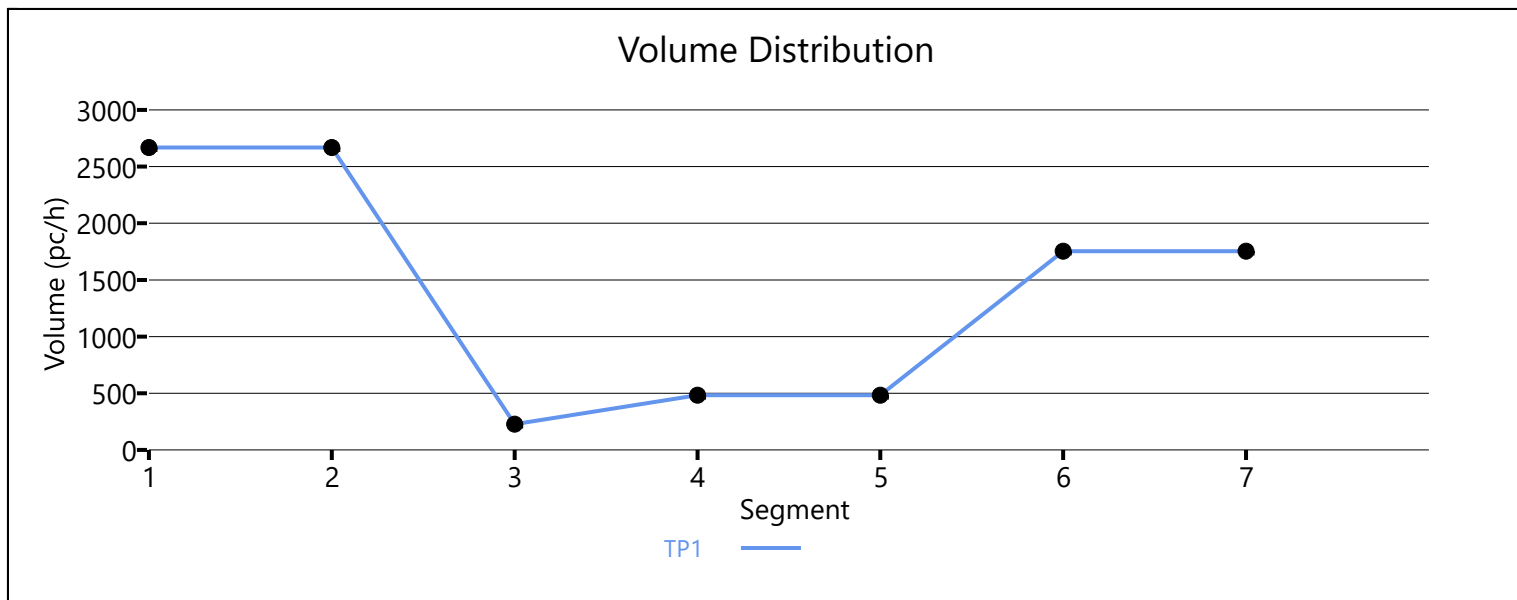
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	483	256	4800	1900	0.10	0.13	61.1	61.1	4.0	7.9	A

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Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		483		4764		0.10		67.3		3.5		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.962	1754	1271	4800	2100	0.37	0.61	60.9	60.9	14.4	17.4	B
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1754		4764		0.37		68.2		12.5		B
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.1			14.9			14.4			3.2			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.1				Density, veh/mi/ln				14.4		
Average Travel Time, min					3.2				Density, pc/mi/ln				14.9		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		1617		4764		0.34		68.2		11.8		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.952	1617	1520	4800	2100	0.34	0.72	57.8	57.8	14.0	16.4	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		93		4764		0.02		68.2		0.7		A

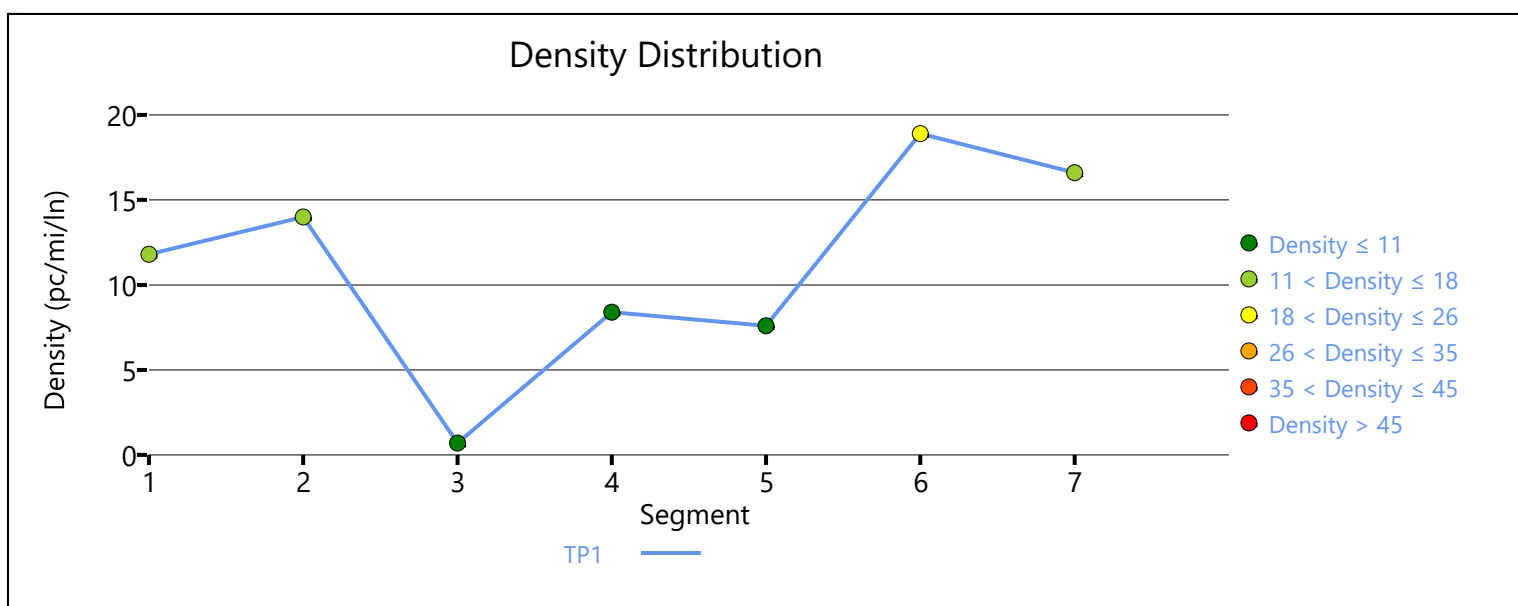
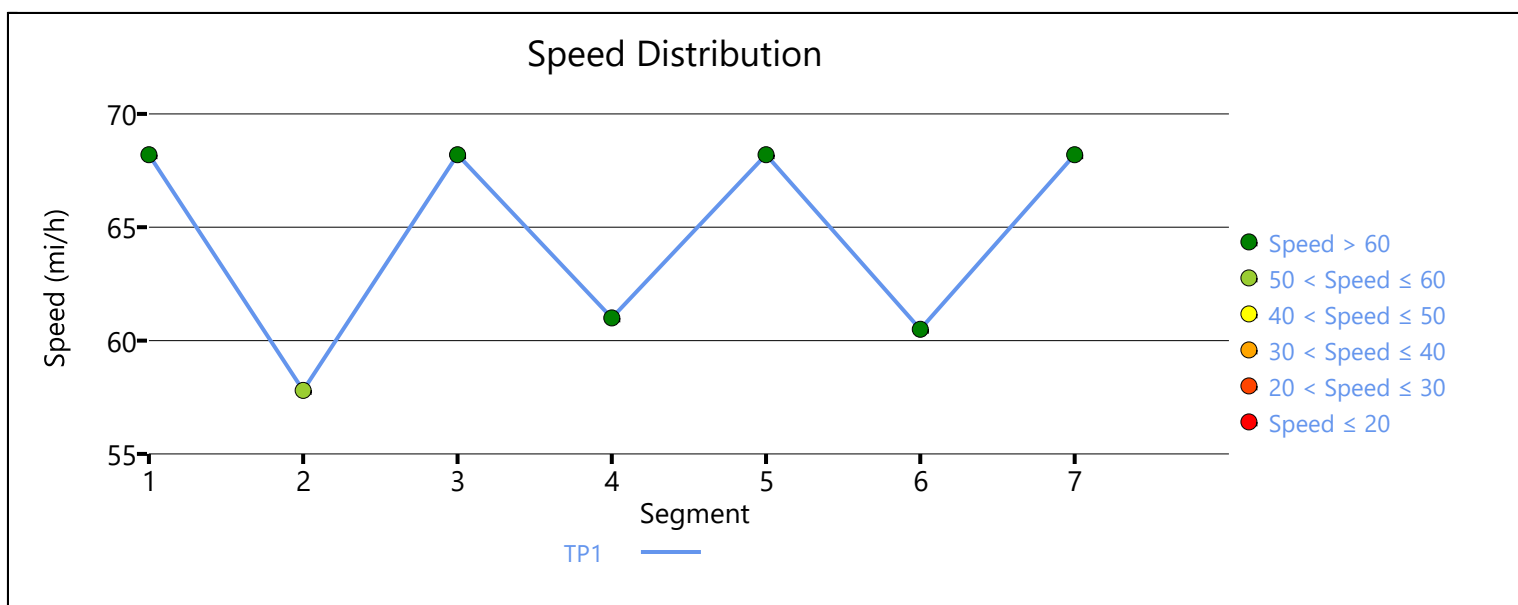
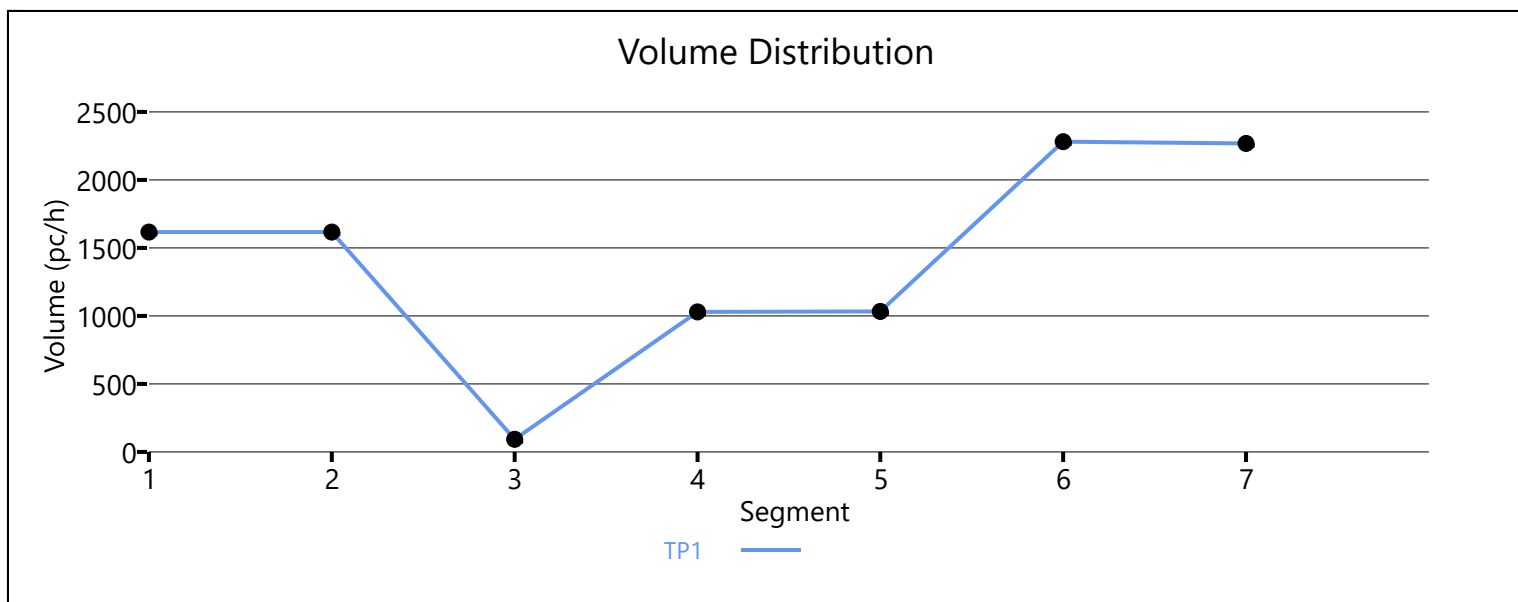
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.962	1030	937	4800	1900	0.21	0.49	61.0	61.0	8.4	11.9	B

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Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1033		4764		0.22		68.2		7.6		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2281	1248	4800	2100	0.48	0.59	60.5	60.5	18.9	21.5	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2268		4764		0.48		68.2		16.6		B
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.8			12.2			11.7			3.1			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.8				Density, veh/mi/ln				11.7		
Average Travel Time, min					3.1				Density, pc/mi/ln				12.2		



APPENDIX 6.8:

OPENING YEAR (2023) WITH PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2023 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2260		7161		0.32		68.7		11.0		A

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.962	2260	423	7200	2100	0.31	0.20	64.1	60.6	11.8	14.7	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1837		7161		0.26		68.7		8.9		A

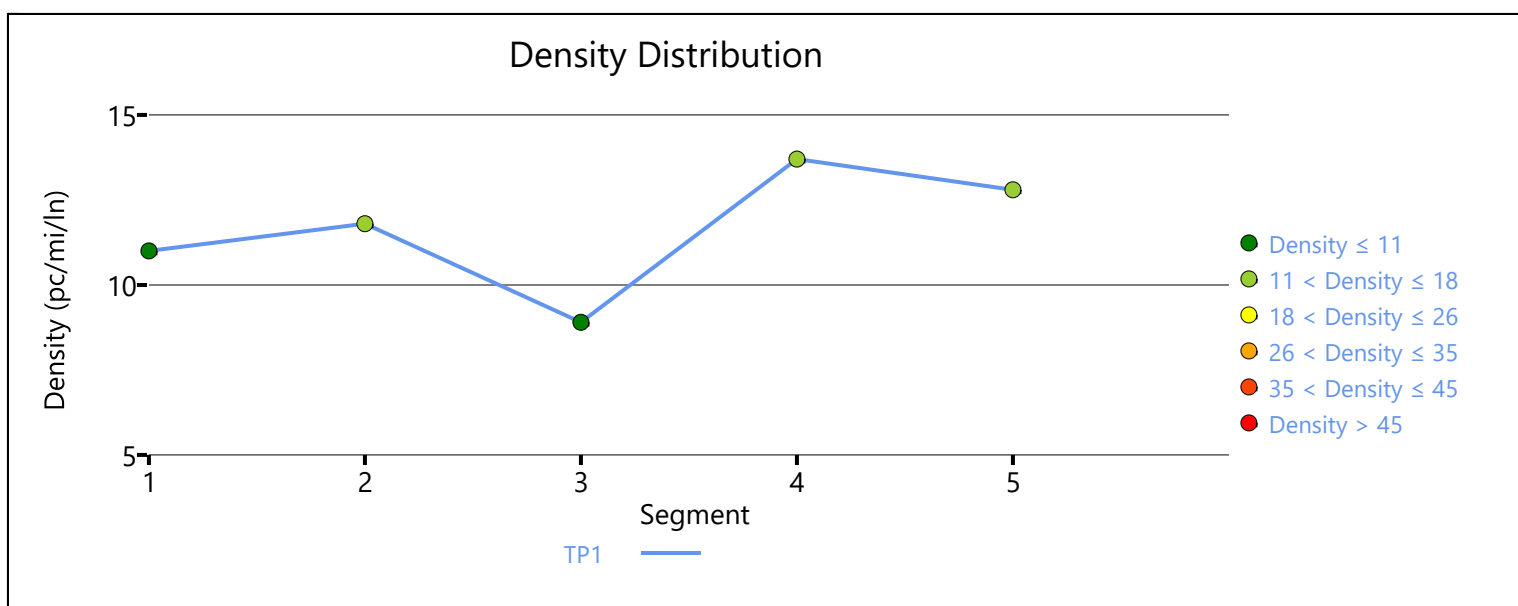
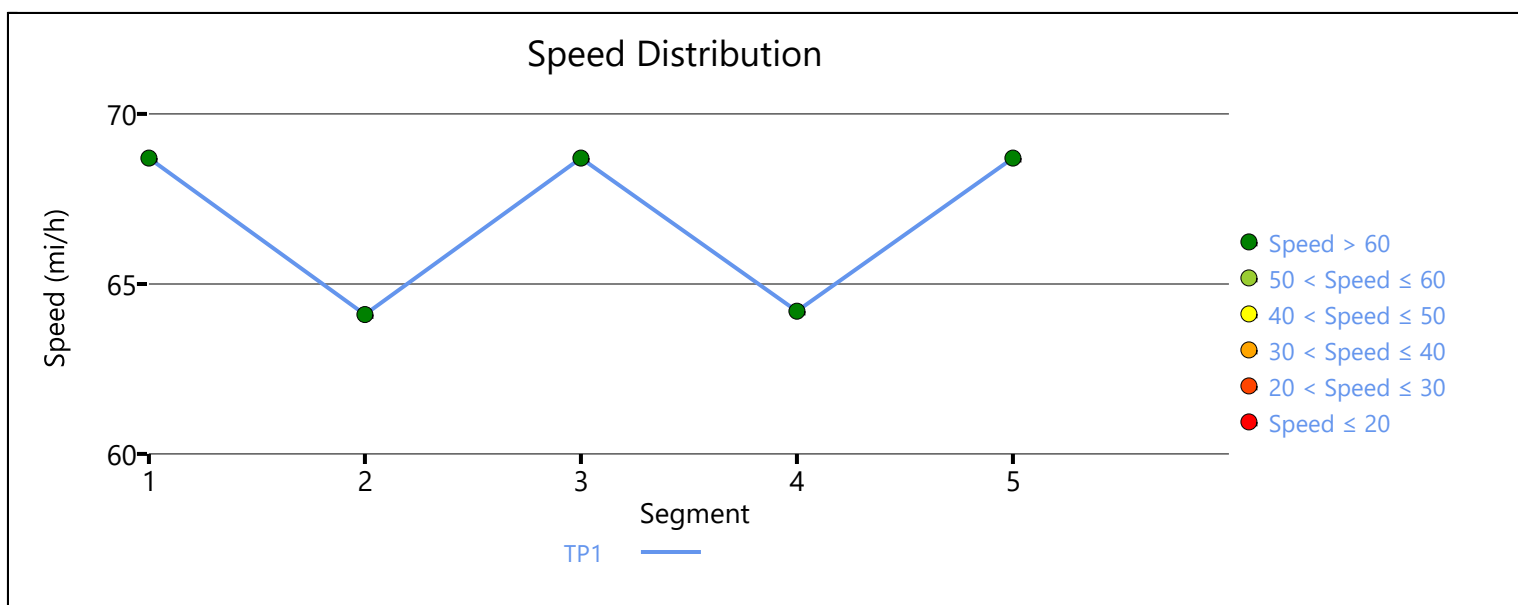
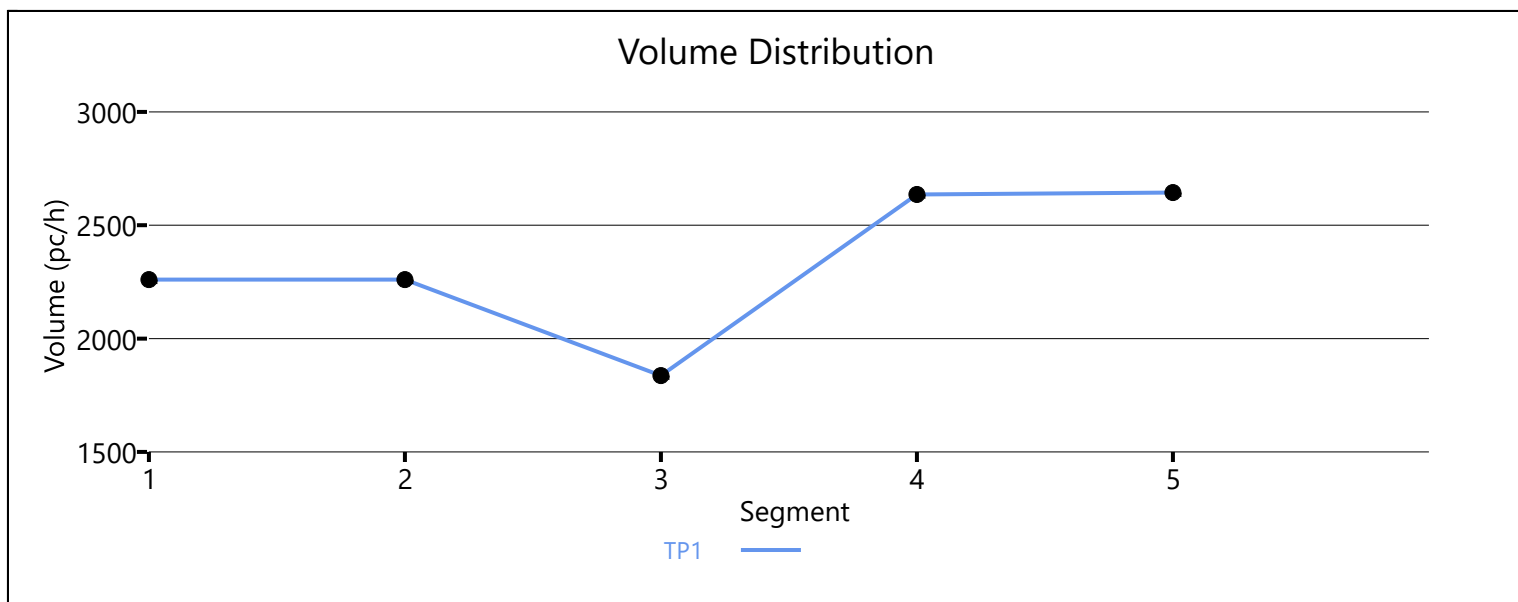
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2636	799	7200	2100	0.37	0.38	64.2	62.4	13.7	14.7	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2644		7161		0.37		68.7		12.8		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	11.5	11.0	2.1	B
Facility Overall Results					
Space Mean Speed, mi/h		67.5	Density, veh/mi/ln		11.0
Average Travel Time, min		2.1	Density, pc/mi/ln		11.5



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2023 WP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		2701		7161		0.38		68.7		13.1		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2701	795	7200	2100	0.38	0.38	63.0	59.6	14.3	17.8	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.901		1919		7161		0.27		68.7		9.3		A

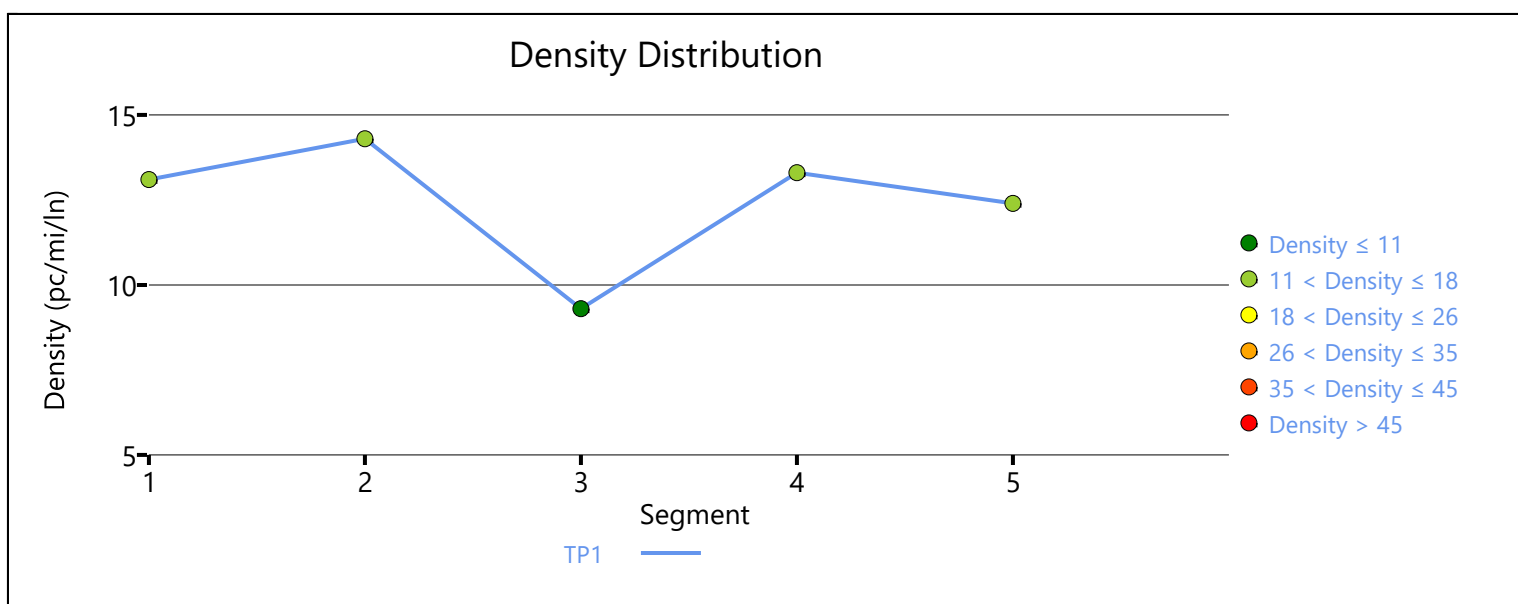
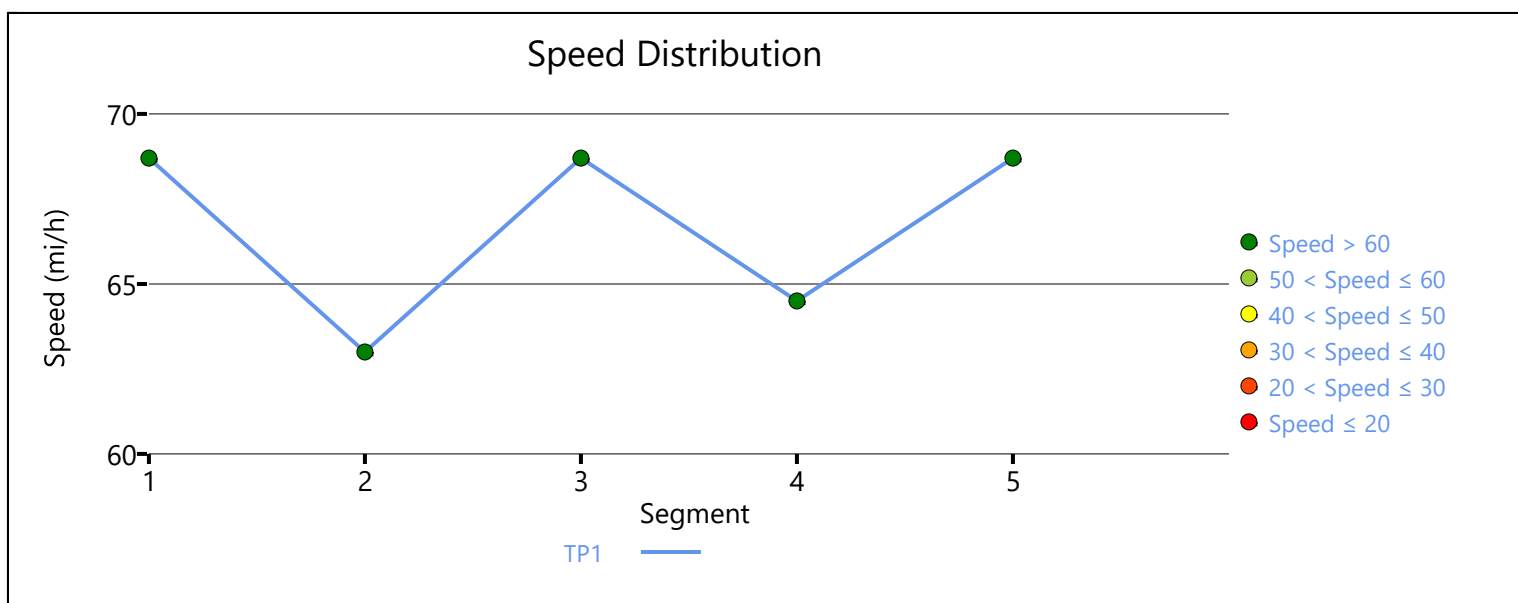
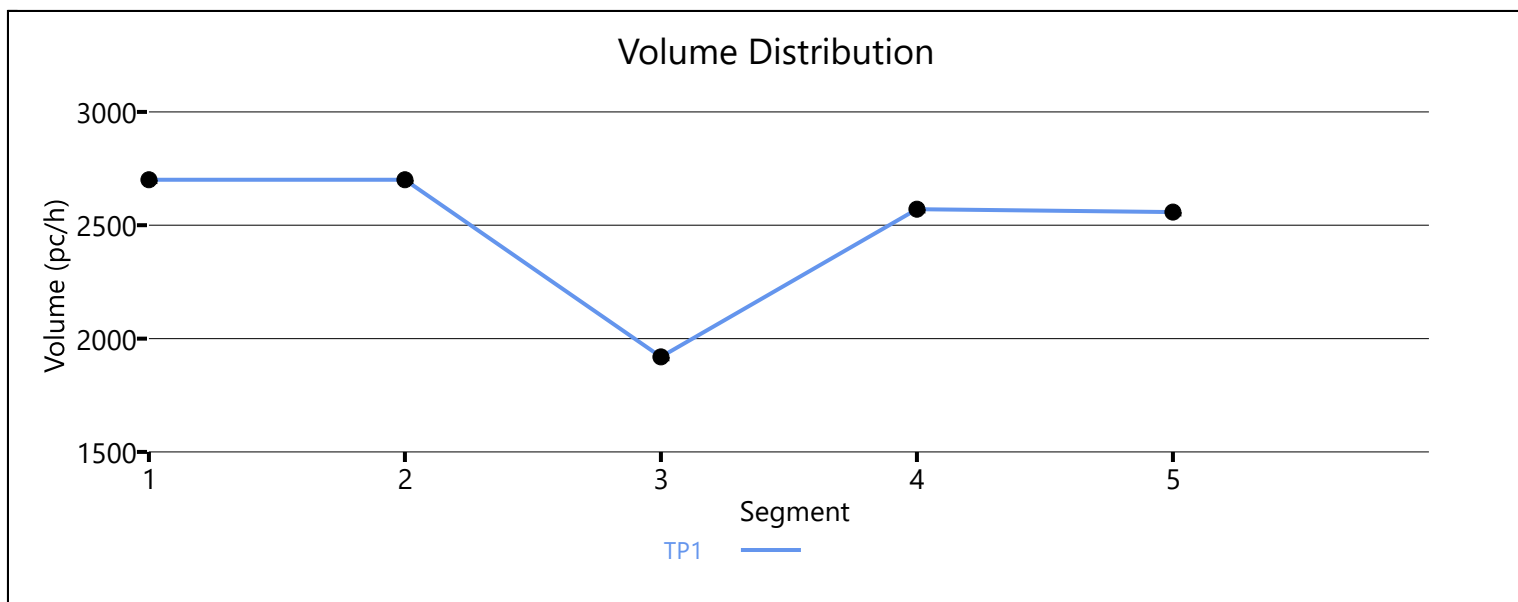
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.980	2571	652	7200	2100	0.36	0.31	64.5	62.7	13.3	13.4	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		2558		7161		0.36		68.7		12.4		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	12.5	11.5	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.4	Density, veh/mi/ln		11.5
Average Travel Time, min		2.2	Density, pc/mi/ln		12.5



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2253		4764		0.47		68.2		16.5		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2253	1810	4800	2100	0.47	0.86	57.1	57.1	19.7	21.8	C

Segment 3: Basic

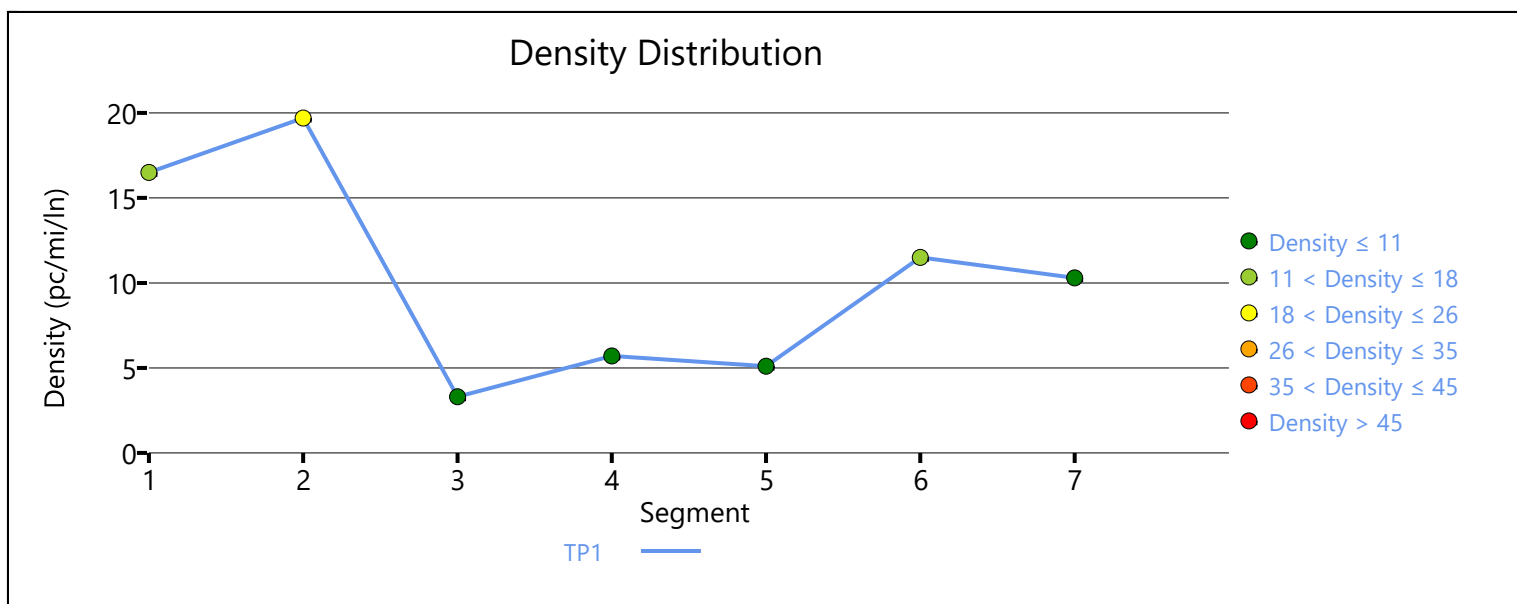
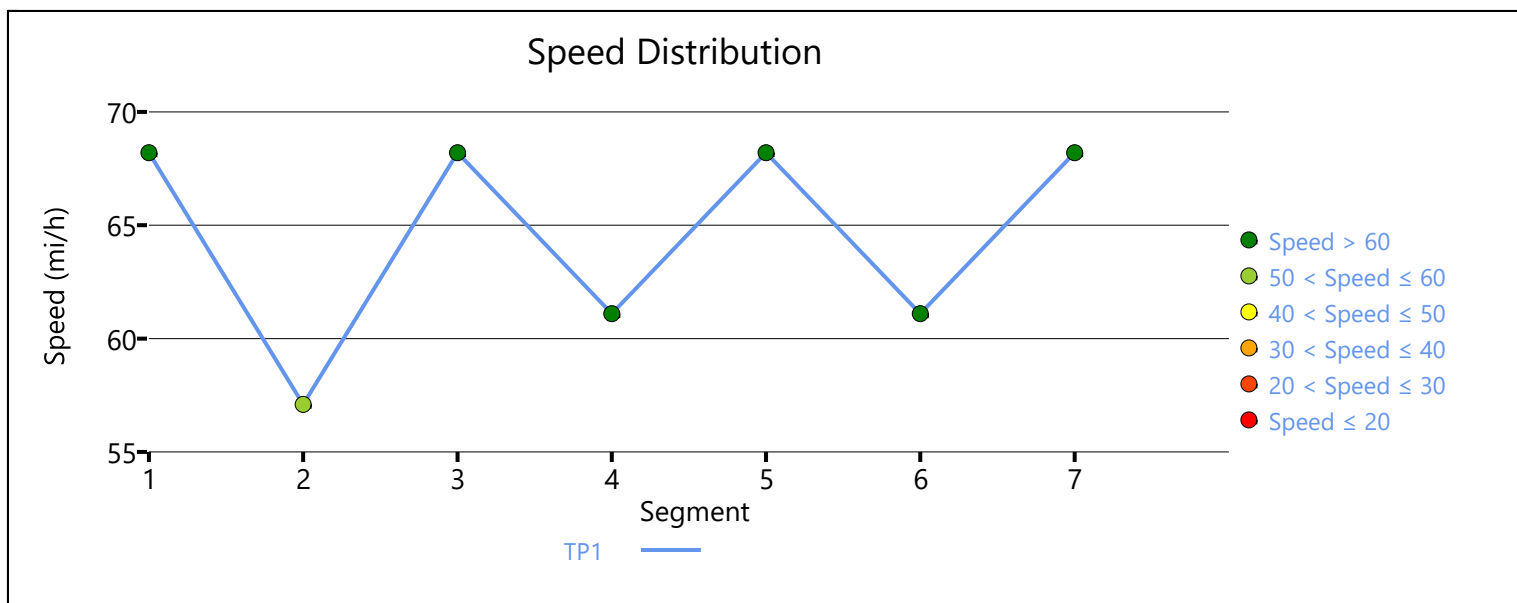
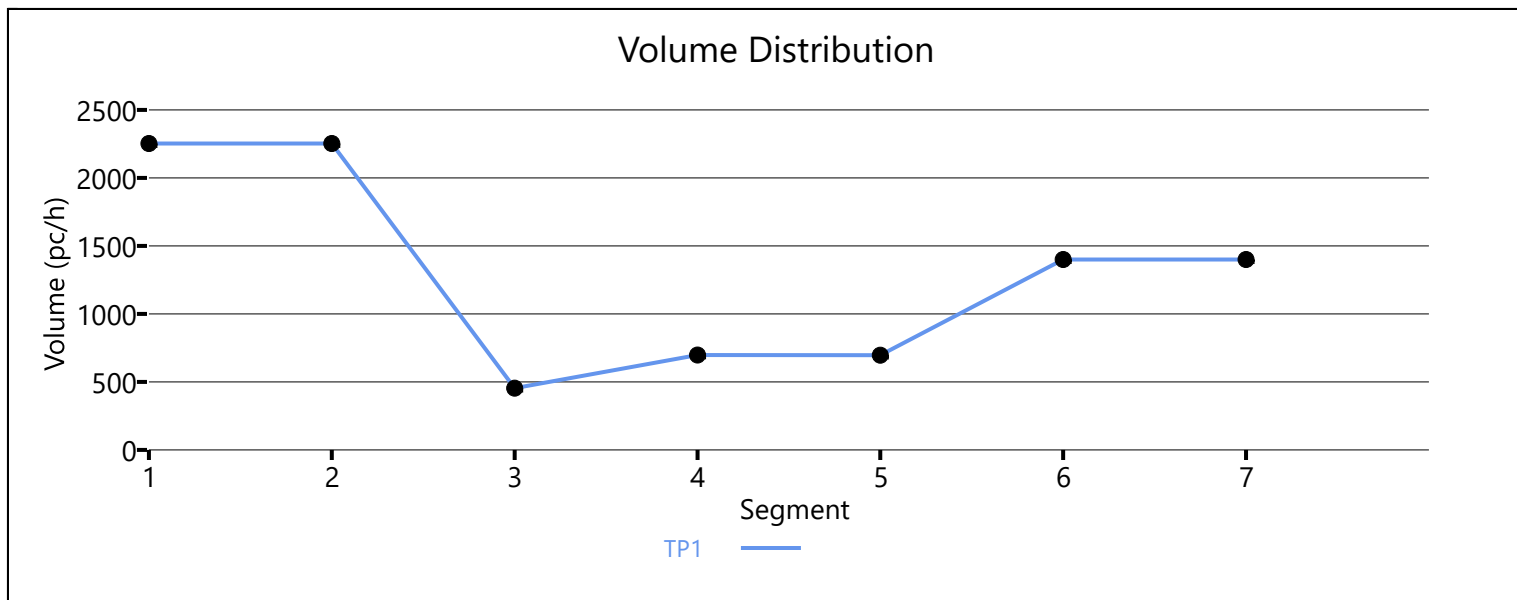
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		454		4764		0.10		68.2		3.3		A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	698	244	4800	1900	0.15	0.13	61.1	61.1	5.7	9.6	A

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		697		4764		0.15		68.2		5.1		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.952	1400	703	4800	2100	0.29	0.33	61.1	61.1	11.5	14.9	B
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1400		4764		0.29		68.2		10.3		A
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.7			11.6			11.2			3.1			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.7				Density, veh/mi/ln				11.2		
Average Travel Time, min					3.1				Density, pc/mi/ln				11.6		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1510		4764		0.32		68.2		11.1		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	1510	1354	4800	2100	0.31	0.64	58.2	58.2	13.0	15.4	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		163		4764		0.03		68.2		1.2		A

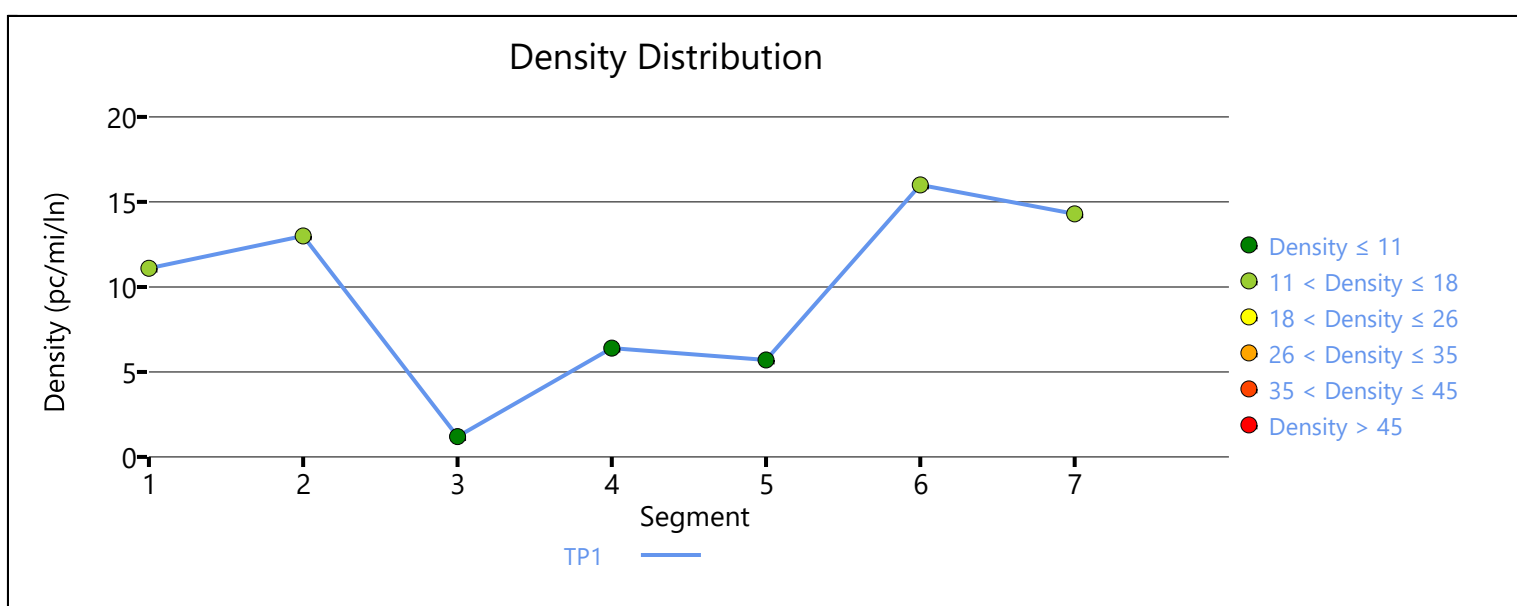
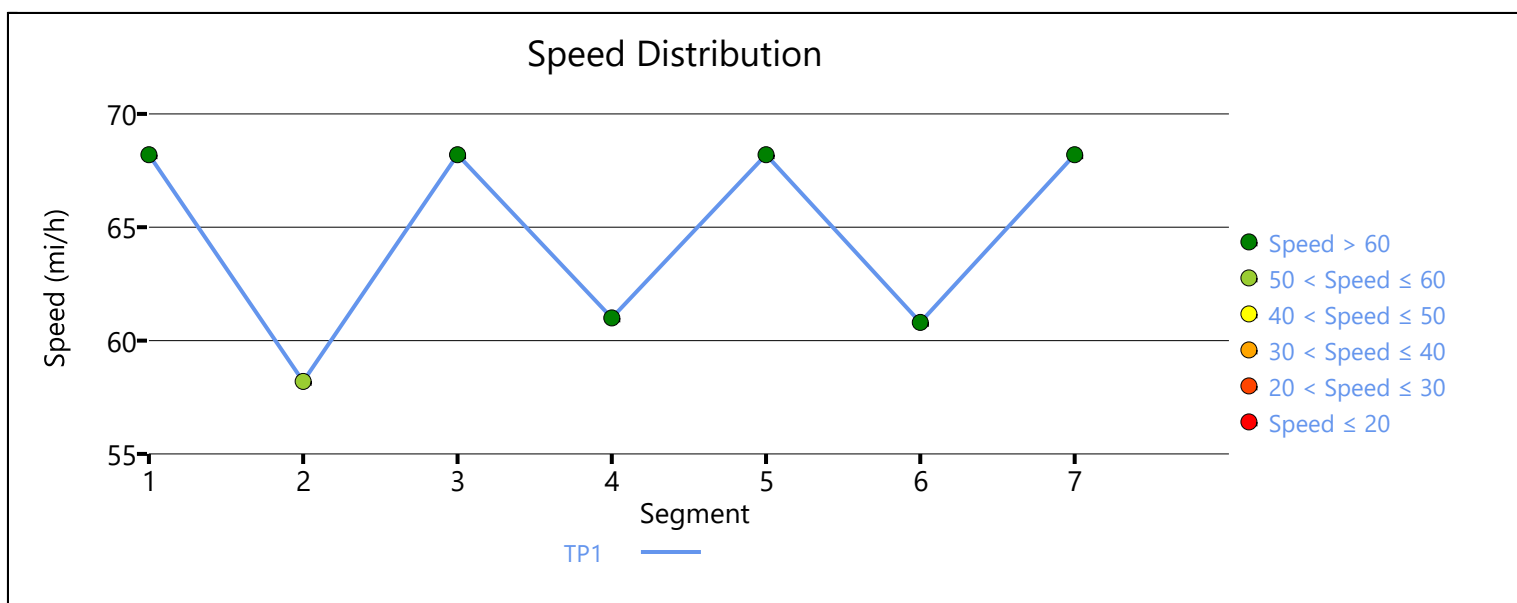
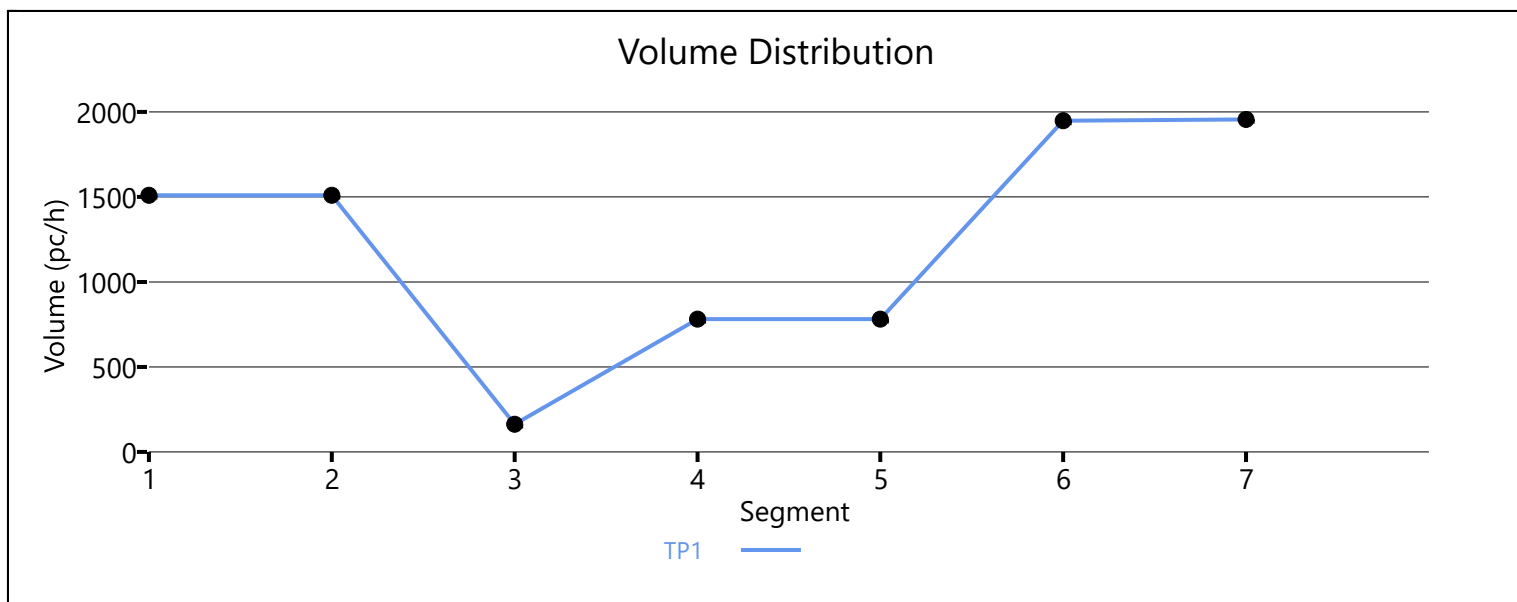
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	781	618	4800	1900	0.16	0.33	61.0	61.0	6.4	10.1	B

6.8-10

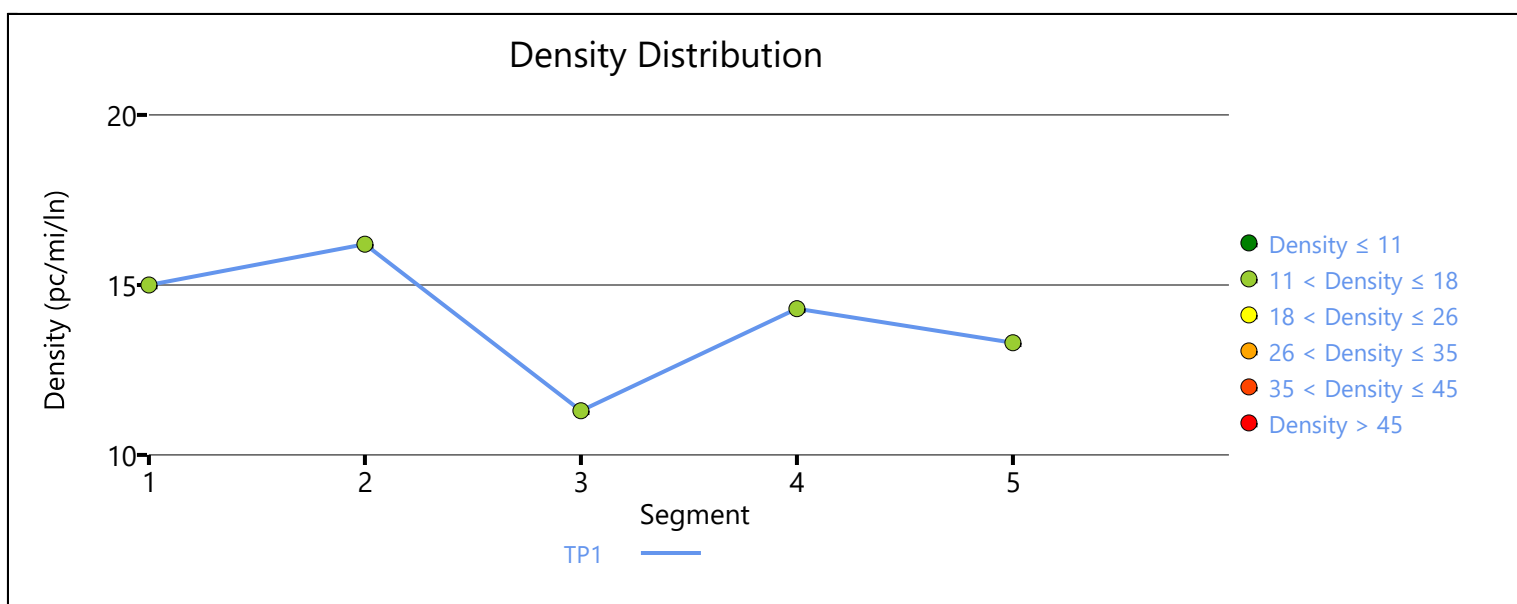
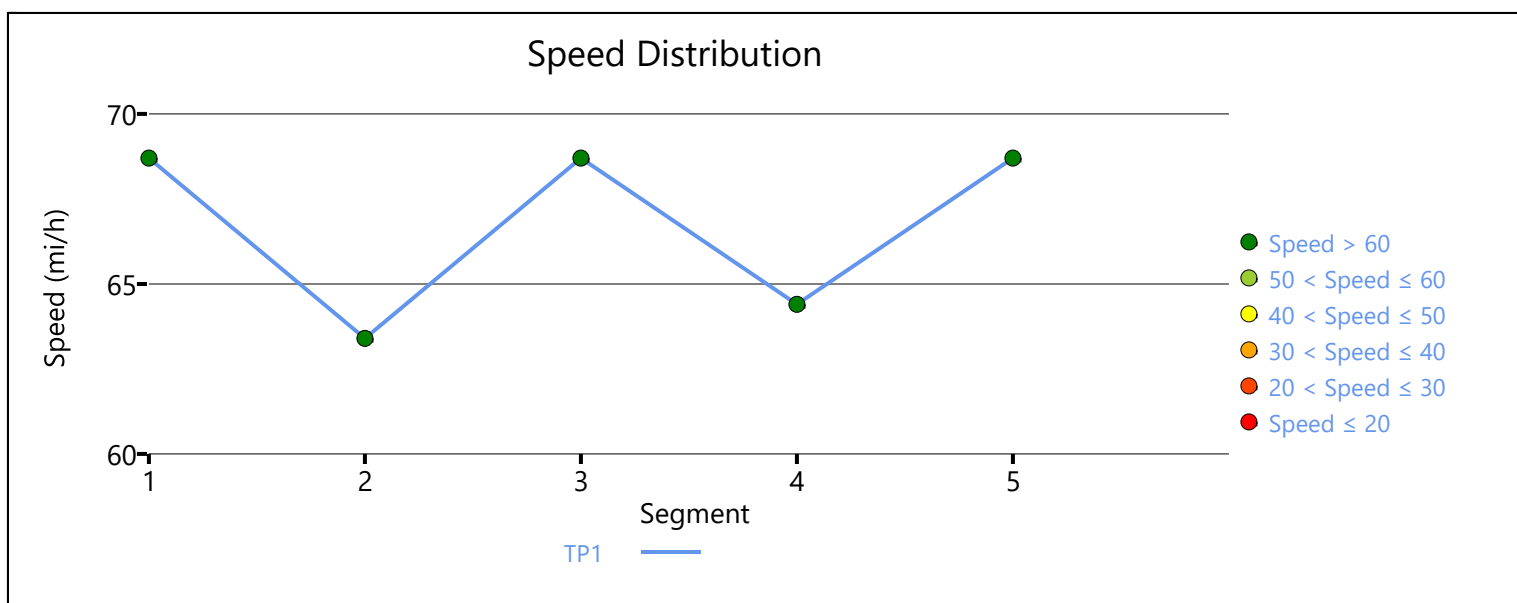
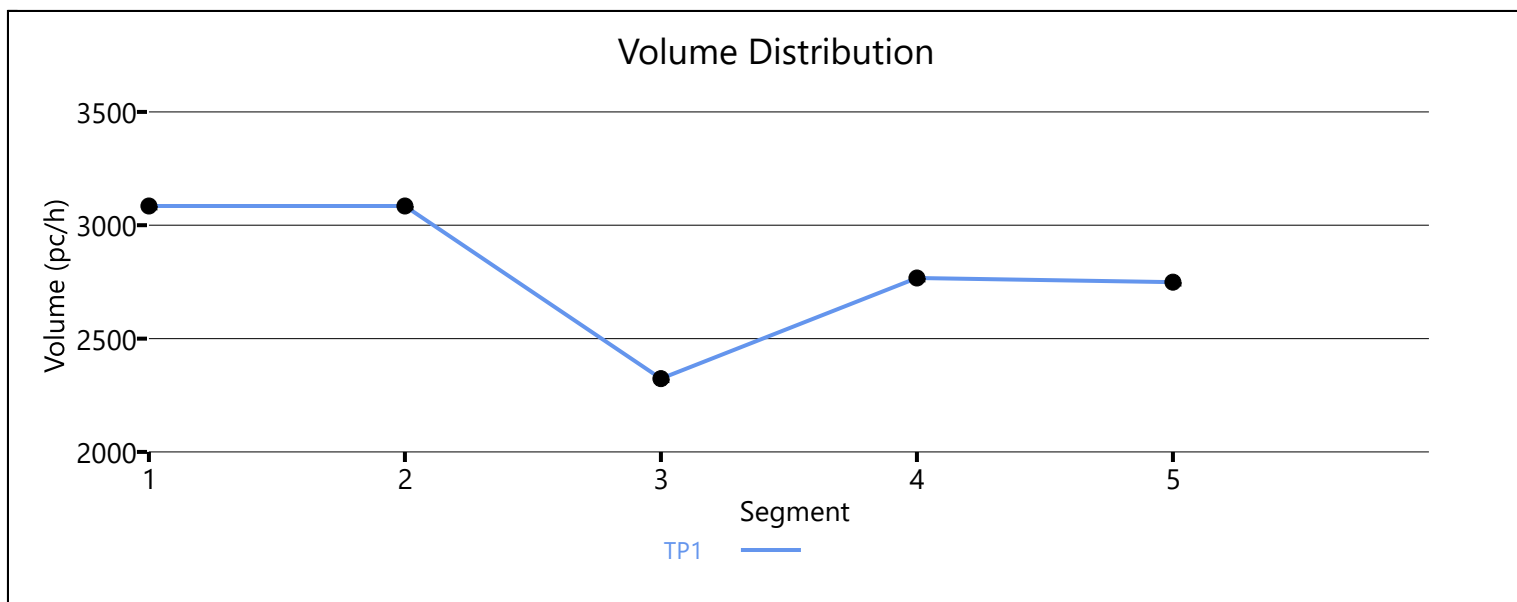
Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		781		4764		0.16		68.2		5.7		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	1948	1167	4800	2100	0.41	0.56	60.8	60.8	16.0	19.0	B
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		1956		4764		0.41		68.2		14.3		B
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.9			10.8			10.4			3.1			A		
Facility Overall Results															
Space Mean Speed, mi/h					65.9				Density, veh/mi/ln				10.4		
Average Travel Time, min					3.1				Density, pc/mi/ln				10.8		



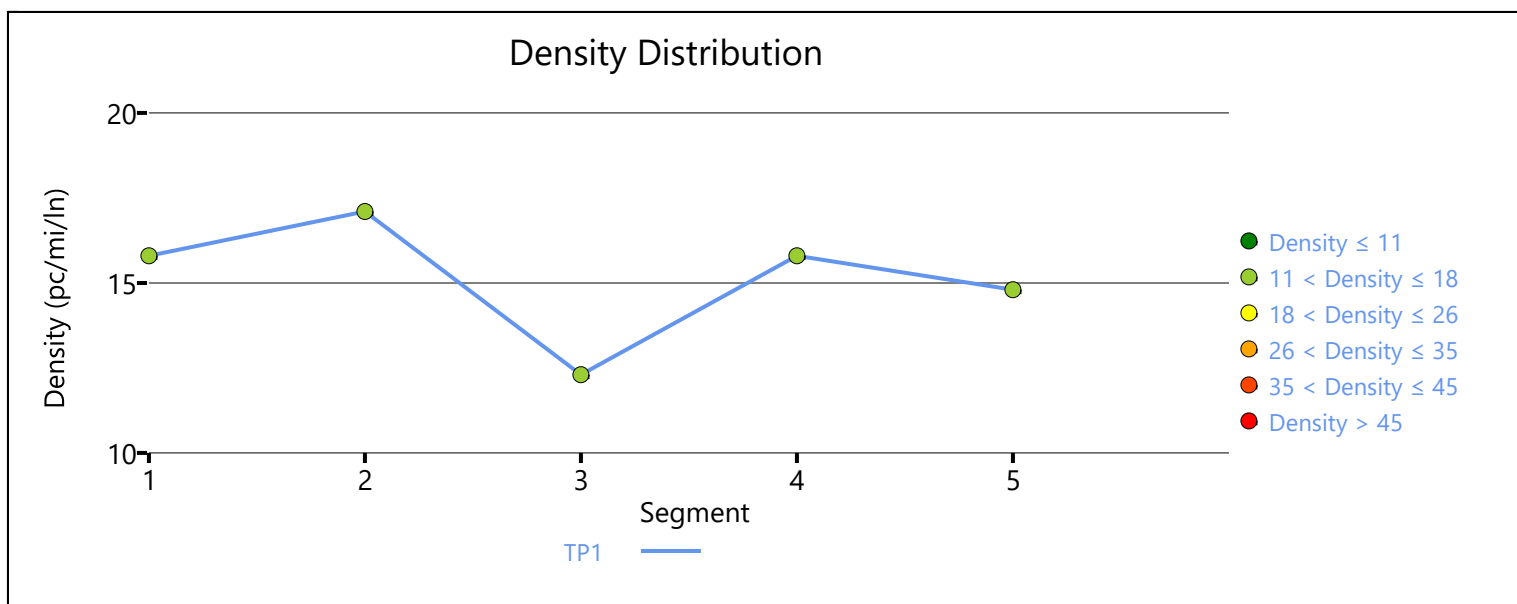
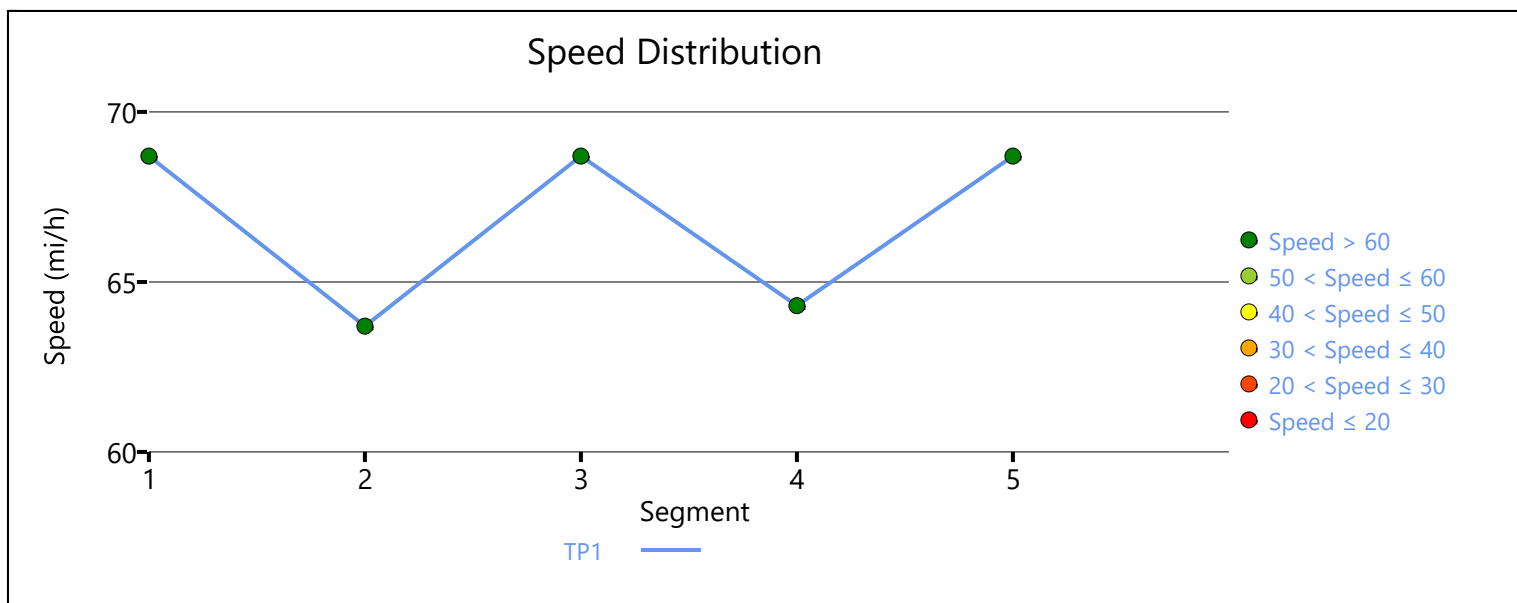
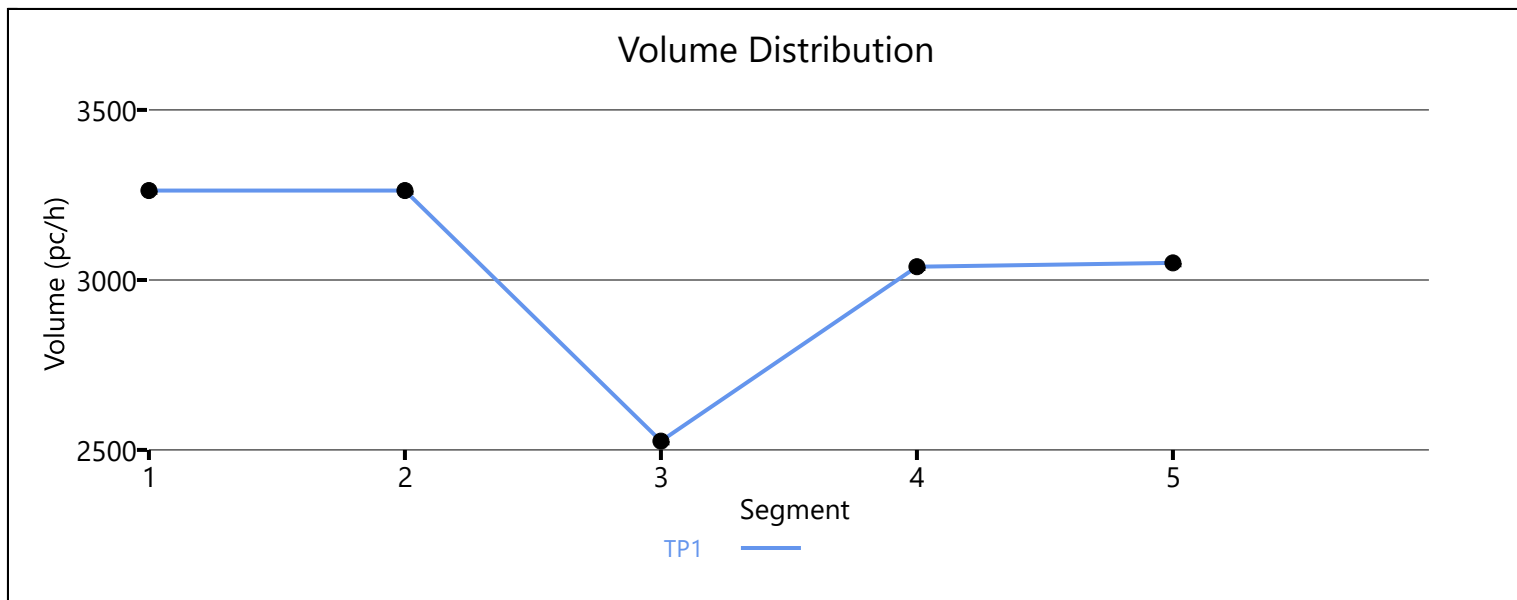
HCS7 Freeway Facilities Report															
Project Information															
Analyst				JB				Date				7/8/2020			
Agency				Urban Crossroads, Inc.				Analysis Year				Opening Year Cumulative (2023) With Project			
Jurisdiction				Caltrans				Time Period Analyzed				PM Peak Hour			
Project Description				JN:12396 - I-10 EB											
Facility Global Input															
Jam Density, pc/mi/ln				190.0				Density at Capacity, pc/mi/ln				45.0			
Queue Discharge Capacity Drop, %				7				Total Segments				5			
Total Time Periods				1				Time Period Duration, min				15			
Facility Segment Data															
No.	Coded			Analyzed			Name				Length, ft			Lanes	
1	Basic			Basic			West of Oak Valley				5280			3	
2	Diverge			Diverge			Off-Ramp				1500			3	
3	Basic			Basic			Between				1770			3	
4	Merge			Merge			On-Ramp				1500			3	
5	Basic			Basic			East of Oak Valley				2250			3	
Facility Segment Data															
Segment 1: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3085		7161		0.43		68.7		15.0		B
Segment 2: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	3085	769	7200	2100	0.43	0.37	63.4	59.7	16.2	19.8	B
Segment 3: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2323		7161		0.32		68.7		11.3		B
Segment 4: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	2767	444	7200	2100	0.38	0.21	64.4	62.5	14.3	14.4	B
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		2749		7161		0.38		68.7		13.3		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	14.2	13.8	2.1	B
Facility Overall Results					
Space Mean Speed, mi/h		67.4	Density, veh/mi/ln		13.8
Average Travel Time, min		2.1	Density, pc/mi/ln		14.2



HCS7 Freeway Facilities Report																
Project Information																
Analyst				JB				Date				7/8/2020				
Agency				Urban Crossroads, Inc.				Analysis Year				Opening Year Cumulative (2023) With Project				
Jurisdiction				Caltrans				Time Period Analyzed				PM Peak Hour				
Project Description				JN:12396 - I-10 WB at Oak Valley												
Facility Global Input																
Jam Density, pc/mi/ln				190.0				Density at Capacity, pc/mi/ln				45.0				
Queue Discharge Capacity Drop, %				7				Total Segments				5				
Total Time Periods				1				Time Period Duration, min				15				
Facility Segment Data																
No.		Coded		Analyzed		Name				Length, ft				Lanes		
1		Basic		Basic		East of Oak Valley				4150				3		
2		Diverge		Diverge		Off-Ramp				1500				3		
3		Basic		Basic		Between				1700				3		
4		Merge		Merge		On-Ramp				1500				3		
5		Basic		Basic		West of Oak Valley				4000				3		
Facility Segment Data																
Segment 1: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.935		3263		7161		0.46		68.7		15.8		B
Segment 2: Diverge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.935	0.990	3263	742	7200	2100	0.45	0.35	63.7	59.8	17.1	20.5	C
Segment 3: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.917		2526		7161		0.35		68.7		12.3		B
Segment 4: Merge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.917	0.990	3039	513	7200	2100	0.42	0.24	64.3	62.6	15.8	15.3	B
Segment 5: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.926		3050		7161		0.43		68.7		14.8		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	15.2	14.1	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.5	Density, veh/mi/ln		14.1
Average Travel Time, min		2.2	Density, pc/mi/ln		15.2



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2695		4764		0.57		68.1		19.8		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2695	2468	4800	2100	0.56	1.18	53.3	55.4	45.0	25.6	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		227		4764		0.05		67.3		1.6		A

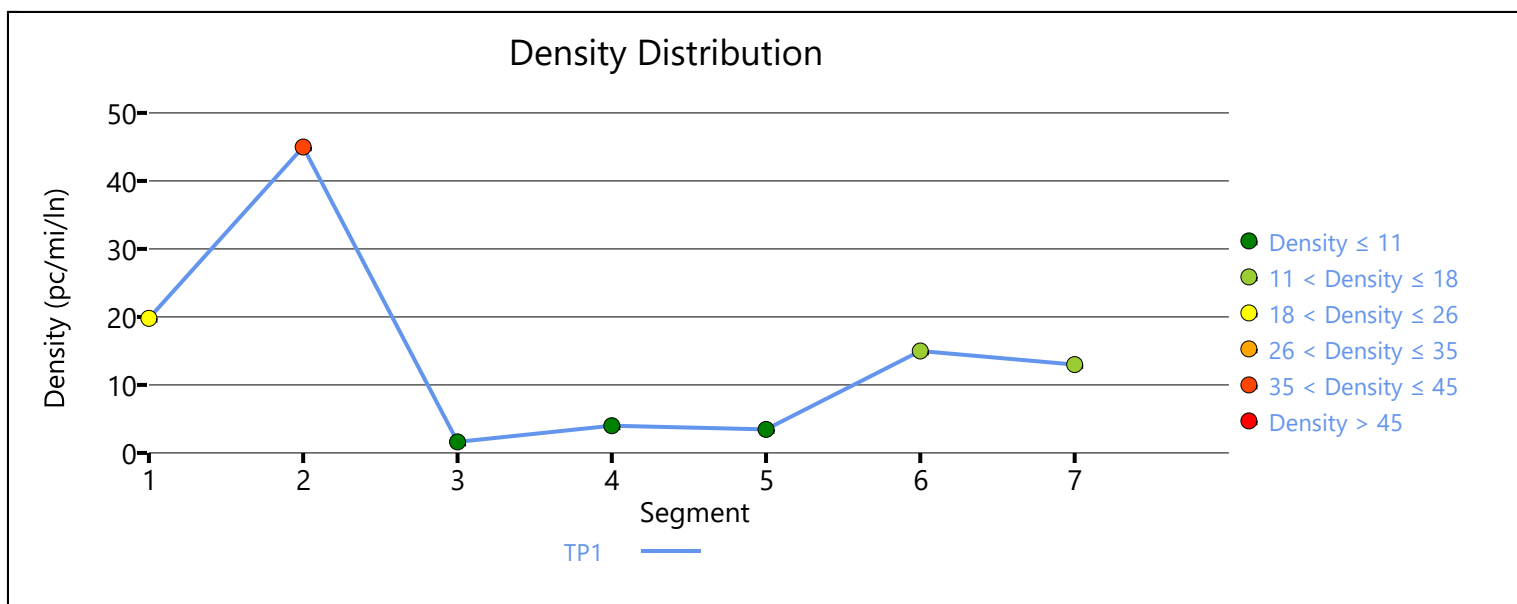
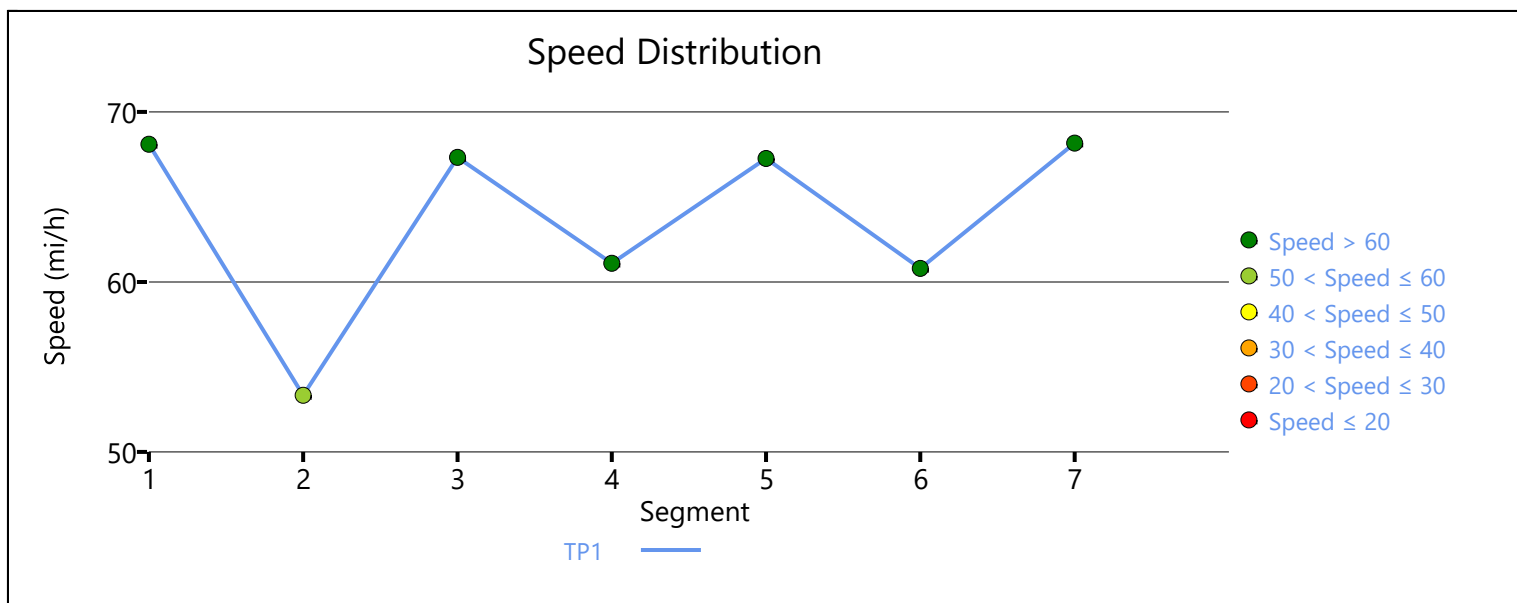
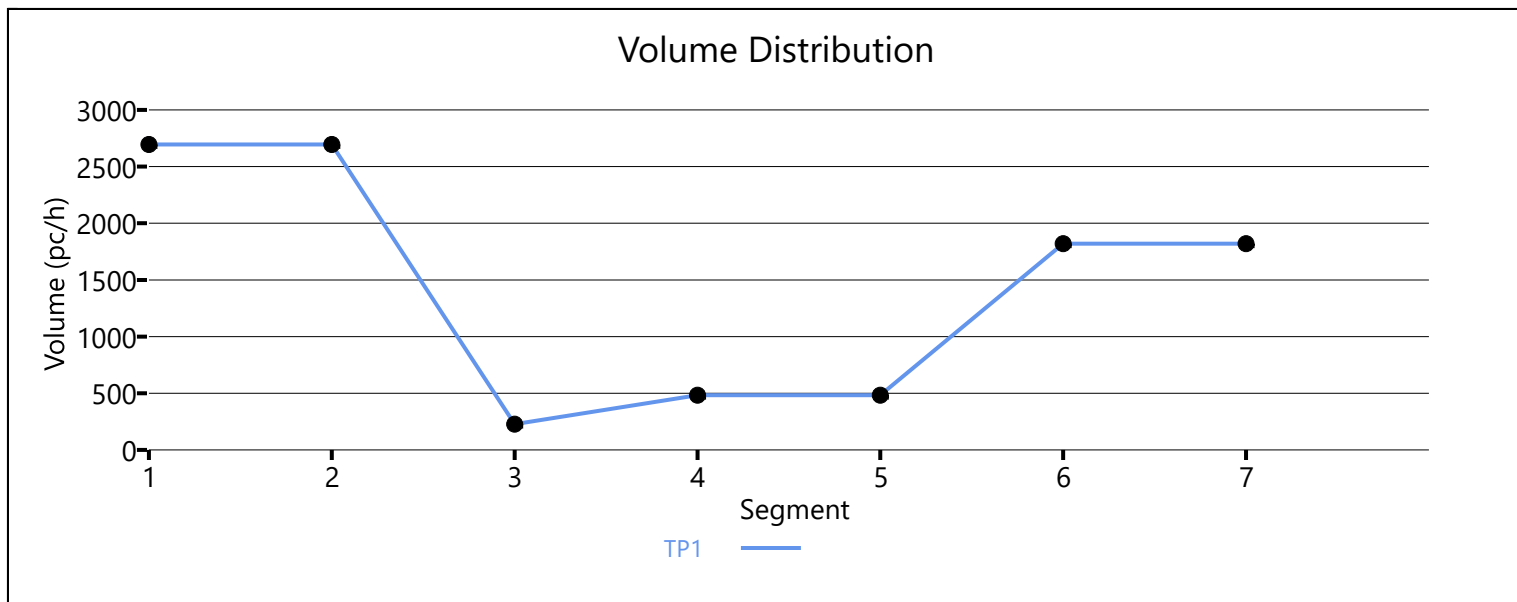
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	483	256	4800	1900	0.10	0.13	61.1	61.1	4.0	7.9	A

6.8-19

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		483		4764		0.10		67.3		3.5		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.952	1820	1337	4800	2100	0.38	0.64	60.8	60.8	15.0	17.9	B
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1820		4764		0.38		68.2		13.0		B
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.1			15.1			14.6			3.2			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.1				Density, veh/mi/ln				14.6		
Average Travel Time, min					3.2				Density, pc/mi/ln				15.1		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2023) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		1637		4764		0.34		68.2		12.0		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.952	1637	1540	4800	2100	0.34	0.73	57.8	57.8	14.2	16.5	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		93		4764		0.02		68.2		0.7		A

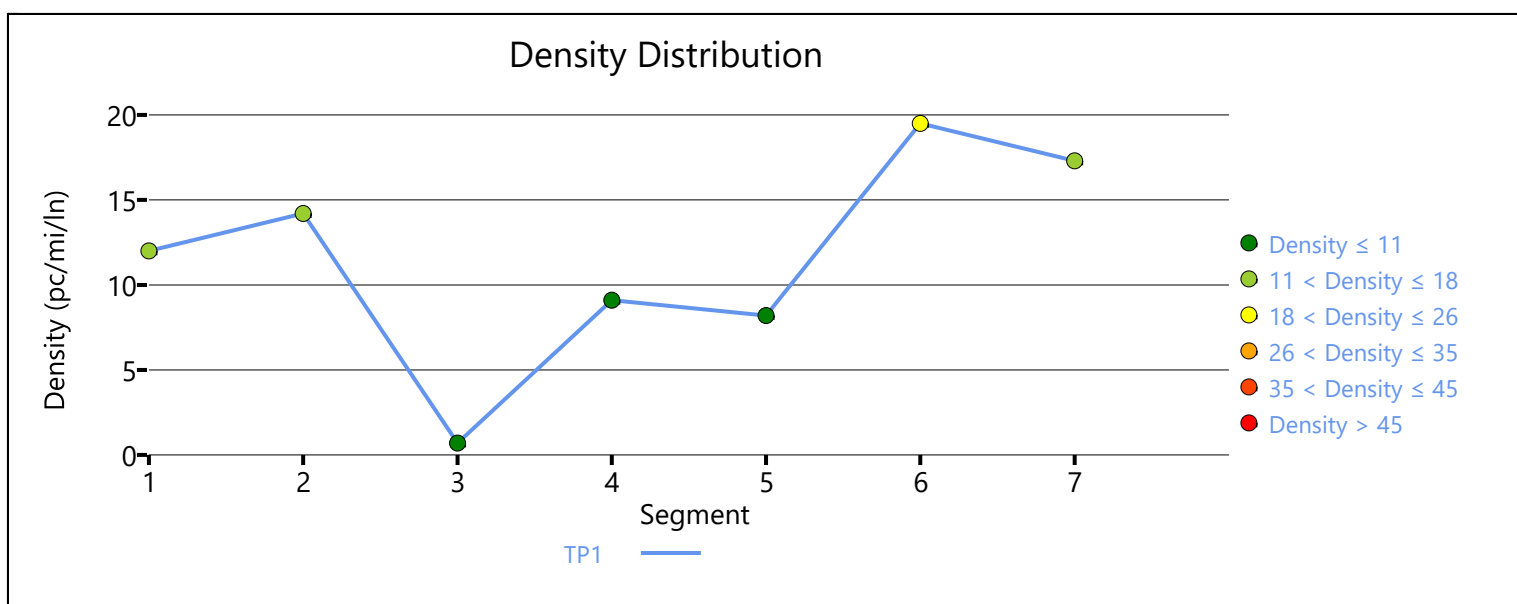
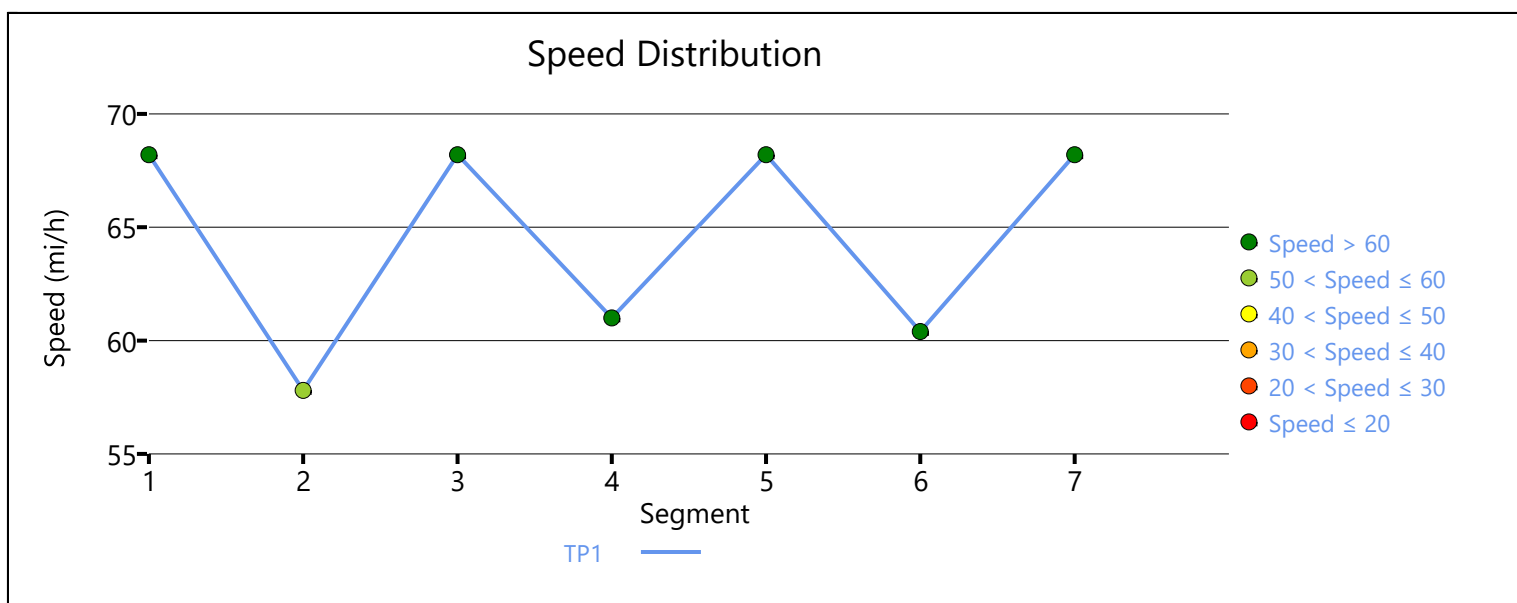
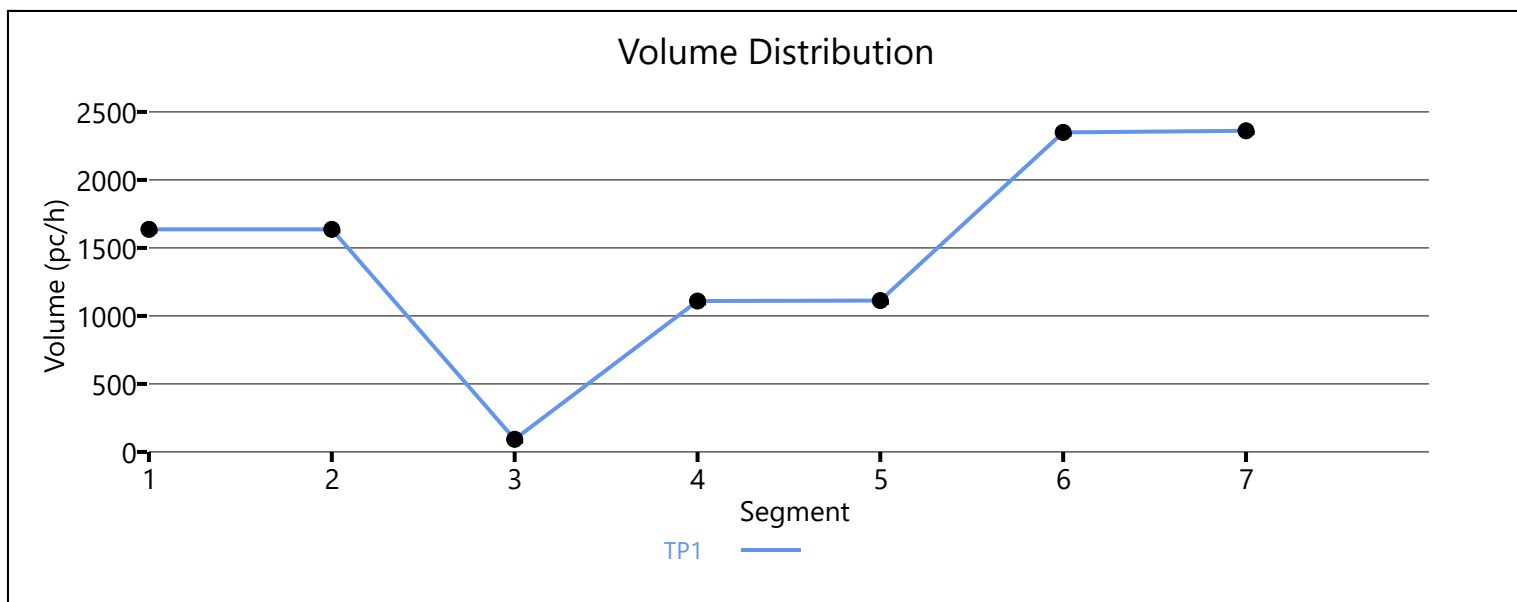
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.952	1109	1016	4800	1900	0.23	0.53	61.0	61.0	9.1	12.5	B

6.8-22

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		1113		4764		0.23		68.2		8.2		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2350	1248	4800	2100	0.49	0.59	60.4	60.4	19.5	22.0	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		2361		4764		0.50		68.2		17.3		B
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.8			12.7			12.1			3.1			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.8				Density, veh/mi/ln				12.1		
Average Travel Time, min					3.1				Density, pc/mi/ln				12.7		



APPENDIX 6.9:

OPENING YEAR (2023) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	62	426	348	495
Future Volume (vph)	62	426	348	495
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	10.0	38.2	28.2	41.8
Total Split (%)	12.5%	47.8%	35.3%	52.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effect Green (s)	5.6	23.1	15.6	26.4
Actuated g/C Ratio	0.09	0.37	0.25	0.42
v/c Ratio	0.44	0.70	0.55	0.83
Control Delay	42.6	23.7	15.1	27.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	42.6	23.7	15.1	27.3
LOS	D	C	B	C
Approach Delay		26.1	15.1	27.3
Approach LOS		C	B	C

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 62.3

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 22.1

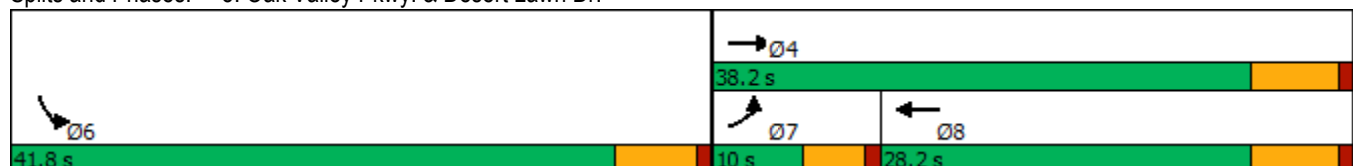
Intersection LOS: C

Intersection Capacity Utilization 63.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

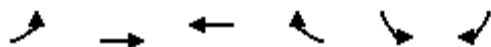


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	62	426	348	330	495	56
Future Volume (veh/h)	62	426	348	330	495	56
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	71	490	400	379	569	64
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	102	793	998	465	631	71
Arrive On Green	0.06	0.42	0.29	0.29	0.39	0.39
Sat Flow, veh/h	1810	1900	3629	1610	1604	180
Grp Volume(v), veh/h	71	490	400	379	634	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1787	0
Q Serve(g_s), s	2.4	12.8	5.9	13.9	21.2	0.0
Cycle Q Clear(g_c), s	2.4	12.8	5.9	13.9	21.2	0.0
Prop In Lane	1.00			1.00	0.90	0.10
Lane Grp Cap(c), veh/h	102	793	998	465	703	0
V/C Ratio(X)	0.70	0.62	0.40	0.82	0.90	0.00
Avail Cap(c_a), veh/h	154	958	1199	558	1014	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.4	14.5	18.2	21.0	18.1	0.0
Incr Delay (d2), s/veh	3.2	0.9	0.3	7.8	8.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	4.5	2.1	5.4	8.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	32.6	15.4	18.4	28.8	26.2	0.0
LnGrp LOS	C	B	B	C	C	A
Approach Vol, veh/h		561	779		634	
Approach Delay, s/veh		17.6	23.5		26.2	
Approach LOS		B	C		C	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			32.7		30.8	8.2
Change Period (Y+Rc), s			6.2		5.8	4.6
Max Green Setting (Gmax), s			32.0		36.0	5.4
Max Q Clear Time (g_c+I1), s			14.8		23.2	4.4
Green Ext Time (p_c), s			2.5		1.8	0.0
Intersection Summary						
HCM 6th Ctrl Delay			22.7			
HCM 6th LOS			C			
Notes						

User approved volume balancing among the lanes for turning movement.

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	453	469	260	575	258	3
Future Volume (vph)	453	469	260	575	258	3
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	31.0	31.0	28.0	59.0	31.0	31.0
Total Split (%)	34.4%	34.4%	31.1%	65.6%	34.4%	34.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effect Green (s)	36.0	36.0	18.4	59.0	19.4	19.4
Actuated g/C Ratio	0.40	0.40	0.20	0.66	0.22	0.22
v/c Ratio	0.67	0.55	0.79	0.52	0.75	0.27
Control Delay	30.8	4.9	46.9	6.0	44.7	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.8	4.9	46.9	6.0	44.7	7.2
LOS	C	A	D	A	D	A
Approach Delay	17.6			18.7		33.8
Approach LOS	B			B		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 20.8

Intersection LOS: C

Intersection Capacity Utilization 72.6%

ICU Level of Service C

Analysis Period (min) 15

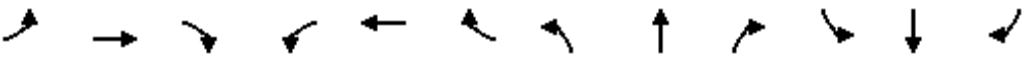
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑	↑	↑					↑	↑	
Traffic Volume (veh/h)	0	453	469	260	575	0	0	0	0	258	3	102
Future Volume (veh/h)	0	453	469	260	575	0	0	0	0	258	3	102
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	509	440	292	646	0				290	3	96
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	857	727	327	1298	0				340	9	295
Arrive On Green	0.00	0.45	0.45	0.24	0.91	0.00				0.19	0.19	0.19
Sat Flow, veh/h	0	1900	1610	1810	1900	0				1810	49	1569
Grp Volume(v), veh/h	0	509	440	292	646	0				290	0	99
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1618
Q Serve(g_s), s	0.0	18.1	18.6	14.0	5.1	0.0				13.9	0.0	4.8
Cycle Q Clear(g_c), s	0.0	18.1	18.6	14.0	5.1	0.0				13.9	0.0	4.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.97
Lane Grp Cap(c), veh/h	0	857	727	327	1298	0				340	0	304
V/C Ratio(X)	0.00	0.59	0.61	0.89	0.50	0.00				0.85	0.00	0.33
Avail Cap(c_a), veh/h	0	857	727	470	1298	0				507	0	453
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.55	0.55	0.67	0.67	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.5	18.6	33.3	1.5	0.0				35.3	0.0	31.6
Incr Delay (d2), s/veh	0.0	1.7	2.1	7.9	0.9	0.0				8.9	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.5	6.6	6.1	1.2	0.0				6.6	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.2	20.7	41.2	2.5	0.0				44.3	0.0	32.2
LnGrp LOS	A	C	C	D	A	A				D	A	C
Approach Vol, veh/h		949			938						389	
Approach Delay, s/veh		20.4			14.5						41.2	
Approach LOS		C			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	20.9	46.4		22.7		67.3						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	23.4	25.2		25.2		53.2						
Max Q Clear Time (g_c+I1), s	16.0	20.6		15.9		7.1						
Green Ext Time (p_c), s	0.3	2.0		1.0		4.5						
Intersection Summary												
HCM 6th Ctrl Delay			21.5									
HCM 6th LOS			C									

Timings

12: California Av. & 5th St.

06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	Ø1
Lane Configurations												
Traffic Volume (vph)	2	3	75	27	10	30	300	544	19	325	2	
Future Volume (vph)	2	3	75	27	10	30	300	544	19	325	2	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	NA	Perm	
Protected Phases		4			8		5	2		6		1
Permitted Phases	4		4	8		8			2		6	
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.6	27.8	27.8	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	15.0	33.8	33.8	28.4	28.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	21.4%	48.3%	48.3%	40.6%	40.6%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6	4.6	4.6	5.8	5.8	5.8	5.8	
Lead/Lag							Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	Min	Min	None
Act Effect Green (s)		12.2	12.2		12.2	12.2	10.7	40.0	40.0	23.1	23.1	
Actuated g/C Ratio		0.21	0.21		0.21	0.21	0.19	0.70	0.70	0.40	0.40	
v/c Ratio		0.02	0.19		0.15	0.08	1.14	0.52	0.02	32.85	0.00	
Control Delay		18.3	0.9		20.3	0.3	121.4	9.0	0.1	14248.0	0.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		18.3	0.9		20.3	0.3	121.4	9.0	0.1	14248.0	0.0	
LOS		B	A		C	A	F	A	A	F	A	
Approach Delay		2.1			11.4			47.9		14148.6		
Approach LOS		A			B			D		F		

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 57.5

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 32.85

Intersection Signal Delay: 3589.1

Intersection LOS: F

Intersection Capacity Utilization 68.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 12: California Av. & 5th St.

		
9.6 s	33.8 s	26.6 s
		
15 s	28.4 s	26.6 s

HCM 6th Signalized Intersection Summary 12: California Av. & 5th St.

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	75	27	10	30	300	544	19	13	325	2
Future Volume (veh/h)	2	3	75	27	10	30	300	544	19	13	325	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	95	34	13	38	380	689	24	16	411	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	206	229	309	313	100	309	394	1122	951	0	526	445
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.22	0.59	0.59	0.00	0.28	0.28
Sat Flow, veh/h	512	1193	1610	954	523	1610	1810	1900	1610	0	1900	1610
Grp Volume(v), veh/h	7	0	95	47	0	38	380	689	24	0	411	3
Grp Sat Flow(s),veh/h/ln	1705	0	1610	1477	0	1610	1810	1900	1610	0	1900	1610
Q Serve(g_s), s	0.0	0.0	2.4	0.3	0.0	0.9	9.9	11.1	0.3	0.0	9.5	0.1
Cycle Q Clear(g_c), s	0.1	0.0	2.4	1.1	0.0	0.9	9.9	11.1	0.3	0.0	9.5	0.1
Prop In Lane	0.43		1.00	0.72		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	435	0	309	413	0	309	394	1122	951	0	526	445
V/C Ratio(X)	0.02	0.00	0.31	0.11	0.00	0.12	0.96	0.61	0.03	0.00	0.78	0.01
Avail Cap(c_a), veh/h	873	0	741	800	0	741	394	1122	951	0	899	762
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	0.0	16.6	16.0	0.0	16.0	18.5	6.3	4.1	0.0	16.0	12.5
Incr Delay (d2), s/veh	0.0	0.0	0.6	0.1	0.0	0.2	35.9	1.0	0.0	0.0	2.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.9	0.4	0.0	0.3	7.2	2.3	0.0	0.0	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.7	0.0	17.1	16.1	0.0	16.2	54.4	7.3	4.1	0.0	18.5	12.5
LnGrp LOS	B	A	B	B	A	B	D	A	A	A	B	B
Approach Vol, veh/h	102			85			1093			414		
Approach Delay, s/veh	17.0			16.1			23.6			18.5		
Approach LOS	B			B			C			B		
Timer - Assigned Phs	1	2	4		5	6	8					
Phs Duration (G+Y+Rc), s	0.0	34.0	13.8		15.0	19.0	13.8					
Change Period (Y+Rc), s	4.6	5.8	4.6		4.6	5.8	4.6					
Max Green Setting (Gmax), s	5.0	28.0	22.0		10.4	22.6	22.0					
Max Q Clear Time (g_c+I1), s	0.0	13.1	4.4		11.9	11.5	3.1					
Green Ext Time (p_c), s	0.0	3.8	0.3		0.0	1.7	0.3					
Intersection Summary												
HCM 6th Ctrl Delay	21.6											
HCM 6th LOS	C											

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
07/14/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	70	20	65	819	182	207
Future Volume (vph)	70	20	65	819	182	207
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	27.8	27.8	17.9	62.2	44.3	44.3
Total Split (%)	30.9%	30.9%	19.9%	69.1%	49.2%	49.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effect Green (s)	12.7	12.7	8.2	47.6	37.7	37.7
Actuated g/C Ratio	0.19	0.19	0.13	0.73	0.58	0.58
v/c Ratio	0.26	0.08	0.37	0.77	0.22	0.26
Control Delay	28.9	11.7	36.2	14.7	12.5	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.9	11.7	36.2	14.7	12.5	2.7
LOS	C	B	D	B	B	A
Approach Delay	25.1			16.3	7.3	
Approach LOS	C			B	A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 65.5

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 14.3

Intersection LOS: B

Intersection Capacity Utilization 61.1%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	70	20	65	819	182	207
Future Volume (veh/h)	70	20	65	819	182	207
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	91	26	84	1064	236	269
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	267	238	117	1234	959	812
Arrive On Green	0.15	0.15	0.06	0.65	0.50	0.50
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	91	26	84	1064	236	269
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	2.6	0.8	2.6	25.5	4.0	5.7
Cycle Q Clear(g_c), s	2.6	0.8	2.6	25.5	4.0	5.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	267	238	117	1234	959	812
V/C Ratio(X)	0.34	0.11	0.72	0.86	0.25	0.33
Avail Cap(c_a), veh/h	696	620	421	1875	1280	1084
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.9	21.1	26.2	8.0	8.0	8.4
Incr Delay (d2), s/veh	0.8	0.2	3.1	2.8	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.8	1.1	5.8	1.2	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.6	21.3	29.4	10.8	8.1	8.7
LnGrp LOS	C	C	C	B	A	A
Approach Vol, veh/h	117			1148	505	
Approach Delay, s/veh	22.3			12.2	8.4	
Approach LOS	C			B	A	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	42.9			14.2	8.3	34.6
Change Period (Y+Rc), s	5.8			5.8	4.6	5.8
Max Green Setting (Gmax), s	56.4			22.0	13.3	38.5
Max Q Clear Time (g_c+I1), s	27.5			4.6	4.6	7.7
Green Ext Time (p_c), s	9.6			0.2	0.0	2.2
Intersection Summary						
HCM 6th Ctrl Delay			11.8			
HCM 6th LOS			B			

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	24	409	500	198
Future Volume (vph)	24	409	500	198
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	10.0	39.0	29.0	41.0
Total Split (%)	12.5%	48.8%	36.3%	51.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effect Green (s)	5.7	16.0	14.8	14.4
Actuated g/C Ratio	0.13	0.37	0.34	0.33
v/c Ratio	0.11	0.61	0.47	0.39
Control Delay	25.3	16.1	10.6	13.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	25.3	16.1	10.6	13.5
LOS	C	B	B	B
Approach Delay		16.6	10.6	13.5
Approach LOS		B	B	B

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 43.7

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 12.8

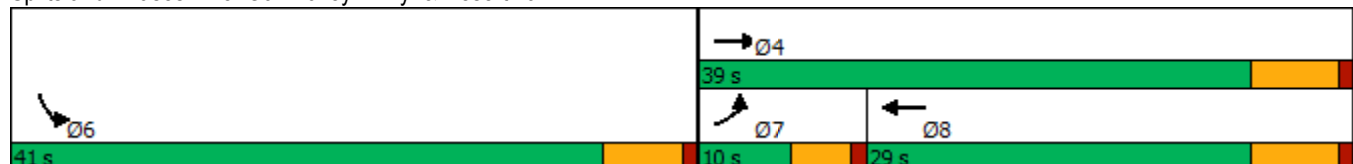
Intersection LOS: B

Intersection Capacity Utilization 44.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

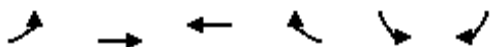


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	24	409	500	325	198	25
Future Volume (veh/h)	24	409	500	325	198	25
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	25	422	515	335	204	26
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	55	893	1139	530	380	48
Arrive On Green	0.03	0.47	0.33	0.33	0.24	0.24
Sat Flow, veh/h	1810	1900	3629	1610	1576	201
Grp Volume(v), veh/h	25	422	515	335	231	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1785	0
Q Serve(g_s), s	0.6	6.3	4.9	7.3	4.7	0.0
Cycle Q Clear(g_c), s	0.6	6.3	4.9	7.3	4.7	0.0
Prop In Lane	1.00			1.00	0.88	0.11
Lane Grp Cap(c), veh/h	55	893	1139	530	430	0
V/C Ratio(X)	0.46	0.47	0.45	0.63	0.54	0.00
Avail Cap(c_a), veh/h	235	1501	1899	884	1513	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.8	7.5	11.0	11.8	13.7	0.0
Incr Delay (d2), s/veh	2.2	0.4	0.3	1.2	1.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	1.4	1.3	1.9	1.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.0	7.9	11.3	13.0	14.8	0.0
LnGrp LOS	C	A	B	B	B	A
Approach Vol, veh/h		447	850		231	
Approach Delay, s/veh		8.7	12.0		14.8	
Approach LOS		A	B		B	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			25.7		15.8	5.9
Change Period (Y+Rc), s			6.2		5.8	4.6
Max Green Setting (Gmax), s			32.8		35.2	5.4
Max Q Clear Time (g_c+I1), s			8.3		6.7	2.6
Green Ext Time (p_c), s			2.3		0.6	0.0
Intersection Summary						
HCM 6th Ctrl Delay			11.4			
HCM 6th LOS			B			
Notes						

User approved volume balancing among the lanes for turning movement.

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	366	241	163	641	509	1
Future Volume (vph)	366	241	163	641	509	1
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	29.0	29.0	20.3	49.3	40.7	40.7
Total Split (%)	32.2%	32.2%	22.6%	54.8%	45.2%	45.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effect Green (s)	25.4	25.4	13.7	43.7	34.7	34.7
Actuated g/C Ratio	0.28	0.28	0.15	0.49	0.39	0.39
v/c Ratio	0.90	0.46	0.78	0.91	0.96	0.35
Control Delay	54.5	5.8	53.0	30.9	55.2	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.5	5.8	53.0	30.9	55.2	12.2
LOS	D	A	D	C	E	B
Approach Delay	35.1			35.4		43.7
Approach LOS	D			D		D

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 38.1

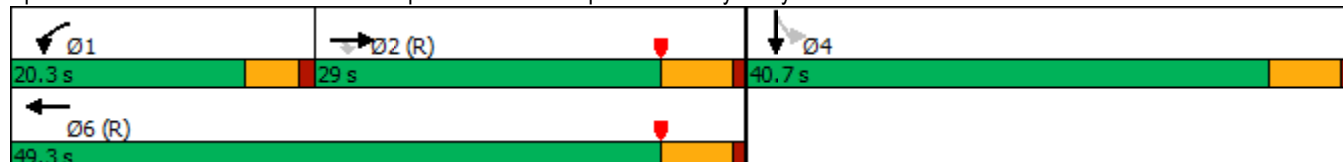
Intersection LOS: D

Intersection Capacity Utilization 71.6%

ICU Level of Service C

Analysis Period (min) 15

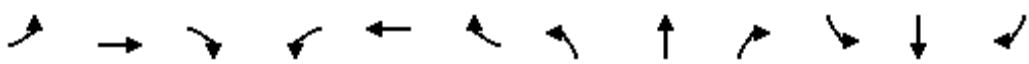
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↗	↖	↑					↖	↗	
Traffic Volume (veh/h)	0	366	241	163	641	0	0	0	0	509	1	184
Future Volume (veh/h)	0	366	241	163	641	0	0	0	0	509	1	184
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	482	259	214	843	0				670	1	176
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	562	476	252	923	0				697	4	618
Arrive On Green	0.00	0.30	0.30	0.09	0.33	0.00				0.39	0.39	0.39
Sat Flow, veh/h	0	1900	1610	1810	1900	0				1810	9	1602
Grp Volume(v), veh/h	0	482	259	214	843	0				670	0	177
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1612
Q Serve(g_s), s	0.0	21.6	12.2	10.5	38.3	0.0				32.5	0.0	6.8
Cycle Q Clear(g_c), s	0.0	21.6	12.2	10.5	38.3	0.0				32.5	0.0	6.8
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	562	476	252	923	0				697	0	621
V/C Ratio(X)	0.00	0.86	0.54	0.85	0.91	0.00				0.96	0.00	0.28
Avail Cap(c_a), veh/h	0	562	476	316	923	0				702	0	625
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	0.67	0.67	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.9	26.6	39.9	28.5	0.0				27.0	0.0	19.1
Incr Delay (d2), s/veh	0.0	13.3	3.7	9.7	10.8	0.0				24.6	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.2	4.8	5.3	20.1	0.0				17.3	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	43.3	30.3	49.6	39.3	0.0				51.5	0.0	19.3
LnGrp LOS	A	D	C	D	D	A				D	A	B
Approach Vol, veh/h		741			1057						847	
Approach Delay, s/veh		38.7			41.4						44.8	
Approach LOS		D			D						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	17.1	32.4		40.5		49.5						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	15.7	23.2		34.9		43.5						
Max Q Clear Time (g_c+I1), s	12.5	23.6		34.5		40.3						
Green Ext Time (p_c), s	0.1	0.0		0.2		1.6						
Intersection Summary												
HCM 6th Ctrl Delay				41.8								
HCM 6th LOS				D								

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	Ø1
Lane Configurations												
Traffic Volume (vph)	4	3	86	41	3	21	179	468	21	305	6	
Future Volume (vph)	4	3	86	41	3	21	179	468	21	305	6	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	NA	Perm	
Protected Phases		4			8		5	2		6		1
Permitted Phases	4		4	8		8			2		6	
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.6	27.8	27.8	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	10.0	33.8	33.8	33.4	33.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	14.3%	48.3%	48.3%	47.7%	47.7%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6	4.6	4.6	5.8	5.8	5.8	5.8	
Lead/Lag							Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	Min	Min	None
Act Effect Green (s)		12.1	12.1		12.1	12.1	5.4	42.1	42.1	30.9	30.9	
Actuated g/C Ratio		0.20	0.20		0.20	0.20	0.09	0.70	0.70	0.51	0.51	
v/c Ratio		0.02	0.22		0.16	0.05	1.16	0.37	0.02	7.79	0.01	
Control Delay		18.3	4.3		20.6	0.2	152.7	7.1	0.0	3125.8	0.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		18.3	4.3		20.6	0.2	152.7	7.1	0.0	3125.8	0.0	
LOS		B	A		C	A	F	A	A	F	A	
Approach Delay		5.3			14.0			45.8		3069.5		
Approach LOS		A			B			D		F		

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 60.5

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 7.79

Intersection Signal Delay: 878.4

Intersection LOS: F

Intersection Capacity Utilization 63.6%

ICU Level of Service B

Analysis Period (min) 15

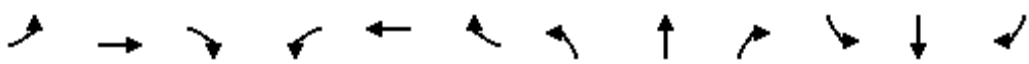
Splits and Phases: 12: California Av. & 5th St.

 Ø1	 Ø2	 Ø4
9.6 s	33.8 s	26.6 s
 Ø5	 Ø6	 Ø8
10 s	33.4 s	26.6 s

HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗	↘		↗	↘	↗	↑	↘		↗	↘
Traffic Volume (veh/h)	4	3	86	41	3	21	179	468	21	6	305	6
Future Volume (veh/h)	4	3	86	41	3	21	179	468	21	6	305	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	3	91	43	3	22	188	493	22	6	321	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	309	193	348	450	26	348	239	974	826	0	495	420
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.13	0.51	0.51	0.00	0.26	0.26
Sat Flow, veh/h	746	893	1610	1240	118	1610	1810	1900	1610	0	1900	1610
Grp Volume(v), veh/h	7	0	91	46	0	22	188	493	22	0	321	6
Grp Sat Flow(s),veh/h/ln	1639	0	1610	1359	0	1610	1810	1900	1610	0	1900	1610
Q Serve(g_s), s	0.0	0.0	1.8	0.9	0.0	0.4	3.9	6.6	0.3	0.0	5.8	0.1
Cycle Q Clear(g_c), s	0.1	0.0	1.8	1.0	0.0	0.4	3.9	6.6	0.3	0.0	5.8	0.1
Prop In Lane	0.57		1.00	0.93		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	502	0	348	475	0	348	239	974	826	0	495	420
V/C Ratio(X)	0.01	0.00	0.26	0.10	0.00	0.06	0.79	0.51	0.03	0.00	0.65	0.01
Avail Cap(c_a), veh/h	1068	0	923	957	0	923	255	1387	1175	0	1367	1158
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	11.8	0.0	12.5	12.2	0.0	11.9	16.1	6.2	4.6	0.0	12.6	10.5
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.1	0.0	0.1	12.7	0.4	0.0	0.0	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	0.3	0.0	0.1	2.0	1.2	0.0	0.0	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.8	0.0	12.9	12.2	0.0	12.0	28.8	6.6	4.6	0.0	14.1	10.5
LnGrp LOS	B	A	B	B	A	B	C	A	A	A	B	B
Approach Vol, veh/h	98				68				703			
Approach Delay, s/veh	12.8				12.2				12.4			
Approach LOS	B				B				B			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	25.5		12.9	9.7	15.8		12.9				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	5.4	27.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	8.6		3.8	5.9	7.8		3.0				
Green Ext Time (p_c), s	0.0	2.7		0.2	0.0	1.6		0.2				
Intersection Summary												
HCM 6th Ctrl Delay	12.9											
HCM 6th LOS	B											

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
07/14/2020

												
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR						
Lane Configurations												
Traffic Volume (vph)	182	85	48	505	978	179						
Future Volume (vph)	182	85	48	505	978	179						
Turn Type	Prot	Perm	Prot	NA	NA	Perm						
Protected Phases	4		5	2	6							
Permitted Phases		4				6						
Detector Phase	4	4	5	2	6	6						
Switch Phase												
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0						
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8						
Total Split (s)	29.0	29.0	11.1	91.0	79.9	79.9						
Total Split (%)	24.2%	24.2%	9.3%	75.8%	66.6%	66.6%						
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8						
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0						
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0						
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8						
Lead/Lag			Lead		Lag	Lag						
Lead-Lag Optimize?			Yes		Yes	Yes						
Recall Mode	None	None	None	Min	Min	Min						
Act Effect Green (s)	17.0	17.0	6.4	70.0	61.9	61.9						
Actuated g/C Ratio	0.17	0.17	0.06	0.70	0.62	0.62						
v/c Ratio	0.64	0.26	0.45	0.41	0.90	0.19						
Control Delay	52.6	10.8	65.0	7.1	29.1	3.8						
Queue Delay	0.0	0.0	0.0	0.0	1.5	0.0						
Total Delay	52.6	10.8	65.0	7.1	30.6	3.8						
LOS	D	B	E	A	C	A						
Approach Delay	39.3			12.1	26.4							
Approach LOS	D			B	C							

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 99.5
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 24.2
 Intersection LOS: C
 Intersection Capacity Utilization 71.2%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↱	↱	↰
Traffic Volume (veh/h)	182	85	48	505	978	179
Future Volume (veh/h)	182	85	48	505	978	179
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	198	92	52	549	1063	195
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	249	221	76	1376	1192	1010
Arrive On Green	0.14	0.14	0.04	0.72	0.63	0.63
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	198	92	52	549	1063	195
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	8.9	4.4	2.4	9.4	39.7	4.3
Cycle Q Clear(g_c), s	8.9	4.4	2.4	9.4	39.7	4.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	249	221	76	1376	1192	1010
V/C Ratio(X)	0.80	0.42	0.69	0.40	0.89	0.19
Avail Cap(c_a), veh/h	501	446	140	1933	1681	1425
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.0	33.0	39.6	4.5	13.2	6.6
Incr Delay (d2), s/veh	5.7	1.2	4.0	0.2	4.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.1	0.1	1.1	2.3	13.9	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	40.7	34.3	43.6	4.7	18.0	6.7
LnGrp LOS	D	C	D	A	B	A
Approach Vol, veh/h	290			601	1258	
Approach Delay, s/veh	38.7			8.0	16.3	
Approach LOS	D			A	B	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	66.4			17.3	8.1	58.3
Change Period (Y+Rc), s	5.8			5.8	4.6	5.8
Max Green Setting (Gmax), s	85.2			23.2	6.5	74.1
Max Q Clear Time (g_c+I1), s	11.4			10.9	4.4	41.7
Green Ext Time (p_c), s	3.6			0.7	0.0	10.9
Intersection Summary						
HCM 6th Ctrl Delay			17.0			
HCM 6th LOS			B			

APPENDIX 6.10:

OPENING YEAR (2023) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	64	433	370	495
Future Volume (vph)	64	433	370	495
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	10.0	38.2	28.2	41.8
Total Split (%)	12.5%	47.8%	35.3%	52.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effect Green (s)	5.6	23.4	16.0	26.9
Actuated g/C Ratio	0.09	0.37	0.25	0.43
v/c Ratio	0.46	0.71	0.56	0.83
Control Delay	44.2	24.2	16.1	27.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	44.2	24.2	16.1	27.6
LOS	D	C	B	C
Approach Delay		26.8	16.1	27.6
Approach LOS		C	B	C

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 63.2

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 22.8

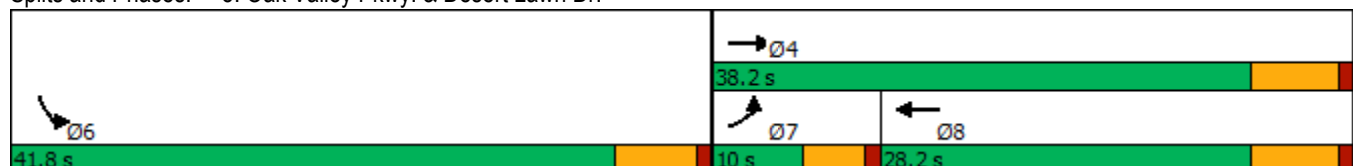
Intersection LOS: C

Intersection Capacity Utilization 63.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

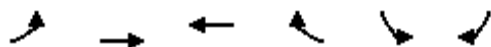


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	64	433	370	330	495	61
Future Volume (veh/h)	64	433	370	330	495	61
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	498	425	379	569	70
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	103	792	997	464	629	77
Arrive On Green	0.06	0.42	0.29	0.29	0.40	0.40
Sat Flow, veh/h	1810	1900	3629	1610	1587	195
Grp Volume(v), veh/h	74	498	425	379	640	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1785	0
Q Serve(g_s), s	2.6	13.3	6.4	14.1	21.7	0.0
Cycle Q Clear(g_c), s	2.6	13.3	6.4	14.1	21.7	0.0
Prop In Lane	1.00			1.00	0.89	0.11
Lane Grp Cap(c), veh/h	103	792	997	464	708	0
V/C Ratio(X)	0.72	0.63	0.43	0.82	0.90	0.00
Avail Cap(c_a), veh/h	152	946	1184	551	1000	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.8	14.8	18.6	21.3	18.2	0.0
Incr Delay (d2), s/veh	3.5	1.0	0.3	8.0	8.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	4.7	2.3	5.6	8.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.2	15.8	18.9	29.3	26.9	0.0
LnGrp LOS	C	B	B	C	C	A
Approach Vol, veh/h		572	804		640	
Approach Delay, s/veh		18.1	23.8		26.9	
Approach LOS		B	C		C	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			33.0		31.3	8.3
Change Period (Y+Rc), s			6.2		5.8	4.6
Max Green Setting (Gmax), s			32.0		36.0	5.4
Max Q Clear Time (g_c+I1), s			15.3		23.7	4.6
Green Ext Time (p_c), s			2.5		1.8	0.0
Intersection Summary						
HCM 6th Ctrl Delay			23.2			
HCM 6th LOS			C			
Notes						

User approved volume balancing among the lanes for turning movement.

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	460	469	260	575	258	3
Future Volume (vph)	460	469	260	575	258	3
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	31.0	31.0	28.0	59.0	31.0	31.0
Total Split (%)	34.4%	34.4%	31.1%	65.6%	34.4%	34.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effect Green (s)	36.0	36.0	18.4	59.0	19.4	19.4
Actuated g/C Ratio	0.40	0.40	0.20	0.66	0.22	0.22
v/c Ratio	0.68	0.55	0.79	0.52	0.75	0.31
Control Delay	31.2	4.9	47.1	6.0	44.7	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	4.9	47.1	6.0	44.7	7.0
LOS	C	A	D	A	D	A
Approach Delay	17.9			18.8		32.3
Approach LOS	B			B		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 20.8

Intersection LOS: C

Intersection Capacity Utilization 73.0%

ICU Level of Service D

Analysis Period (min) 15

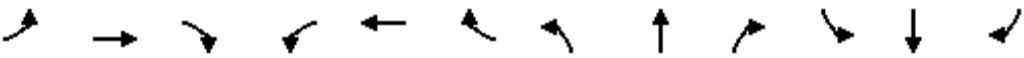
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑	↑	↑					↑	↑	
Traffic Volume (veh/h)	0	460	469	260	575	0	0	0	0	258	3	124
Future Volume (veh/h)	0	460	469	260	575	0	0	0	0	258	3	124
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	517	440	292	646	0				290	3	120
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	855	725	327	1296	0				342	7	298
Arrive On Green	0.00	0.45	0.45	0.24	0.91	0.00				0.19	0.19	0.19
Sat Flow, veh/h	0	1900	1610	1810	1900	0				1810	39	1577
Grp Volume(v), veh/h	0	517	440	292	646	0				290	0	123
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1616
Q Serve(g_s), s	0.0	18.5	18.6	14.0	5.2	0.0				13.9	0.0	6.0
Cycle Q Clear(g_c), s	0.0	18.5	18.6	14.0	5.2	0.0				13.9	0.0	6.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.98
Lane Grp Cap(c), veh/h	0	855	725	327	1296	0				342	0	305
V/C Ratio(X)	0.00	0.60	0.61	0.89	0.50	0.00				0.85	0.00	0.40
Avail Cap(c_a), veh/h	0	855	725	470	1296	0				507	0	453
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.54	0.54	0.67	0.67	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.7	18.7	33.3	1.6	0.0				35.3	0.0	32.0
Incr Delay (d2), s/veh	0.0	1.7	2.0	7.9	0.9	0.0				8.6	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.6	6.6	6.1	1.2	0.0				6.6	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.4	20.8	41.2	2.5	0.0				43.9	0.0	32.9
LnGrp LOS	A	C	C	D	A	A				D	A	C
Approach Vol, veh/h		957			938						413	
Approach Delay, s/veh		20.6			14.5						40.6	
Approach LOS		C			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	20.9	46.3		22.8		67.2						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	23.4	25.2		25.2		53.2						
Max Q Clear Time (g_c+I1), s	16.0	20.6		15.9		7.2						
Green Ext Time (p_c), s	0.3	2.0		1.1		4.5						
Intersection Summary												
HCM 6th Ctrl Delay				21.7								
HCM 6th LOS				C								

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	Ø1
Lane Configurations												
Traffic Volume (vph)	2	3	75	32	10	30	300	546	21	330	2	
Future Volume (vph)	2	3	75	32	10	30	300	546	21	330	2	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	NA	Perm	
Protected Phases		4			8		5	2		6		1
Permitted Phases	4		4	8		8			2		6	
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.6	27.8	27.8	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	15.0	33.8	33.8	28.4	28.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	21.4%	48.3%	48.3%	40.6%	40.6%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6	4.6	4.6	5.8	5.8	5.8	5.8	
Lead/Lag							Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	Min	Min	None
Act Effect Green (s)		12.2	12.2		12.2	12.2	10.7	40.0	40.0	23.1	23.1	
Actuated g/C Ratio		0.21	0.21		0.21	0.21	0.19	0.70	0.70	0.40	0.40	
v/c Ratio		0.02	0.19		0.17	0.08	1.14	0.52	0.02	31.00	0.00	
Control Delay		18.3	0.9		20.7	0.3	121.4	9.0	0.0	14047.4	0.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		18.3	0.9		20.7	0.3	121.4	9.0	0.0	14047.4	0.0	
LOS		B	A		C	A	F	A	A	F	A	
Approach Delay		2.1			12.3			47.7		13951.0		
Approach LOS		A			B			D		F		

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 57.5

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 31.00

Intersection Signal Delay: 3557.2

Intersection LOS: F

Intersection Capacity Utilization 69.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 12: California Av. & 5th St.

		
9.6 s	33.8 s	26.6 s
		
15 s	28.4 s	26.6 s

HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	75	32	10	30	300	546	21	13	330	2
Future Volume (veh/h)	2	3	75	32	10	30	300	546	21	13	330	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	95	41	13	38	380	691	27	16	418	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	206	229	310	325	86	310	391	1124	953	0	532	451
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.22	0.59	0.59	0.00	0.28	0.28
Sat Flow, veh/h	513	1191	1610	1006	449	1610	1810	1900	1610	0	1900	1610
Grp Volume(v), veh/h	7	0	95	54	0	38	380	691	27	0	418	3
Grp Sat Flow(s),veh/h/ln	1704	0	1610	1454	0	1610	1810	1900	1610	0	1900	1610
Q Serve(g_s), s	0.0	0.0	2.4	0.7	0.0	0.9	10.0	11.2	0.3	0.0	9.8	0.1
Cycle Q Clear(g_c), s	0.1	0.0	2.4	1.3	0.0	0.9	10.0	11.2	0.3	0.0	9.8	0.1
Prop In Lane	0.43		1.00	0.76		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	435	0	310	411	0	310	391	1124	953	0	532	451
V/C Ratio(X)	0.02	0.00	0.31	0.13	0.00	0.12	0.97	0.61	0.03	0.00	0.79	0.01
Avail Cap(c_a), veh/h	867	0	736	788	0	736	391	1124	953	0	892	756
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	0.0	16.7	16.2	0.0	16.1	18.7	6.3	4.1	0.0	16.0	12.5
Incr Delay (d2), s/veh	0.0	0.0	0.6	0.1	0.0	0.2	37.8	1.0	0.0	0.0	2.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.9	0.5	0.0	0.3	7.4	2.4	0.1	0.0	3.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.8	0.0	17.2	16.3	0.0	16.3	56.5	7.3	4.1	0.0	18.6	12.5
LnGrp LOS	B	A	B	B	A	B	E	A	A	A	B	B
Approach Vol, veh/h		102			92			1098			421	
Approach Delay, s/veh		17.1			16.3			24.3			18.6	
Approach LOS		B			B			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	34.3		13.9	15.0	19.3		13.9				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	10.4	22.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	13.2		4.4	12.0	11.8		3.3				
Green Ext Time (p_c), s	0.0	3.8		0.3	0.0	1.7		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			22.0									
HCM 6th LOS			C									

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
07/14/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	73	22	70	819	182	218
Future Volume (vph)	73	22	70	819	182	218
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	27.8	27.8	17.9	62.2	44.3	44.3
Total Split (%)	30.9%	30.9%	19.9%	69.1%	49.2%	49.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effect Green (s)	12.8	12.8	8.4	47.6	37.5	37.5
Actuated g/C Ratio	0.20	0.20	0.13	0.73	0.57	0.57
v/c Ratio	0.27	0.09	0.40	0.77	0.22	0.27
Control Delay	29.1	11.3	36.3	14.8	12.7	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.1	11.3	36.3	14.8	12.7	2.7
LOS	C	B	D	B	B	A
Approach Delay	24.9			16.5	7.3	
Approach LOS	C			B	A	

Intersection Summary

Cycle Length: 90
 Actuated Cycle Length: 65.6
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 14.4
 Intersection LOS: B
 Intersection Capacity Utilization 61.1%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	73	22	70	819	182	218
Future Volume (veh/h)	73	22	70	819	182	218
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	95	29	91	1064	236	283
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	271	241	121	1232	954	808
Arrive On Green	0.15	0.15	0.07	0.65	0.50	0.50
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	95	29	91	1064	236	283
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	2.7	0.9	2.8	25.7	4.1	6.1
Cycle Q Clear(g_c), s	2.7	0.9	2.8	25.7	4.1	6.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	271	241	121	1232	954	808
V/C Ratio(X)	0.35	0.12	0.76	0.86	0.25	0.35
Avail Cap(c_a), veh/h	692	616	418	1862	1271	1077
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	21.2	26.4	8.1	8.1	8.7
Incr Delay (d2), s/veh	0.8	0.2	3.6	2.9	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.9	1.2	6.0	1.2	1.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.7	21.4	30.0	11.0	8.3	8.9
LnGrp LOS	C	C	C	B	A	A
Approach Vol, veh/h	124			1155	519	
Approach Delay, s/veh	22.4			12.5	8.6	
Approach LOS	C			B	A	
Timer - Assigned Phs	2		4		5	6
Phs Duration (G+Y+Rc), s	43.1		14.4		8.4	34.7
Change Period (Y+Rc), s	5.8		5.8		4.6	5.8
Max Green Setting (Gmax), s	56.4		22.0		13.3	38.5
Max Q Clear Time (g_c+I1), s	27.7		4.7		4.8	8.1
Green Ext Time (p_c), s	9.6		0.3		0.1	2.2
Intersection Summary						
HCM 6th Ctrl Delay			12.0			
HCM 6th LOS			B			

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	31	438	511	198
Future Volume (vph)	31	438	511	198
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	10.0	39.0	29.0	41.0
Total Split (%)	12.5%	48.8%	36.3%	51.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effect Green (s)	5.7	18.2	15.2	14.6
Actuated g/C Ratio	0.12	0.39	0.33	0.32
v/c Ratio	0.14	0.60	0.49	0.41
Control Delay	27.3	15.4	11.8	15.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	27.3	15.4	11.8	15.3
LOS	C	B	B	B
Approach Delay		16.2	11.8	15.3
Approach LOS		B	B	B

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 46.1

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 13.7

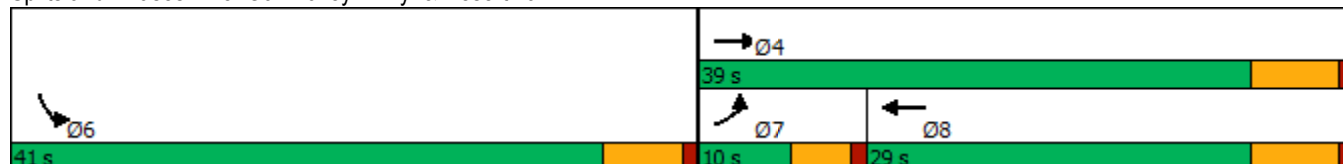
Intersection LOS: B

Intersection Capacity Utilization 47.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

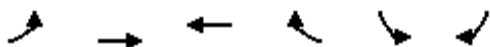


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↰	↑	↰↰↰		↰		
Traffic Volume (veh/h)	31	438	511	325	198	28	
Future Volume (veh/h)	31	438	511	325	198	28	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	32	452	527	335	204	29	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	67	904	1138	530	370	53	
Arrive On Green	0.04	0.48	0.33	0.33	0.24	0.24	
Sat Flow, veh/h	1810	1900	3629	1610	1554	221	
Grp Volume(v), veh/h	32	452	527	335	234	0	
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1783	0	
Q Serve(g_s), s	0.7	6.9	5.1	7.4	4.8	0.0	
Cycle Q Clear(g_c), s	0.7	6.9	5.1	7.4	4.8	0.0	
Prop In Lane	1.00			1.00	0.87	0.12	
Lane Grp Cap(c), veh/h	67	904	1138	530	425	0	
V/C Ratio(X)	0.48	0.50	0.46	0.63	0.55	0.00	
Avail Cap(c_a), veh/h	233	1485	1879	875	1495	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	19.8	7.6	11.1	11.9	14.0	0.0	
Incr Delay (d2), s/veh	1.9	0.4	0.3	1.3	1.1	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.3	1.5	1.4	2.0	1.6	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.7	8.0	11.4	13.2	15.1	0.0	
LnGrp LOS	C	A	B	B	B	A	
Approach Vol, veh/h		484	862		234		
Approach Delay, s/veh		8.9	12.1		15.1		
Approach LOS		A	B		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				26.2	15.8	6.2	20.0
Change Period (Y+Rc), s				6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s				32.8	35.2	5.4	22.8
Max Q Clear Time (g_c+I1), s				8.9	6.8	2.7	9.4
Green Ext Time (p_c), s				2.4	0.6	0.0	4.4
Intersection Summary							
HCM 6th Ctrl Delay			11.6				
HCM 6th LOS			B				
Notes							

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	395	241	163	641	509	1
Future Volume (vph)	395	241	163	641	509	1
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	29.0	29.0	20.3	49.3	40.7	40.7
Total Split (%)	32.2%	32.2%	22.6%	54.8%	45.2%	45.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effect Green (s)	25.4	25.4	13.7	43.7	34.7	34.7
Actuated g/C Ratio	0.28	0.28	0.15	0.49	0.39	0.39
v/c Ratio	0.97	0.46	0.78	0.91	0.96	0.37
Control Delay	67.1	5.8	52.9	30.5	55.2	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.1	5.8	52.9	30.5	55.2	12.9
LOS	E	A	D	C	E	B
Approach Delay	43.9			35.0		43.4
Approach LOS	D			D		D

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 40.4

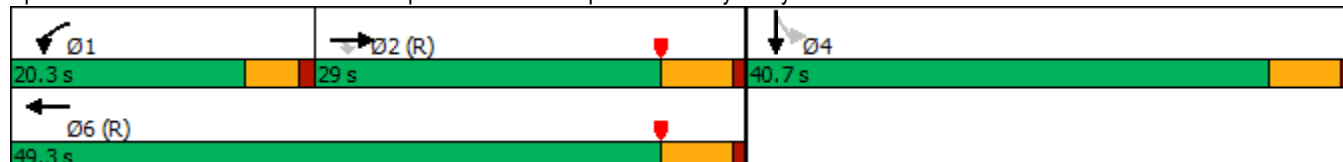
Intersection LOS: D

Intersection Capacity Utilization 71.6%

ICU Level of Service C

Analysis Period (min) 15

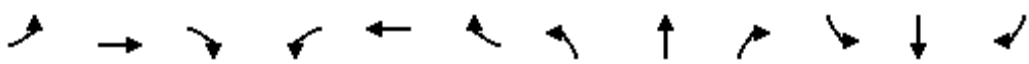
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑	↑	↑					↑	↑	
Traffic Volume (veh/h)	0	395	241	163	641	0	0	0	0	509	1	195
Future Volume (veh/h)	0	395	241	163	641	0	0	0	0	509	1	195
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	520	259	214	843	0				670	1	191
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	561	476	252	923	0				697	3	618
Arrive On Green	0.00	0.30	0.30	0.09	0.33	0.00				0.39	0.39	0.39
Sat Flow, veh/h	0	1900	1610	1810	1900	0				1810	8	1603
Grp Volume(v), veh/h	0	520	259	214	843	0				670	0	192
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1611
Q Serve(g_s), s	0.0	23.9	12.2	10.5	38.3	0.0				32.5	0.0	7.5
Cycle Q Clear(g_c), s	0.0	23.9	12.2	10.5	38.3	0.0				32.5	0.0	7.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	561	476	252	923	0				697	0	621
V/C Ratio(X)	0.00	0.93	0.54	0.85	0.91	0.00				0.96	0.00	0.31
Avail Cap(c_a), veh/h	0	561	476	316	923	0				702	0	625
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	0.66	0.66	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	30.7	26.6	39.9	28.5	0.0				27.0	0.0	19.3
Incr Delay (d2), s/veh	0.0	20.6	3.7	9.6	10.7	0.0				24.5	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.3	4.8	5.3	20.1	0.0				17.3	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	51.3	30.3	49.5	39.2	0.0				51.5	0.0	19.6
LnGrp LOS	A	D	C	D	D	A				D	A	B
Approach Vol, veh/h		779			1057						862	
Approach Delay, s/veh		44.3			41.3						44.4	
Approach LOS		D			D						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	17.1	32.4		40.5		49.5						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	15.7	23.2		34.9		43.5						
Max Q Clear Time (g_c+I1), s	12.5	25.9		34.5		40.3						
Green Ext Time (p_c), s	0.1	0.0		0.2		1.6						
Intersection Summary												
HCM 6th Ctrl Delay				43.2								
HCM 6th LOS				D								

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	Ø1
Lane Configurations												
Traffic Volume (vph)	4	3	86	44	3	21	179	475	28	308	6	
Future Volume (vph)	4	3	86	44	3	21	179	475	28	308	6	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	NA	Perm	
Protected Phases		4			8		5	2		6		1
Permitted Phases	4		4	8		8			2		6	
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.6	27.8	27.8	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	10.0	33.8	33.8	33.4	33.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	14.3%	48.3%	48.3%	47.7%	47.7%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6	4.6	4.6	5.8	5.8	5.8	5.8	
Lead/Lag							Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	Min	Min	None
Act Effect Green (s)		12.1	12.1		12.1	12.1	5.4	42.1	42.1	30.9	30.9	
Actuated g/C Ratio		0.20	0.20		0.20	0.20	0.09	0.70	0.70	0.51	0.51	
v/c Ratio		0.02	0.22		0.17	0.05	1.16	0.38	0.03	7.86	0.01	
Control Delay		18.3	4.3		20.8	0.2	152.7	7.2	0.0	3158.0	0.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		18.3	4.3		20.8	0.2	152.7	7.2	0.0	3158.0	0.0	
LOS		B	A		C	A	F	A	A	F	A	
Approach Delay		5.3			14.4			45.1		3101.6		
Approach LOS		A			B			D		F		

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 60.5

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 7.86

Intersection Signal Delay: 880.5

Intersection LOS: F

Intersection Capacity Utilization 64.3%

ICU Level of Service C

Analysis Period (min) 15

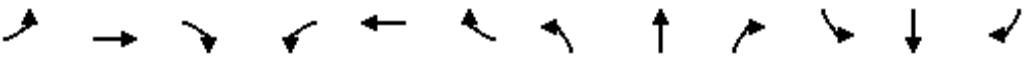
Splits and Phases: 12: California Av. & 5th St.

 Ø1	 Ø2	 Ø4
9.6 s	33.8 s	26.6 s
 Ø5	 Ø6	 Ø8
10 s	33.4 s	26.6 s

HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↖	↗	↖	↑	↗		↖	↗
Traffic Volume (veh/h)	4	3	86	44	3	21	179	475	28	6	308	6
Future Volume (veh/h)	4	3	86	44	3	21	179	475	28	6	308	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	3	91	46	3	22	188	500	29	6	324	6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	310	194	350	452	24	350	239	973	824	0	494	419
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.13	0.51	0.51	0.00	0.26	0.26
Sat Flow, veh/h	747	892	1610	1245	111	1610	1810	1900	1610	0	1900	1610
Grp Volume(v), veh/h	7	0	91	49	0	22	188	500	29	0	324	6
Grp Sat Flow(s),veh/h/ln	1639	0	1610	1356	0	1610	1810	1900	1610	0	1900	1610
Q Serve(g_s), s	0.0	0.0	1.8	0.9	0.0	0.4	3.9	6.7	0.3	0.0	5.8	0.1
Cycle Q Clear(g_c), s	0.1	0.0	1.8	1.1	0.0	0.4	3.9	6.7	0.3	0.0	5.8	0.1
Prop In Lane	0.57		1.00	0.94		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	503	0	350	476	0	350	239	973	824	0	494	419
V/C Ratio(X)	0.01	0.00	0.26	0.10	0.00	0.06	0.79	0.51	0.04	0.00	0.66	0.01
Avail Cap(c_a), veh/h	1066	0	922	955	0	922	254	1384	1173	0	1364	1156
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	11.8	0.0	12.5	12.2	0.0	11.9	16.2	6.2	4.7	0.0	12.7	10.6
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.1	0.0	0.1	12.7	0.4	0.0	0.0	1.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	0.3	0.0	0.1	2.0	1.2	0.1	0.0	1.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.8	0.0	12.9	12.3	0.0	12.0	28.9	6.6	4.7	0.0	14.2	10.6
LnGrp LOS	B	A	B	B	A	B	C	A	A	A	B	B
Approach Vol, veh/h	98				71				717			
Approach Delay, s/veh	12.8				12.2				12.4			
Approach LOS	B				B				B			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	25.5		13.0	9.7	15.8		13.0				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	5.4	27.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	8.7		3.8	5.9	7.8		3.1				
Green Ext Time (p_c), s	0.0	2.8		0.2	0.0	1.6		0.2				
Intersection Summary												
HCM 6th Ctrl Delay	12.9											
HCM 6th LOS	B											

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
07/14/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	196	92	51	505	978	185
Future Volume (vph)	196	92	51	505	978	185
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	29.0	29.0	11.1	91.0	79.9	79.9
Total Split (%)	24.2%	24.2%	9.3%	75.8%	66.6%	66.6%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effect Green (s)	17.6	17.6	6.5	69.8	61.8	61.8
Actuated g/C Ratio	0.18	0.18	0.06	0.70	0.62	0.62
v/c Ratio	0.67	0.27	0.47	0.41	0.91	0.19
Control Delay	53.6	10.5	66.5	7.4	30.2	3.9
Queue Delay	0.0	0.0	0.0	0.0	1.8	0.0
Total Delay	53.6	10.5	66.5	7.4	32.0	3.9
LOS	D	B	E	A	C	A
Approach Delay	39.8			12.8	27.5	
Approach LOS	D			B	C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 100.1
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 25.2
 Intersection LOS: C
 Intersection Capacity Utilization 72.0%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	196	92	51	505	978	185
Future Volume (veh/h)	196	92	51	505	978	185
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	213	100	55	549	1063	201
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	263	234	77	1369	1187	1006
Arrive On Green	0.15	0.15	0.04	0.72	0.62	0.62
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	213	100	55	549	1063	201
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	9.8	4.9	2.6	9.8	41.1	4.6
Cycle Q Clear(g_c), s	9.8	4.9	2.6	9.8	41.1	4.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	263	234	77	1369	1187	1006
V/C Ratio(X)	0.81	0.43	0.72	0.40	0.90	0.20
Avail Cap(c_a), veh/h	487	433	136	1877	1633	1384
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	33.6	40.8	4.7	13.8	6.9
Incr Delay (d2), s/veh	5.9	1.2	4.6	0.2	5.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.1	1.2	2.5	14.8	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.6	34.8	45.3	4.9	19.1	7.0
LnGrp LOS	D	C	D	A	B	A
Approach Vol, veh/h	313			604	1264	
Approach Delay, s/veh	39.5			8.6	17.2	
Approach LOS	D			A	B	
Timer - Assigned Phs	2		4		5	6
Phs Duration (G+Y+Rc), s	67.9		18.3		8.3	59.6
Change Period (Y+Rc), s	5.8		5.8		4.6	5.8
Max Green Setting (Gmax), s	85.2		23.2		6.5	74.1
Max Q Clear Time (g_c+I1), s	11.8		11.8		4.6	43.1
Green Ext Time (p_c), s	3.6		0.7		0.0	10.7
Intersection Summary						
HCM 6th Ctrl Delay			18.0			
HCM 6th LOS			B			

APPENDIX 7.1:

OPENING YEAR (2025) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	261	33	158	280	48	175
Future Vol, veh/h	261	33	158	280	48	175
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	303	38	184	326	56	203
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	11.2	11	11.8
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	48	175	131	131	33	158	140	140
LT Vol	48	0	0	0	0	158	0	0
Through Vol	0	0	131	131	0	0	140	140
RT Vol	0	175	0	0	33	0	0	0
Lane Flow Rate	56	203	152	152	38	184	163	163
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.112	0.342	0.273	0.273	0.043	0.343	0.281	0.203
Departure Headway (Hd)	7.252	6.051	6.486	6.486	4.051	6.722	6.215	4.492
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	493	592	552	552	877	535	576	794
Service Time	5.011	3.809	4.245	4.245	1.809	4.475	3.968	2.244
HCM Lane V/C Ratio	0.114	0.343	0.275	0.275	0.043	0.344	0.283	0.205
HCM Control Delay	10.9	12	11.7	11.7	7	13	11.4	8.4
HCM Lane LOS	B	B	B	B	A	B	B	A
HCM 95th-tile Q	0.4	1.5	1.1	1.1	0.1	1.5	1.1	0.8

Intersection

Intersection Delay, s/veh 10.8

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	10	0	56	0	33	5	47	248	0
Future Vol, veh/h	0	0	0	10	0	56	0	33	5	47	248	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	15	0	86	0	51	8	72	382	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

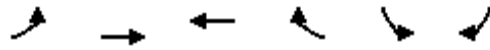
Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.2	7.9	11.8
HCM LOS	A	A	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	15%	16%
Vol Thru, %	87%	0%	84%
Vol Right, %	13%	85%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	38	66	295
LT Vol	0	10	47
Through Vol	33	0	248
RT Vol	5	56	0
Lane Flow Rate	58	102	454
Geometry Grp	1	1	1
Degree of Util (X)	0.073	0.128	0.524
Departure Headway (Hd)	4.522	4.553	4.155
Convergence, Y/N	Yes	Yes	Yes
Cap	794	792	853
Service Time	2.538	2.557	2.249
HCM Lane V/C Ratio	0.073	0.129	0.532
HCM Control Delay	7.9	8.2	11.8
HCM Lane LOS	A	A	B
HCM 95th-tile Q	0.2	0.4	3.1

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/05/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←	↑↑	↑	↑	←	↑
Traffic Volume (vph)	53	17	39	29	193	214
Future Volume (vph)	53	17	39	29	193	214
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	9.6	72.6	63.0	63.0	47.4	47.4
Total Split (%)	8.0%	60.5%	52.5%	52.5%	39.5%	39.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min

Intersection Summary

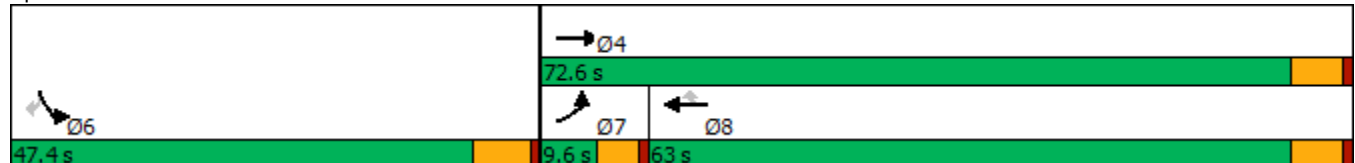
Cycle Length: 120

Actuated Cycle Length: 41.7

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

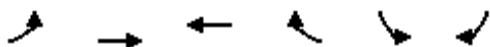
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/05/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	53	17	39	29	193	214
Future Volume (veh/h)	53	17	39	29	193	214
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	79	25	58	43	288	319
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	135	1420	371	314	1002	460
Arrive On Green	0.07	0.39	0.20	0.20	0.29	0.29
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610
Grp Volume(v), veh/h	79	25	58	43	288	319
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610
Q Serve(g_s), s	1.6	0.2	0.9	0.8	2.4	6.6
Cycle Q Clear(g_c), s	1.6	0.2	0.9	0.8	2.4	6.6
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	135	1420	371	314	1002	460
V/C Ratio(X)	0.58	0.02	0.16	0.14	0.29	0.69
Avail Cap(c_a), veh/h	242	6455	2909	2465	3871	1776
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.7	6.9	12.5	12.4	10.4	11.9
Incr Delay (d2), s/veh	3.9	0.0	0.2	0.2	0.2	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.3	0.2	0.6	5.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.6	6.9	12.7	12.6	10.5	13.8
LnGrp LOS	C	A	B	B	B	B
Approach Vol, veh/h		104	101		607	
Approach Delay, s/veh		17.3	12.7		12.2	
Approach LOS		B	B		B	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			20.5		16.9	7.4
Change Period (Y+Rc), s			5.8		6.2	4.6
Max Green Setting (Gmax), s			66.8		41.2	5.0
Max Q Clear Time (g_c+I1), s			2.2		8.6	3.6
Green Ext Time (p_c), s			0.1		2.1	0.0
Intersection Summary						
HCM 6th Ctrl Delay			13.0			
HCM 6th LOS			B			

Intersection

Intersection Delay, s/veh 41.9

Intersection LOS F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	69	498	403	345	519	63
Future Vol, veh/h	69	498	403	345	519	63
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	79	572	463	397	597	72
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	169.9	23.1	267.2
HCM LOS	F	C	F

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	89%
Vol Thru, %	0%	100%	100%	100%	19%	0%
Vol Right, %	0%	0%	0%	0%	81%	11%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	69	498	161	161	426	582
LT Vol	69	0	0	0	0	519
Through Vol	0	498	161	161	81	0
RT Vol	0	0	0	0	345	63
Lane Flow Rate	79	572	185	185	489	669
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.195	1.325	0.393	0.393	0.728	1.517
Departure Headway (Hd)	10.305	9.77	9.555	9.555	7.151	8.684
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	351	378	380	380	509	421
Service Time	8.005	7.47	7.255	7.255	4.851	6.384
HCM Lane V/C Ratio	0.225	1.513	0.487	0.487	0.961	1.589
HCM Control Delay	15.5	191.3	18.3	18.3	26.7	267.2
HCM Lane LOS	C	F	C	C	D	F
HCM 95th-tile Q	0.7	22.9	1.8	1.8	6	33.8

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	↔	↔	↔	↔
Traffic Volume (vph)	517	274	620	3
Future Volume (vph)	517	274	620	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	42.8	14.8	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	1.30	1.04	0.53	1.36
Control Delay	165.0	85.3	4.4	210.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	165.0	85.3	4.4	210.0
LOS	F	F	A	F
Approach Delay	165.0		29.2	210.0
Approach LOS	F		C	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.36

Intersection Signal Delay: 120.5

Intersection LOS: F

Intersection Capacity Utilization 109.6%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/13/2020

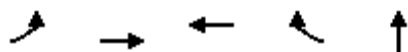
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↶		↶	↶						↶	
Traffic Volume (veh/h)	0	517	500	274	620	0	0	0	0	274	3	128
Future Volume (veh/h)	0	517	500	274	620	0	0	0	0	274	3	128
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	581	475	308	697	0				308	3	125
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	460	376	298	1313	0				222	2	90
Arrive On Green	0.00	0.48	0.48	0.33	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	967	791	1810	1900	0				1235	12	501
Grp Volume(v), veh/h	0	0	1056	308	697	0				436	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1758	1810	1900	0				1748	0	0
Q Serve(g_s), s	0.0	0.0	42.8	14.8	0.0	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	42.8	14.8	0.0	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.45	1.00		0.00				0.71		0.29
Lane Grp Cap(c), veh/h	0	0	836	298	1313	0				315	0	0
V/C Ratio(X)	0.00	0.00	1.26	1.04	0.53	0.00				1.39	0.00	0.00
Avail Cap(c_a), veh/h	0	0	836	298	1313	0				315	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.19	0.19	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	23.6	30.2	0.0	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	128.1	32.3	0.3	0.0				192.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	44.9	7.4	0.1	0.0				23.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	151.7	62.5	0.3	0.0				229.0	0.0	0.0
LnGrp LOS	A	A	F	F	A	A				F	A	A
Approach Vol, veh/h		1056			1005						436	
Approach Delay, s/veh		151.7			19.4						229.0	
Approach LOS		F			B						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.4	48.6		22.0		68.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2						
Max Q Clear Time (g_c+I1), s	16.8	44.8		18.2		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		5.0						
Intersection Summary												
HCM 6th Ctrl Delay			111.9									
HCM 6th LOS			F									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	170	621	534	473	4
Future Volume (vph)	170	621	534	473	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	5.4	37.0	27.0	27.0	41.4
Actuated g/C Ratio	0.06	0.41	0.30	0.30	0.46
v/c Ratio	1.60	0.81	0.96	0.59	0.93
Control Delay	304.5	20.1	61.0	5.7	40.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	304.5	20.1	61.0	5.7	40.1
LOS	F	C	E	A	D
Approach Delay		81.0	35.0		40.1
Approach LOS		F	D		D

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.60

Intersection Signal Delay: 50.7

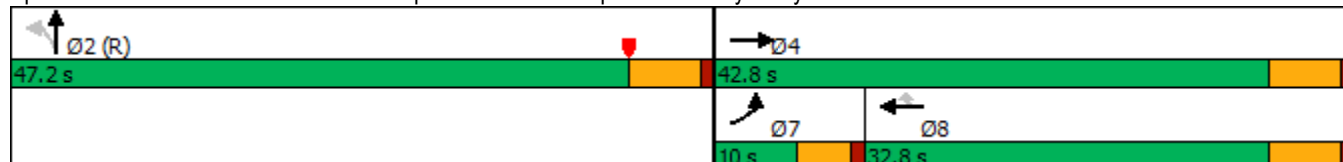
Intersection LOS: D

Intersection Capacity Utilization 109.6%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	621	0	0	534	473	361	4	398	0	0	0
Future Volume (veh/h)	170	621	0	0	534	473	361	4	398	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	173	634	0	0	545	367	368	4	284			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	781	0	0	570	483	443	5	342			
Arrive On Green	0.04	0.28	0.00	0.00	0.30	0.30	0.46	0.46	0.46			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	964	10	744			
Grp Volume(v), veh/h	173	634	0	0	545	367	656	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1718	0	0			
Q Serve(g_s), s	5.4	28.0	0.0	0.0	25.3	18.6	30.0	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	28.0	0.0	0.0	25.3	18.6	30.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.56		0.43			
Lane Grp Cap(c), veh/h	109	781	0	0	570	483	790	0	0			
V/C Ratio(X)	1.59	0.81	0.00	0.00	0.96	0.76	0.83	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	790	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	29.4	0.0	0.0	30.9	28.6	21.2	0.0	0.0			
Incr Delay (d2), s/veh	271.0	0.6	0.0	0.0	27.0	6.9	9.9	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.5	13.0	0.0	0.0	14.9	7.5	12.7	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	314.2	30.0	0.0	0.0	58.0	35.5	31.1	0.0	0.0			
LnGrp LOS	F	C	A	A	E	D	C	A	A			
Approach Vol, veh/h	807			912			656					
Approach Delay, s/veh	90.9			48.9			31.1					
Approach LOS	F			D			C					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	47.2			42.8			10.0			32.8		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	41.4			37.0			5.4			27.0		
Max Q Clear Time (g_c+I1), s	32.0			30.0			7.4			27.3		
Green Ext Time (p_c), s	2.9			2.2			0.0			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	58.3											
HCM 6th LOS	E											

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑				↗			↗
Traffic Vol, veh/h	5	586	152	164	937	28	0	0	66	0	0	167
Future Vol, veh/h	5	586	152	164	937	28	0	0	66	0	0	167
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	644	167	180	1030	31	0	0	73	0	0	184
Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	1061	0	0	811	0	0	-	-	406	-	-	531
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	664	-	-	824	-	-	0	0	600	0	0	498
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	664	-	-	824	-	-	-	-	600	-	-	498
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	0.1		1.5			11.8			16.4			
HCM LOS						B			C			
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	600	664	-	-	824	-	-	498				
HCM Lane V/C Ratio	0.121	0.008	-	-	0.219	-	-	0.369				
HCM Control Delay (s)	11.8	10.5	-	-	10.6	-	-	16.4				
HCM Lane LOS	B	B	-	-	B	-	-	C				
HCM 95th %tile Q(veh)	0.4	0	-	-	0.8	-	-	1.7				

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	47	25	3	283	21	75	30	6	23	32	99
Future Volume (vph)	35	47	25	3	283	21	75	30	6	23	32	99
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	21.0	43.0	43.0	15.0	37.0	37.0	31.0	43.0	43.0	19.0	31.0	31.0
Total Split (%)	17.5%	35.8%	35.8%	12.5%	30.8%	30.8%	25.8%	35.8%	35.8%	15.8%	25.8%	25.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 59

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Veile Av. & 4th St.

 Ø1	 Ø2	 Ø3	 Ø4
19 s	43 s	15 s	43 s
 Ø5	 Ø6	 Ø7	 Ø8
31 s	31 s	21 s	37 s

HCM 6th Signalized Intersection Summary
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	47	25	3	283	21	75	30	6	23	32	99
Future Volume (veh/h)	35	47	25	3	283	21	75	30	6	23	32	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	47	63	33	4	377	28	100	40	8	31	43	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	87	580	491	10	499	423	136	455	386	63	379	
Arrive On Green	0.05	0.31	0.31	0.01	0.26	0.26	0.07	0.24	0.24	0.03	0.20	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	47	63	33	4	377	28	100	40	8	31	43	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	1.3	1.2	0.7	0.1	9.1	0.7	2.7	0.8	0.2	0.8	0.9	0.0
Cycle Q Clear(g_c), s	1.3	1.2	0.7	0.1	9.1	0.7	2.7	0.8	0.2	0.8	0.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	87	580	491	10	499	423	136	455	386	63	379	
V/C Ratio(X)	0.54	0.11	0.07	0.41	0.76	0.07	0.74	0.09	0.02	0.49	0.11	
Avail Cap(c_a), veh/h	592	1410	1195	375	1183	1002	953	1410	1195	520	955	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.3	12.5	12.4	24.8	17.0	13.9	22.7	14.8	14.6	23.7	16.4	0.0
Incr Delay (d2), s/veh	2.0	0.1	0.1	9.9	2.4	0.1	2.9	0.1	0.0	2.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.4	0.2	0.1	3.5	0.2	1.1	0.3	0.1	0.3	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.3	12.6	12.4	34.7	19.4	13.9	25.6	14.9	14.6	25.9	16.6	0.0
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	
Approach Vol, veh/h		143			409			148			74	
Approach Delay, s/veh		16.7			19.1			22.1			20.5	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.4	17.8	4.9	21.1	8.4	15.8	7.0	19.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	14.4	37.2	10.4	37.2	26.4	25.2	16.4	31.2				
Max Q Clear Time (g_c+I1), s	2.8	2.8	2.1	3.2	4.7	2.9	3.3	11.1				
Green Ext Time (p_c), s	0.0	0.2	0.0	0.4	0.1	0.1	0.0	2.0				

Intersection Summary

HCM 6th Ctrl Delay 19.4

HCM 6th LOS B

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	301	124	178	300	21	427	89	47	134
Future Volume (vph)	4	301	124	178	300	21	427	89	47	134
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	23.8	23.8	13.0	27.2	27.2	28.0	42.2	11.0	25.2
Total Split (%)	10.7%	26.4%	26.4%	14.4%	30.2%	30.2%	31.1%	46.9%	12.2%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.0	17.9	17.9	8.4	29.0	29.0	23.4	41.5	6.0	20.0
Actuated g/C Ratio	0.06	0.20	0.20	0.09	0.33	0.33	0.26	0.47	0.07	0.22
v/c Ratio	0.04	0.85	0.28	1.14	0.53	0.04	0.98	0.18	0.42	0.35
Control Delay	41.2	56.3	3.0	149.6	29.0	0.1	70.9	12.3	51.1	32.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	56.3	3.0	149.6	29.0	0.1	70.9	12.3	51.1	32.0
LOS	D	E	A	F	C	A	E	B	D	C
Approach Delay		40.8			70.7			56.0		36.8
Approach LOS		D			E			E		D

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 89

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.14

Intersection Signal Delay: 54.4

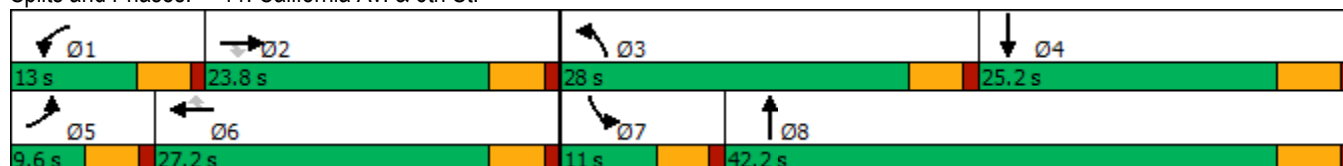
Intersection LOS: D

Intersection Capacity Utilization 73.7%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary

11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	301	124	178	300	21	427	89	56	47	134	4
Future Volume (veh/h)	4	301	124	178	300	21	427	89	56	47	134	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	327	134	193	326	14	464	97	39	51	146	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	373	316	172	543	460	479	581	234	73	423	6
Arrive On Green	0.01	0.20	0.20	0.10	0.29	0.29	0.26	0.45	0.45	0.04	0.23	0.23
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1289	518	1810	1870	26
Grp Volume(v), veh/h	4	327	134	193	326	14	464	0	136	51	0	148
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1807	1810	0	1895
Q Serve(g_s), s	0.2	14.8	6.4	8.4	13.1	0.6	22.4	0.0	3.9	2.5	0.0	5.8
Cycle Q Clear(g_c), s	0.2	14.8	6.4	8.4	13.1	0.6	22.4	0.0	3.9	2.5	0.0	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.29	1.00		0.01
Lane Grp Cap(c), veh/h	10	373	316	172	543	460	479	0	815	73	0	429
V/C Ratio(X)	0.42	0.88	0.42	1.12	0.60	0.03	0.97	0.00	0.17	0.70	0.00	0.34
Avail Cap(c_a), veh/h	102	409	346	172	543	460	479	0	815	131	0	429
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.8	34.5	31.1	40.0	27.2	22.7	32.1	0.0	14.4	41.8	0.0	28.7
Incr Delay (d2), s/veh	10.4	17.9	0.9	104.9	1.8	0.0	32.6	0.0	0.4	4.4	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	8.5	2.4	8.7	6.0	0.2	13.4	0.0	1.6	1.1	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.2	52.4	32.0	144.9	29.0	22.7	64.7	0.0	14.8	46.3	0.0	30.9
LnGrp LOS	D	D	C	F	C	C	E	A	B	D	A	C
Approach Vol, veh/h		465			533			600			199	
Approach Delay, s/veh		46.6			70.8			53.4			34.8	
Approach LOS		D			E			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	22.1	28.0	25.2	5.1	30.1	8.2	45.0				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	8.4	* 19	23.4	20.0	5.0	* 22	6.4	37.0				
Max Q Clear Time (g_c+I1), s	10.4	16.8	24.4	7.8	2.2	15.1	4.5	5.9				
Green Ext Time (p_c), s	0.0	0.6	0.0	0.5	0.0	1.1	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			54.7									
HCM 6th LOS			D									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Intersection												
Int Delay, s/veh	33.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗		↕	↗		↕	↗
Traffic Vol, veh/h	2	3	78	31	10	31	312	568	21	13	377	2
Future Vol, veh/h	2	3	78	31	10	31	312	568	21	13	377	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	50	-	-	50
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	99	39	13	39	395	719	27	16	477	3
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2058	2045	477	2071	2021	719	480	0	0	746	0	0
Stage 1	509	509	-	1509	1509	-	-	-	-	-	-	-
Stage 2	1549	1536	-	562	512	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	41	57	592	40	59	432	1093	-	-	871	-	-
Stage 1	550	541	-	152	185	-	-	-	-	-	-	-
Stage 2	144	180	-	515	540	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	15	21	592	~ 16	22	432	1093	-	-	871	-	-
Mov Cap-2 Maneuver	22	46	-	~ 18	51	-	-	-	-	-	-	-
Stage 1	209	527	-	58	70	-	-	-	-	-	-	-
Stage 2	41	68	-	415	527	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	20.2		\$ 607.1		3.5		0.3					
HCM LOS	C		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1093	-	-	32	592	21	432	871	-	-		
HCM Lane V/C Ratio	0.361	-	-	0.198	0.167	2.471	0.091	0.019	-	-		
HCM Control Delay (s)	10.1	0	-	143.4	12.5	1055.4	14.2	9.2	0	-		
HCM Lane LOS	B	A	-	F	B	F	B	A	A	-		
HCM 95th %tile Q(veh)	1.7	-	-	0.6	0.6	6.7	0.3	0.1	-	-		
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

Intersection						
Int Delay, s/veh	12.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	76	22	87	852	189	258
Future Vol, veh/h	76	22	87	852	189	258
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	99	29	113	1106	245	335
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1745	413	580	0	-	0
Stage 1	413	-	-	-	-	-
Stage 2	1332	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 96	643	1004	-	-	-
Stage 1	672	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 85	643	1004	-	-	-
Mov Cap-2 Maneuver	~ 85	-	-	-	-	-
Stage 1	596	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	186	0.8		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1004	-	85	643	-	-
HCM Lane V/C Ratio	0.113	-	1.161	0.044	-	-
HCM Control Delay (s)	9	-	236.7	10.9	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.4	-	7	0.1	-	-
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Timings
14: Beaumont Av. & 5th St.

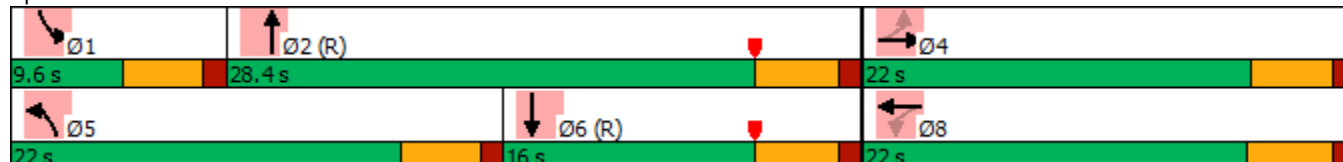
Jack Rabbit Trail (JN 12396)
07/13/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	9	17	20	3	62	350	3	408
Future Volume (vph)	9	17	20	3	62	350	3	408
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		10.1		10.0	6.8	46.3	5.0	40.8
Actuated g/C Ratio		0.17		0.17	0.11	0.77	0.08	0.68
v/c Ratio		0.21		0.15	0.33	0.14	0.02	0.19
Control Delay		14.3		18.1	27.3	4.6	25.7	7.6
Queue Delay		0.0		0.0	0.2	0.3	0.0	0.1
Total Delay		14.3		18.1	27.5	4.8	25.7	7.7
LOS		B		B	C	A	C	A
Approach Delay		14.3		18.1		8.1		7.8
Approach LOS		B		B		A		A

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.33
Intersection Signal Delay: 8.7
Intersection Capacity Utilization 36.0%
Analysis Period (min) 15
Intersection LOS: A
ICU Level of Service A

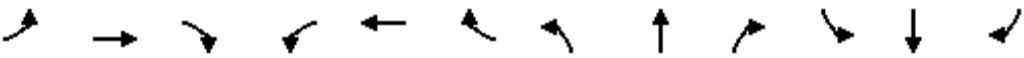
Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↵	↕		↵	↕	
Traffic Volume (veh/h)	9	17	32	20	3	11	62	350	14	3	408	13
Future Volume (veh/h)	9	17	32	20	3	11	62	350	14	3	408	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	10	18	35	22	3	12	67	380	15	3	443	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	87	84	127	197	41	68	101	2210	87	7	2044	64
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.11	1.00	1.00	0.00	0.57	0.57
Sat Flow, veh/h	128	622	938	751	301	505	1810	3540	139	1810	3572	113
Grp Volume(v), veh/h	63	0	0	37	0	0	67	193	202	3	224	233
Grp Sat Flow(s),veh/h/ln	1688	0	0	1558	0	0	1810	1805	1875	1810	1805	1880
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.1	3.6	3.6
Cycle Q Clear(g_c), s	2.0	0.0	0.0	1.1	0.0	0.0	2.1	0.0	0.0	0.1	3.6	3.6
Prop In Lane	0.16		0.56	0.59		0.32	1.00		0.07	1.00		0.06
Lane Grp Cap(c), veh/h	298	0	0	306	0	0	101	1126	1170	7	1033	1075
V/C Ratio(X)	0.21	0.00	0.00	0.12	0.00	0.00	0.66	0.17	0.17	0.41	0.22	0.22
Avail Cap(c_a), veh/h	553	0	0	530	0	0	525	1126	1170	151	1033	1075
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.3	0.0	0.0	22.9	0.0	0.0	26.1	0.0	0.0	29.8	6.3	6.3
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.2	0.0	0.0	2.7	0.3	0.3	12.9	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.5	0.0	0.0	0.9	0.1	0.1	0.1	1.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	0.0	0.0	23.1	0.0	0.0	28.8	0.3	0.3	42.7	6.8	6.7
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h	63				37			462			460	
Approach Delay, s/veh	23.6				23.1			4.5			7.0	
Approach LOS	C				C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	42.2		12.9	8.0	39.1		12.9				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		4.0	4.1	5.6		3.1				
Green Ext Time (p_c), s	0.0	2.3		0.2	0.1	1.3		0.1				

Intersection Summary

HCM 6th Ctrl Delay	7.4
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

						
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	104	93	658	75	298	305
Future Volume (vph)	104	93	658	75	298	305
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	11.2	10.0	11.4	11.4	11.4	11.4
Actuated g/C Ratio	0.34	0.30	0.35	0.35	0.35	0.35
v/c Ratio	0.10	0.11	0.41	0.14	0.19	0.28
Control Delay	8.2	3.2	9.0	3.0	7.7	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.2	3.2	9.0	3.0	7.7	2.0
LOS	A	A	A	A	A	A
Approach Delay			8.4		4.8	
Approach LOS			A		A	
Intersection Summary						
Cycle Length: 120						
Actuated Cycle Length: 33						
Natural Cycle: 50						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.41						
Intersection Signal Delay: 6.6				Intersection LOS: A		
Intersection Capacity Utilization 30.7%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps



HCM 6th Signalized Intersection Summary

17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	104	0	93	0	658	75	0	298	305
Future Volume (veh/h)	0	0	0	104	0	93	0	658	75	0	298	305
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				113	0	74	0	715	0	0	324	250
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				680	0	549	0	2010		0	2010	1098
Arrive On Green				0.20	0.00	0.20	0.00	0.39	0.00	0.00	0.39	0.39
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				113	0	74	0	715	0	0	324	250
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				0.7	0.0	0.6	0.0	2.5	0.0	0.0	1.0	1.5
Cycle Q Clear(g_c), s				0.7	0.0	0.6	0.0	2.5	0.0	0.0	1.0	1.5
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				680	0	549	0	2010		0	2010	1098
V/C Ratio(X)				0.17	0.00	0.13	0.00	0.36		0.00	0.16	0.23
Avail Cap(c_a), veh/h				5497	0	4437	0	13912		0	13912	7601
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				8.5	0.0	8.4	0.0	5.4	0.0	0.0	5.0	5.1
Incr Delay (d2), s/veh				0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.1	0.0	0.1	0.0	0.2	0.0	0.0	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				8.5	0.0	8.5	0.0	5.5	0.0	0.0	5.0	5.2
LnGrp LOS				A	A	A	A	A		A	A	A
Approach Vol, veh/h					187			715	A		574	
Approach Delay, s/veh					8.5			5.5			5.1	
Approach LOS					A			A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		15.8				15.8		9.6				
Change Period (Y+Rc), s		5.8				5.8		4.6				
Max Green Setting (Gmax), s		69.2				69.2		40.4				
Max Q Clear Time (g_c+I1), s		4.5				3.5		2.7				
Green Ext Time (p_c), s		5.2				3.2		0.3				
Intersection Summary												
HCM 6th Ctrl Delay				5.7								
HCM 6th LOS				A								
Notes												
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.												

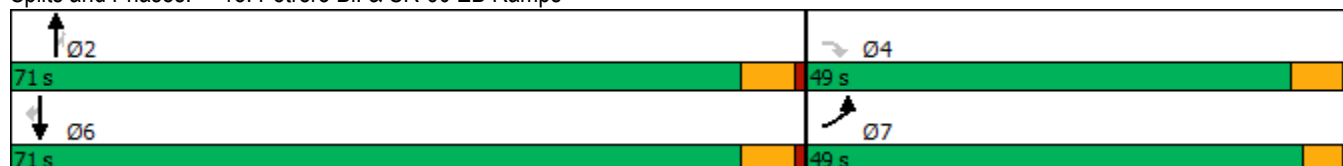
Timings
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

						
Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	254	50	479	131	338	64
Future Volume (vph)	254	50	479	131	338	64
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	49.0	49.0	71.0	71.0	71.0	71.0
Total Split (%)	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	10.0	8.8	10.5	10.5	10.5	10.5
Actuated g/C Ratio	0.32	0.28	0.34	0.34	0.34	0.34
v/c Ratio	0.25	0.06	0.30	0.14	0.21	0.12
Control Delay	8.5	3.7	8.0	2.2	7.6	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	3.7	8.0	2.2	7.6	3.0
LOS	A	A	A	A	A	A
Approach Delay			6.8		6.8	
Approach LOS			A		A	
Intersection Summary						
Cycle Length: 120						
Actuated Cycle Length: 30.9						
Natural Cycle: 50						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.30						
Intersection Signal Delay: 7.0				Intersection LOS: A		
Intersection Capacity Utilization 24.7%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps



HCM 6th Signalized Intersection Summary 18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	254	0	50	0	0	0	0	479	131	0	338	64
Future Volume (veh/h)	254	0	50	0	0	0	0	479	131	0	338	64
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	276	0	-28				0	521	99	0	367	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1137	0	918				0	1679	918	0	1679	
Arrive On Green	0.33	0.00	0.00				0.00	0.33	0.33	0.00	0.33	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	276	0	-28				0	521	99	0	367	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	1.8	0.0	0.0				0.0	2.3	0.8	0.0	1.6	0.0
Cycle Q Clear(g_c), s	1.8	0.0	0.0				0.0	2.3	0.8	0.0	1.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1137	0	918				0	1679	918	0	1679	
V/C Ratio(X)	0.24	0.00	-0.03				0.00	0.31	0.11	0.00	0.22	
Avail Cap(c_a), veh/h	5048	0	4075				0	10952	5984	0	10952	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	7.4	0.0	0.0				0.0	7.6	7.1	0.0	7.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0				0.0	0.1	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0				0.0	0.4	0.1	0.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.5	0.0	0.0				0.0	7.7	7.1	0.0	7.4	0.0
LnGrp LOS	A	A	A				A	A	A	A	A	
Approach Vol, veh/h	248						620			367		
Approach Delay, s/veh	8.3						7.6			7.4		
Approach LOS	A						A			A		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	15.8			14.6			15.8					
Change Period (Y+Rc), s	5.8			4.6			5.8					
Max Green Setting (Gmax), s	65.2			44.4			65.2					
Max Q Clear Time (g_c+I1), s	4.3			3.8			3.6					
Green Ext Time (p_c), s	4.0			0.5			2.4					
Intersection Summary												
HCM 6th Ctrl Delay	7.7											
HCM 6th LOS	A											

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Intersection	
Intersection Delay, s/veh	11.3
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	226	39	149	303	105	199
Future Vol, veh/h	226	39	149	303	105	199
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	248	43	164	333	115	219
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	10.9	11	12
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	105	199	113	113	39	149	152	152
LT Vol	105	0	0	0	0	149	0	0
Through Vol	0	0	113	113	0	0	152	152
RT Vol	0	199	0	0	39	0	0	0
Lane Flow Rate	115	219	124	124	43	164	166	166
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.228	0.36	0.231	0.231	0.051	0.312	0.293	0.214
Departure Headway (Hd)	7.125	5.925	6.703	6.703	4.261	6.852	6.344	4.617
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	503	606	534	534	833	524	564	772
Service Time	4.885	3.685	4.47	4.47	2.026	4.609	4.101	2.373
HCM Lane V/C Ratio	0.229	0.361	0.232	0.232	0.052	0.313	0.294	0.215
HCM Control Delay	12	12	11.5	11.5	7.3	12.7	11.7	8.6
HCM Lane LOS	B	B	B	B	A	B	B	A
HCM 95th-tile Q	0.9	1.6	0.9	0.9	0.2	1.3	1.2	0.8

Intersection

Intersection Delay, s/veh 11.1

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	2	0	100	0	315	0	10	198	0
Future Vol, veh/h	0	0	0	2	0	100	0	315	0	10	198	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	130	0	409	0	13	257	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

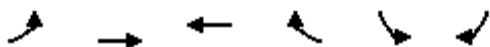
Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	8.9	12.3	10.3
HCM LOS	A	B	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	2%	5%
Vol Thru, %	100%	0%	95%
Vol Right, %	0%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	315	102	208
LT Vol	0	2	10
Through Vol	315	0	198
RT Vol	0	100	0
Lane Flow Rate	409	132	270
Geometry Grp	1	1	1
Degree of Util (X)	0.514	0.177	0.351
Departure Headway (Hd)	4.524	4.814	4.677
Convergence, Y/N	Yes	Yes	Yes
Cap	794	740	767
Service Time	2.568	2.874	2.725
HCM Lane V/C Ratio	0.515	0.178	0.352
HCM Control Delay	12.3	8.9	10.3
HCM Lane LOS	B	A	B
HCM 95th-tile Q	3	0.6	1.6

HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	220	46	14	252	176	75	
Future Volume (veh/h)	220	46	14	252	176	75	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	328	69	21	376	263	112	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	402	2115	527	446	661	303	
Arrive On Green	0.22	0.59	0.28	0.28	0.19	0.19	
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610	
Grp Volume(v), veh/h	328	69	21	376	263	112	
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610	
Q Serve(g_s), s	9.1	0.4	0.4	11.7	3.5	3.2	
Cycle Q Clear(g_c), s	9.1	0.4	0.4	11.7	3.5	3.2	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	402	2115	527	446	661	303	
V/C Ratio(X)	0.82	0.03	0.04	0.84	0.40	0.37	
Avail Cap(c_a), veh/h	797	3547	865	733	1705	782	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	19.6	4.6	14.0	18.1	18.9	18.8	
Incr Delay (d2), s/veh	4.1	0.0	0.0	4.8	0.4	0.8	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	3.6	0.1	0.2	4.1	1.2	0.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	23.7	4.6	14.1	22.9	19.3	19.6	
LnGrp LOS	C	A	B	C	B	B	
Approach Vol, veh/h		397	397		375		
Approach Delay, s/veh		20.4	22.4		19.4		
Approach LOS		C	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				36.9	16.2	16.4	20.5
Change Period (Y+Rc), s				5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s				52.2	25.8	23.4	24.2
Max Q Clear Time (g_c+I1), s				2.4	5.5	11.1	13.7
Green Ext Time (p_c), s				0.2	1.1	0.8	1.0
Intersection Summary							
HCM 6th Ctrl Delay			20.8				
HCM 6th LOS			C				

Intersection

Intersection Delay, s/veh 35
Intersection LOS D

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	31	492	592	344	210	32
Future Vol, veh/h	31	492	592	344	210	32
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	32	507	610	355	216	33
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	79.8	13.6	20.8
HCM LOS	F	B	C

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	87%
Vol Thru, %	0%	100%	100%	100%	26%	0%
Vol Right, %	0%	0%	0%	0%	74%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	492	237	237	462	242
LT Vol	31	0	0	0	0	210
Through Vol	0	492	237	237	118	0
RT Vol	0	0	0	0	344	32
Lane Flow Rate	32	507	244	244	477	249
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.071	1.057	0.442	0.442	0.563	0.559
Departure Headway (Hd)	8.014	7.502	6.66	6.66	4.385	8.219
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	450	487	544	544	829	442
Service Time	5.714	5.202	4.36	4.36	2.085	5.919
HCM Lane V/C Ratio	0.071	1.041	0.449	0.449	0.575	0.563
HCM Control Delay	11.3	84.1	14.5	14.5	12.6	20.8
HCM Lane LOS	B	F	B	B	B	C
HCM 95th-tile Q	0.2	15.6	2.2	2.2	3.6	3.3

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	↵	→	↕
Traffic Volume (vph)	442	180	718	1
Future Volume (vph)	442	180	718	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	29.1	10.6	43.7	38.3
Actuated g/C Ratio	0.32	0.12	0.49	0.43
v/c Ratio	1.52	1.12	1.02	1.31
Control Delay	269.2	121.6	52.7	176.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	269.2	121.6	52.7	176.0
LOS	F	F	D	F
Approach Delay	269.2		66.5	176.0
Approach LOS	F		E	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.52

Intersection Signal Delay: 162.1

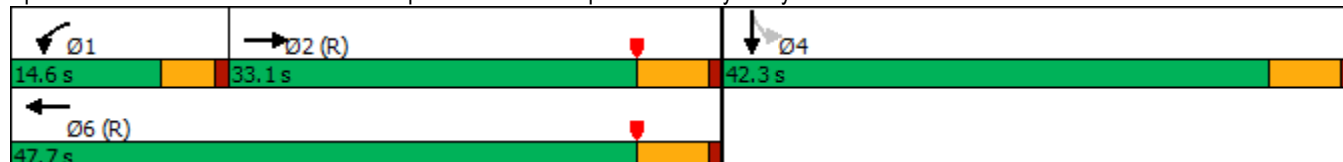
Intersection LOS: F

Intersection Capacity Utilization 102.8%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/13/2020

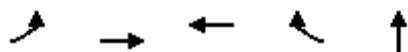
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩	
Traffic Volume (veh/h)	0	442	260	180	718	0	0	0	0	547	1	218
Future Volume (veh/h)	0	442	260	180	718	0	0	0	0	547	1	218
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	582	270	237	945	0				720	1	221
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	397	184	213	923	0				572	1	176
Arrive On Green	0.00	0.32	0.30	0.08	0.33	0.00				0.43	0.43	0.41
Sat Flow, veh/h	0	1228	570	1810	1900	0				1344	2	413
Grp Volume(v), veh/h	0	0	852	237	945	0				942	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1797	1810	1900	0				1759	0	0
Q Serve(g_s), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Prop In Lane	0.00		0.32	1.00		0.00				0.76		0.23
Lane Grp Cap(c), veh/h	0	0	581	213	923	0				748	0	0
V/C Ratio(X)	0.00	0.00	1.47	1.11	1.02	0.00				1.26	0.00	0.00
Avail Cap(c_a), veh/h	0	0	581	213	923	0				748	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.24	0.24	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	30.7	41.4	30.4	0.0				26.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	219.0	65.8	21.2	0.0				127.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	46.9	8.6	25.2	0.0				40.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	249.8	107.3	51.5	0.0				153.2	0.0	0.0
LnGrp LOS	A	A	F	F	F	A				F	A	A
Approach Vol, veh/h		852			1182						942	
Approach Delay, s/veh		249.8			62.7						153.2	
Approach LOS		F			E						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.6	33.1		42.3		47.7						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9						
Max Q Clear Time (g_c+I1), s	12.6	31.1		40.3		45.7						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.0						
Intersection Summary												
HCM 6th Ctrl Delay			144.9									
HCM 6th LOS			F									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	183	806	490	318	4
Future Volume (vph)	183	806	490	318	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	14.4	44.0	29.6	29.6	46.0
Total Split (%)	16.0%	48.9%	32.9%	32.9%	51.1%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	10.4	40.0	25.6	25.6	42.0
Actuated g/C Ratio	0.12	0.44	0.28	0.28	0.47
v/c Ratio	0.91	0.98	0.94	0.47	0.90
Control Delay	49.0	27.7	58.7	5.5	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	27.7	58.7	5.5	36.0
LOS	D	C	E	A	D
Approach Delay		31.7	37.8		36.0
Approach LOS		C	D		D

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 34.9

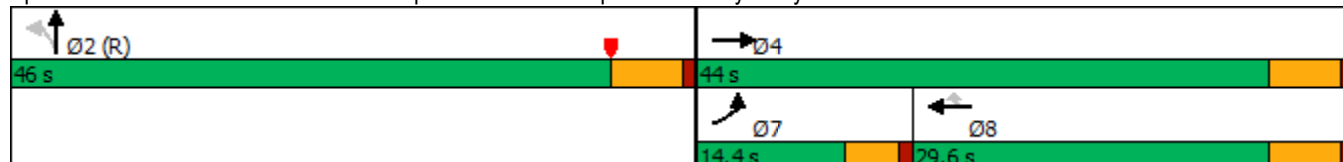
Intersection LOS: C

Intersection Capacity Utilization 102.8%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	806	0	0	490	318	408	4	321	0	0	0
Future Volume (veh/h)	183	806	0	0	490	318	408	4	321	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	189	831	0	0	505	258	421	4	279			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	209	844	0	0	540	458	481	5	319			
Arrive On Green	0.04	0.15	0.00	0.00	0.28	0.28	0.47	0.47	0.45			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1032	10	684			
Grp Volume(v), veh/h	189	831	0	0	505	258	704	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1725	0	0			
Q Serve(g_s), s	9.4	39.3	0.0	0.0	23.3	12.3	33.2	0.0	0.0			
Cycle Q Clear(g_c), s	9.4	39.3	0.0	0.0	23.3	12.3	33.2	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.60		0.40			
Lane Grp Cap(c), veh/h	209	844	0	0	540	458	805	0	0			
V/C Ratio(X)	0.90	0.98	0.00	0.00	0.93	0.56	0.87	0.00	0.00			
Avail Cap(c_a), veh/h	209	844	0	0	540	458	805	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	42.8	38.1	0.0	0.0	31.4	27.4	22.0	0.0	0.0			
Incr Delay (d2), s/veh	5.3	6.2	0.0	0.0	23.6	1.6	12.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.6	21.0	0.0	0.0	13.4	4.6	14.6	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.1	44.3	0.0	0.0	55.0	29.0	34.7	0.0	0.0			
LnGrp LOS	D	D	A	A	E	C	C	A	A			
Approach Vol, veh/h	1020			763			704					
Approach Delay, s/veh	45.0			46.2			34.7					
Approach LOS	D			D			C					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	46.0			44.0			14.4			29.6		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	40.2			38.2			9.8			23.8		
Max Q Clear Time (g_c+I1), s	35.2			41.3			11.4			25.3		
Green Ext Time (p_c), s	2.0			0.0			0.0			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	42.5											
HCM 6th LOS	D											

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱		↱	↑↑				↱			↱
Traffic Vol, veh/h	14	873	134	114	698	59	0	0	124	0	0	69
Future Vol, veh/h	14	873	134	114	698	59	0	0	124	0	0	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	15	939	144	123	751	63	0	0	133	0	0	74
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	814	0	0	1083	0	0	-	-	542	-	-	407
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	822	-	-	652	-	-	0	0	490	0	0	599
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	822	-	-	652	-	-	-	-	490	-	-	599
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			1.5			15.1			11.9		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	490	822	-	-	652	-	-	599				
HCM Lane V/C Ratio	0.272	0.018	-	-	0.188	-	-	0.124				
HCM Control Delay (s)	15.1	9.5	-	-	11.8	-	-	11.9				
HCM Lane LOS	C	A	-	-	B	-	-	B				
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0.7	-	-	0.4				

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	111	270	9	226	32	42	40	12	14	63	41
Future Volume (vph)	111	270	9	226	32	42	40	12	14	63	41
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	36.0	54.0	15.0	33.0	33.0	23.0	34.0	34.0	17.0	28.0	28.0
Total Split (%)	30.0%	45.0%	12.5%	27.5%	27.5%	19.2%	28.3%	28.3%	14.2%	23.3%	23.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min

Intersection Summary

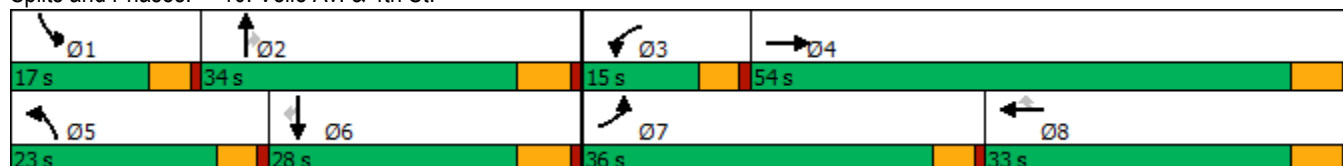
Cycle Length: 120

Actuated Cycle Length: 63.5

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	270	82	9	226	32	42	40	12	14	63	41
Future Volume (veh/h)	111	270	82	9	226	32	42	40	12	14	63	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	159	386	117	13	323	46	60	57	17	20	90	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	207	896	268	30	435	369	101	431	365	44	370	
Arrive On Green	0.11	0.33	0.33	0.02	0.23	0.23	0.06	0.23	0.23	0.02	0.19	0.00
Sat Flow, veh/h	1810	2738	820	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	159	253	250	13	323	46	60	57	17	20	90	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1752	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	4.4	5.6	5.7	0.4	8.1	1.2	1.7	1.2	0.4	0.6	2.1	0.0
Cycle Q Clear(g_c), s	4.4	5.6	5.7	0.4	8.1	1.2	1.7	1.2	0.4	0.6	2.1	0.0
Prop In Lane	1.00		0.47	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	591	574	30	435	369	101	431	365	44	370	
V/C Ratio(X)	0.77	0.43	0.44	0.44	0.74	0.12	0.59	0.13	0.05	0.46	0.24	
Avail Cap(c_a), veh/h	1107	1695	1646	367	1007	853	649	1044	885	437	822	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	22.1	13.5	13.5	25.0	18.4	15.7	23.7	15.8	15.5	24.7	17.5	0.0
Incr Delay (d2), s/veh	2.2	0.5	0.5	3.7	2.5	0.2	2.0	0.1	0.1	2.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	1.9	1.8	0.2	3.2	0.4	0.7	0.5	0.1	0.2	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.3	14.0	14.1	28.7	20.9	15.8	25.7	16.0	15.6	27.5	17.8	0.0
LnGrp LOS	C	B	B	C	C	B	C	B	B	C	B	
Approach Vol, veh/h		662			382			134			110	
Approach Delay, s/veh		16.5			20.5			20.3			19.6	
Approach LOS		B			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.8	17.4	5.4	22.6	7.5	15.8	10.5	17.6				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	12.4	28.2	10.4	48.2	18.4	22.2	31.4	27.2				
Max Q Clear Time (g_c+I1), s	2.6	3.2	2.4	7.7	3.7	4.1	6.4	10.1				
Green Ext Time (p_c), s	0.0	0.3	0.0	2.9	0.0	0.3	0.2	1.7				

Intersection Summary

HCM 6th Ctrl Delay 18.3

HCM 6th LOS B

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)
07/13/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	20	478	181	178	283	11	284	108	14	62
Future Volume (vph)	20	478	181	178	283	11	284	108	14	62
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	19.0	36.6	9.6	27.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	21.1%	40.7%	10.7%	30.2%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.8	-0.8	-0.6	-0.8	-0.8	-0.6	-1.2	-0.6	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.7	27.0	27.0	6.4	33.6	33.6	15.0	40.4	5.6	23.3
Actuated g/C Ratio	0.06	0.31	0.31	0.07	0.38	0.38	0.17	0.46	0.06	0.27
v/c Ratio	0.18	0.86	0.30	1.42	0.41	0.02	0.97	0.33	0.13	0.16
Control Delay	43.5	44.8	4.7	261.5	23.0	0.0	82.9	12.5	42.6	23.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	44.8	4.7	261.5	23.0	0.0	82.9	12.5	42.6	23.6
LOS	D	D	A	F	C	A	F	B	D	C
Approach Delay		34.0			112.2			48.8		26.7
Approach LOS		C			F			D		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 87.7

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.42

Intersection Signal Delay: 58.8

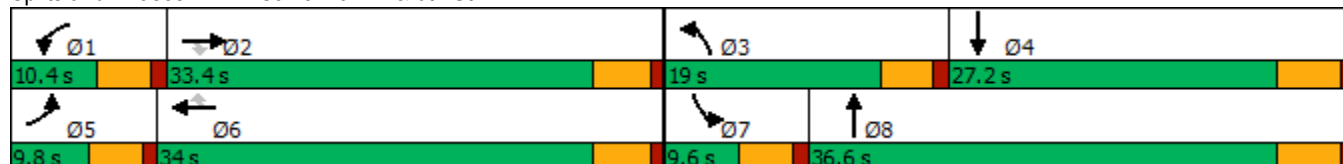
Intersection LOS: E

Intersection Capacity Utilization 67.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	478	181	178	283	11	284	108	158	14	62	12
Future Volume (veh/h)	20	478	181	178	283	11	284	108	158	14	62	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	503	187	187	298	7	299	114	135	15	65	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	54	575	488	133	659	558	312	329	390	44	450	48
Arrive On Green	0.03	0.30	0.30	0.07	0.35	0.35	0.17	0.42	0.40	0.02	0.27	0.25
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	793	939	1810	1686	182
Grp Volume(v), veh/h	21	503	187	187	298	7	299	0	249	15	0	72
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1731	1810	0	1867
Q Serve(g_s), s	1.0	21.8	8.0	6.4	10.6	0.2	14.2	0.0	8.6	0.7	0.0	2.6
Cycle Q Clear(g_c), s	1.0	21.8	8.0	6.4	10.6	0.2	14.2	0.0	8.6	0.7	0.0	2.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.54	1.00		0.10
Lane Grp Cap(c), veh/h	54	575	488	133	659	558	312	0	719	44	0	498
V/C Ratio(X)	0.39	0.87	0.38	1.40	0.45	0.01	0.96	0.00	0.35	0.34	0.00	0.14
Avail Cap(c_a), veh/h	121	643	545	133	659	558	312	0	719	117	0	498
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.4	28.7	23.9	40.3	22.0	18.6	35.6	0.0	17.6	41.7	0.0	24.3
Incr Delay (d2), s/veh	1.7	11.9	0.5	220.3	0.5	0.0	39.2	0.0	1.3	1.7	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	11.5	2.9	11.0	4.6	0.1	9.3	0.0	3.4	0.3	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	40.6	24.4	260.5	22.5	18.6	74.9	0.0	18.9	43.4	0.0	24.9
LnGrp LOS	D	D	C	F	C	B	E	A	B	D	A	C
Approach Vol, veh/h		711			492			548			87	
Approach Delay, s/veh		36.4			112.9			49.4			28.1	
Approach LOS		D			F			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.4	30.3	19.0	27.2	6.6	34.1	6.1	40.1				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	5.8	* 29	14.4	22.0	5.2	* 29	5.0	31.4				
Max Q Clear Time (g_c+I1), s	8.4	23.8	16.2	4.6	3.0	12.6	2.7	10.6				
Green Ext Time (p_c), s	0.0	1.7	0.0	0.2	0.0	1.6	0.0	1.3				

Intersection Summary

HCM 6th Ctrl Delay	60.4
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↱	↰		↰	↱
Traffic Vol, veh/h	4	3	90	44	3	22	186	521	25	7	354	7
Future Vol, veh/h	4	3	90	44	3	22	186	521	25	7	354	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	120	-	50	-	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	3	95	46	3	23	196	548	26	7	373	7

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1353	1353	373	1380	1334	548	380	0	0	574	0	0
Stage 1	387	387	-	940	940	-	-	-	-	-	-	-
Stage 2	966	966	-	440	394	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	128	151	678	123	155	540	1190	-	-	1009	-	-
Stage 1	641	613	-	319	345	-	-	-	-	-	-	-
Stage 2	309	336	-	600	609	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	105	125	678	91	128	540	1190	-	-	1009	-	-
Mov Cap-2 Maneuver	188	218	-	172	210	-	-	-	-	-	-	-
Stage 1	535	607	-	266	288	-	-	-	-	-	-	-
Stage 2	244	281	-	509	604	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.1		26.8		2.2		0.2	
HCM LOS	B		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1190	-	-	200	678	174	540	1009	-	-
HCM Lane V/C Ratio	0.165	-	-	0.037	0.14	0.284	0.043	0.007	-	-
HCM Control Delay (s)	8.6	-	-	23.7	11.2	33.7	12	8.6	0	-
HCM Lane LOS	A	-	-	C	B	D	B	A	A	-
HCM 95th %tile Q(veh)	0.6	-	-	0.1	0.5	1.1	0.1	0	-	-

Intersection						
Int Delay, s/veh	155.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	226	108	66	525	1018	224
Future Vol, veh/h	226	108	66	525	1018	224
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	246	117	72	571	1107	243
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1944	1229	1350	0	-	0
Stage 1	1229	-	-	-	-	-
Stage 2	715	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 72	219	516	-	-	-
Stage 1	279	-	-	-	-	-
Stage 2	488	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 62	219	516	-	-	-
Mov Cap-2 Maneuver	~ 62	-	-	-	-	-
Stage 1	~ 240	-	-	-	-	-
Stage 2	488	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s \$ 1007		1.5		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	516	-	62	219	-	-
HCM Lane V/C Ratio	0.139	-	3.962	0.536	-	-
HCM Control Delay (s)	13.1	\$	1469.6	39	-	-
HCM Lane LOS	B	-	F	E	-	-
HCM 95th %tile Q(veh)	0.5	-	26.4	2.8	-	-
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)
07/13/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	31	17	76	4	24	432	10	457
Future Volume (vph)	31	17	76	4	24	432	10	457
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		-0.6		-0.8	-0.6	-0.8	-0.6	-0.8
Total Lost Time (s)		4.0		4.0	4.0	4.0	4.0	4.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		11.5		11.6	6.2	42.1	5.8	41.9
Actuated g/C Ratio		0.19		0.19	0.10	0.70	0.10	0.70
v/c Ratio		0.27		0.34	0.13	0.19	0.06	0.19
Control Delay		14.8		20.9	31.2	4.7	25.2	5.6
Queue Delay		0.3		0.4	1.2	0.4	0.0	0.2
Total Delay		15.1		21.3	32.5	5.0	25.2	5.8
LOS		B		C	C	A	C	A
Approach Delay		15.1		21.3		6.4		6.2
Approach LOS		B		C		A		A

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.34
 Intersection Signal Delay: 8.2
 Intersection Capacity Utilization 37.7%
 Analysis Period (min) 15

Intersection LOS: A

ICU Level of Service A

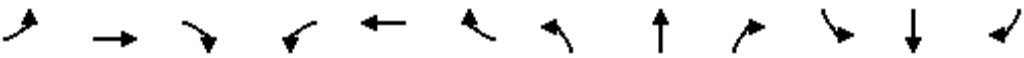
Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	
Traffic Volume (veh/h)	31	17	41	76	4	17	24	432	32	10	457	14
Future Volume (veh/h)	31	17	41	76	4	17	24	432	32	10	457	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	18	42	78	4	18	25	445	33	10	471	14
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	144	88	127	300	24	48	69	2058	152	41	2106	63
Arrive On Green	0.17	0.17	0.16	0.17	0.17	0.16	0.08	1.00	1.00	0.02	0.59	0.58
Sat Flow, veh/h	370	520	747	1114	139	275	1810	3408	252	1810	3580	106
Grp Volume(v), veh/h	92	0	0	100	0	0	25	235	243	10	237	248
Grp Sat Flow(s),veh/h/ln	1637	0	0	1529	0	0	1810	1805	1855	1810	1805	1881
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.0	0.8	0.0	0.0	0.3	3.7	3.8
Cycle Q Clear(g_c), s	2.8	0.0	0.0	2.9	0.0	0.0	0.8	0.0	0.0	0.3	3.7	3.8
Prop In Lane	0.35		0.46	0.78		0.18	1.00		0.14	1.00		0.06
Lane Grp Cap(c), veh/h	359	0	0	372	0	0	69	1090	1120	41	1062	1107
V/C Ratio(X)	0.26	0.00	0.00	0.27	0.00	0.00	0.36	0.22	0.22	0.24	0.22	0.22
Avail Cap(c_a), veh/h	486	0	0	481	0	0	241	1090	1120	241	1062	1107
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.9	0.0	0.0	21.8	0.0	0.0	27.0	0.0	0.0	28.8	5.9	5.9
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.4	0.0	0.0	1.2	0.4	0.4	1.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	1.2	0.0	0.0	0.3	0.1	0.1	0.1	1.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	0.0	0.0	22.1	0.0	0.0	28.1	0.4	0.4	29.9	6.3	6.3
LnGrp LOS	C	A	A	C	A	A	C	A	A	C	A	A
Approach Vol, veh/h	92				100				503			
Approach Delay, s/veh	22.3				22.1				1.8			
Approach LOS	C				C				A			
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	40.2		14.4	6.3	39.3		14.4				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		4.8	2.8	5.8		4.9				
Green Ext Time (p_c), s	0.0	2.9		0.3	0.0	2.7		0.3				

Intersection Summary

HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

						
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	239	132	781	100	564	356
Future Volume (vph)	239	132	781	100	564	356
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	40.0	40.0	80.0	80.0	80.0	80.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	11.3	10.0	13.5	13.5	13.5	13.5
Actuated g/C Ratio	0.32	0.28	0.38	0.38	0.38	0.38
v/c Ratio	0.24	0.16	0.44	0.16	0.31	0.30
Control Delay	10.3	3.6	8.6	2.6	7.9	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	3.6	8.6	2.6	7.9	1.7
LOS	B	A	A	A	A	A
Approach Delay			7.9		5.5	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 35.2
 Natural Cycle: 50
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.44
 Intersection Signal Delay: 6.9
 Intersection LOS: A
 Intersection Capacity Utilization 33.1%
 ICU Level of Service A
 Analysis Period (min) 15

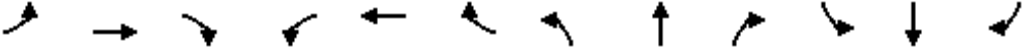
Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps

 Ø2	 Ø3
80 s	40 s
 Ø6	 Ø8
80 s	40 s

HCM 6th Signalized Intersection Summary
17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	239	0	132	0	781	100	0	564	356
Future Volume (veh/h)	0	0	0	239	0	132	0	781	100	0	564	356
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				260	0	116	0	849	0	0	613	305
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				642	0	519	0	2183		0	2183	1192
Arrive On Green				0.19	0.00	0.19	0.00	0.43	0.00	0.00	0.43	0.43
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				260	0	116	0	849	0	0	613	305
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				1.8	0.0	1.0	0.0	3.1	0.0	0.0	2.1	1.9
Cycle Q Clear(g_c), s				1.8	0.0	1.0	0.0	3.1	0.0	0.0	2.1	1.9
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				642	0	519	0	2183		0	2183	1192
V/C Ratio(X)				0.40	0.00	0.22	0.00	0.39		0.00	0.28	0.26
Avail Cap(c_a), veh/h				4548	0	3671	0	14086		0	14086	7696
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				9.6	0.0	9.3	0.0	5.3	0.0	0.0	5.0	4.9
Incr Delay (d2), s/veh				0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.4	0.0	0.2	0.0	0.3	0.0	0.0	0.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				9.8	0.0	9.4	0.0	5.4	0.0	0.0	5.1	5.1
LnGrp LOS				A	A	A	A	A		A	A	A
Approach Vol, veh/h					376			849	A		918	
Approach Delay, s/veh					9.7			5.4			5.1	
Approach LOS					A			A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		17.3				17.3		9.6				
Change Period (Y+Rc), s		5.8				5.8		4.6				
Max Green Setting (Gmax), s		74.2				74.2		35.4				
Max Q Clear Time (g_c+I1), s		5.1				4.1		3.8				
Green Ext Time (p_c), s		6.4				5.8		0.7				
Intersection Summary												
HCM 6th Ctrl Delay			6.0									
HCM 6th LOS			A									
Notes												
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.												

Timings
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

						
Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	366	294	516	128	730	72
Future Volume (vph)	366	294	516	128	730	72
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	10.3	9.0	13.2	13.2	13.2	13.2
Actuated g/C Ratio	0.30	0.27	0.39	0.39	0.39	0.39
v/c Ratio	0.38	0.33	0.28	0.12	0.40	0.12
Control Delay	11.2	3.2	7.4	2.0	8.1	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.2	3.2	7.4	2.0	8.1	2.6
LOS	B	A	A	A	A	A
Approach Delay			6.3		7.6	
Approach LOS			A		A	
Intersection Summary						
Cycle Length: 120						
Actuated Cycle Length: 33.9						
Natural Cycle: 50						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.40						
Intersection Signal Delay: 7.2				Intersection LOS: A		
Intersection Capacity Utilization 34.1%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps



HCM 6th Signalized Intersection Summary
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	366	0	294	0	0	0	0	516	128	0	730	72
Future Volume (veh/h)	366	0	294	0	0	0	0	516	128	0	730	72
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	398	0	238				0	561	57	0	793	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1079	0	871				0	1854	1013	0	1854	
Arrive On Green	0.31	0.00	0.31				0.00	0.36	0.36	0.00	0.36	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	398	0	238				0	561	57	0	793	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	2.9	0.0	2.1				0.0	2.5	0.4	0.0	3.8	0.0
Cycle Q Clear(g_c), s	2.9	0.0	2.1				0.0	2.5	0.4	0.0	3.8	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1079	0	871				0	1854	1013	0	1854	
V/C Ratio(X)	0.37	0.00	0.27				0.00	0.30	0.06	0.00	0.43	
Avail Cap(c_a), veh/h	4358	0	3518				0	11030	6026	0	11030	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	8.6	0.0	8.3				0.0	7.3	6.6	0.0	7.7	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.1				0.0	0.1	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.3				0.0	0.5	0.1	0.0	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.6	0.0	8.3				0.0	7.4	6.7	0.0	7.8	0.0
LnGrp LOS	A	A	A				A	A	A	A	A	
Approach Vol, veh/h	636						618			793		
Approach Delay, s/veh	8.5						7.3			7.8		
Approach LOS	A						A			A		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	17.4			14.6			17.4					
Change Period (Y+Rc), s	5.8			4.6			5.8					
Max Green Setting (Gmax), s	69.2			40.4			69.2					
Max Q Clear Time (g_c+I1), s	4.5			4.9			5.8					
Green Ext Time (p_c), s	4.1			1.2			5.9					
Intersection Summary												
HCM 6th Ctrl Delay	7.9											
HCM 6th LOS	A											

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

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APPENDIX 7.2:

OPENING YEAR (2025) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

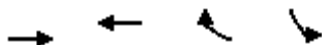
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Timings

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

07/16/2020



Lane Group	EBT	WBT	WBR	SBL
Lane Configurations	↑	↑	↰	↱
Traffic Volume (vph)	190	825	92	21
Future Volume (vph)	190	825	92	21
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8	22.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effect Green (s)	32.0	32.0	32.0	13.0
Actuated g/C Ratio	0.94	0.94	0.94	0.38
v/c Ratio	0.12	0.50	0.07	0.03
Control Delay	1.5	3.4	0.8	17.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1.5	3.4	0.8	17.8
LOS	A	A	A	B
Approach Delay	1.5	3.1		17.8
Approach LOS	A	A		B

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 34.1

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.50

Intersection Signal Delay: 3.1

Intersection LOS: A

Intersection Capacity Utilization 61.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: 4th St. & Jack Rabbit Trail

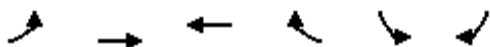


HCM 6th Signalized Intersection Summary

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

07/16/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	190	825	92	21	0
Future Volume (veh/h)	0	190	825	92	21	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	207	897	100	23	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	201	1175	1175	996	103	92
Arrive On Green	0.00	0.62	0.62	0.62	0.06	0.00
Sat Flow, veh/h	574	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	207	897	100	23	0
Grp Sat Flow(s),veh/h/ln	574	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	1.7	12.2	0.9	0.4	0.0
Cycle Q Clear(g_c), s	0.0	1.7	12.2	0.9	0.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	201	1175	1175	996	103	92
V/C Ratio(X)	0.00	0.18	0.76	0.10	0.22	0.00
Avail Cap(c_a), veh/h	716	2879	2879	2440	1224	1089
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	2.9	4.9	2.8	16.1	0.0
Incr Delay (d2), s/veh	0.0	0.1	1.1	0.0	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.8	0.0	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	3.0	6.0	2.8	17.2	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		207	997		23	
Approach Delay, s/veh		3.0	5.7		17.2	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				27.9	7.8	27.9
Change Period (Y+Rc), s				5.8	5.8	5.8
Max Green Setting (Gmax), s				54.2	24.2	54.2
Max Q Clear Time (g_c+I1), s				3.7	2.4	14.2
Green Ext Time (p_c), s				1.1	0.0	7.9
Intersection Summary						
HCM 6th Ctrl Delay			5.4			
HCM 6th LOS			A			

Intersection	
Intersection Delay, s/veh	15.6
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	261	33	308	280	48	210
Future Vol, veh/h	261	33	308	280	48	210
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	303	38	358	326	56	244
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	12.4	17.8	14.1
HCM LOS	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	48	210	131	131	33	308	140	140
LT Vol	48	0	0	0	0	308	0	0
Through Vol	0	0	131	131	0	0	140	140
RT Vol	0	210	0	0	33	0	0	0
Lane Flow Rate	56	244	152	152	38	358	163	163
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.121	0.447	0.3	0.3	0.05	0.696	0.294	0.215
Departure Headway (Hd)	7.795	6.591	7.121	7.121	4.674	7.001	6.493	4.765
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	457	542	501	501	755	512	550	746
Service Time	5.592	4.387	4.921	4.921	2.471	4.785	4.276	2.546
HCM Lane V/C Ratio	0.123	0.45	0.303	0.303	0.05	0.699	0.296	0.218
HCM Control Delay	11.7	14.7	13	13	7.7	24.4	12	8.9
HCM Lane LOS	B	B	B	B	A	C	B	A
HCM 95th-tile Q	0.4	2.3	1.2	1.2	0.2	5.4	1.2	0.8

Intersection

Intersection Delay, s/veh20.3

Intersection LOS C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕			↕	
Traffic Vol, veh/h	0	0	0	10	0	56	0	68	5	47	398	0
Future Vol, veh/h	0	0	0	10	0	56	0	68	5	47	398	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	15	0	86	0	105	8	72	612	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9.1	8.7	23.8
HCM LOS	A	A	C

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	15%	11%
Vol Thru, %	93%	0%	89%
Vol Right, %	7%	85%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	73	66	445
LT Vol	0	10	47
Through Vol	68	0	398
RT Vol	5	56	0
Lane Flow Rate	112	102	685
Geometry Grp	1	1	1
Degree of Util (X)	0.151	0.146	0.82
Departure Headway (Hd)	4.831	5.169	4.312
Convergence, Y/N	Yes	Yes	Yes
Cap	739	690	842
Service Time	2.88	3.226	2.344
HCM Lane V/C Ratio	0.152	0.148	0.814
HCM Control Delay	8.7	9.1	23.8
HCM Lane LOS	A	A	C
HCM 95th-tile Q	0.5	0.5	9.2

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/05/2023

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	410	63	108	391	238	978
Future Volume (vph)	410	63	108	391	238	978
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	9.6	72.6	63.0	63.0	47.4	47.4
Total Split (%)	8.0%	60.5%	52.5%	52.5%	39.5%	39.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	5.0	23.4	13.8	13.8	41.3	41.3
Actuated g/C Ratio	0.07	0.30	0.18	0.18	0.54	0.54
v/c Ratio	5.23	0.09	0.47	0.76	0.19	1.21
Control Delay	1925.2	18.7	32.7	9.8	10.1	114.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1925.2	18.7	32.7	9.8	10.1	114.3
LOS	F	B	C	A	B	F
Approach Delay		1671.4	14.7		93.9	
Approach LOS		F	B		F	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 76.8

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 5.23

Intersection Signal Delay: 416.9

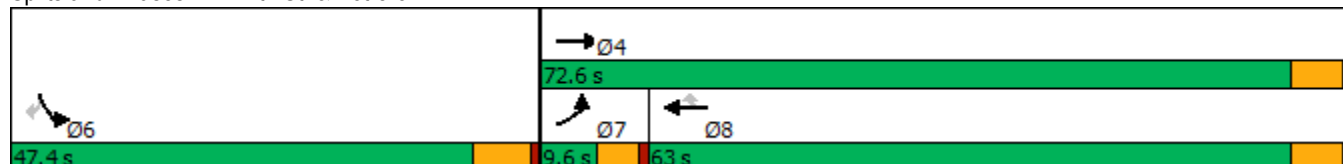
Intersection LOS: F

Intersection Capacity Utilization 78.9%

ICU Level of Service D

Analysis Period (min) 15

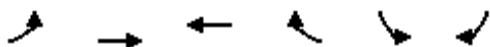
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/05/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	410	63	108	391	238	978	
Future Volume (veh/h)	410	63	108	391	238	978	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	612	94	161	584	355	1460	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	87	1754	747	633	1398	641	
Arrive On Green	0.05	0.49	0.39	0.39	0.40	0.40	
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610	
Grp Volume(v), veh/h	612	94	161	584	355	1460	
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610	
Q Serve(g_s), s	5.0	1.4	5.8	35.7	7.0	41.2	
Cycle Q Clear(g_c), s	5.0	1.4	5.8	35.7	7.0	41.2	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	87	1754	747	633	1398	641	
V/C Ratio(X)	7.00	0.05	0.22	0.92	0.25	2.28	
Avail Cap(c_a), veh/h	87	2331	1050	890	1398	641	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	49.2	14.0	20.8	29.9	20.8	31.1	
Incr Delay (d2), s/veh	2723.3	0.0	0.1	11.7	0.1	579.7	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	68.3	0.5	2.5	14.8	2.7	132.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	2772.6	14.0	21.0	41.6	20.9	610.8	
LnGrp LOS	F	B	C	D	C	F	
Approach Vol, veh/h	706		745	1815			
Approach Delay, s/veh	2405.3		37.2	495.5			
Approach LOS	F		D	F			
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				56.1	47.4	9.6	46.5
Change Period (Y+Rc), s				5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s				66.8	41.2	5.0	57.2
Max Q Clear Time (g_c+I1), s				3.4	43.2	7.0	37.7
Green Ext Time (p_c), s				0.3	0.0	0.0	2.9
Intersection Summary							
HCM 6th Ctrl Delay			803.8				
HCM 6th LOS			F				

Intersection

Intersection Delay, s/veh 165.2

Intersection LOS F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	76	526	523	345	519	93
Future Vol, veh/h	76	526	523	345	519	93
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	87	605	601	397	597	107
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	211.6	27.3	315
HCM LOS	F	D	F

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	85%
Vol Thru, %	0%	100%	100%	100%	23%	0%
Vol Right, %	0%	0%	0%	0%	77%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	76	526	209	209	450	612
LT Vol	76	0	0	0	0	519
Through Vol	0	526	209	209	105	0
RT Vol	0	0	0	0	345	93
Lane Flow Rate	87	605	240	240	517	703
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.22	1.439	0.51	0.51	0.774	1.626
Departure Headway (Hd)	10.8	10.262	9.965	9.965	7.58	8.97
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	335	363	365	365	481	415
Service Time	8.5	7.962	7.665	7.665	5.28	6.67
HCM Lane V/C Ratio	0.26	1.667	0.658	0.658	1.075	1.694
HCM Control Delay	16.5	239.8	22.6	22.6	31.7	315
HCM Lane LOS	C	F	C	C	D	F
HCM 95th-tile Q	0.8	26.4	2.8	2.8	6.8	37.9

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	←	→	→
Traffic Volume (vph)	545	274	620	3
Future Volume (vph)	545	274	620	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	42.8	14.8	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	1.33	1.04	0.53	1.70
Control Delay	180.9	85.3	4.4	350.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	180.9	85.3	4.4	350.8
LOS	F	F	A	F
Approach Delay	180.9		29.2	350.8
Approach LOS	F		C	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.70

Intersection Signal Delay: 162.0

Intersection LOS: F

Intersection Capacity Utilization 118.5%

ICU Level of Service H

Analysis Period (min) 15

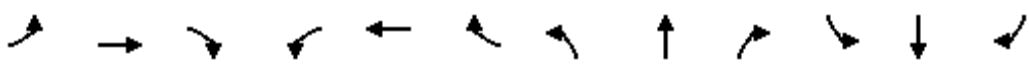
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/13/2020

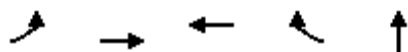
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩	
Traffic Volume (veh/h)	0	545	500	274	620	0	0	0	0	274	3	248
Future Volume (veh/h)	0	545	500	274	620	0	0	0	0	274	3	248
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	612	475	308	697	0				308	3	260
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	472	366	298	1313	0				166	2	140
Arrive On Green	0.00	0.48	0.48	0.33	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	992	770	1810	1900	0				924	9	780
Grp Volume(v), veh/h	0	0	1087	308	697	0				571	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1761	1810	1900	0				1713	0	0
Q Serve(g_s), s	0.0	0.0	42.8	14.8	0.0	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	42.8	14.8	0.0	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.44	1.00		0.00				0.54		0.46
Lane Grp Cap(c), veh/h	0	0	838	298	1313	0				308	0	0
V/C Ratio(X)	0.00	0.00	1.30	1.04	0.53	0.00				1.85	0.00	0.00
Avail Cap(c_a), veh/h	0	0	838	298	1313	0				308	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.19	0.19	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	23.6	30.2	0.0	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	142.7	32.3	0.3	0.0				395.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	48.4	7.4	0.1	0.0				40.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	166.3	62.5	0.3	0.0				432.4	0.0	0.0
LnGrp LOS	A	A	F	F	A	A				F	A	A
Approach Vol, veh/h		1087			1005						571	
Approach Delay, s/veh		166.3			19.4						432.4	
Approach LOS		F			B						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.4	48.6		22.0		68.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2						
Max Q Clear Time (g_c+I1), s	16.8	44.8		18.2		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		5.0						
Intersection Summary												
HCM 6th Ctrl Delay			167.9									
HCM 6th LOS			F									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	198	621	534	473	4
Future Volume (vph)	198	621	534	473	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	5.4	37.0	27.0	27.0	41.4
Actuated g/C Ratio	0.06	0.41	0.30	0.30	0.46
v/c Ratio	1.87	0.81	0.96	0.59	0.93
Control Delay	420.7	21.0	61.0	5.7	40.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	420.7	21.0	61.0	5.7	40.1
LOS	F	C	E	A	D
Approach Delay		117.5	35.0		40.1
Approach LOS		F	D		D

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.87

Intersection Signal Delay: 62.6

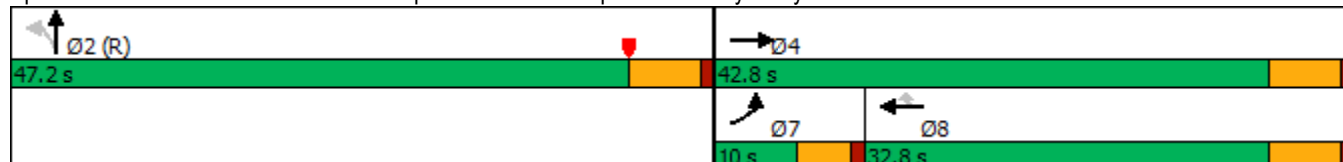
Intersection LOS: E

Intersection Capacity Utilization 118.5%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	621	0	0	534	473	361	4	398	0	0	0
Future Volume (veh/h)	198	621	0	0	534	473	361	4	398	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	202	634	0	0	545	367	368	4	284			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	781	0	0	570	483	443	5	342			
Arrive On Green	0.04	0.28	0.00	0.00	0.30	0.30	0.46	0.46	0.46			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	964	10	744			
Grp Volume(v), veh/h	202	634	0	0	545	367	656	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1718	0	0			
Q Serve(g_s), s	5.4	28.0	0.0	0.0	25.3	18.6	30.0	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	28.0	0.0	0.0	25.3	18.6	30.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.56		0.43			
Lane Grp Cap(c), veh/h	109	781	0	0	570	483	790	0	0			
V/C Ratio(X)	1.86	0.81	0.00	0.00	0.96	0.76	0.83	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	790	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	29.4	0.0	0.0	30.9	28.6	21.2	0.0	0.0			
Incr Delay (d2), s/veh	390.4	0.6	0.0	0.0	27.0	6.9	9.9	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	14.1	13.0	0.0	0.0	14.9	7.5	12.7	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	433.6	30.0	0.0	0.0	58.0	35.5	31.1	0.0	0.0			
LnGrp LOS	F	C	A	A	E	D	C	A	A			
Approach Vol, veh/h	836			912			656					
Approach Delay, s/veh	127.5			48.9			31.1					
Approach LOS	F			D			C					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	47.2			42.8			10.0			32.8		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	41.4			37.0			5.4			27.0		
Max Q Clear Time (g_c+I1), s	32.0			30.0			7.4			27.3		
Green Ext Time (p_c), s	2.9			2.2			0.0			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	71.4											
HCM 6th LOS	E											

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑				↗			↗
Traffic Vol, veh/h	23	586	152	164	937	28	0	0	66	0	0	167
Future Vol, veh/h	23	586	152	164	937	28	0	0	66	0	0	167
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	25	644	167	180	1030	31	0	0	73	0	0	184
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1061	0	0	811	0	0	-	-	406	-	-	531
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	664	-	-	824	-	-	0	0	600	0	0	498
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	664	-	-	824	-	-	-	-	600	-	-	498
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			1.5			11.8			16.4		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	600	664	-	-	824	-	-	498				
HCM Lane V/C Ratio	0.121	0.038	-	-	0.219	-	-	0.369				
HCM Control Delay (s)	11.8	10.6	-	-	10.6	-	-	16.4				
HCM Lane LOS	B	B	-	-	B	-	-	C				
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0.8	-	-	1.7				

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	68	25	3	373	21	75	30	6	23	32	99
Future Volume (vph)	35	68	25	3	373	21	75	30	6	23	32	99
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	21.0	43.0	43.0	15.0	37.0	37.0	31.0	43.0	43.0	19.0	31.0	31.0
Total Split (%)	17.5%	35.8%	35.8%	12.5%	30.8%	30.8%	25.8%	35.8%	35.8%	15.8%	25.8%	25.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	6.7	35.0	35.0	5.3	30.3	30.3	8.7	16.9	16.9	6.1	10.4	10.4
Actuated g/C Ratio	0.10	0.50	0.50	0.08	0.43	0.43	0.12	0.24	0.24	0.09	0.15	0.15
v/c Ratio	0.27	0.10	0.04	0.03	0.60	0.03	0.45	0.09	0.02	0.20	0.15	0.33
Control Delay	37.5	11.6	0.1	36.3	21.8	0.1	38.2	26.3	0.0	37.1	32.5	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.5	11.6	0.1	36.3	21.8	0.1	38.2	26.3	0.0	37.1	32.5	4.0
LOS	D	B	A	D	C	A	D	C	A	D	C	A
Approach Delay		16.5			20.8			32.9			14.9	
Approach LOS		B			C			C			B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 69.7

Natural Cycle: 75

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 20.6

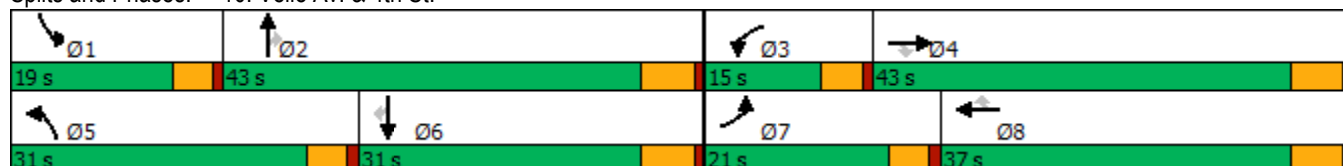
Intersection LOS: C

Intersection Capacity Utilization 48.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	68	25	3	373	21	75	30	6	23	32	99
Future Volume (veh/h)	35	68	25	3	373	21	75	30	6	23	32	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	47	91	33	4	497	28	100	40	8	31	43	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	84	692	587	10	614	520	131	417	353	62	344	
Arrive On Green	0.05	0.36	0.36	0.01	0.32	0.32	0.07	0.22	0.22	0.03	0.18	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	47	91	33	4	497	28	100	40	8	31	43	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	1.4	1.8	0.7	0.1	13.2	0.7	3.0	0.9	0.2	0.9	1.0	0.0
Cycle Q Clear(g_c), s	1.4	1.8	0.7	0.1	13.2	0.7	3.0	0.9	0.2	0.9	1.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	84	692	587	10	614	520	131	417	353	62	344	
V/C Ratio(X)	0.56	0.13	0.06	0.41	0.81	0.05	0.76	0.10	0.02	0.50	0.12	
Avail Cap(c_a), veh/h	538	1280	1085	341	1074	910	865	1280	1085	472	867	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.8	11.7	11.4	27.4	17.1	12.9	25.1	17.2	16.9	26.2	18.9	0.0
Incr Delay (d2), s/veh	2.1	0.1	0.0	9.9	2.6	0.0	3.4	0.1	0.0	2.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.6	0.2	0.1	5.0	0.2	1.3	0.4	0.1	0.4	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.9	11.8	11.4	37.3	19.7	12.9	28.6	17.3	16.9	28.5	19.1	0.0
LnGrp LOS	C	B	B	D	B	B	C	B	B	C	B	
Approach Vol, veh/h		171			529			148			74	
Approach Delay, s/veh		16.2			19.5			24.9			23.0	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.5	17.9	4.9	25.9	8.6	15.8	7.2	23.6				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	14.4	37.2	10.4	37.2	26.4	25.2	16.4	31.2				
Max Q Clear Time (g_c+I1), s	2.9	2.9	2.1	3.8	5.0	3.0	3.4	15.2				
Green Ext Time (p_c), s	0.0	0.2	0.0	0.5	0.1	0.1	0.0	2.6				
Intersection Summary												
HCM 6th Ctrl Delay			20.0									
HCM 6th LOS			C									
Notes												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/15/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	301	124	178	300	21	427	96	47	164
Future Volume (vph)	4	301	124	178	300	21	427	96	47	164
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	24.0	24.0	13.0	27.4	27.4	27.8	43.0	10.0	25.2
Total Split (%)	10.7%	26.7%	26.7%	14.4%	30.4%	30.4%	30.9%	47.8%	11.1%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.0	18.0	18.0	8.4	29.1	29.1	23.2	41.9	5.3	20.0
Actuated g/C Ratio	0.06	0.20	0.20	0.09	0.33	0.33	0.26	0.47	0.06	0.23
v/c Ratio	0.04	0.85	0.28	1.14	0.52	0.03	0.99	0.19	0.47	0.43
Control Delay	41.2	55.8	2.9	149.1	28.8	0.1	72.7	12.4	55.7	33.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	55.8	2.9	149.1	28.8	0.1	72.7	12.4	55.7	33.4
LOS	D	E	A	F	C	A	E	B	E	C
Approach Delay		40.4			70.4			56.9		38.2
Approach LOS		D			E			E		D

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 88.8

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.14

Intersection Signal Delay: 54.4

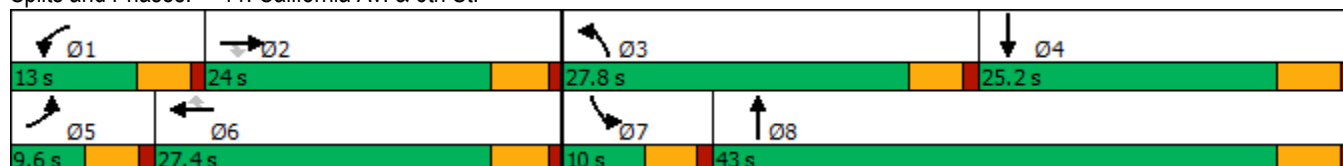
Intersection LOS: D

Intersection Capacity Utilization 74.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/15/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	301	124	178	300	21	427	96	56	47	164	4
Future Volume (veh/h)	4	301	124	178	300	21	427	96	56	47	164	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	327	134	193	326	14	464	104	23	51	178	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	374	317	172	545	462	476	678	150	73	426	5
Arrive On Green	0.01	0.20	0.20	0.10	0.29	0.29	0.26	0.45	0.45	0.04	0.23	0.23
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1507	333	1810	1875	21
Grp Volume(v), veh/h	4	327	134	193	326	14	464	0	127	51	0	180
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1840	1810	0	1896
Q Serve(g_s), s	0.2	14.7	6.4	8.4	13.0	0.6	22.4	0.0	3.6	2.5	0.0	7.1
Cycle Q Clear(g_c), s	0.2	14.7	6.4	8.4	13.0	0.6	22.4	0.0	3.6	2.5	0.0	7.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.01
Lane Grp Cap(c), veh/h	10	374	317	172	545	462	476	0	828	73	0	430
V/C Ratio(X)	0.42	0.88	0.42	1.12	0.60	0.03	0.97	0.00	0.15	0.70	0.00	0.42
Avail Cap(c_a), veh/h	103	414	351	172	545	462	476	0	828	111	0	430
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.7	34.4	31.0	39.9	27.1	22.6	32.2	0.0	14.3	41.7	0.0	29.1
Incr Delay (d2), s/veh	10.4	17.3	0.9	104.1	1.8	0.0	34.3	0.0	0.4	4.4	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	8.4	2.4	8.7	6.0	0.2	13.6	0.0	1.4	1.1	0.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.1	51.7	31.9	143.9	28.9	22.6	66.5	0.0	14.7	46.1	0.0	32.1
LnGrp LOS	D	D	C	F	C	C	E	A	B	D	A	C
Approach Vol, veh/h		465			533			591			231	
Approach Delay, s/veh		46.0			70.4			55.4			35.2	
Approach LOS		D			E			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	22.1	27.8	25.2	5.1	30.1	8.2	44.8				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	8.4	* 19	23.2	20.0	5.0	* 23	5.4	37.8				
Max Q Clear Time (g_c+I1), s	10.4	16.7	24.4	9.1	2.2	15.0	4.5	5.6				
Green Ext Time (p_c), s	0.0	0.6	0.0	0.6	0.0	1.1	0.0	0.6				

Intersection Summary

HCM 6th Ctrl Delay 54.8

HCM 6th LOS D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	2	3	78	61	10	31	312	575	28	13	407	2
Future Vol, veh/h	2	3	78	61	10	31	312	575	28	13	407	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	50	-	-	50
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	99	77	13	39	395	728	35	16	515	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2109	2100	515	2118	2068	728	518	0	0	763	0	0
Stage 1	547	547	-	1518	1518	-	-	-	-	-	-	-
Stage 2	1562	1553	-	600	550	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	38	52	564	~ 37	55	427	1058	-	-	859	-	-
Stage 1	525	521	-	150	183	-	-	-	-	-	-	-
Stage 2	142	176	-	491	519	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	13	18	564	~ 13	19	427	1058	-	-	859	-	-
Mov Cap-2 Maneuver	18	40	-	~ -13	45	-	-	-	-	-	-	-
Stage 1	182	507	-	~ 52	64	-	-	-	-	-	-	-
Stage 2	36	61	-	392	506	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	22.5		3.6	0.3
HCM LOS	C	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1058	-	-	27	564	+	427	859	-	-
HCM Lane V/C Ratio	0.373	-	-	0.234	0.175	-	0.092	0.019	-	-
HCM Control Delay (s)	10.4	0	-	175.2	12.7	-	14.3	9.3	0	-
HCM Lane LOS	B	A	-	F	B	-	B	A	A	-
HCM 95th %tile Q(veh)	1.8	-	-	0.7	0.6	-	0.3	0.1	-	-

Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						

Intersection						
Int Delay, s/veh	27.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	90	29	117	852	189	318
Future Vol, veh/h	90	29	117	852	189	318
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	117	38	152	1106	245	413
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1862	452	658	0	-	0
Stage 1	452	-	-	-	-	-
Stage 2	1410	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 81	612	939	-	-	-
Stage 1	645	-	-	-	-	-
Stage 2	228	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 68	612	939	-	-	-
Mov Cap-2 Maneuver	~ 68	-	-	-	-	-
Stage 1	541	-	-	-	-	-
Stage 2	228	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	364.8	1.2		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	939	-	68	612	-	-
HCM Lane V/C Ratio	0.162	-	1.719	0.062	-	-
HCM Control Delay (s)	9.6	-	478.7	11.3	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.6	-	10.3	0.2	-	-
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	16	17	20	3	62	350	3	408
Future Volume (vph)	16	17	20	3	62	350	3	408
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		10.1		10.0	6.8	46.3	5.0	40.8
Actuated g/C Ratio		0.17		0.17	0.11	0.77	0.08	0.68
v/c Ratio		0.23		0.14	0.33	0.14	0.02	0.20
Control Delay		15.3		17.8	27.3	4.6	25.7	7.6
Queue Delay		0.0		0.0	0.2	0.3	0.0	0.1
Total Delay		15.3		17.8	27.5	4.8	25.7	7.6
LOS		B		B	C	A	C	A
Approach Delay		15.3		17.8		8.1		7.7
Approach LOS		B		B		A		A

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.33

Intersection Signal Delay: 8.7

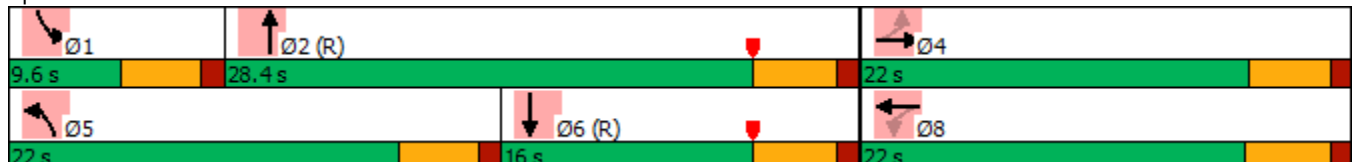
Intersection LOS: A

Intersection Capacity Utilization 37.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	17	32	20	3	11	62	350	14	3	408	43
Future Volume (veh/h)	16	17	32	20	3	11	62	350	14	3	408	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	17	18	35	22	3	12	67	380	15	3	443	47
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	105	85	116	201	41	70	101	2197	87	7	1873	198
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.11	1.00	1.00	0.00	0.57	0.57
Sat Flow, veh/h	222	616	837	759	298	507	1810	3540	139	1810	3294	348
Grp Volume(v), veh/h	70	0	0	37	0	0	67	193	202	3	242	248
Grp Sat Flow(s),veh/h/ln	1675	0	0	1564	0	0	1810	1805	1875	1810	1805	1837
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.1	4.0	4.0
Cycle Q Clear(g_c), s	2.2	0.0	0.0	1.1	0.0	0.0	2.1	0.0	0.0	0.1	4.0	4.0
Prop In Lane	0.24		0.50	0.59		0.32	1.00		0.07	1.00		0.19
Lane Grp Cap(c), veh/h	307	0	0	313	0	0	101	1120	1164	7	1026	1045
V/C Ratio(X)	0.23	0.00	0.00	0.12	0.00	0.00	0.66	0.17	0.17	0.41	0.24	0.24
Avail Cap(c_a), veh/h	552	0	0	531	0	0	525	1120	1164	151	1026	1045
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	0.0	0.0	22.7	0.0	0.0	26.1	0.0	0.0	29.8	6.4	6.5
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.2	0.0	0.0	2.7	0.3	0.3	12.9	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.0	0.5	0.0	0.0	0.9	0.1	0.1	0.1	1.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	0.0	0.0	22.9	0.0	0.0	28.8	0.3	0.3	42.7	7.0	7.0
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		70			37			462			493	
Approach Delay, s/veh		23.6			22.9			4.5			7.2	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	42.0		13.1	8.0	38.9		13.1				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		4.2	4.1	6.0		3.1				
Green Ext Time (p_c), s	0.0	2.3		0.2	0.1	1.3		0.1				

Intersection Summary

HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	512	9	380	239	377
Future Volume (vph)	512	9	380	239	377
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	20.0	20.0	21.0	40.0	19.0
Total Split (%)	33.3%	33.3%	35.0%	66.7%	31.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	15.1	15.1	15.7	35.3	15.0
Actuated g/C Ratio	0.25	0.25	0.26	0.59	0.25
v/c Ratio	0.91	0.78	0.88	0.12	0.55
Control Delay	51.7	29.4	47.4	5.5	15.6
Queue Delay	0.0	35.6	0.0	0.0	5.6
Total Delay	51.7	65.0	47.4	5.5	21.3
LOS	D	E	D	A	C
Approach Delay		58.2		31.2	21.3
Approach LOS		E		C	C

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 39.3

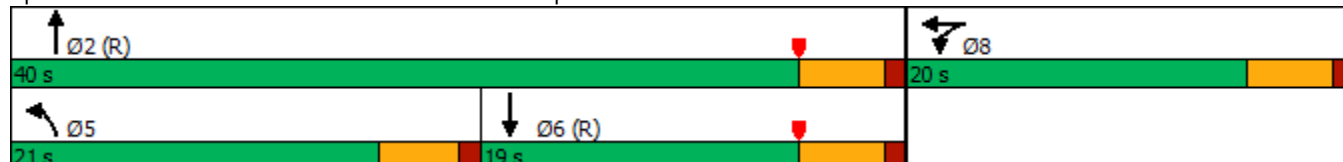
Intersection LOS: D

Intersection Capacity Utilization 66.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary 15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	512	9	187	380	239	0	0	377	82
Future Volume (veh/h)	0	0	0	512	9	187	380	239	0	0	377	82
Initial Q (Qb), veh				0	0	0	75	100	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				385	251	203	413	260	0	0	410	89
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				458	246	199	495	2118	0	0	717	154
Arrive On Green				0.25	0.25	0.25	0.42	0.98	0.00	0.00	0.09	0.09
Sat Flow, veh/h				1810	972	786	1810	3705	0	0	3050	636
Grp Volume(v), veh/h				385	0	454	413	260	0	0	249	250
Grp Sat Flow(s),veh/h/ln				1810	0	1758	1810	1805	0	0	1805	1786
Q Serve(g_s), s				12.1	0.0	15.2	12.9	0.1	0.0	0.0	7.9	8.1
Cycle Q Clear(g_c), s				12.1	0.0	15.2	12.9	0.1	0.0	0.0	7.9	8.1
Prop In Lane				1.00		0.45	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				458	0	445	495	2118	0	0	438	433
V/C Ratio(X)				0.84	0.00	1.02	0.84	0.12	0.00	0.00	0.57	0.58
Avail Cap(c_a), veh/h				458	0	445	495	2118	0	0	469	464
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.78	0.78	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				21.2	0.0	22.4	16.3	0.3	0.0	0.0	24.6	24.6
Incr Delay (d2), s/veh				13.1	0.0	47.6	8.9	0.1	0.0	0.0	5.2	5.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	471.6	18.3	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.0	0.0	11.2	70.3	5.5	0.0	0.0	4.2	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				34.3	0.0	70.0	496.9	18.7	0.0	0.0	29.8	30.1
LnGrp LOS				C	A	F	F	B	A	A	C	C
Approach Vol, veh/h					839			673			499	
Approach Delay, s/veh					53.6			312.2			29.9	
Approach LOS					D			F			C	
Timer - Assigned Phs	2			5		6	8					
Phs Duration (G+Y+Rc), s	40.0			19.6		20.4	20.0					
Change Period (Y+Rc), s	* 4.8			4.6		* 4.8	4.8					
Max Green Setting (Gmax), s	* 35			16.4		* 14	15.2					
Max Q Clear Time (g_c+I1), s	2.1			14.9		10.1	17.2					
Green Ext Time (p_c), s	1.8			0.1		1.1	0.0					
Intersection Summary												
HCM 6th Ctrl Delay	134.3											
HCM 6th LOS	F											
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕↕	↗	↕↕	↖	↕↕
Traffic Volume (vph)	11	547	544	111	779
Future Volume (vph)	11	547	544	111	779
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	20.0	20.0	27.0	13.0	40.0
Total Split (%)	33.3%	33.3%	45.0%	21.7%	66.7%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	12.6	12.6	27.7	7.4	37.8
Actuated g/C Ratio	0.21	0.21	0.46	0.12	0.63
v/c Ratio	0.70	0.70	0.59	0.52	0.36
Control Delay	18.8	18.6	9.9	20.8	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	18.6	9.9	20.8	9.1
LOS	B	B	A	C	A
Approach Delay	18.7		9.9		10.6
Approach LOS	B		A		B

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 12.3

Intersection LOS: B

Intersection Capacity Utilization 66.1%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps

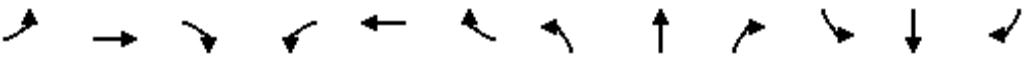


HCM 6th Signalized Intersection Summary

16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↗					↕		↖	↕	
Traffic Volume (veh/h)	75	11	547	0	0	0	0	544	465	111	779	0
Future Volume (veh/h)	75	11	547	0	0	0	0	544	465	111	779	0
Initial Q (Qb), veh	0	0	0				0	175	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	661				0	567	484	116	811	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	452	766				0	1424	187	148	2174	0
Arrive On Green	0.00	0.00	0.24				0.00	0.44	0.44	0.16	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1942	1575	1810	3705	0
Grp Volume(v), veh/h	0	0	661				0	554	497	116	811	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1617	1810	1805	0
Q Serve(g_s), s	0.0	0.0	11.8				0.0	14.8	14.8	3.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	11.8				0.0	14.8	14.8	3.7	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	0	452	766				0	801	810	148	2174	0
V/C Ratio(X)	0.00	0.00	0.86				0.00	0.69	0.61	0.79	0.37	0.00
Avail Cap(c_a), veh/h	0	481	816				0	801	718	253	2174	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.64	0.64	0.00
Uniform Delay (d), s/veh	0.0	0.0	21.9				0.0	16.7	16.7	24.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	9.1				0.0	4.9	3.5	2.2	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	254.3	215.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	4.8				0.0	66.9	58.4	1.5	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	31.0				0.0	275.8	235.2	26.8	0.3	0.0
LnGrp LOS	A	A	C				A	F	F	C	A	A
Approach Vol, veh/h	661						1051			927		
Approach Delay, s/veh	31.0						256.6			3.6		
Approach LOS	C						F			A		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	9.5	31.4		19.1			40.9					
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8			* 4.8					
Max Green Setting (Gmax), s	8.4	* 22		* 15			* 35					
Max Q Clear Time (g_c+I1), s	5.7	16.8		13.8			2.0					
Green Ext Time (p_c), s	0.0	3.1		0.5			6.6					

Intersection Summary

HCM 6th Ctrl Delay 111.2

HCM 6th LOS F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings

Jack Rabbit Trail (JN 12396)

07/13/2020

17: Potrero Bl. & SR-60 WB Ramps

	↖	↗	↑	↘	↓	↙
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↖↖	↖↖	↑↑↑	↖	↑↑↑	↖↖
Traffic Volume (vph)	413	93	693	160	448	305
Future Volume (vph)	413	93	693	160	448	305
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	11.4	10.2	13.5	13.5	13.5	13.5
Actuated g/C Ratio	0.32	0.29	0.38	0.38	0.38	0.38
v/c Ratio	0.41	0.12	0.39	0.24	0.25	0.26
Control Delay	11.4	3.9	8.4	2.6	7.6	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.4	3.9	8.4	2.6	7.6	1.8
LOS	B	A	A	A	A	A
Approach Delay			7.3		5.2	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 35.4

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.41

Intersection Signal Delay: 7.2

Intersection LOS: A

Intersection Capacity Utilization 33.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps



HCM 6th Signalized Intersection Summary
17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔↔		↔↔		↑↑↑	↔		↑↑↑	↔↔
Traffic Volume (veh/h)	0	0	0	413	0	93	0	693	160	0	448	305
Future Volume (veh/h)	0	0	0	413	0	93	0	693	160	0	448	305
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				449	0	74	0	753	0	0	487	250
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				780	0	630	0	1973		0	1973	1078
Arrive On Green				0.23	0.00	0.23	0.00	0.39	0.00	0.00	0.39	0.39
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				449	0	74	0	753	0	0	487	250
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				3.1	0.0	0.6	0.0	2.8	0.0	0.0	1.7	1.6
Cycle Q Clear(g_c), s				3.1	0.0	0.6	0.0	2.8	0.0	0.0	1.7	1.6
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				780	0	630	0	1973		0	1973	1078
V/C Ratio(X)				0.58	0.00	0.12	0.00	0.38		0.00	0.25	0.23
Avail Cap(c_a), veh/h				5206	0	4203	0	13176		0	13176	7199
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				9.2	0.0	8.3	0.0	5.9	0.0	0.0	5.6	5.5
Incr Delay (d2), s/veh				0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.6	0.0	0.1	0.0	0.3	0.0	0.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				9.5	0.0	8.3	0.0	6.0	0.0	0.0	5.6	5.7
LnGrp LOS				A	A	A	A	A		A	A	A
Approach Vol, veh/h					523			753	A		737	
Approach Delay, s/veh					9.3			6.0			5.6	
Approach LOS					A			A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		16.2				16.2		10.7				
Change Period (Y+Rc), s		5.8				5.8		4.6				
Max Green Setting (Gmax), s		69.2				69.2		40.4				
Max Q Clear Time (g_c+I1), s		4.8				3.7		5.1				
Green Ext Time (p_c), s		5.5				4.4		1.0				
Intersection Summary												
HCM 6th Ctrl Delay			6.7									
HCM 6th LOS			A									
Notes												
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.												

Timings
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations	↰↰	↰↰	↰↰↰	↰↰	↰↰↰	↰
Traffic Volume (vph)	254	419	599	202	797	64
Future Volume (vph)	254	419	599	202	797	64
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	49.0	49.0	71.0	71.0	71.0	71.0
Total Split (%)	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	10.9	9.7	13.9	13.9	13.9	13.9
Actuated g/C Ratio	0.31	0.27	0.39	0.39	0.39	0.39
v/c Ratio	0.26	0.49	0.33	0.18	0.43	0.11
Control Delay	10.7	7.7	7.9	1.9	8.5	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.7	7.7	7.9	1.9	8.5	2.9
LOS	B	A	A	A	A	A
Approach Delay			6.4		8.1	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 35.4

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.49

Intersection Signal Delay: 7.7

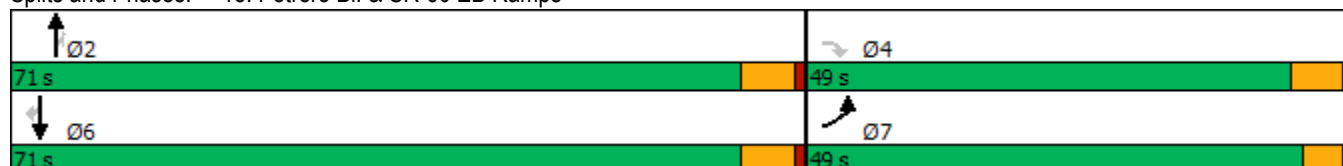
Intersection LOS: A

Intersection Capacity Utilization 39.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps



HCM 6th Signalized Intersection Summary 18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

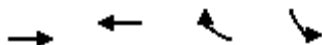
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	254	0	419	0	0	0	0	599	202	0	797	64
Future Volume (veh/h)	254	0	419	0	0	0	0	599	202	0	797	64
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	276	0	373				0	651	177	0	866	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1043	0	842				0	1963	1072	0	1963	
Arrive On Green	0.30	0.00	0.30				0.00	0.38	0.38	0.00	0.38	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	276	0	373				0	651	177	0	866	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	2.0	0.0	3.6				0.0	3.0	1.4	0.0	4.2	0.0
Cycle Q Clear(g_c), s	2.0	0.0	3.6				0.0	3.0	1.4	0.0	4.2	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1043	0	842				0	1963	1072	0	1963	
V/C Ratio(X)	0.26	0.00	0.44				0.00	0.33	0.17	0.00	0.44	
Avail Cap(c_a), veh/h	4630	0	3738				0	10046	5489	0	10046	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	8.8	0.0	9.3				0.0	7.2	6.7	0.0	7.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.1				0.0	0.1	0.1	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.6				0.0	0.5	0.2	0.0	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.8	0.0	9.5				0.0	7.3	6.8	0.0	7.7	0.0
LnGrp LOS	A	A	A				A	A	A	A	A	
Approach Vol, veh/h	649						828			866		
Approach Delay, s/veh	9.2						7.2			7.7		
Approach LOS	A						A			A		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	18.5			14.6			18.5					
Change Period (Y+Rc), s	5.8			4.6			5.8					
Max Green Setting (Gmax), s	65.2			44.4			65.2					
Max Q Clear Time (g_c+I1), s	5.0			5.6			6.2					
Green Ext Time (p_c), s	5.5			1.3			6.6					
Intersection Summary												
HCM 6th Ctrl Delay	7.9											
HCM 6th LOS	A											
Notes												

Timings

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

07/16/2020



Lane Group	EBT	WBT	WBR	SBL
Lane Configurations	↑	↑	↗	↘
Traffic Volume (vph)	884	269	30	98
Future Volume (vph)	884	269	30	98
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8	22.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effect Green (s)	38.1	38.1	38.1	13.4
Actuated g/C Ratio	0.70	0.70	0.70	0.25
v/c Ratio	0.72	0.22	0.03	0.24
Control Delay	11.6	5.1	1.7	26.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	11.6	5.1	1.7	26.2
LOS	B	A	A	C
Approach Delay	11.6	4.8		26.2
Approach LOS	B	A		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 54.1

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 11.1

Intersection LOS: B

Intersection Capacity Utilization 64.5%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: 4th St. & Jack Rabbit Trail

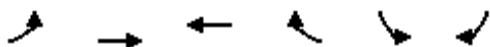


HCM 6th Signalized Intersection Summary

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

07/16/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	884	269	30	98	0
Future Volume (veh/h)	0	884	269	30	98	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	961	292	33	107	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	146	1156	1156	979	282	251
Arrive On Green	0.00	0.61	0.61	0.61	0.16	0.00
Sat Flow, veh/h	1072	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	961	292	33	107	0
Grp Sat Flow(s),veh/h/ln	1072	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	19.7	3.5	0.4	2.6	0.0
Cycle Q Clear(g_c), s	0.0	19.7	3.5	0.4	2.6	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	146	1156	1156	979	282	251
V/C Ratio(X)	0.00	0.83	0.25	0.03	0.38	0.00
Avail Cap(c_a), veh/h	674	2092	2092	1773	890	792
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	7.6	4.5	3.9	18.6	0.0
Incr Delay (d2), s/veh	0.0	1.6	0.1	0.0	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.0	0.6	0.1	1.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	9.3	4.6	3.9	19.5	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		961	325		107	
Approach Delay, s/veh		9.3	4.5		19.5	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				35.7	13.5	35.7
Change Period (Y+Rc), s				5.8	5.8	5.8
Max Green Setting (Gmax), s				54.2	24.2	54.2
Max Q Clear Time (g_c+I1), s				21.7	4.6	5.5
Green Ext Time (p_c), s				8.2	0.2	1.7
Intersection Summary						
HCM 6th Ctrl Delay			8.9			
HCM 6th LOS			A			

Intersection	
Intersection Delay, s/veh	16.4
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	226	39	202	303	105	370
Future Vol, veh/h	226	39	202	303	105	370
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	248	43	222	333	115	407
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	12.5	13.9	21.3
HCM LOS	B	B	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	105	370	113	113	39	202	152	152
LT Vol	105	0	0	0	0	202	0	0
Through Vol	0	0	113	113	0	0	152	152
RT Vol	0	370	0	0	39	0	0	0
Lane Flow Rate	115	407	124	124	43	222	166	166
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.242	0.718	0.265	0.265	0.062	0.473	0.331	0.251
Departure Headway (Hd)	7.564	6.361	7.697	7.697	5.226	7.673	7.161	5.417
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	475	569	467	467	684	471	503	663
Service Time	5.298	4.095	5.441	5.441	2.969	5.409	4.896	3.151
HCM Lane V/C Ratio	0.242	0.715	0.266	0.266	0.063	0.471	0.33	0.25
HCM Control Delay	12.7	23.7	13.2	13.2	8.3	17.1	13.4	10
HCM Lane LOS	B	C	B	B	A	C	B	A
HCM 95th-tile Q	0.9	5.9	1.1	1.1	0.2	2.5	1.4	1

Intersection

Intersection Delay, s/veh 19.3

Intersection LOS C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	2	0	100	0	486	0	10	251	0
Future Vol, veh/h	0	0	0	2	0	100	0	486	0	10	251	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	130	0	631	0	13	326	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

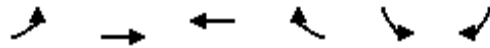
Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	10	25	12.4
HCM LOS	A	C	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	2%	4%
Vol Thru, %	100%	0%	96%
Vol Right, %	0%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	486	102	261
LT Vol	0	2	10
Through Vol	486	0	251
RT Vol	0	100	0
Lane Flow Rate	631	132	339
Geometry Grp	1	1	1
Degree of Util (X)	0.815	0.204	0.467
Departure Headway (Hd)	4.65	5.548	4.961
Convergence, Y/N	Yes	Yes	Yes
Cap	770	650	715
Service Time	2.732	3.548	3.059
HCM Lane V/C Ratio	0.819	0.203	0.474
HCM Control Delay	25	10	12.4
HCM Lane LOS	C	A	B
HCM 95th-tile Q	8.8	0.8	2.5

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1100	148	46	425	442	851
Future Volume (vph)	1100	148	46	425	442	851
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	28.0	58.0	30.0	30.0	32.0	32.0
Total Split (%)	31.1%	64.4%	33.3%	33.3%	35.6%	35.6%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	23.5	42.5	14.4	14.4	25.9	25.9
Actuated g/C Ratio	0.29	0.53	0.18	0.18	0.32	0.32
v/c Ratio	3.12	0.12	0.20	0.84	0.59	1.10
Control Delay	973.6	9.5	28.6	15.3	26.3	68.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	973.6	9.5	28.6	15.3	26.3	68.5
LOS	F	A	C	B	C	E
Approach Delay		859.2	16.6		54.0	
Approach LOS		F	B		D	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 80.5

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 3.12

Intersection Signal Delay: 381.8

Intersection LOS: F

Intersection Capacity Utilization 95.9%

ICU Level of Service F

Analysis Period (min) 15

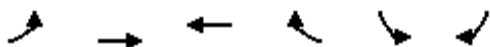
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	1100	148	46	425	442	851	
Future Volume (veh/h)	1100	148	46	425	442	851	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	1642	221	69	634	660	1270	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	470	2094	511	433	1006	462	
Arrive On Green	0.26	0.58	0.27	0.27	0.29	0.29	
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610	
Grp Volume(v), veh/h	1642	221	69	634	660	1270	
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610	
Q Serve(g_s), s	23.4	2.5	2.5	24.2	14.9	25.8	
Cycle Q Clear(g_c), s	23.4	2.5	2.5	24.2	14.9	25.8	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	470	2094	511	433	1006	462	
V/C Ratio(X)	3.49	0.11	0.14	1.46	0.66	2.75	
Avail Cap(c_a), veh/h	470	2094	511	433	1006	462	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.3	8.5	25.0	32.9	28.2	32.1	
Incr Delay (d2), s/veh	1125.9	0.0	0.1	221.3	1.6	794.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	156.6	0.8	1.1	35.3	5.9	121.6	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	1159.2	8.5	25.1	254.2	29.8	826.3	
LnGrp LOS	F	A	C	F	C	F	
Approach Vol, veh/h	1863		703	1930			
Approach Delay, s/veh	1022.7		231.7	553.9			
Approach LOS	F		F	F			
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				58.0	32.0	28.0	30.0
Change Period (Y+Rc), s				5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s				52.2	25.8	23.4	24.2
Max Q Clear Time (g_c+I1), s				4.5	27.8	25.4	26.2
Green Ext Time (p_c), s				0.8	0.0	0.0	0.0
Intersection Summary							
HCM 6th Ctrl Delay			697.8				
HCM 6th LOS			F				

Intersection

Intersection Delay, s/veh75.8

Intersection LOS F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	65	628	635	344	210	43
Future Vol, veh/h	65	628	635	344	210	43
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	67	647	655	355	216	44
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	180.8	15.1	22.8
HCM LOS	F	C	C

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	83%
Vol Thru, %	0%	100%	100%	100%	27%	0%
Vol Right, %	0%	0%	0%	0%	73%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	65	628	254	254	471	253
LT Vol	65	0	0	0	0	210
Through Vol	0	628	254	254	127	0
RT Vol	0	0	0	0	344	43
Lane Flow Rate	67	647	262	262	486	261
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.151	1.362	0.478	0.478	0.588	0.583
Departure Headway (Hd)	8.086	7.573	7.05	7.05	4.777	8.652
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	442	479	516	516	762	420
Service Time	5.859	5.346	4.75	4.75	2.477	6.352
HCM Lane V/C Ratio	0.152	1.351	0.508	0.508	0.638	0.621
HCM Control Delay	12.3	198.2	16	16	14.1	22.8
HCM Lane LOS	B	F	C	C	B	C
HCM 95th-tile Q	0.5	29.5	2.6	2.6	3.9	3.6

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	↶	↷	↵
Traffic Volume (vph)	578	180	718	1
Future Volume (vph)	578	180	718	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	29.1	10.6	43.7	38.3
Actuated g/C Ratio	0.32	0.12	0.49	0.43
v/c Ratio	1.82	1.12	1.02	1.39
Control Delay	399.2	121.6	52.7	208.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	399.2	121.6	52.7	208.0
LOS	F	F	D	F
Approach Delay	399.2		66.5	208.0
Approach LOS	F		E	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.82

Intersection Signal Delay: 221.0

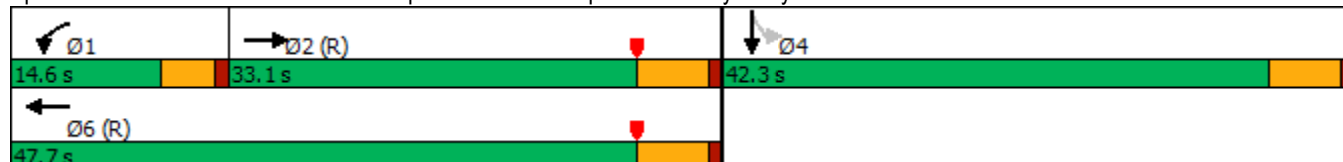
Intersection LOS: F

Intersection Capacity Utilization 112.5%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/13/2020

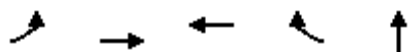
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰		↰	↰						↰	
Traffic Volume (veh/h)	0	578	260	180	718	0	0	0	0	547	1	261
Future Volume (veh/h)	0	578	260	180	718	0	0	0	0	547	1	261
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	761	270	237	945	0				720	1	277
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	433	154	213	923	0				537	1	207
Arrive On Green	0.00	0.32	0.30	0.08	0.33	0.00				0.43	0.43	0.41
Sat Flow, veh/h	0	1339	475	1810	1900	0				1262	2	486
Grp Volume(v), veh/h	0	0	1031	237	945	0				998	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1814	1810	1900	0				1749	0	0
Q Serve(g_s), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Prop In Lane	0.00		0.26	1.00		0.00				0.72		0.28
Lane Grp Cap(c), veh/h	0	0	587	213	923	0				745	0	0
V/C Ratio(X)	0.00	0.00	1.76	1.11	1.02	0.00				1.34	0.00	0.00
Avail Cap(c_a), veh/h	0	0	587	213	923	0				745	0	0
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.24	0.24	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	30.7	41.4	30.4	0.0				26.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	347.8	65.8	21.2	0.0				162.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	68.3	8.6	25.2	0.0				47.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	378.5	107.3	51.5	0.0				188.3	0.0	0.0
LnGrp LOS	A	A	F	F	F	A				F	A	A
Approach Vol, veh/h		1031			1182						998	
Approach Delay, s/veh		378.5			62.7						188.3	
Approach LOS		F			E						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.6	33.1		42.3		47.7						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9						
Max Q Clear Time (g_c+I1), s	12.6	31.1		40.3		45.7						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.0						
Intersection Summary												
HCM 6th Ctrl Delay			203.1									
HCM 6th LOS			F									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	319	806	490	318	4
Future Volume (vph)	319	806	490	318	4
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	14.4	44.0	29.6	29.6	46.0
Total Split (%)	16.0%	48.9%	32.9%	32.9%	51.1%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	10.4	40.0	25.6	25.6	42.0
Actuated g/C Ratio	0.12	0.44	0.28	0.28	0.47
v/c Ratio	1.58	0.98	0.94	0.47	0.90
Control Delay	292.7	28.4	58.7	5.5	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	292.7	28.4	58.7	5.5	36.0
LOS	F	C	E	A	D
Approach Delay		103.4	37.8		36.0
Approach LOS		F	D		D

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.58

Intersection Signal Delay: 65.0

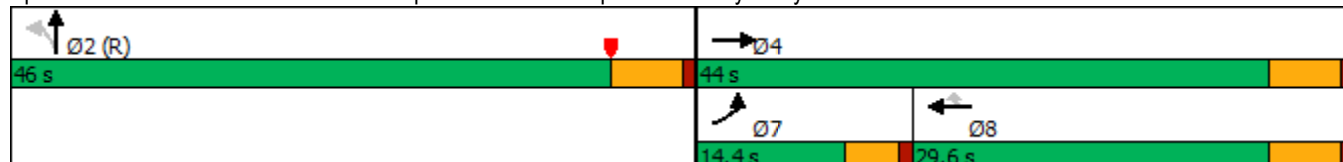
Intersection LOS: E

Intersection Capacity Utilization 112.5%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	806	0	0	490	318	408	4	321	0	0	0
Future Volume (veh/h)	319	806	0	0	490	318	408	4	321	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	329	831	0	0	505	258	421	4	279			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	209	844	0	0	540	458	481	5	319			
Arrive On Green	0.04	0.15	0.00	0.00	0.28	0.28	0.47	0.47	0.45			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1032	10	684			
Grp Volume(v), veh/h	329	831	0	0	505	258	704	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1725	0	0			
Q Serve(g_s), s	10.4	39.3	0.0	0.0	23.3	12.3	33.2	0.0	0.0			
Cycle Q Clear(g_c), s	10.4	39.3	0.0	0.0	23.3	12.3	33.2	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.60		0.40			
Lane Grp Cap(c), veh/h	209	844	0	0	540	458	805	0	0			
V/C Ratio(X)	1.57	0.98	0.00	0.00	0.93	0.56	0.87	0.00	0.00			
Avail Cap(c_a), veh/h	209	844	0	0	540	458	805	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.3	38.1	0.0	0.0	31.4	27.4	22.0	0.0	0.0			
Incr Delay (d2), s/veh	260.1	6.2	0.0	0.0	23.6	1.6	12.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	19.9	21.0	0.0	0.0	13.4	4.6	14.6	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	303.4	44.3	0.0	0.0	55.0	29.0	34.7	0.0	0.0			
LnGrp LOS	F	D	A	A	E	C	C	A	A			
Approach Vol, veh/h	1160			763			704					
Approach Delay, s/veh	117.8			46.2			34.7					
Approach LOS	F			D			C					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	46.0			44.0			14.4			29.6		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	40.2			38.2			9.8			23.8		
Max Q Clear Time (g_c+I1), s	35.2			41.3			12.4			25.3		
Green Ext Time (p_c), s	2.0			0.0			0.0			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	74.7											
HCM 6th LOS	E											

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑				↗			↗
Traffic Vol, veh/h	0	873	134	114	698	59	0	0	124	0	0	69
Future Vol, veh/h	0	873	134	114	698	59	0	0	124	0	0	69
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	939	144	123	751	63	0	0	133	0	0	74
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	1083	0	0	-	-	542	-	-	783
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	4.1	-	-	-	-	6.9	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	652	-	-	0	0	490	0	0	397
Stage 1	0	-	-	-	-	-	0	0	-	0	0	-
Stage 2	0	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	652	-	-	-	-	490	-	-	397
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			1.5			15.1			16.1		
HCM LOS							C			C		
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	490	-	-	652	-	-	397					
HCM Lane V/C Ratio	0.272	-	-	0.188	-	-	0.187					
HCM Control Delay (s)	15.1	-	-	11.8	-	-	16.1					
HCM Lane LOS	C	-	-	B	-	-	C					
HCM 95th %tile Q(veh)	1.1	-	-	0.7	-	-	0.7					

Intersection												
Intersection Delay, s/veh	49.1											
Intersection LOS	E											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	111	372	82	9	258	32	42	40	12	14	63	41
Future Vol, veh/h	111	372	82	9	258	32	42	40	12	14	63	41
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	159	531	117	13	369	46	60	57	17	20	90	59
Number of Lanes	1	1	1	1	1	0	0	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	3	3	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	2	3	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	3	2	3
HCM Control Delay	64.7	44.3	15.5	13.5
HCM LOS	F	E	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	51%	0%	100%	0%	0%	100%	0%	100%	0%	0%
Vol Thru, %	49%	0%	0%	100%	0%	0%	89%	0%	100%	0%
Vol Right, %	0%	100%	0%	0%	100%	0%	11%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	82	12	111	372	82	9	290	14	63	41
LT Vol	42	0	111	0	0	9	0	14	0	0
Through Vol	40	0	0	372	0	0	258	0	63	0
RT Vol	0	12	0	0	82	0	32	0	0	41
Lane Flow Rate	117	17	159	531	117	13	414	20	90	59
Geometry Grp	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.297	0.039	0.346	1.083	0.216	0.029	0.878	0.052	0.221	0.132
Departure Headway (Hd)	9.436	8.452	7.846	7.337	6.625	8.465	7.879	9.68	9.164	8.441
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	383	426	461	500	545	425	464	372	394	428
Service Time	7.136	6.152	5.546	5.037	4.325	6.165	5.579	7.38	6.864	6.141
HCM Lane V/C Ratio	0.305	0.04	0.345	1.062	0.215	0.031	0.892	0.054	0.228	0.138
HCM Control Delay	16.1	11.5	14.6	91.4	11.1	11.4	45.3	12.9	14.4	12.4
HCM Lane LOS	C	B	B	F	B	B	E	B	B	B
HCM 95th-tile Q	1.2	0.1	1.5	16.9	0.8	0.1	9.3	0.2	0.8	0.5

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/15/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	20	478	181	178	283	11	284	142	14	73
Future Volume (vph)	20	478	181	178	283	11	284	142	14	73
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	18.0	36.6	9.6	28.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	20.0%	40.7%	10.7%	31.3%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.8	-0.8	-0.6	-0.8	-0.8	-0.6	-1.2	-0.6	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.7	27.0	27.0	6.4	33.6	33.6	14.0	40.4	5.6	24.3
Actuated g/C Ratio	0.06	0.31	0.31	0.07	0.38	0.38	0.16	0.46	0.06	0.28
v/c Ratio	0.18	0.86	0.30	1.42	0.41	0.02	1.04	0.37	0.13	0.17
Control Delay	43.5	44.8	4.7	261.5	23.0	0.0	102.4	14.6	42.6	23.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	44.8	4.7	261.5	23.0	0.0	102.4	14.6	42.6	23.7
LOS	D	D	A	F	C	A	F	B	D	C
Approach Delay		34.0			112.2			57.4		26.4
Approach LOS		C			F			E		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 87.7

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.42

Intersection Signal Delay: 61.1

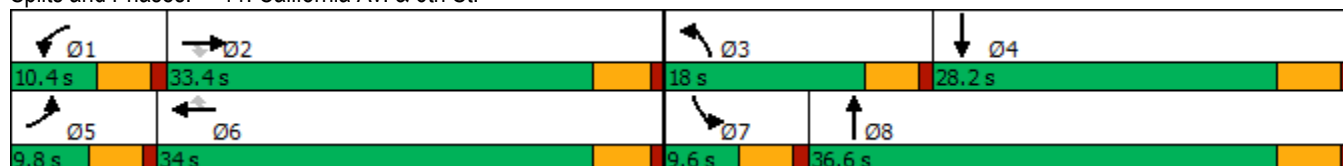
Intersection LOS: E

Intersection Capacity Utilization 67.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary

11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/15/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	478	181	178	283	11	284	142	158	14	73	12
Future Volume (veh/h)	20	478	181	178	283	11	284	142	158	14	73	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	21	503	187	187	298	7	299	149	135	15	77	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	54	575	488	133	659	558	291	381	345	44	478	43
Arrive On Green	0.03	0.30	0.30	0.07	0.35	0.35	0.16	0.42	0.40	0.02	0.28	0.26
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	918	832	1810	1716	156
Grp Volume(v), veh/h	21	503	187	187	298	7	299	0	284	15	0	84
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1750	1810	0	1872
Q Serve(g_s), s	1.0	21.8	8.0	6.4	10.6	0.2	14.0	0.0	9.9	0.7	0.0	3.0
Cycle Q Clear(g_c), s	1.0	21.8	8.0	6.4	10.6	0.2	14.0	0.0	9.9	0.7	0.0	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.48	1.00		0.08
Lane Grp Cap(c), veh/h	54	575	488	133	659	558	291	0	727	44	0	521
V/C Ratio(X)	0.39	0.87	0.38	1.40	0.45	0.01	1.03	0.00	0.39	0.34	0.00	0.16
Avail Cap(c_a), veh/h	121	643	545	133	659	558	291	0	727	117	0	521
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.4	28.7	23.9	40.3	22.0	18.6	36.5	0.0	18.0	41.7	0.0	23.7
Incr Delay (d2), s/veh	1.7	11.9	0.5	220.3	0.5	0.0	59.5	0.0	1.6	1.7	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	11.5	2.9	11.0	4.6	0.1	10.6	0.0	3.9	0.3	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	40.6	24.4	260.5	22.5	18.6	96.0	0.0	19.5	43.4	0.0	24.4
LnGrp LOS	D	D	C	F	C	B	F	A	B	D	A	C
Approach Vol, veh/h		711			492			583			99	
Approach Delay, s/veh		36.4			112.9			58.7			27.3	
Approach LOS		D			F			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.4	30.3	18.0	28.2	6.6	34.1	6.1	40.1				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	5.8	* 29	13.4	23.0	5.2	* 29	5.0	31.4				
Max Q Clear Time (g_c+I1), s	8.4	23.8	16.0	5.0	3.0	12.6	2.7	11.9				
Green Ext Time (p_c), s	0.0	1.7	0.0	0.3	0.0	1.6	0.0	1.4				

Intersection Summary

HCM 6th Ctrl Delay 62.8

HCM 6th LOS E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↖	↗	↖	↗	↖		↖	↗
Traffic Vol, veh/h	4	3	90	55	3	22	186	555	59	7	365	7
Future Vol, veh/h	4	3	90	55	3	22	186	555	59	7	365	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	120	-	50	-	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	3	95	58	3	23	196	584	62	7	384	7
Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	1418	1436	384	1427	1381	584	391	0	0	646	0	0
Stage 1	398	398	-	976	976	-	-	-	-	-	-	-
Stage 2	1020	1038	-	451	405	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	116	135	668	114	145	515	1179	-	-	949	-	-
Stage 1	632	606	-	305	332	-	-	-	-	-	-	-
Stage 2	288	311	-	592	602	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	95	112	668	84	120	515	1179	-	-	949	-	-
Mov Cap-2 Maneuver	175	202	-	164	201	-	-	-	-	-	-	-
Stage 1	527	601	-	254	277	-	-	-	-	-	-	-
Stage 2	227	259	-	501	597	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB		SB		SB	
HCM Control Delay, s	12.3		31.5		2		0.2					
HCM LOS	B		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1179	-	-	186	668	166	515	949	-	-		
HCM Lane V/C Ratio	0.166	-	-	0.04	0.142	0.368	0.045	0.008	-	-		
HCM Control Delay (s)	8.7	-	-	25.2	11.3	38.8	12.3	8.8	0	-		
HCM Lane LOS	A	-	-	D	B	E	B	A	A	-		
HCM 95th %tile Q(veh)	0.6	-	-	0.1	0.5	1.6	0.1	0	-	-		

Intersection						
Int Delay, s/veh	281					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	294	142	77	525	1018	245
Future Vol, veh/h	294	142	77	525	1018	245
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	320	154	84	571	1107	266

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1979	1240	1373	0	-	0
Stage 1	1240	-	-	-	-	-
Stage 2	739	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 69	216	506	-	-	-
Stage 1	~ 276	-	-	-	-	-
Stage 2	476	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 58	216	506	-	-	-
Mov Cap-2 Maneuver	~ 58	-	-	-	-	-
Stage 1	~ 230	-	-	-	-	-
Stage 2	476	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	1480.8	1.7	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	506	-	58	216	-	-
HCM Lane V/C Ratio	0.165	-	5.51	0.715	-	-
HCM Control Delay (s)	13.5	\$	2169.6	54.8	-	-
HCM Lane LOS	B	-	F	F	-	-
HCM 95th %tile Q(veh)	0.6	-	36	4.7	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	65	17	76	4	24	432	10	457
Future Volume (vph)	65	17	76	4	24	432	10	457
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		-0.6		-0.8	-0.6	-0.8	-0.6	-0.8
Total Lost Time (s)		4.0		4.0	4.0	4.0	4.0	4.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		11.5		11.6	6.2	42.1	5.8	41.9
Actuated g/C Ratio		0.19		0.19	0.10	0.70	0.10	0.70
v/c Ratio		0.40		0.37	0.13	0.19	0.06	0.20
Control Delay		18.9		21.7	31.2	4.7	25.2	5.5
Queue Delay		0.5		0.4	1.2	0.4	0.0	0.2
Total Delay		19.3		22.1	32.5	5.0	25.2	5.8
LOS		B		C	C	A	C	A
Approach Delay		19.3		22.1		6.4		6.1
Approach LOS		B		C		A		A

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.40

Intersection Signal Delay: 8.9

Intersection LOS: A

Intersection Capacity Utilization 34.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary

14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↕		↖	↕	
Traffic Volume (veh/h)	65	17	41	76	4	17	24	432	32	10	457	25
Future Volume (veh/h)	65	17	41	76	4	17	24	432	32	10	457	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	67	18	42	78	4	18	25	445	33	10	471	26
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	211	67	92	309	25	50	69	2048	151	41	2037	112
Arrive On Green	0.17	0.17	0.16	0.18	0.18	0.16	0.08	1.00	1.00	0.02	0.59	0.57
Sat Flow, veh/h	689	388	532	1149	139	283	1810	3408	252	1810	3479	192
Grp Volume(v), veh/h	127	0	0	100	0	0	25	235	243	10	244	253
Grp Sat Flow(s),veh/h/ln	1609	0	0	1572	0	0	1810	1805	1855	1810	1805	1866
Q Serve(g_s), s	1.1	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.3	3.9	3.9
Cycle Q Clear(g_c), s	3.9	0.0	0.0	2.9	0.0	0.0	0.8	0.0	0.0	0.3	3.9	3.9
Prop In Lane	0.53		0.33	0.78		0.18	1.00		0.14	1.00		0.10
Lane Grp Cap(c), veh/h	370	0	0	384	0	0	69	1085	1115	41	1057	1092
V/C Ratio(X)	0.34	0.00	0.00	0.26	0.00	0.00	0.36	0.22	0.22	0.24	0.23	0.23
Avail Cap(c_a), veh/h	488	0	0	488	0	0	241	1085	1115	241	1057	1092
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.2	0.0	0.0	21.6	0.0	0.0	27.0	0.0	0.0	28.8	6.0	6.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.4	0.0	0.0	1.2	0.5	0.4	1.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	1.2	0.0	0.0	0.3	0.1	0.1	0.1	1.3	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.7	0.0	0.0	22.0	0.0	0.0	28.1	0.5	0.4	29.9	6.5	6.5
LnGrp LOS	C	A	A	C	A	A	C	A	A	C	A	A
Approach Vol, veh/h		127			100			503			507	
Approach Delay, s/veh		22.7			22.0			1.8			6.9	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	40.1		14.6	6.3	39.1		14.6				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		5.9	2.8	5.9		4.9				
Green Ext Time (p_c), s	0.0	2.9		0.4	0.0	2.8		0.3				

Intersection Summary

HCM 6th Ctrl Delay	7.7
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	756	0	300	341	470
Future Volume (vph)	756	0	300	341	470
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	23.0	23.0	21.0	37.0	16.0
Total Split (%)	38.3%	38.3%	35.0%	61.7%	26.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.8	-0.8	-0.6	-0.8	-0.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	18.5	18.5	14.3	33.5	15.2
Actuated g/C Ratio	0.31	0.31	0.24	0.56	0.25
v/c Ratio	0.88	0.79	0.72	0.17	0.64
Control Delay	41.1	25.5	35.3	6.9	23.3
Queue Delay	0.0	14.9	0.0	0.0	37.5
Total Delay	41.1	40.4	35.3	6.9	60.7
LOS	D	D	D	A	E
Approach Delay		40.8		20.2	60.7
Approach LOS		D		C	E

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 39.9

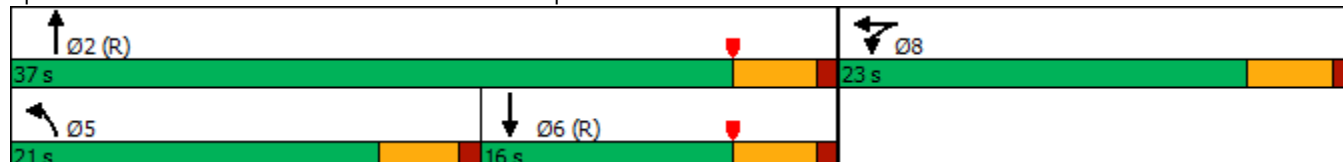
Intersection LOS: D

Intersection Capacity Utilization 100.8%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary 15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	756	0	147	300	341	0	0	470	104
Future Volume (veh/h)	0	0	0	756	0	147	300	341	0	0	470	104
Initial Q (Qb), veh				75	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				921	0	0	309	352	0	0	485	107
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				1146	602	0	364	1986	0	0	830	182
Arrive On Green				0.30	0.00	0.00	0.40	1.00	0.00	0.00	0.10	0.09
Sat Flow, veh/h				3619	1900	0	1810	3705	0	0	3038	646
Grp Volume(v), veh/h				921	0	0	309	352	0	0	296	296
Grp Sat Flow(s),veh/h/ln				1810	1900	0	1810	1805	0	0	1805	1784
Q Serve(g_s), s				14.4	0.0	0.0	9.3	0.0	0.0	0.0	9.4	9.5
Cycle Q Clear(g_c), s				14.4	0.0	0.0	9.3	0.0	0.0	0.0	9.4	9.5
Prop In Lane				1.00		0.00	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				1146	602	0	364	1986	0	0	509	503
V/C Ratio(X)				0.80	0.00	0.00	0.85	0.18	0.00	0.00	0.58	0.59
Avail Cap(c_a), veh/h				1146	602	0	513	2050	0	0	541	535
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	0.00	0.73	0.73	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.5	0.0	0.0	17.1	0.0	0.0	0.0	23.8	23.9
Incr Delay (d2), s/veh				4.2	0.0	0.0	5.1	0.1	0.0	0.0	4.7	4.9
Initial Q Delay(d3),s/veh				147.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				30.7	0.0	0.0	3.3	0.0	0.0	0.0	5.0	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				172.0	0.0	0.0	22.2	0.1	0.0	0.0	28.6	28.8
LnGrp LOS				F	A	A	C	A	A	A	C	C
Approach Vol, veh/h					921			661			592	
Approach Delay, s/veh					172.0			10.4			28.7	
Approach LOS					F			B			C	
Timer - Assigned Phs	2			5		6	8					
Phs Duration (G+Y+Rc), s	38.1			16.1		22.0	21.9					
Change Period (Y+Rc), s	* 4.8			4.6		* 4.8	4.8					
Max Green Setting (Gmax), s	* 32			16.4		* 11	18.2					
Max Q Clear Time (g_c+I1), s	2.0			11.3		11.5	16.4					
Green Ext Time (p_c), s	2.4			0.2		0.0	0.8					
Intersection Summary												
HCM 6th Ctrl Delay	83.8											
HCM 6th LOS	F											
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕↕	↗	↕↕	↙	↕↕
Traffic Volume (vph)	11	823	533	120	1107
Future Volume (vph)	11	823	533	120	1107
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	25.0	25.0	24.0	11.0	35.0
Total Split (%)	41.7%	41.7%	40.0%	18.3%	58.3%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.8	-0.8	-0.8	-0.6	-0.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	20.0	20.0	23.2	6.7	32.0
Actuated g/C Ratio	0.33	0.33	0.39	0.11	0.53
v/c Ratio	0.87	0.81	0.63	0.61	0.59
Control Delay	35.4	26.3	12.6	28.4	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	35.4	26.3	12.6	28.4	16.8
LOS	D	C	B	C	B
Approach Delay	30.9		12.6		17.9
Approach LOS	C		B		B

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 20.3

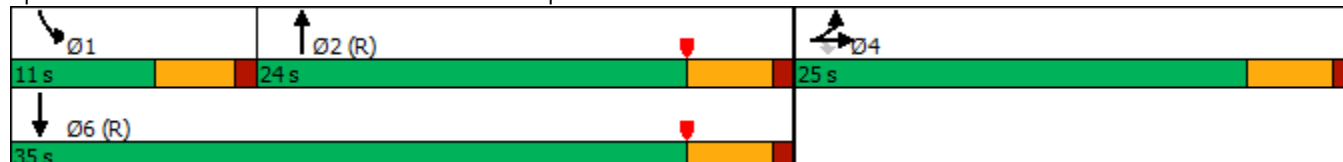
Intersection LOS: C

Intersection Capacity Utilization 100.8%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary 16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↗					↕		↖	↕	
Traffic Volume (veh/h)	107	11	823	0	0	0	0	533	400	120	1107	0
Future Volume (veh/h)	107	11	823	0	0	0	0	533	400	120	1107	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	973				0	549	412	124	1141	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	665	1127				0	697	523	173	1865	0
Arrive On Green	0.00	0.00	0.34				0.00	0.36	0.35	0.19	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2060	1475	1810	3705	0
Grp Volume(v), veh/h	0	0	973				0	504	457	124	1141	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	17.1				0.0	14.8	14.9	3.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	17.1				0.0	14.8	14.9	3.9	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	665	1127				0	640	580	173	1865	0
V/C Ratio(X)	0.00	0.00	0.86				0.00	0.79	0.79	0.72	0.61	0.00
Avail Cap(c_a), veh/h	0	665	1127				0	656	594	211	1898	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.58	0.58	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.5				0.0	17.3	17.7	23.5	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	7.1				0.0	9.5	10.4	3.6	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	178.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	35.3				0.0	7.2	6.8	1.6	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	204.6				0.0	26.8	28.1	27.1	0.9	0.0
LnGrp LOS	A	A	F				A	C	C	C	A	A
Approach Vol, veh/h	973						961			1265		
Approach Delay, s/veh	204.6						27.4			3.5		
Approach LOS	F						C			A		
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.7	25.8		24.5		35.5						
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8						
Max Green Setting (Gmax), s	6.4	* 19		* 20		* 30						
Max Q Clear Time (g_c+I1), s	5.9	16.9		19.1		2.0						
Green Ext Time (p_c), s	0.0	1.4		0.5		9.9						

Intersection Summary

HCM 6th Ctrl Delay 71.8

HCM 6th LOS E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings

17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

						
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	335	132	952	489	617	356
Future Volume (vph)	335	132	952	489	617	356
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	40.0	40.0	80.0	80.0	80.0	80.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	11.7	10.5	21.6	21.6	21.6	21.6
Actuated g/C Ratio	0.27	0.24	0.49	0.49	0.49	0.49
v/c Ratio	0.40	0.18	0.41	0.51	0.27	0.25
Control Delay	16.2	4.9	7.4	2.6	6.5	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	4.9	7.4	2.6	6.5	1.2
LOS	B	A	A	A	A	A
Approach Delay			5.7		4.6	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 43.9

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.51

Intersection Signal Delay: 6.5

Intersection LOS: A

Intersection Capacity Utilization 36.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps

 Ø2	 Ø3
80 s	40 s
 Ø6	 Ø8
80 s	40 s

HCM 6th Signalized Intersection Summary

17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	335	0	132	0	952	489	0	617	356
Future Volume (veh/h)	0	0	0	335	0	132	0	952	489	0	617	356
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				364	0	116	0	1035	0	0	671	305
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				653	0	527	0	2413		0	2413	1318
Arrive On Green				0.19	0.00	0.19	0.00	0.47	0.00	0.00	0.47	0.47
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				364	0	116	0	1035	0	0	671	305
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				2.9	0.0	1.1	0.0	4.1	0.0	0.0	2.5	2.0
Cycle Q Clear(g_c), s				2.9	0.0	1.1	0.0	4.1	0.0	0.0	2.5	2.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				653	0	527	0	2413		0	2413	1318
V/C Ratio(X)				0.56	0.00	0.22	0.00	0.43		0.00	0.28	0.23
Avail Cap(c_a), veh/h				3980	0	3213	0	12326		0	12326	6734
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				11.3	0.0	10.5	0.0	5.4	0.0	0.0	4.9	4.8
Incr Delay (d2), s/veh				0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.7	0.0	0.2	0.0	0.4	0.0	0.0	0.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				11.6	0.0	10.6	0.0	5.5	0.0	0.0	5.0	4.9
LnGrp LOS				B	A	B	A	A		A	A	A
Approach Vol, veh/h					480			1035	A		976	
Approach Delay, s/veh					11.3			5.5			5.0	
Approach LOS					B			A			A	
Timer - Assigned Phs	2			6			8					
Phs Duration (G+Y+Rc), s	20.3			20.3			10.4					
Change Period (Y+Rc), s	5.8			5.8			4.6					
Max Green Setting (Gmax), s	74.2			74.2			35.4					
Max Q Clear Time (g_c+I1), s	6.1			4.5			4.9					
Green Ext Time (p_c), s	8.4			6.4			0.9					
Intersection Summary												
HCM 6th Ctrl Delay	6.4											
HCM 6th LOS	A											

Timings
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

						
Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	366	412	1075	449	880	72
Future Volume (vph)	366	412	1075	449	880	72
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	12.3	11.0	24.6	24.6	24.6	24.6
Actuated g/C Ratio	0.26	0.23	0.52	0.52	0.52	0.52
v/c Ratio	0.45	0.56	0.44	0.29	0.36	0.09
Control Delay	18.1	12.2	7.7	1.2	7.2	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.1	12.2	7.7	1.2	7.2	2.1
LOS	B	B	A	A	A	A
Approach Delay			5.8		6.8	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 47.7

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 8.3

Intersection LOS: A

Intersection Capacity Utilization 41.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps



HCM 6th Signalized Intersection Summary

18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	366	0	412	0	0	0	0	1075	449	0	880	72
Future Volume (veh/h)	366	0	412	0	0	0	0	1075	449	0	880	72
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	398	0	366				0	1168	406	0	957	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	829	0	669				0	2608	1425	0	2608	
Arrive On Green	0.24	0.00	0.24				0.00	0.51	0.51	0.00	0.51	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	398	0	366				0	1168	406	0	957	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	4.1	0.0	4.8				0.0	6.1	3.5	0.0	4.7	0.0
Cycle Q Clear(g_c), s	4.1	0.0	4.8				0.0	6.1	3.5	0.0	4.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	829	0	669				0	2608	1425	0	2608	
V/C Ratio(X)	0.48	0.00	0.55				0.00	0.45	0.28	0.00	0.37	
Avail Cap(c_a), veh/h	3349	0	2703				0	8475	4630	0	8475	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	13.6	0.0	13.9				0.0	6.5	5.8	0.0	6.1	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.3				0.0	0.1	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	1.1				0.0	1.1	0.5	0.0	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.8	0.0	14.1				0.0	6.6	5.9	0.0	6.2	0.0
LnGrp LOS	B	A	B				A	A	A	A	A	
Approach Vol, veh/h	764						1574			957		
Approach Delay, s/veh	13.9						6.4			6.2		
Approach LOS	B						A			A		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	27.1			14.6			27.1					
Change Period (Y+Rc), s	5.8			4.6			5.8					
Max Green Setting (Gmax), s	69.2			40.4			69.2					
Max Q Clear Time (g_c+I1), s	8.1			6.8			6.7					
Green Ext Time (p_c), s	13.2			1.5			7.5					
Intersection Summary												
HCM 6th Ctrl Delay	8.1											
HCM 6th LOS	A											
Notes												

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APPENDIX 7.3:

OPENING YEAR (2025) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

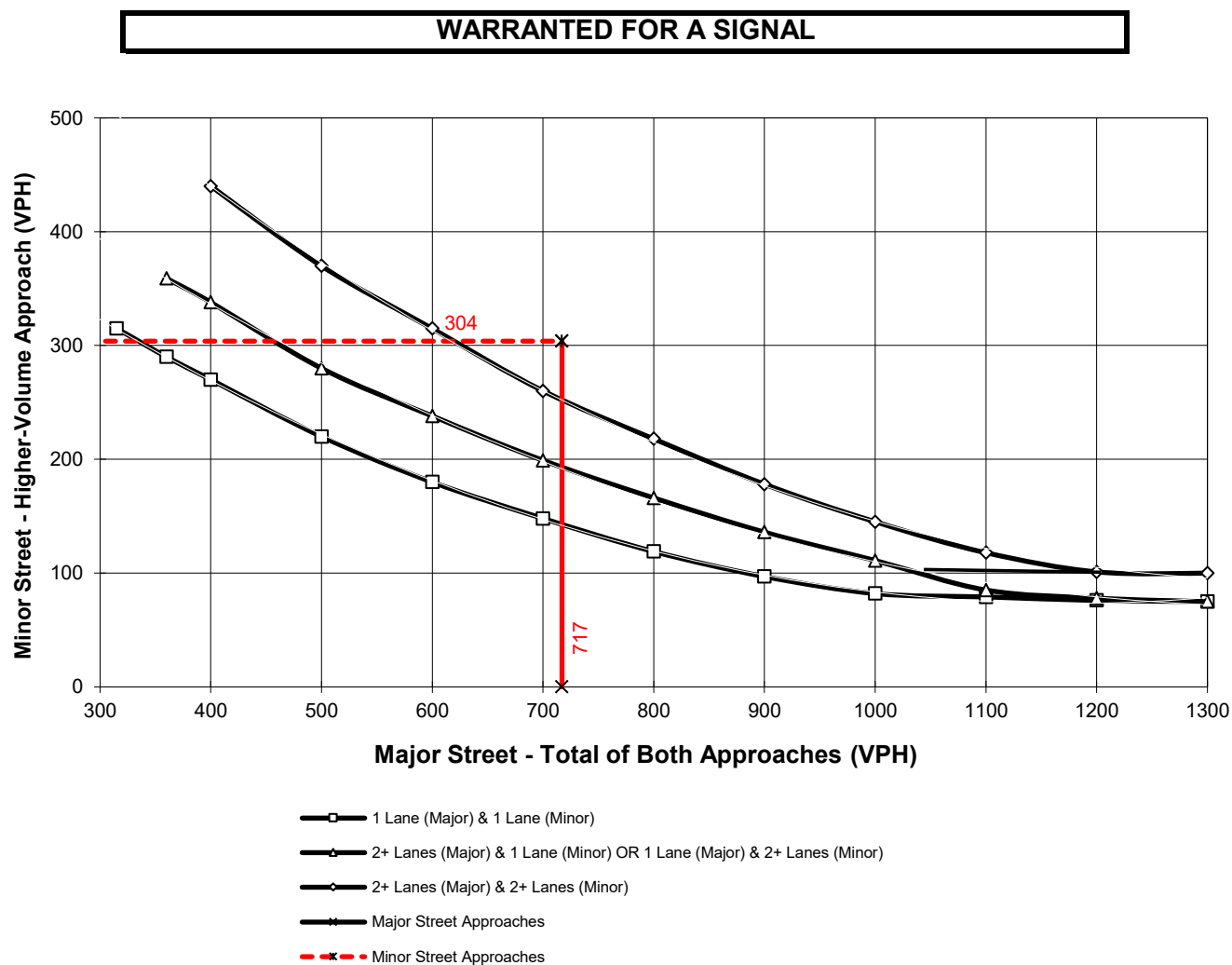
Traffic Conditions = **OYC 2025 NP Conditions - Weekday PM Peak Hour**

Major Street Name = **Oak Valley Pkwy.**

Total of Both Approaches (VPH) = **717**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Potrero Bl.**

High Volume Approach (VPH) = **304**
Number of Approach Lanes Minor Street = **2**



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **OYC 2025 NP Conditions - Weekday PM Peak Hour**

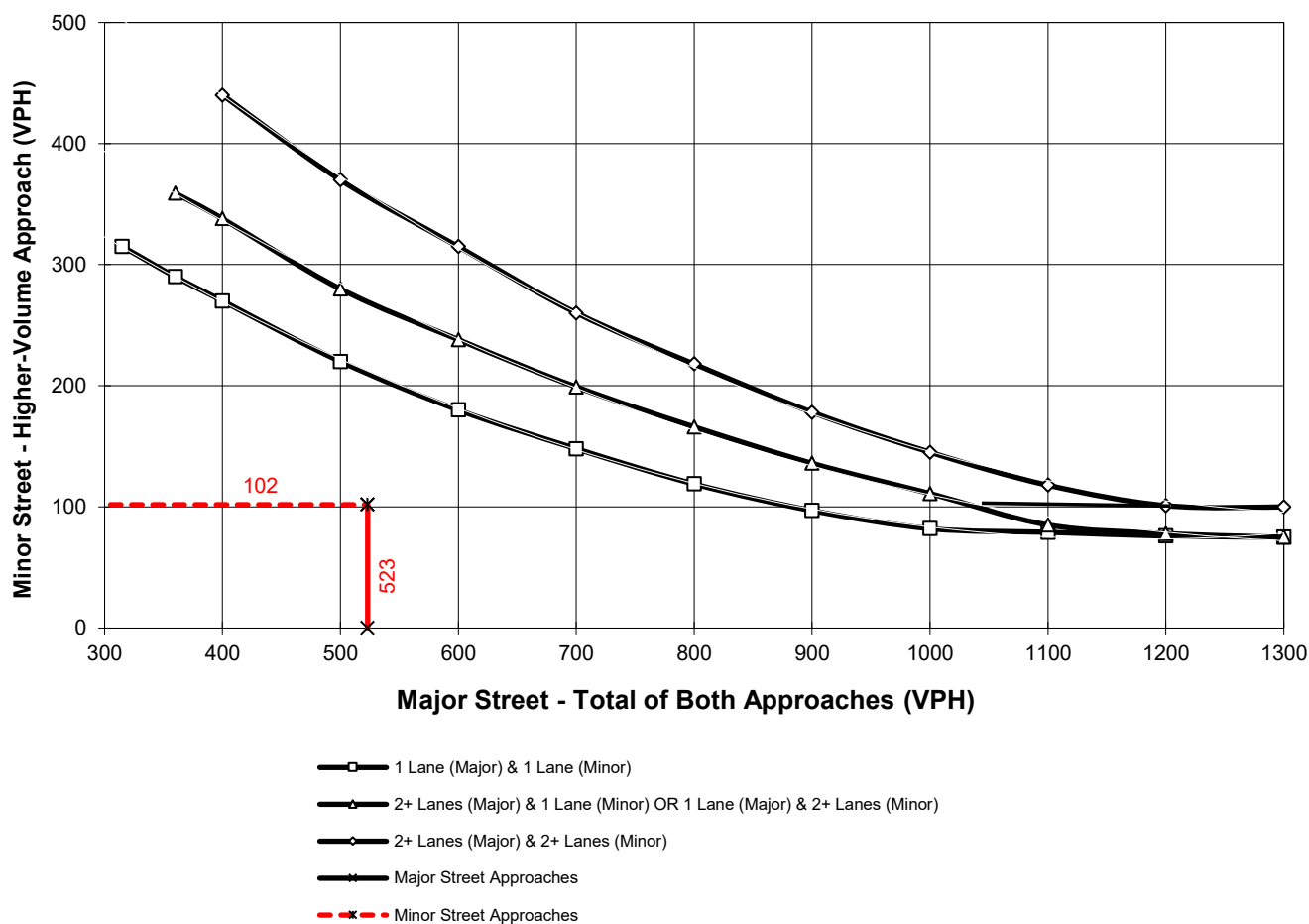
Major Street Name = **Western Knolls Av.**

Total of Both Approaches (VPH) = **523**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Potrero Bl.**

High Volume Approach (VPH) = **102**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 7.4:

**OPENING YEAR (2025) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT
ANALYSIS WORKSHEETS**

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

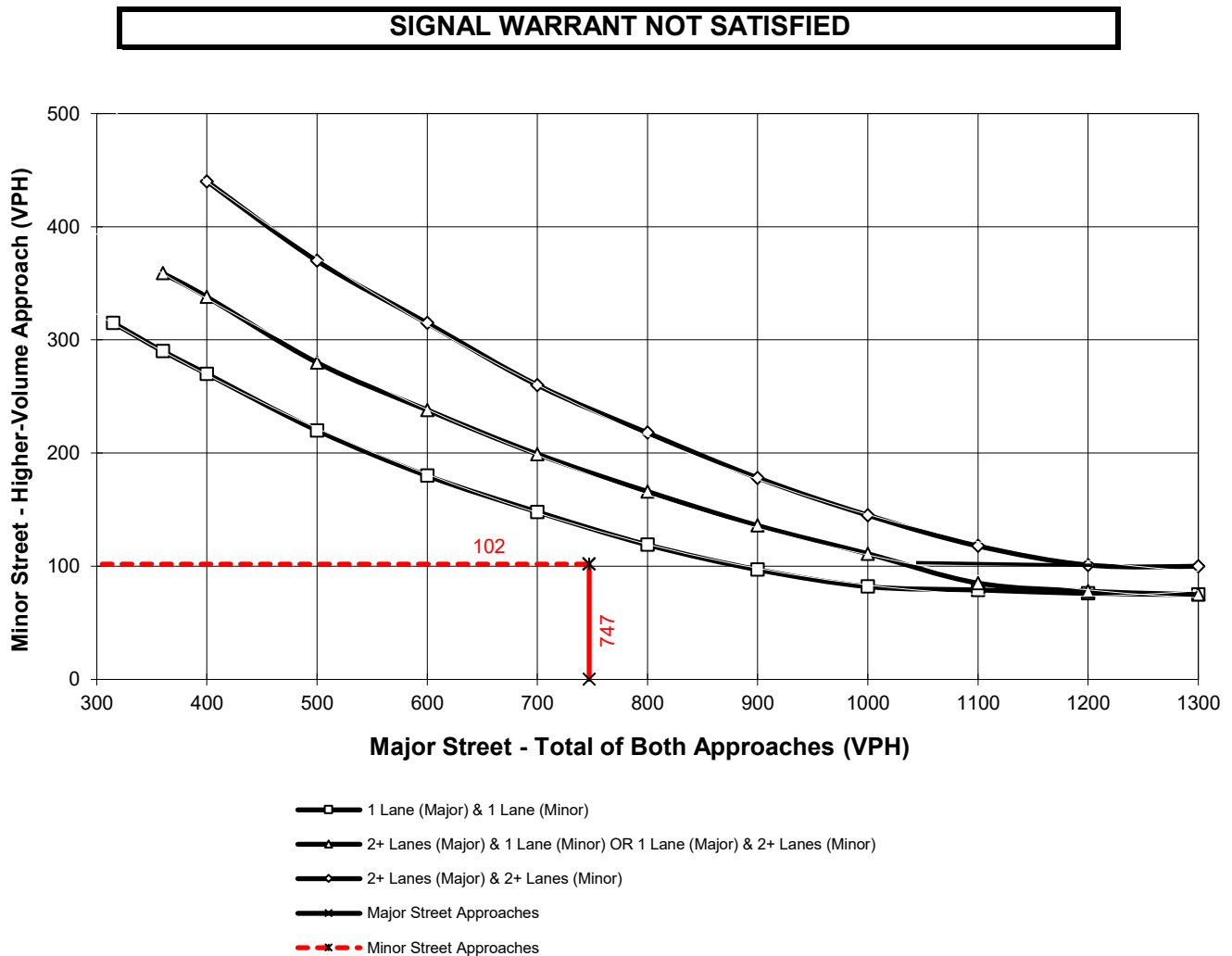
Traffic Conditions = **OYC 2025 WP Conditions - Weekday PM Peak Hour**

Major Street Name = **Western Knolls Av.**

Total of Both Approaches (VPH) = **747**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Potrero Bl.**

High Volume Approach (VPH) = **102**
Number of Approach Lanes Minor Street = **1**



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 7.5:

OPENING YEAR (2025) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1143	308	697	455
v/c Ratio	1.30	1.04	0.53	1.36
Control Delay	165.0	85.3	4.4	210.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	165.0	85.3	4.4	210.0
Queue Length 50th (ft)	~821	~168	51	~335
Queue Length 95th (ft)	#1051	m#217	m65	#516
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	882	296	1313	335
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.30	1.04	0.53	1.36

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

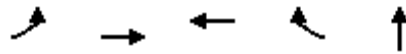
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	173	634	545	483	778
v/c Ratio	1.60	0.81	0.96	0.59	0.93
Control Delay	304.5	20.1	61.0	5.7	40.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	304.5	20.1	61.0	5.7	40.1
Queue Length 50th (ft)	~142	287	303	0	370
Queue Length 95th (ft)	m#91	m197	#507	71	#624
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	822	837
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.60	0.81	0.96	0.59	0.93

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	395	375	413	260	499
v/c Ratio	0.91	0.78	0.88	0.12	0.55
Control Delay	51.7	29.4	47.4	5.5	15.6
Queue Delay	0.0	35.6	0.0	0.0	5.7
Total Delay	51.7	65.0	47.4	5.5	21.3
Queue Length 50th (ft)	145	97	160	15	78
Queue Length 95th (ft)	#300	#232	#293	m33	123
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	434	482	493	2121	907
Starvation Cap Reductn	0	0	0	0	342
Spillback Cap Reductn	0	124	0	52	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.91	1.05	0.84	0.13	0.88

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	334	325	1051	116	811
v/c Ratio	0.70	0.70	0.59	0.52	0.36
Control Delay	18.8	18.6	9.9	20.8	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	18.6	9.9	20.8	9.1
Queue Length 50th (ft)	52	49	86	31	106
Queue Length 95th (ft)	127	124	159	m53	m176
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	534	521	1773	252	2272
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.63	0.62	0.59	0.46	0.36

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

17: Potrero Bl. & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	113	101	715	82	324	332
v/c Ratio	0.10	0.11	0.41	0.14	0.19	0.28
Control Delay	8.2	3.2	9.0	3.0	7.7	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.2	3.2	9.0	3.0	7.7	2.0
Queue Length 50th (ft)	6	0	32	0	13	0
Queue Length 95th (ft)	17	10	50	14	24	14
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	3433	2787	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.04	0.14	0.05	0.06	0.12
Intersection Summary						

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

18: Potrero Bl. & SR-60 EB Ramps



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	276	54	521	142	367	70
v/c Ratio	0.25	0.06	0.30	0.14	0.21	0.12
Control Delay	8.5	3.7	8.0	2.2	7.6	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	3.7	8.0	2.2	7.6	3.0
Queue Length 50th (ft)	15	0	21	0	14	0
Queue Length 95th (ft)	32	6	34	9	24	12
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3433	2787	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.02	0.10	0.05	0.07	0.04
Intersection Summary						



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	924	237	945	1008
v/c Ratio	1.52	1.12	1.02	1.31
Control Delay	269.2	121.6	52.7	176.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	269.2	121.6	52.7	176.0
Queue Length 50th (ft)	~735	~157	~579	~743
Queue Length 95th (ft)	#757	m#191	#601	#754
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	607	212	922	767
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.52	1.12	1.02	1.31

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

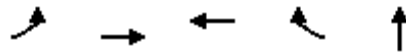
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	189	831	505	328	756
v/c Ratio	0.91	0.98	0.94	0.47	0.90
Control Delay	49.0	27.7	58.7	5.5	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	27.7	58.7	5.5	36.0
Queue Length 50th (ft)	108	406	279	0	356
Queue Length 95th (ft)	m73	m224	#472	60	#601
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	208	844	540	694	842
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.91	0.98	0.94	0.47	0.90

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	467	464	309	352	592
v/c Ratio	0.88	0.79	0.72	0.17	0.64
Control Delay	41.1	25.5	35.3	6.9	23.1
Queue Delay	0.0	14.9	0.0	0.0	38.2
Total Delay	41.1	40.4	35.3	6.9	61.2
Queue Length 50th (ft)	164	116	120	22	101
Queue Length 95th (ft)	#325	#263	m186	m50	#178
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	543	604	511	2015	921
Starvation Cap Reductn	0	0	0	0	363
Spillback Cap Reductn	0	129	0	62	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.86	0.98	0.60	0.18	1.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	494	475	961	124	1141
v/c Ratio	0.87	0.81	0.63	0.61	0.59
Control Delay	35.4	26.3	12.6	28.4	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	35.4	26.3	12.6	28.4	16.8
Queue Length 50th (ft)	149	117	97	47	201
Queue Length 95th (ft)	#317	#273	159	m59	m274
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	591	612	1515	210	1925
Starvation Cap Reductn	0	0	0	0	140
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.84	0.78	0.63	0.59	0.64

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

17: Potrero Bl. & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	260	143	849	109	613	387
v/c Ratio	0.24	0.16	0.44	0.16	0.31	0.30
Control Delay	10.3	3.6	8.6	2.6	7.9	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	3.6	8.6	2.6	7.9	1.7
Queue Length 50th (ft)	18	0	40	0	27	0
Queue Length 95th (ft)	42	15	60	16	43	15
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	3335	2666	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.05	0.17	0.07	0.12	0.14
Intersection Summary						

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

18: Potrero Bl. & SR-60 EB Ramps



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	398	320	561	139	793	78
v/c Ratio	0.38	0.33	0.28	0.12	0.40	0.12
Control Delay	11.2	3.2	7.4	2.0	8.1	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.2	3.2	7.4	2.0	8.1	2.6
Queue Length 50th (ft)	27	0	23	0	34	0
Queue Length 95th (ft)	60	22	39	9	55	13
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3433	2787	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.11	0.11	0.05	0.16	0.05
Intersection Summary						

APPENDIX 7.6:

OPENING YEAR (2025) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1174	308	697	590
v/c Ratio	1.33	1.04	0.53	1.70
Control Delay	180.9	85.3	4.4	350.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	180.9	85.3	4.4	350.8
Queue Length 50th (ft)	~862	~168	51	~481
Queue Length 95th (ft)	#1091	m#217	m65	#677
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	881	296	1313	348
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.33	1.04	0.53	1.70

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

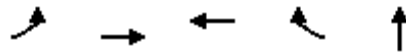
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	202	634	545	483	778
v/c Ratio	1.87	0.81	0.96	0.59	0.93
Control Delay	420.7	21.0	61.0	5.7	40.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	420.7	21.0	61.0	5.7	40.1
Queue Length 50th (ft)	~178	307	303	0	370
Queue Length 95th (ft)	m#103	m187	#507	71	#624
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	822	837
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.87	0.81	0.96	0.59	0.93

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	395	375	413	260	499
v/c Ratio	0.91	0.78	0.88	0.12	0.55
Control Delay	51.7	29.4	47.4	5.5	15.6
Queue Delay	0.0	35.6	0.0	0.0	5.6
Total Delay	51.7	65.0	47.4	5.5	21.3
Queue Length 50th (ft)	145	97	160	15	78
Queue Length 95th (ft)	#300	#232	#293	m33	123
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	434	482	493	2121	907
Starvation Cap Reductn	0	0	0	0	341
Spillback Cap Reductn	0	124	0	52	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.91	1.05	0.84	0.13	0.88

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	334	325	1051	116	811
v/c Ratio	0.70	0.70	0.59	0.52	0.36
Control Delay	18.8	18.6	9.9	20.8	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	18.6	9.9	20.8	9.1
Queue Length 50th (ft)	52	49	86	31	106
Queue Length 95th (ft)	127	124	159	m53	m176
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	534	521	1773	252	2272
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.63	0.62	0.59	0.46	0.36

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

17: Potrero Bl. & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	449	101	753	174	487	332
v/c Ratio	0.41	0.12	0.39	0.24	0.25	0.26
Control Delay	11.4	3.9	8.4	2.6	7.6	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.4	3.9	8.4	2.6	7.6	1.8
Queue Length 50th (ft)	33	0	35	0	21	0
Queue Length 95th (ft)	71	13	55	21	36	15
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	3428	2767	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.04	0.15	0.11	0.10	0.12
Intersection Summary						

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

18: Potrero Bl. & SR-60 EB Ramps



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	276	455	651	220	866	70
v/c Ratio	0.26	0.49	0.33	0.18	0.43	0.11
Control Delay	10.7	7.7	7.9	1.9	8.5	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.7	7.7	7.9	1.9	8.5	2.9
Queue Length 50th (ft)	19	18	27	0	38	0
Queue Length 95th (ft)	46	54	51	13	69	14
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3433	2787	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.16	0.13	0.08	0.17	0.04
Intersection Summary						



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1103	237	945	1064
v/c Ratio	1.82	1.12	1.02	1.39
Control Delay	399.2	121.6	52.7	208.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	399.2	121.6	52.7	208.0
Queue Length 50th (ft)	~958	~157	~579	~810
Queue Length 95th (ft)	#955	m#191	#601	#813
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	606	212	922	766
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.82	1.12	1.02	1.39

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

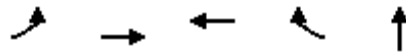
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	329	831	505	328	756
v/c Ratio	1.58	0.98	0.94	0.47	0.90
Control Delay	292.7	28.4	58.7	5.5	36.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	292.7	28.4	58.7	5.5	36.0
Queue Length 50th (ft)	~274	433	279	0	356
Queue Length 95th (ft)	m119	m214	#472	60	#601
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	208	844	540	694	842
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.58	0.98	0.94	0.47	0.90

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	467	464	309	352	592
v/c Ratio	0.88	0.79	0.72	0.17	0.64
Control Delay	41.1	25.5	35.3	6.9	23.3
Queue Delay	0.0	14.9	0.0	0.0	37.5
Total Delay	41.1	40.4	35.3	6.9	60.7
Queue Length 50th (ft)	164	116	120	22	101
Queue Length 95th (ft)	#325	#263	m186	m50	#178
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	543	604	511	2015	921
Starvation Cap Reductn	0	0	0	0	362
Spillback Cap Reductn	0	129	0	64	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.86	0.98	0.60	0.18	1.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	494	475	961	124	1141
v/c Ratio	0.87	0.81	0.63	0.61	0.59
Control Delay	35.4	26.3	12.6	28.4	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.1
Total Delay	35.4	26.3	12.6	28.4	16.8
Queue Length 50th (ft)	149	117	97	47	200
Queue Length 95th (ft)	#317	#273	159	m59	m274
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	591	612	1515	210	1925
Starvation Cap Reductn	0	0	0	0	140
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.84	0.78	0.63	0.59	0.64

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

17: Potrero Bl. & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	364	143	1035	532	671	387
v/c Ratio	0.40	0.18	0.41	0.51	0.27	0.25
Control Delay	16.2	4.9	7.4	2.6	6.5	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	4.9	7.4	2.6	6.5	1.2
Queue Length 50th (ft)	37	0	51	0	30	0
Queue Length 95th (ft)	84	19	78	32	48	14
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	2904	2322	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.06	0.20	0.34	0.13	0.14
Intersection Summary						

Queues

Jack Rabbit Trail (JN 12396)

18: Potrero Bl. & SR-60 EB Ramps

07/13/2020



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	398	448	1168	488	957	78
v/c Ratio	0.45	0.56	0.44	0.29	0.36	0.09
Control Delay	18.1	12.2	7.7	1.2	7.2	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.1	12.2	7.7	1.2	7.2	2.1
Queue Length 50th (ft)	45	29	60	0	46	0
Queue Length 95th (ft)	102	85	107	17	85	14
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	2943	2370	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.19	0.23	0.18	0.19	0.05
Intersection Summary						

APPENDIX 7.7:

**OPENING YEAR (2025) WITHOUT PROJECT CONDITIONS FREEWAY FACILITY
ANALYSIS WORKSHEETS**

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	OYC 2025 NP
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2357		7161		0.33		68.7		11.4		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.962	2357	444	7200	2100	0.33	0.21	64.0	60.5	12.3	15.3	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1913		7161		0.27		68.7		9.3		A

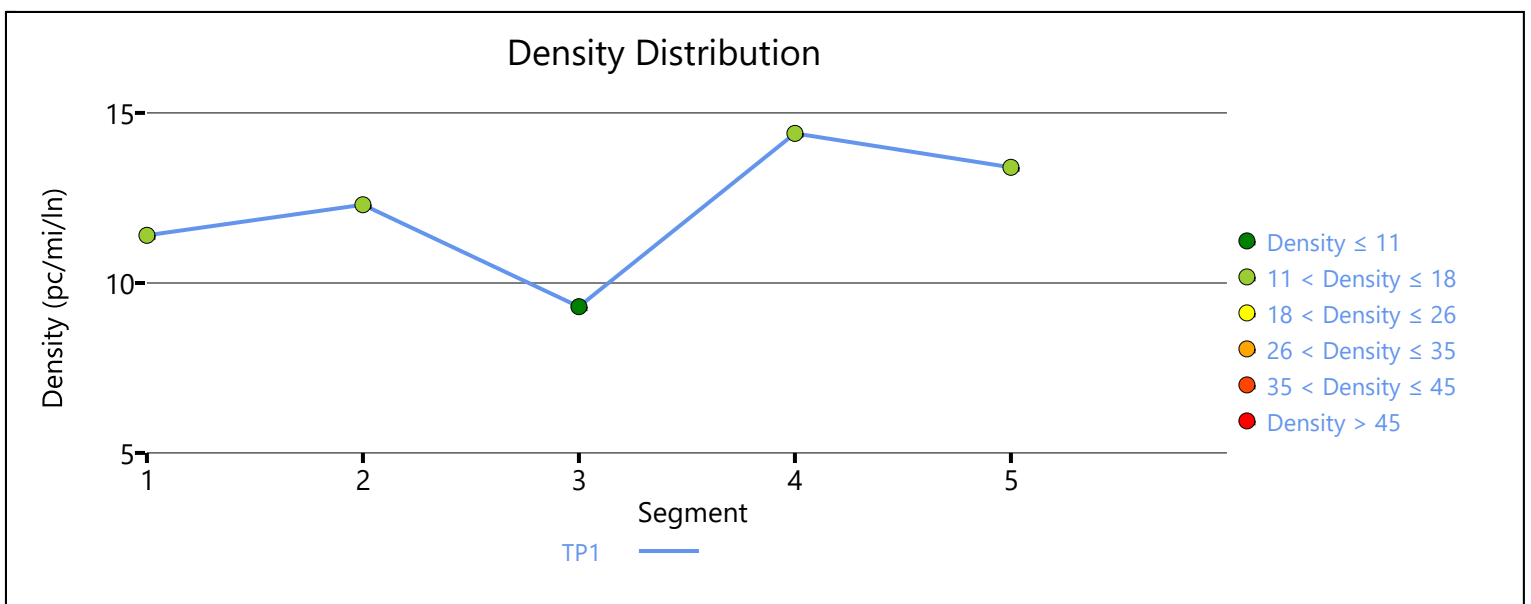
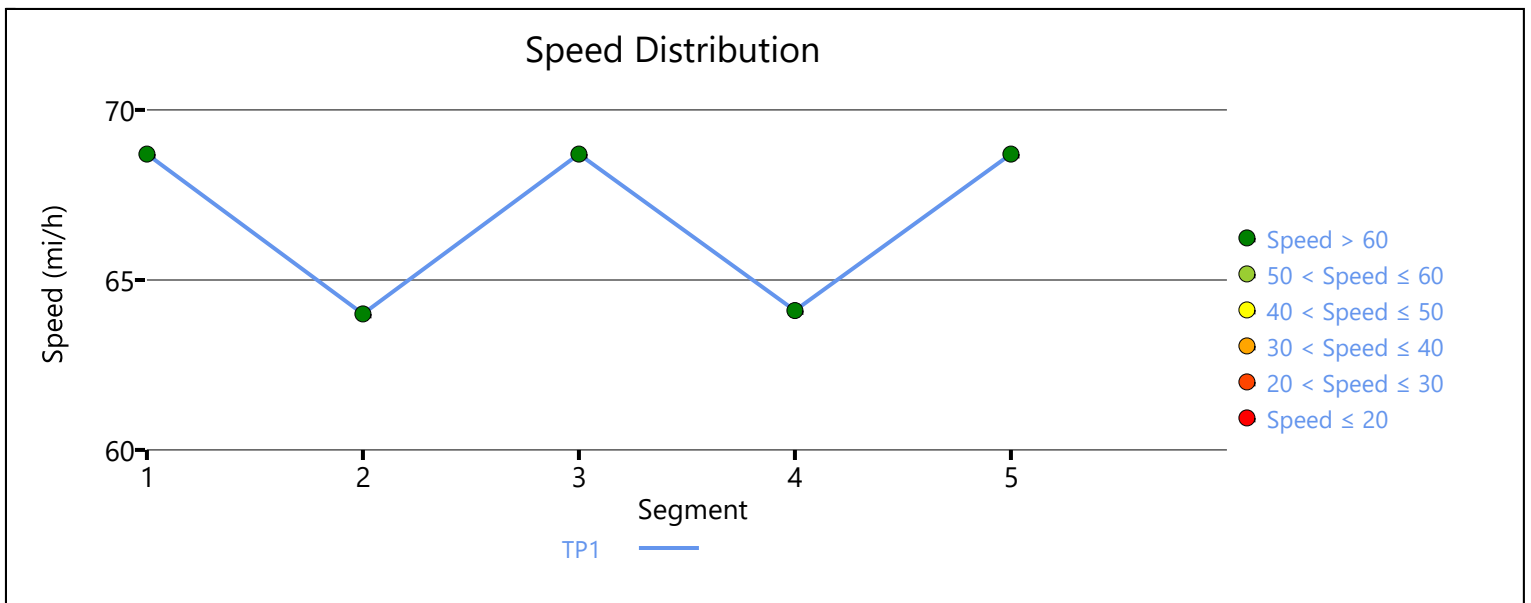
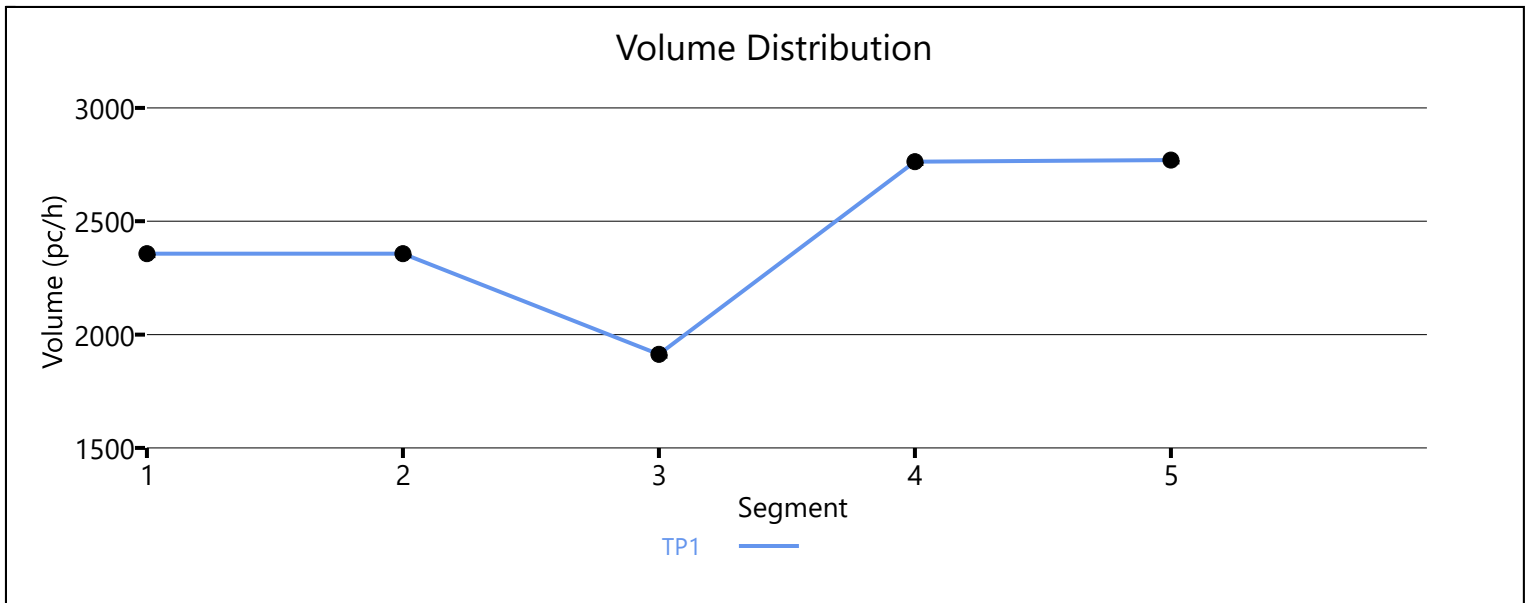
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2763	850	7200	2100	0.38	0.40	64.1	62.4	14.4	15.4	B

Segment 5: Basic

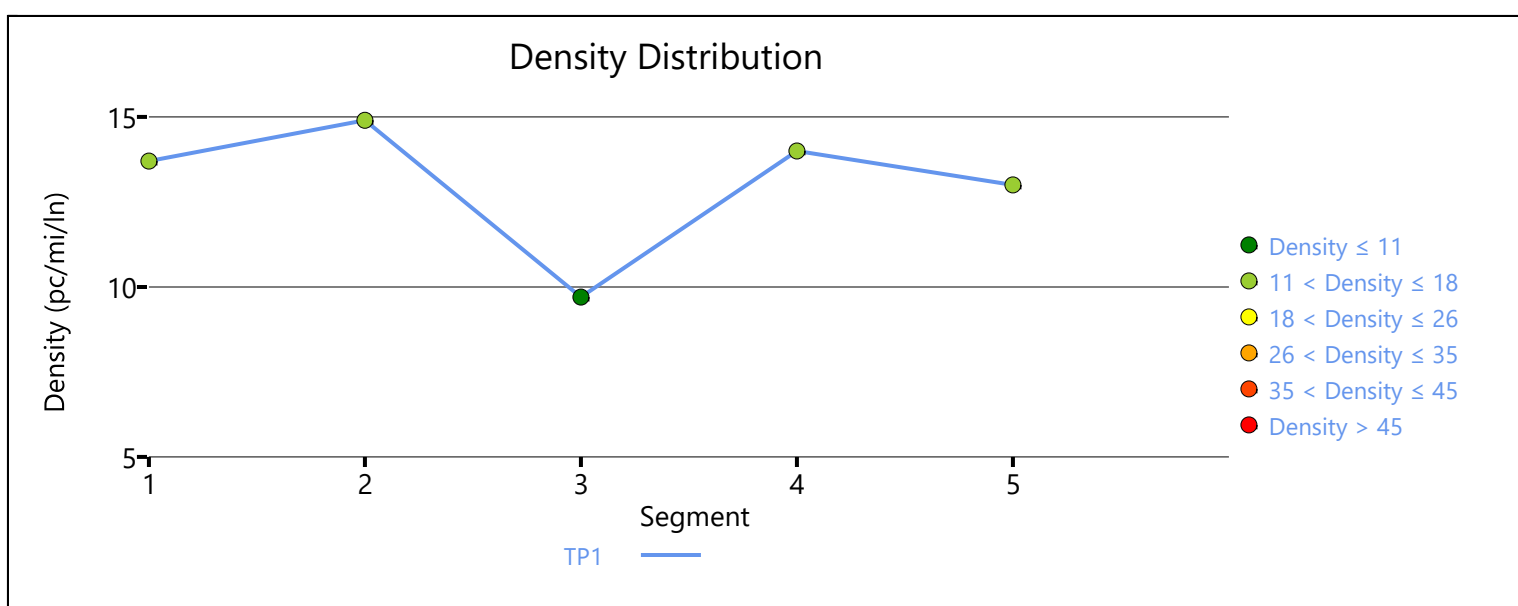
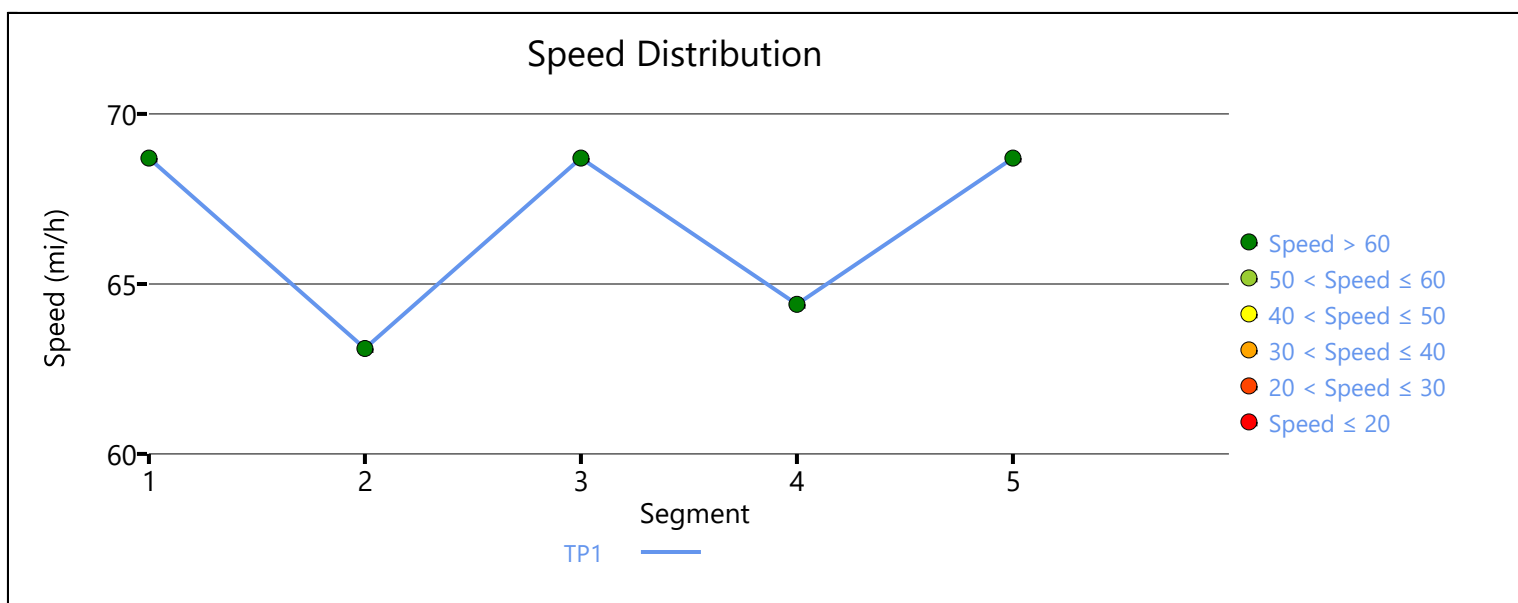
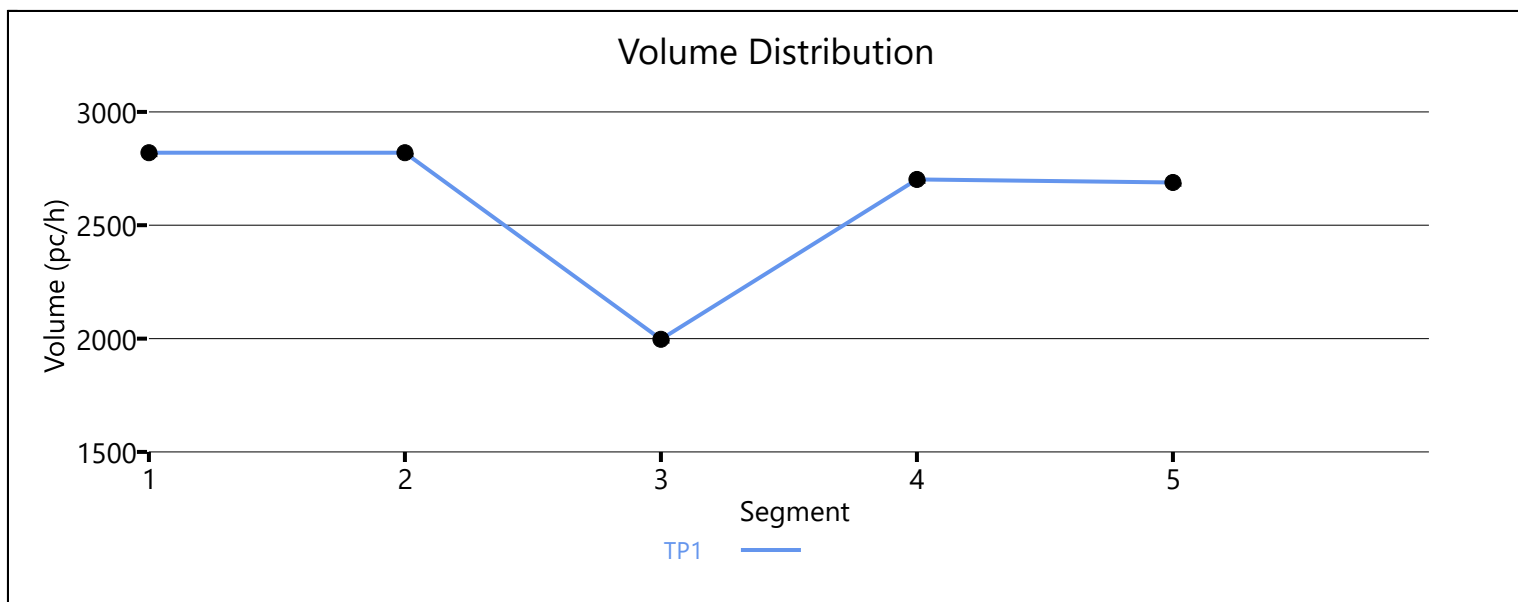
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2770		7161		0.39		68.7		13.4		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	11.9	11.5	2.1	B
Facility Overall Results					
Space Mean Speed, mi/h		67.4	Density, veh/mi/ln		11.5
Average Travel Time, min		2.1	Density, pc/mi/ln		11.9



HCS7 Freeway Facilities Report																
Project Information																
Analyst			JB			Date			7/8/2020							
Agency			Urban Crossroads, Inc.			Analysis Year			OYC 2025 NP							
Jurisdiction			Caltrans			Time Period Analyzed			AM Peak Hour							
Project Description			JN:12396 - I-10 WB at Oak Valley													
Facility Global Input																
Jam Density, pc/mi/ln			190.0			Density at Capacity, pc/mi/ln			45.0							
Queue Discharge Capacity Drop, %			7			Total Segments			5							
Total Time Periods			1			Time Period Duration, min			15							
Facility Segment Data																
No.	Coded		Analyzed		Name				Length, ft				Lanes			
1	Basic		Basic		East of Oak Valley				4150				3			
2	Diverge		Diverge		Off-Ramp				1500				3			
3	Basic		Basic		Between				1700				3			
4	Merge		Merge		On-Ramp				1500				3			
5	Basic		Basic		West of Oak Valley				4000				3			
Facility Segment Data																
Segment 1: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.926		2820		7161		0.39		68.7		13.7		B	
Segment 2: Diverge																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp		
1	0.92	0.92	0.926	0.971	2820	836	7200	2100	0.39	0.40	63.1	59.6	14.9	18.5	B	
Segment 3: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.901		1997		7161		0.28		68.7		9.7		A	
Segment 4: Merge																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp		
1	0.92	0.92	0.901	0.980	2702	705	7200	2100	0.38	0.34	64.4	62.7	14.0	14.2	B	
Segment 5: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.926		2689		7161		0.38		68.7		13.0		B	

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	13.1	12.1	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.4	Density, veh/mi/ln		12.1
Average Travel Time, min		2.2	Density, pc/mi/ln		13.1



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2354		4764		0.49		68.2		17.3		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2354	1892	4800	2100	0.49	0.90	56.9	56.9	20.7	22.7	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		472		4764		0.10		68.2		3.5		A

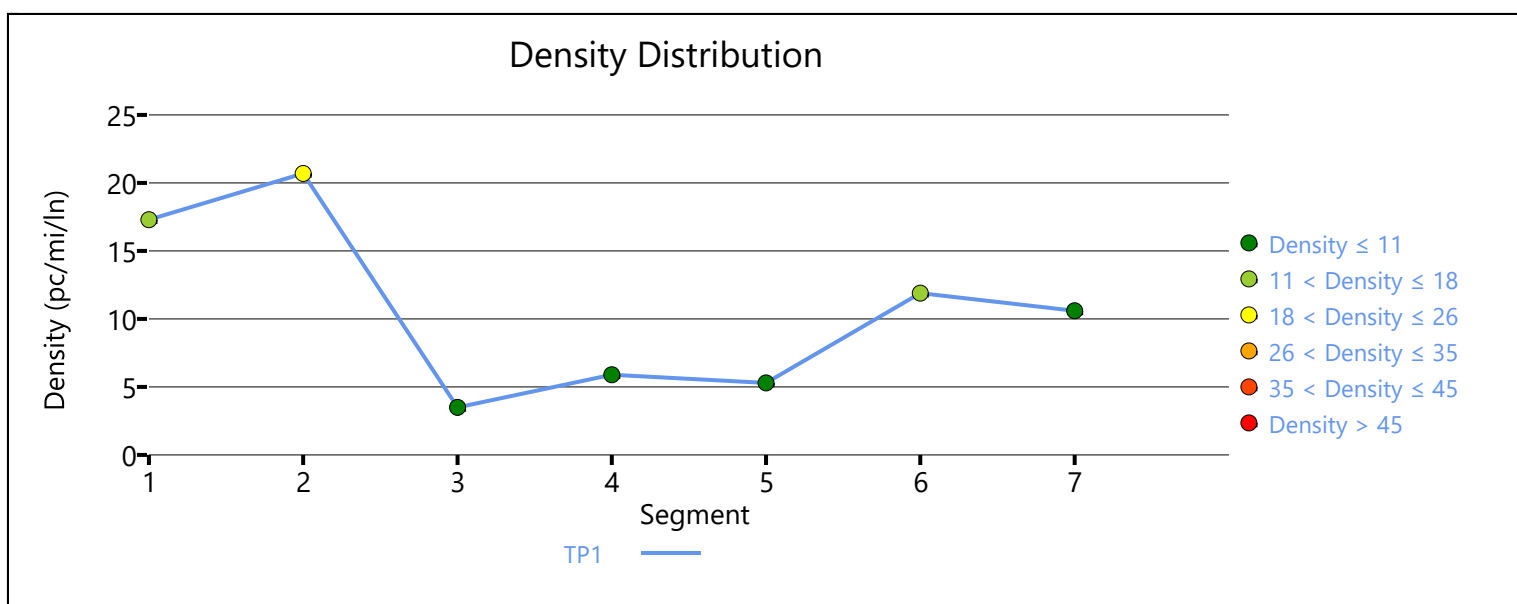
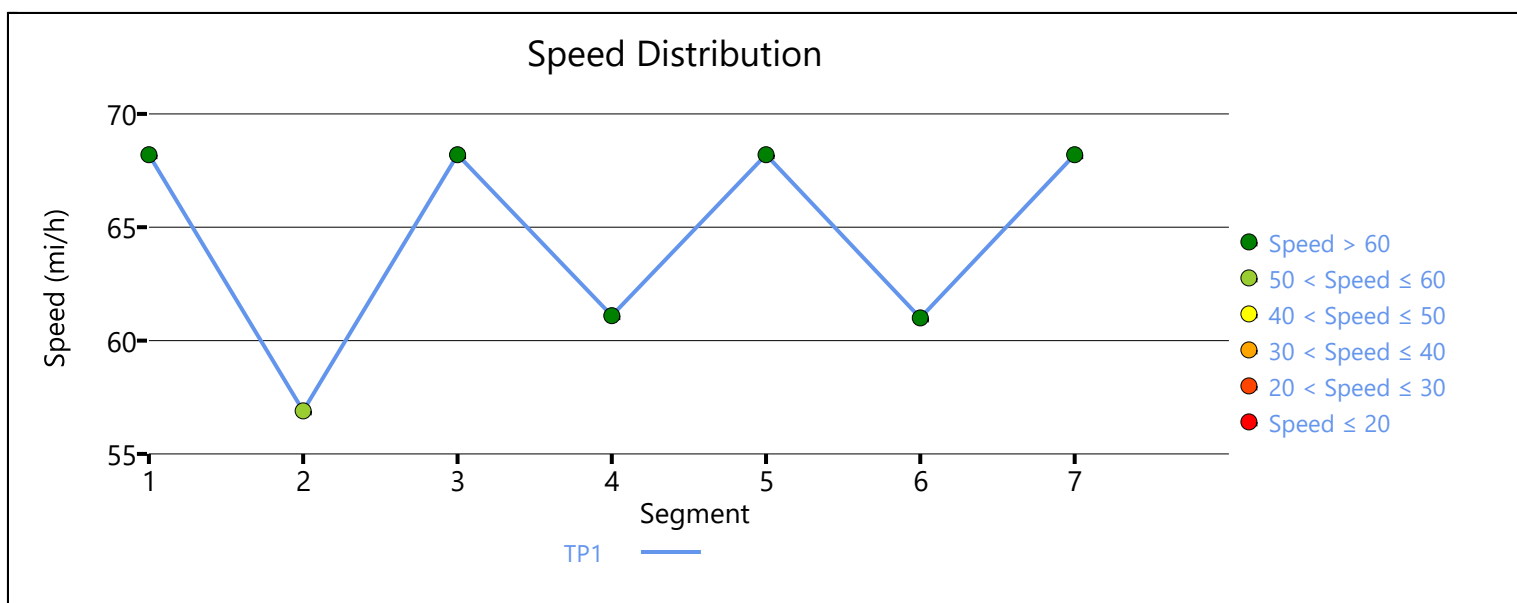
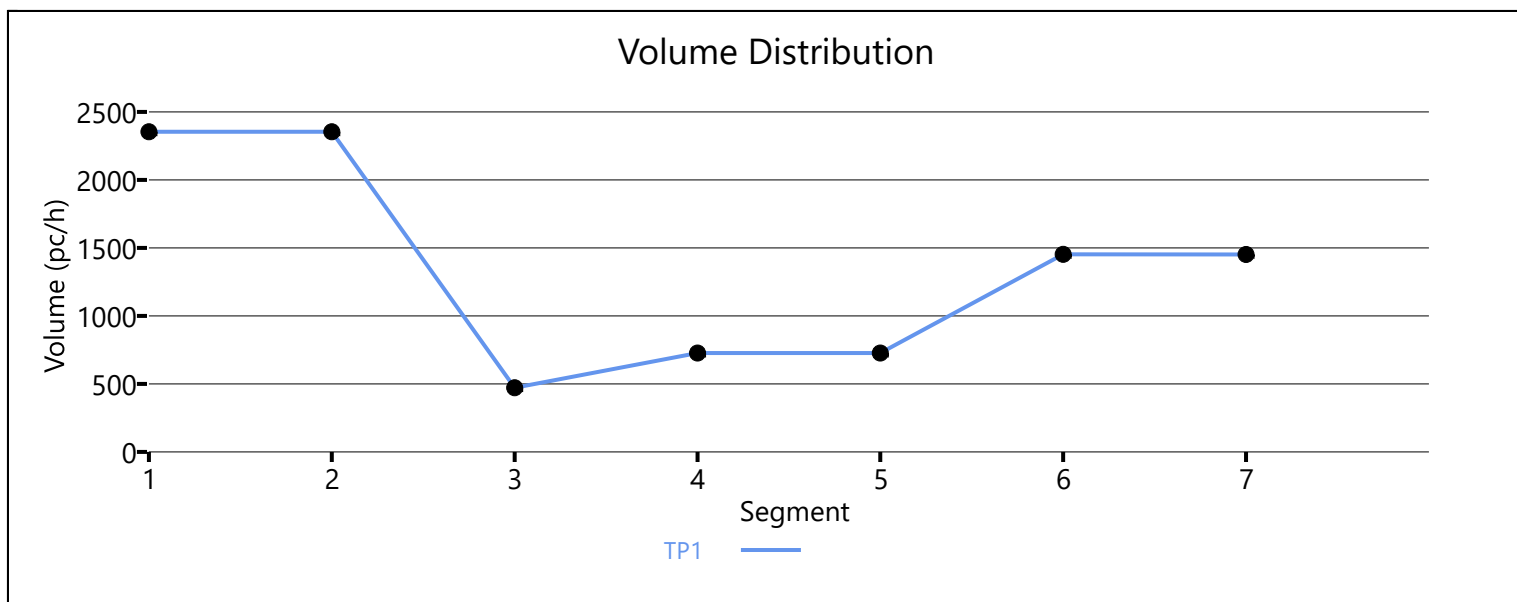
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	727	255	4800	1900	0.15	0.13	61.1	61.1	5.9	9.8	A

Segment 5: Basic

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Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		727		4764		0.15		68.2		5.3		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.952	1453	726	4800	2100	0.30	0.35	61.0	61.0	11.9	15.3	B
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1452		4764		0.30		68.2		10.6		A
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.7			12.0			11.6			3.1			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.7				Density, veh/mi/ln				11.6		
Average Travel Time, min					3.1				Density, pc/mi/ln				12.0		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1563		4764		0.33		68.2		11.5		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	1563	1402	4800	2100	0.33	0.67	58.1	58.1	13.5	15.9	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		168		4764		0.04		68.2		1.2		A

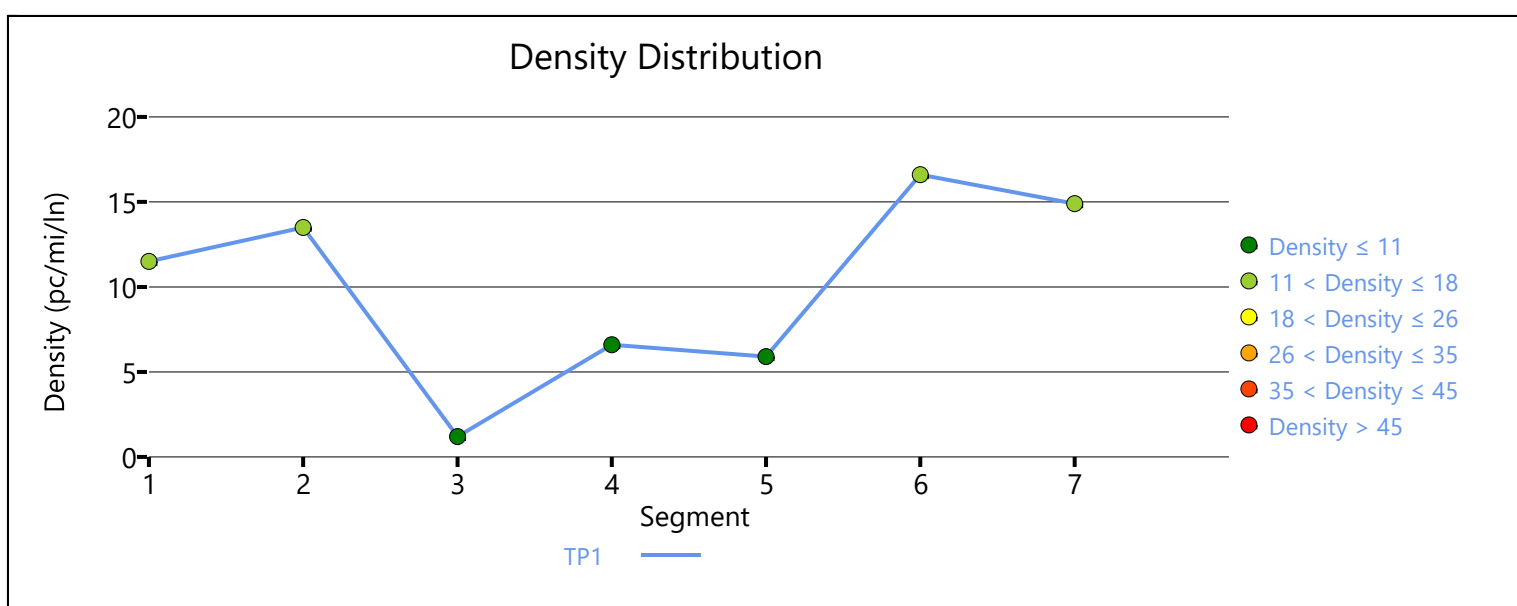
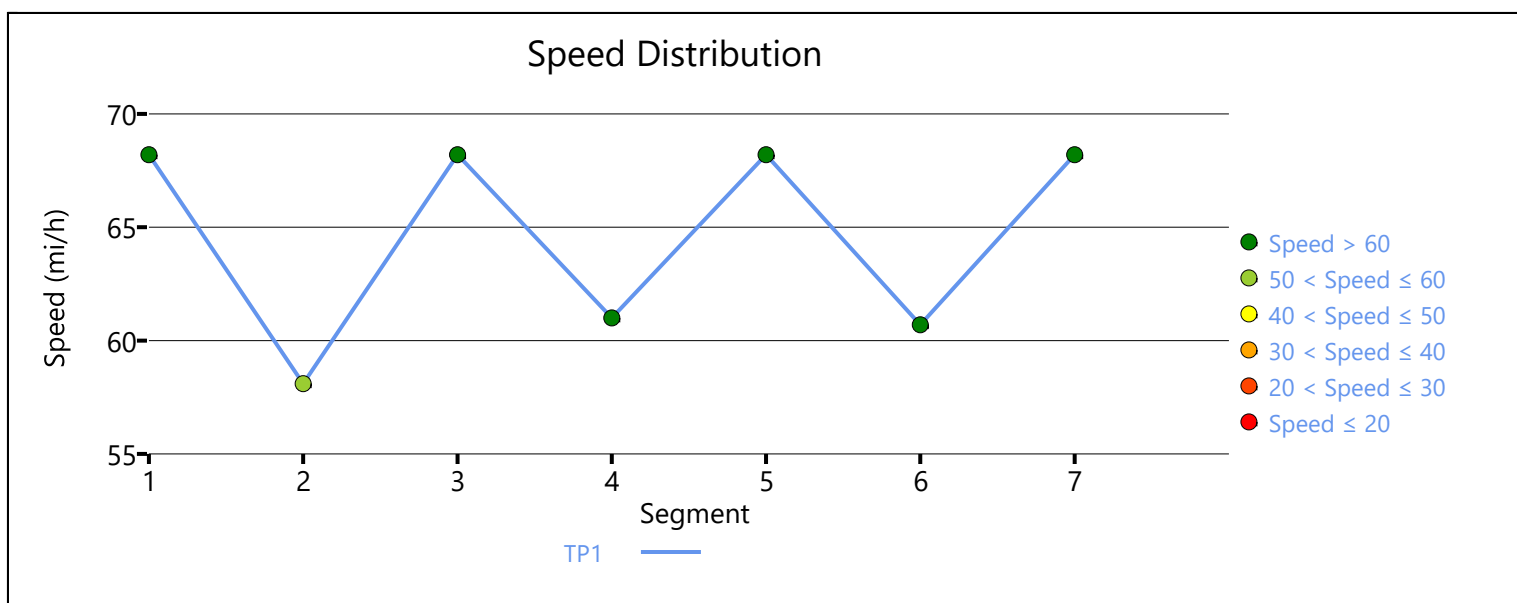
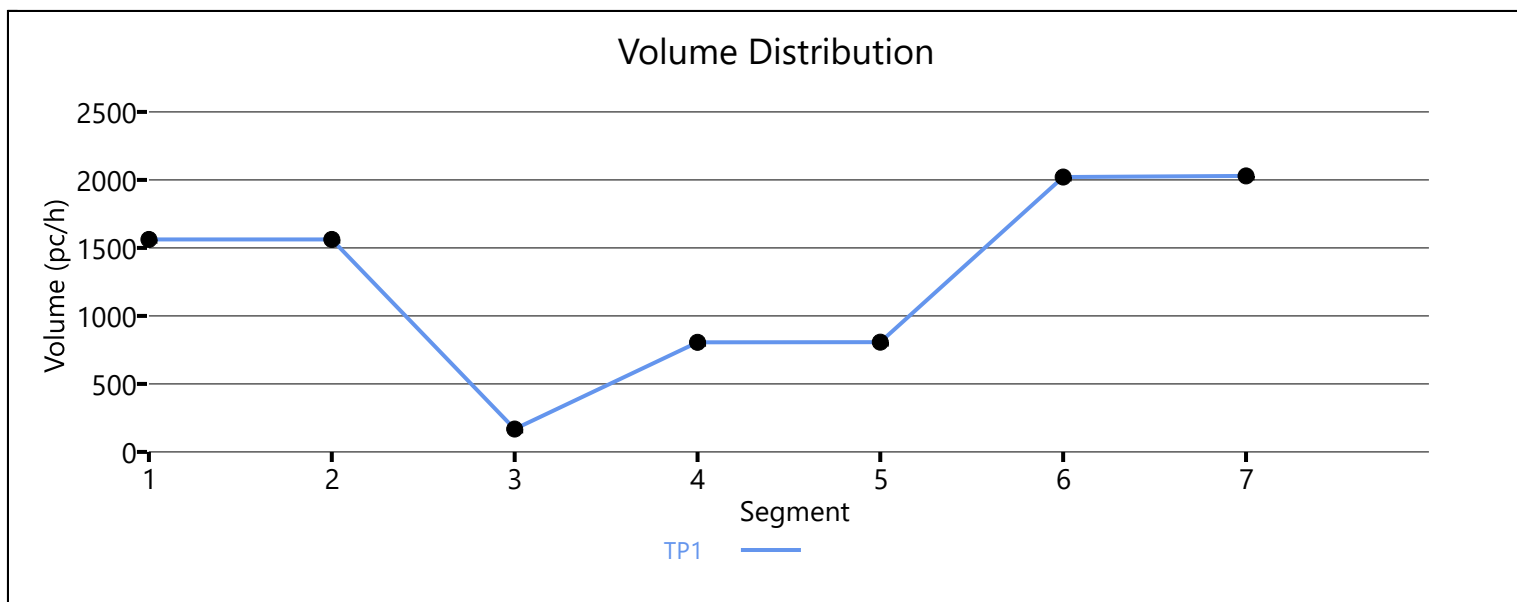
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	806	638	4800	1900	0.17	0.34	61.0	61.0	6.6	10.3	B

7.7-10

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		807		4764		0.17		68.2		5.9		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2021	1214	4800	2100	0.42	0.58	60.7	60.7	16.6	19.5	B
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		2029		4764		0.43		68.2		14.9		B
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.9			11.2			10.8			3.1			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.9				Density, veh/mi/ln				10.8		
Average Travel Time, min					3.1				Density, pc/mi/ln				11.2		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3246		7161		0.45		68.7		15.7		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	3246	837	7200	2100	0.45	0.40	63.4	59.6	17.1	20.7	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2416		7161		0.34		68.7		11.7		B

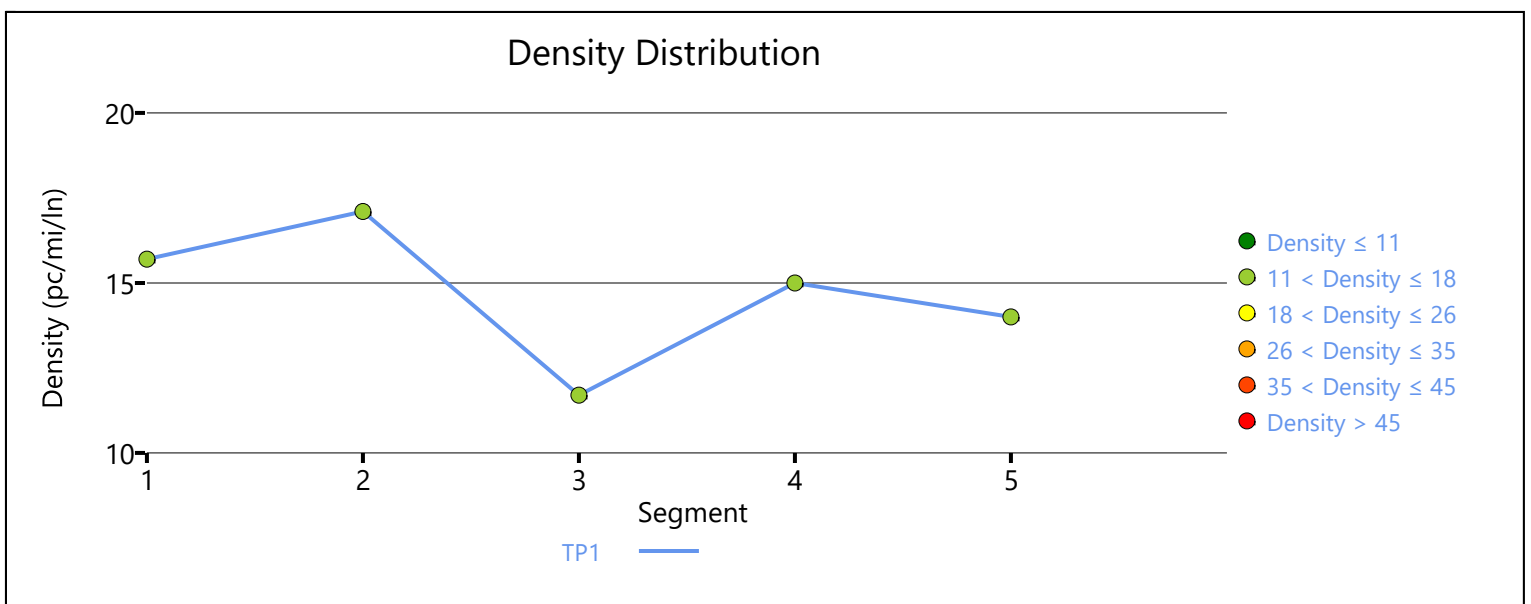
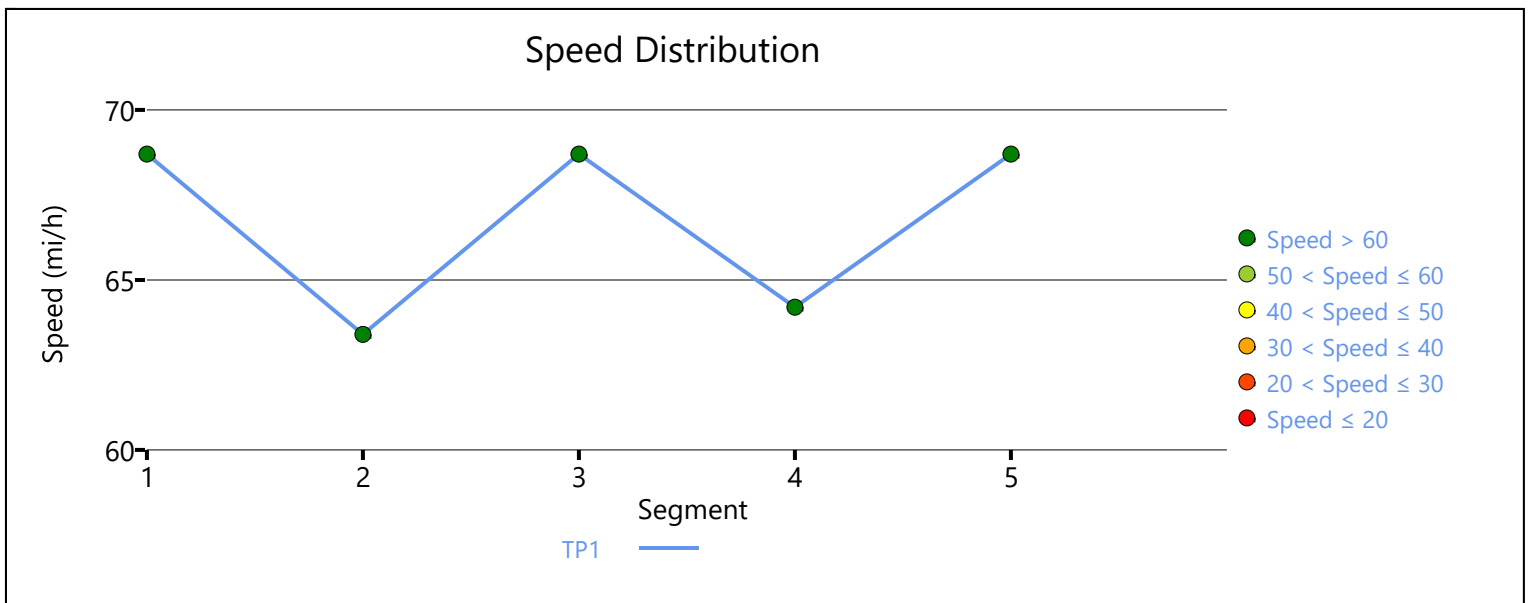
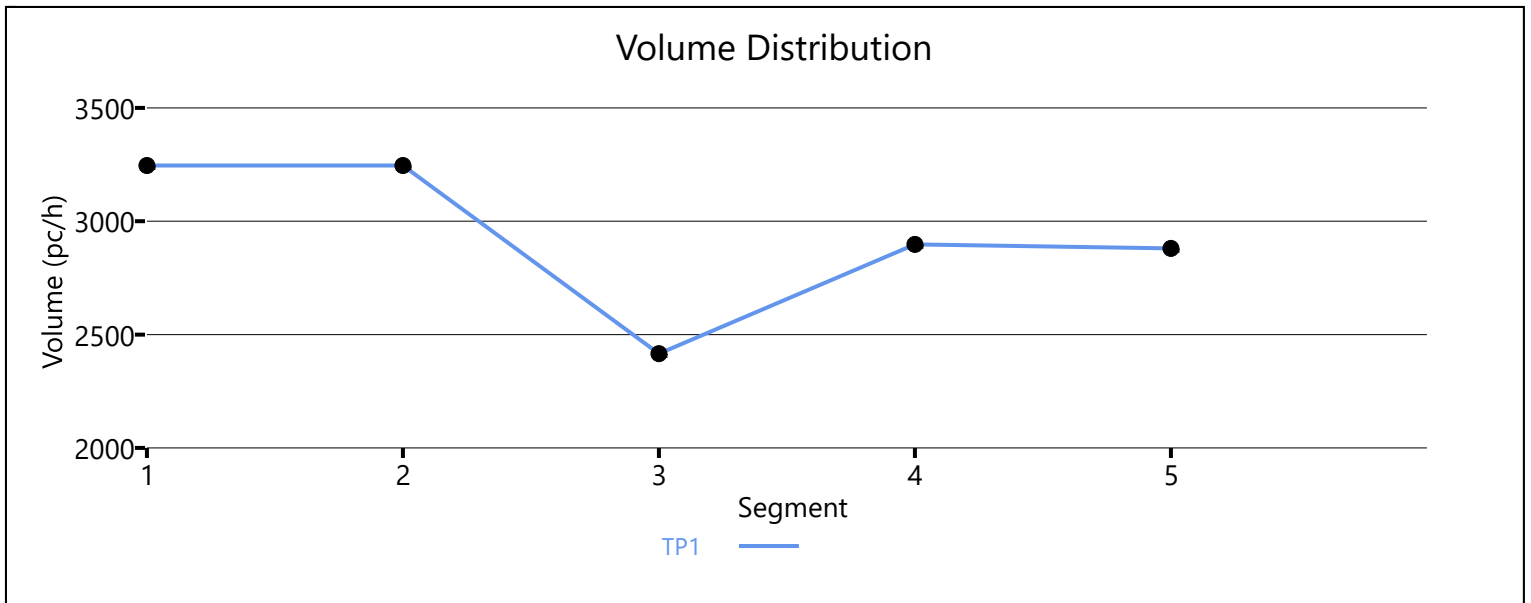
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	2898	482	7200	2100	0.40	0.23	64.2	62.4	15.0	15.1	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		2880		7161		0.40		68.7		14.0		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	14.9	14.4	2.1	B
Facility Overall Results					
Space Mean Speed, mi/h		67.4	Density, veh/mi/ln		14.4
Average Travel Time, min		2.1	Density, pc/mi/ln		14.9



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		3424		7161		0.48		68.7		16.6		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	3424	799	7200	2100	0.48	0.38	63.5	59.6	18.0	21.5	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.917		2628		7161		0.37		68.7		12.8		B

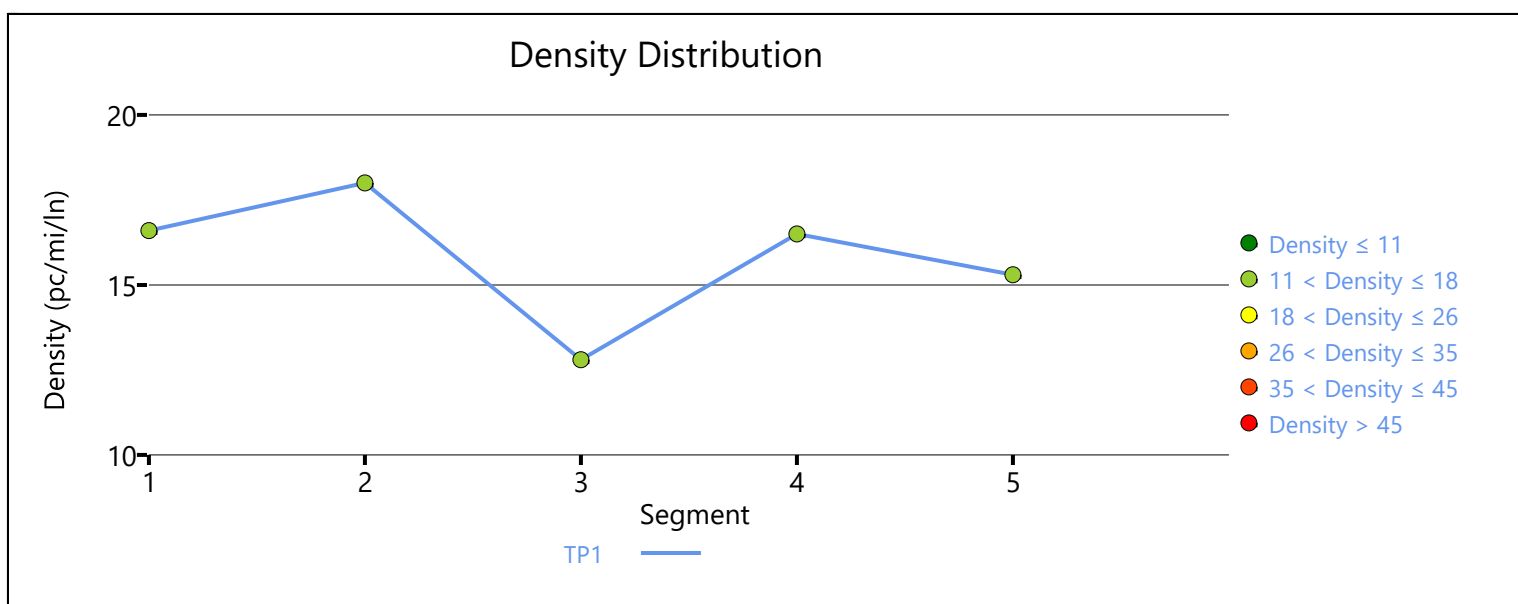
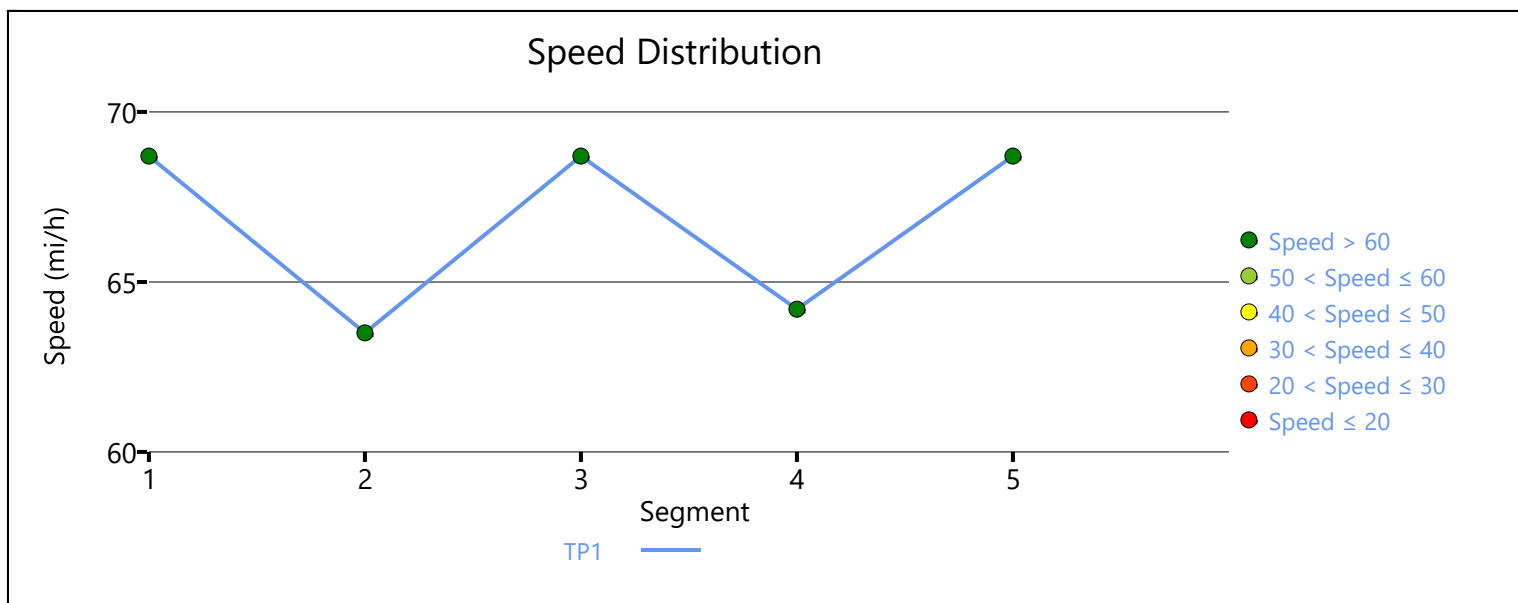
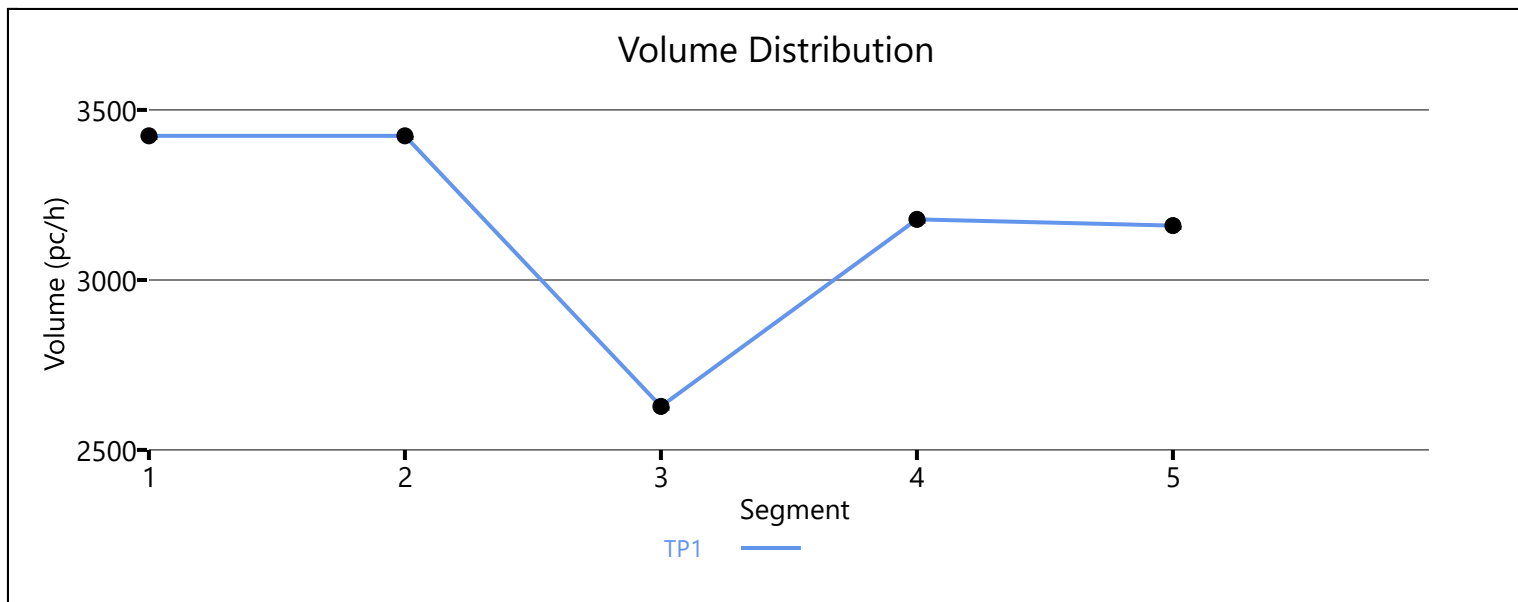
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.990	3178	550	7200	2100	0.44	0.26	64.2	62.5	16.5	16.0	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		3160		7161		0.44		68.7		15.3		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.5	15.8	14.7	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.5	Density, veh/mi/ln		14.7
Average Travel Time, min		2.2	Density, pc/mi/ln		15.8



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2818		4764		0.59		68.0		20.7		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2818	2583	4800	2100	0.59	1.23	53.3	55.2	45.0	26.7	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		235		4764		0.05		67.3		1.7		A

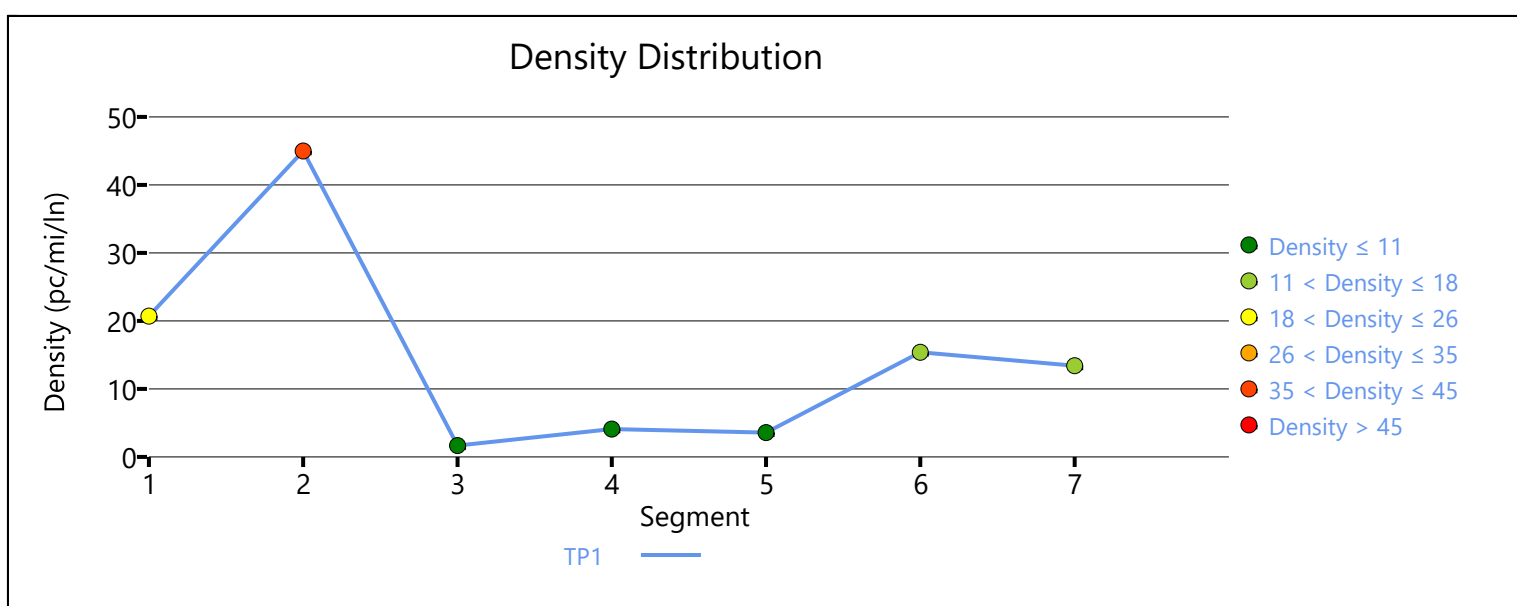
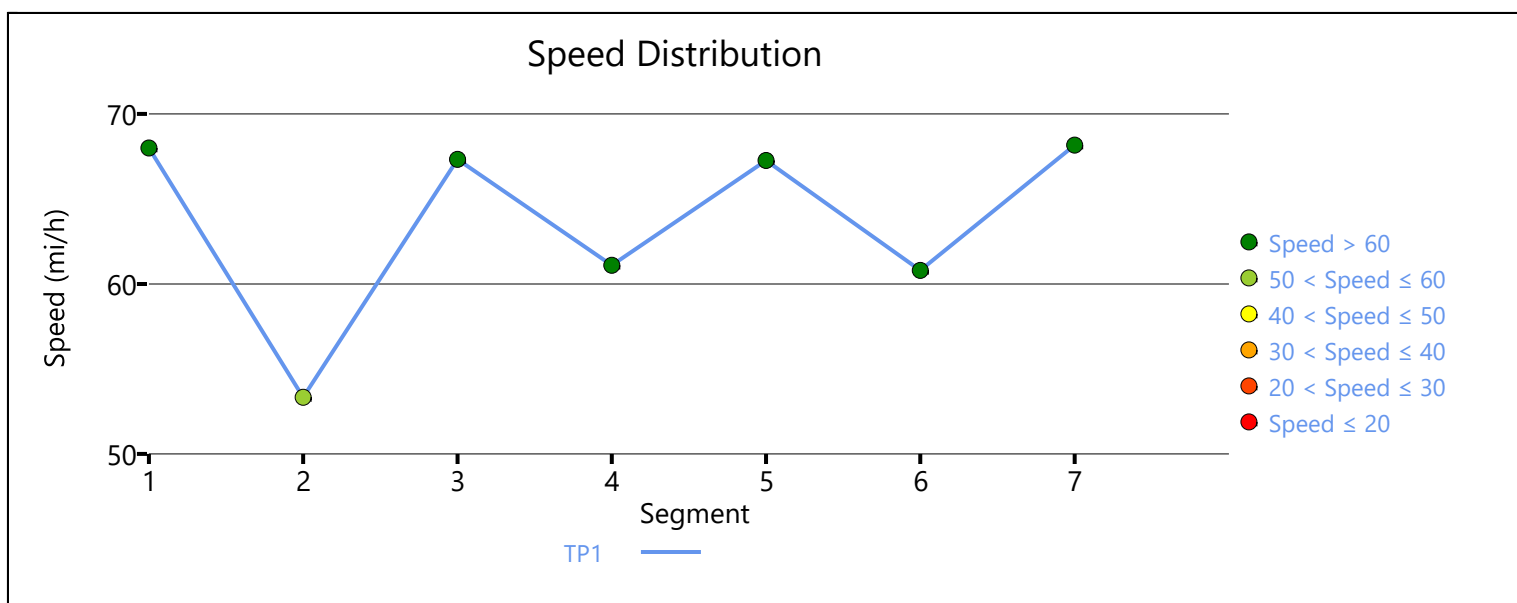
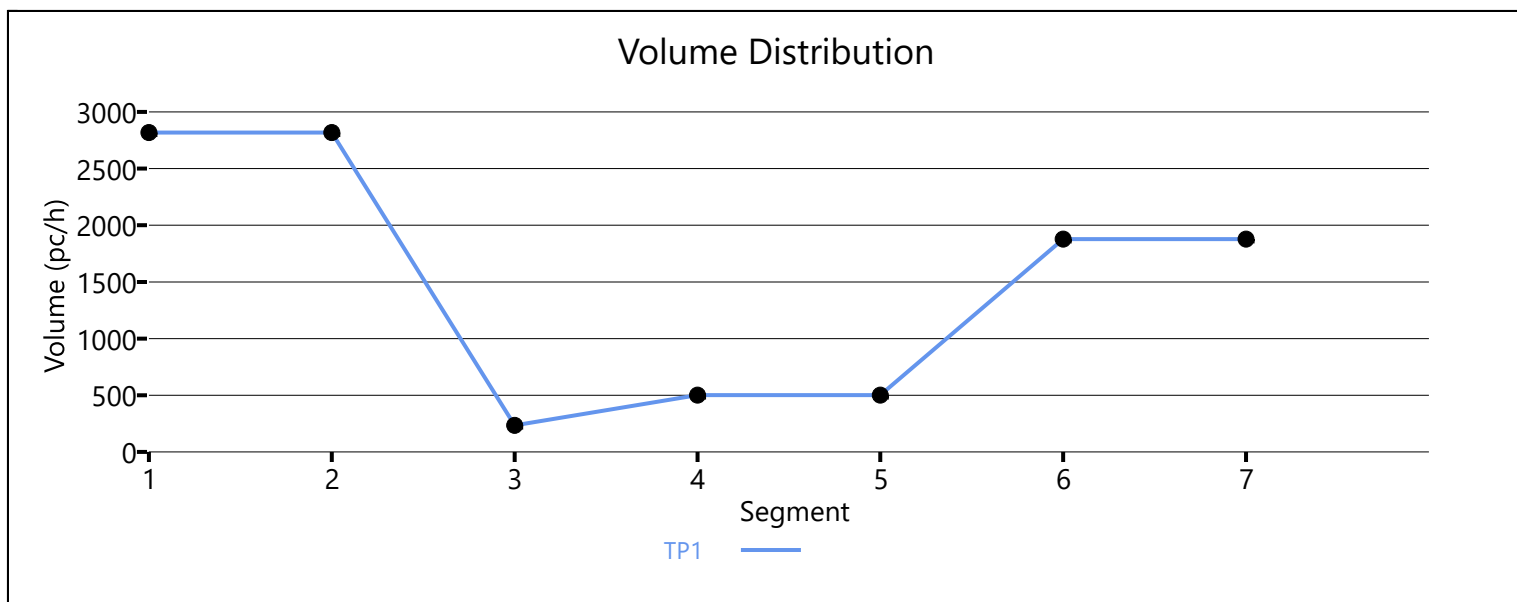
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	501	266	4800	1900	0.11	0.14	61.1	61.1	4.1	8.1	A

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Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		501		4764		0.11		67.3		3.6		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.962	1878	1377	4800	2100	0.40	0.66	60.8	60.8	15.4	18.3	B
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1878		4764		0.40		68.2		13.4		B
Facility Time Period Results															
T	Speed, mi/h				Density, pc/mi/ln		Density, veh/mi/ln		Travel Time, min				LOS		
1	65.0				15.6		15.0		3.2				B		
Facility Overall Results															
Space Mean Speed, mi/h					65.0			Density, veh/mi/ln				15.0			
Average Travel Time, min					3.2			Density, pc/mi/ln				15.6			



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		1702		4764		0.36		68.2		12.5		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.952	1702	1602	4800	2100	0.35	0.76	57.6	57.6	14.8	17.1	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		97		4764		0.02		68.2		0.7		A

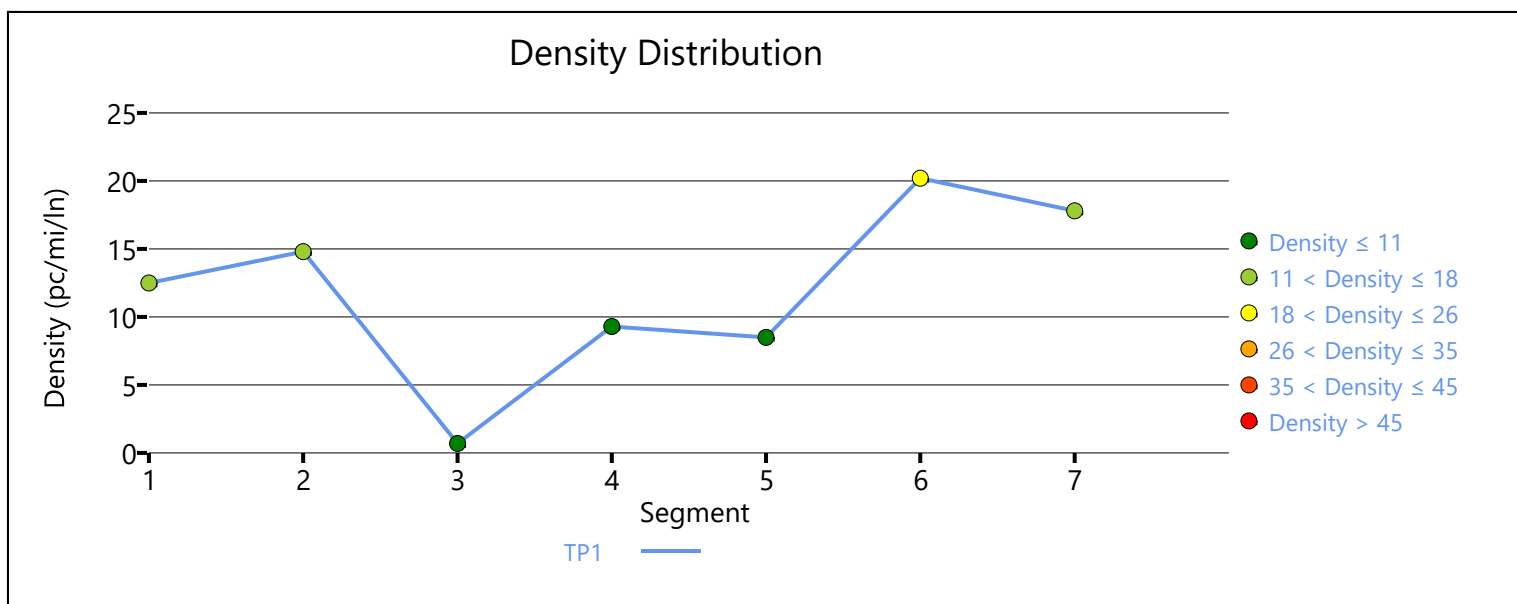
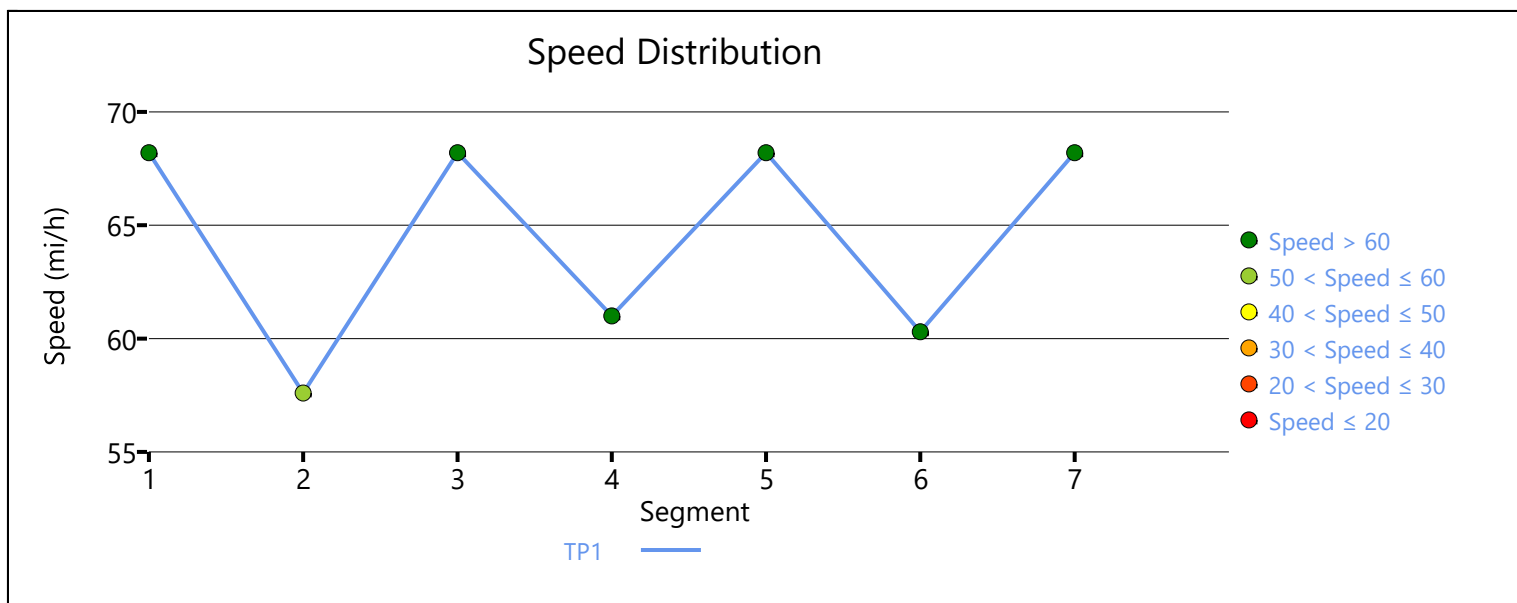
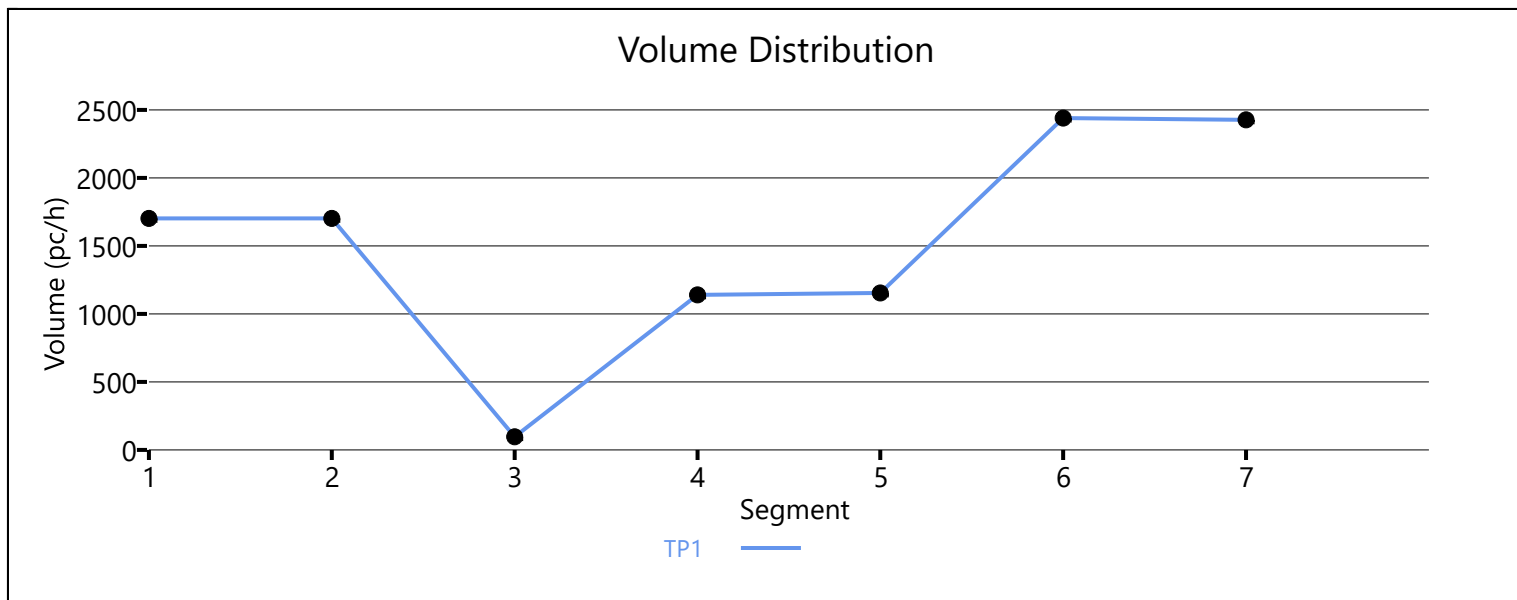
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.962	1140	1043	4800	1900	0.24	0.55	61.0	61.0	9.3	12.7	B

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Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		1154		4764		0.24		68.2		8.5		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	2440	1298	4800	2100	0.51	0.62	60.3	60.3	20.2	22.7	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2427		4764		0.51		68.2		17.8		B
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.8			13.1			12.6			3.1			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.8				Density, veh/mi/ln				12.6		
Average Travel Time, min					3.1				Density, pc/mi/ln				13.1		



APPENDIX 7.8:

OPENING YEAR (2025) WITH PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2493		7161		0.35		68.7		12.1		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.962	2493	580	7200	2100	0.35	0.28	63.7	60.2	13.0	16.3	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1913		7161		0.27		68.7		9.3		A

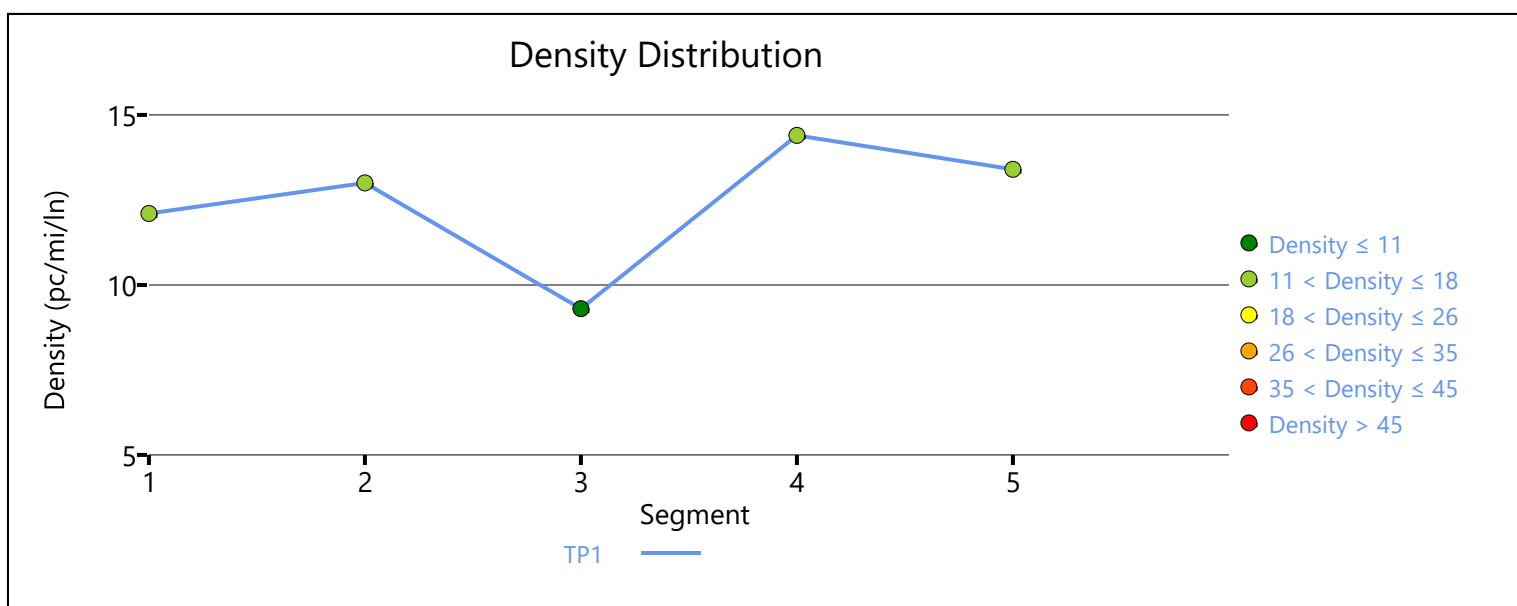
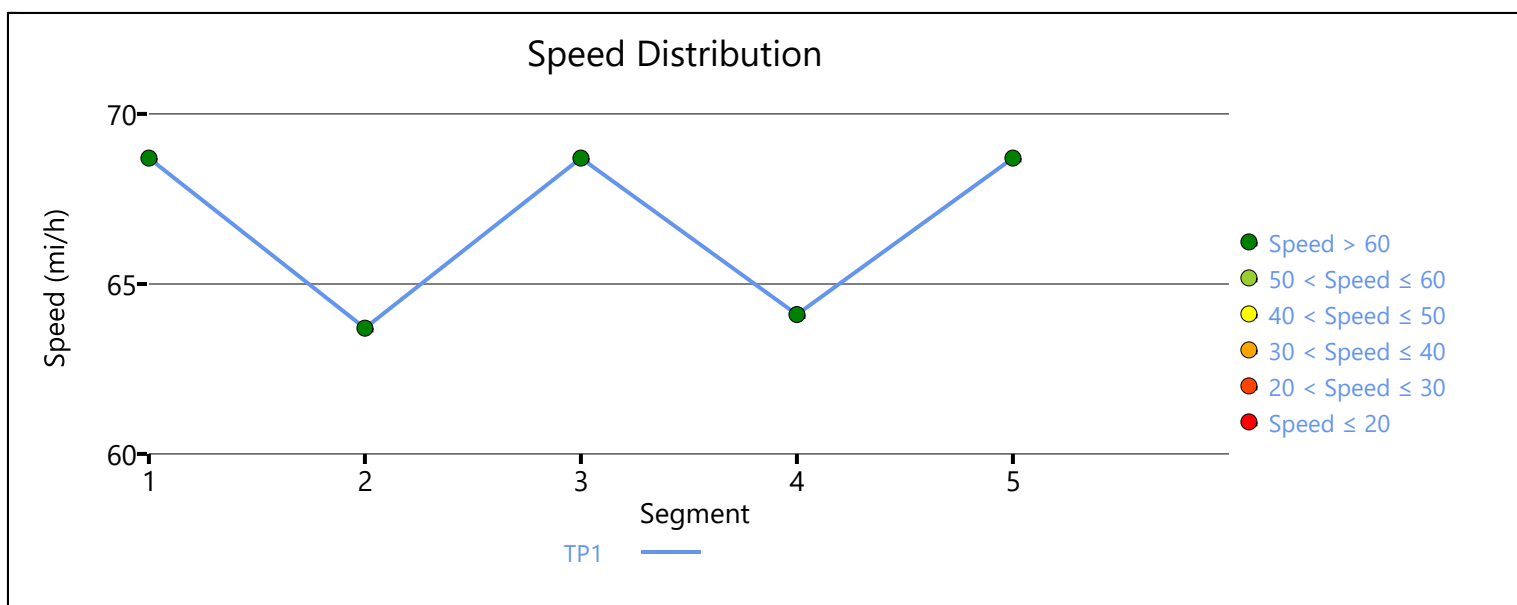
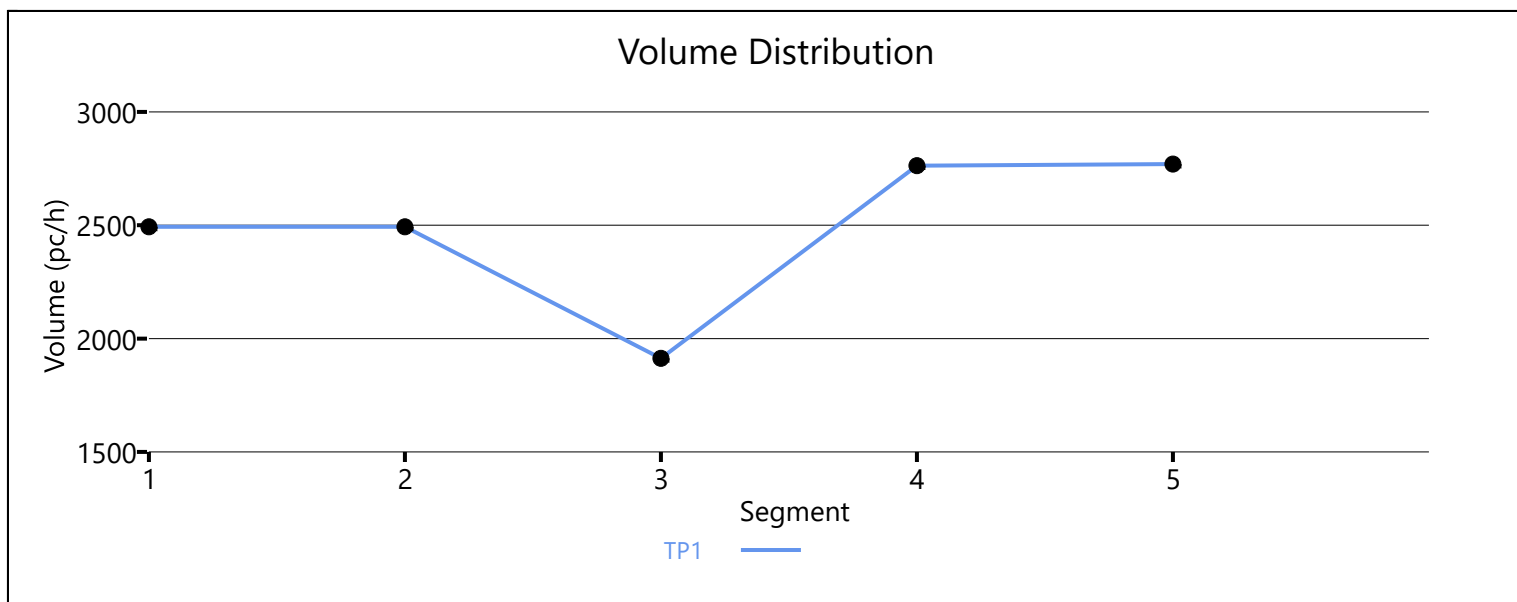
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.971	2763	850	7200	2100	0.38	0.40	64.1	62.4	14.4	15.4	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2770		7161		0.39		68.7		13.4		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	12.3	11.8	2.1	B
Facility Overall Results					
Space Mean Speed, mi/h		67.4	Density, veh/mi/ln		11.8
Average Travel Time, min		2.1	Density, pc/mi/ln		12.3



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		2820		7161		0.39		68.7		13.7		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2820	836	7200	2100	0.39	0.40	63.1	59.6	14.9	18.5	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.901		1997		7161		0.28		68.7		9.7		A

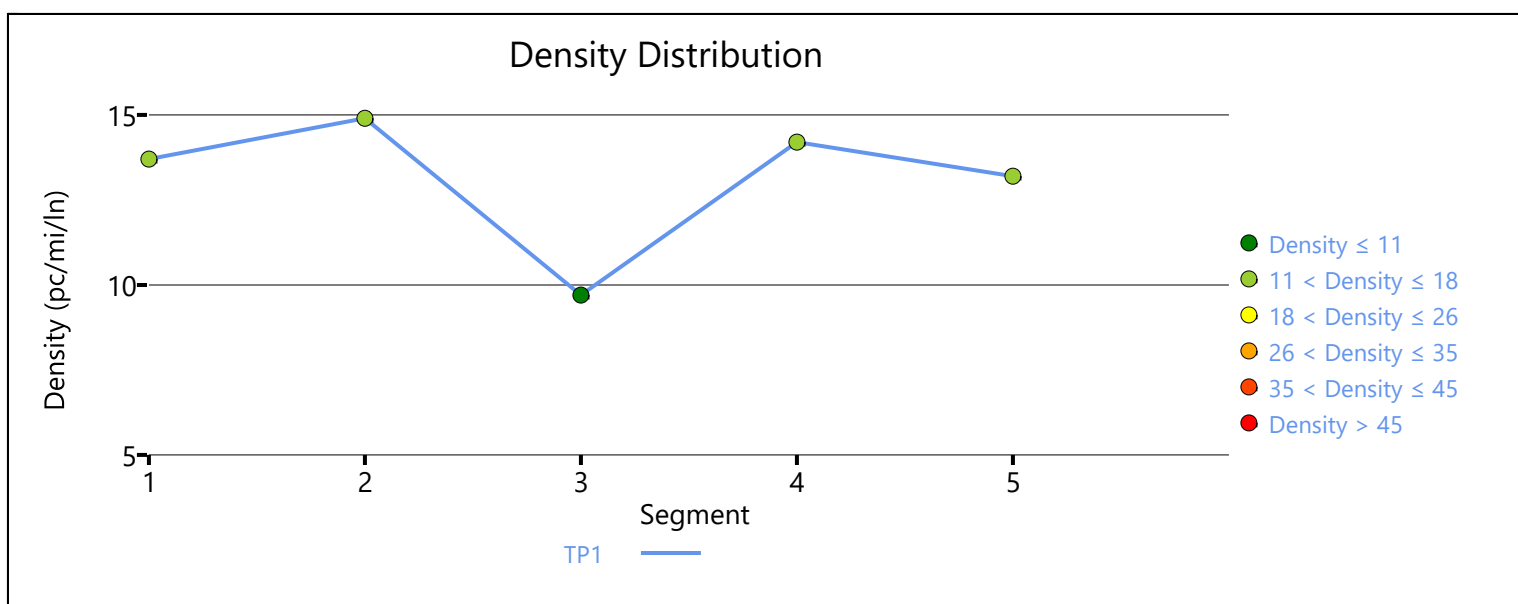
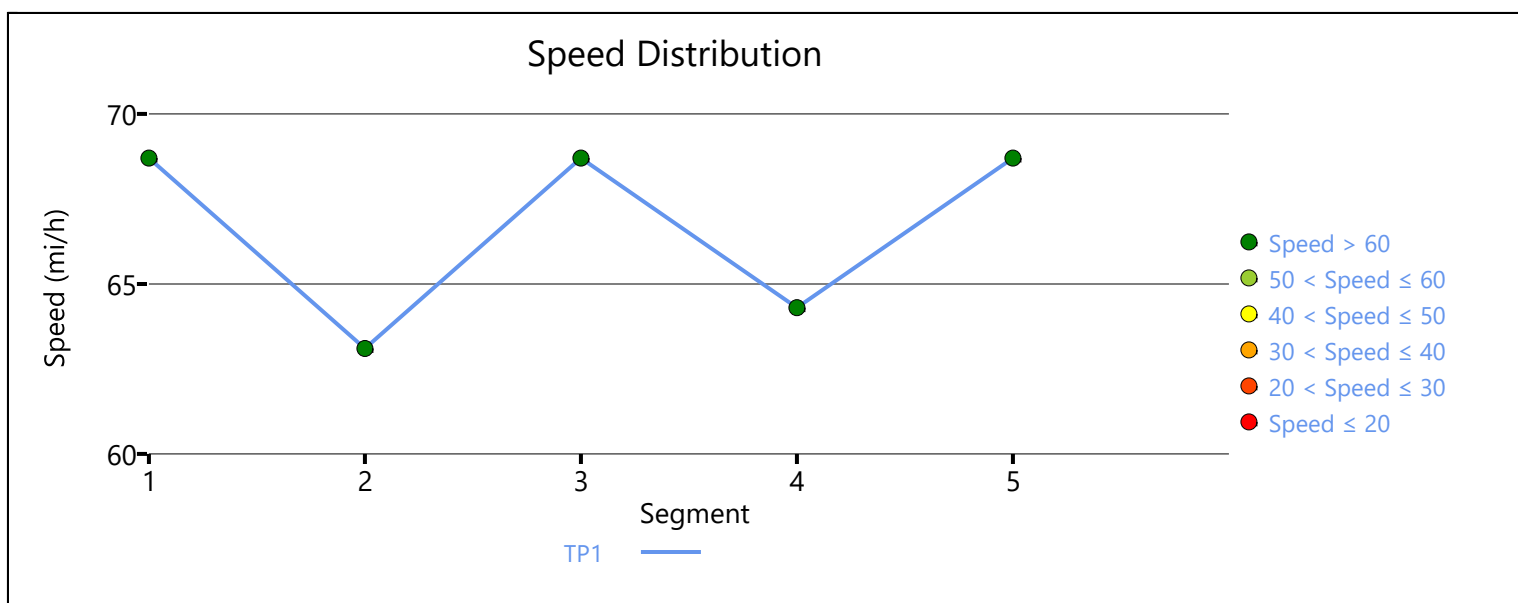
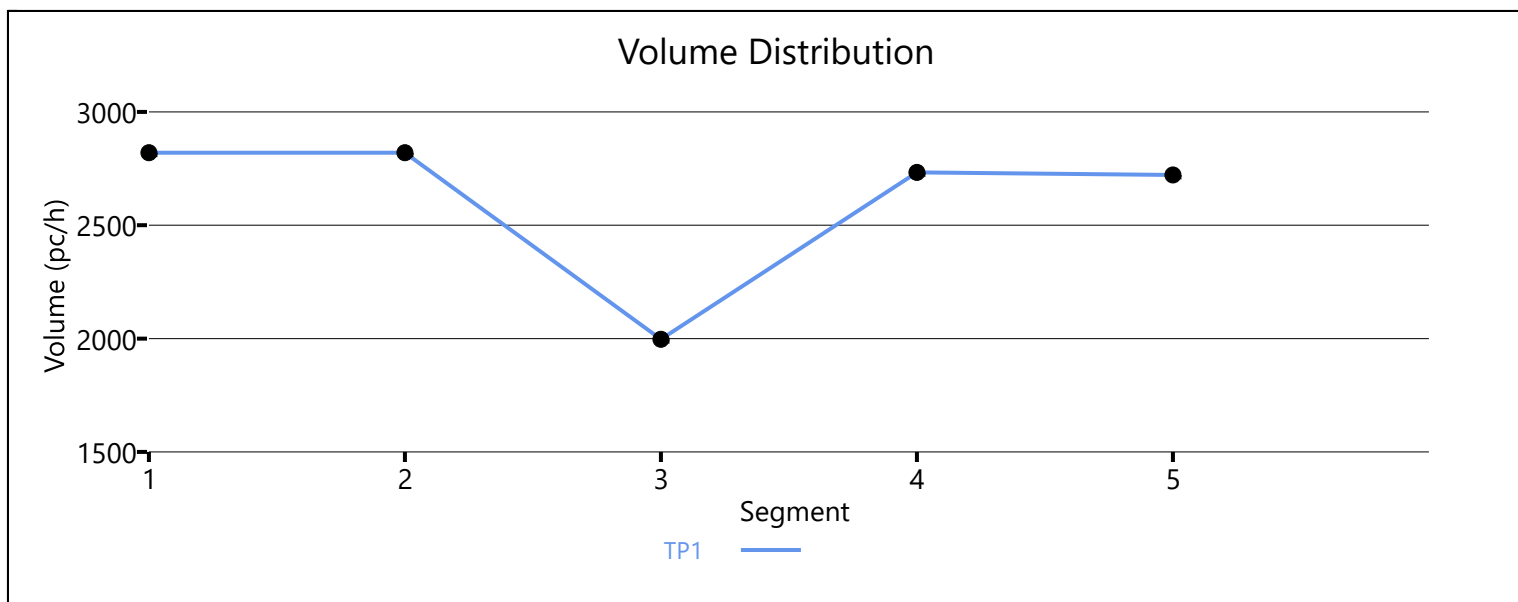
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.980	2733	736	7200	2100	0.38	0.35	64.3	62.6	14.2	14.4	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		2722		7161		0.38		68.7		13.2		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	13.2	12.2	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.4	Density, veh/mi/ln		12.2
Average Travel Time, min		2.2	Density, pc/mi/ln		13.2



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.943		2719		4764		0.57		68.1		20.0		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.935	2719	2247	4800	2100	0.57	1.07	53.3	56.0	45.0	25.8	C

Segment 3: Basic

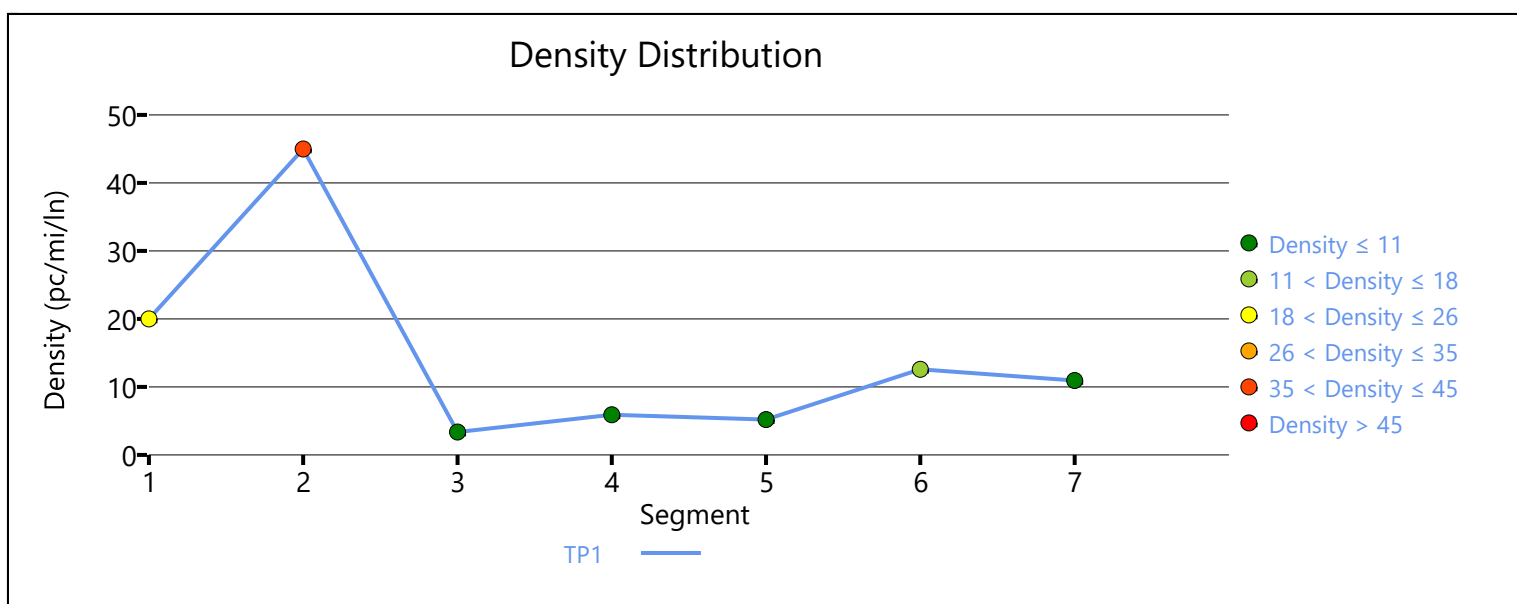
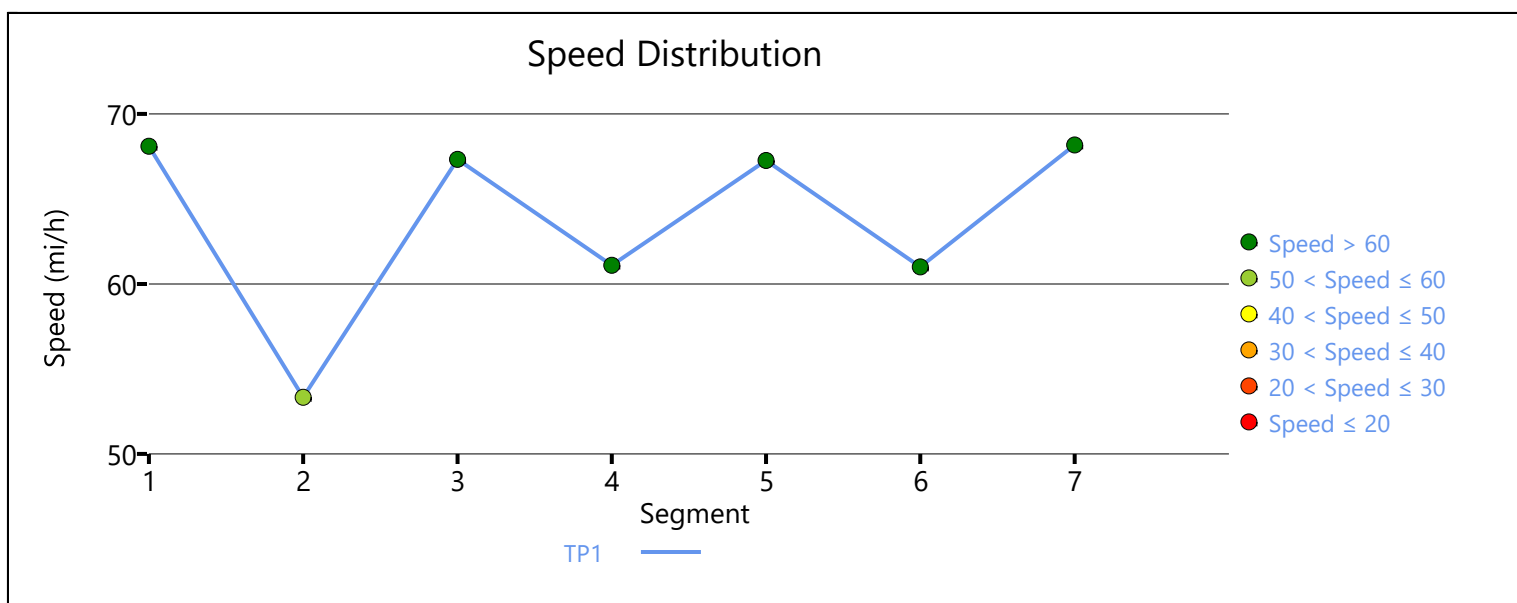
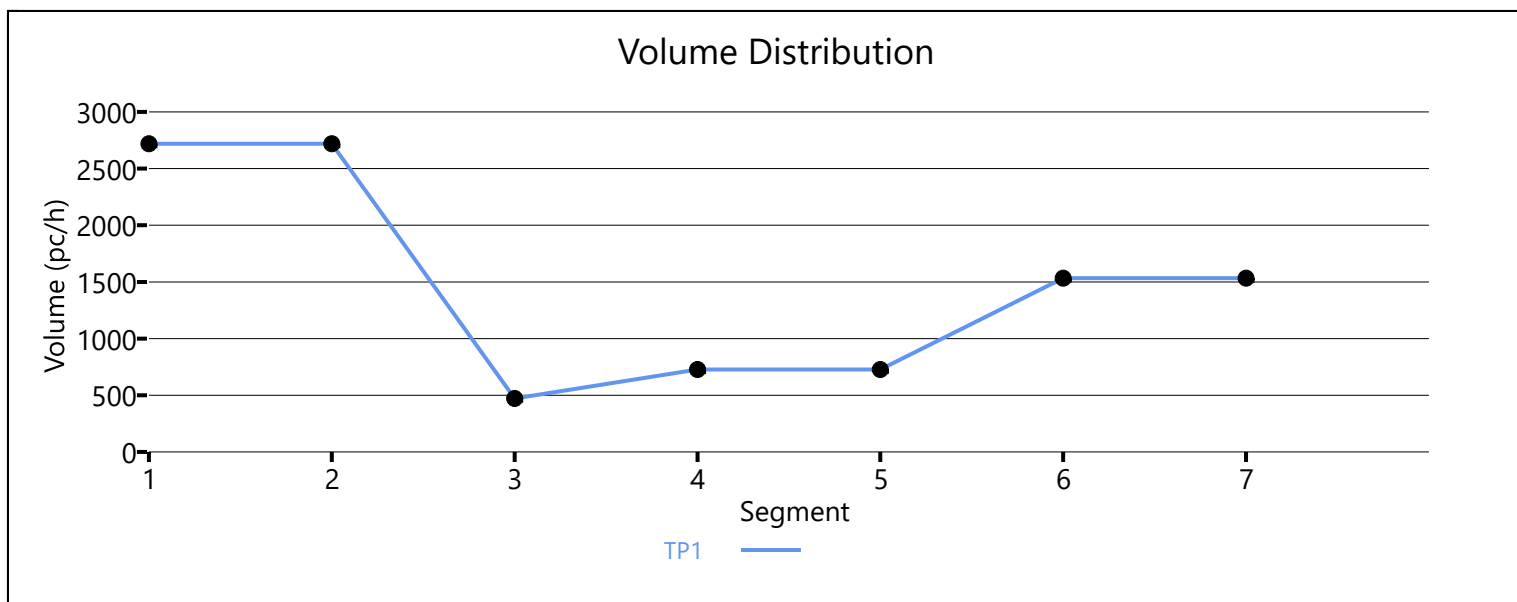
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		472		4764		0.10		67.3		3.4		A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	727	255	4800	1900	0.15	0.13	61.1	61.1	5.9	9.8	A

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		727		4764		0.15		67.3		5.2		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.943	1533	806	4800	2100	0.32	0.38	61.0	61.0	12.6	15.9	B
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		1533		4764		0.32		68.2		11.0		A
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.0			14.8			14.1			3.2			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.0			Density, veh/mi/ln					14.1		
Average Travel Time, min					3.2			Density, pc/mi/ln					14.8		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		1877		4764		0.39		68.2		13.8		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.926	1877	1695	4800	2100	0.39	0.81	57.4	57.4	16.4	18.6	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		168		4764		0.04		68.2		1.2		A

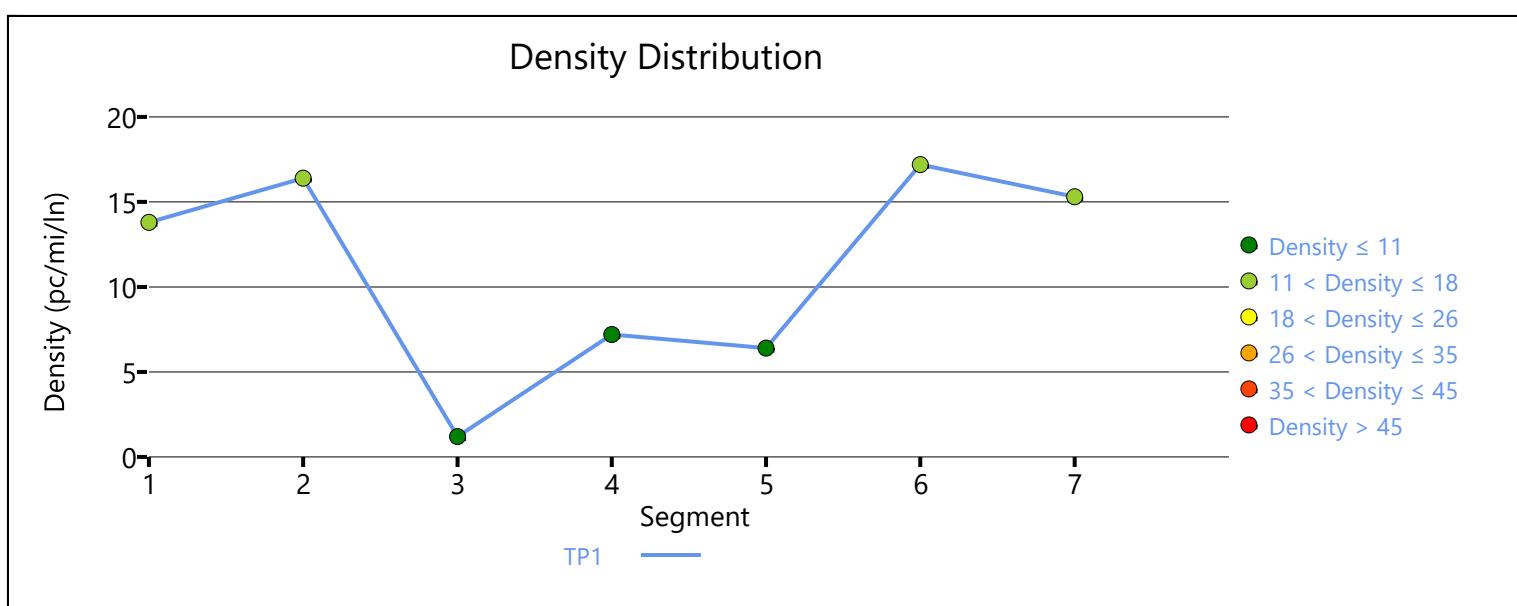
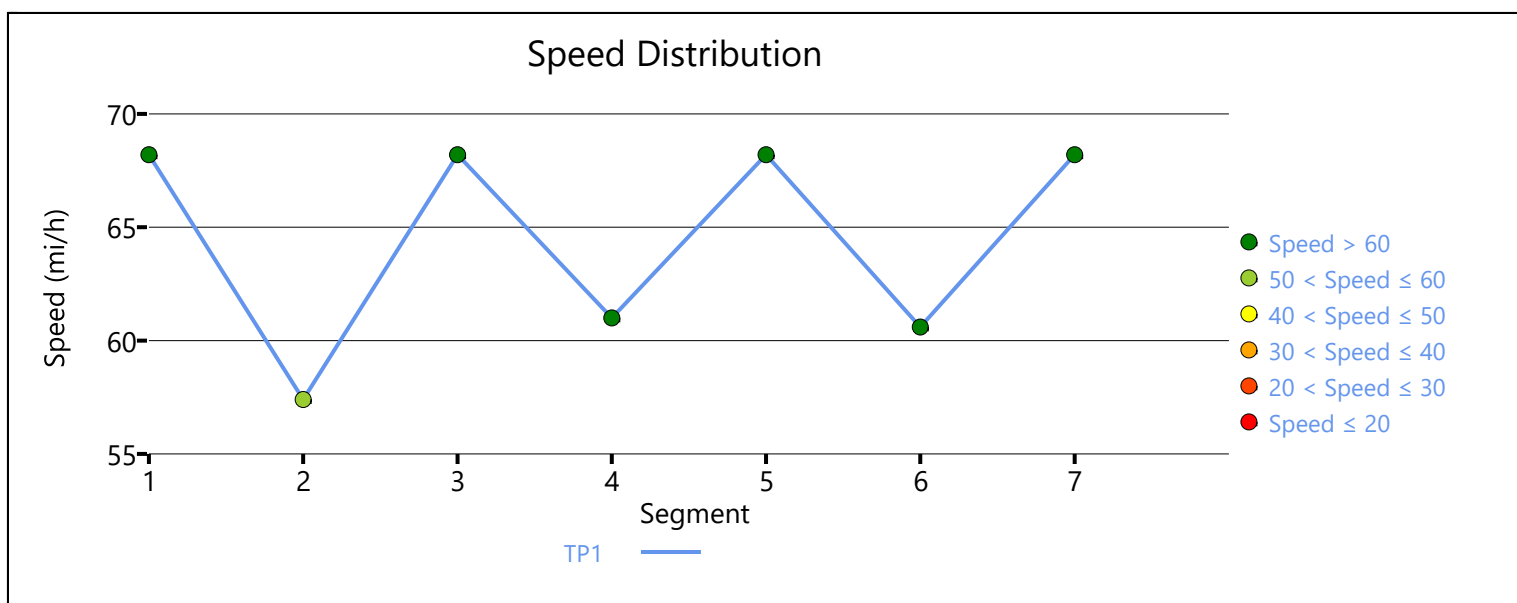
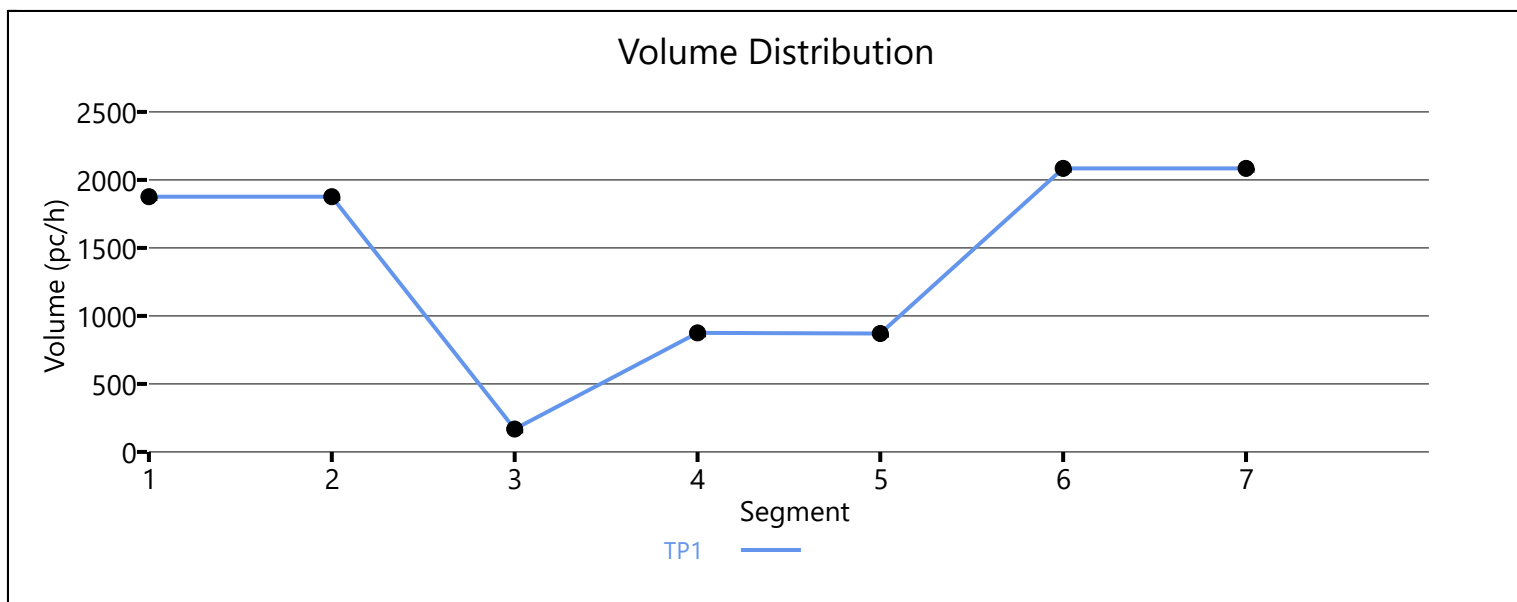
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.935	875	707	4800	1900	0.18	0.37	61.0	61.0	7.2	10.8	B

7.8-10

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		871		4764		0.18		68.2		6.4		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.952	2085	1214	4800	2100	0.43	0.58	60.6	60.6	17.2	20.0	B
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		2085		4764		0.44		68.2		15.3		B
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.8			12.4			11.7			3.1			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.8				Density, veh/mi/ln				11.7		
Average Travel Time, min					3.1				Density, pc/mi/ln				12.4		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3294		7161		0.46		68.7		16.0		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	3294	884	7200	2100	0.46	0.42	63.2	59.4	17.4	21.1	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2416		7161		0.34		68.7		11.7		B

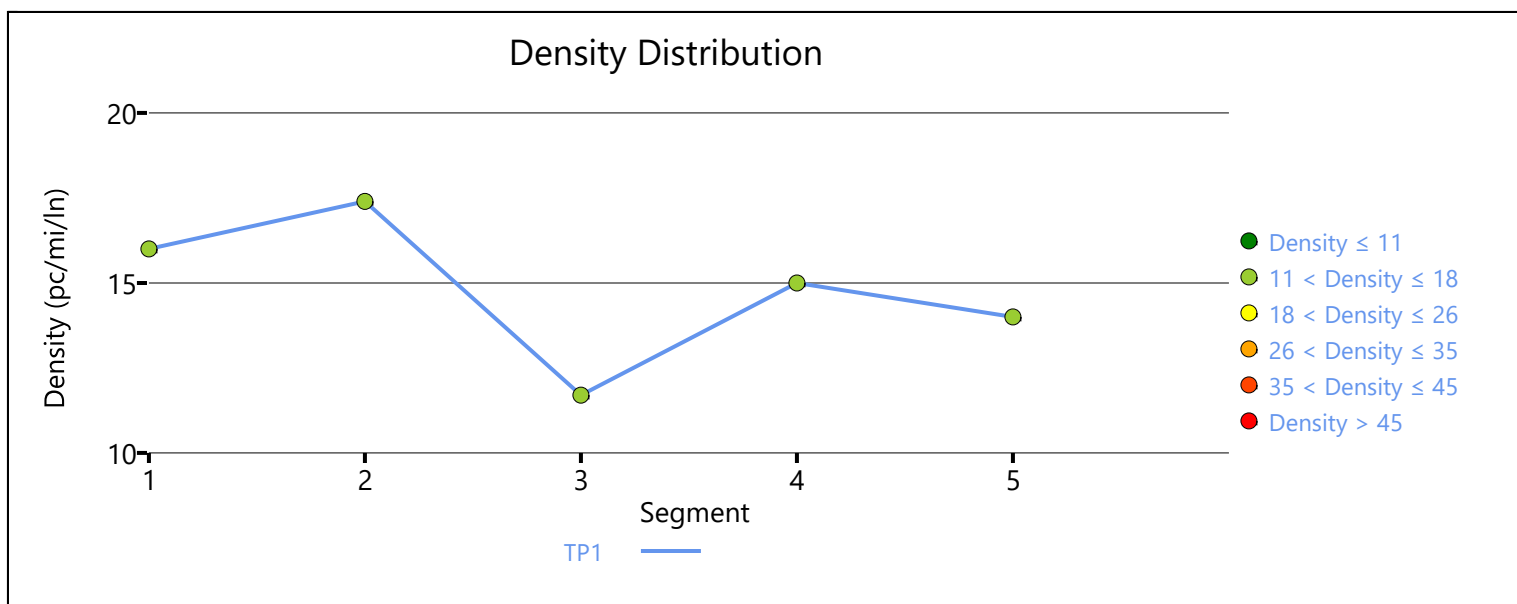
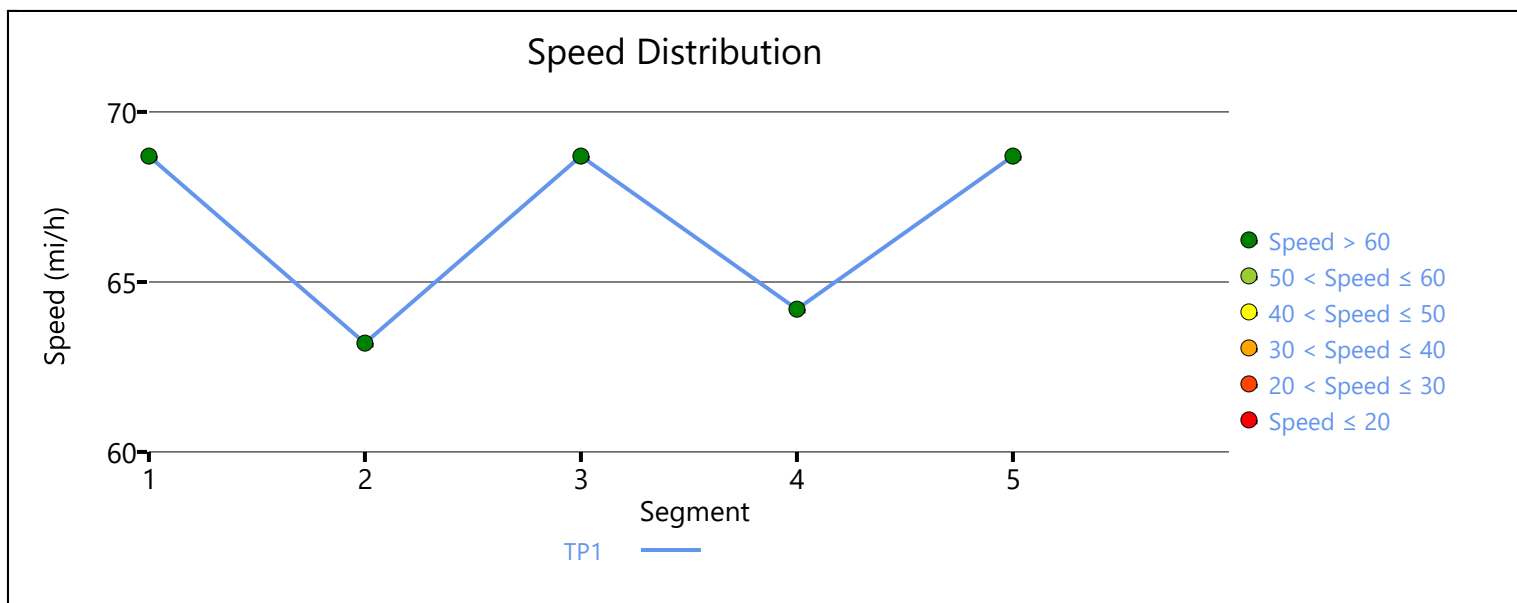
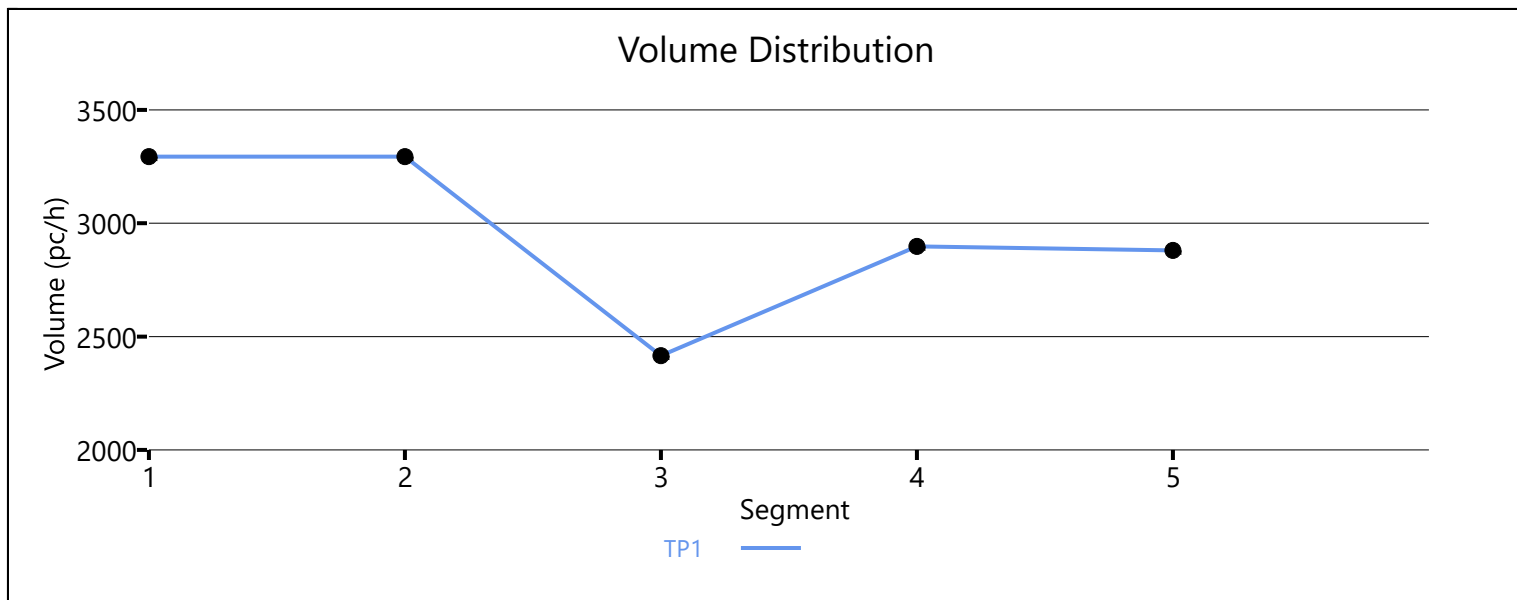
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	2898	482	7200	2100	0.40	0.23	64.2	62.4	15.0	15.1	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		2880		7161		0.40		68.7		14.0		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	15.1	14.6	2.1	B
Facility Overall Results					
Space Mean Speed, mi/h		67.4	Density, veh/mi/ln		14.6
Average Travel Time, min		2.1	Density, pc/mi/ln		15.1



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		3424		7161		0.48		68.7		16.6		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	3424	799	7200	2100	0.48	0.38	63.5	59.6	18.0	21.5	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.917		2628		7161		0.37		68.7		12.8		B

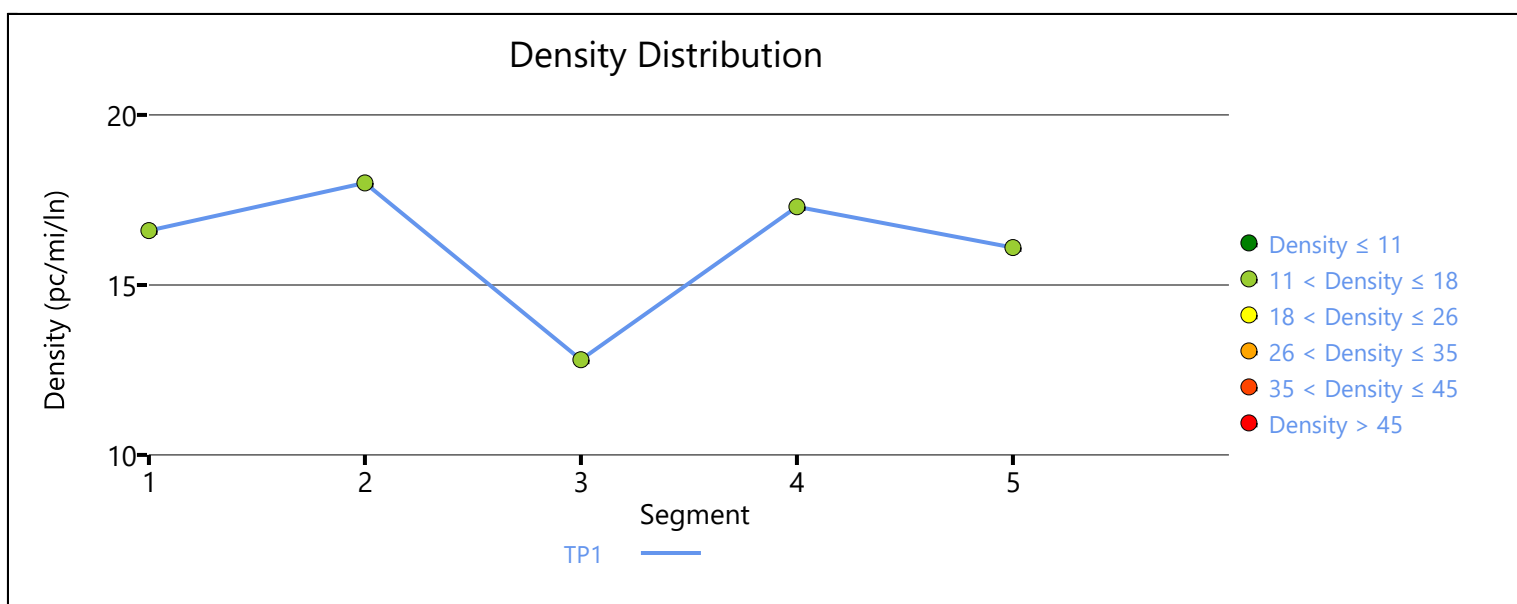
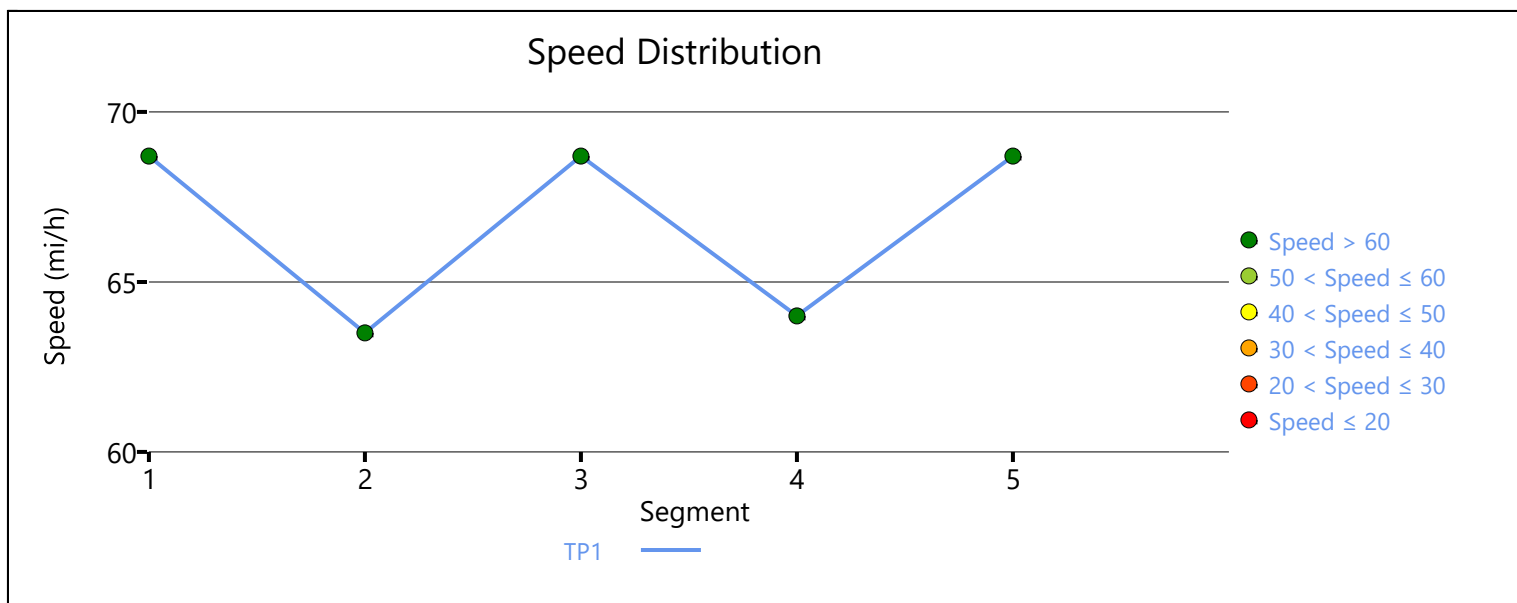
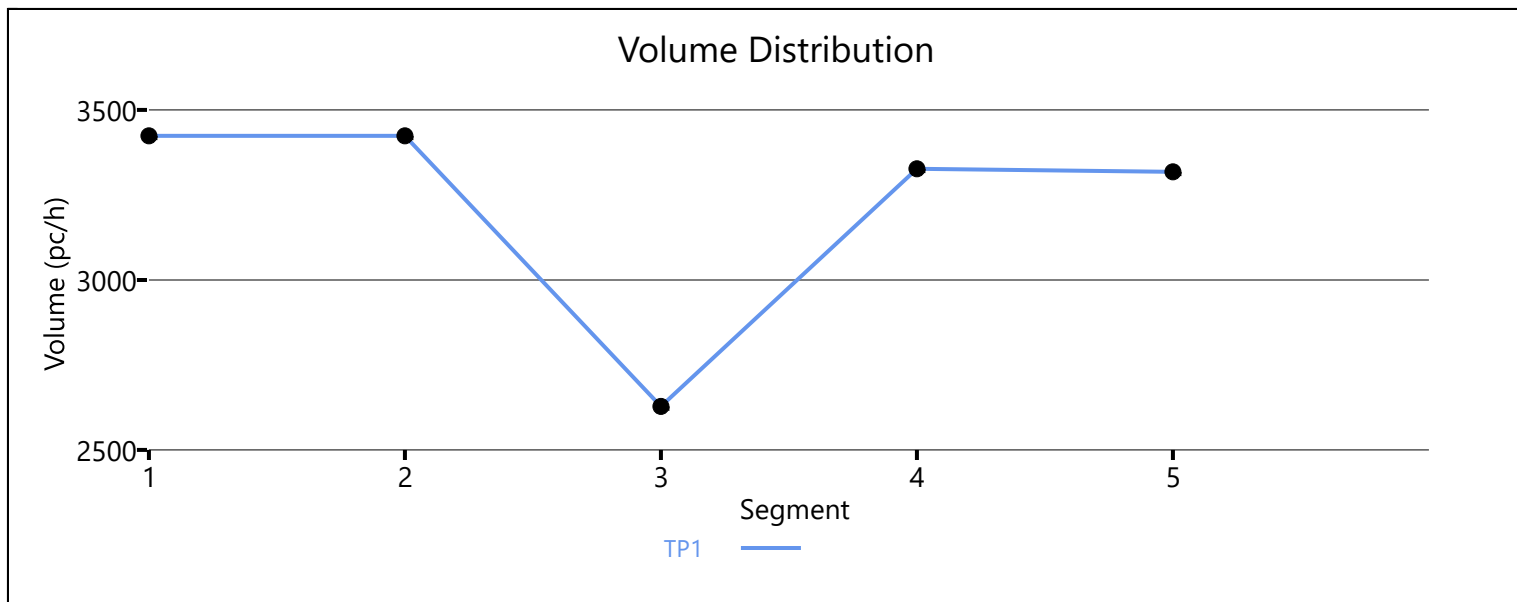
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.990	3327	699	7200	2100	0.46	0.33	64.0	62.3	17.3	17.1	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		3318		7161		0.46		68.7		16.1		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	16.2	15.1	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.4	Density, veh/mi/ln		15.1
Average Travel Time, min		2.2	Density, pc/mi/ln		16.2



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		2954		4764		0.62		67.7		21.8		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.952	2954	2689	4800	2100	0.62	1.28	53.3	54.9	45.0	27.9	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		265		4764		0.05		67.3		1.9		A

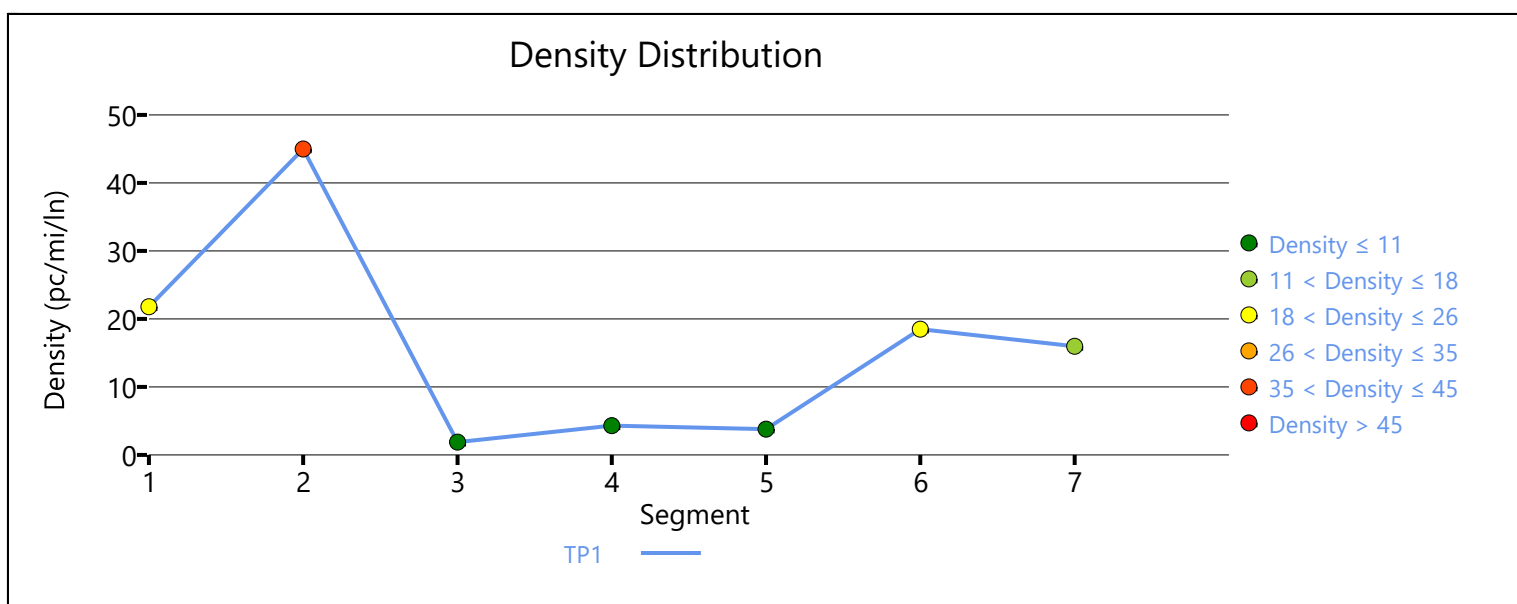
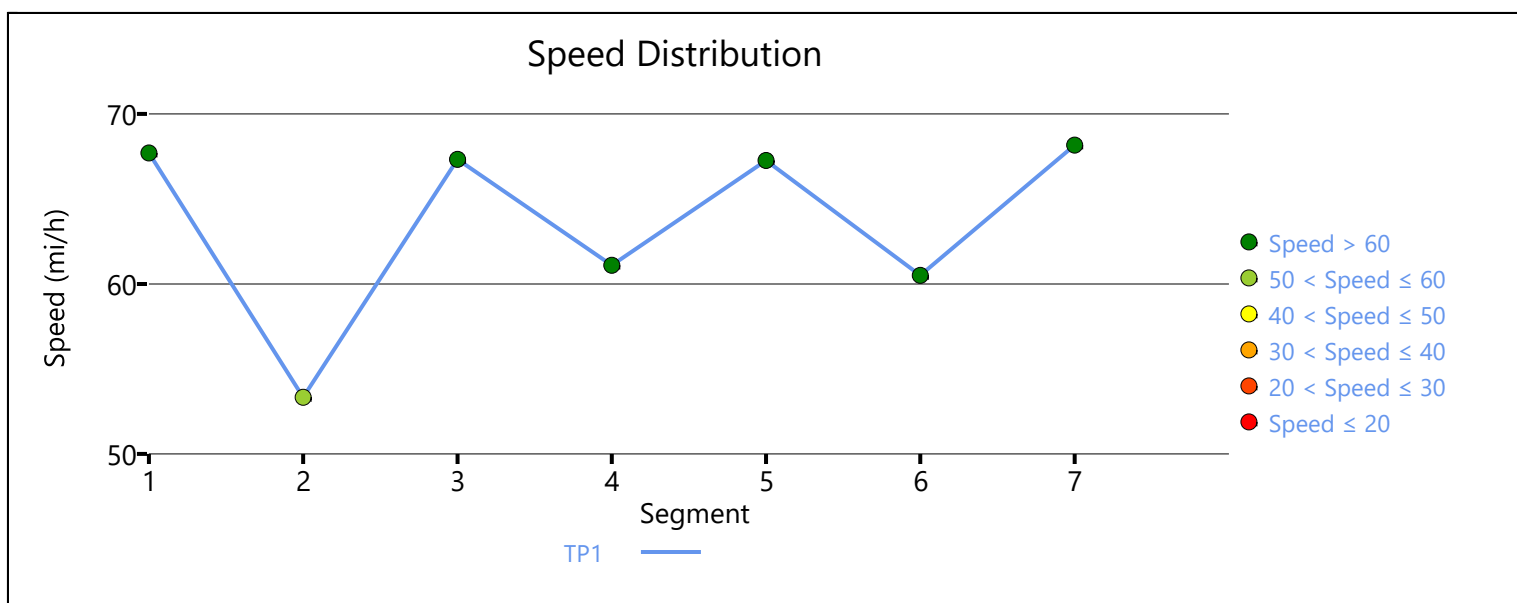
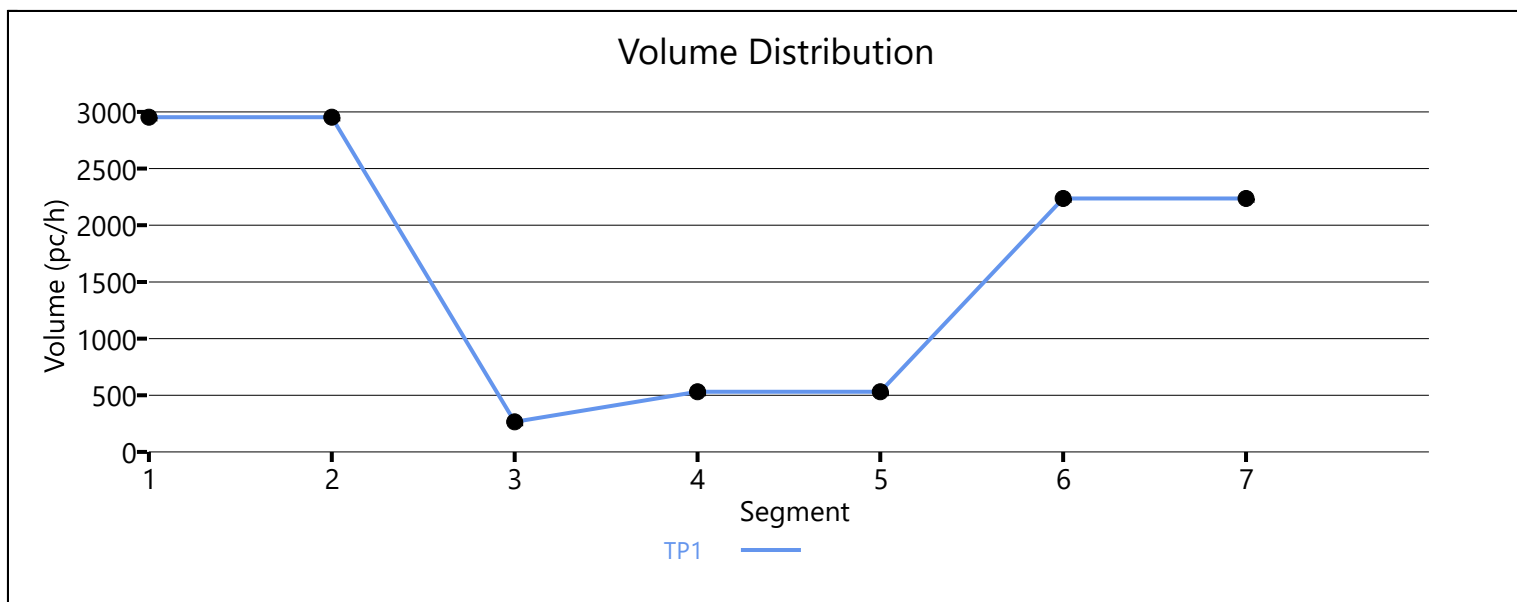
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	531	266	4800	1900	0.11	0.14	61.1	61.1	4.3	8.3	A

7.8-19

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		531		4764		0.11		67.3		3.8		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.926	2237	1706	4800	2100	0.46	0.81	60.5	60.5	18.5	21.0	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		2237		4764		0.47		68.2		16.0		B
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.1			17.0			16.1			3.2			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.1				Density, veh/mi/ln				16.1		
Average Travel Time, min					3.2				Density, pc/mi/ln				17.0		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2025) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		1783		4764		0.37		68.2		13.1		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.943	1783	1699	4800	2100	0.37	0.81	57.4	57.4	15.5	17.8	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		97		4764		0.02		68.2		0.7		A

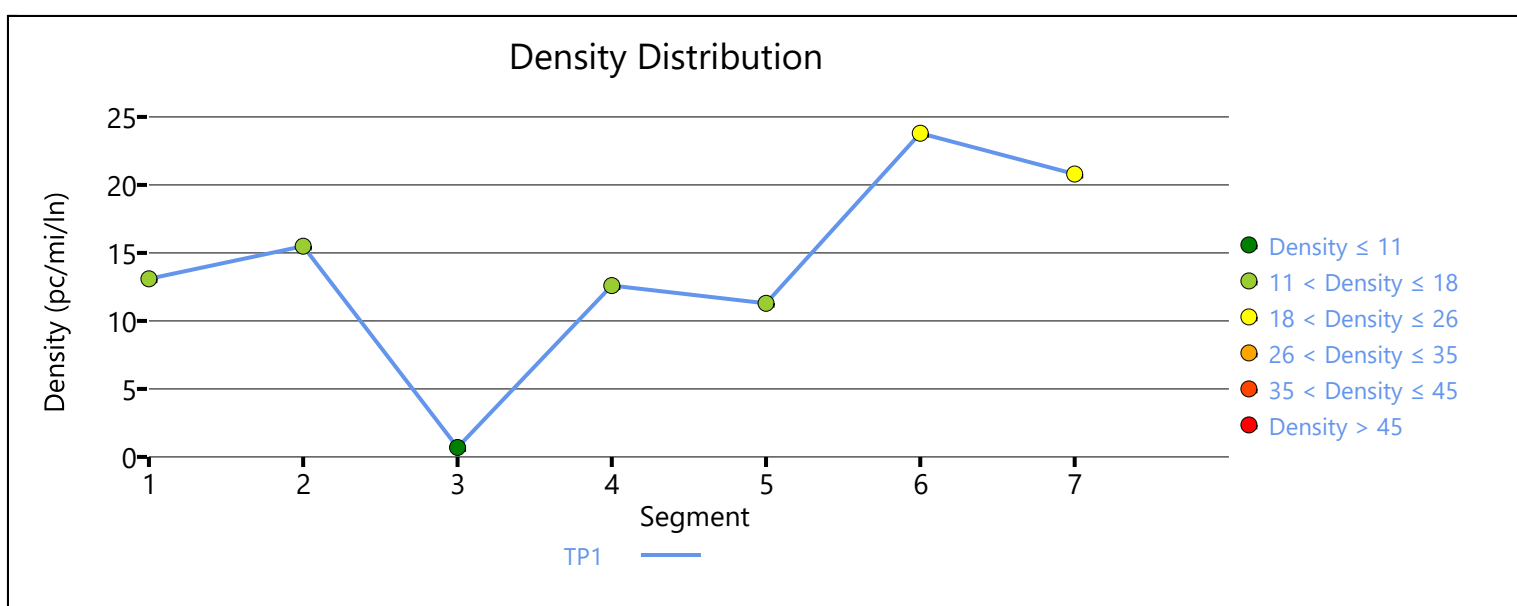
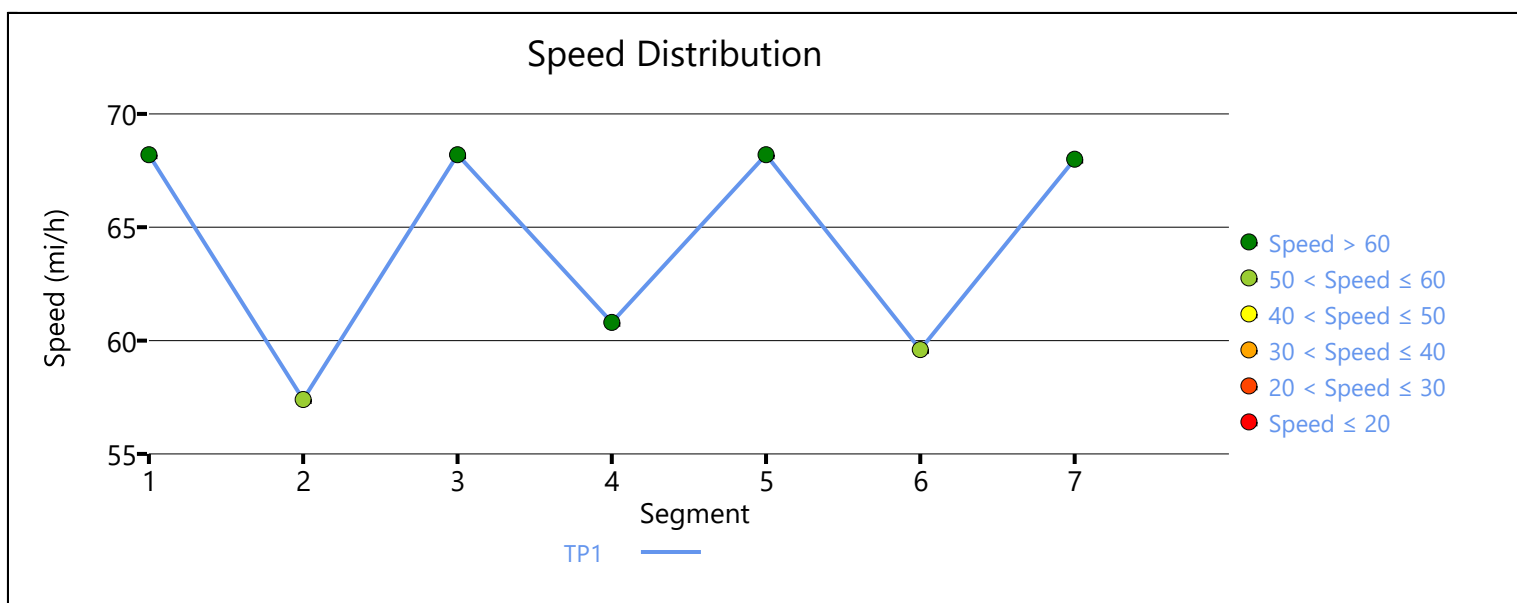
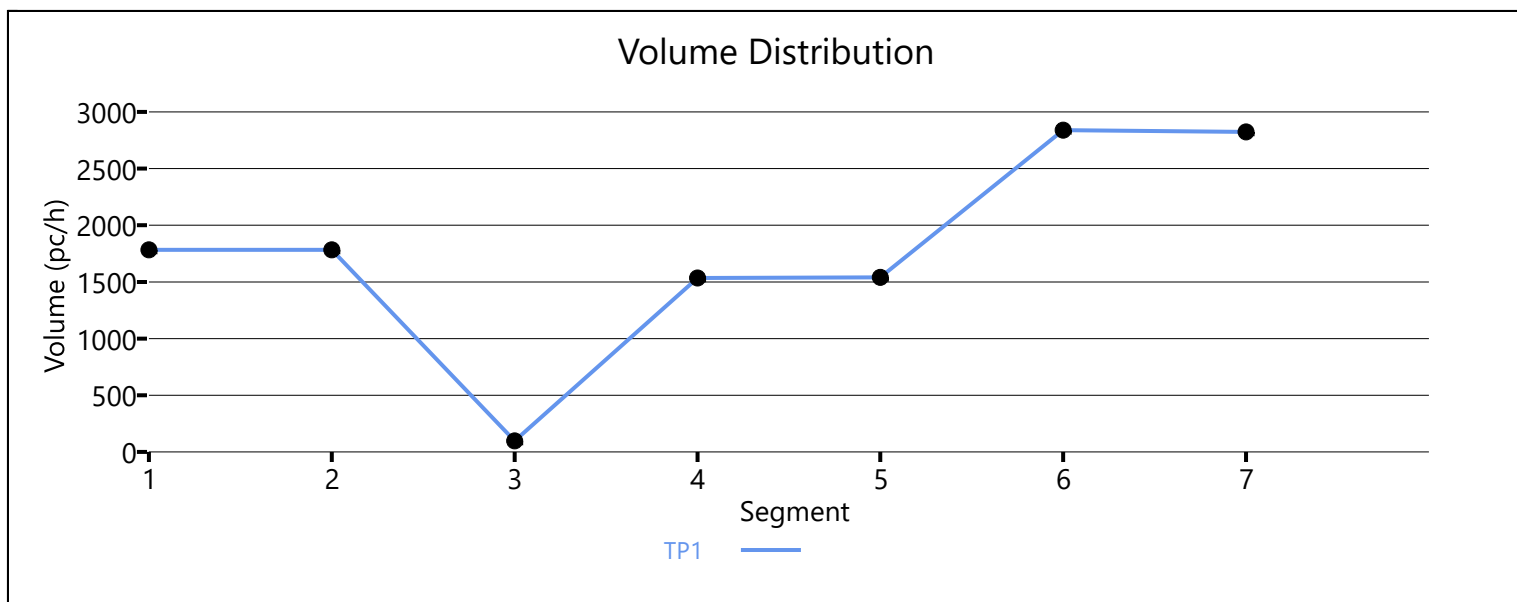
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.926	1535	1438	4800	1900	0.32	0.76	60.8	60.8	12.6	15.6	B

7.8-22

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		1541		4764		0.32		68.2		11.3		B
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.952	2839	1298	4800	2100	0.59	0.62	59.6	59.6	23.8	25.8	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.943		2824		4764		0.59		68.0		20.8		C
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.5			14.9			14.1			3.1			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.5				Density, veh/mi/ln				14.1		
Average Travel Time, min					3.1				Density, pc/mi/ln				14.9		



APPENDIX 7.9:

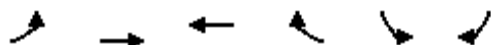
OPENING YEAR (2025) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations	↔↔	↑	↑	↔	↔↔	↔	
Traffic Volume (vph)	53	17	39	29	193	214	
Future Volume (vph)	53	17	39	29	193	214	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	8	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	32.8	33.2	9.6	9.6
Total Split (s)	54.0	77.2	32.8	32.8	33.2	54.0	9.6
Total Split (%)	45.0%	64.3%	27.3%	27.3%	27.7%	45.0%	8%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	4.6	
Lead/Lag	Lead	Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None
Act Effect Green (s)	9.6	18.8	13.1	13.1	13.1	32.1	
Actuated g/C Ratio	0.21	0.42	0.29	0.29	0.29	0.71	
v/c Ratio	0.10	0.03	0.10	0.08	0.27	0.24	
Control Delay	22.5	7.9	14.8	6.4	14.6	1.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	22.5	7.9	14.8	6.4	14.6	1.8	
LOS	C	A	B	A	B	A	
Approach Delay		19.0	11.2		7.9		
Approach LOS		B	B		A		

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 45.2

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.27

Intersection Signal Delay: 9.7

Intersection LOS: A

Intersection Capacity Utilization 30.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: 4th St. & Potrero Bl.

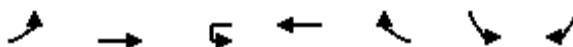


HCM 6th Signalized Intersection Summary

4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	53	17	0	39	29	193	214
Future Volume (veh/h)	53	17	0	39	29	193	214
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	79	25		58	28	288	170
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	277	770		368	312	1013	592
Arrive On Green	0.08	0.39		0.19	0.19	0.28	0.28
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	79	25		58	28	288	170
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	0.7	0.3		0.9	0.5	2.2	2.6
Cycle Q Clear(g_c), s	0.7	0.3		0.9	0.5	2.2	2.6
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	277	770		368	312	1013	592
V/C Ratio(X)	0.29	0.03		0.16	0.09	0.28	0.29
Avail Cap(c_a), veh/h	5004	3915		1480	1254	2735	1381
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.7	6.8		12.3	12.1	10.2	8.4
Incr Delay (d2), s/veh	0.2	0.0		0.2	0.1	0.2	0.3
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1		0.3	0.1	0.6	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	15.9	6.8		12.5	12.3	10.4	8.7
LnGrp LOS	B	A		B	B	B	A
Approach Vol, veh/h		104		86		458	
Approach Delay, s/veh		13.7		12.4		9.7	
Approach LOS		B		B		A	
Timer - Assigned Phs				4		6	7 8
Phs Duration (G+Y+Rc), s				19.8		16.2	7.3 12.5
Change Period (Y+Rc), s				5.8		6.2	4.6 5.8
Max Green Setting (Gmax), s				71.4		27.0	49.4 27.0
Max Q Clear Time (g_c+I1), s				2.3		4.6	2.7 2.9
Green Ext Time (p_c), s				0.1		1.5	0.1 0.3

Intersection Summary

HCM 6th Ctrl Delay	10.7
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	69	498	403	519
Future Volume (vph)	69	498	403	519
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	10.0	38.2	28.2	41.8
Total Split (%)	12.5%	47.8%	35.3%	52.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effect Green (s)	5.6	25.6	18.2	28.9
Actuated g/C Ratio	0.08	0.38	0.27	0.43
v/c Ratio	0.53	0.79	0.57	0.86
Control Delay	49.8	28.5	17.1	31.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	49.8	28.5	17.1	31.0
LOS	D	C	B	C
Approach Delay		31.1	17.1	31.0
Approach LOS		C	B	C

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 67.2

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 25.5

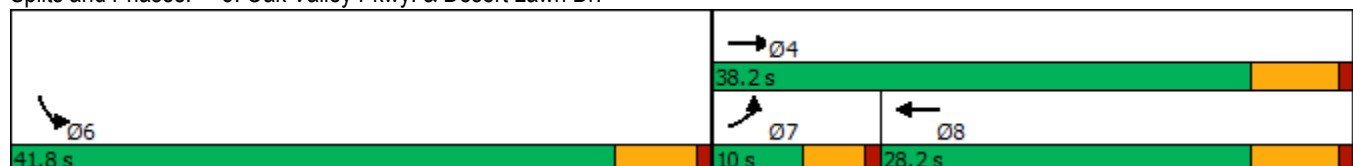
Intersection LOS: C

Intersection Capacity Utilization 68.8%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

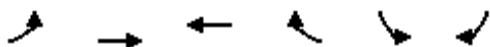


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	69	498	403	345	519	63
Future Volume (veh/h)	69	498	403	345	519	63
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	79	572	463	397	597	72
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	103	788	1004	468	652	79
Arrive On Green	0.06	0.41	0.29	0.29	0.41	0.41
Sat Flow, veh/h	1810	1900	3629	1610	1591	192
Grp Volume(v), veh/h	79	572	463	397	670	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1786	0
Q Serve(g_s), s	2.9	17.2	7.5	15.8	24.2	0.0
Cycle Q Clear(g_c), s	2.9	17.2	7.5	15.8	24.2	0.0
Prop In Lane	1.00			1.00	0.89	0.11
Lane Grp Cap(c), veh/h	103	788	1004	468	731	0
V/C Ratio(X)	0.77	0.73	0.46	0.85	0.92	0.00
Avail Cap(c_a), veh/h	143	891	1115	519	942	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.7	16.7	19.8	22.8	19.0	0.0
Incr Delay (d2), s/veh	9.3	2.6	0.3	11.7	11.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	6.5	2.7	6.7	10.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	41.0	19.3	20.2	34.5	30.4	0.0
LnGrp LOS	D	B	C	C	C	A
Approach Vol, veh/h		651	860		670	
Approach Delay, s/veh		22.0	26.8		30.4	
Approach LOS		C	C		C	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			34.5		33.7	8.5
Change Period (Y+Rc), s			6.2		5.8	4.6
Max Green Setting (Gmax), s			32.0		36.0	5.4
Max Q Clear Time (g_c+I1), s			19.2		26.2	4.9
Green Ext Time (p_c), s			2.6		1.8	0.0
Intersection Summary						
HCM 6th Ctrl Delay			26.4			
HCM 6th LOS			C			
Notes						

User approved volume balancing among the lanes for turning movement.

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations	↑↑	↑	↙	↑	↘	↑
Traffic Volume (vph)	517	500	274	620	274	3
Future Volume (vph)	517	500	274	620	274	3
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	31.0	31.0	28.0	59.0	31.0	31.0
Total Split (%)	34.4%	34.4%	31.1%	65.6%	34.4%	34.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effect Green (s)	34.6	34.6	19.0	58.2	20.2	20.2
Actuated g/C Ratio	0.38	0.38	0.21	0.65	0.22	0.22
v/c Ratio	0.42	0.58	0.81	0.57	0.76	0.31
Control Delay	23.5	5.2	47.8	6.8	44.8	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	5.2	47.8	6.8	44.8	6.7
LOS	C	A	D	A	D	A
Approach Delay	14.5			19.3		32.5
Approach LOS	B			B		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 19.5

Intersection LOS: B

Intersection Capacity Utilization 77.1%

ICU Level of Service D

Analysis Period (min) 15

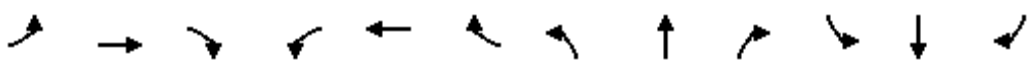
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

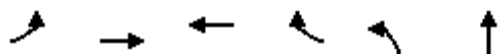
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑					↖	↗	
Traffic Volume (veh/h)	0	517	500	274	620	0	0	0	0	274	3	128
Future Volume (veh/h)	0	517	500	274	620	0	0	0	0	274	3	128
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	581	475	308	697	0				308	3	125
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1559	695	343	1278	0				359	8	313
Arrive On Green	0.00	0.43	0.43	0.25	0.89	0.00				0.20	0.20	0.20
Sat Flow, veh/h	0	3705	1610	1810	1900	0				1810	38	1578
Grp Volume(v), veh/h	0	581	475	308	697	0				308	0	128
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1900	0				1810	0	1616
Q Serve(g_s), s	0.0	9.8	21.4	14.8	6.8	0.0				14.8	0.0	6.2
Cycle Q Clear(g_c), s	0.0	9.8	21.4	14.8	6.8	0.0				14.8	0.0	6.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.98
Lane Grp Cap(c), veh/h	0	1559	695	343	1278	0				359	0	321
V/C Ratio(X)	0.00	0.37	0.68	0.90	0.55	0.00				0.86	0.00	0.40
Avail Cap(c_a), veh/h	0	1559	695	470	1278	0				507	0	452
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.45	0.45	0.60	0.60	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.3	20.6	32.8	1.9	0.0				34.8	0.0	31.4
Incr Delay (d2), s/veh	0.0	0.3	2.5	8.5	1.0	0.0				10.0	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.8	7.6	6.4	1.5	0.0				7.1	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	17.6	23.1	41.3	2.9	0.0				44.9	0.0	32.2
LnGrp LOS	A	B	C	D	A	A				D	A	C
Approach Vol, veh/h	1056			1005			436					
Approach Delay, s/veh	20.1			14.7			41.1					
Approach LOS	C			B			D					
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	21.7	44.7		23.7		66.3						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	23.4	25.2		25.2		53.2						
Max Q Clear Time (g_c+I1), s	16.8	23.4		16.8		8.8						
Green Ext Time (p_c), s	0.3	1.0		1.1		5.0						
Intersection Summary												
HCM 6th Ctrl Delay				21.6								
HCM 6th LOS				C								

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations	←	→	←	→	←	→
Traffic Volume (vph)	170	621	534	473	361	4
Future Volume (vph)	170	621	534	473	361	4
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	19.0	60.0	41.0	41.0	30.0	30.0
Total Split (%)	21.1%	66.7%	45.6%	45.6%	33.3%	33.3%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effect Green (s)	12.0	47.8	31.1	31.1	30.6	30.6
Actuated g/C Ratio	0.13	0.53	0.35	0.35	0.34	0.34
v/c Ratio	0.72	0.63	0.83	0.55	0.60	0.56
Control Delay	51.7	21.6	38.3	4.5	32.1	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	21.6	38.3	4.5	32.1	12.4
LOS	D	C	D	A	C	B
Approach Delay		28.0	22.4			21.7
Approach LOS		C	C			C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 23.9

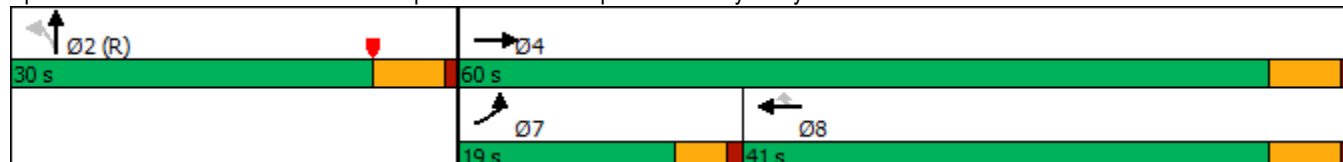
Intersection LOS: C

Intersection Capacity Utilization 77.1%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	621	0	0	534	473	361	4	398	0	0	0
Future Volume (veh/h)	170	621	0	0	534	473	361	4	398	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	173	634	0	0	545	367	368	4	284			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	208	937	0	0	621	526	684	8	602			
Arrive On Green	0.12	0.49	0.00	0.00	0.33	0.33	0.38	0.38	0.38			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1810	22	1591			
Grp Volume(v), veh/h	173	634	0	0	545	367	368	0	288			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1810	0	1614			
Q Serve(g_s), s	8.4	22.8	0.0	0.0	24.4	17.9	14.3	0.0	12.2			
Cycle Q Clear(g_c), s	8.4	22.8	0.0	0.0	24.4	17.9	14.3	0.0	12.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	208	937	0	0	621	526	684	0	610			
V/C Ratio(X)	0.83	0.68	0.00	0.00	0.88	0.70	0.54	0.00	0.47			
Avail Cap(c_a), veh/h	290	1144	0	0	743	630	684	0	610			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.83	0.83	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	39.0	17.4	0.0	0.0	28.6	26.4	21.9	0.0	21.2			
Incr Delay (d2), s/veh	8.2	1.0	0.0	0.0	10.2	2.7	3.0	0.0	2.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.0	8.9	0.0	0.0	11.9	6.7	6.1	0.0	4.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.2	18.4	0.0	0.0	38.8	29.1	24.9	0.0	23.8			
LnGrp LOS	D	B	A	A	D	C	C	A	C			
Approach Vol, veh/h	807			912			656					
Approach Delay, s/veh	24.5			34.9			24.4					
Approach LOS	C			C			C					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	39.8			50.2			15.0			35.2		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	24.2			54.2			14.4			35.2		
Max Q Clear Time (g_c+I1), s	16.3			24.8			10.4			26.4		
Green Ext Time (p_c), s	1.8			4.1			0.1			3.1		
Intersection Summary												
HCM 6th Ctrl Delay	28.5											
HCM 6th LOS	C											

Intersection														
Int Delay, s/veh	2.5													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SER
Lane Configurations	↰	↰↱		↰	↰↱				↰			↰		
Traffic Vol, veh/h	5	586	152	164	937	28	0	0	66	0	0	167	0	0
Future Vol, veh/h	5	586	152	164	937	28	0	0	66	0	0	167	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	-	-	None	-	-	-	-	-
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	644	167	180	1030	31	0	0	73	0	0	184	0	0
Major/Minor	Major1			Major2			Minor1			Minor2				
Conflicting Flow All	1061	0	0	811	0	0	-	-	406	-	-	531		
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-		
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9		
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-		
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3		
Pot Cap-1 Maneuver	664	-	-	824	-	-	0	0	600	0	0	498		
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-		
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-		
Platoon blocked, %		-	-		-	-								
Mov Cap-1 Maneuver	664	-	-	824	-	-	-	-	600	-	-	498		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-		
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-		
Approach	EB			WB			NB			SB				
HCM Control Delay, s	0.1			1.5			11.8			16.4				
HCM LOS							B			C				
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1						
Capacity (veh/h)	600	664	-	-	824	-	-	498						
HCM Lane V/C Ratio	0.121	0.008	-	-	0.219	-	-	0.369						
HCM Control Delay (s)	11.8	10.5	-	-	10.6	-	-	16.4						
HCM Lane LOS	B	B	-	-	B	-	-	C						
HCM 95th %tile Q(veh)	0.4	0	-	-	0.8	-	-	1.7						

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations												
Traffic Volume (vph)	35	47	25	3	283	75	30	6	23	32	99	
Future Volume (vph)	35	47	25	3	283	75	30	6	23	32	99	
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm	
Protected Phases	7	4		3	8		2			6		
Permitted Phases			4			2		2	6		6	
Detector Phase	7	4	4	3	8	2	2	2	6	6	6	
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8	
Total Split (s)	10.0	35.4	35.4	9.6	35.0	35.0	35.0	35.0	35.0	35.0	35.0	
Total Split (%)	12.5%	44.3%	44.3%	12.0%	43.8%	43.8%	43.8%	43.8%	43.8%	43.8%	43.8%	
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8	
Lead/Lag	Lead	Lag	Lag	Lead	Lag							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes							
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min	
Act Effct Green (s)	5.8	18.1	18.1	5.6	16.3		13.6	13.6	13.6	13.6	13.6	
Actuated g/C Ratio	0.13	0.39	0.39	0.12	0.36		0.30	0.30	0.30	0.30	0.30	
v/c Ratio	0.21	0.08	0.05	0.02	0.60		0.33	0.01	0.08	0.08	0.23	
Control Delay	27.7	10.6	0.1	27.7	17.9		17.7	0.0	15.8	15.2	5.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	27.7	10.6	0.1	27.7	17.9		17.7	0.0	15.8	15.2	5.0	
LOS	C	B	A	C	B		B	A	B	B	A	
Approach Delay		13.8			18.0		16.7			8.8		
Approach LOS		B			B		B			A		

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 45.9

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 15.0

Intersection LOS: B

Intersection Capacity Utilization 47.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.

 Ø2	 Ø3	 Ø4
35 s	9.6 s	35.4 s
 Ø6	 Ø7	 Ø8
35 s	10 s	35 s

HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	47	25	3	283	21	75	30	6	23	32	99
Future Volume (veh/h)	35	47	25	3	283	21	75	30	6	23	32	99
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	47	63	33	4	377	28	100	40	8	31	43	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	92	648	549	10	516	38	400	136	402	425	474	
Arrive On Green	0.05	0.34	0.34	0.01	0.30	0.30	0.25	0.25	0.25	0.25	0.25	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1747	130	987	546	1610	1379	1900	1610
Grp Volume(v), veh/h	47	63	33	4	0	405	140	0	8	31	43	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1877	1533	0	1610	1379	1900	1610
Q Serve(g_s), s	1.0	0.9	0.6	0.1	0.0	7.8	2.1	0.0	0.2	0.8	0.7	0.0
Cycle Q Clear(g_c), s	1.0	0.9	0.6	0.1	0.0	7.8	2.9	0.0	0.2	3.6	0.7	0.0
Prop In Lane	1.00		1.00	1.00		0.07	0.71		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	92	648	549	10	0	554	537	0	402	425	474	
V/C Ratio(X)	0.51	0.10	0.06	0.41	0.00	0.73	0.26	0.00	0.02	0.07	0.09	
Avail Cap(c_a), veh/h	244	1403	1189	226	0	1367	1256	0	1173	1086	1384	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.5	9.0	8.9	19.9	0.0	12.7	12.3	0.0	11.3	13.8	11.5	0.0
Incr Delay (d2), s/veh	1.6	0.1	0.0	9.7	0.0	1.9	0.3	0.0	0.0	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.3	0.1	0.1	0.0	2.5	0.8	0.0	0.0	0.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.2	9.1	8.9	29.6	0.0	14.6	12.6	0.0	11.4	13.9	11.6	0.0
LnGrp LOS	C	A	A	C	A	B	B	A	B	B	B	
Approach Vol, veh/h	143				409				148			
Approach Delay, s/veh	12.7				14.7				12.5			
Approach LOS	B				B				B			
Timer - Assigned Phs	2		3	4		6		7	8			
Phs Duration (G+Y+Rc), s	15.8		4.8	19.5		15.8		6.6	17.6			
Change Period (Y+Rc), s	5.8		4.6	5.8		5.8		4.6	5.8			
Max Green Setting (Gmax), s	29.2		5.0	29.6		29.2		5.4	29.2			
Max Q Clear Time (g_c+I1), s	4.9		2.1	2.9		5.6		3.0	9.8			
Green Ext Time (p_c), s	0.7		0.0	0.3		0.2		0.0	2.1			
Intersection Summary												
HCM 6th Ctrl Delay	13.7											
HCM 6th LOS	B											

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	Ø1
Lane Configurations		↖	↗		↖	↗	↖	↑	↗	↖	↗	
Traffic Volume (vph)	2	3	78	31	10	31	312	568	21	377	2	
Future Volume (vph)	2	3	78	31	10	31	312	568	21	377	2	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	NA	Perm	
Protected Phases		4			8		5	2		6		1
Permitted Phases	4		4	8		8			2		6	
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.6	27.8	27.8	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	15.0	33.8	33.8	28.4	28.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	21.4%	48.3%	48.3%	40.6%	40.6%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6	4.6	4.6	5.8	5.8	5.8	5.8	
Lead/Lag							Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	Min	Min	None
Act Effect Green (s)		12.2	12.2		12.2	12.2	10.7	40.0	40.0	23.1	23.1	
Actuated g/C Ratio		0.21	0.21		0.21	0.21	0.19	0.70	0.70	0.40	0.40	
v/c Ratio		0.02	0.20		0.16	0.08	1.18	0.54	0.02	32.87	0.00	
Control Delay		18.3	1.0		20.6	0.3	137.4	9.4	0.0	14077.3	0.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		18.3	1.0		20.6	0.3	137.4	9.4	0.0	14077.3	0.0	
LOS		B	A		C	A	F	A	A	F	A	
Approach Delay		2.2			11.9			53.5		13992.2		
Approach LOS		A			B			D		F		

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 57.5

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 32.87

Intersection Signal Delay: 3818.1

Intersection LOS: F

Intersection Capacity Utilization 72.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 12: California Av. & 5th St.

Ø1 ↖	Ø2 ↑	Ø4 ↗
9.6 s	33.8 s	26.6 s
Ø5 ↖	Ø6 ↓	Ø8 ↖
15 s	28.4 s	26.6 s

HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	78	31	10	31	312	568	21	13	377	2
Future Volume (veh/h)	2	3	78	31	10	31	312	568	21	13	377	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	99	39	13	39	395	719	27	16	477	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	198	222	300	310	87	300	375	1152	976	0	585	495
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.21	0.61	0.61	0.00	0.31	0.31
Sat Flow, veh/h	515	1188	1610	991	465	1610	1810	1900	1610	0	1900	1610
Grp Volume(v), veh/h	7	0	99	52	0	39	395	719	27	0	477	3
Grp Sat Flow(s),veh/h/ln	1703	0	1610	1456	0	1610	1810	1900	1610	0	1900	1610
Q Serve(g_s), s	0.0	0.0	2.7	0.7	0.0	1.0	10.4	12.0	0.3	0.0	11.7	0.1
Cycle Q Clear(g_c), s	0.2	0.0	2.7	1.3	0.0	1.0	10.4	12.0	0.3	0.0	11.7	0.1
Prop In Lane	0.43		1.00	0.75		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	420	0	300	397	0	300	375	1152	976	0	585	495
V/C Ratio(X)	0.02	0.00	0.33	0.13	0.00	0.13	1.05	0.62	0.03	0.00	0.82	0.01
Avail Cap(c_a), veh/h	831	0	706	755	0	706	375	1152	976	0	855	725
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	16.7	0.0	17.7	17.1	0.0	17.0	19.9	6.3	4.0	0.0	16.1	12.1
Incr Delay (d2), s/veh	0.0	0.0	0.6	0.1	0.0	0.2	61.3	1.1	0.0	0.0	4.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	1.0	0.5	0.0	0.4	9.9	2.6	0.1	0.0	4.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.7	0.0	18.3	17.3	0.0	17.2	81.2	7.3	4.0	0.0	20.1	12.1
LnGrp LOS	B	A	B	B	A	B	F	A	A	A	C	B
Approach Vol, veh/h		106			91			1141			480	
Approach Delay, s/veh		18.2			17.2			32.8			20.0	
Approach LOS		B			B			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	36.2		14.0	15.0	21.2		14.0				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	10.4	22.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	14.0		4.7	12.4	13.7		3.3				
Green Ext Time (p_c), s	0.0	3.9		0.3	0.0	1.8		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			27.8									
HCM 6th LOS			C									

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
07/14/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	76	22	87	852	189	258
Future Volume (vph)	76	22	87	852	189	258
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	27.8	27.8	17.9	62.2	44.3	44.3
Total Split (%)	30.9%	30.9%	19.9%	69.1%	49.2%	49.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effect Green (s)	12.7	12.7	9.2	51.3	40.6	40.6
Actuated g/C Ratio	0.18	0.18	0.13	0.74	0.59	0.59
v/c Ratio	0.30	0.09	0.47	0.79	0.22	0.31
Control Delay	31.0	11.5	39.1	15.3	12.8	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.0	11.5	39.1	15.3	12.8	2.7
LOS	C	B	D	B	B	A
Approach Delay	26.6			17.5	7.0	
Approach LOS	C			B	A	

Intersection Summary

Cycle Length: 90	
Actuated Cycle Length: 69.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 14.9	Intersection LOS: B
Intersection Capacity Utilization 62.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: California Av. & 4th St.

 Ø2	 Ø4
62.2 s	27.8 s
 Ø5	 Ø6
17.9 s	44.3 s

HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

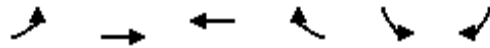


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	76	22	87	852	189	258
Future Volume (veh/h)	76	22	87	852	189	258
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	99	29	113	1106	245	335
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	263	234	147	1262	964	817
Arrive On Green	0.15	0.15	0.08	0.66	0.51	0.51
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	99	29	113	1106	245	335
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	3.0	1.0	3.7	28.5	4.4	7.9
Cycle Q Clear(g_c), s	3.0	1.0	3.7	28.5	4.4	7.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	263	234	147	1262	964	817
V/C Ratio(X)	0.38	0.12	0.77	0.88	0.25	0.41
Avail Cap(c_a), veh/h	654	582	395	1760	1202	1018
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	22.6	27.4	8.2	8.5	9.3
Incr Delay (d2), s/veh	0.9	0.2	3.2	3.9	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.9	1.6	7.0	1.4	2.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.4	22.9	30.6	12.2	8.6	9.7
LnGrp LOS	C	C	C	B	A	A
Approach Vol, veh/h	128			1219	580	
Approach Delay, s/veh	24.1			13.9	9.2	
Approach LOS	C			B	A	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	46.2			14.7	9.5	36.7
Change Period (Y+Rc), s	5.8			5.8	4.6	5.8
Max Green Setting (Gmax), s	56.4			22.0	13.3	38.5
Max Q Clear Time (g_c+I1), s	30.5			5.0	5.7	9.9
Green Ext Time (p_c), s	9.9			0.3	0.1	2.5
Intersection Summary						
HCM 6th Ctrl Delay			13.2			
HCM 6th LOS			B			

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations	←←	↑	↑	↑	←←	↑	
Traffic Volume (vph)	220	46	14	252	176	75	
Future Volume (vph)	220	46	14	252	176	75	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	8	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	32.8	33.2	9.6	9.6
Total Split (s)	64.0	87.2	32.8	32.8	33.2	64.0	9.6
Total Split (%)	49.2%	67.1%	25.2%	25.2%	25.5%	49.2%	7%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	4.6	
Lead/Lag	Lead	Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None
Act Effect Green (s)	9.4	27.2	12.8	12.8	12.8	28.9	
Actuated g/C Ratio	0.18	0.52	0.24	0.24	0.24	0.55	
v/c Ratio	0.49	0.07	0.04	0.54	0.29	0.11	
Control Delay	24.1	7.3	17.4	5.7	17.9	2.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	24.1	7.3	17.4	5.7	17.9	2.1	
LOS	C	A	B	A	B	A	
Approach Delay		21.2	6.3		13.2		
Approach LOS		C	A		B		

Intersection Summary

Cycle Length: 130	
Actuated Cycle Length: 52.8	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 13.5	Intersection LOS: B
Intersection Capacity Utilization 31.3%	ICU Level of Service A
Analysis Period (min) 15	

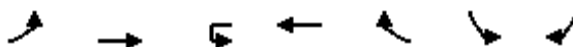
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations	←←	↑	←	↑	←	←←	←
Traffic Volume (veh/h)	220	46	0	14	252	176	75
Future Volume (veh/h)	220	46	0	14	252	176	75
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	328	69		21	115	263	97
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	522	931		430	365	877	642
Arrive On Green	0.14	0.47		0.22	0.22	0.24	0.24
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	328	69		21	115	263	97
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	3.5	0.8		0.3	2.4	2.5	1.6
Cycle Q Clear(g_c), s	3.5	0.8		0.3	2.4	2.5	1.6
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	522	931		430	365	877	642
V/C Ratio(X)	0.63	0.07		0.05	0.32	0.30	0.15
Avail Cap(c_a), veh/h	5211	3865		1282	1086	2369	1326
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	6.0		12.9	13.7	12.9	8.4
Incr Delay (d2), s/veh	0.5	0.0		0.0	0.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.2		0.1	0.7	0.7	0.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	17.3	6.1		12.9	14.2	13.1	8.5
LnGrp LOS	B	A		B	B	B	A
Approach Vol, veh/h		397		136		360	
Approach Delay, s/veh		15.3		14.0		11.9	
Approach LOS		B		B		B	
Timer - Assigned Phs				4		6	7
Phs Duration (G+Y+Rc), s				25.4		16.2	10.6
Change Period (Y+Rc), s				5.8		6.2	4.6
Max Green Setting (Gmax), s				81.4		27.0	59.4
Max Q Clear Time (g_c+I1), s				2.8		4.5	5.5
Green Ext Time (p_c), s				0.4		1.1	0.6

Intersection Summary

HCM 6th Ctrl Delay	13.7
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	31	492	592	210
Future Volume (vph)	31	492	592	210
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	10.0	39.0	29.0	41.0
Total Split (%)	12.5%	48.8%	36.3%	51.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effect Green (s)	5.7	19.3	16.3	15.0
Actuated g/C Ratio	0.12	0.41	0.34	0.32
v/c Ratio	0.15	0.66	0.54	0.44
Control Delay	28.3	16.7	12.8	16.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	28.3	16.7	12.8	16.2
LOS	C	B	B	B
Approach Delay		17.4	12.8	16.2
Approach LOS		B	B	B

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 47.6

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 14.7

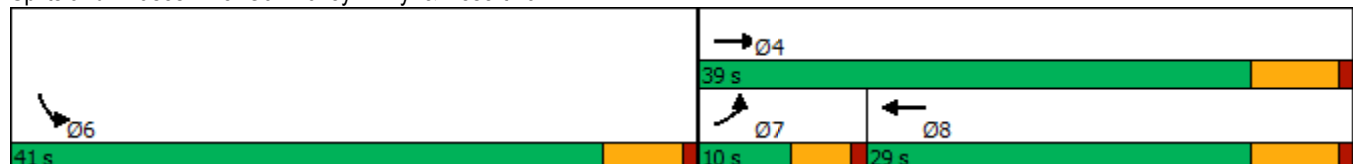
Intersection LOS: B

Intersection Capacity Utilization 49.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

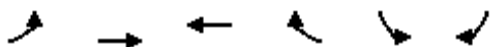


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	31	492	592	344	210	32
Future Volume (veh/h)	31	492	592	344	210	32
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	32	507	610	355	216	33
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	67	928	1192	555	358	55
Arrive On Green	0.04	0.49	0.34	0.34	0.23	0.23
Sat Flow, veh/h	1810	1900	3629	1610	1539	235
Grp Volume(v), veh/h	32	507	610	355	250	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1781	0
Q Serve(g_s), s	0.7	8.0	6.0	8.0	5.4	0.0
Cycle Q Clear(g_c), s	0.7	8.0	6.0	8.0	5.4	0.0
Prop In Lane	1.00			1.00	0.86	0.13
Lane Grp Cap(c), veh/h	67	928	1192	555	414	0
V/C Ratio(X)	0.48	0.55	0.51	0.64	0.60	0.00
Avail Cap(c_a), veh/h	227	1449	1833	853	1457	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.3	7.7	11.2	11.8	14.7	0.0
Incr Delay (d2), s/veh	2.0	0.5	0.3	1.2	1.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.7	1.6	2.1	1.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.3	8.2	11.6	13.1	16.2	0.0
LnGrp LOS	C	A	B	B	B	A
Approach Vol, veh/h		539	965		250	
Approach Delay, s/veh		9.0	12.1		16.2	
Approach LOS		A	B		B	
Timer - Assigned Phs				4	6	7
Phs Duration (G+Y+Rc), s				27.2	15.8	6.2
Change Period (Y+Rc), s				6.2	5.8	4.6
Max Green Setting (Gmax), s				32.8	35.2	5.4
Max Q Clear Time (g_c+I1), s				10.0	7.4	2.7
Green Ext Time (p_c), s				2.8	0.7	0.0
Intersection Summary						
HCM 6th Ctrl Delay			11.7			
HCM 6th LOS			B			
Notes						

User approved volume balancing among the lanes for turning movement.

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations	↑↑	↑	↙	↑	↘	↓
Traffic Volume (vph)	442	260	180	718	547	1
Future Volume (vph)	442	260	180	718	547	1
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	29.3	29.3	20.3	49.6	40.4	40.4
Total Split (%)	32.6%	32.6%	22.6%	55.1%	44.9%	44.9%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effect Green (s)	24.9	24.9	14.3	43.8	34.6	34.6
Actuated g/C Ratio	0.28	0.28	0.16	0.49	0.38	0.38
v/c Ratio	0.58	0.49	0.83	1.02	1.04	0.43
Control Delay	31.3	5.9	55.4	51.9	73.9	16.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.3	5.9	55.4	51.9	73.9	16.6
LOS	C	A	E	D	E	B
Approach Delay	21.9			52.6		57.5
Approach LOS	C			D		E

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.04

Intersection Signal Delay: 45.1

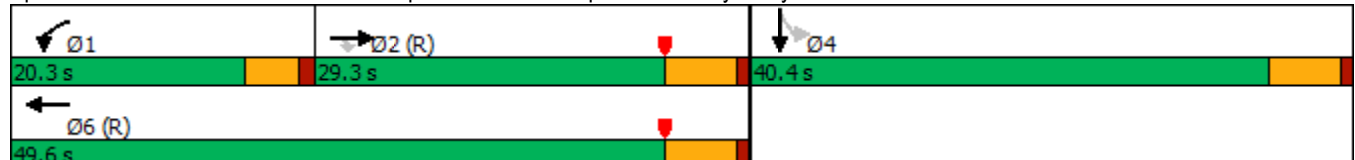
Intersection LOS: D

Intersection Capacity Utilization 77.8%

ICU Level of Service D

Analysis Period (min) 15

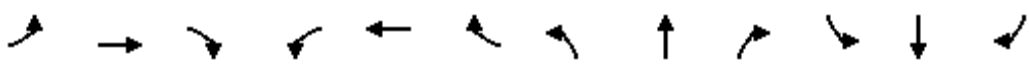
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

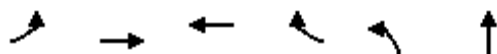
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑					↖	↗	
Traffic Volume (veh/h)	0	442	260	180	718	0	0	0	0	547	1	218
Future Volume (veh/h)	0	442	260	180	718	0	0	0	0	547	1	218
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	582	284	237	945	0				720	1	221
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1028	459	273	925	0				696	3	617
Arrive On Green	0.00	0.28	0.28	0.15	0.49	0.00				0.38	0.38	0.38
Sat Flow, veh/h	0	3705	1610	1810	1900	0				1810	7	1604
Grp Volume(v), veh/h	0	582	284	237	945	0				720	0	222
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1900	0				1810	0	1611
Q Serve(g_s), s	0.0	12.4	13.8	11.5	43.8	0.0				34.6	0.0	8.9
Cycle Q Clear(g_c), s	0.0	12.4	13.8	11.5	43.8	0.0				34.6	0.0	8.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1028	459	273	925	0				696	0	619
V/C Ratio(X)	0.00	0.57	0.62	0.87	1.02	0.00				1.03	0.00	0.36
Avail Cap(c_a), veh/h	0	1028	459	316	925	0				696	0	619
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.78	0.78	0.56	0.56	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	27.4	27.9	37.4	23.1	0.0				27.7	0.0	19.8
Incr Delay (d2), s/veh	0.0	1.8	4.8	11.2	27.9	0.0				43.5	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.2	5.5	5.7	23.8	0.0				21.8	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.2	32.8	48.5	51.0	0.0				71.2	0.0	20.1
LnGrp LOS	A	C	C	D	F	A				F	A	C
Approach Vol, veh/h		866			1182						942	
Approach Delay, s/veh		30.4			50.5						59.1	
Approach LOS		C			D						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	18.2	31.4		40.4		49.6						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	15.7	23.5		34.6		43.8						
Max Q Clear Time (g_c+I1), s	13.5	15.8		36.6		45.8						
Green Ext Time (p_c), s	0.1	2.8		0.0		0.0						
Intersection Summary												
HCM 6th Ctrl Delay				47.4								
HCM 6th LOS				D								

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	183	806	490	318	408	4
Future Volume (vph)	183	806	490	318	408	4
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	23.0	57.0	34.0	34.0	33.0	33.0
Total Split (%)	25.6%	63.3%	37.8%	37.8%	36.7%	36.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effect Green (s)	13.6	45.9	27.7	27.7	32.5	32.5
Actuated g/C Ratio	0.15	0.51	0.31	0.31	0.36	0.36
v/c Ratio	0.69	0.86	0.86	0.45	0.65	0.49
Control Delay	46.4	16.2	45.5	4.9	31.7	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.4	16.2	45.5	4.9	31.7	15.4
LOS	D	B	D	A	C	B
Approach Delay		21.8	29.6			24.5
Approach LOS		C	C			C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 25.0

Intersection LOS: C

Intersection Capacity Utilization 77.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	806	0	0	490	318	408	4	321	0	0	0
Future Volume (veh/h)	183	806	0	0	490	318	408	4	321	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	189	831	0	0	505	258	421	4	279			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	228	940	0	0	603	511	681	9	599			
Arrive On Green	0.04	0.16	0.00	0.00	0.32	0.32	0.38	0.38	0.38			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1810	23	1591			
Grp Volume(v), veh/h	189	831	0	0	505	258	421	0	283			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1810	0	1614			
Q Serve(g_s), s	9.3	38.5	0.0	0.0	22.2	11.7	17.0	0.0	11.9			
Cycle Q Clear(g_c), s	9.3	38.5	0.0	0.0	22.2	11.7	17.0	0.0	11.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	228	940	0	0	603	511	681	0	607			
V/C Ratio(X)	0.83	0.88	0.00	0.00	0.84	0.50	0.62	0.00	0.47			
Avail Cap(c_a), veh/h	370	1081	0	0	603	511	681	0	607			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.44	0.44	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	42.2	35.1	0.0	0.0	28.6	25.0	22.8	0.0	21.2			
Incr Delay (d2), s/veh	1.6	3.8	0.0	0.0	10.1	0.8	4.2	0.0	2.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	4.4	20.2	0.0	0.0	11.0	4.3	7.4	0.0	4.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.8	38.9	0.0	0.0	38.6	25.8	27.0	0.0	23.8			
LnGrp LOS	D	D	A	A	D	C	C	A	C			
Approach Vol, veh/h	1020			763			704					
Approach Delay, s/veh	39.8			34.3			25.7					
Approach LOS	D			C			C					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	39.7			50.3			16.0			34.4		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	27.2			51.2			18.4			28.2		
Max Q Clear Time (g_c+I1), s	19.0			40.5			11.3			24.2		
Green Ext Time (p_c), s	2.0			4.0			0.1			1.5		
Intersection Summary												
HCM 6th Ctrl Delay	34.1											
HCM 6th LOS	C											

Intersection														
Int Delay, s/veh	2													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SER
Lane Configurations														
Traffic Vol, veh/h	14	873	134	114	698	59	0	0	124	0	0	69	0	0
Future Vol, veh/h	14	873	134	114	698	59	0	0	124	0	0	69	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	-	-	None	-	-	-	-	-
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	15	939	144	123	751	63	0	0	133	0	0	74	0	0
Major/Minor	Major1			Major2			Minor1			Minor2				
Conflicting Flow All	814	0	0	1083	0	0	-	-	542	-	-	407		
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-		
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9		
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-		
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3		
Pot Cap-1 Maneuver	822	-	-	652	-	-	0	0	490	0	0	599		
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-		
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-		
Platoon blocked, %		-	-		-	-								
Mov Cap-1 Maneuver	822	-	-	652	-	-	-	-	490	-	-	599		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-		
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-		
Approach	EB			WB			NB			SB				
HCM Control Delay, s	0.1			1.5			15.1			11.9				
HCM LOS							C			B				
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1						
Capacity (veh/h)	490	822	-	-	652	-	-	599						
HCM Lane V/C Ratio	0.272	0.018	-	-	0.188	-	-	0.124						
HCM Control Delay (s)	15.1	9.5	-	-	11.8	-	-	11.9						
HCM Lane LOS	C	A	-	-	B	-	-	B						
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0.7	-	-	0.4						

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	111	270	82	9	226	42	40	12	14	63	41
Future Volume (vph)	111	270	82	9	226	42	40	12	14	63	41
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		2			6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Total Split (s)	14.0	37.2	37.2	9.6	32.8	33.2	33.2	33.2	33.2	33.2	33.2
Total Split (%)	17.5%	46.5%	46.5%	12.0%	41.0%	41.5%	41.5%	41.5%	41.5%	41.5%	41.5%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effect Green (s)	8.8	28.1	28.1	5.2	15.9		13.0	13.0	13.0	13.0	13.0
Actuated g/C Ratio	0.16	0.51	0.51	0.10	0.29		0.24	0.24	0.24	0.24	0.24
v/c Ratio	0.55	0.39	0.13	0.08	0.67		0.33	0.04	0.06	0.20	0.13
Control Delay	33.9	11.6	3.3	29.9	24.1		21.1	0.2	18.1	19.0	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	33.9	11.6	3.3	29.9	24.1		21.1	0.2	18.1	19.0	2.0
LOS	C	B	A	C	C		C	A	B	B	A
Approach Delay		15.5			24.3		18.5			12.9	
Approach LOS		B			C		B			B	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 54.6

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 17.9

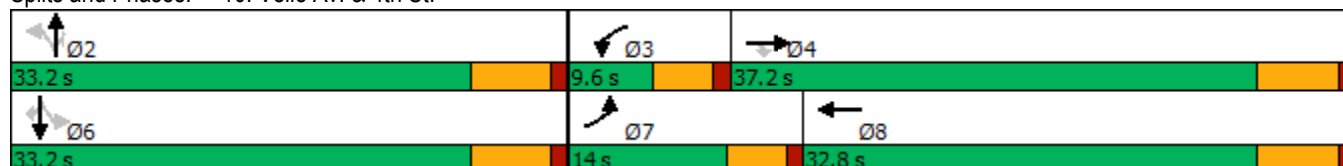
Intersection LOS: B

Intersection Capacity Utilization 45.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	111	270	82	9	226	32	42	40	12	14	63	41	
Future Volume (veh/h)	111	270	82	9	226	32	42	40	12	14	63	41	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No			No			No			
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	159	386	117	13	323	46	60	57	17	20	90	0	
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0	
Cap, veh/h	205	698	592	30	440	63	281	228	379	416	447		
Arrive On Green	0.11	0.37	0.37	0.02	0.27	0.27	0.24	0.24	0.24	0.24	0.24	0.00	
Sat Flow, veh/h	1810	1900	1610	1810	1627	232	650	969	1610	1347	1900	1610	
Grp Volume(v), veh/h	159	386	117	13	0	369	117	0	17	20	90	0	
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1858	1619	0	1610	1347	1900	1610	
Q Serve(g_s), s	3.6	6.9	2.1	0.3	0.0	7.7	0.4	0.0	0.3	0.5	1.6	0.0	
Cycle Q Clear(g_c), s	3.6	6.9	2.1	0.3	0.0	7.7	2.2	0.0	0.3	2.7	1.6	0.0	
Prop In Lane	1.00		1.00	1.00		0.12	0.51		1.00	1.00		1.00	
Lane Grp Cap(c), veh/h	205	698	592	30	0	503	509	0	379	416	447		
V/C Ratio(X)	0.77	0.55	0.20	0.43	0.00	0.73	0.23	0.00	0.04	0.05	0.20		
Avail Cap(c_a), veh/h	400	1402	1189	213	0	1179	1145	0	1037	967	1224		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	18.3	10.7	9.2	20.7	0.0	14.1	13.3	0.0	12.6	14.4	13.1	0.0	
Incr Delay (d2), s/veh	2.4	0.7	0.2	3.5	0.0	2.1	0.2	0.0	0.0	0.0	0.2	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.3	2.0	0.5	0.1	0.0	2.6	0.7	0.0	0.1	0.1	0.5	0.0	
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh	20.7	11.4	9.3	24.3	0.0	16.2	13.5	0.0	12.6	14.4	13.3	0.0	
LnGrp LOS	C	B	A	C	A	B	B	A	B	B	B		
Approach Vol, veh/h	662			382			134			110			A
Approach Delay, s/veh	13.2			16.5			13.4			13.5			
Approach LOS	B			B			B			B			
Timer - Assigned Phs	2		3	4		6	7	8					
Phs Duration (G+Y+Rc), s	15.8		5.3	21.4		15.8	9.4	17.3					
Change Period (Y+Rc), s	5.8		4.6	5.8		5.8	4.6	5.8					
Max Green Setting (Gmax), s	27.4		5.0	31.4		27.4	9.4	27.0					
Max Q Clear Time (g_c+I1), s	4.2		2.3	8.9		4.7	5.6	9.7					
Green Ext Time (p_c), s	0.6		0.0	2.4		0.4	0.1	1.8					
Intersection Summary													
HCM 6th Ctrl Delay	14.2												
HCM 6th LOS	B												

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	Ø1
Lane Configurations												
Traffic Volume (vph)	4	3	90	44	3	22	186	521	25	354	7	
Future Volume (vph)	4	3	90	44	3	22	186	521	25	354	7	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	NA	Perm	
Protected Phases		4			8		5	2		6		1
Permitted Phases	4		4	8		8			2		6	
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.6	27.8	27.8	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	10.0	33.8	33.8	33.4	33.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	14.3%	48.3%	48.3%	47.7%	47.7%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6	4.6	4.6	5.8	5.8	5.8	5.8	
Lead/Lag							Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	Min	Min	None
Act Effect Green (s)		12.1	12.1		12.1	12.1	5.4	42.1	42.1	30.9	30.9	
Actuated g/C Ratio		0.20	0.20		0.20	0.20	0.09	0.70	0.70	0.51	0.51	
v/c Ratio		0.02	0.23		0.17	0.06	1.21	0.41	0.02	9.27	0.01	
Control Delay		18.3	4.7		20.8	0.3	169.7	7.6	0.0	3795.9	0.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		18.3	4.7		20.8	0.3	169.7	7.6	0.0	3795.9	0.0	
LOS		B	A		C	A	F	A	A	F	A	
Approach Delay		5.6			14.3			48.6		3727.2		
Approach LOS		A			B			D		F		

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 60.5

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 9.27

Intersection Signal Delay: 1113.0

Intersection LOS: F

Intersection Capacity Utilization 69.2%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 12: California Av. & 5th St.

		
9.6 s	33.8 s	26.6 s
		
10 s	33.4 s	26.6 s

HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	3	90	44	3	22	186	521	25	7	354	7
Future Volume (veh/h)	4	3	90	44	3	22	186	521	25	7	354	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	3	95	46	3	23	196	548	26	7	373	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	302	190	345	441	24	345	245	998	846	0	522	442
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.14	0.53	0.53	0.00	0.27	0.27
Sat Flow, veh/h	750	887	1610	1242	110	1610	1810	1900	1610	0	1900	1610
Grp Volume(v), veh/h	7	0	95	49	0	23	196	548	26	0	373	7
Grp Sat Flow(s),veh/h/ln	1637	0	1610	1352	0	1610	1810	1900	1610	0	1900	1610
Q Serve(g_s), s	0.0	0.0	2.0	1.0	0.0	0.5	4.2	7.7	0.3	0.0	7.1	0.1
Cycle Q Clear(g_c), s	0.1	0.0	2.0	1.1	0.0	0.5	4.2	7.7	0.3	0.0	7.1	0.1
Prop In Lane	0.57		1.00	0.94		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	492	0	345	464	0	345	245	998	846	0	522	442
V/C Ratio(X)	0.01	0.00	0.28	0.11	0.00	0.07	0.80	0.55	0.03	0.00	0.72	0.02
Avail Cap(c_a), veh/h	1026	0	888	917	0	888	245	1333	1130	0	1314	1114
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	12.4	0.0	13.1	12.7	0.0	12.5	16.7	6.3	4.6	0.0	13.1	10.5
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.1	0.0	0.1	15.8	0.5	0.0	0.0	1.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.6	0.3	0.0	0.1	2.4	1.5	0.0	0.0	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.4	0.0	13.5	12.8	0.0	12.6	32.6	6.8	4.6	0.0	14.9	10.6
LnGrp LOS	B	A	B	B	A	B	C	A	A	A	B	B
Approach Vol, veh/h		102			72			770			380	
Approach Delay, s/veh		13.4			12.8			13.3			14.8	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	26.8		13.1	10.0	16.8		13.1				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	5.4	27.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	9.7		4.0	6.2	9.1		3.1				
Green Ext Time (p_c), s	0.0	3.1		0.3	0.0	1.9		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			13.7									
HCM 6th LOS			B									

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
07/14/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	226	108	66	525	1018	224
Future Volume (vph)	226	108	66	525	1018	224
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	29.0	29.0	11.1	91.0	79.9	79.9
Total Split (%)	24.2%	24.2%	9.3%	75.8%	66.6%	66.6%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effect Green (s)	19.5	19.5	6.5	76.5	68.3	68.3
Actuated g/C Ratio	0.18	0.18	0.06	0.71	0.63	0.63
v/c Ratio	0.76	0.30	0.66	0.42	0.92	0.23
Control Delay	59.9	9.8	83.1	7.8	32.9	4.2
Queue Delay	0.0	0.0	0.0	0.0	5.3	0.0
Total Delay	59.9	9.8	83.1	7.8	38.2	4.2
LOS	E	A	F	A	D	A
Approach Delay	43.7			16.2	32.1	
Approach LOS	D			B	C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 108
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 29.5
 Intersection LOS: C
 Intersection Capacity Utilization 77.0%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	226	108	66	525	1018	224
Future Volume (veh/h)	226	108	66	525	1018	224
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	246	117	72	571	1107	243
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	287	256	93	1381	1197	1015
Arrive On Green	0.16	0.16	0.05	0.73	0.63	0.63
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	246	117	72	571	1107	243
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	13.4	6.7	4.0	11.9	52.4	6.7
Cycle Q Clear(g_c), s	13.4	6.7	4.0	11.9	52.4	6.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	287	256	93	1381	1197	1015
V/C Ratio(X)	0.86	0.46	0.78	0.41	0.92	0.24
Avail Cap(c_a), veh/h	414	368	116	1596	1388	1176
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	38.7	47.5	5.4	16.6	8.2
Incr Delay (d2), s/veh	11.5	1.3	17.3	0.2	9.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.7	0.1	2.2	3.5	21.5	2.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	53.1	40.0	64.9	5.6	26.4	8.3
LnGrp LOS	D	D	E	A	C	A
Approach Vol, veh/h	363			643	1350	
Approach Delay, s/veh	48.8			12.2	23.1	
Approach LOS	D			B	C	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	79.5			21.9	9.8	69.7
Change Period (Y+Rc), s	5.8			5.8	4.6	5.8
Max Green Setting (Gmax), s	85.2			23.2	6.5	74.1
Max Q Clear Time (g_c+I1), s	13.9			15.4	6.0	54.4
Green Ext Time (p_c), s	3.8			0.7	0.0	9.6
Intersection Summary						
HCM 6th Ctrl Delay			24.1			
HCM 6th LOS			C			

APPENDIX 7.10:

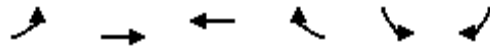
OPENING YEAR (2025) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	410	63	108	391	238	978	
Future Volume (vph)	410	63	108	391	238	978	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	8	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	32.8	33.2	9.6	9.6
Total Split (s)	54.0	77.2	32.8	32.8	33.2	54.0	9.6
Total Split (%)	45.0%	64.3%	27.3%	27.3%	27.7%	45.0%	8%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	4.6	
Lead/Lag	Lead	Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None

Intersection Summary

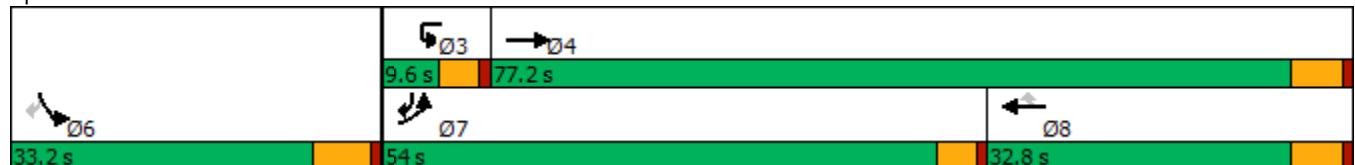
Cycle Length: 120

Actuated Cycle Length: 98.5

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations	←←	↑	←	↑	↑	←←	↑
Traffic Volume (veh/h)	410	63	0	108	391	238	978
Future Volume (veh/h)	410	63	0	108	391	238	978
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	612	94		161	360	355	863
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	732	1003		492	417	1245	907
Arrive On Green	0.20	0.51		0.25	0.25	0.34	0.34
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	612	94		161	360	355	863
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	12.7	1.9		5.3	16.3	5.6	27.0
Cycle Q Clear(g_c), s	12.7	1.9		5.3	16.3	5.6	27.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	732	1003		492	417	1245	907
V/C Ratio(X)	0.84	0.09		0.33	0.86	0.29	0.95
Avail Cap(c_a), veh/h	2278	1782		674	571	1245	907
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.4	10.1		24.3	28.5	19.0	17.2
Incr Delay (d2), s/veh	1.0	0.0		0.4	9.9	0.1	19.2
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.7		2.3	7.1	2.1	32.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	31.4	10.1		24.7	38.4	19.2	36.4
LnGrp LOS	C	B		C	D	B	D
Approach Vol, veh/h		706		521		1218	
Approach Delay, s/veh		28.6		34.1		31.4	
Approach LOS		C		C		C	
Timer - Assigned Phs				4		6	7 8
Phs Duration (G+Y+Rc), s				46.0		33.2	20.5 25.5
Change Period (Y+Rc), s				5.8		6.2	4.6 5.8
Max Green Setting (Gmax), s				71.4		27.0	49.4 27.0
Max Q Clear Time (g_c+I1), s				3.9		29.0	14.7 18.3
Green Ext Time (p_c), s				0.5		0.0	1.1 1.4

Intersection Summary

HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020

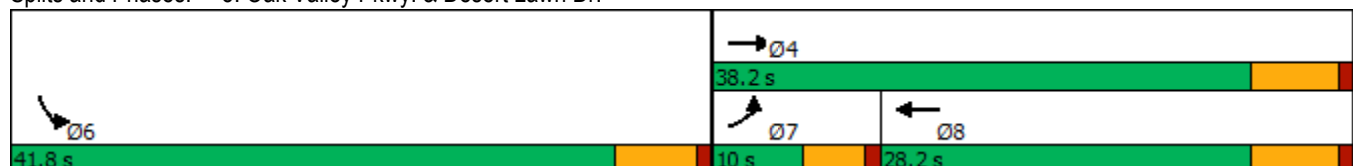


Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	76	526	523	519
Future Volume (vph)	76	526	523	519
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	10.0	38.2	28.2	41.8
Total Split (%)	12.5%	47.8%	35.3%	52.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effect Green (s)	5.6	27.3	19.9	31.2
Actuated g/C Ratio	0.08	0.38	0.28	0.44
v/c Ratio	0.62	0.83	0.66	0.89
Control Delay	57.0	31.8	21.3	34.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	57.0	31.8	21.3	34.2
LOS	E	C	C	C
Approach Delay		34.9	21.3	34.2
Approach LOS		C	C	C

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 71
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 29.0
Intersection Capacity Utilization 72.1%
Analysis Period (min) 15
Intersection LOS: C
ICU Level of Service C

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

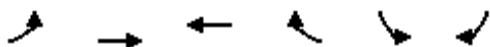


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	76	526	523	345	519	93
Future Volume (veh/h)	76	526	523	345	519	93
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	87	605	601	397	597	107
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	112	778	983	458	641	115
Arrive On Green	0.06	0.41	0.28	0.28	0.43	0.43
Sat Flow, veh/h	1810	1900	3629	1610	1504	270
Grp Volume(v), veh/h	87	605	601	397	705	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1776	0
Q Serve(g_s), s	3.5	20.1	11.0	17.1	27.5	0.0
Cycle Q Clear(g_c), s	3.5	20.1	11.0	17.1	27.5	0.0
Prop In Lane	1.00			1.00	0.85	0.15
Lane Grp Cap(c), veh/h	112	778	983	458	756	0
V/C Ratio(X)	0.78	0.78	0.61	0.87	0.93	0.00
Avail Cap(c_a), veh/h	134	834	1044	486	877	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.7	18.6	22.6	24.8	19.9	0.0
Incr Delay (d2), s/veh	16.9	4.4	1.0	14.7	15.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	8.2	4.1	7.6	12.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	50.5	23.1	23.5	39.4	35.0	0.0
LnGrp LOS	D	C	C	D	D	A
Approach Vol, veh/h		692	998		705	
Approach Delay, s/veh		26.5	29.9		35.0	
Approach LOS		C	C		D	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			36.0		36.8	9.1
Change Period (Y+Rc), s			6.2		5.8	4.6
Max Green Setting (Gmax), s			32.0		36.0	5.4
Max Q Clear Time (g_c+I1), s			22.1		29.5	5.5
Green Ext Time (p_c), s			2.5		1.5	0.0
Intersection Summary						
HCM 6th Ctrl Delay			30.4			
HCM 6th LOS			C			
Notes						

User approved volume balancing among the lanes for turning movement.

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations	↑↑	↑	↙	↑	↘	↓
Traffic Volume (vph)	545	500	274	620	274	3
Future Volume (vph)	545	500	274	620	274	3
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	31.0	31.0	28.0	59.0	31.0	31.0
Total Split (%)	34.4%	34.4%	31.1%	65.6%	34.4%	34.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effect Green (s)	34.5	34.5	19.0	58.0	20.4	20.4
Actuated g/C Ratio	0.38	0.38	0.21	0.64	0.23	0.23
v/c Ratio	0.44	0.58	0.81	0.57	0.75	0.52
Control Delay	23.9	5.2	48.4	6.8	44.2	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.9	5.2	48.4	6.8	44.2	9.8
LOS	C	A	D	A	D	A
Approach Delay	14.9			19.6		27.8
Approach LOS	B			B		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 19.4

Intersection LOS: B

Intersection Capacity Utilization 78.6%

ICU Level of Service D

Analysis Period (min) 15

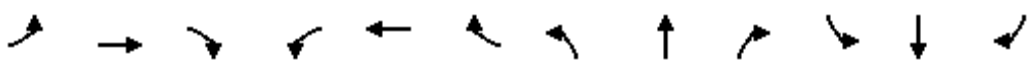
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

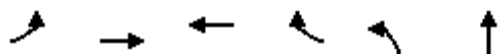
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑					↖	↗	
Traffic Volume (veh/h)	0	545	500	274	620	0	0	0	0	274	3	248
Future Volume (veh/h)	0	545	500	274	620	0	0	0	0	274	3	248
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	612	475	308	697	0				308	3	260
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1540	687	343	1268	0				369	4	325
Arrive On Green	0.00	0.43	0.43	0.25	0.89	0.00				0.20	0.20	0.20
Sat Flow, veh/h	0	3705	1610	1810	1900	0				1810	18	1595
Grp Volume(v), veh/h	0	612	475	308	697	0				308	0	263
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1900	0				1810	0	1613
Q Serve(g_s), s	0.0	10.5	21.6	14.8	7.3	0.0				14.7	0.0	14.0
Cycle Q Clear(g_c), s	0.0	10.5	21.6	14.8	7.3	0.0				14.7	0.0	14.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1540	687	343	1268	0				369	0	329
V/C Ratio(X)	0.00	0.40	0.69	0.90	0.55	0.00				0.83	0.00	0.80
Avail Cap(c_a), veh/h	0	1540	687	470	1268	0				507	0	452
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.39	0.39	0.59	0.59	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.8	21.0	32.8	2.1	0.0				34.4	0.0	34.1
Incr Delay (d2), s/veh	0.0	0.3	2.3	8.4	1.0	0.0				8.5	0.0	7.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.0	7.7	6.4	1.6	0.0				6.9	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	18.1	23.2	41.2	3.1	0.0				42.9	0.0	41.1
LnGrp LOS	A	B	C	D	A	A				D	A	D
Approach Vol, veh/h	1087			1005			571					
Approach Delay, s/veh	20.4			14.8			42.1					
Approach LOS	C			B			D					
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	21.7	44.2		24.2		65.8						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	23.4	25.2		25.2		53.2						
Max Q Clear Time (g_c+I1), s	16.8	23.6		16.7		9.3						
Green Ext Time (p_c), s	0.3	0.9		1.7		5.0						
Intersection Summary												
HCM 6th Ctrl Delay				22.9								
HCM 6th LOS				C								

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	198	621	534	473	361	4
Future Volume (vph)	198	621	534	473	361	4
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	18.0	59.0	41.0	41.0	31.0	31.0
Total Split (%)	20.0%	65.6%	45.6%	45.6%	34.4%	34.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effect Green (s)	12.4	48.2	31.1	31.1	30.2	30.2
Actuated g/C Ratio	0.14	0.54	0.35	0.35	0.34	0.34
v/c Ratio	0.81	0.62	0.83	0.55	0.61	0.57
Control Delay	60.2	21.6	38.3	4.5	32.1	12.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.2	21.6	38.3	4.5	32.1	12.8
LOS	E	C	D	A	C	B
Approach Delay		30.9	22.4			21.9
Approach LOS		C	C			C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 25.0

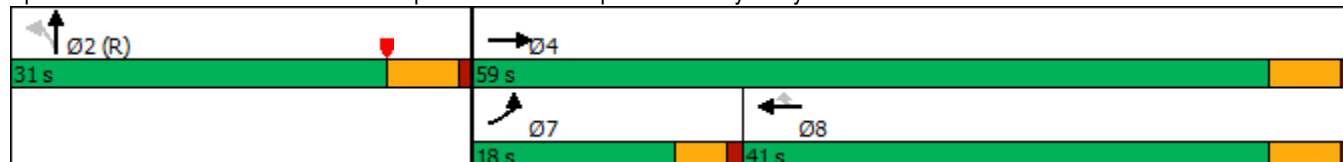
Intersection LOS: C

Intersection Capacity Utilization 78.6%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	198	621	0	0	534	473	361	4	398	0	0	0
Future Volume (veh/h)	198	621	0	0	534	473	361	4	398	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	202	634	0	0	545	367	368	4	284			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	237	967	0	0	621	526	655	8	576			
Arrive On Green	0.13	0.51	0.00	0.00	0.33	0.33	0.36	0.36	0.36			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1810	22	1591			
Grp Volume(v), veh/h	202	634	0	0	545	367	368	0	288			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1810	0	1614			
Q Serve(g_s), s	9.8	22.1	0.0	0.0	24.4	17.9	14.7	0.0	12.5			
Cycle Q Clear(g_c), s	9.8	22.1	0.0	0.0	24.4	17.9	14.7	0.0	12.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	237	967	0	0	621	526	655	0	584			
V/C Ratio(X)	0.85	0.66	0.00	0.00	0.88	0.70	0.56	0.00	0.49			
Avail Cap(c_a), veh/h	269	1123	0	0	743	630	655	0	584			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.82	0.82	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	38.2	16.3	0.0	0.0	28.6	26.4	23.0	0.0	22.3			
Incr Delay (d2), s/veh	15.6	0.9	0.0	0.0	10.2	2.7	3.5	0.0	3.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.2	8.5	0.0	0.0	11.9	6.7	6.4	0.0	4.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.9	17.2	0.0	0.0	38.8	29.1	26.4	0.0	25.2			
LnGrp LOS	D	B	A	A	D	C	C	A	C			
Approach Vol, veh/h	836			912			656					
Approach Delay, s/veh	26.1			34.9			25.9					
Approach LOS	C			C			C					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	38.4			51.6			16.4			35.2		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	25.2			53.2			13.4			35.2		
Max Q Clear Time (g_c+I1), s	16.7			24.1			11.8			26.4		
Green Ext Time (p_c), s	1.9			4.1			0.0			3.1		
Intersection Summary												
HCM 6th Ctrl Delay	29.4											
HCM 6th LOS	C											

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)
06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	Ø1
Lane Configurations												
Traffic Volume (vph)	2	3	78	61	10	31	312	575	28	407	2	
Future Volume (vph)	2	3	78	61	10	31	312	575	28	407	2	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	NA	Perm	
Protected Phases		4			8		5	2		6		1
Permitted Phases	4		4	8		8			2		6	
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.6	27.8	27.8	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	19.0	83.8	83.8	74.4	74.4	9.6
Total Split (%)	22.2%	22.2%	22.2%	22.2%	22.2%	22.2%	15.8%	69.8%	69.8%	62.0%	62.0%	8%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6	4.6	4.6	5.8	5.8	5.8	5.8	
Lead/Lag							Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	Min	Min	None

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 111.7

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Splits and Phases: 12: California Av. & 5th St.

 Ø1	 Ø2	 Ø4
9.6 s	83.8 s	26.6 s
 Ø5	 Ø6	 Ø8
19 s	74.4 s	26.6 s

HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	78	61	10	31	312	575	28	13	407	2
Future Volume (veh/h)	2	3	78	61	10	31	312	575	28	13	407	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	99	77	13	39	395	728	35	16	515	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	68	67	467	88	8	467	344	1088	922	0	611	518
Arrive On Green	0.29	0.29	0.29	0.29	0.29	0.29	0.19	0.57	0.57	0.00	0.32	0.32
Sat Flow, veh/h	0	230	1610	0	29	1610	1810	1900	1610	0	1900	1610
Grp Volume(v), veh/h	7	0	99	90	0	39	395	728	35	0	515	3
Grp Sat Flow(s),veh/h/ln	230	0	1610	29	0	1610	1810	1900	1610	0	1900	1610
Q Serve(g_s), s	0.0	0.0	3.5	0.0	0.0	1.3	14.4	20.1	0.7	0.0	19.1	0.1
Cycle Q Clear(g_c), s	22.0	0.0	3.5	22.0	0.0	1.3	14.4	20.1	0.7	0.0	19.1	0.1
Prop In Lane	0.43		1.00	0.86		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	135	0	467	97	0	467	344	1088	922	0	611	518
V/C Ratio(X)	0.05	0.00	0.21	0.93	0.00	0.08	1.15	0.67	0.04	0.00	0.84	0.01
Avail Cap(c_a), veh/h	135	0	467	97	0	467	344	1956	1657	0	1720	1458
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	0.0	20.3	35.8	0.0	19.6	30.7	11.2	7.1	0.0	23.9	17.5
Incr Delay (d2), s/veh	0.2	0.0	0.2	69.4	0.0	0.1	95.3	0.7	0.0	0.0	3.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	1.3	3.5	0.0	0.5	14.8	6.6	0.2	0.0	8.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.8	0.0	20.6	105.2	0.0	19.6	126.0	11.9	7.1	0.0	27.2	17.5
LnGrp LOS	C	A	C	F	A	B	F	B	A	A	C	B
Approach Vol, veh/h		106			129			1158			518	
Approach Delay, s/veh		20.6			79.4			50.7			27.1	
Approach LOS		C			E			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	49.2		26.6	19.0	30.2		26.6				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	78.0		22.0	14.4	68.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	22.1		24.0	16.4	21.1		24.0				
Green Ext Time (p_c), s	0.0	5.5		0.0	0.0	3.3		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			44.6									
HCM 6th LOS			D									

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
07/14/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	90	29	117	852	189	318
Future Volume (vph)	90	29	117	852	189	318
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	27.8	27.8	17.9	62.2	44.3	44.3
Total Split (%)	30.9%	30.9%	19.9%	69.1%	49.2%	49.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effect Green (s)	13.1	13.1	10.4	51.3	33.9	33.9
Actuated g/C Ratio	0.19	0.19	0.15	0.74	0.49	0.49
v/c Ratio	0.34	0.11	0.57	0.79	0.26	0.41
Control Delay	31.7	10.6	40.6	15.5	14.0	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.7	10.6	40.6	15.5	14.0	3.1
LOS	C	B	D	B	B	A
Approach Delay	26.5			18.6	7.2	
Approach LOS	C			B	A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 69.4

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 15.5

Intersection LOS: B

Intersection Capacity Utilization 62.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

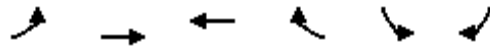


Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↱	↱	↰
Traffic Volume (veh/h)	90	29	117	852	189	318
Future Volume (veh/h)	90	29	117	852	189	318
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	117	38	152	1106	245	413
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	272	242	194	1258	913	774
Arrive On Green	0.15	0.15	0.11	0.66	0.48	0.48
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	117	38	152	1106	245	413
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	3.6	1.3	5.1	29.1	4.8	11.1
Cycle Q Clear(g_c), s	3.6	1.3	5.1	29.1	4.8	11.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	272	242	194	1258	913	774
V/C Ratio(X)	0.43	0.16	0.78	0.88	0.27	0.53
Avail Cap(c_a), veh/h	644	573	389	1733	1183	1002
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	22.9	26.9	8.5	9.6	11.2
Incr Delay (d2), s/veh	1.1	0.3	2.6	4.2	0.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	2.1	7.5	1.5	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	24.9	23.2	29.5	12.6	9.7	11.8
LnGrp LOS	C	C	C	B	A	B
Approach Vol, veh/h	155			1258	658	
Approach Delay, s/veh	24.5			14.7	11.0	
Approach LOS	C			B	B	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	46.7			15.1	11.2	35.5
Change Period (Y+Rc), s	5.8			5.8	4.6	5.8
Max Green Setting (Gmax), s	56.4			22.0	13.3	38.5
Max Q Clear Time (g_c+I1), s	31.1			5.6	7.1	13.1
Green Ext Time (p_c), s	9.8			0.3	0.1	2.8
Intersection Summary						
HCM 6th Ctrl Delay			14.3			
HCM 6th LOS			B			

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations	←←	↑	↑	↑	←←	↑	
Traffic Volume (vph)	1100	148	46	425	442	851	
Future Volume (vph)	1100	148	46	425	442	851	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	8	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	32.8	33.2	9.6	9.6
Total Split (s)	64.0	87.2	32.8	32.8	33.2	64.0	9.6
Total Split (%)	49.2%	67.1%	25.2%	25.2%	25.5%	49.2%	7%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	4.6	
Lead/Lag	Lead	Lag	Lag	Lag		Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None

Intersection Summary

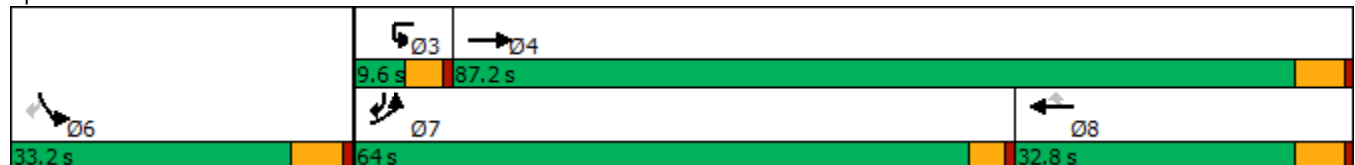
Cycle Length: 130

Actuated Cycle Length: 126.9

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary

4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	1100	148	0	46	425	442	851
Future Volume (veh/h)	1100	148	0	46	425	442	851
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	1642	221		69	373	660	673
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	1668	1383		410	348	758	1113
Arrive On Green	0.46	0.70		0.21	0.21	0.21	0.21
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	1642	221		69	373	660	673
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	57.7	4.9		3.7	27.0	22.7	27.0
Cycle Q Clear(g_c), s	57.7	4.9		3.7	27.0	22.7	27.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1668	1383		410	348	758	1113
V/C Ratio(X)	0.98	0.16		0.17	1.07	0.87	0.60
Avail Cap(c_a), veh/h	1668	1383		410	348	758	1113
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.8	6.6		42.3	51.5	49.8	12.2
Incr Delay (d2), s/veh	18.3	0.1		0.2	68.9	10.7	0.9
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	28.2	1.8		1.8	17.6	11.1	32.7
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	53.1	6.6		42.5	120.4	60.5	13.2
LnGrp LOS	D	A		D	F	E	B
Approach Vol, veh/h		1863		442		1333	
Approach Delay, s/veh		47.6		108.2		36.6	
Approach LOS		D		F		D	
Timer - Assigned Phs				4		6	7
Phs Duration (G+Y+Rc), s				96.8		33.2	64.0
Change Period (Y+Rc), s				5.8		6.2	4.6
Max Green Setting (Gmax), s				81.4		27.0	59.4
Max Q Clear Time (g_c+I1), s				6.9		29.0	59.7
Green Ext Time (p_c), s				1.2		0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	51.0
HCM 6th LOS	D

Notes

User approved ignoring U-Turning movement.

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020

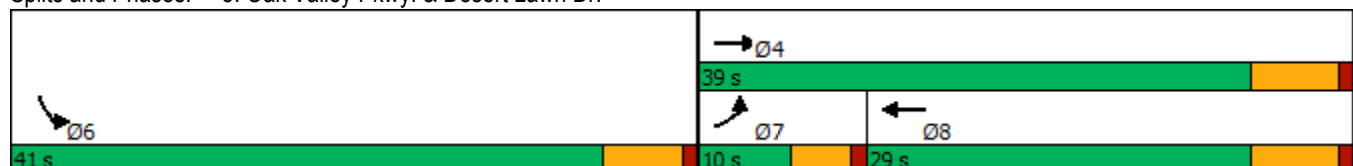


Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	65	628	635	210
Future Volume (vph)	65	628	635	210
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	10.0	39.0	29.0	41.0
Total Split (%)	12.5%	48.8%	36.3%	51.3%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effect Green (s)	5.7	23.8	18.6	15.4
Actuated g/C Ratio	0.11	0.46	0.36	0.30
v/c Ratio	0.34	0.75	0.54	0.48
Control Delay	33.4	19.5	14.0	18.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	33.4	19.5	14.0	18.2
LOS	C	B	B	B
Approach Delay		20.8	14.0	18.2
Approach LOS		C	B	B

Intersection Summary

Cycle Length: 80	
Actuated Cycle Length: 52.1	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 57.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

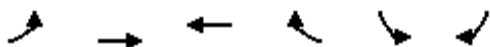


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	65	628	635	344	210	43
Future Volume (veh/h)	65	628	635	344	210	43
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	67	647	655	355	216	44
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	114	966	1185	552	328	67
Arrive On Green	0.06	0.51	0.34	0.34	0.22	0.22
Sat Flow, veh/h	1810	1900	3629	1610	1467	299
Grp Volume(v), veh/h	67	647	655	355	261	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1729	1610	1773	0
Q Serve(g_s), s	1.6	11.4	6.9	8.3	6.0	0.0
Cycle Q Clear(g_c), s	1.6	11.4	6.9	8.3	6.0	0.0
Prop In Lane	1.00			1.00	0.83	0.17
Lane Grp Cap(c), veh/h	114	966	1185	552	396	0
V/C Ratio(X)	0.59	0.67	0.55	0.64	0.66	0.00
Avail Cap(c_a), veh/h	218	1392	1761	820	1394	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.4	8.2	11.9	12.4	15.8	0.0
Incr Delay (d2), s/veh	1.8	0.8	0.4	1.3	1.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	2.5	1.9	2.3	2.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.2	9.0	12.3	13.7	17.7	0.0
LnGrp LOS	C	A	B	B	B	A
Approach Vol, veh/h		714	1010		261	
Approach Delay, s/veh		10.2	12.8		17.7	
Approach LOS		B	B		B	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			29.0		15.8	7.4
Change Period (Y+Rc), s			6.2		5.8	4.6
Max Green Setting (Gmax), s			32.8		35.2	5.4
Max Q Clear Time (g_c+I1), s			13.4		8.0	3.6
Green Ext Time (p_c), s			3.7		0.7	0.0

Intersection Summary

HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations	↑↑	↑	↙	↑	↘	↓
Traffic Volume (vph)	578	260	180	718	547	1
Future Volume (vph)	578	260	180	718	547	1
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	29.0	29.0	20.3	49.3	40.7	40.7
Total Split (%)	32.2%	32.2%	22.6%	54.8%	45.2%	45.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effect Green (s)	24.6	24.6	14.3	43.5	34.9	34.9
Actuated g/C Ratio	0.27	0.27	0.16	0.48	0.39	0.39
v/c Ratio	0.77	0.50	0.83	1.03	1.03	0.51
Control Delay	37.0	5.9	54.6	52.1	71.1	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.0	5.9	54.6	52.1	71.1	18.9
LOS	D	A	D	D	E	B
Approach Delay	27.4			52.6		54.2
Approach LOS	C			D		D

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.03

Intersection Signal Delay: 44.8

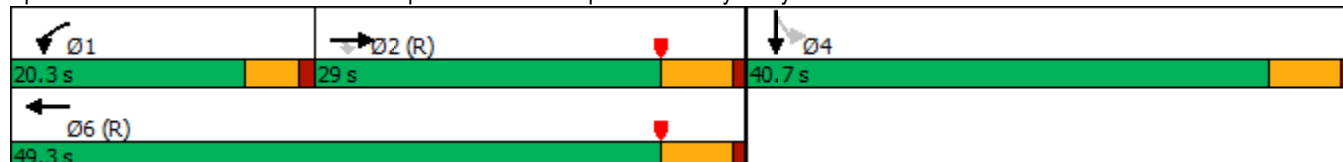
Intersection LOS: D

Intersection Capacity Utilization 79.6%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



07/14/2020

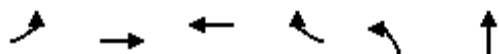
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑					↖	↗	
Traffic Volume (veh/h)	0	578	260	180	718	0	0	0	0	547	1	261
Future Volume (veh/h)	0	578	260	180	718	0	0	0	0	547	1	261
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	761	284	237	945	0				720	1	277
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1013	452	274	918	0				702	2	622
Arrive On Green	0.00	0.28	0.28	0.10	0.32	0.00				0.39	0.39	0.39
Sat Flow, veh/h	0	3705	1610	1810	1900	0				1810	6	1605
Grp Volume(v), veh/h	0	761	284	237	945	0				720	0	278
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1900	0				1810	0	1611
Q Serve(g_s), s	0.0	17.3	13.9	11.6	43.5	0.0				34.9	0.0	11.5
Cycle Q Clear(g_c), s	0.0	17.3	13.9	11.6	43.5	0.0				34.9	0.0	11.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1013	452	274	918	0				702	0	625
V/C Ratio(X)	0.00	0.75	0.63	0.86	1.03	0.00				1.03	0.00	0.44
Avail Cap(c_a), veh/h	0	1013	452	316	918	0				702	0	625
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.69	0.69	0.47	0.47	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	29.5	28.3	39.5	30.4	0.0				27.5	0.0	20.4
Incr Delay (d2), s/veh	0.0	3.6	4.5	9.2	28.2	0.0				40.8	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.5	5.5	5.8	26.9	0.0				21.4	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	33.1	32.8	48.7	58.6	0.0				68.3	0.0	20.9
LnGrp LOS	A	C	C	D	F	A				F	A	C
Approach Vol, veh/h		1045			1182						998	
Approach Delay, s/veh		33.0			56.6						55.1	
Approach LOS		C			E						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	18.2	31.1		40.7		49.3						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	15.7	23.2		34.9		43.5						
Max Q Clear Time (g_c+I1), s	13.6	19.3		36.9		45.5						
Green Ext Time (p_c), s	0.1	2.0		0.0		0.0						
Intersection Summary												
HCM 6th Ctrl Delay			48.5									
HCM 6th LOS			D									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations	←	→	←	→	←	→
Traffic Volume (vph)	319	806	490	318	408	4
Future Volume (vph)	319	806	490	318	408	4
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	23.0	57.0	34.0	34.0	33.0	33.0
Total Split (%)	25.6%	63.3%	37.8%	37.8%	36.7%	36.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effect Green (s)	17.8	49.1	26.7	26.7	29.3	29.3
Actuated g/C Ratio	0.20	0.55	0.30	0.30	0.33	0.33
v/c Ratio	0.92	0.80	0.90	0.46	0.72	0.53
Control Delay	53.1	14.3	50.5	5.1	36.0	16.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	14.3	50.5	5.1	36.0	16.7
LOS	D	B	D	A	D	B
Approach Delay		25.3	32.7			27.4
Approach LOS		C	C			C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 28.1

Intersection LOS: C

Intersection Capacity Utilization 79.6%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	806	0	0	490	318	408	4	321	0	0	0
Future Volume (veh/h)	319	806	0	0	490	318	408	4	321	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	329	831	0	0	505	258	421	4	279			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	367	1037	0	0	555	470	589	7	517			
Arrive On Green	0.07	0.18	0.00	0.00	0.29	0.29	0.33	0.33	0.33			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1810	23	1591			
Grp Volume(v), veh/h	329	831	0	0	505	258	421	0	283			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1810	0	1614			
Q Serve(g_s), s	16.2	37.7	0.0	0.0	23.1	12.2	18.4	0.0	12.9			
Cycle Q Clear(g_c), s	16.2	37.7	0.0	0.0	23.1	12.2	18.4	0.0	12.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	367	1037	0	0	555	470	589	0	525			
V/C Ratio(X)	0.90	0.80	0.00	0.00	0.91	0.55	0.72	0.00	0.54			
Avail Cap(c_a), veh/h	370	1081	0	0	595	505	589	0	525			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.32	0.32	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	41.1	32.2	0.0	0.0	30.7	26.9	26.7	0.0	24.8			
Incr Delay (d2), s/veh	9.1	1.4	0.0	0.0	17.5	1.1	7.3	0.0	3.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.7	19.2	0.0	0.0	12.4	4.5	8.5	0.0	5.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.1	33.6	0.0	0.0	48.2	27.9	34.0	0.0	28.8			
LnGrp LOS	D	C	A	A	D	C	C	A	C			
Approach Vol, veh/h	1160			763			704					
Approach Delay, s/veh	38.3			41.4			31.9					
Approach LOS	D			D			C					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	35.1			54.9			22.8			32.1		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	27.2			51.2			18.4			28.2		
Max Q Clear Time (g_c+I1), s	20.4			39.7			18.2			25.1		
Green Ext Time (p_c), s	1.8			4.2			0.0			1.2		
Intersection Summary												
HCM 6th Ctrl Delay	37.5											
HCM 6th LOS	D											

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)
06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	Ø1
Lane Configurations												
Traffic Volume (vph)	4	3	90	55	3	22	186	555	59	365	7	
Future Volume (vph)	4	3	90	55	3	22	186	555	59	365	7	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	NA	Perm	
Protected Phases		4			8		5	2		6		1
Permitted Phases	4		4	8		8			2		6	
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.6	27.8	27.8	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	10.0	33.8	33.8	33.4	33.4	9.6
Total Split (%)	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	14.3%	48.3%	48.3%	47.7%	47.7%	14%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6	4.6	4.6	5.8	5.8	5.8	5.8	
Lead/Lag							Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	Min	Min	None

Intersection Summary

Cycle Length: 70

Actuated Cycle Length: 60.5

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Splits and Phases: 12: California Av. & 5th St.

 Ø1	 Ø2	 Ø4
9.6 s	33.8 s	26.6 s
 Ø5	 Ø6	 Ø8
10 s	33.4 s	26.6 s

HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	3	90	55	3	22	186	555	59	7	365	7
Future Volume (veh/h)	4	3	90	55	3	22	186	555	59	7	365	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	3	95	58	3	23	196	584	62	7	384	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	157	82	363	224	8	363	238	989	838	0	526	446
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.13	0.52	0.52	0.00	0.28	0.28
Sat Flow, veh/h	83	365	1610	232	33	1610	1810	1900	1610	0	1900	1610
Grp Volume(v), veh/h	7	0	95	61	0	23	196	584	62	0	384	7
Grp Sat Flow(s),veh/h/ln	448	0	1610	265	0	1610	1810	1900	1610	0	1900	1610
Q Serve(g_s), s	0.0	0.0	2.0	1.7	0.0	0.5	4.3	8.7	0.8	0.0	7.5	0.1
Cycle Q Clear(g_c), s	8.4	0.0	2.0	9.2	0.0	0.5	4.3	8.7	0.8	0.0	7.5	0.1
Prop In Lane	0.57		1.00	0.95		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	239	0	363	231	0	363	238	989	838	0	526	446
V/C Ratio(X)	0.03	0.00	0.26	0.26	0.00	0.06	0.82	0.59	0.07	0.00	0.73	0.02
Avail Cap(c_a), veh/h	731	0	864	647	0	864	238	1298	1100	0	1279	1084
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	12.9	0.0	13.1	19.0	0.0	12.5	17.3	6.8	4.9	0.0	13.4	10.8
Incr Delay (d2), s/veh	0.0	0.0	0.4	0.6	0.0	0.1	19.0	0.6	0.0	0.0	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.7	0.6	0.0	0.2	2.6	1.8	0.1	0.0	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.0	0.0	13.4	19.6	0.0	12.5	36.3	7.4	4.9	0.0	15.4	10.8
LnGrp LOS	B	A	B	B	A	B	D	A	A	A	B	B
Approach Vol, veh/h		102			84			842			391	
Approach Delay, s/veh		13.4			17.7			13.9			15.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	27.2		14.3	10.0	17.2		14.3				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	28.0		22.0	5.4	27.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	10.7		10.4	6.3	9.5		11.2				
Green Ext Time (p_c), s	0.0	3.4		0.2	0.0	1.9		0.2				
Intersection Summary												
HCM 6th Ctrl Delay			14.5									
HCM 6th LOS			B									

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
07/14/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	294	142	77	525	1018	245
Future Volume (vph)	294	142	77	525	1018	245
Turn Type	Prot	Perm	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	29.0	29.0	11.1	91.0	79.9	79.9
Total Split (%)	24.2%	24.2%	9.3%	75.8%	66.6%	66.6%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effect Green (s)	22.3	22.3	6.6	81.4	70.2	70.2
Actuated g/C Ratio	0.19	0.19	0.06	0.71	0.61	0.61
v/c Ratio	0.92	0.35	0.82	0.43	0.96	0.25
Control Delay	78.5	8.9	107.3	8.3	40.2	4.3
Queue Delay	0.0	0.0	0.0	0.0	29.1	0.0
Total Delay	78.5	8.9	107.3	8.3	69.3	4.3
LOS	E	A	F	A	E	A
Approach Delay	55.9			21.0	56.7	
Approach LOS	E			C	E	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 115.4
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 47.2
 Intersection LOS: D
 Intersection Capacity Utilization 87.6%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	294	142	77	525	1018	245
Future Volume (veh/h)	294	142	77	525	1018	245
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	320	154	84	571	1107	266
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	349	310	102	1343	1161	984
Arrive On Green	0.19	0.19	0.06	0.71	0.61	0.61
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	320	154	84	571	1107	266
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	20.0	9.9	5.3	14.5	62.8	8.9
Cycle Q Clear(g_c), s	20.0	9.9	5.3	14.5	62.8	8.9
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	349	310	102	1343	1161	984
V/C Ratio(X)	0.92	0.50	0.83	0.43	0.95	0.27
Avail Cap(c_a), veh/h	363	323	102	1400	1218	1032
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.8	41.7	54.0	7.1	21.0	10.5
Incr Delay (d2), s/veh	27.1	1.2	38.2	0.2	15.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.3	9.0	3.4	4.9	28.7	2.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	72.9	42.9	92.2	7.3	36.6	10.6
LnGrp LOS	E	D	F	A	D	B
Approach Vol, veh/h	474			655	1373	
Approach Delay, s/veh	63.2			18.2	31.5	
Approach LOS	E			B	C	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	87.5			28.1	11.1	76.4
Change Period (Y+Rc), s	5.8			5.8	4.6	5.8
Max Green Setting (Gmax), s	85.2			23.2	6.5	74.1
Max Q Clear Time (g_c+I1), s	16.5			22.0	7.3	64.8
Green Ext Time (p_c), s	3.8			0.2	0.0	5.9
Intersection Summary						
HCM 6th Ctrl Delay			34.0			
HCM 6th LOS			C			

APPENDIX 8.1:

OPENING YEAR (2027) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Intersection	
Intersection Delay, s/veh	16.7
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	327	45	255	349	66	259
Future Vol, veh/h	327	45	255	349	66	259
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	380	52	297	406	77	301
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	14.7	17	18.3
HCM LOS	B	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	66	259	164	164	45	255	175	175
LT Vol	66	0	0	0	0	255	0	0
Through Vol	0	0	164	164	0	0	175	175
RT Vol	0	259	0	0	45	0	0	0
Lane Flow Rate	77	301	190	190	52	297	203	203
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.177	0.592	0.405	0.405	0.076	0.634	0.405	0.307
Departure Headway (Hd)	8.289	7.08	7.669	7.669	5.206	7.697	7.185	5.444
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	433	509	470	470	685	468	501	659
Service Time	6.041	4.831	5.423	5.423	2.959	5.446	4.934	3.192
HCM Lane V/C Ratio	0.178	0.591	0.404	0.404	0.076	0.635	0.405	0.308
HCM Control Delay	12.8	19.7	15.6	15.6	8.4	22.9	14.8	10.6
HCM Lane LOS	B	C	C	C	A	C	B	B
HCM 95th-tile Q	0.6	3.8	1.9	1.9	0.2	4.3	1.9	1.3

Intersection

Intersection Delay, s/veh42.7

Intersection LOS E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	10	0	59	0	64	5	49	490	0
Future Vol, veh/h	0	0	0	10	0	59	0	64	5	49	490	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	15	0	91	0	98	8	75	754	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9.6	9	51.2
HCM LOS	A	A	F

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	14%	9%
Vol Thru, %	93%	0%	91%
Vol Right, %	7%	86%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	69	69	539
LT Vol	0	10	49
Through Vol	64	0	490
RT Vol	5	59	0
Lane Flow Rate	106	106	829
Geometry Grp	1	1	1
Degree of Util (X)	0.148	0.161	0.998
Departure Headway (Hd)	5.009	5.469	4.332
Convergence, Y/N	Yes	Yes	Yes
Cap	711	651	838
Service Time	3.073	3.545	2.369
HCM Lane V/C Ratio	0.149	0.163	0.989
HCM Control Delay	9	9.6	51.2
HCM Lane LOS	A	A	F
HCM 95th-tile Q	0.5	0.6	17.5

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

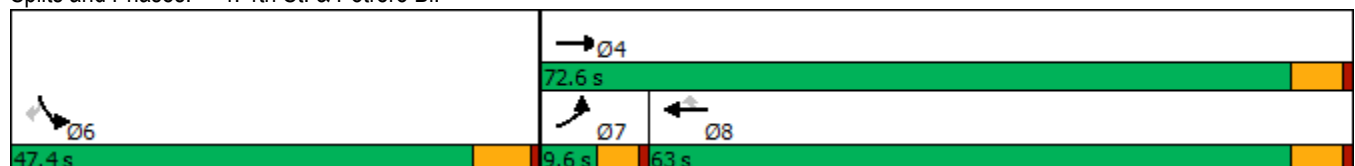
06/05/2023

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	105	25	71	45	375	428
Future Volume (vph)	105	25	71	45	375	428
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	9.6	72.6	63.0	63.0	47.4	47.4
Total Split (%)	8.0%	60.5%	52.5%	52.5%	39.5%	39.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	6.5	17.7	10.3	10.3	15.8	15.8
Actuated g/C Ratio	0.14	0.39	0.23	0.23	0.35	0.35
v/c Ratio	0.61	0.03	0.25	0.16	0.46	0.65
Control Delay	38.6	8.7	17.7	6.6	13.8	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.6	8.7	17.7	6.6	13.8	5.1
LOS	D	A	B	A	B	A
Approach Delay		32.9	13.4		9.1	
Approach LOS		C	B		A	

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 45.6	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 12.5	Intersection LOS: B
Intersection Capacity Utilization 44.8%	ICU Level of Service A
Analysis Period (min) 15	

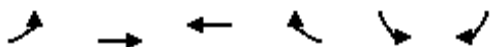
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/05/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	105	25	71	45	375	428	
Future Volume (veh/h)	105	25	71	45	375	428	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	157	37	106	67	560	639	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	155	1194	315	267	1626	746	
Arrive On Green	0.09	0.33	0.17	0.17	0.46	0.46	
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610	
Grp Volume(v), veh/h	157	37	106	67	560	639	
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610	
Q Serve(g_s), s	5.0	0.4	2.9	2.1	5.9	20.6	
Cycle Q Clear(g_c), s	5.0	0.4	2.9	2.1	5.9	20.6	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	155	1194	315	267	1626	746	
V/C Ratio(X)	1.01	0.03	0.34	0.25	0.34	0.86	
Avail Cap(c_a), veh/h	155	4140	1866	1581	2483	1139	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	26.6	13.2	21.5	21.1	10.0	13.9	
Incr Delay (d2), s/veh	75.0	0.0	0.6	0.5	0.1	4.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	5.1	0.1	1.2	0.7	1.7	0.9	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	101.7	13.2	22.1	21.6	10.1	18.1	
LnGrp LOS	F	B	C	C	B	B	
Approach Vol, veh/h		194	173		1199		
Approach Delay, s/veh		84.8	21.9		14.4		
Approach LOS		F	C		B		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				25.1	33.2	9.6	15.5
Change Period (Y+Rc), s				5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s				66.8	41.2	5.0	57.2
Max Q Clear Time (g_c+I1), s				2.4	22.6	7.0	4.9
Green Ext Time (p_c), s				0.1	4.4	0.0	0.8
Intersection Summary							
HCM 6th Ctrl Delay			23.9				
HCM 6th LOS			C				

Intersection

Intersection Delay, s/veh 249.9

Intersection LOS F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	86	709	565	365	553	81
Future Vol, veh/h	86	709	565	365	553	81
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	99	815	649	420	636	93
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	419.4	33.2	355.1
HCM LOS	F	D	F

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	87%
Vol Thru, %	0%	100%	100%	100%	24%	0%
Vol Right, %	0%	0%	0%	0%	76%	13%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	86	709	226	226	478	634
LT Vol	86	0	0	0	0	553
Through Vol	0	709	226	226	113	0
RT Vol	0	0	0	0	365	81
Lane Flow Rate	99	815	260	260	549	729
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.252	1.965	0.551	0.551	0.825	1.713
Departure Headway (Hd)	11.119	10.578	10.797	10.797	8.388	9.695
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	325	350	338	338	440	379
Service Time	8.819	8.278	8.497	8.497	6.088	7.395
HCM Lane V/C Ratio	0.305	2.329	0.769	0.769	1.248	1.923
HCM Control Delay	17.5	468.1	26	26	40	355.1
HCM Lane LOS	C	F	D	D	E	F
HCM 95th-tile Q	1	46.5	3.2	3.2	7.7	39.2

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	↰	→	↱
Traffic Volume (vph)	702	300	720	3
Future Volume (vph)	702	300	720	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	42.8	14.8	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	1.61	1.14	0.62	1.71
Control Delay	302.7	110.0	5.4	357.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	302.7	110.0	5.4	357.2
LOS	F	F	A	F
Approach Delay	302.7		36.2	357.2
Approach LOS	F		D	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.71

Intersection Signal Delay: 215.7

Intersection LOS: F

Intersection Capacity Utilization 131.2%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/13/2020

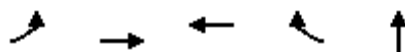
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩	
Traffic Volume (veh/h)	0	702	561	300	720	0	0	0	0	305	3	209
Future Volume (veh/h)	0	702	561	300	720	0	0	0	0	305	3	209
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	789	543	337	809	0				343	3	216
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	499	343	298	1313	0				190	2	120
Arrive On Green	0.00	0.48	0.48	0.33	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	1049	722	1810	1900	0				1054	9	664
Grp Volume(v), veh/h	0	0	1332	337	809	0				562	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1770	1810	1900	0				1728	0	0
Q Serve(g_s), s	0.0	0.0	42.8	14.8	0.0	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	42.8	14.8	0.0	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.41	1.00		0.00				0.61		0.38
Lane Grp Cap(c), veh/h	0	0	842	298	1313	0				311	0	0
V/C Ratio(X)	0.00	0.00	1.58	1.13	0.62	0.00				1.81	0.00	0.00
Avail Cap(c_a), veh/h	0	0	842	298	1313	0				311	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	23.6	30.2	0.0	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	267.7	64.0	0.2	0.0				375.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	77.9	10.1	0.1	0.0				38.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	291.3	94.2	0.2	0.0				412.6	0.0	0.0
LnGrp LOS	A	A	F	F	A	A				F	A	A
Approach Vol, veh/h		1332			1146						562	
Approach Delay, s/veh		291.3			27.8						412.6	
Approach LOS		F			C						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.4	48.6		22.0		68.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2						
Max Q Clear Time (g_c+I1), s	16.8	44.8		18.2		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		6.4						
Intersection Summary												
HCM 6th Ctrl Delay			214.4									
HCM 6th LOS			F									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	251	755	631	529	5
Future Volume (vph)	251	755	631	529	5
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	5.4	37.0	27.0	27.0	41.4
Actuated g/C Ratio	0.06	0.41	0.30	0.30	0.46
v/c Ratio	2.37	0.99	1.13	0.63	1.00
Control Delay	640.3	31.6	110.3	6.5	55.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	640.3	31.6	110.3	6.5	55.5
LOS	F	C	F	A	E
Approach Delay		183.5	63.0		55.5
Approach LOS		F	E		E

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 2.37

Intersection Signal Delay: 101.4

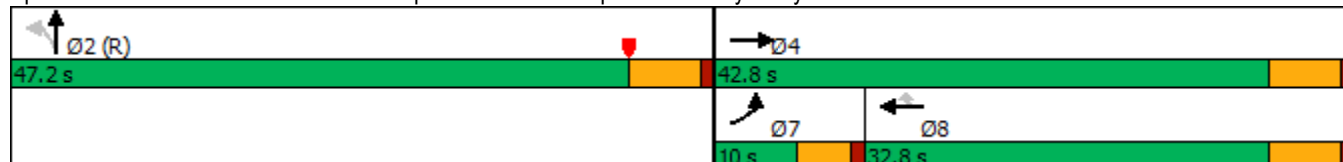
Intersection LOS: F

Intersection Capacity Utilization 131.2%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	755	0	0	631	529	390	5	427	0	0	0
Future Volume (veh/h)	251	755	0	0	631	529	390	5	427	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	256	770	0	0	644	424	398	5	314			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	781	0	0	570	483	438	6	346			
Arrive On Green	0.04	0.28	0.00	0.00	0.30	0.30	0.46	0.46	0.46			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	953	12	752			
Grp Volume(v), veh/h	256	770	0	0	644	424	717	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1717	0	0			
Q Serve(g_s), s	5.4	36.3	0.0	0.0	27.0	22.5	34.8	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	36.3	0.0	0.0	27.0	22.5	34.8	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.56		0.44			
Lane Grp Cap(c), veh/h	109	781	0	0	570	483	790	0	0			
V/C Ratio(X)	2.36	0.99	0.00	0.00	1.13	0.88	0.91	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	790	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	32.3	0.0	0.0	31.5	29.9	22.5	0.0	0.0			
Incr Delay (d2), s/veh	613.6	6.8	0.0	0.0	78.8	16.6	16.2	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	20.9	18.1	0.0	0.0	23.8	10.2	15.8	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	656.8	39.2	0.0	0.0	110.3	46.5	38.7	0.0	0.0			
LnGrp LOS	F	D	A	A	F	D	D	A	A			
Approach Vol, veh/h	1026				1068				717			
Approach Delay, s/veh	193.3				85.0				38.7			
Approach LOS	F				F				D			
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	47.2			42.8			10.0			32.8		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	41.4			37.0			5.4			27.0		
Max Q Clear Time (g_c+I1), s	36.8			38.3			7.4			29.0		
Green Ext Time (p_c), s	1.9			0.0			0.0			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	112.7											
HCM 6th LOS	F											

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑				↑			↑
Traffic Vol, veh/h	9	636	159	171	980	29	0	0	70	0	0	173
Future Vol, veh/h	9	636	159	171	980	29	0	0	70	0	0	173
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	699	175	188	1077	32	0	0	77	0	0	190
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1109	0	0	874	0	0	-	-	437	-	-	555
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	637	-	-	781	-	-	0	0	573	0	0	480
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	637	-	-	781	-	-	-	-	573	-	-	480
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			1.6			12.3			17.3		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	573	637	-	-	781	-	-	480				
HCM Lane V/C Ratio	0.134	0.016	-	-	0.241	-	-	0.396				
HCM Control Delay (s)	12.3	10.7	-	-	11.1	-	-	17.3				
HCM Lane LOS	B	B	-	-	B	-	-	C				
HCM 95th %tile Q(veh)	0.5	0	-	-	0.9	-	-	1.9				

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	65	26	3	510	22	79	31	6	24	33	130
Future Volume (vph)	38	65	26	3	510	22	79	31	6	24	33	130
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	21.0	43.0	43.0	15.0	37.0	37.0	31.0	43.0	43.0	19.0	31.0	31.0
Total Split (%)	17.5%	35.8%	35.8%	12.5%	30.8%	30.8%	25.8%	35.8%	35.8%	15.8%	25.8%	25.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	6.8	37.0	37.0	5.2	32.1	32.1	8.9	17.0	17.0	6.1	10.3	10.3
Actuated g/C Ratio	0.09	0.52	0.52	0.07	0.45	0.45	0.12	0.24	0.24	0.08	0.14	0.14
v/c Ratio	0.30	0.09	0.04	0.03	0.80	0.04	0.47	0.09	0.02	0.21	0.16	0.44
Control Delay	38.4	11.6	0.1	36.7	30.1	0.1	39.2	26.6	0.0	37.8	33.2	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.4	11.6	0.1	36.7	30.1	0.1	39.2	26.6	0.0	37.8	33.2	8.2
LOS	D	B	A	D	C	A	D	C	A	D	C	A
Approach Delay		17.1			28.9			33.8			16.4	
Approach LOS		B			C			C			B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 71.8

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 25.5

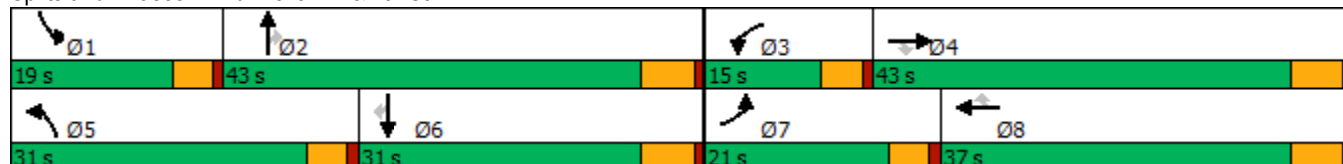
Intersection LOS: C

Intersection Capacity Utilization 53.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	65	26	3	510	22	79	31	6	24	33	130
Future Volume (veh/h)	38	65	26	3	510	22	79	31	6	24	33	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	87	35	4	680	29	105	41	8	32	44	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	84	844	715	10	766	649	137	373	316	61	293	
Arrive On Green	0.05	0.44	0.44	0.01	0.40	0.40	0.08	0.20	0.20	0.03	0.15	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	51	87	35	4	680	29	105	41	8	32	44	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	1.8	1.7	0.8	0.1	21.6	0.7	3.7	1.2	0.3	1.1	1.3	0.0
Cycle Q Clear(g_c), s	1.8	1.7	0.8	0.1	21.6	0.7	3.7	1.2	0.3	1.1	1.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	84	844	715	10	766	649	137	373	316	61	293	
V/C Ratio(X)	0.61	0.10	0.05	0.41	0.89	0.04	0.76	0.11	0.03	0.52	0.15	
Avail Cap(c_a), veh/h	457	1089	923	290	913	774	736	1089	923	402	738	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.4	10.5	10.2	32.2	18.0	11.8	29.4	21.4	21.1	30.8	23.8	0.0
Incr Delay (d2), s/veh	2.6	0.1	0.0	10.1	9.4	0.0	3.3	0.1	0.0	2.6	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.6	0.2	0.1	9.6	0.2	1.6	0.5	0.1	0.5	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	10.6	10.3	42.2	27.4	11.8	32.7	21.6	21.1	33.4	24.0	0.0
LnGrp LOS	C	B	B	D	C	B	C	C	C	C	C	
Approach Vol, veh/h		173			713			154			76	
Approach Delay, s/veh		17.1			26.8			29.1			28.0	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.8	18.5	4.9	34.6	9.5	15.8	7.6	32.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	14.4	37.2	10.4	37.2	26.4	25.2	16.4	31.2				
Max Q Clear Time (g_c+I1), s	3.1	3.2	2.1	3.7	5.7	3.3	3.8	23.6				
Green Ext Time (p_c), s	0.0	0.2	0.0	0.5	0.1	0.1	0.0	2.6				

Intersection Summary

HCM 6th Ctrl Delay	25.7
HCM 6th LOS	C

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	314	129	297	312	22	449	94	49	167
Future Volume (vph)	4	314	129	297	312	22	449	94	49	167
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	23.8	23.8	13.0	27.2	27.2	28.0	42.2	11.0	25.2
Total Split (%)	10.7%	26.4%	26.4%	14.4%	30.2%	30.2%	31.1%	46.9%	12.2%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.0	18.2	18.2	8.4	29.4	29.4	23.4	41.5	6.0	20.0
Actuated g/C Ratio	0.06	0.20	0.20	0.09	0.33	0.33	0.26	0.46	0.07	0.22
v/c Ratio	0.04	0.88	0.29	1.91	0.54	0.04	1.03	0.20	0.44	0.44
Control Delay	41.2	59.2	3.2	455.3	29.5	0.1	84.4	12.6	51.8	33.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	59.2	3.2	455.3	29.5	0.1	84.4	12.6	51.8	33.8
LOS	D	E	A	F	C	A	F	B	D	C
Approach Delay		42.9			229.0			66.1		37.7
Approach LOS		D			F			E		D

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 89.3

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.91

Intersection Signal Delay: 111.4

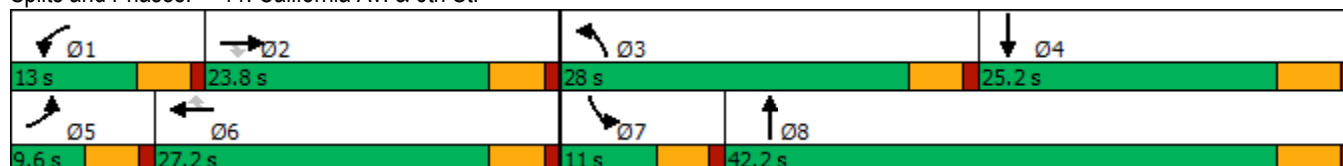
Intersection LOS: F

Intersection Capacity Utilization 82.9%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	314	129	297	312	22	449	94	60	49	167	5
Future Volume (veh/h)	4	314	129	297	312	22	449	94	60	49	167	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	341	139	323	339	15	488	102	43	53	182	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	383	325	171	553	468	476	567	239	74	419	7
Arrive On Green	0.01	0.20	0.20	0.09	0.29	0.29	0.26	0.45	0.45	0.04	0.22	0.22
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1269	535	1810	1864	31
Grp Volume(v), veh/h	4	341	139	323	339	15	488	0	145	53	0	185
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1804	1810	0	1894
Q Serve(g_s), s	0.2	15.5	6.7	8.4	13.7	0.6	23.4	0.0	4.3	2.6	0.0	7.5
Cycle Q Clear(g_c), s	0.2	15.5	6.7	8.4	13.7	0.6	23.4	0.0	4.3	2.6	0.0	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.30	1.00		0.02
Lane Grp Cap(c), veh/h	10	383	325	171	553	468	476	0	806	74	0	426
V/C Ratio(X)	0.42	0.89	0.43	1.89	0.61	0.03	1.02	0.00	0.18	0.71	0.00	0.43
Avail Cap(c_a), veh/h	102	406	344	171	553	468	476	0	806	130	0	426
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.1	34.5	31.0	40.3	27.2	22.6	32.8	0.0	14.8	42.1	0.0	29.6
Incr Delay (d2), s/veh	10.4	20.2	0.9	421.6	2.0	0.0	47.7	0.0	0.5	4.7	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	9.1	2.5	23.7	6.3	0.2	15.8	0.0	1.7	1.2	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.5	54.8	31.9	461.9	29.2	22.6	80.5	0.0	15.3	46.8	0.0	32.8
LnGrp LOS	D	D	C	F	C	C	F	A	B	D	A	C
Approach Vol, veh/h		484			677			633			238	
Approach Delay, s/veh		48.2			235.5			65.6			35.9	
Approach LOS		D			F			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	22.7	28.0	25.2	5.1	30.7	8.2	45.0				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	8.4	* 19	23.4	20.0	5.0	* 22	6.4	37.0				
Max Q Clear Time (g_c+I1), s	10.4	17.5	25.4	9.5	2.2	15.7	4.6	6.3				
Green Ext Time (p_c), s	0.0	0.4	0.0	0.6	0.0	1.1	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay 114.6

HCM 6th LOS F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	39.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	2	3	82	42	10	33	325	600	24	14	532	2
Future Vol, veh/h	2	3	82	42	10	33	325	600	24	14	532	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	50	-	-	50
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	104	53	13	42	411	759	30	18	673	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2333	2320	673	2346	2293	759	676	0	0	789	0	0
Stage 1	709	709	-	1581	1581	-	-	-	-	-	-	-
Stage 2	1624	1611	-	765	712	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	26	38	459	~ 26	40	410	925	-	-	840	-	-
Stage 1	428	440	-	138	171	-	-	-	-	-	-	-
Stage 2	131	165	-	399	439	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	-	7	459	~ 6	~ 8	410	925	-	-	840	-	-
Mov Cap-2 Maneuver	~ -3	14	-	~ 30	~ 11	-	-	-	-	-	-	-
Stage 1	87	425	-	~ 28	35	-	-	-	-	-	-	-
Stage 2	15	33	-	296	424	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s		\$ 736.5	4.1	0.2
HCM LOS	-	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	925	-	-	-	459	23	410	840	-	-
HCM Lane V/C Ratio	0.445	-	-	-	0.226	2.862	0.102	0.021	-	-
HCM Control Delay (s)	12	0	-	-	15.5	1194.5	14.8	9.4	0	-
HCM Lane LOS	B	A	-	-	C	F	B	A	A	-
HCM 95th %tile Q(veh)	2.3	-	-	-	0.9	8.3	0.3	0.1	-	-

Notes										
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined						*: All major volume in platoon		

Intersection						
Int Delay, s/veh	48.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	91	27	156	887	197	418
Future Vol, veh/h	91	27	156	887	197	418
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	118	35	203	1152	256	543
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2086	528	799	0	-	0
Stage 1	528	-	-	-	-	-
Stage 2	1558	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 59	554	833	-	-	-
Stage 1	596	-	-	-	-	-
Stage 2	193	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 45	554	833	-	-	-
Mov Cap-2 Maneuver	~ 45	-	-	-	-	-
Stage 1	451	-	-	-	-	-
Stage 2	193	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	719.1	1.6		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	833	-	45	554	-	-
HCM Lane V/C Ratio	0.243	-	2.626	0.063	-	-
HCM Control Delay (s)	10.7	-	928.9	11.9	-	-
HCM Lane LOS	B	-	F	B	-	-
HCM 95th %tile Q(veh)	1	-	12.7	0.2	-	-
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)
07/13/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	11	17	21	3	64	405	3	426
Future Volume (vph)	11	17	21	3	64	405	3	426
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		10.1		10.0	6.9	46.3	5.0	40.7
Actuated g/C Ratio		0.17		0.17	0.12	0.77	0.08	0.68
v/c Ratio		0.22		0.15	0.34	0.16	0.02	0.20
Control Delay		14.5		18.1	27.0	4.8	25.7	7.7
Queue Delay		0.0		0.0	0.2	0.3	0.0	0.1
Total Delay		14.5		18.1	27.2	5.0	25.7	7.8
LOS		B		B	C	A	C	A
Approach Delay		14.5		18.1		8.0		7.9
Approach LOS		B		B		A		A

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.34

Intersection Signal Delay: 8.7

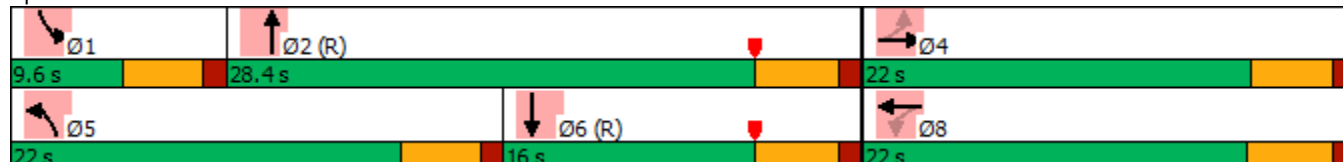
Intersection LOS: A

Intersection Capacity Utilization 36.8%

ICU Level of Service A

Analysis Period (min) 15

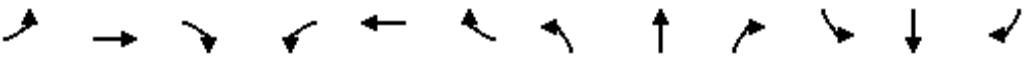
Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Volume (veh/h)	11	17	33	21	3	11	64	405	15	3	426	23
Future Volume (veh/h)	11	17	33	21	3	11	64	405	15	3	426	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	12	18	36	23	3	12	70	440	16	3	463	25
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	92	84	126	203	40	68	104	2210	80	7	1981	107
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.11	1.00	1.00	0.00	0.57	0.57
Sat Flow, veh/h	152	613	918	774	292	492	1810	3553	129	1810	3484	188
Grp Volume(v), veh/h	66	0	0	38	0	0	70	223	233	3	239	249
Grp Sat Flow(s),veh/h/ln	1683	0	0	1558	0	0	1810	1805	1877	1810	1805	1866
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.1	4.0	4.0
Cycle Q Clear(g_c), s	2.1	0.0	0.0	1.1	0.0	0.0	2.2	0.0	0.0	0.1	4.0	4.0
Prop In Lane	0.18		0.55	0.61		0.32	1.00		0.07	1.00		0.10
Lane Grp Cap(c), veh/h	302	0	0	310	0	0	104	1123	1167	7	1027	1061
V/C Ratio(X)	0.22	0.00	0.00	0.12	0.00	0.00	0.67	0.20	0.20	0.41	0.23	0.23
Avail Cap(c_a), veh/h	552	0	0	530	0	0	525	1123	1167	151	1027	1061
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	0.0	0.0	22.8	0.0	0.0	26.0	0.0	0.0	29.8	6.4	6.4
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.2	0.0	0.0	2.8	0.4	0.4	12.9	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	0.5	0.0	0.0	1.0	0.1	0.1	0.1	1.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.6	0.0	0.0	23.0	0.0	0.0	28.8	0.4	0.4	42.7	7.0	7.0
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		66			38			526			491	
Approach Delay, s/veh		23.6			23.0			4.2			7.2	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	42.1		13.0	8.0	38.9		13.0				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		4.1	4.2	6.0		3.1				
Green Ext Time (p_c), s	0.0	2.7		0.2	0.1	1.3		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			7.3									
HCM 6th LOS			A									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

Jack Rabbit Trail (JN 12396)

17: Potrero Bl. & SR-60 WB Ramps

07/13/2020

	↖	↗	↑	↘	↓	↙
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↖↖	↖↖	↑↑↑	↖	↑↑↑	↖↖
Traffic Volume (vph)	125	108	788	406	350	356
Future Volume (vph)	125	108	788	406	350	356
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	11.3	10.1	16.0	16.0	16.0	16.0
Actuated g/C Ratio	0.30	0.27	0.42	0.42	0.42	0.42
v/c Ratio	0.13	0.14	0.40	0.48	0.18	0.28
Control Delay	11.3	4.2	7.9	2.8	6.7	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.3	4.2	7.9	2.8	6.7	1.5
LOS	B	A	A	A	A	A
Approach Delay			6.2		4.1	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 37.8

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.48

Intersection Signal Delay: 5.7

Intersection LOS: A

Intersection Capacity Utilization 33.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps



HCM 6th Signalized Intersection Summary
17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	125	0	108	0	788	406	0	350	356
Future Volume (veh/h)	0	0	0	125	0	108	0	788	406	0	350	356
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				136	0	90	0	857	0	0	380	305
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				640	0	517	0	2194		0	2194	1199
Arrive On Green				0.19	0.00	0.19	0.00	0.43	0.00	0.00	0.43	0.43
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				136	0	90	0	857	0	0	380	305
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				0.9	0.0	0.7	0.0	3.1	0.0	0.0	1.2	1.9
Cycle Q Clear(g_c), s				0.9	0.0	0.7	0.0	3.1	0.0	0.0	1.2	1.9
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				640	0	517	0	2194		0	2194	1199
V/C Ratio(X)				0.21	0.00	0.17	0.00	0.39		0.00	0.17	0.25
Avail Cap(c_a), veh/h				5170	0	4174	0	13085		0	13085	7149
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				9.3	0.0	9.3	0.0	5.3	0.0	0.0	4.7	4.9
Incr Delay (d2), s/veh				0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.2	0.0	0.1	0.0	0.3	0.0	0.0	0.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				9.4	0.0	9.3	0.0	5.4	0.0	0.0	4.8	5.0
LnGrp LOS				A	A	A	A	A		A	A	A
Approach Vol, veh/h					226			857	A		685	
Approach Delay, s/veh					9.4			5.4			4.9	
Approach LOS					A			A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		17.4				17.4		9.6				
Change Period (Y+Rc), s		5.8				5.8		4.6				
Max Green Setting (Gmax), s		69.2				69.2		40.4				
Max Q Clear Time (g_c+I1), s		5.1				3.9		2.9				
Green Ext Time (p_c), s		6.5				3.9		0.4				
Intersection Summary												
HCM 6th Ctrl Delay				5.7								
HCM 6th LOS				A								
Notes												
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.												

Timings
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

						
Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	436	257	758	332	355	120
Future Volume (vph)	436	257	758	332	355	120
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	49.0	49.0	71.0	71.0	71.0	71.0
Total Split (%)	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	11.0	9.8	15.8	15.8	15.8	15.8
Actuated g/C Ratio	0.29	0.26	0.42	0.42	0.42	0.42
v/c Ratio	0.47	0.30	0.38	0.26	0.18	0.17
Control Delay	13.4	3.3	7.9	1.6	6.8	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	3.3	7.9	1.6	6.8	2.4
LOS	B	A	A	A	A	A
Approach Delay			6.0		5.7	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 37.4

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.47

Intersection Signal Delay: 7.1

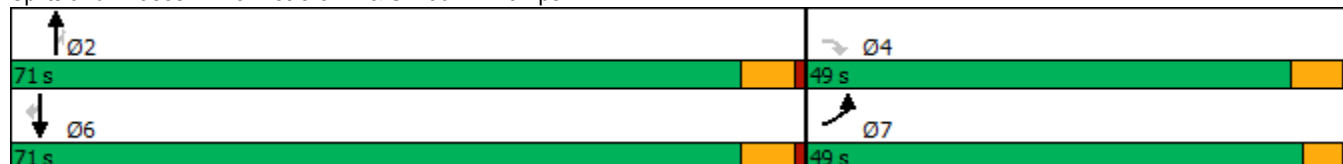
Intersection LOS: A

Intersection Capacity Utilization 35.3%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps



HCM 6th Signalized Intersection Summary 18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	436	0	257	0	0	0	0	758	332	0	355	120
Future Volume (veh/h)	436	0	257	0	0	0	0	758	332	0	355	120
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	474	0	197				0	824	318	0	386	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1007	0	813				0	2071	1131	0	2071	
Arrive On Green	0.29	0.00	0.29				0.00	0.41	0.41	0.00	0.41	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	474	0	197				0	824	318	0	386	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	3.9	0.0	1.8				0.0	3.9	2.6	0.0	1.7	0.0
Cycle Q Clear(g_c), s	3.9	0.0	1.8				0.0	3.9	2.6	0.0	1.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1007	0	813				0	2071	1131	0	2071	
V/C Ratio(X)	0.47	0.00	0.24				0.00	0.40	0.28	0.00	0.19	
Avail Cap(c_a), veh/h	4471	0	3609				0	9701	5300	0	9701	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	10.0	0.0	9.3				0.0	7.2	6.8	0.0	6.6	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.1				0.0	0.1	0.1	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	0.3				0.0	0.7	0.4	0.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.1	0.0	9.3				0.0	7.4	7.0	0.0	6.6	0.0
LnGrp LOS	B	A	A				A	A	A	A	A	
Approach Vol, veh/h	671						1142			386		
Approach Delay, s/veh	9.9						7.2			6.6		
Approach LOS	A						A			A		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	19.7			14.6			19.7					
Change Period (Y+Rc), s	5.8			4.6			5.8					
Max Green Setting (Gmax), s	65.2			44.4			65.2					
Max Q Clear Time (g_c+I1), s	5.9			5.9			3.7					
Green Ext Time (p_c), s	8.0			1.3			2.6					
Intersection Summary												
HCM 6th Ctrl Delay	7.9											
HCM 6th LOS	A											
Notes												

Intersection	
Intersection Delay, s/veh	19.8
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	332	65	259	411	130	331
Future Vol, veh/h	332	65	259	411	130	331
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	365	71	285	452	143	364
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	15.8	18.9	24.7
HCM LOS	C	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	331	166	166	65	259	206	206
LT Vol	130	0	0	0	0	259	0	0
Through Vol	0	0	166	166	0	0	206	206
RT Vol	0	331	0	0	65	0	0	0
Lane Flow Rate	143	364	182	182	71	285	226	226
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.339	0.74	0.421	0.421	0.116	0.651	0.484	0.374
Departure Headway (Hd)	8.537	7.327	8.312	8.312	5.832	8.237	7.722	5.97
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	420	491	432	432	610	438	465	601
Service Time	6.307	5.096	6.091	6.091	3.609	6.005	5.489	3.736
HCM Lane V/C Ratio	0.34	0.741	0.421	0.421	0.116	0.651	0.486	0.376
HCM Control Delay	15.7	28.3	17.1	17.1	9.4	25.2	17.6	12.3
HCM Lane LOS	C	D	C	C	A	D	C	B
HCM 95th-tile Q	1.5	6.1	2	2	0.4	4.5	2.6	1.7

Intersection

Intersection Delay, s/veh65.2

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	2	0	104	0	628	0	10	393	0
Future Vol, veh/h	0	0	0	2	0	104	0	628	0	10	393	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	135	0	816	0	13	510	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	11.3	101.3	23
HCM LOS	B	F	C

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	2%	2%
Vol Thru, %	100%	0%	98%
Vol Right, %	0%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	628	106	403
LT Vol	0	2	10
Through Vol	628	0	393
RT Vol	0	104	0
Lane Flow Rate	816	138	523
Geometry Grp	1	1	1
Degree of Util (X)	1.145	0.231	0.752
Departure Headway (Hd)	5.056	6.414	5.427
Convergence, Y/N	Yes	Yes	Yes
Cap	726	563	670
Service Time	3.056	4.414	3.427
HCM Lane V/C Ratio	1.124	0.245	0.781
HCM Control Delay	101.3	11.3	23
HCM Lane LOS	F	B	C
HCM 95th-tile Q	25.1	0.9	6.8

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	439	80	25	501	348	149
Future Volume (vph)	439	80	25	501	348	149
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	28.0	58.0	30.0	30.0	32.0	32.0
Total Split (%)	31.1%	64.4%	33.3%	33.3%	35.6%	35.6%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	23.9	46.6	18.1	18.1	16.7	16.7
Actuated g/C Ratio	0.32	0.62	0.24	0.24	0.22	0.22
v/c Ratio	1.15	0.05	0.08	0.90	0.67	0.42
Control Delay	115.0	6.4	23.0	21.7	32.1	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	115.0	6.4	23.0	21.7	32.1	6.6
LOS	F	A	C	C	C	A
Approach Delay		98.3	21.8		24.5	
Approach LOS		F	C		C	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 75.5

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.15

Intersection Signal Delay: 48.4

Intersection LOS: D

Intersection Capacity Utilization 64.0%

ICU Level of Service C

Analysis Period (min) 15

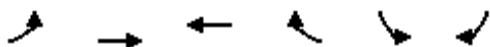
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	439	80	25	501	348	149	
Future Volume (veh/h)	439	80	25	501	348	149	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	655	119	37	748	519	222	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	533	2370	578	490	676	310	
Arrive On Green	0.29	0.66	0.30	0.30	0.19	0.19	
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610	
Grp Volume(v), veh/h	655	119	37	748	519	222	
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610	
Q Serve(g_s), s	23.4	0.9	1.1	24.2	11.1	10.3	
Cycle Q Clear(g_c), s	23.4	0.9	1.1	24.2	11.1	10.3	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	533	2370	578	490	676	310	
V/C Ratio(X)	1.23	0.05	0.06	1.53	0.77	0.72	
Avail Cap(c_a), veh/h	533	2370	578	490	1139	522	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	28.1	4.9	19.6	27.7	30.4	30.1	
Incr Delay (d2), s/veh	119.2	0.0	0.0	247.0	1.9	3.1	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	26.7	0.2	0.5	41.9	4.4	0.3	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	147.2	4.9	19.7	274.7	32.3	33.2	
LnGrp LOS	F	A	B	F	C	C	
Approach Vol, veh/h		774	785		741		
Approach Delay, s/veh		125.3	262.7		32.5		
Approach LOS		F	F		C		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				58.0	21.5	28.0	30.0
Change Period (Y+Rc), s				5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s				52.2	25.8	23.4	24.2
Max Q Clear Time (g_c+I1), s				2.9	13.1	25.4	26.2
Green Ext Time (p_c), s				0.4	2.2	0.0	0.0
Intersection Summary							
HCM 6th Ctrl Delay			142.3				
HCM 6th LOS			F				

Intersection	
Intersection Delay, s/veh	135
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	54	745	871	376	232	53
Future Vol, veh/h	54	745	871	376	232	53
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	56	768	898	388	239	55
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	346.3	23.5	30.6
HCM LOS	F	C	D

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	81%
Vol Thru, %	0%	100%	100%	100%	32%	0%
Vol Right, %	0%	0%	0%	0%	68%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	54	745	348	348	550	285
LT Vol	54	0	0	0	0	232
Through Vol	0	745	348	348	174	0
RT Vol	0	0	0	0	376	53
Lane Flow Rate	56	768	359	359	567	294
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.135	1.758	0.678	0.678	0.727	0.685
Departure Headway (Hd)	8.758	8.242	7.712	7.712	5.455	9.527
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	408	445	471	471	669	382
Service Time	6.557	6.041	5.412	5.412	3.155	7.227
HCM Lane V/C Ratio	0.137	1.726	0.762	0.762	0.848	0.77
HCM Control Delay	12.9	370.5	25.2	25.2	21.3	30.6
HCM Lane LOS	B	F	D	D	C	D
HCM 95th-tile Q	0.5	47	5	5	6.3	4.9

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	↶	↷	↴
Traffic Volume (vph)	677	225	927	1
Future Volume (vph)	677	225	927	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	29.1	10.6	43.7	38.3
Actuated g/C Ratio	0.32	0.12	0.49	0.43
v/c Ratio	2.12	1.40	1.32	1.64
Control Delay	531.9	217.4	170.8	316.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	531.9	217.4	170.8	316.3
LOS	F	F	F	F
Approach Delay	531.9		179.9	316.3
Approach LOS	F		F	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 2.12

Intersection Signal Delay: 333.7

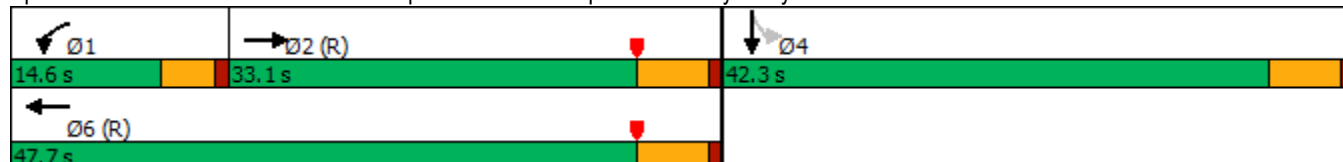
Intersection LOS: F

Intersection Capacity Utilization 131.1%

ICU Level of Service H

Analysis Period (min) 15

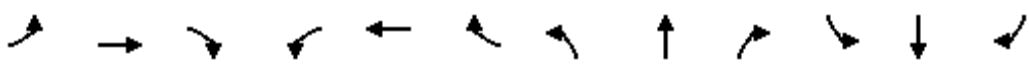
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/13/2020

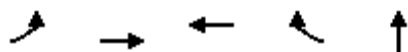
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩	
Traffic Volume (veh/h)	0	677	300	225	927	0	0	0	0	633	1	321
Future Volume (veh/h)	0	677	300	225	927	0	0	0	0	633	1	321
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	891	323	296	1220	0				833	1	356
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	430	156	213	923	0				520	1	222
Arrive On Green	0.00	0.32	0.30	0.12	0.49	0.00				0.43	0.43	0.41
Sat Flow, veh/h	0	1331	482	1810	1900	0				1221	1	522
Grp Volume(v), veh/h	0	0	1214	296	1220	0				1190	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1813	1810	1900	0				1745	0	0
Q Serve(g_s), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Prop In Lane	0.00		0.27	1.00		0.00				0.70		0.30
Lane Grp Cap(c), veh/h	0	0	586	213	923	0				743	0	0
V/C Ratio(X)	0.00	0.00	2.07	1.39	1.32	0.00				1.60	0.00	0.00
Avail Cap(c_a), veh/h	0	0	586	213	923	0				743	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	30.7	39.7	23.1	0.0				26.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	487.7	177.7	145.8	0.0				277.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	91.1	15.0	54.0	0.0				71.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	518.4	217.4	169.0	0.0				303.6	0.0	0.0
LnGrp LOS	A	A	F	F	F	A				F	A	A
Approach Vol, veh/h		1214			1516						1190	
Approach Delay, s/veh		518.4			178.4						303.6	
Approach LOS		F			F						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.6	33.1		42.3		47.7						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9						
Max Q Clear Time (g_c+I1), s	12.6	31.1		40.3		45.7						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.0						
Intersection Summary												
HCM 6th Ctrl Delay			321.7									
HCM 6th LOS			F									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	295	1014	678	383	5
Future Volume (vph)	295	1014	678	383	5
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	14.4	44.0	29.6	29.6	46.0
Total Split (%)	16.0%	48.9%	32.9%	32.9%	51.1%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	10.4	40.0	25.6	25.6	42.0
Actuated g/C Ratio	0.12	0.44	0.28	0.28	0.47
v/c Ratio	1.46	1.24	1.29	0.56	1.05
Control Delay	240.6	130.9	175.8	8.1	69.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	240.6	130.9	175.8	8.1	69.6
LOS	F	F	F	A	E
Approach Delay		155.7	115.2		69.6
Approach LOS		F	F		E

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.46

Intersection Signal Delay: 119.6

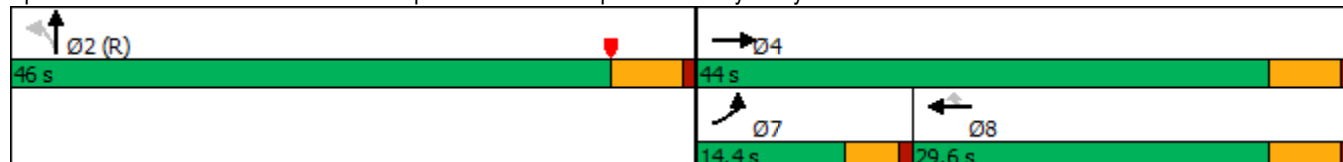
Intersection LOS: F

Intersection Capacity Utilization 131.1%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	295	1014	0	0	678	383	473	5	373	0	0	0
Future Volume (veh/h)	295	1014	0	0	678	383	473	5	373	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	304	1045	0	0	699	325	488	5	333			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	209	844	0	0	540	458	475	5	324			
Arrive On Green	0.04	0.15	0.00	0.00	0.28	0.28	0.47	0.47	0.45			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1019	10	695			
Grp Volume(v), veh/h	304	1045	0	0	699	325	826	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1724	0	0			
Q Serve(g_s), s	10.4	40.0	0.0	0.0	25.6	16.3	42.0	0.0	0.0			
Cycle Q Clear(g_c), s	10.4	40.0	0.0	0.0	25.6	16.3	42.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.59		0.40			
Lane Grp Cap(c), veh/h	209	844	0	0	540	458	805	0	0			
V/C Ratio(X)	1.45	1.24	0.00	0.00	1.29	0.71	1.03	0.00	0.00			
Avail Cap(c_a), veh/h	209	844	0	0	540	458	805	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.3	38.4	0.0	0.0	32.2	28.9	24.4	0.0	0.0			
Incr Delay (d2), s/veh	206.7	107.9	0.0	0.0	145.4	5.0	38.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	16.8	45.2	0.0	0.0	32.6	6.5	23.5	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	250.0	146.3	0.0	0.0	177.6	33.9	63.1	0.0	0.0			
LnGrp LOS	F	F	A	A	F	C	F	A	A			
Approach Vol, veh/h	1349			1024			826					
Approach Delay, s/veh	169.6			132.0			63.1					
Approach LOS	F			F			E					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	46.0			44.0			14.4			29.6		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	40.2			38.2			9.8			23.8		
Max Q Clear Time (g_c+I1), s	44.0			42.0			12.4			27.6		
Green Ext Time (p_c), s	0.0			0.0			0.0			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	130.1											
HCM 6th LOS	F											

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑				↑			↑
Traffic Vol, veh/h	27	930	139	119	735	61	0	0	130	0	0	72
Future Vol, veh/h	27	930	139	119	735	61	0	0	130	0	0	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	29	1000	149	128	790	66	0	0	140	0	0	77
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	856	0	0	1149	0	0	-	-	575	-	-	428
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	793	-	-	615	-	-	0	0	466	0	0	581
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	793	-	-	615	-	-	-	-	466	-	-	581
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			1.6			16			12.1		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	466	793	-	-	615	-	-	581				
HCM Lane V/C Ratio	0.3	0.037	-	-	0.208	-	-	0.133				
HCM Control Delay (s)	16	9.7	-	-	12.4	-	-	12.1				
HCM Lane LOS	C	A	-	-	B	-	-	B				
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0.8	-	-	0.5				

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	117	479	10	424	33	44	41	12	15	65	65
Future Volume (vph)	117	479	10	424	33	44	41	12	15	65	65
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	36.0	54.0	15.0	33.0	33.0	23.0	34.0	34.0	17.0	28.0	28.0
Total Split (%)	30.0%	45.0%	12.5%	27.5%	27.5%	19.2%	28.3%	28.3%	14.2%	23.3%	23.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	11.6	42.0	5.5	27.6	27.6	7.3	16.3	16.3	5.7	10.8	10.8
Actuated g/C Ratio	0.15	0.55	0.07	0.36	0.36	0.10	0.21	0.21	0.08	0.14	0.14
v/c Ratio	0.61	0.41	0.11	0.88	0.07	0.36	0.14	0.04	0.16	0.35	0.24
Control Delay	41.2	12.1	38.7	41.7	0.2	40.6	28.3	0.2	39.0	36.2	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	12.1	38.7	41.7	0.2	40.6	28.3	0.2	39.0	36.2	1.4
LOS	D	B	D	D	A	D	C	A	D	D	A
Approach Delay		17.1		38.7			30.4			20.9	
Approach LOS		B		D			C			C	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 76

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 25.7

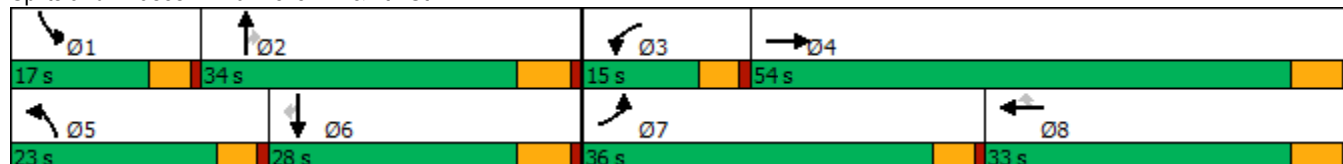
Intersection LOS: C

Intersection Capacity Utilization 51.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	479	85	10	424	33	44	41	12	15	65	65
Future Volume (veh/h)	117	479	85	10	424	33	44	41	12	15	65	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	167	684	121	14	606	47	63	59	17	21	93	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	212	1408	249	31	682	578	94	344	291	44	291	
Arrive On Green	0.12	0.46	0.46	0.02	0.36	0.36	0.05	0.18	0.18	0.02	0.15	0.00
Sat Flow, veh/h	1810	3066	542	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	167	402	403	14	606	47	63	59	17	21	93	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1802	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	5.9	10.1	10.2	0.5	19.6	1.3	2.2	1.7	0.6	0.7	2.8	0.0
Cycle Q Clear(g_c), s	5.9	10.1	10.2	0.5	19.6	1.3	2.2	1.7	0.6	0.7	2.8	0.0
Prop In Lane	1.00		0.30	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	212	829	828	31	682	578	94	344	291	44	291	
V/C Ratio(X)	0.79	0.49	0.49	0.45	0.89	0.08	0.67	0.17	0.06	0.48	0.32	
Avail Cap(c_a), veh/h	870	1332	1330	288	791	671	510	820	695	344	646	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.0	12.3	12.3	31.8	19.7	13.8	30.4	22.6	22.1	31.5	24.6	0.0
Incr Delay (d2), s/veh	2.4	0.4	0.4	3.8	10.9	0.1	3.0	0.2	0.1	3.0	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	3.3	3.3	0.2	9.2	0.4	1.0	0.7	0.2	0.3	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.5	12.7	12.7	35.5	30.6	13.9	33.4	22.8	22.2	34.4	25.3	0.0
LnGrp LOS	C	B	B	D	C	B	C	C	C	C	C	
Approach Vol, veh/h		972			667			139			114	
Approach Delay, s/veh		15.8			29.6			27.6			26.9	
Approach LOS		B			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.2	17.6	5.7	35.8	8.0	15.8	12.3	29.2				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	12.4	28.2	10.4	48.2	18.4	22.2	31.4	27.2				
Max Q Clear Time (g_c+I1), s	2.7	3.7	2.5	12.2	4.2	4.8	7.9	21.6				
Green Ext Time (p_c), s	0.0	0.3	0.0	5.1	0.0	0.3	0.2	1.8				

Intersection Summary

HCM 6th Ctrl Delay	22.2
HCM 6th LOS	C

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	21	498	188	292	294	11	304	142	15	85
Future Volume (vph)	21	498	188	292	294	11	304	142	15	85
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	19.0	36.6	9.6	27.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	21.1%	40.7%	10.7%	30.2%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.8	-0.8	-0.6	-0.8	-0.8	-0.6	-1.2	-0.6	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.7	27.5	27.5	6.4	34.1	34.1	15.0	40.4	5.6	23.2
Actuated g/C Ratio	0.06	0.31	0.31	0.07	0.39	0.39	0.17	0.46	0.06	0.26
v/c Ratio	0.19	0.89	0.31	2.34	0.42	0.02	1.04	0.48	0.14	0.21
Control Delay	43.9	47.3	4.8	652.9	23.1	0.0	101.6	15.3	42.9	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	47.3	4.8	652.9	23.1	0.0	101.6	15.3	42.9	25.3
LOS	D	D	A	F	C	A	F	B	D	C
Approach Delay		35.9			330.6			53.3		27.7
Approach LOS		D			F			D		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 88.2

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.34

Intersection Signal Delay: 124.7

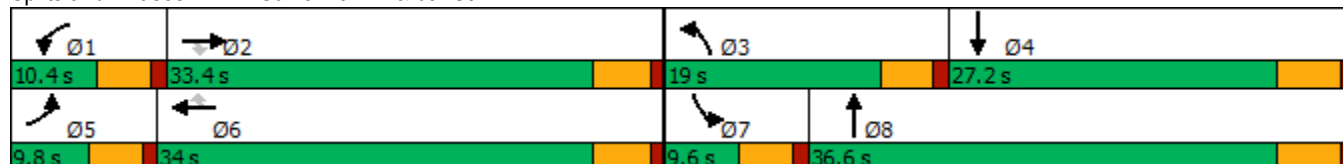
Intersection LOS: F

Intersection Capacity Utilization 75.9%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	498	188	292	294	11	304	142	244	15	85	12
Future Volume (veh/h)	21	498	188	292	294	11	304	142	244	15	85	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	524	194	307	309	7	320	149	226	16	89	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	55	590	500	132	670	568	309	279	423	46	459	36
Arrive On Green	0.03	0.31	0.31	0.07	0.35	0.35	0.17	0.41	0.40	0.03	0.26	0.25
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	681	1033	1810	1739	137
Grp Volume(v), veh/h	22	524	194	307	309	7	320	0	375	16	0	96
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1714	1810	0	1875
Q Serve(g_s), s	1.0	23.1	8.3	6.4	11.0	0.2	15.0	0.0	14.6	0.8	0.0	3.5
Cycle Q Clear(g_c), s	1.0	23.1	8.3	6.4	11.0	0.2	15.0	0.0	14.6	0.8	0.0	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.60	1.00		0.07
Lane Grp Cap(c), veh/h	55	590	500	132	670	568	309	0	702	46	0	495
V/C Ratio(X)	0.40	0.89	0.39	2.33	0.46	0.01	1.04	0.00	0.53	0.35	0.00	0.19
Avail Cap(c_a), veh/h	119	636	539	132	670	568	309	0	702	115	0	495
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.8	28.9	23.8	40.7	22.0	18.5	36.4	0.0	19.9	42.1	0.0	25.1
Incr Delay (d2), s/veh	1.7	13.8	0.5	621.2	0.5	0.0	60.8	0.0	2.9	1.7	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	12.4	3.0	25.5	4.9	0.1	11.4	0.0	5.9	0.3	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.5	42.7	24.3	661.9	22.5	18.5	97.2	0.0	22.8	43.8	0.0	26.0
LnGrp LOS	D	D	C	F	C	B	F	A	C	D	A	C
Approach Vol, veh/h		740			623			695			112	
Approach Delay, s/veh		37.9			337.5			57.1			28.5	
Approach LOS		D			F			E			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.4	31.3	19.0	27.2	6.7	35.0	6.2	40.0				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	5.8	* 29	14.4	22.0	5.2	* 29	5.0	31.4				
Max Q Clear Time (g_c+I1), s	8.4	25.1	17.0	5.5	3.0	13.0	2.8	16.6				
Green Ext Time (p_c), s	0.0	1.4	0.0	0.3	0.0	1.6	0.0	1.9				

Intersection Summary

HCM 6th Ctrl Delay 129.6

HCM 6th LOS F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	4.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↖	↕	↗		↕	↗
Traffic Vol, veh/h	5	3	94	49	3	22	194	659	36	7	496	7
Future Vol, veh/h	5	3	94	49	3	22	194	659	36	7	496	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	120	-	50	-	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	3	99	52	3	23	204	694	38	7	522	7
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1670	1676	522	1693	1645	694	529	0	0	732	0	0
Stage 1	536	536	-	1102	1102	-	-	-	-	-	-	-
Stage 2	1134	1140	-	591	543	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	77	96	559	74	101	446	1048	-	-	882	-	-
Stage 1	532	527	-	259	290	-	-	-	-	-	-	-
Stage 2	249	278	-	497	523	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	61	76	559	~ 51	80	446	1048	-	-	882	-	-
Mov Cap-2 Maneuver	138	167	-	116	157	-	-	-	-	-	-	-
Stage 1	428	521	-	208	233	-	-	-	-	-	-	-
Stage 2	188	224	-	402	517	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	14.2		45.8		2		0.1					
HCM LOS	B		E									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1048	-	-	148	559	118	446	882	-	-		
HCM Lane V/C Ratio	0.195	-	-	0.057	0.177	0.464	0.052	0.008	-	-		
HCM Control Delay (s)	9.3	-	-	30.8	12.8	59.5	13.5	9.1	0	-		
HCM Lane LOS	A	-	-	D	B	F	B	A	A	-		
HCM 95th %tile Q(veh)	0.7	-	-	0.2	0.6	2.1	0.2	0	-	-		
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s			+: Computation Not Defined				*: All major volume in platoon			

Intersection							
Int Delay, s/veh	696.9						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations							
Traffic Vol, veh/h	363	182	126	546	1059	365	
Future Vol, veh/h	363	182	126	546	1059	365	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	0	0	0	-	-	-	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	0	0	0	0	0	0	
Mvmt Flow	395	198	137	593	1151	397	
Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	2217	1350	1548	0	-	0	
Stage 1	1350	-	-	-	-	-	
Stage 2	867	-	-	-	-	-	
Critical Hdwy	6.4	6.2	4.1	-	-	-	
Critical Hdwy Stg 1	5.4	-	-	-	-	-	
Critical Hdwy Stg 2	5.4	-	-	-	-	-	
Follow-up Hdwy	3.5	3.3	2.2	-	-	-	
Pot Cap-1 Maneuver	~ 49	~ 186	434	-	-	-	
Stage 1	~ 244	-	-	-	-	-	
Stage 2	415	-	-	-	-	-	
Platoon blocked, %				-	-	-	
Mov Cap-1 Maneuver	~ 34	~ 186	434	-	-	-	
Mov Cap-2 Maneuver	~ 34	-	-	-	-	-	
Stage 1	~ 167	-	-	-	-	-	
Stage 2	415	-	-	-	-	-	
Approach	EB		NB		SB		
HCM Control Delay, \$	3373.2		3.2		0		
HCM LOS	F						
Minor Lane/Major Mvmt	NBL		NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	434		-	34	186	-	-
HCM Lane V/C Ratio	0.316		-	11.605	1.064	-	-
HCM Control Delay (s)	17.1		\$	4996.3	136	-	-
HCM Lane LOS	C		-	F	F	-	-
HCM 95th %tile Q(veh)	1.3		-	48.1	9.4	-	-
Notes							
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon	

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)
07/13/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	43	17	79	5	25	486	10	479
Future Volume (vph)	43	17	79	5	25	486	10	479
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		-0.6		-0.8	-0.6	-0.8	-0.6	-0.8
Total Lost Time (s)		4.0		4.0	4.0	4.0	4.0	4.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		11.5		11.5	6.2	42.2	5.8	39.8
Actuated g/C Ratio		0.19		0.19	0.10	0.70	0.10	0.66
v/c Ratio		0.32		0.37	0.14	0.21	0.06	0.22
Control Delay		16.1		21.9	30.1	5.0	25.2	6.8
Queue Delay		0.4		0.5	1.3	0.4	0.0	0.3
Total Delay		16.4		22.3	31.4	5.4	25.2	7.1
LOS		B		C	C	A	C	A
Approach Delay		16.4		22.3		6.6		7.5
Approach LOS		B		C		A		A

Intersection Summary

Cycle Length: 60
Actuated Cycle Length: 60
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.37
Intersection Signal Delay: 9.0
Intersection Capacity Utilization 37.4%
Analysis Period (min) 15
Intersection LOS: A
ICU Level of Service A

Splits and Phases: 14: Beaumont Av. & 5th St.

 Ø1	 Ø2 (R)	 Ø4
12 s	29 s	19 s
 Ø5	 Ø6 (R)	 Ø8
12 s	29 s	19 s

HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	17	43	79	5	17	25	486	33	10	479	18
Future Volume (veh/h)	43	17	43	79	5	17	25	486	33	10	479	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	44	18	44	81	5	18	26	501	34	10	494	19
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	168	80	116	304	27	47	71	2066	140	41	2076	80
Arrive On Green	0.17	0.17	0.16	0.17	0.17	0.16	0.08	1.00	1.00	0.02	0.59	0.57
Sat Flow, veh/h	485	464	674	1125	152	267	1810	3431	232	1810	3544	136
Grp Volume(v), veh/h	106	0	0	104	0	0	26	263	272	10	251	262
Grp Sat Flow(s),veh/h/ln	1623	0	0	1544	0	0	1810	1805	1858	1810	1805	1875
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.3	4.0	4.0
Cycle Q Clear(g_c), s	3.2	0.0	0.0	3.0	0.0	0.0	0.8	0.0	0.0	0.3	4.0	4.0
Prop In Lane	0.42		0.42	0.78		0.17	1.00		0.13	1.00		0.07
Lane Grp Cap(c), veh/h	363	0	0	377	0	0	71	1087	1119	41	1057	1099
V/C Ratio(X)	0.29	0.00	0.00	0.28	0.00	0.00	0.37	0.24	0.24	0.24	0.24	0.24
Avail Cap(c_a), veh/h	486	0	0	483	0	0	241	1087	1119	241	1057	1099
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	0.0	21.7	0.0	0.0	26.9	0.0	0.0	28.8	6.0	6.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.4	0.0	0.0	1.2	0.5	0.5	1.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.0	1.3	0.0	0.0	0.4	0.2	0.2	0.1	1.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	0.0	0.0	22.1	0.0	0.0	28.1	0.5	0.5	29.9	6.5	6.5
LnGrp LOS	C	A	A	C	A	A	C	A	A	C	A	A
Approach Vol, veh/h		106			104			561			523	
Approach Delay, s/veh		22.5			22.1			1.8			7.0	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	40.1		14.5	6.4	39.1		14.5				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		5.2	2.8	6.0		5.0				
Green Ext Time (p_c), s	0.0	3.2		0.3	0.0	2.9		0.3				
Intersection Summary												
HCM 6th Ctrl Delay				7.2								
HCM 6th LOS				A								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

Jack Rabbit Trail (JN 12396)

07/13/2020

17: Potrero Bl. & SR-60 WB Ramps

						
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	209	152	870	379	582	410
Future Volume (vph)	209	152	870	379	582	410
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	40.0	40.0	80.0	80.0	80.0	80.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	11.3	10.1	17.6	17.6	17.6	17.6
Actuated g/C Ratio	0.29	0.26	0.45	0.45	0.45	0.45
v/c Ratio	0.23	0.20	0.42	0.44	0.28	0.30
Control Delay	12.7	4.1	7.8	2.5	7.0	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	4.1	7.8	2.5	7.0	1.4
LOS	B	A	A	A	A	A
Approach Delay			6.2		4.7	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 39.4

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 6.0

Intersection LOS: A

Intersection Capacity Utilization 34.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps

 Ø2	 Ø3
80 s	40 s
 Ø6	 Ø8
80 s	40 s

HCM 6th Signalized Intersection Summary
17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	209	0	152	0	870	379	0	582	410
Future Volume (veh/h)	0	0	0	209	0	152	0	870	379	0	582	410
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				227	0	138	0	946	0	0	633	364
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				610	0	493	0	2329		0	2329	1273
Arrive On Green				0.18	0.00	0.18	0.00	0.46	0.00	0.00	0.46	0.46
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				227	0	138	0	946	0	0	633	364
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				1.6	0.0	1.2	0.0	3.5	0.0	0.0	2.2	2.3
Cycle Q Clear(g_c), s				1.6	0.0	1.2	0.0	3.5	0.0	0.0	2.2	2.3
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				610	0	493	0	2329		0	2329	1273
V/C Ratio(X)				0.37	0.00	0.28	0.00	0.41		0.00	0.27	0.29
Avail Cap(c_a), veh/h				4320	0	3487	0	13378		0	13378	7309
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				10.3	0.0	10.1	0.0	5.1	0.0	0.0	4.8	4.8
Incr Delay (d2), s/veh				0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.4	0.0	0.2	0.0	0.3	0.0	0.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				10.4	0.0	10.2	0.0	5.3	0.0	0.0	4.8	4.9
LnGrp LOS				B	A	B	A	A		A	A	A
Approach Vol, veh/h					365			946	A		997	
Approach Delay, s/veh					10.3			5.3			4.9	
Approach LOS					B			A			A	
Timer - Assigned Phs	2			6			8					
Phs Duration (G+Y+Rc), s	18.7			18.7			9.6					
Change Period (Y+Rc), s	5.8			5.8			4.6					
Max Green Setting (Gmax), s	74.2			74.2			35.4					
Max Q Clear Time (g_c+I1), s	5.5			4.3			3.6					
Green Ext Time (p_c), s	7.4			6.3			0.7					
Intersection Summary												
HCM 6th Ctrl Delay	5.9											
HCM 6th LOS	A											

Timings
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

						
Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	570	257	679	332	709	83
Future Volume (vph)	570	257	679	332	709	83
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	12.0	10.7	15.7	15.7	15.7	15.7
Actuated g/C Ratio	0.31	0.28	0.41	0.41	0.41	0.41
v/c Ratio	0.58	0.28	0.35	0.27	0.37	0.13
Control Delay	14.2	3.1	8.4	1.8	8.4	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	3.1	8.4	1.8	8.4	2.8
LOS	B	A	A	A	A	A
Approach Delay			6.2		7.9	
Approach LOS			A		A	
Intersection Summary						
Cycle Length: 120						
Actuated Cycle Length: 38.3						
Natural Cycle: 50						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.58						
Intersection Signal Delay: 8.1				Intersection LOS: A		
Intersection Capacity Utilization 38.1%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps



HCM 6th Signalized Intersection Summary 18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	 		 					  	 		  		
Traffic Volume (veh/h)	570	0	257	0	0	0	0	679	332	0	709	83	
Future Volume (veh/h)	570	0	257	0	0	0	0	679	332	0	709	83	
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No						No			No			
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870	
Adj Flow Rate, veh/h	620	0	197				0	738	279	0	771	0	
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2	
Cap, veh/h	1057	0	853				0	1921	1049	0	1921		
Arrive On Green	0.31	0.00	0.31				0.00	0.38	0.38	0.00	0.38	0.00	
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585	
Grp Volume(v), veh/h	620	0	197				0	738	279	0	771	0	
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585	
Q Serve(g_s), s	5.0	0.0	1.7				0.0	3.4	2.3	0.0	3.6	0.0	
Cycle Q Clear(g_c), s	5.0	0.0	1.7				0.0	3.4	2.3	0.0	3.6	0.0	
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00	
Lane Grp Cap(c), veh/h	1057	0	853				0	1921	1049	0	1921		
V/C Ratio(X)	0.59	0.00	0.23				0.00	0.38	0.27	0.00	0.40		
Avail Cap(c_a), veh/h	4269	0	3446				0	10805	5903	0	10805		
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00	
Uniform Delay (d), s/veh	9.6	0.0	8.5				0.0	7.4	7.1	0.0	7.5	0.0	
Incr Delay (d2), s/veh	0.2	0.0	0.1				0.0	0.1	0.1	0.0	0.1	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.3				0.0	0.6	0.3	0.0	0.7	0.0	
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh	9.8	0.0	8.5				0.0	7.6	7.2	0.0	7.6	0.0	
LnGrp LOS	A	A	A				A	A	A	A	A		
Approach Vol, veh/h	817						1017			771			A
Approach Delay, s/veh	9.5						7.5			7.6			
Approach LOS	A						A			A			
Timer - Assigned Phs	2			4			6						
Phs Duration (G+Y+Rc), s	18.1			14.6			18.1						
Change Period (Y+Rc), s	5.8			4.6			5.8						
Max Green Setting (Gmax), s	69.2			40.4			69.2						
Max Q Clear Time (g_c+I1), s	5.4			7.0			5.6						
Green Ext Time (p_c), s	6.9			1.6			5.7						
Intersection Summary													
HCM 6th Ctrl Delay	8.1												
HCM 6th LOS	A												
Notes													

APPENDIX 8.2:

OPENING YEAR (2027) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Timings

Jack Rabbit Trail (JN 12396)

07/16/2020

1: 4th St. & Jack Rabbit Trail



Lane Group	EBT	WBT	WBR	SBL
Lane Configurations	↑	↑	↰	↱
Traffic Volume (vph)	170	785	234	100
Future Volume (vph)	170	785	234	100
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8	22.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effect Green (s)	33.4	33.4	33.4	13.7
Actuated g/C Ratio	0.68	0.68	0.68	0.28
v/c Ratio	0.14	0.66	0.22	0.22
Control Delay	5.2	10.7	1.2	23.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.2	10.7	1.2	23.4
LOS	A	B	A	C
Approach Delay	5.2	8.5		23.4
Approach LOS	A	A		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 49.4

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 9.2

Intersection LOS: A

Intersection Capacity Utilization 59.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: 4th St. & Jack Rabbit Trail

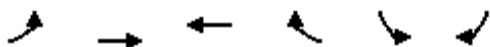


HCM 6th Signalized Intersection Summary

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

07/16/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	170	785	234	100	0
Future Volume (veh/h)	0	170	785	234	100	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	185	853	254	109	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	162	1087	1087	921	301	268
Arrive On Green	0.00	0.57	0.57	0.57	0.17	0.00
Sat Flow, veh/h	517	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	185	853	254	109	0
Grp Sat Flow(s),veh/h/ln	517	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	2.0	15.5	3.6	2.4	0.0
Cycle Q Clear(g_c), s	0.0	2.0	15.5	3.6	2.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	162	1087	1087	921	301	268
V/C Ratio(X)	0.00	0.17	0.78	0.28	0.36	0.00
Avail Cap(c_a), veh/h	498	2321	2321	1967	987	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	4.5	7.4	4.8	16.4	0.0
Incr Delay (d2), s/veh	0.0	0.1	1.3	0.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	3.0	0.5	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	4.6	8.7	5.0	17.1	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		185	1107		109	
Approach Delay, s/veh		4.6	7.8		17.1	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				31.2	13.2	31.2
Change Period (Y+Rc), s				5.8	5.8	5.8
Max Green Setting (Gmax), s				54.2	24.2	54.2
Max Q Clear Time (g_c+I1), s				4.0	4.4	17.5
Green Ext Time (p_c), s				1.0	0.2	7.9
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			

Intersection	
Intersection Delay, s/veh	45.8
Intersection LOS	E

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	327	45	430	349	66	309
Future Vol, veh/h	327	45	430	349	66	309
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	380	52	500	406	77	359
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	17	67.8	28.5
HCM LOS	C	F	D

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	66	309	164	164	45	430	175	175
LT Vol	66	0	0	0	0	430	0	0
Through Vol	0	0	164	164	0	0	175	175
RT Vol	0	309	0	0	45	0	0	0
Lane Flow Rate	77	359	190	190	52	500	203	203
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.188	0.762	0.44	0.44	0.086	1.132	0.43	0.331
Departure Headway (Hd)	9.082	7.867	8.661	8.661	6.175	8.147	7.632	5.881
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	398	463	418	418	584	445	473	611
Service Time	6.782	5.567	6.361	6.361	3.875	5.889	5.374	3.622
HCM Lane V/C Ratio	0.193	0.775	0.455	0.455	0.089	1.124	0.429	0.332
HCM Control Delay	13.9	31.6	18	18	9.5	111.7	16	11.5
HCM Lane LOS	B	D	C	C	A	F	C	B
HCM 95th-tile Q	0.7	6.5	2.2	2.2	0.3	17.8	2.1	1.4

Intersection

Intersection Delay, s/veh 48.8

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	10	0	59	0	114	5	49	665	0
Future Vol, veh/h	0	0	0	10	0	59	0	114	5	49	665	0
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	15	0	91	0	175	8	75	1023	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	10.6	10.3	185.3
HCM LOS	B	B	F

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	14%	7%
Vol Thru, %	96%	0%	93%
Vol Right, %	4%	86%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	119	69	714
LT Vol	0	10	49
Through Vol	114	0	665
RT Vol	5	59	0
Lane Flow Rate	183	106	1098
Geometry Grp	1	1	1
Degree of Util (X)	0.257	0.163	1.361
Departure Headway (Hd)	5.423	6.325	4.461
Convergence, Y/N	Yes	Yes	Yes
Cap	666	571	824
Service Time	3.423	4.325	2.467
HCM Lane V/C Ratio	0.275	0.186	1.333
HCM Control Delay	10.3	10.6	185.3
HCM Lane LOS	B	B	F
HCM 95th-tile Q	1	0.6	45.4

Timings
4: 4th St. & Potrero Bl.

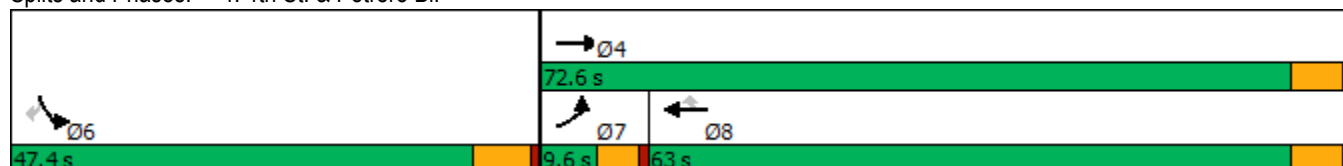
Jack Rabbit Trail (JN 12396)
06/05/2023

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	679	106	134	651	463	1063
Future Volume (vph)	679	106	134	651	463	1063
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	9.6	72.6	63.0	63.0	47.4	47.4
Total Split (%)	8.0%	60.5%	52.5%	52.5%	39.5%	39.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	5.1	30.9	21.1	21.1	42.0	42.0
Actuated g/C Ratio	0.06	0.36	0.25	0.25	0.49	0.49
v/c Ratio	9.38	0.12	0.42	0.86	0.40	1.39
Control Delay	3811.3	17.1	28.2	10.5	16.7	199.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3811.3	17.1	28.2	10.5	16.7	199.4
LOS	F	B	C	B	B	F
Approach Delay		3299.3	13.5		144.0	
Approach LOS		F	B		F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 85.2
 Natural Cycle: 150
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 9.38
 Intersection Signal Delay: 910.5
 Intersection LOS: F
 Intersection Capacity Utilization 86.6%
 ICU Level of Service E
 Analysis Period (min) 15

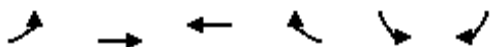
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/05/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	679	106	134	651	463	1063	
Future Volume (veh/h)	679	106	134	651	463	1063	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	1013	158	200	972	691	1587	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	75	2010	906	768	1205	553	
Arrive On Green	0.04	0.56	0.48	0.48	0.34	0.34	
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610	
Grp Volume(v), veh/h	1013	158	200	972	691	1587	
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610	
Q Serve(g_s), s	5.0	2.4	7.4	57.2	19.3	41.2	
Cycle Q Clear(g_c), s	5.0	2.4	7.4	57.2	19.3	41.2	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	75	2010	906	768	1205	553	
V/C Ratio(X)	13.44	0.08	0.22	1.27	0.57	2.87	
Avail Cap(c_a), veh/h	75	2010	906	768	1205	553	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	57.5	12.3	18.4	31.4	32.2	39.4	
Incr Delay (d2), s/veh	5621.7	0.0	0.1	130.2	0.7	846.8	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	120.0	0.9	3.1	48.2	7.9	130.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	5679.2	12.3	18.5	161.6	32.9	886.2	
LnGrp LOS	F	B	B	F	C	F	
Approach Vol, veh/h		1171	1172		2278		
Approach Delay, s/veh		4914.6	137.1		627.3		
Approach LOS		F	F		F		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				72.6	47.4	9.6	63.0
Change Period (Y+Rc), s				5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s				66.8	41.2	5.0	57.2
Max Q Clear Time (g_c+I1), s				4.4	43.2	7.0	59.2
Green Ext Time (p_c), s				0.6	0.0	0.0	0.0
Intersection Summary							
HCM 6th Ctrl Delay			1589.4				
HCM 6th LOS			F				

Intersection	
Intersection Delay, s/veh	284.6
Intersection LOS	F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	96	749	705	365	553	116
Future Vol, veh/h	96	749	705	365	553	116
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	110	861	810	420	636	133
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	487.1	42.2	416.7
HCM LOS	F	E	F

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	83%
Vol Thru, %	0%	100%	100%	100%	28%	0%
Vol Right, %	0%	0%	0%	0%	72%	17%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	96	749	282	282	506	669
LT Vol	96	0	0	0	0	553
Through Vol	0	749	282	282	141	0
RT Vol	0	0	0	0	365	116
Lane Flow Rate	110	861	324	324	582	769
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.29	2.14	0.688	0.688	0.879	1.851
Departure Headway (Hd)	11.73	11.186	11.27	11.27	8.877	10.126
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	309	336	324	324	413	369
Service Time	9.43	8.886	8.97	8.97	6.577	7.826
HCM Lane V/C Ratio	0.356	2.563	1	1	1.409	2.084
HCM Control Delay	19.2	547.1	35.5	35.5	49.6	416.7
HCM Lane LOS	C	F	E	E	E	F
HCM 95th-tile Q	1.2	50.9	4.8	4.8	8.9	43.5

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	←	→	→
Traffic Volume (vph)	742	300	720	3
Future Volume (vph)	742	300	720	3
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	42.8	14.8	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	1.66	1.14	0.62	2.08
Control Delay	325.2	110.0	5.4	517.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	325.2	110.0	5.4	517.3
LOS	F	F	A	F
Approach Delay	325.2		36.2	517.3
Approach LOS	F		D	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 2.08

Intersection Signal Delay: 268.6

Intersection LOS: F

Intersection Capacity Utilization 141.9%

ICU Level of Service H

Analysis Period (min) 15

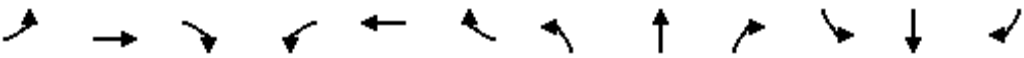
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/13/2020

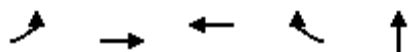
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰		↰	↰						↰	
Traffic Volume (veh/h)	0	742	561	300	720	0	0	0	0	305	3	349
Future Volume (veh/h)	0	742	561	300	720	0	0	0	0	305	3	349
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	834	543	337	809	0				343	3	373
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	511	333	298	1313	0				146	1	159
Arrive On Green	0.00	0.48	0.48	0.33	1.00	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	1074	700	1810	1900	0				811	7	882
Grp Volume(v), veh/h	0	0	1377	337	809	0				719	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1774	1810	1900	0				1701	0	0
Q Serve(g_s), s	0.0	0.0	42.8	14.8	0.0	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	42.8	14.8	0.0	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.39	1.00		0.00				0.48		0.52
Lane Grp Cap(c), veh/h	0	0	844	298	1313	0				306	0	0
V/C Ratio(X)	0.00	0.00	1.63	1.13	0.62	0.00				2.35	0.00	0.00
Avail Cap(c_a), veh/h	0	0	844	298	1313	0				306	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	23.6	30.2	0.0	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	289.9	64.0	0.2	0.0				617.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	83.3	10.1	0.1	0.0				58.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	313.5	94.2	0.2	0.0				653.9	0.0	0.0
LnGrp LOS	A	A	F	F	A	A				F	A	A
Approach Vol, veh/h	1377			1146			719					
Approach Delay, s/veh	313.5			27.8			653.9					
Approach LOS	F			C			F					
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.4	48.6		22.0		68.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2						
Max Q Clear Time (g_c+I1), s	16.8	44.8		18.2		2.0						
Green Ext Time (p_c), s	0.0	0.0		0.0		6.4						
Intersection Summary												
HCM 6th Ctrl Delay	288.0											
HCM 6th LOS	F											

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	291	755	631	529	5
Future Volume (vph)	291	755	631	529	5
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	5.4	37.0	27.0	27.0	41.4
Actuated g/C Ratio	0.06	0.41	0.30	0.30	0.46
v/c Ratio	2.75	0.99	1.13	0.63	1.00
Control Delay	808.4	32.4	110.3	6.5	55.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	808.4	32.4	110.3	6.5	55.5
LOS	F	C	F	A	E
Approach Delay		248.4	63.0		55.5
Approach LOS		F	E		E

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 2.75

Intersection Signal Delay: 124.9

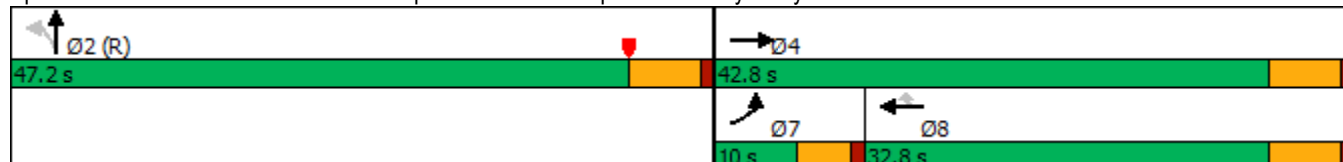
Intersection LOS: F

Intersection Capacity Utilization 141.9%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	291	755	0	0	631	529	390	5	427	0	0	0
Future Volume (veh/h)	291	755	0	0	631	529	390	5	427	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	297	770	0	0	644	424	398	5	314			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	781	0	0	570	483	438	6	346			
Arrive On Green	0.04	0.28	0.00	0.00	0.30	0.30	0.46	0.46	0.46			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	953	12	752			
Grp Volume(v), veh/h	297	770	0	0	644	424	717	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1717	0	0			
Q Serve(g_s), s	5.4	36.3	0.0	0.0	27.0	22.5	34.8	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	36.3	0.0	0.0	27.0	22.5	34.8	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.56		0.44			
Lane Grp Cap(c), veh/h	109	781	0	0	570	483	790	0	0			
V/C Ratio(X)	2.74	0.99	0.00	0.00	1.13	0.88	0.91	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	790	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	32.3	0.0	0.0	31.5	29.9	22.5	0.0	0.0			
Incr Delay (d2), s/veh	783.3	6.8	0.0	0.0	78.8	16.6	16.2	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	26.0	18.1	0.0	0.0	23.8	10.2	15.8	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	826.5	39.2	0.0	0.0	110.3	46.5	38.7	0.0	0.0			
LnGrp LOS	F	D	A	A	F	D	D	A	A			
Approach Vol, veh/h	1067				1068				717			
Approach Delay, s/veh	258.3				85.0				38.7			
Approach LOS	F				F				D			
Timer - Assigned Phs	2			4			7		8			
Phs Duration (G+Y+Rc), s	47.2			42.8			10.0		32.8			
Change Period (Y+Rc), s	5.8			5.8			4.6		5.8			
Max Green Setting (Gmax), s	41.4			37.0			5.4		27.0			
Max Q Clear Time (g_c+I1), s	36.8			38.3			7.4		29.0			
Green Ext Time (p_c), s	1.9			0.0			0.0		0.0			
Intersection Summary												
HCM 6th Ctrl Delay	138.2											
HCM 6th LOS	F											

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↖	↑↑				↗			↗
Traffic Vol, veh/h	27	636	159	171	980	29	0	0	70	0	0	173
Future Vol, veh/h	27	636	159	171	980	29	0	0	70	0	0	173
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	30	699	175	188	1077	32	0	0	77	0	0	190
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1109	0	0	874	0	0	-	-	437	-	-	555
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	637	-	-	781	-	-	0	0	573	0	0	480
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	637	-	-	781	-	-	-	-	573	-	-	480
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			1.6			12.3			17.3		
HCM LOS							B			C		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	573	637	-	-	781	-	-	480				
HCM Lane V/C Ratio	0.134	0.047	-	-	0.241	-	-	0.396				
HCM Control Delay (s)	12.3	10.9	-	-	11.1	-	-	17.3				
HCM Lane LOS	B	B	-	-	B	-	-	C				
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0.9	-	-	1.9				

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	38	95	26	3	615	22	79	31	6	24	33	130
Future Volume (vph)	38	95	26	3	615	22	79	31	6	24	33	130
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	21.0	43.0	43.0	15.0	37.0	37.0	31.0	43.0	43.0	19.0	31.0	31.0
Total Split (%)	17.5%	35.8%	35.8%	12.5%	30.8%	30.8%	25.8%	35.8%	35.8%	15.8%	25.8%	25.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	6.8	37.0	37.0	5.2	32.1	32.1	8.9	17.0	17.0	6.1	10.3	10.3
Actuated g/C Ratio	0.09	0.52	0.52	0.07	0.45	0.45	0.12	0.24	0.24	0.08	0.14	0.14
v/c Ratio	0.30	0.13	0.04	0.03	0.97	0.04	0.47	0.09	0.02	0.21	0.16	0.44
Control Delay	38.4	11.8	0.1	36.7	49.1	0.1	39.2	26.6	0.0	37.8	33.2	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.4	11.8	0.1	36.7	49.1	0.1	39.2	26.6	0.0	37.8	33.2	8.2
LOS	D	B	A	D	D	A	D	C	A	D	C	A
Approach Delay		16.2			47.4			33.8			16.4	
Approach LOS		B			D			C			B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 71.8

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 36.2

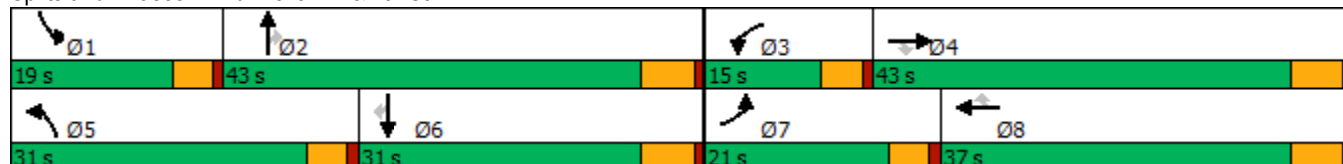
Intersection LOS: D

Intersection Capacity Utilization 58.6%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	95	26	3	615	22	79	31	6	24	33	130
Future Volume (veh/h)	38	95	26	3	615	22	79	31	6	24	33	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	127	35	4	820	29	105	41	8	32	44	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	81	916	776	10	841	713	137	351	297	60	270	
Arrive On Green	0.04	0.48	0.48	0.01	0.44	0.44	0.08	0.18	0.18	0.03	0.14	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	51	127	35	4	820	29	105	41	8	32	44	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	2.0	2.6	0.8	0.2	29.8	0.7	4.0	1.3	0.3	1.2	1.4	0.0
Cycle Q Clear(g_c), s	2.0	2.6	0.8	0.2	29.8	0.7	4.0	1.3	0.3	1.2	1.4	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	81	916	776	10	841	713	137	351	297	60	270	
V/C Ratio(X)	0.63	0.14	0.05	0.41	0.98	0.04	0.77	0.12	0.03	0.54	0.16	
Avail Cap(c_a), veh/h	421	1003	850	267	841	713	678	1003	850	370	679	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.1	10.1	9.7	34.9	19.3	11.2	32.0	24.0	23.6	33.6	26.6	0.0
Incr Delay (d2), s/veh	3.0	0.1	0.0	10.1	25.0	0.0	3.4	0.1	0.0	2.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.9	0.2	0.1	16.4	0.2	1.7	0.5	0.1	0.5	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.1	10.2	9.7	45.1	44.2	11.2	35.3	24.1	23.6	36.3	26.9	0.0
LnGrp LOS	D	B	A	D	D	B	D	C	C	D	C	
Approach Vol, veh/h		213			853			154			76	
Approach Delay, s/veh		16.3			43.1			31.7			30.8	
Approach LOS		B			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.9	18.8	5.0	39.8	9.9	15.8	7.8	37.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	14.4	37.2	10.4	37.2	26.4	25.2	16.4	31.2				
Max Q Clear Time (g_c+I1), s	3.2	3.3	2.2	4.6	6.0	3.4	4.0	31.8				
Green Ext Time (p_c), s	0.0	0.2	0.0	0.7	0.1	0.1	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay			36.6									
HCM 6th LOS			D									
Notes												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	314	129	297	312	22	449	104	49	202
Future Volume (vph)	4	314	129	297	312	22	449	104	49	202
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	23.8	23.8	13.0	27.2	27.2	27.0	42.2	11.0	26.2
Total Split (%)	10.7%	26.4%	26.4%	14.4%	30.2%	30.2%	30.0%	46.9%	12.2%	29.1%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.0	18.2	18.2	8.4	29.4	29.4	22.4	41.5	6.0	21.0
Actuated g/C Ratio	0.06	0.20	0.20	0.09	0.33	0.33	0.25	0.46	0.07	0.24
v/c Ratio	0.04	0.88	0.29	1.91	0.54	0.04	1.08	0.21	0.44	0.50
Control Delay	41.2	59.2	3.2	455.3	29.5	0.1	99.0	13.2	51.8	34.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	59.2	3.2	455.3	29.5	0.1	99.0	13.2	51.8	34.4
LOS	D	E	A	F	C	A	F	B	D	C
Approach Delay		42.9			229.0			76.1		37.7
Approach LOS		D			F			E		D

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 89.3

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.91

Intersection Signal Delay: 113.0

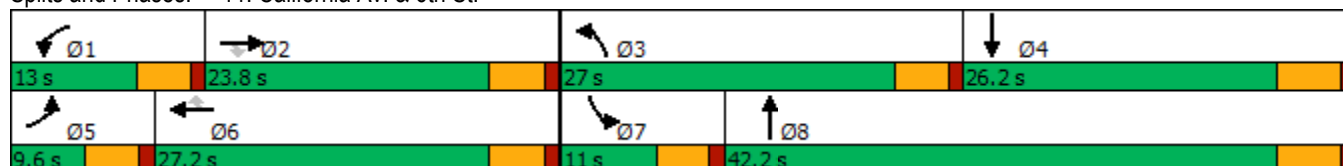
Intersection LOS: F

Intersection Capacity Utilization 84.8%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	314	129	297	312	22	449	104	60	49	202	5
Future Volume (veh/h)	4	314	129	297	312	22	449	104	60	49	202	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	341	139	323	339	15	488	113	43	53	220	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	383	325	171	553	468	456	586	223	74	442	6
Arrive On Green	0.01	0.20	0.20	0.09	0.29	0.29	0.25	0.45	0.45	0.04	0.24	0.24
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	1311	499	1810	1870	25
Grp Volume(v), veh/h	4	341	139	323	339	15	488	0	156	53	0	223
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1810	1810	0	1895
Q Serve(g_s), s	0.2	15.5	6.7	8.4	13.7	0.6	22.4	0.0	4.6	2.6	0.0	9.1
Cycle Q Clear(g_c), s	0.2	15.5	6.7	8.4	13.7	0.6	22.4	0.0	4.6	2.6	0.0	9.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.28	1.00		0.01
Lane Grp Cap(c), veh/h	10	383	325	171	553	468	456	0	809	74	0	448
V/C Ratio(X)	0.42	0.89	0.43	1.89	0.61	0.03	1.07	0.00	0.19	0.71	0.00	0.50
Avail Cap(c_a), veh/h	102	406	344	171	553	468	456	0	809	130	0	448
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.1	34.5	31.0	40.3	27.2	22.6	33.3	0.0	14.9	42.1	0.0	29.4
Incr Delay (d2), s/veh	10.4	20.2	0.9	421.6	2.0	0.0	62.3	0.0	0.5	4.7	0.0	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	9.1	2.5	23.7	6.3	0.2	17.0	0.0	1.8	1.2	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.5	54.8	31.9	461.9	29.2	22.6	95.6	0.0	15.4	46.8	0.0	33.3
LnGrp LOS	D	D	C	F	C	C	F	A	B	D	A	C
Approach Vol, veh/h		484			677			644			276	
Approach Delay, s/veh		48.2			235.5			76.2			35.9	
Approach LOS		D			F			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	22.7	27.0	26.2	5.1	30.7	8.2	45.0				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	8.4	* 19	22.4	21.0	5.0	* 22	6.4	37.0				
Max Q Clear Time (g_c+I1), s	10.4	17.5	24.4	11.1	2.2	15.7	4.6	6.6				
Green Ext Time (p_c), s	0.0	0.4	0.0	0.7	0.0	1.1	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay 116.2

HCM 6th LOS F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	92.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	2	3	82	77	10	33	325	610	34	14	567	2
Future Vol, veh/h	2	3	82	77	10	33	325	610	34	14	567	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	50	-	-	50
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	4	104	97	13	42	411	772	43	18	718	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2397	2391	718	2404	2351	772	721	0	0	815	0	0
Stage 1	754	754	-	1594	1594	-	-	-	-	-	-	-
Stage 2	1643	1637	-	810	757	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	23	34	432	~ 23	36	403	890	-	-	821	-	-
Stage 1	404	420	-	136	168	-	-	-	-	-	-	-
Stage 2	127	160	-	377	419	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	7	5	432	~ 2	~ 5	403	890	-	-	821	-	-
Mov Cap-2 Maneuver	~ -16	5	-	~ 21	~ -29	-	-	-	-	-	-	-
Stage 1	60	404	-	~ 20	25	-	-	-	-	-	-	-
Stage 2	8	24	-	273	403	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	46.2	\$ 1281.9	4.2	0.2
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	890	-	-	11	432	26	403	821	-	-
HCM Lane V/C Ratio	0.462	-	-	0.575	0.24	4.236	0.104	0.022	-	-
HCM Control Delay (s)	12.5	0	-	\$ 543.1	15.9	\$ 1762.5	15	9.5	0	-
HCM Lane LOS	B	A	-	F	C	F	C	A	A	-
HCM 95th %tile Q(veh)	2.5	-	-	1.3	0.9	13.6	0.3	0.1	-	-

Notes										
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined						*: All major volume in platoon		

Intersection						
Int Delay, s/veh	103.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	111	37	191	887	197	488
Future Vol, veh/h	111	37	191	887	197	488
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	144	48	248	1152	256	634
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2221	573	890	0	-	0
Stage 1	573	-	-	-	-	-
Stage 2	1648	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 48	523	770	-	-	-
Stage 1	568	-	-	-	-	-
Stage 2	174	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 33	523	770	-	-	-
Mov Cap-2 Maneuver	~ 33	-	-	-	-	-
Stage 1	385	-	-	-	-	-
Stage 2	174	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, \$	1323.2	2.1		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	770	-	33	523	-	-
HCM Lane V/C Ratio	0.322	-	4.368	0.092	-	-
HCM Control Delay (s)	11.9	\$	1760.1	12.6	-	-
HCM Lane LOS	B	-	F	B	-	-
HCM 95th %tile Q(veh)	1.4	-	17.1	0.3	-	-
Notes						
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	21	17	21	3	64	405	3	426
Future Volume (vph)	21	17	21	3	64	405	3	426
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		10.1		10.0	6.9	46.3	5.0	40.7
Actuated g/C Ratio		0.17		0.17	0.12	0.77	0.08	0.68
v/c Ratio		0.26		0.14	0.34	0.16	0.02	0.22
Control Delay		16.1		17.9	27.0	4.8	25.7	7.6
Queue Delay		0.0		0.0	0.2	0.3	0.0	0.1
Total Delay		16.1		17.9	27.2	5.0	25.7	7.7
LOS		B		B	C	A	C	A
Approach Delay		16.1		17.9		8.0		7.8
Approach LOS		B		B		A		A

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.34

Intersection Signal Delay: 8.8

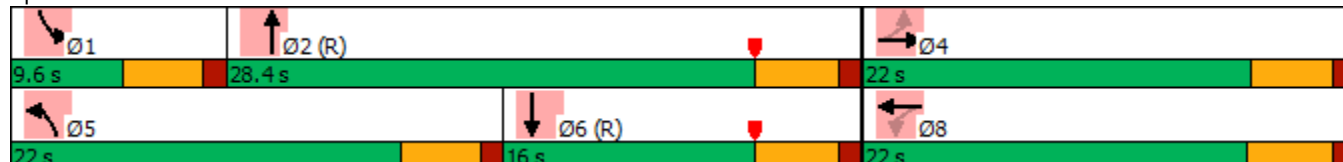
Intersection LOS: A

Intersection Capacity Utilization 38.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	17	33	21	3	11	64	405	15	3	426	58
Future Volume (veh/h)	21	17	33	21	3	11	64	405	15	3	426	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	23	18	36	23	3	12	70	440	16	3	463	63
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	119	84	110	208	41	70	104	2193	80	7	1801	244
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.11	1.00	1.00	0.00	0.56	0.56
Sat Flow, veh/h	292	593	777	786	287	495	1810	3553	129	1810	3195	433
Grp Volume(v), veh/h	77	0	0	38	0	0	70	223	233	3	261	265
Grp Sat Flow(s),veh/h/ln	1662	0	0	1569	0	0	1810	1805	1877	1810	1805	1822
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.1	4.4	4.5
Cycle Q Clear(g_c), s	2.4	0.0	0.0	1.1	0.0	0.0	2.2	0.0	0.0	0.1	4.4	4.5
Prop In Lane	0.30		0.47	0.61		0.32	1.00		0.07	1.00		0.24
Lane Grp Cap(c), veh/h	314	0	0	319	0	0	104	1114	1158	7	1018	1027
V/C Ratio(X)	0.25	0.00	0.00	0.12	0.00	0.00	0.67	0.20	0.20	0.41	0.26	0.26
Avail Cap(c_a), veh/h	551	0	0	532	0	0	525	1114	1158	151	1018	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.1	0.0	0.0	22.6	0.0	0.0	26.0	0.0	0.0	29.8	6.7	6.7
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.2	0.0	0.0	2.8	0.4	0.4	12.9	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	0.0	0.5	0.0	0.0	1.0	0.1	0.1	0.1	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.5	0.0	0.0	22.7	0.0	0.0	28.8	0.4	0.4	42.7	7.3	7.3
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	A	A
Approach Vol, veh/h		77			38			526			529	
Approach Delay, s/veh		23.5			22.7			4.2			7.5	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	41.8		13.3	8.0	38.6		13.3				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	2.1	2.0		4.4	4.2	6.5		3.1				
Green Ext Time (p_c), s	0.0	2.7		0.3	0.1	1.3		0.1				

Intersection Summary

HCM 6th Ctrl Delay	7.5
HCM 6th LOS	A

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

					
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	533	10	396	249	395
Future Volume (vph)	533	10	396	249	395
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	20.0	20.0	21.0	40.0	19.0
Total Split (%)	33.3%	33.3%	35.0%	66.7%	31.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.6	4.8	4.8
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	15.2	15.2	15.8	35.2	14.8
Actuated g/C Ratio	0.25	0.25	0.26	0.59	0.25
v/c Ratio	1.01	0.80	0.90	0.13	0.58
Control Delay	73.5	27.9	50.2	5.7	16.3
Queue Delay	0.0	53.9	0.0	0.0	6.8
Total Delay	73.5	81.9	50.2	5.7	23.1
LOS	E	F	D	A	C
Approach Delay		77.5		33.0	23.1
Approach LOS		E		C	C

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 48.7

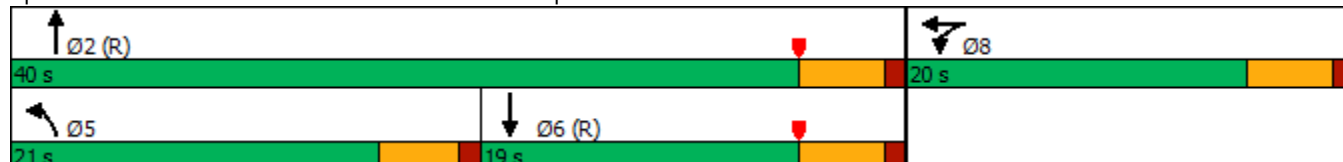
Intersection LOS: D

Intersection Capacity Utilization 69.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary

15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	533	10	235	396	249	0	0	395	86
Future Volume (veh/h)	0	0	0	533	10	235	396	249	0	0	395	86
Initial Q (Qb), veh				0	0	0	75	100	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				422	230	255	430	271	0	0	429	93
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				458	209	231	495	2118	0	0	711	153
Arrive On Green				0.25	0.25	0.25	0.43	0.98	0.00	0.00	0.08	0.08
Sat Flow, veh/h				1810	823	913	1810	3705	0	0	3050	636
Grp Volume(v), veh/h				422	0	485	430	271	0	0	261	261
Grp Sat Flow(s),veh/h/ln				1810	0	1736	1810	1805	0	0	1805	1786
Q Serve(g_s), s				13.6	0.0	15.2	13.4	0.1	0.0	0.0	8.3	8.5
Cycle Q Clear(g_c), s				13.6	0.0	15.2	13.4	0.1	0.0	0.0	8.3	8.5
Prop In Lane				1.00		0.53	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				458	0	440	495	2118	0	0	434	429
V/C Ratio(X)				0.92	0.00	1.10	0.87	0.13	0.00	0.00	0.60	0.61
Avail Cap(c_a), veh/h				458	0	440	495	2118	0	0	454	449
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.74	0.74	0.00	0.00	0.98	0.98
Uniform Delay (d), s/veh				21.8	0.0	22.4	16.3	0.3	0.0	0.0	24.8	24.9
Incr Delay (d2), s/veh				23.9	0.0	73.9	11.4	0.1	0.0	0.0	5.9	6.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	487.1	18.4	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.9	0.0	14.2	72.8	5.5	0.0	0.0	4.5	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.7	0.0	96.3	514.8	18.8	0.0	0.0	30.7	31.1
LnGrp LOS				D	A	F	F	B	A	A	C	C
Approach Vol, veh/h					907			701			522	
Approach Delay, s/veh					72.7			323.1			30.9	
Approach LOS					E			F			C	
Timer - Assigned Phs	2			5		6	8					
Phs Duration (G+Y+Rc), s	40.0			20.1		19.9	20.0					
Change Period (Y+Rc), s	* 4.8			4.6		* 4.8	4.8					
Max Green Setting (Gmax), s	* 35			16.4		* 14	15.2					
Max Q Clear Time (g_c+I1), s	2.1			15.4		10.5	17.2					
Green Ext Time (p_c), s	1.9			0.1		1.1	0.0					
Intersection Summary												
HCM 6th Ctrl Delay	144.9											
HCM 6th LOS	F											
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕↕	↗	↕↕	↙	↕↕
Traffic Volume (vph)	11	569	567	117	810
Future Volume (vph)	11	569	567	117	810
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	20.0	20.0	27.0	13.0	40.0
Total Split (%)	33.3%	33.3%	45.0%	21.7%	66.7%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.8	4.8	4.8	4.6	4.8
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	12.8	12.8	27.5	7.4	37.6
Actuated g/C Ratio	0.21	0.21	0.46	0.12	0.63
v/c Ratio	0.74	0.74	0.62	0.55	0.37
Control Delay	21.5	21.6	10.6	20.7	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	21.6	10.6	20.7	9.4
LOS	C	C	B	C	A
Approach Delay	21.6		10.6		10.8
Approach LOS	C		B		B

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 13.4

Intersection LOS: B

Intersection Capacity Utilization 69.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary 16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	11	569	0	0	0	0	567	484	117	810	0
Future Volume (veh/h)	78	11	569	0	0	0	0	567	484	117	810	0
Initial Q (Qb), veh	0	0	0				0	175	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	687				0	591	504	122	844	0
Peak Hour Factor	0.96	0.96	0.96				0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	463	785				0	1385	189	155	2153	0
Arrive On Green	0.00	0.00	0.24				0.00	0.43	0.43	0.17	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	1944	1573	1810	3705	0
Grp Volume(v), veh/h	0	0	687				0	577	518	122	844	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1617	1810	1805	0
Q Serve(g_s), s	0.0	0.0	12.3				0.0	16.0	16.0	3.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	12.3				0.0	16.0	16.0	3.9	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.97	1.00		0.00
Lane Grp Cap(c), veh/h	0	463	785				0	783	791	155	2153	0
V/C Ratio(X)	0.00	0.00	0.88				0.00	0.74	0.66	0.79	0.39	0.00
Avail Cap(c_a), veh/h	0	481	816				0	783	702	253	2153	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.53	0.53	0.00
Uniform Delay (d), s/veh	0.0	0.0	21.8				0.0	17.0	17.0	24.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	10.3				0.0	6.1	4.2	1.8	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	283.4	243.3	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	5.1				0.0	72.1	63.5	1.5	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	32.1				0.0	306.5	264.4	26.1	0.3	0.0
LnGrp LOS	A	A	C				A	F	F	C	A	A
Approach Vol, veh/h		687						1095			966	
Approach Delay, s/veh		32.1						286.6			3.6	
Approach LOS		C						F			A	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.7	30.8		19.4		40.6						
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8		* 4.8						
Max Green Setting (Gmax), s	8.4	* 22		* 15		* 35						
Max Q Clear Time (g_c+I1), s	5.9	18.0		14.3		2.0						
Green Ext Time (p_c), s	0.0	2.6		0.3		7.0						

Intersection Summary

HCM 6th Ctrl Delay 123.5

HCM 6th LOS F

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings

Jack Rabbit Trail (JN 12396)

07/13/2020

17: Potrero Bl. & SR-60 WB Ramps

	↖	↗	↑	↘	↓	↙
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↖↖	↖↖	↑↑↑	↖	↑↑↑	↖↖
Traffic Volume (vph)	459	108	838	511	525	356
Future Volume (vph)	459	108	838	511	525	356
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	12.3	11.1	20.0	20.0	20.0	20.0
Actuated g/C Ratio	0.29	0.26	0.47	0.47	0.47	0.47
v/c Ratio	0.51	0.14	0.38	0.54	0.24	0.26
Control Delay	15.9	4.6	7.8	3.0	7.0	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.9	4.6	7.8	3.0	7.0	1.4
LOS	B	A	A	A	A	A
Approach Delay			6.0		4.8	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 43

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 7.2

Intersection LOS: A

Intersection Capacity Utilization 37.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps



HCM 6th Signalized Intersection Summary
17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	459	0	108	0	838	511	0	525	356
Future Volume (veh/h)	0	0	0	459	0	108	0	838	511	0	525	356
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				499	0	90	0	911	0	0	571	305
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				801	0	647	0	2166		0	2166	1183
Arrive On Green				0.23	0.00	0.23	0.00	0.42	0.00	0.00	0.42	0.42
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				499	0	90	0	911	0	0	571	305
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				3.9	0.0	0.8	0.0	3.8	0.0	0.0	2.2	2.1
Cycle Q Clear(g_c), s				3.9	0.0	0.8	0.0	3.8	0.0	0.0	2.2	2.1
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				801	0	647	0	2166		0	2166	1183
V/C Ratio(X)				0.62	0.00	0.14	0.00	0.42		0.00	0.26	0.26
Avail Cap(c_a), veh/h				4619	0	3729	0	11691		0	11691	6387
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				10.4	0.0	9.2	0.0	6.1	0.0	0.0	5.6	5.6
Incr Delay (d2), s/veh				0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.9	0.0	0.1	0.0	0.5	0.0	0.0	0.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				10.7	0.0	9.3	0.0	6.2	0.0	0.0	5.7	5.7
LnGrp LOS				B	A	A	A	A		A	A	A
Approach Vol, veh/h					589			911	A		876	
Approach Delay, s/veh					10.5			6.2			5.7	
Approach LOS					B			A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		18.6				18.6		11.6				
Change Period (Y+Rc), s		5.8				5.8		4.6				
Max Green Setting (Gmax), s		69.2				69.2		40.4				
Max Q Clear Time (g_c+I1), s		5.8				4.2		5.9				
Green Ext Time (p_c), s		7.0				5.4		1.1				
Intersection Summary												
HCM 6th Ctrl Delay			7.1									
HCM 6th LOS			A									
Notes												
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.												

Timings
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

						
Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	436	661	913	417	865	120
Future Volume (vph)	436	661	913	417	865	120
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	49.0	49.0	71.0	71.0	71.0	71.0
Total Split (%)	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	17.8	16.6	22.8	22.8	22.8	22.8
Actuated g/C Ratio	0.35	0.32	0.44	0.44	0.44	0.44
v/c Ratio	0.40	0.70	0.44	0.31	0.42	0.17
Control Delay	14.6	15.6	10.9	1.8	10.7	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.6	15.6	10.9	1.8	10.7	2.9
LOS	B	B	B	A	B	A
Approach Delay			8.1		9.8	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 51.5

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 10.8

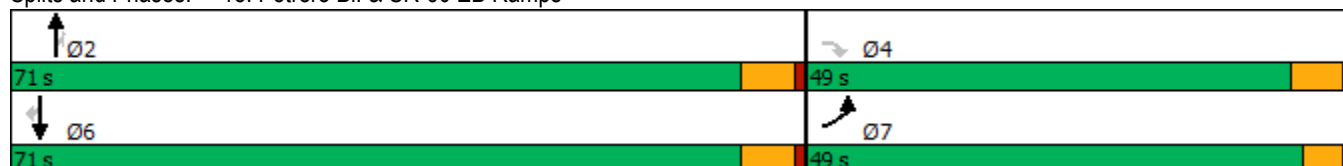
Intersection LOS: B

Intersection Capacity Utilization 49.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps



HCM 6th Signalized Intersection Summary 18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	436	0	661	0	0	0	0	913	417	0	865	120
Future Volume (veh/h)	436	0	661	0	0	0	0	913	417	0	865	120
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	474	0	636				0	992	410	0	940	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1068	0	862				0	2249	1229	0	2249	
Arrive On Green	0.31	0.00	0.31				0.00	0.44	0.44	0.00	0.44	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	474	0	636				0	992	410	0	940	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	4.6	0.0	8.5				0.0	5.6	4.0	0.0	5.2	0.0
Cycle Q Clear(g_c), s	4.6	0.0	8.5				0.0	5.6	4.0	0.0	5.2	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1068	0	862				0	2249	1229	0	2249	
V/C Ratio(X)	0.44	0.00	0.74				0.00	0.44	0.33	0.00	0.42	
Avail Cap(c_a), veh/h	3695	0	2983				0	8018	4380	0	8018	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	11.5	0.0	12.8				0.0	8.1	7.6	0.0	8.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.5				0.0	0.1	0.2	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	1.9				0.0	1.2	0.7	0.0	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.6	0.0	13.3				0.0	8.2	7.8	0.0	8.1	0.0
LnGrp LOS	B	A	B				A	A	A	A	A	
Approach Vol, veh/h	1110						1402			940		
Approach Delay, s/veh	12.6						8.1			8.1		
Approach LOS	B						A			A		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	24.1			17.4			24.1					
Change Period (Y+Rc), s	5.8			4.6			5.8					
Max Green Setting (Gmax), s	65.2			44.4			65.2					
Max Q Clear Time (g_c+I1), s	7.6			10.5			7.2					
Green Ext Time (p_c), s	10.7			2.4			7.3					
Intersection Summary												
HCM 6th Ctrl Delay	9.5											
HCM 6th LOS	A											

Timings

Jack Rabbit Trail (JN 12396)

09/21/2023

1: 4th St. & Jack Rabbit Trail



Lane Group	EBT	WBT	WBR	SBL
Lane Configurations	↑	↑	↰	↱
Traffic Volume (vph)	878	266	322	297
Future Volume (vph)	878	266	322	297
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8	22.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effect Green (s)	41.6	41.6	41.6	18.1
Actuated g/C Ratio	0.58	0.58	0.58	0.25
v/c Ratio	0.87	0.26	0.32	0.71
Control Delay	23.7	8.5	1.8	36.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.7	8.5	1.8	36.4
LOS	C	A	A	D
Approach Delay	23.7	4.8		36.4
Approach LOS	C	A		D

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 72.1

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 19.5

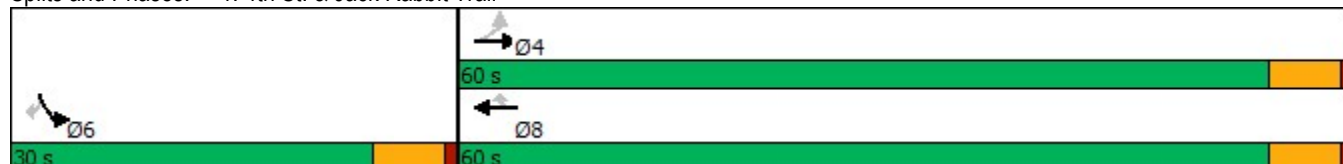
Intersection LOS: B

Intersection Capacity Utilization 72.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: 4th St. & Jack Rabbit Trail

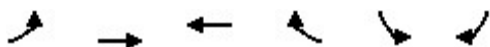


HCM 6th Signalized Intersection Summary

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

09/21/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	878	266	322	297	0
Future Volume (veh/h)	0	878	266	322	297	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	954	289	350	323	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	123	1112	1112	942	391	348
Arrive On Green	0.00	0.59	0.59	0.59	0.22	0.00
Sat Flow, veh/h	802	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	954	289	350	323	0
Grp Sat Flow(s),veh/h/ln	802	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	24.4	4.3	6.7	9.9	0.0
Cycle Q Clear(g_c), s	0.0	24.4	4.3	6.7	9.9	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	123	1112	1112	942	391	348
V/C Ratio(X)	0.00	0.86	0.26	0.37	0.83	0.00
Avail Cap(c_a), veh/h	398	1763	1763	1494	750	667
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	10.1	5.9	6.4	21.8	0.0
Incr Delay (d2), s/veh	0.0	2.6	0.1	0.2	4.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.9	1.1	1.5	4.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	12.7	6.0	6.7	26.3	0.0
LnGrp LOS	A	B	A	A	C	A
Approach Vol, veh/h		954	639		323	
Approach Delay, s/veh		12.7	6.4		26.3	
Approach LOS		B	A		C	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				40.0	18.4	40.0
Change Period (Y+Rc), s				5.8	5.8	5.8
Max Green Setting (Gmax), s				54.2	24.2	54.2
Max Q Clear Time (g_c+I1), s				26.4	11.9	8.7
Green Ext Time (p_c), s				7.8	0.7	2.9
Intersection Summary						
HCM 6th Ctrl Delay			12.9			
HCM 6th LOS			B			

Intersection	
Intersection Delay, s/veh	19.8
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	332	65	259	411	130	331
Future Vol, veh/h	332	65	259	411	130	331
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	365	71	285	452	143	364
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	15.8	18.9	24.7
HCM LOS	C	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	130	331	166	166	65	259	206	206
LT Vol	130	0	0	0	0	259	0	0
Through Vol	0	0	166	166	0	0	206	206
RT Vol	0	331	0	0	65	0	0	0
Lane Flow Rate	143	364	182	182	71	285	226	226
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	0.339	0.74	0.421	0.421	0.116	0.651	0.484	0.374
Departure Headway (Hd)	8.537	7.327	8.312	8.312	5.832	8.237	7.722	5.97
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	420	491	432	432	610	438	465	601
Service Time	6.307	5.096	6.091	6.091	3.609	6.005	5.489	3.736
HCM Lane V/C Ratio	0.34	0.741	0.421	0.421	0.116	0.651	0.486	0.376
HCM Control Delay	15.7	28.3	17.1	17.1	9.4	25.2	17.6	12.3
HCM Lane LOS	C	D	C	C	A	D	C	B
HCM 95th-tile Q	1.5	6.1	2	2	0.4	4.5	2.6	1.7

Intersection

Intersection Delay, s/veh65.2

Intersection LOS F

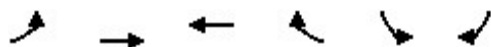
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	2	0	104	0	628	0	10	393	0
Future Vol, veh/h	0	0	0	2	0	104	0	628	0	10	393	0
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	135	0	816	0	13	510	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	11.3	101.3	23
HCM LOS	B	F	C

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	2%	2%
Vol Thru, %	100%	0%	98%
Vol Right, %	0%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	628	106	403
LT Vol	0	2	10
Through Vol	628	0	393
RT Vol	0	104	0
Lane Flow Rate	816	138	523
Geometry Grp	1	1	1
Degree of Util (X)	1.145	0.231	0.752
Departure Headway (Hd)	5.056	6.414	5.427
Convergence, Y/N	Yes	Yes	Yes
Cap	726	563	670
Service Time	3.056	4.414	3.427
HCM Lane V/C Ratio	1.124	0.245	0.781
HCM Control Delay	101.3	11.3	23
HCM Lane LOS	F	B	C
HCM 95th-tile Q	25.1	0.9	6.8

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)
09/21/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	1483	211	100	501	348	662
Future Volume (vph)	1483	211	100	501	348	662
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	28.0	58.0	30.0	30.0	32.0	32.0
Total Split (%)	31.1%	64.4%	33.3%	33.3%	35.6%	35.6%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	23.7	47.8	19.5	19.5	24.2	24.2
Actuated g/C Ratio	0.28	0.57	0.23	0.23	0.29	0.29
v/c Ratio	4.36	0.15	0.34	0.92	0.52	0.95
Control Delay	1527.9	8.9	29.1	26.0	27.8	25.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1527.9	8.9	29.1	26.0	27.8	25.8
LOS	F	A	C	C	C	C
Approach Delay		1338.6	26.5		26.5	
Approach LOS		F	C		C	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 84.1

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 4.36

Intersection Signal Delay: 699.0

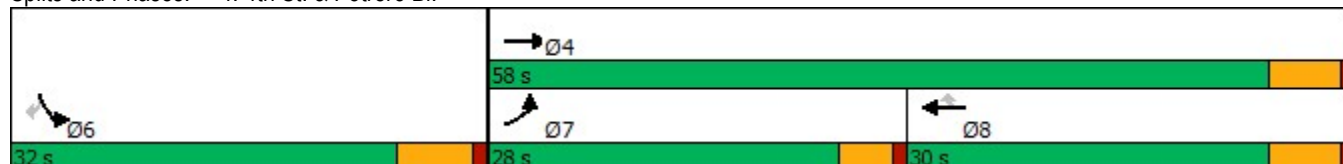
Intersection LOS: F

Intersection Capacity Utilization 121.8%

ICU Level of Service H

Analysis Period (min) 15

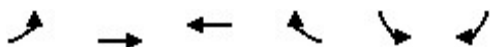
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

09/21/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	1483	211	100	501	348	662	
Future Volume (veh/h)	1483	211	100	501	348	662	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	2213	315	149	748	519	988	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	470	2094	511	433	1006	462	
Arrive On Green	0.26	0.58	0.27	0.27	0.29	0.29	
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610	
Grp Volume(v), veh/h	2213	315	149	748	519	988	
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610	
Q Serve(g_s), s	23.4	3.6	5.6	24.2	11.1	25.8	
Cycle Q Clear(g_c), s	23.4	3.6	5.6	24.2	11.1	25.8	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	470	2094	511	433	1006	462	
V/C Ratio(X)	4.70	0.15	0.29	1.73	0.52	2.14	
Avail Cap(c_a), veh/h	470	2094	511	433	1006	462	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.3	8.7	26.1	32.9	26.9	32.1	
Incr Delay (d2), s/veh	1671.5	0.0	0.3	337.0	0.5	520.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	227.9	1.2	2.4	49.2	4.3	86.5	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	1704.8	8.7	26.4	369.9	27.3	552.5	
LnGrp LOS	F	A	C	F	C	F	
Approach Vol, veh/h		2528	897	1507			
Approach Delay, s/veh		1493.5	312.9	371.7			
Approach LOS		F	F	F			
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				58.0	32.0	28.0	30.0
Change Period (Y+Rc), s				5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s				52.2	25.8	23.4	24.2
Max Q Clear Time (g_c+I1), s				5.6	27.8	25.4	26.2
Green Ext Time (p_c), s				1.2	0.0	0.0	0.0
Intersection Summary							
HCM 6th Ctrl Delay			936.0				
HCM 6th LOS			F				

Intersection

Intersection Delay, s/veh 135

Intersection LOS F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	54	745	871	376	232	53
Future Vol, veh/h	54	745	871	376	232	53
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	56	768	898	388	239	55
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	346.3	23.5	30.6
HCM LOS	F	C	D

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	81%
Vol Thru, %	0%	100%	100%	100%	32%	0%
Vol Right, %	0%	0%	0%	0%	68%	19%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	54	745	348	348	550	285
LT Vol	54	0	0	0	0	232
Through Vol	0	745	348	348	174	0
RT Vol	0	0	0	0	376	53
Lane Flow Rate	56	768	359	359	567	294
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.135	1.758	0.678	0.678	0.727	0.685
Departure Headway (Hd)	8.758	8.242	7.712	7.712	5.455	9.527
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	408	445	471	471	669	382
Service Time	6.557	6.041	5.412	5.412	3.155	7.227
HCM Lane V/C Ratio	0.137	1.726	0.762	0.762	0.848	0.77
HCM Control Delay	12.9	370.5	25.2	25.2	21.3	30.6
HCM Lane LOS	B	F	D	D	C	D
HCM 95th-tile Q	0.5	47	5	5	6.3	4.9

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	←	→	→
Traffic Volume (vph)	677	225	927	1
Future Volume (vph)	677	225	927	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	29.1	10.6	43.7	38.3
Actuated g/C Ratio	0.32	0.12	0.49	0.43
v/c Ratio	2.12	1.40	1.32	1.64
Control Delay	531.9	217.4	170.8	316.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	531.9	217.4	170.8	316.3
LOS	F	F	F	F
Approach Delay	531.9		179.9	316.3
Approach LOS	F		F	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 2.12

Intersection Signal Delay: 333.7

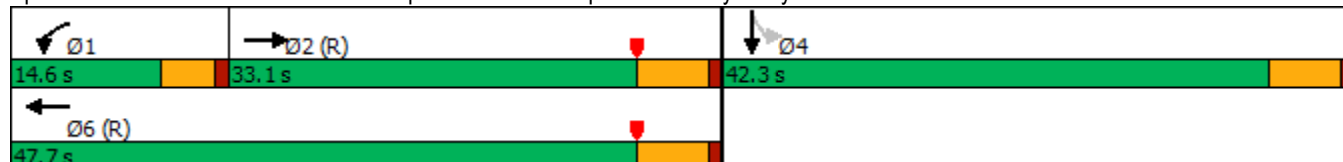
Intersection LOS: F

Intersection Capacity Utilization 131.1%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

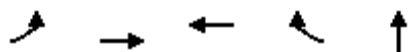
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩	
Traffic Volume (veh/h)	0	677	300	225	927	0	0	0	0	633	1	321
Future Volume (veh/h)	0	677	300	225	927	0	0	0	0	633	1	321
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	891	323	296	1220	0				833	1	356
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	430	156	213	923	0				520	1	222
Arrive On Green	0.00	0.32	0.30	0.12	0.49	0.00				0.43	0.43	0.41
Sat Flow, veh/h	0	1331	482	1810	1900	0				1221	1	522
Grp Volume(v), veh/h	0	0	1214	296	1220	0				1190	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1813	1810	1900	0				1745	0	0
Q Serve(g_s), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Prop In Lane	0.00		0.27	1.00		0.00				0.70		0.30
Lane Grp Cap(c), veh/h	0	0	586	213	923	0				743	0	0
V/C Ratio(X)	0.00	0.00	2.07	1.39	1.32	0.00				1.60	0.00	0.00
Avail Cap(c_a), veh/h	0	0	586	213	923	0				743	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	30.7	39.7	23.1	0.0				26.1	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	487.7	177.7	145.8	0.0				277.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	91.1	15.0	54.0	0.0				71.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	518.4	217.4	169.0	0.0				303.6	0.0	0.0
LnGrp LOS	A	A	F	F	F	A				F	A	A
Approach Vol, veh/h		1214			1516						1190	
Approach Delay, s/veh		518.4			178.4						303.6	
Approach LOS		F			F						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.6	33.1		42.3		47.7						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9						
Max Q Clear Time (g_c+I1), s	12.6	31.1		40.3		45.7						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.0						
Intersection Summary												
HCM 6th Ctrl Delay			321.7									
HCM 6th LOS			F									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations	←	→	←	→	→
Traffic Volume (vph)	295	1014	678	383	5
Future Volume (vph)	295	1014	678	383	5
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	14.4	44.0	29.6	29.6	46.0
Total Split (%)	16.0%	48.9%	32.9%	32.9%	51.1%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	10.4	40.0	25.6	25.6	42.0
Actuated g/C Ratio	0.12	0.44	0.28	0.28	0.47
v/c Ratio	1.46	1.24	1.29	0.56	1.05
Control Delay	240.6	130.9	175.8	8.1	69.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	240.6	130.9	175.8	8.1	69.6
LOS	F	F	F	A	E
Approach Delay		155.7	115.2		69.6
Approach LOS		F	F		E

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.46

Intersection Signal Delay: 119.6

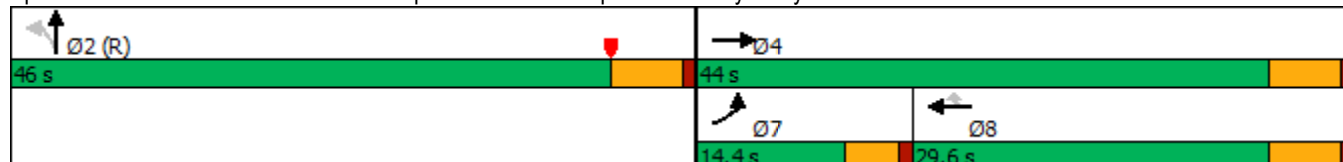
Intersection LOS: F

Intersection Capacity Utilization 131.1%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	295	1014	0	0	678	383	473	5	373	0	0	0
Future Volume (veh/h)	295	1014	0	0	678	383	473	5	373	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	304	1045	0	0	699	325	488	5	333			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	209	844	0	0	540	458	475	5	324			
Arrive On Green	0.04	0.15	0.00	0.00	0.28	0.28	0.47	0.47	0.45			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	1019	10	695			
Grp Volume(v), veh/h	304	1045	0	0	699	325	826	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1724	0	0			
Q Serve(g_s), s	10.4	40.0	0.0	0.0	25.6	16.3	42.0	0.0	0.0			
Cycle Q Clear(g_c), s	10.4	40.0	0.0	0.0	25.6	16.3	42.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.59		0.40			
Lane Grp Cap(c), veh/h	209	844	0	0	540	458	805	0	0			
V/C Ratio(X)	1.45	1.24	0.00	0.00	1.29	0.71	1.03	0.00	0.00			
Avail Cap(c_a), veh/h	209	844	0	0	540	458	805	0	0			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.3	38.4	0.0	0.0	32.2	28.9	24.4	0.0	0.0			
Incr Delay (d2), s/veh	206.7	107.9	0.0	0.0	145.4	5.0	38.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	16.8	45.2	0.0	0.0	32.6	6.5	23.5	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	250.0	146.3	0.0	0.0	177.6	33.9	63.1	0.0	0.0			
LnGrp LOS	F	F	A	A	F	C	F	A	A			
Approach Vol, veh/h	1349			1024			826					
Approach Delay, s/veh	169.6			132.0			63.1					
Approach LOS	F			F			E					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	46.0			44.0			14.4			29.6		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	40.2			38.2			9.8			23.8		
Max Q Clear Time (g_c+I1), s	44.0			42.0			12.4			27.6		
Green Ext Time (p_c), s	0.0			0.0			0.0			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	130.1											
HCM 6th LOS	F											

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↱		↱	↑↑				↱			↱
Traffic Vol, veh/h	102	930	139	119	735	61	0	0	130	0	0	72
Future Vol, veh/h	102	930	139	119	735	61	0	0	130	0	0	72
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	110	1000	149	128	790	66	0	0	140	0	0	77
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	856	0	0	1149	0	0	-	-	575	-	-	428
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	793	-	-	615	-	-	0	0	466	0	0	581
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	793	-	-	615	-	-	-	-	466	-	-	581
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.9			1.6			16			12.1		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	466	793	-	-	615	-	-	581				
HCM Lane V/C Ratio	0.3	0.138	-	-	0.208	-	-	0.133				
HCM Control Delay (s)	16	10.3	-	-	12.4	-	-	12.1				
HCM Lane LOS	C	B	-	-	B	-	-	B				
HCM 95th %tile Q(veh)	1.2	0.5	-	-	0.8	-	-	0.5				

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	117	610	10	499	33	44	41	12	15	65	65
Future Volume (vph)	117	610	10	499	33	44	41	12	15	65	65
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	36.0	54.0	15.0	33.0	33.0	23.0	34.0	34.0	17.0	28.0	28.0
Total Split (%)	30.0%	45.0%	12.5%	27.5%	27.5%	19.2%	28.3%	28.3%	14.2%	23.3%	23.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	11.9	42.5	5.5	27.8	27.8	7.5	16.7	16.7	5.8	11.0	11.0
Actuated g/C Ratio	0.15	0.55	0.07	0.36	0.36	0.10	0.22	0.22	0.08	0.14	0.14
v/c Ratio	0.60	0.50	0.11	1.04	0.07	0.36	0.14	0.04	0.16	0.34	0.23
Control Delay	40.8	13.5	39.6	73.6	0.2	41.0	28.6	0.2	39.7	36.6	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.8	13.5	39.6	73.6	0.2	41.0	28.6	0.2	39.7	36.6	1.4
LOS	D	B	D	E	A	D	C	A	D	D	A
Approach Delay		17.4		68.6			30.7			21.1	
Approach LOS		B		E			C			C	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 76.9

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.04

Intersection Signal Delay: 35.9

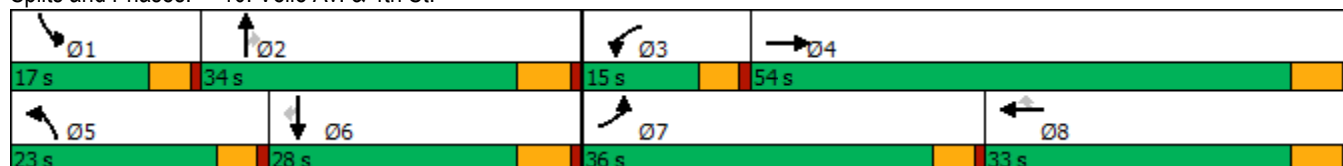
Intersection LOS: D

Intersection Capacity Utilization 55.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	610	85	10	499	33	44	41	12	15	65	65
Future Volume (veh/h)	117	610	85	10	499	33	44	41	12	15	65	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	167	871	121	14	713	47	63	59	17	21	93	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	211	1560	217	31	742	629	92	323	274	43	273	
Arrive On Green	0.12	0.49	0.49	0.02	0.39	0.39	0.05	0.17	0.17	0.02	0.14	0.00
Sat Flow, veh/h	1810	3183	442	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	167	494	498	14	713	47	63	59	17	21	93	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1820	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	6.3	13.4	13.4	0.5	25.5	1.3	2.4	1.9	0.6	0.8	3.1	0.0
Cycle Q Clear(g_c), s	6.3	13.4	13.4	0.5	25.5	1.3	2.4	1.9	0.6	0.8	3.1	0.0
Prop In Lane	1.00		0.24	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	885	892	31	742	629	92	323	274	43	273	
V/C Ratio(X)	0.79	0.56	0.56	0.45	0.96	0.07	0.69	0.18	0.06	0.48	0.34	
Avail Cap(c_a), veh/h	816	1249	1260	270	742	629	478	769	652	322	606	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	29.9	12.5	12.5	33.9	20.7	13.3	32.5	24.7	24.2	33.6	26.9	0.0
Incr Delay (d2), s/veh	2.5	0.6	0.5	3.8	23.8	0.0	3.4	0.3	0.1	3.1	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	4.4	4.5	0.3	14.3	0.4	1.1	0.8	0.2	0.4	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.5	13.0	13.0	37.7	44.5	13.4	35.9	25.0	24.3	36.6	27.6	0.0
LnGrp LOS	C	B	B	D	D	B	D	C	C	D	C	
Approach Vol, veh/h		1159			774			139			114	
Approach Delay, s/veh		15.8			42.4			29.9			29.3	
Approach LOS		B			D			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.3	17.7	5.8	39.9	8.1	15.8	12.7	33.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	12.4	28.2	10.4	48.2	18.4	22.2	31.4	27.2				
Max Q Clear Time (g_c+I1), s	2.8	3.9	2.5	15.4	4.4	5.1	8.3	27.5				
Green Ext Time (p_c), s	0.0	0.3	0.0	6.7	0.0	0.3	0.2	0.0				

Intersection Summary

HCM 6th Ctrl Delay	26.8
HCM 6th LOS	C

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	21	498	188	292	294	11	304	142	15	85
Future Volume (vph)	21	498	188	292	294	11	304	142	15	85
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	19.0	36.6	9.6	27.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	21.1%	40.7%	10.7%	30.2%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.8	-0.8	-0.6	-0.8	-0.8	-0.6	-1.2	-0.6	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.7	27.5	27.5	6.4	34.1	34.1	15.0	40.4	5.6	23.2
Actuated g/C Ratio	0.06	0.31	0.31	0.07	0.39	0.39	0.17	0.46	0.06	0.26
v/c Ratio	0.19	0.89	0.31	2.34	0.42	0.02	1.04	0.48	0.14	0.21
Control Delay	43.9	47.3	4.8	652.9	23.1	0.0	101.6	15.3	42.9	25.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	47.3	4.8	652.9	23.1	0.0	101.6	15.3	42.9	25.3
LOS	D	D	A	F	C	A	F	B	D	C
Approach Delay		35.9			330.6			53.3		27.7
Approach LOS		D			F			D		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 88.2

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.34

Intersection Signal Delay: 124.7

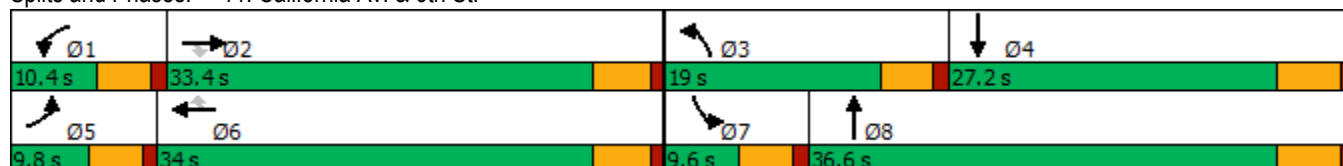
Intersection LOS: F

Intersection Capacity Utilization 75.9%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	498	188	292	294	11	304	142	244	15	85	12
Future Volume (veh/h)	21	498	188	292	294	11	304	142	244	15	85	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	524	194	307	309	7	320	149	226	16	89	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	55	590	500	132	670	568	309	279	423	46	459	36
Arrive On Green	0.03	0.31	0.31	0.07	0.35	0.35	0.17	0.41	0.40	0.03	0.26	0.25
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	681	1033	1810	1739	137
Grp Volume(v), veh/h	22	524	194	307	309	7	320	0	375	16	0	96
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1714	1810	0	1875
Q Serve(g_s), s	1.0	23.1	8.3	6.4	11.0	0.2	15.0	0.0	14.6	0.8	0.0	3.5
Cycle Q Clear(g_c), s	1.0	23.1	8.3	6.4	11.0	0.2	15.0	0.0	14.6	0.8	0.0	3.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.60	1.00		0.07
Lane Grp Cap(c), veh/h	55	590	500	132	670	568	309	0	702	46	0	495
V/C Ratio(X)	0.40	0.89	0.39	2.33	0.46	0.01	1.04	0.00	0.53	0.35	0.00	0.19
Avail Cap(c_a), veh/h	119	636	539	132	670	568	309	0	702	115	0	495
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.8	28.9	23.8	40.7	22.0	18.5	36.4	0.0	19.9	42.1	0.0	25.1
Incr Delay (d2), s/veh	1.7	13.8	0.5	621.2	0.5	0.0	60.8	0.0	2.9	1.7	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	12.4	3.0	25.5	4.9	0.1	11.4	0.0	5.9	0.3	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.5	42.7	24.3	661.9	22.5	18.5	97.2	0.0	22.8	43.8	0.0	26.0
LnGrp LOS	D	D	C	F	C	B	F	A	C	D	A	C
Approach Vol, veh/h	740			623			695			112		
Approach Delay, s/veh	37.9			337.5			57.1			28.5		
Approach LOS	D			F			E			C		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.4	31.3	19.0	27.2	6.7	35.0	6.2	40.0				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	5.8	* 29	14.4	22.0	5.2	* 29	5.0	31.4				
Max Q Clear Time (g_c+I1), s	8.4	25.1	17.0	5.5	3.0	13.0	2.8	16.6				
Green Ext Time (p_c), s	0.0	1.4	0.0	0.3	0.0	1.6	0.0	1.9				

Intersection Summary

HCM 6th Ctrl Delay 129.6

HCM 6th LOS F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	6.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↖	↕	↗		↕	↗
Traffic Vol, veh/h	5	3	94	74	3	22	194	703	80	7	521	7
Future Vol, veh/h	5	3	94	74	3	22	194	703	80	7	521	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	120	-	50	-	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	3	99	78	3	23	204	740	84	7	548	7
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1765	1794	548	1765	1717	740	555	0	0	824	0	0
Stage 1	562	562	-	1148	1148	-	-	-	-	-	-	-
Stage 2	1203	1232	-	617	569	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	66	81	540	~ 66	91	420	1026	-	-	815	-	-
Stage 1	515	513	-	244	276	-	-	-	-	-	-	-
Stage 2	227	252	-	481	509	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	52	64	540	~ 45	72	420	1026	-	-	815	-	-
Mov Cap-2 Maneuver	124	151	-	106	148	-	-	-	-	-	-	-
Stage 1	413	507	-	195	221	-	-	-	-	-	-	-
Stage 2	169	202	-	386	503	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	14.8		84.3		1.9		0.1					
HCM LOS	B		F									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR		
Capacity (veh/h)	1026	-	-	133	540	107	420	815	-	-		
HCM Lane V/C Ratio	0.199	-	-	0.063	0.183	0.758	0.055	0.009	-	-		
HCM Control Delay (s)	9.4	-	-	33.9	13.2	104.3	14.1	9.5	0	-		
HCM Lane LOS	A	-	-	D	B	F	B	A	A	-		
HCM 95th %tile Q(veh)	0.7	-	-	0.2	0.7	4.1	0.2	0	-	-		
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

Intersection							
Int Delay, s/veh	696.9						
Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations							
Traffic Vol, veh/h	363	182	126	546	1059	365	
Future Vol, veh/h	363	182	126	546	1059	365	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Stop	Stop	Free	Free	Free	Free	
RT Channelized	-	None	-	None	-	None	
Storage Length	0	0	0	-	-	-	
Veh in Median Storage, #	0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-	
Peak Hour Factor	92	92	92	92	92	92	
Heavy Vehicles, %	0	0	0	0	0	0	
Mvmt Flow	395	198	137	593	1151	397	
Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	2217	1350	1548	0	-	0	
Stage 1	1350	-	-	-	-	-	
Stage 2	867	-	-	-	-	-	
Critical Hdwy	6.4	6.2	4.1	-	-	-	
Critical Hdwy Stg 1	5.4	-	-	-	-	-	
Critical Hdwy Stg 2	5.4	-	-	-	-	-	
Follow-up Hdwy	3.5	3.3	2.2	-	-	-	
Pot Cap-1 Maneuver	~ 49	~ 186	434	-	-	-	
Stage 1	~ 244	-	-	-	-	-	
Stage 2	415	-	-	-	-	-	
Platoon blocked, %				-	-	-	
Mov Cap-1 Maneuver	~ 34	~ 186	434	-	-	-	
Mov Cap-2 Maneuver	~ 34	-	-	-	-	-	
Stage 1	~ 167	-	-	-	-	-	
Stage 2	415	-	-	-	-	-	
Approach	EB		NB		SB		
HCM Control Delay, \$	3373.2		3.2		0		
HCM LOS	F						
Minor Lane/Major Mvmt	NBL		NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	434		-	34	186	-	-
HCM Lane V/C Ratio	0.316		-	11.605	1.064	-	-
HCM Control Delay (s)	17.1		\$	4996.3	136	-	-
HCM Lane LOS	C		-	F	F	-	-
HCM 95th %tile Q(veh)	1.3		-	48.1	9.4	-	-
Notes							
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon	

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	43	17	79	5	25	486	10	479
Future Volume (vph)	43	17	79	5	25	486	10	479
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		-0.6		-0.8	-0.6	-0.8	-0.6	-0.8
Total Lost Time (s)		4.0		4.0	4.0	4.0	4.0	4.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		11.5		11.5	6.2	42.2	5.8	39.8
Actuated g/C Ratio		0.19		0.19	0.10	0.70	0.10	0.66
v/c Ratio		0.32		0.37	0.14	0.21	0.06	0.22
Control Delay		16.1		21.9	30.1	5.0	25.2	6.8
Queue Delay		0.4		0.5	1.3	0.4	0.0	0.3
Total Delay		16.4		22.3	31.4	5.4	25.2	7.1
LOS		B		C	C	A	C	A
Approach Delay		16.4		22.3		6.6		7.5
Approach LOS		B		C		A		A

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 50

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.37

Intersection Signal Delay: 9.0

Intersection LOS: A

Intersection Capacity Utilization 37.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	43	17	43	79	5	17	25	486	33	10	479	18
Future Volume (veh/h)	43	17	43	79	5	17	25	486	33	10	479	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	44	18	44	81	5	18	26	501	34	10	494	19
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	168	80	116	304	27	47	71	2066	140	41	2076	80
Arrive On Green	0.17	0.17	0.16	0.17	0.17	0.16	0.08	1.00	1.00	0.02	0.59	0.57
Sat Flow, veh/h	485	464	674	1125	152	267	1810	3431	232	1810	3544	136
Grp Volume(v), veh/h	106	0	0	104	0	0	26	263	272	10	251	262
Grp Sat Flow(s),veh/h/ln	1623	0	0	1544	0	0	1810	1805	1858	1810	1805	1875
Q Serve(g_s), s	0.2	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.3	4.0	4.0
Cycle Q Clear(g_c), s	3.2	0.0	0.0	3.0	0.0	0.0	0.8	0.0	0.0	0.3	4.0	4.0
Prop In Lane	0.42		0.42	0.78		0.17	1.00		0.13	1.00		0.07
Lane Grp Cap(c), veh/h	363	0	0	377	0	0	71	1087	1119	41	1057	1099
V/C Ratio(X)	0.29	0.00	0.00	0.28	0.00	0.00	0.37	0.24	0.24	0.24	0.24	0.24
Avail Cap(c_a), veh/h	486	0	0	483	0	0	241	1087	1119	241	1057	1099
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.0	0.0	0.0	21.7	0.0	0.0	26.9	0.0	0.0	28.8	6.0	6.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.4	0.0	0.0	1.2	0.5	0.5	1.1	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.0	1.3	0.0	0.0	0.4	0.2	0.2	0.1	1.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.5	0.0	0.0	22.1	0.0	0.0	28.1	0.5	0.5	29.9	6.5	6.5
LnGrp LOS	C	A	A	C	A	A	C	A	A	C	A	A
Approach Vol, veh/h		106			104			561			523	
Approach Delay, s/veh		22.5			22.1			1.8			7.0	
Approach LOS		C			C			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	40.1		14.5	6.4	39.1		14.5				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	2.3	2.0		5.2	2.8	6.0		5.0				
Green Ext Time (p_c), s	0.0	3.2		0.3	0.0	2.9		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			7.2									
HCM 6th LOS			A									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

	WBL	WBT	NBL	NBT	SBT
Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	787	0	312	354	494
Future Volume (vph)	787	0	312	354	494
Turn Type	Split	NA	Prot	NA	NA
Protected Phases	8	8	5	2	6
Permitted Phases					
Detector Phase	8	8	5	2	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.8	14.8	9.6	21.8	14.8
Total Split (s)	23.0	23.0	21.0	37.0	16.0
Total Split (%)	38.3%	38.3%	35.0%	61.7%	26.7%
Yellow Time (s)	3.8	3.8	3.6	3.8	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.8	-0.8	-0.6	-0.8	-0.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effect Green (s)	18.9	18.9	14.5	33.1	14.6
Actuated g/C Ratio	0.32	0.32	0.24	0.55	0.24
v/c Ratio	0.90	0.87	0.74	0.18	0.70
Control Delay	43.5	33.2	35.6	7.3	24.2
Queue Delay	0.0	50.6	0.0	0.0	52.7
Total Delay	43.5	83.8	35.6	7.3	76.8
LOS	D	F	D	A	E
Approach Delay		64.3		20.6	76.8
Approach LOS		E		C	E

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 54.7

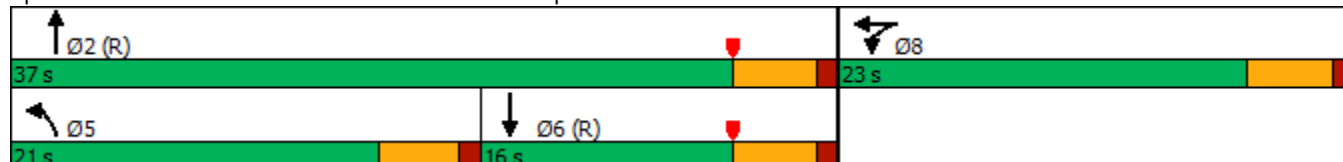
Intersection LOS: D

Intersection Capacity Utilization 106.2%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 15: Beaumont Av. & I-10 WB Ramps



HCM 6th Signalized Intersection Summary

15: Beaumont Av. & I-10 WB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	787	0	191	312	354	0	0	494	108
Future Volume (veh/h)	0	0	0	787	0	191	312	354	0	0	494	108
Initial Q (Qb), veh				75	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1900	1900	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				504	430	197	322	365	0	0	509	111
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				0	0	0	0	0	0	0	0	0
Cap, veh/h				573	391	179	376	1986	0	0	813	176
Arrive On Green				0.32	0.32	0.30	0.42	1.00	0.00	0.00	0.09	0.09
Sat Flow, veh/h				1810	1233	565	1810	3705	0	0	3045	640
Grp Volume(v), veh/h				504	0	627	322	365	0	0	311	309
Grp Sat Flow(s),veh/h/ln				1810	0	1798	1810	1805	0	0	1805	1785
Q Serve(g_s), s				15.8	0.0	19.0	9.7	0.0	0.0	0.0	9.9	10.0
Cycle Q Clear(g_c), s				15.8	0.0	19.0	9.7	0.0	0.0	0.0	9.9	10.0
Prop In Lane				1.00		0.31	1.00		0.00	0.00		0.36
Lane Grp Cap(c), veh/h				573	0	569	376	1986	0	0	497	492
V/C Ratio(X)				0.88	0.00	1.10	0.86	0.18	0.00	0.00	0.62	0.63
Avail Cap(c_a), veh/h				573	0	569	513	1986	0	0	497	492
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	0.33	0.33
Upstream Filter(I)				1.00	0.00	1.00	0.69	0.69	0.00	0.00	0.99	0.99
Uniform Delay (d), s/veh				20.5	0.0	20.6	16.7	0.0	0.0	0.0	24.3	24.4
Incr Delay (d2), s/veh				14.6	0.0	68.4	5.7	0.1	0.0	0.0	5.8	5.9
Initial Q Delay(d3),s/veh				417.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				75.3	0.0	17.4	3.4	0.0	0.0	0.0	5.4	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				452.1	0.0	89.0	22.4	0.1	0.0	0.0	30.0	30.3
LnGrp LOS				F	A	F	C	A	A	A	C	C
Approach Vol, veh/h					1131			687			620	
Approach Delay, s/veh					250.8			10.6			30.2	
Approach LOS					F			B			C	
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		37.0			16.5	20.5		23.0				
Change Period (Y+Rc), s		* 4.8			4.6	* 4.8		4.8				
Max Green Setting (Gmax), s		* 32			16.4	* 11		18.2				
Max Q Clear Time (g_c+I1), s		2.0			11.7	12.0		21.0				
Green Ext Time (p_c), s		2.5			0.2	0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				127.0								
HCM 6th LOS				F								
Notes												
User approved volume balancing among the lanes for turning movement.												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↑	↙	↓
Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Configurations	↕↕	↗	↕↕	↙	↕↕
Traffic Volume (vph)	11	856	555	129	1152
Future Volume (vph)	11	856	555	129	1152
Turn Type	NA	Perm	NA	Prot	NA
Protected Phases	4		2	1	6
Permitted Phases		4			
Detector Phase	4	4	2	1	6
Switch Phase					
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	21.8	9.6	21.8
Total Split (s)	25.0	25.0	24.0	11.0	35.0
Total Split (%)	41.7%	41.7%	40.0%	18.3%	58.3%
Yellow Time (s)	3.8	3.8	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.8	-0.8	-0.8	-0.6	-0.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag			Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	
Recall Mode	None	None	C-Max	None	C-Max
Act Effect Green (s)	20.5	20.5	22.7	6.8	31.5
Actuated g/C Ratio	0.34	0.34	0.38	0.11	0.52
v/c Ratio	0.90	0.82	0.67	0.66	0.63
Control Delay	38.7	27.7	13.5	29.2	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.2
Total Delay	38.7	27.7	13.5	29.2	17.6
LOS	D	C	B	C	B
Approach Delay	33.3		13.5		18.8
Approach LOS	C		B		B

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 21.6

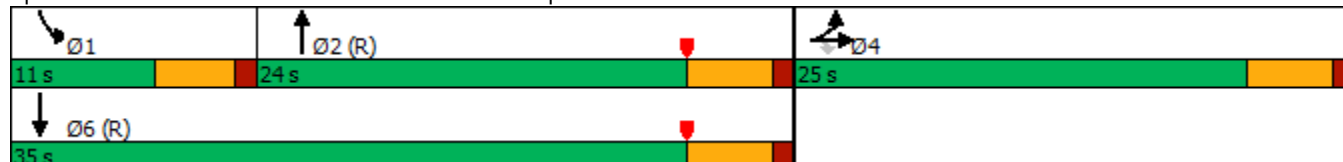
Intersection LOS: C

Intersection Capacity Utilization 106.2%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 16: Beaumont Av. & I-10 EB Ramps



HCM 6th Signalized Intersection Summary

16: Beaumont Av. & I-10 EB Ramps

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↗					↕		↖	↕	
Traffic Volume (veh/h)	111	11	856	0	0	0	0	555	416	129	1152	0
Future Volume (veh/h)	111	11	856	0	0	0	0	555	416	129	1152	0
Initial Q (Qb), veh	0	0	75				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	0	0	1011				0	572	429	133	1188	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	0	665	1127				0	686	514	183	1865	0
Arrive On Green	0.00	0.00	0.35				0.00	0.35	0.34	0.20	1.00	0.00
Sat Flow, veh/h	0	1900	3220				0	2061	1474	1810	3705	0
Grp Volume(v), veh/h	0	0	1011				0	525	476	133	1188	0
Grp Sat Flow(s),veh/h/ln	0	1900	1610				0	1805	1635	1810	1805	0
Q Serve(g_s), s	0.0	0.0	17.9				0.0	16.0	16.1	4.1	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	17.9				0.0	16.0	16.1	4.1	0.0	0.0
Prop In Lane	0.00		1.00				0.00		0.90	1.00		0.00
Lane Grp Cap(c), veh/h	0	665	1127				0	630	570	183	1865	0
V/C Ratio(X)	0.00	0.00	0.90				0.00	0.83	0.83	0.73	0.64	0.00
Avail Cap(c_a), veh/h	0	665	1127				0	634	574	211	1873	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	0.00	0.00	1.00				0.00	1.00	1.00	0.52	0.52	0.00
Uniform Delay (d), s/veh	0.0	0.0	19.5				0.0	17.9	18.3	23.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	9.6				0.0	12.3	13.4	4.2	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	193.2				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	38.1				0.0	8.0	7.6	1.7	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	222.3				0.0	30.3	31.7	27.4	0.9	0.0
LnGrp LOS	A	A	F				A	C	C	C	A	A
Approach Vol, veh/h	1011						1001			1321		
Approach Delay, s/veh	222.3						31.0			3.5		
Approach LOS	F						C			A		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	10.1	25.1		24.9			35.1					
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8			* 4.8					
Max Green Setting (Gmax), s	6.4	* 19		* 20			* 30					
Max Q Clear Time (g_c+I1), s	6.1	18.1		19.9			2.0					
Green Ext Time (p_c), s	0.0	0.7		0.2			10.4					

Intersection Summary

HCM 6th Ctrl Delay 78.1

HCM 6th LOS E

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings

Jack Rabbit Trail (JN 12396)

07/13/2020

17: Potrero Bl. & SR-60 WB Ramps

						
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	209	152	870	379	582	410
Future Volume (vph)	209	152	870	379	582	410
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	40.0	40.0	80.0	80.0	80.0	80.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	11.3	10.1	17.6	17.6	17.6	17.6
Actuated g/C Ratio	0.29	0.26	0.45	0.45	0.45	0.45
v/c Ratio	0.23	0.20	0.42	0.44	0.28	0.30
Control Delay	12.7	4.1	7.8	2.5	7.0	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	4.1	7.8	2.5	7.0	1.4
LOS	B	A	A	A	A	A
Approach Delay			6.2		4.7	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 39.4

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.44

Intersection Signal Delay: 6.0

Intersection LOS: A

Intersection Capacity Utilization 34.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps

 Ø2	 Ø3
80 s	40 s
 Ø6	 Ø8
80 s	40 s

HCM 6th Signalized Intersection Summary
17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↰↰		↰↰		↰↰↰	↰		↰↰↰	↰↰
Traffic Volume (veh/h)	0	0	0	209	0	152	0	870	379	0	582	410
Future Volume (veh/h)	0	0	0	209	0	152	0	870	379	0	582	410
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No			No		
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				227	0	138	0	946	0	0	633	364
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				610	0	493	0	2329		0	2329	1273
Arrive On Green				0.18	0.00	0.18	0.00	0.46	0.00	0.00	0.46	0.46
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				227	0	138	0	946	0	0	633	364
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				1.6	0.0	1.2	0.0	3.5	0.0	0.0	2.2	2.3
Cycle Q Clear(g_c), s				1.6	0.0	1.2	0.0	3.5	0.0	0.0	2.2	2.3
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				610	0	493	0	2329		0	2329	1273
V/C Ratio(X)				0.37	0.00	0.28	0.00	0.41		0.00	0.27	0.29
Avail Cap(c_a), veh/h				4320	0	3487	0	13378		0	13378	7309
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				10.3	0.0	10.1	0.0	5.1	0.0	0.0	4.8	4.8
Incr Delay (d2), s/veh				0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.4	0.0	0.2	0.0	0.3	0.0	0.0	0.2	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				10.4	0.0	10.2	0.0	5.3	0.0	0.0	4.8	4.9
LnGrp LOS				B	A	B	A	A		A	A	A
Approach Vol, veh/h					365			946	A		997	
Approach Delay, s/veh					10.3			5.3			4.9	
Approach LOS					B			A			A	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		18.7				18.7		9.6				
Change Period (Y+Rc), s		5.8				5.8		4.6				
Max Green Setting (Gmax), s		74.2				74.2		35.4				
Max Q Clear Time (g_c+I1), s		5.5				4.3		3.6				
Green Ext Time (p_c), s		7.4				6.3		0.7				

Intersection Summary

HCM 6th Ctrl Delay	5.9
HCM 6th LOS	A

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Timings
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

						
Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	570	257	679	332	709	83
Future Volume (vph)	570	257	679	332	709	83
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	12.0	10.7	15.7	15.7	15.7	15.7
Actuated g/C Ratio	0.31	0.28	0.41	0.41	0.41	0.41
v/c Ratio	0.58	0.28	0.35	0.27	0.37	0.13
Control Delay	14.2	3.1	8.4	1.8	8.4	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	3.1	8.4	1.8	8.4	2.8
LOS	B	A	A	A	A	A
Approach Delay			6.2		7.9	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 38.3

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.58

Intersection Signal Delay: 8.1

Intersection LOS: A

Intersection Capacity Utilization 38.1%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps



HCM 6th Signalized Intersection Summary

18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/13/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	570	0	257	0	0	0	0	679	332	0	709	83
Future Volume (veh/h)	570	0	257	0	0	0	0	679	332	0	709	83
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	620	0	197				0	738	279	0	771	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1057	0	853				0	1921	1049	0	1921	
Arrive On Green	0.31	0.00	0.31				0.00	0.38	0.38	0.00	0.38	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	620	0	197				0	738	279	0	771	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	5.0	0.0	1.7				0.0	3.4	2.3	0.0	3.6	0.0
Cycle Q Clear(g_c), s	5.0	0.0	1.7				0.0	3.4	2.3	0.0	3.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1057	0	853				0	1921	1049	0	1921	
V/C Ratio(X)	0.59	0.00	0.23				0.00	0.38	0.27	0.00	0.40	
Avail Cap(c_a), veh/h	4269	0	3446				0	10805	5903	0	10805	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	9.6	0.0	8.5				0.0	7.4	7.1	0.0	7.5	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.1				0.0	0.1	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.3				0.0	0.6	0.3	0.0	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.8	0.0	8.5				0.0	7.6	7.2	0.0	7.6	0.0
LnGrp LOS	A	A	A				A	A	A	A	A	
Approach Vol, veh/h	817						1017			771		
Approach Delay, s/veh	9.5						7.5			7.6		
Approach LOS	A						A			A		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	18.1			14.6			18.1					
Change Period (Y+Rc), s	5.8			4.6			5.8					
Max Green Setting (Gmax), s	69.2			40.4			69.2					
Max Q Clear Time (g_c+I1), s	5.4			7.0			5.6					
Green Ext Time (p_c), s	6.9			1.6			5.7					
Intersection Summary												
HCM 6th Ctrl Delay	8.1											
HCM 6th LOS	A											
Notes												

APPENDIX 8.3:

OPENING YEAR (2027) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

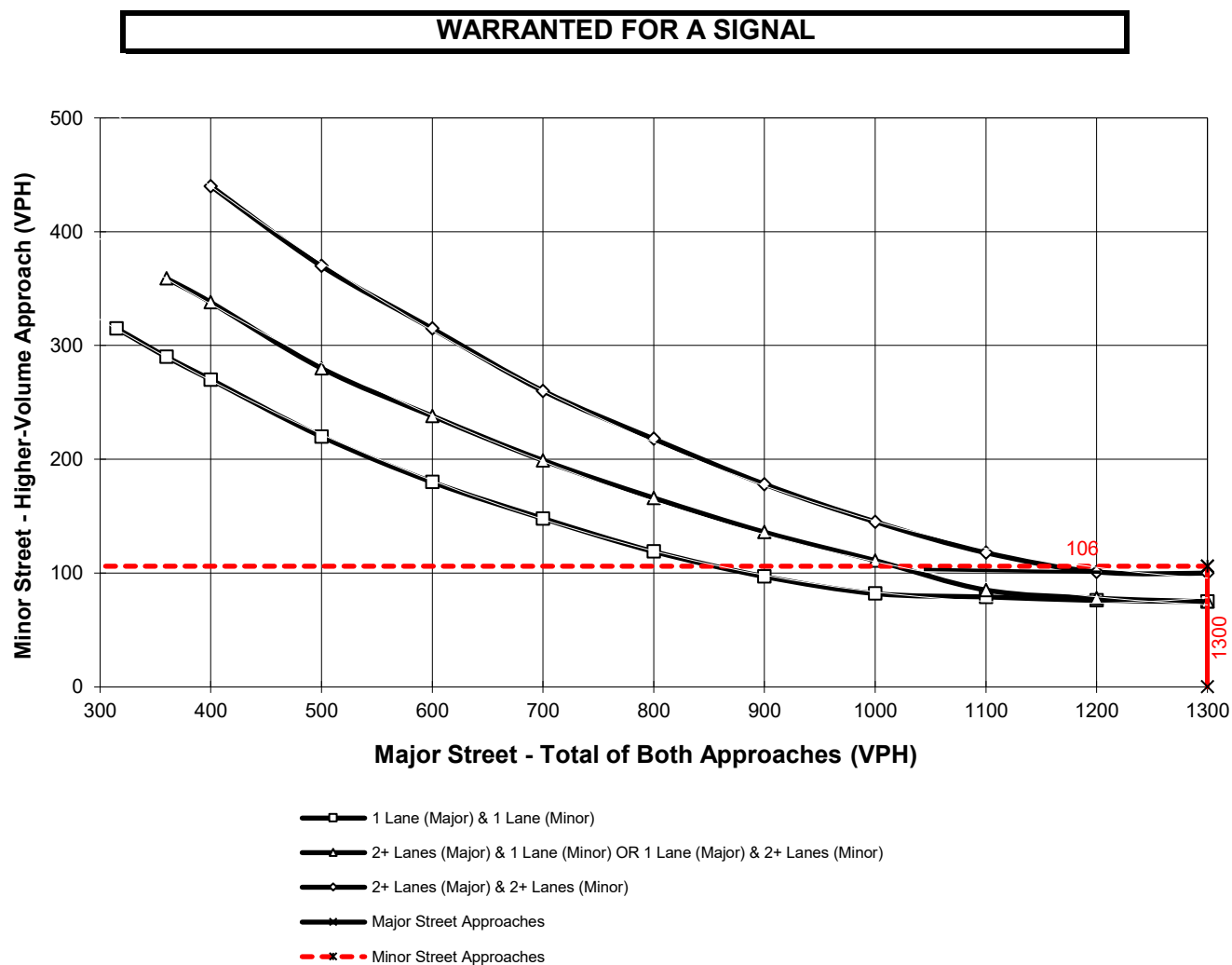
Traffic Conditions = **OYC 2027 NP Conditions - Weekday PM Peak Hour**

Major Street Name = **Western Knolls Av.**

Total of Both Approaches (VPH) = **1376**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Potrero Bl.**

High Volume Approach (VPH) = **106**
Number of Approach Lanes Minor Street = **1**



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes
and 75 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 8.4:

OPENING YEAR (2027) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1419	337	809	581
v/c Ratio	1.61	1.14	0.62	1.71
Control Delay	302.7	110.0	5.4	357.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	302.7	110.0	5.4	357.2
Queue Length 50th (ft)	~1164	~218	66	~480
Queue Length 95th (ft)	#1400	m#207	m63	#675
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	881	296	1313	340
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.61	1.14	0.62	1.71

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

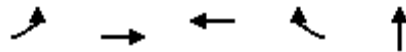
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	256	770	644	540	839
v/c Ratio	2.37	0.99	1.13	0.63	1.00
Control Delay	640.3	31.6	110.3	6.5	55.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	640.3	31.6	110.3	6.5	55.5
Queue Length 50th (ft)	~243	479	~429	5	~433
Queue Length 95th (ft)	m#123	m207	#636	86	#704
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	853	837
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	2.37	0.99	1.13	0.63	1.00

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	440	405	430	271	522
v/c Ratio	1.01	0.80	0.90	0.13	0.58
Control Delay	73.5	27.9	50.2	5.7	16.2
Queue Delay	0.0	53.9	0.0	0.0	7.2
Total Delay	73.5	81.9	50.2	5.7	23.4
Queue Length 50th (ft)	~170	93	168	15	83
Queue Length 95th (ft)	#343	#236	#310	m36	128
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	434	509	493	2117	895
Starvation Cap Reductn	0	0	0	0	322
Spillback Cap Reductn	0	150	0	52	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.01	1.13	0.87	0.13	0.91

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	347	338	1095	122	844
v/c Ratio	0.74	0.74	0.62	0.55	0.37
Control Delay	21.5	21.6	10.6	20.7	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	21.6	10.6	20.7	9.4
Queue Length 50th (ft)	61	57	100	34	117
Queue Length 95th (ft)	#143	#141	173	m52	m174
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	525	511	1759	252	2260
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.66	0.66	0.62	0.48	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

17: Potrero Bl. & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	136	117	857	441	380	387
v/c Ratio	0.13	0.14	0.40	0.48	0.18	0.28
Control Delay	11.3	4.2	7.9	2.8	6.7	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.3	4.2	7.9	2.8	6.7	1.5
Queue Length 50th (ft)	9	0	41	0	16	0
Queue Length 95th (ft)	28	15	60	31	27	15
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	3385	2731	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.04	0.17	0.28	0.07	0.14
Intersection Summary						

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

18: Potrero Bl. & SR-60 EB Ramps



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	474	279	824	361	386	130
v/c Ratio	0.47	0.30	0.38	0.26	0.18	0.17
Control Delay	13.4	3.3	7.9	1.6	6.8	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.4	3.3	7.9	1.6	6.8	2.4
Queue Length 50th (ft)	38	0	36	0	15	0
Queue Length 95th (ft)	85	22	65	16	31	19
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3406	2754	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.10	0.16	0.13	0.08	0.08
Intersection Summary						

Queues

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1286	296	1220	1256
v/c Ratio	2.12	1.40	1.32	1.64
Control Delay	531.9	217.4	170.8	316.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	531.9	217.4	170.8	316.3
Queue Length 50th (ft)	~1182	~223	~921	~1043
Queue Length 95th (ft)	#1151	m#199	m#736	#1018
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	606	212	922	767
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	2.12	1.40	1.32	1.64

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

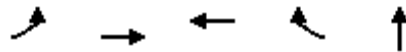
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	304	1045	699	395	878
v/c Ratio	1.46	1.24	1.29	0.56	1.05
Control Delay	240.6	130.9	175.8	8.1	69.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	240.6	130.9	175.8	8.1	69.6
Queue Length 50th (ft)	~243	~747	~512	20	~535
Queue Length 95th (ft)	m90	m230	#725	98	#766
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	208	844	540	707	836
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.46	1.24	1.29	0.56	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	487	521	322	365	620
v/c Ratio	0.90	0.87	0.74	0.18	0.70
Control Delay	43.5	33.2	35.6	7.3	24.2
Queue Delay	0.0	50.6	0.0	0.0	52.7
Total Delay	43.5	83.8	35.6	7.3	76.8
Queue Length 50th (ft)	173	144	125	24	108
Queue Length 95th (ft)	#344	#321	m186	m52	#192
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	543	602	511	1991	885
Starvation Cap Reductn	0	0	0	0	340
Spillback Cap Reductn	0	162	0	61	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.90	1.18	0.63	0.19	1.14

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	513	494	1001	133	1188
v/c Ratio	0.90	0.82	0.67	0.66	0.63
Control Delay	38.7	27.7	13.5	29.2	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.2
Total Delay	38.7	27.7	13.5	29.2	17.6
Queue Length 50th (ft)	162	127	106	49	215
Queue Length 95th (ft)	#341	#291	172	m59	m275
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	586	612	1491	210	1897
Starvation Cap Reductn	0	0	0	0	151
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.88	0.81	0.67	0.63	0.68

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

17: Potrero Bl. & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	227	165	946	412	633	446
v/c Ratio	0.23	0.20	0.42	0.44	0.28	0.30
Control Delay	12.7	4.1	7.8	2.5	7.0	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	4.1	7.8	2.5	7.0	1.4
Queue Length 50th (ft)	18	0	46	0	28	0
Queue Length 95th (ft)	46	19	66	28	43	15
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	3090	2463	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.07	0.19	0.26	0.12	0.16
Intersection Summary						

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

18: Potrero Bl. & SR-60 EB Ramps



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	620	279	738	361	771	90
v/c Ratio	0.58	0.28	0.35	0.27	0.37	0.13
Control Delay	14.2	3.1	8.4	1.8	8.4	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	3.1	8.4	1.8	8.4	2.8
Queue Length 50th (ft)	54	0	34	0	36	0
Queue Length 95th (ft)	111	21	64	17	67	17
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3314	2673	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.10	0.15	0.13	0.15	0.06
Intersection Summary						

APPENDIX 8.5:

OPENING YEAR (2027) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1464	337	809	738
v/c Ratio	1.66	1.14	0.62	2.08
Control Delay	325.2	110.0	5.4	517.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	325.2	110.0	5.4	517.3
Queue Length 50th (ft)	~1220	~218	66	~652
Queue Length 95th (ft)	#1456	m#207	m63	#861
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	881	296	1313	355
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	1.66	1.14	0.62	2.08

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

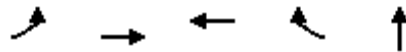
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

04/01/2022



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	297	770	644	540	839
v/c Ratio	2.75	0.99	1.13	0.63	1.00
Control Delay	808.4	32.4	110.3	6.5	55.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	808.4	32.4	110.3	6.5	55.5
Queue Length 50th (ft)	~292	479	~429	5	~433
Queue Length 95th (ft)	m#137	m198	#636	86	#704
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	853	837
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	2.75	0.99	1.13	0.63	1.00

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	440	405	430	271	522
v/c Ratio	1.01	0.80	0.90	0.13	0.58
Control Delay	73.5	27.9	50.2	5.7	16.3
Queue Delay	0.0	53.9	0.0	0.0	6.8
Total Delay	73.5	81.9	50.2	5.7	23.1
Queue Length 50th (ft)	~170	93	168	15	83
Queue Length 95th (ft)	#343	#236	#310	m36	129
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	434	509	493	2117	895
Starvation Cap Reductn	0	0	0	0	319
Spillback Cap Reductn	0	150	0	52	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.01	1.13	0.87	0.13	0.91

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	347	338	1095	122	844
v/c Ratio	0.74	0.74	0.62	0.55	0.37
Control Delay	21.5	21.6	10.6	20.7	9.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.5	21.6	10.6	20.7	9.4
Queue Length 50th (ft)	61	57	100	34	117
Queue Length 95th (ft)	#143	#141	173	m52	m174
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	525	511	1759	252	2260
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.66	0.66	0.62	0.48	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

17: Potrero Bl. & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	499	117	911	555	571	387
v/c Ratio	0.51	0.14	0.38	0.54	0.24	0.26
Control Delay	15.9	4.6	7.8	3.0	7.0	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.9	4.6	7.8	3.0	7.0	1.4
Queue Length 50th (ft)	49	0	44	0	25	0
Queue Length 95th (ft)	107	17	77	37	47	16
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	3169	2540	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.05	0.18	0.35	0.11	0.14
Intersection Summary						

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

18: Potrero Bl. & SR-60 EB Ramps



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	474	718	992	453	940	130
v/c Ratio	0.40	0.70	0.44	0.31	0.42	0.17
Control Delay	14.6	15.6	10.9	1.8	10.7	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.6	15.6	10.9	1.8	10.7	2.9
Queue Length 50th (ft)	52	71	67	0	62	0
Queue Length 95th (ft)	109	163	126	23	119	25
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	2953	2392	5014	2754	5014	1563
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.30	0.20	0.16	0.19	0.08
Intersection Summary						



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1516	296	1220	1388
v/c Ratio	2.50	1.40	1.32	1.77
Control Delay	697.9	217.4	170.8	373.5
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	697.9	217.4	170.8	373.5
Queue Length 50th (ft)	~1465	~223	~921	~1192
Queue Length 95th (ft)	#1397	m#199	m#736	#1146
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	607	212	922	785
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	2.50	1.40	1.32	1.77

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

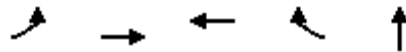
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/13/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	485	1045	699	395	878
v/c Ratio	2.33	1.24	1.29	0.56	1.05
Control Delay	621.5	131.4	175.8	8.1	69.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	621.5	131.4	175.8	8.1	69.6
Queue Length 50th (ft)	~465	~752	~512	20	~535
Queue Length 95th (ft)	m#145	m211	#725	98	#766
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	208	844	540	707	836
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	2.33	1.24	1.29	0.56	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

15: Beaumont Av. & I-10 WB Ramps



Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	487	521	322	365	620
v/c Ratio	0.90	0.87	0.74	0.18	0.70
Control Delay	43.5	33.2	35.6	7.3	24.0
Queue Delay	0.0	50.6	0.0	0.0	52.6
Total Delay	43.5	83.8	35.6	7.3	76.6
Queue Length 50th (ft)	173	144	125	24	108
Queue Length 95th (ft)	#344	#321	m186	m52	#192
Internal Link Dist (ft)		1161		340	34
Turn Bay Length (ft)	480		100		
Base Capacity (vph)	543	602	511	1991	885
Starvation Cap Reductn	0	0	0	0	333
Spillback Cap Reductn	0	162	0	77	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.90	1.18	0.63	0.19	1.12

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

16: Beaumont Av. & I-10 EB Ramps



Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	513	494	1001	133	1188
v/c Ratio	0.90	0.82	0.67	0.66	0.63
Control Delay	38.7	27.7	13.5	29.1	17.5
Queue Delay	0.0	0.0	0.0	0.0	0.2
Total Delay	38.7	27.7	13.5	29.1	17.6
Queue Length 50th (ft)	162	127	106	49	216
Queue Length 95th (ft)	#341	#291	172	m59	m276
Internal Link Dist (ft)	980		1629		340
Turn Bay Length (ft)		220		120	
Base Capacity (vph)	586	612	1491	210	1897
Starvation Cap Reductn	0	0	0	0	151
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.88	0.81	0.67	0.63	0.68

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

17: Potrero Bl. & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	227	165	946	412	633	446
v/c Ratio	0.23	0.20	0.42	0.44	0.28	0.30
Control Delay	12.7	4.1	7.8	2.5	7.0	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	4.1	7.8	2.5	7.0	1.4
Queue Length 50th (ft)	18	0	46	0	28	0
Queue Length 95th (ft)	46	19	66	28	43	15
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	3090	2463	5085	1583	5085	2787
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.07	0.19	0.26	0.12	0.16
Intersection Summary						

Queues

Jack Rabbit Trail (JN 12396)

07/13/2020

18: Potrero Bl. & SR-60 EB Ramps



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	620	279	738	361	771	90
v/c Ratio	0.58	0.28	0.35	0.27	0.37	0.13
Control Delay	14.2	3.1	8.4	1.8	8.4	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.2	3.1	8.4	1.8	8.4	2.8
Queue Length 50th (ft)	54	0	34	0	36	0
Queue Length 95th (ft)	111	21	64	17	67	17
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	3314	2673	5085	2787	5085	1583
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.10	0.15	0.13	0.15	0.06
Intersection Summary						

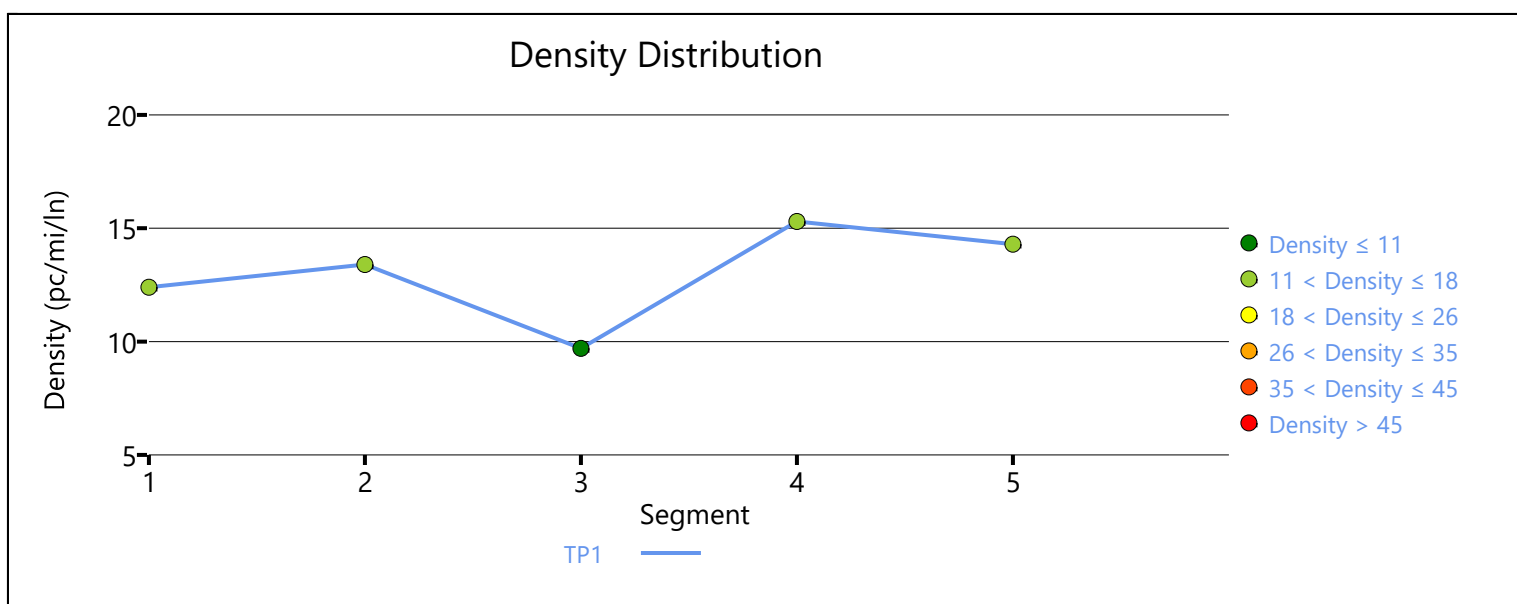
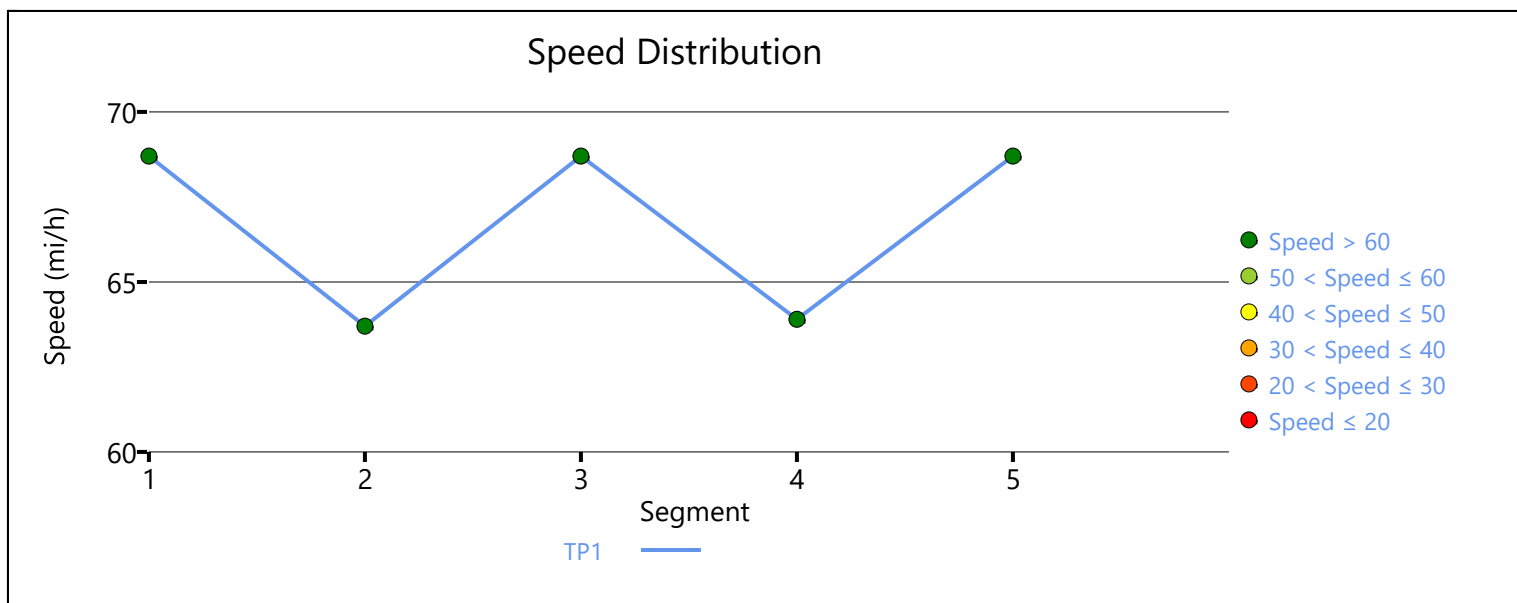
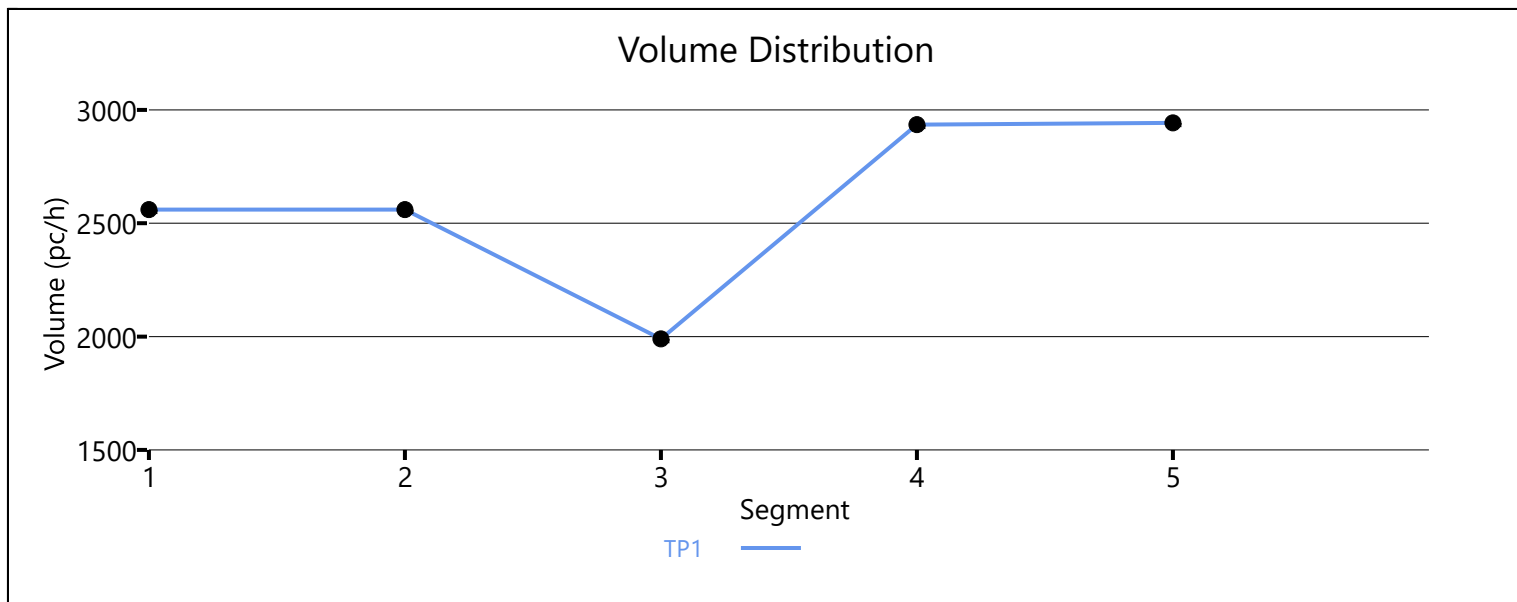
APPENDIX 8.6:

OPENING YEAR (2027) WITHOUT PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report																
Project Information																
Analyst				JB				Date				7/14/2020				
Agency				Urban Crossroads, Inc.				Analysis Year				Opening Year Cumulative (2027) Without Project				
Jurisdiction				Caltrans				Time Period Analyzed				AM Peak Hour				
Project Description				JN:12396 - I-10 EB												
Facility Global Input																
Jam Density, pc/mi/ln				190.0				Density at Capacity, pc/mi/ln				45.0				
Queue Discharge Capacity Drop, %				7				Total Segments				5				
Total Time Periods				1				Time Period Duration, min				15				
Facility Segment Data																
No.		Coded		Analyzed		Name				Length, ft				Lanes		
1		Basic		Basic		West of Oak Valley				5280				3		
2		Diverge		Diverge		Off-Ramp				1500				3		
3		Basic		Basic		Between				1770				3		
4		Merge		Merge		On-Ramp				1500				3		
5		Basic		Basic		East of Oak Valley				2250				3		
Facility Segment Data																
Segment 1: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.962		2560		7161		0.36		68.7		12.4		B
Segment 2: Diverge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.962	0.962	2560	571	7200	2100	0.36	0.27	63.7	60.2	13.4	16.6	B
Segment 3: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.962		1990		7161		0.28		68.7		9.7		A
Segment 4: Merge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.962	0.971	2935	945	7200	2100	0.41	0.45	63.9	62.2	15.3	16.5	B
Segment 5: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.962		2943		7161		0.41		68.7		14.3		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	12.8	12.3	2.1	B
Facility Overall Results					
Space Mean Speed, mi/h		67.4	Density, veh/mi/ln		12.3
Average Travel Time, min		2.1	Density, pc/mi/ln		12.8



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		2966		7161		0.41		68.7		14.4		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2966	901	7200	2100	0.41	0.43	62.9	59.4	15.7	19.4	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.901		2077		7161		0.29		68.7		10.1		A

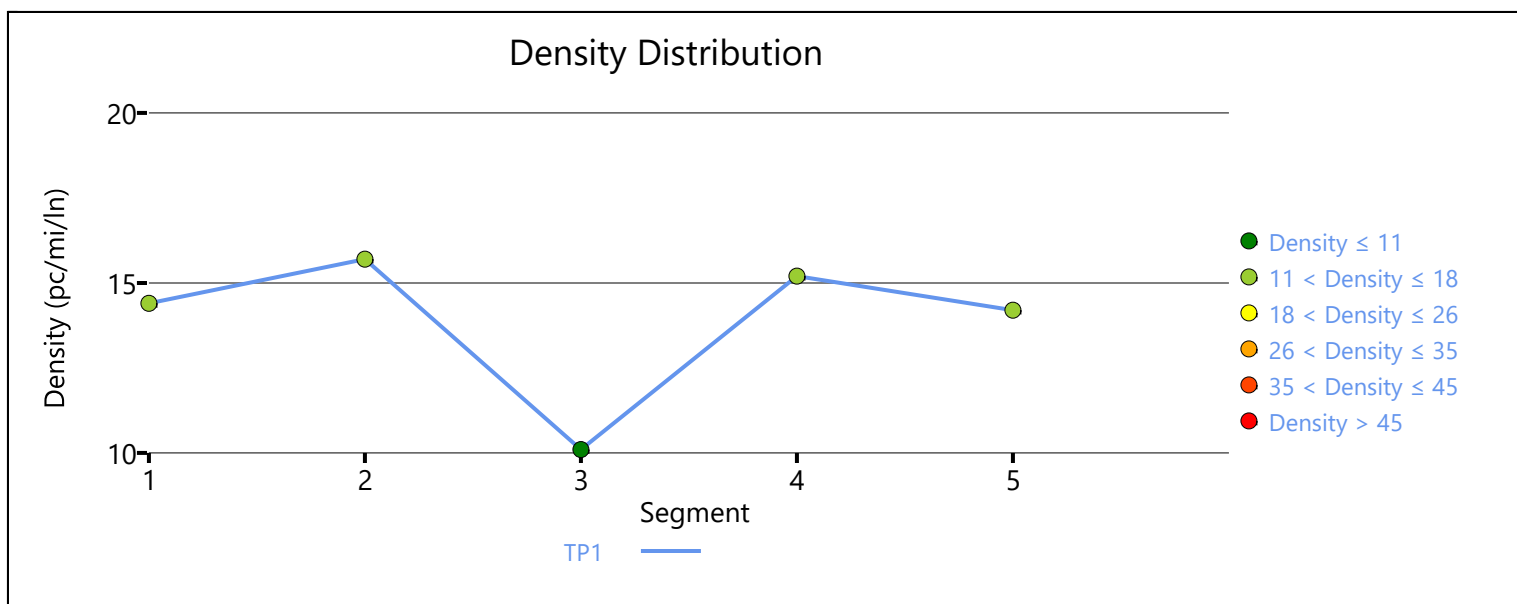
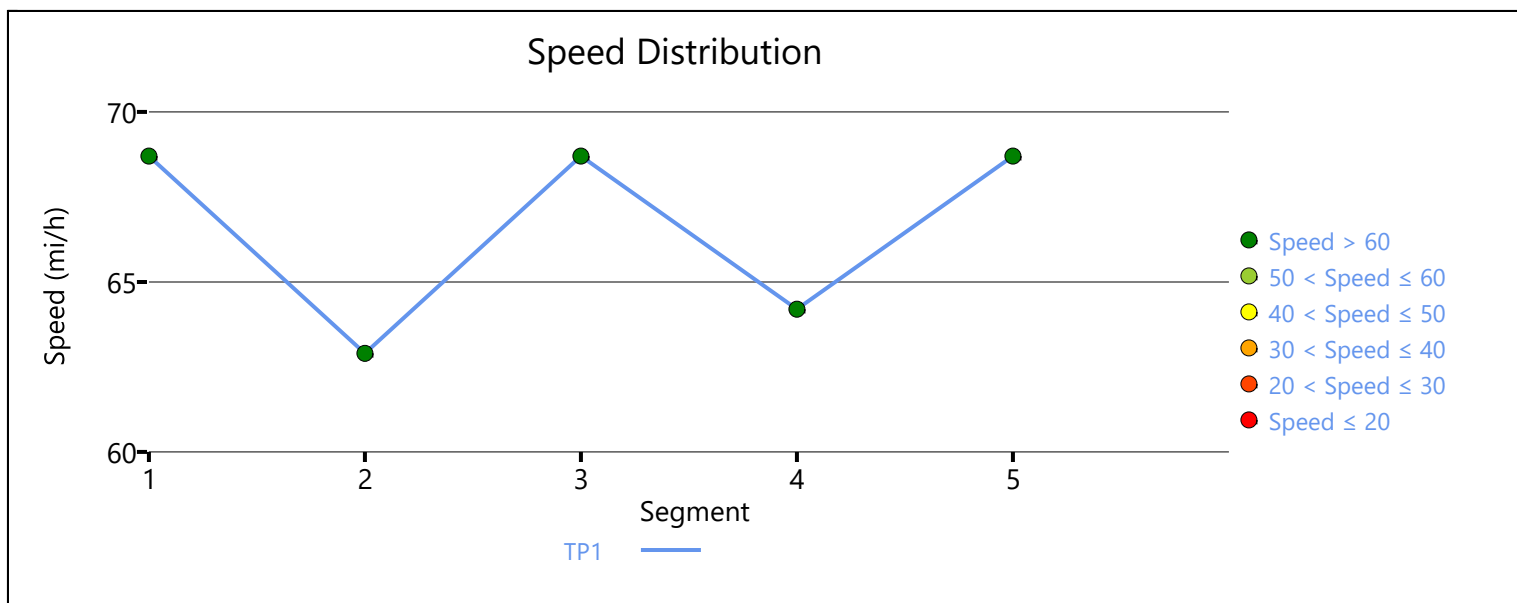
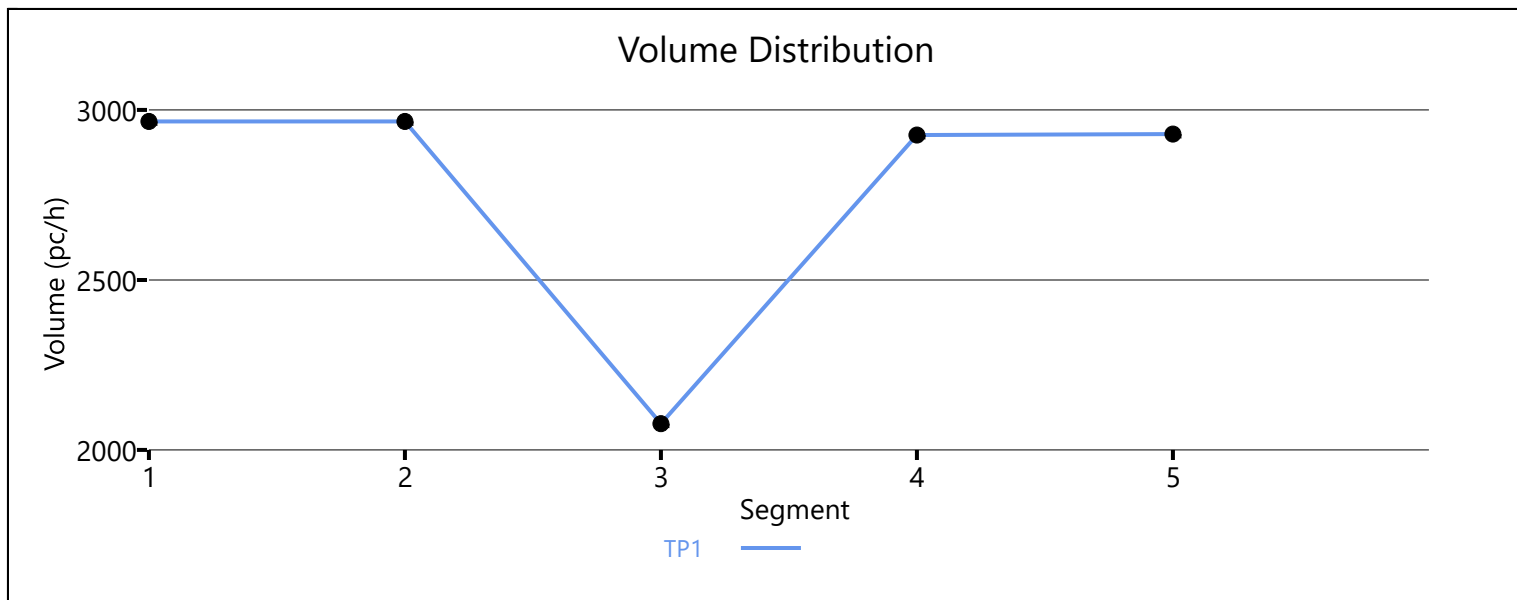
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.990	2926	849	7200	2100	0.41	0.40	64.2	62.5	15.2	15.6	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		2929		7161		0.41		68.7		14.2		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	14.0	12.9	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.4	Density, veh/mi/ln		12.9
Average Travel Time, min		2.2	Density, pc/mi/ln		14.0



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		2656		4764		0.56		68.2		19.5		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.962	2656	2180	4800	2100	0.55	1.04	53.3	56.2	45.0	25.3	C

Segment 3: Basic

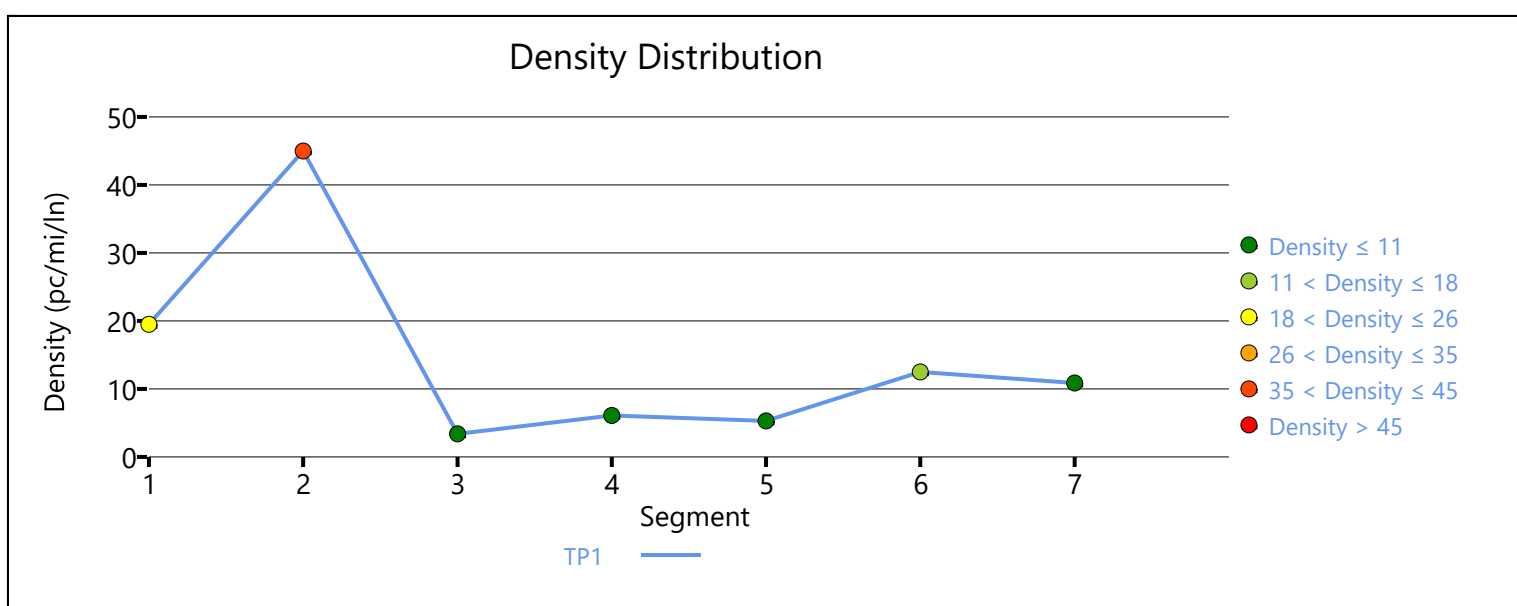
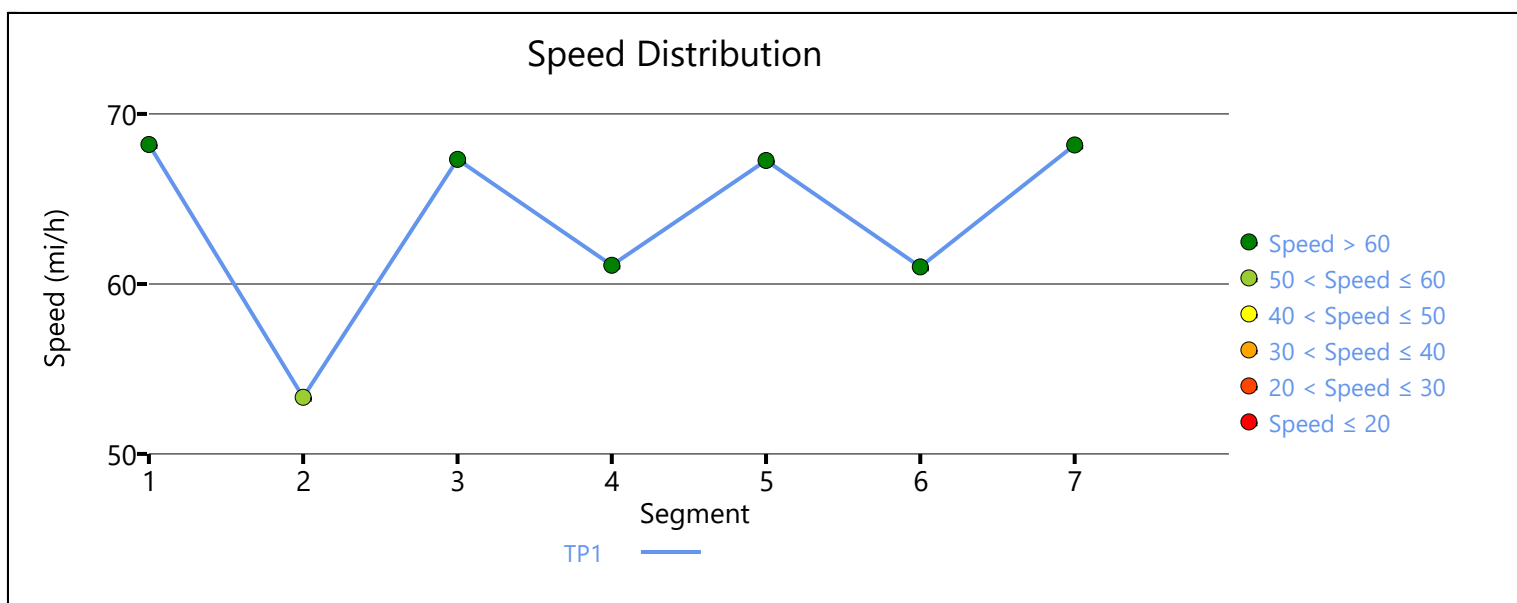
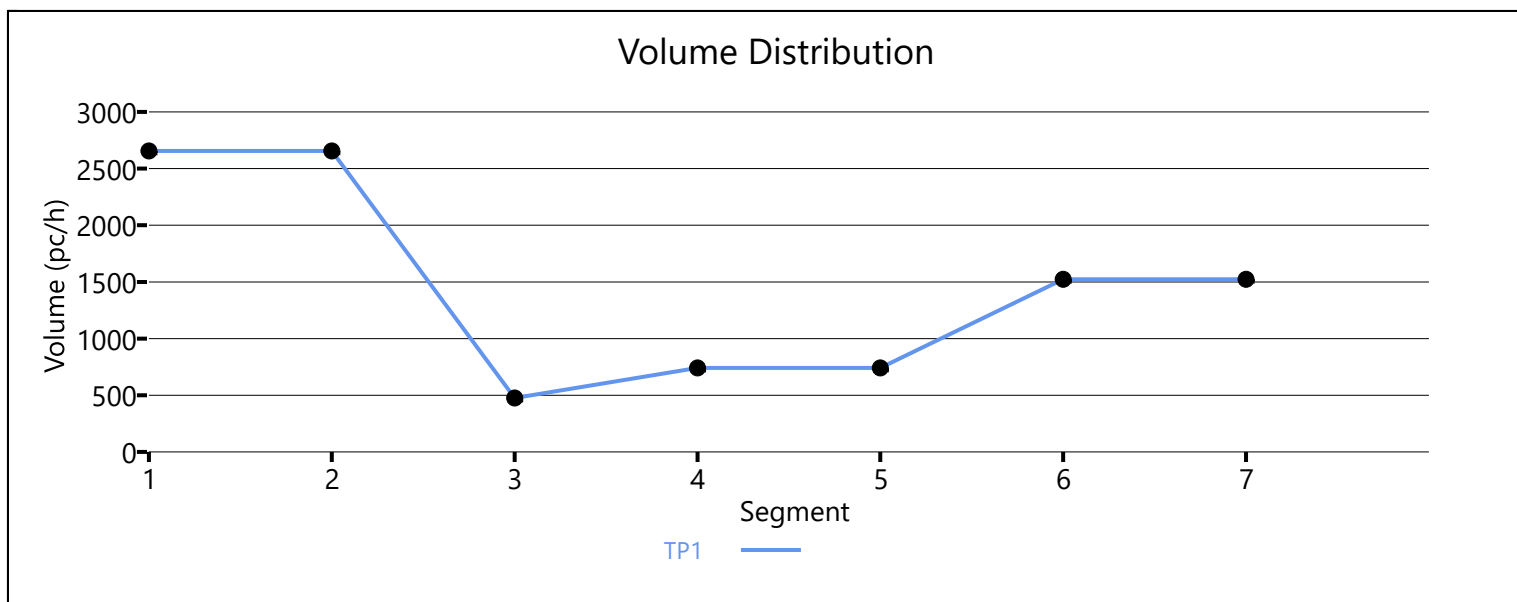
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		476		4764		0.10		67.3		3.4		A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	741	265	4800	1900	0.16	0.14	61.1	61.1	6.1	10.0	A

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		741		4764		0.16		67.3		5.3		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.952	1523	782	4800	2100	0.32	0.37	61.0	61.0	12.5	15.8	B
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1523		4764		0.32		68.2		10.9		A
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.0			14.7			14.3			3.2			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.0				Density, veh/mi/ln				14.3		
Average Travel Time, min					3.2				Density, pc/mi/ln				14.7		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1754		4764		0.37		68.2		12.9		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.962	1754	1571	4800	2100	0.37	0.75	57.7	57.7	15.2	17.5	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		176		4764		0.04		68.2		1.3		A

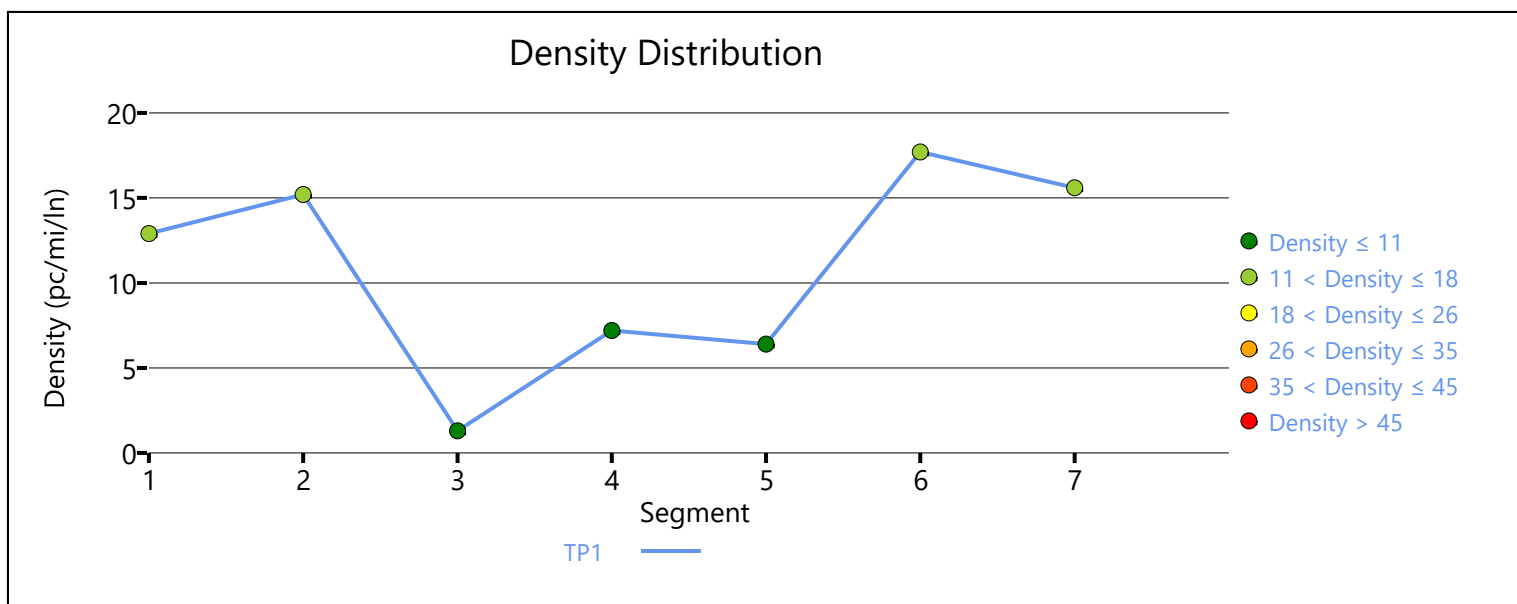
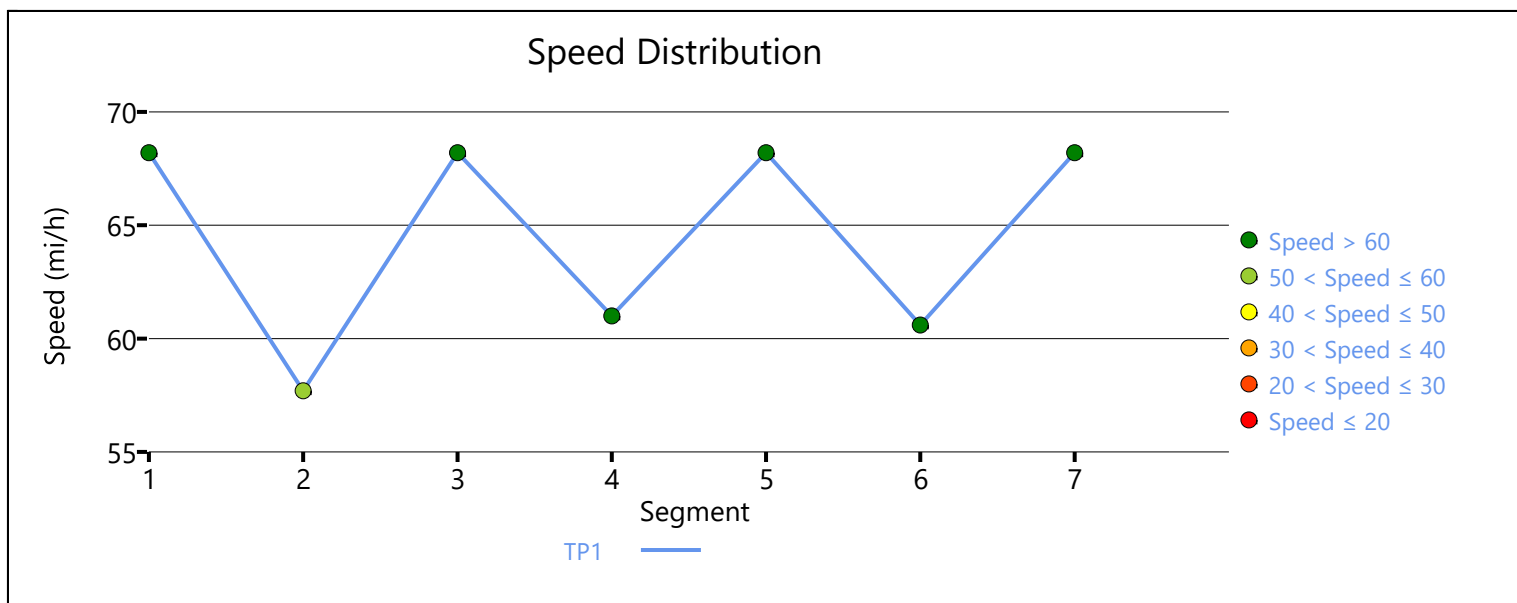
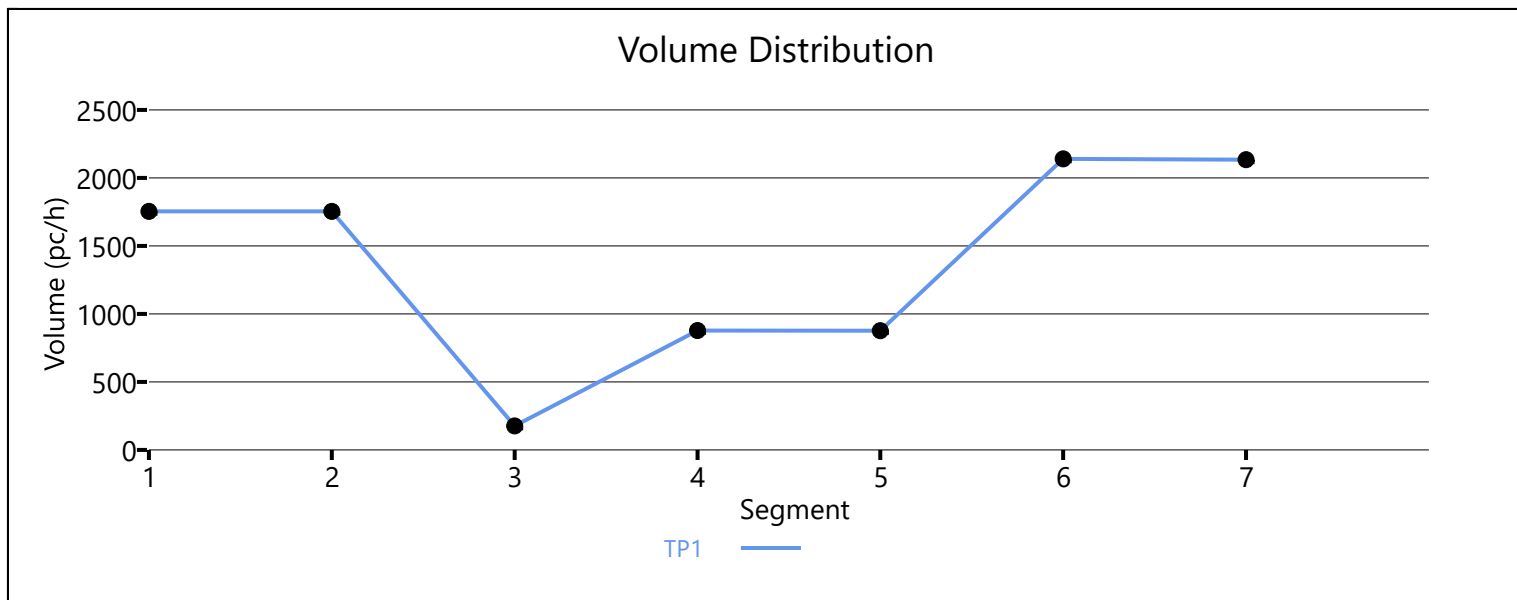
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.962	878	702	4800	1900	0.18	0.37	61.0	61.0	7.2	10.8	B

8.6-10

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		877		4764		0.18		68.2		6.4		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.952	2140	1263	4800	2100	0.45	0.60	60.6	60.6	17.7	20.4	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2134		4764		0.45		68.2		15.6		B
Facility Time Period Results															
T	Speed, mi/h				Density, pc/mi/ln		Density, veh/mi/ln		Travel Time, min				LOS		
1	65.8				12.2		11.7		3.1				B		
Facility Overall Results															
Space Mean Speed, mi/h					65.8			Density, veh/mi/ln				11.7			
Average Travel Time, min					3.1			Density, pc/mi/ln				12.2			



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3554		7161		0.50		68.7		17.2		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	3554	1043	7200	2100	0.49	0.50	62.9	59.0	18.8	22.7	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2514		7161		0.35		68.7		12.2		B

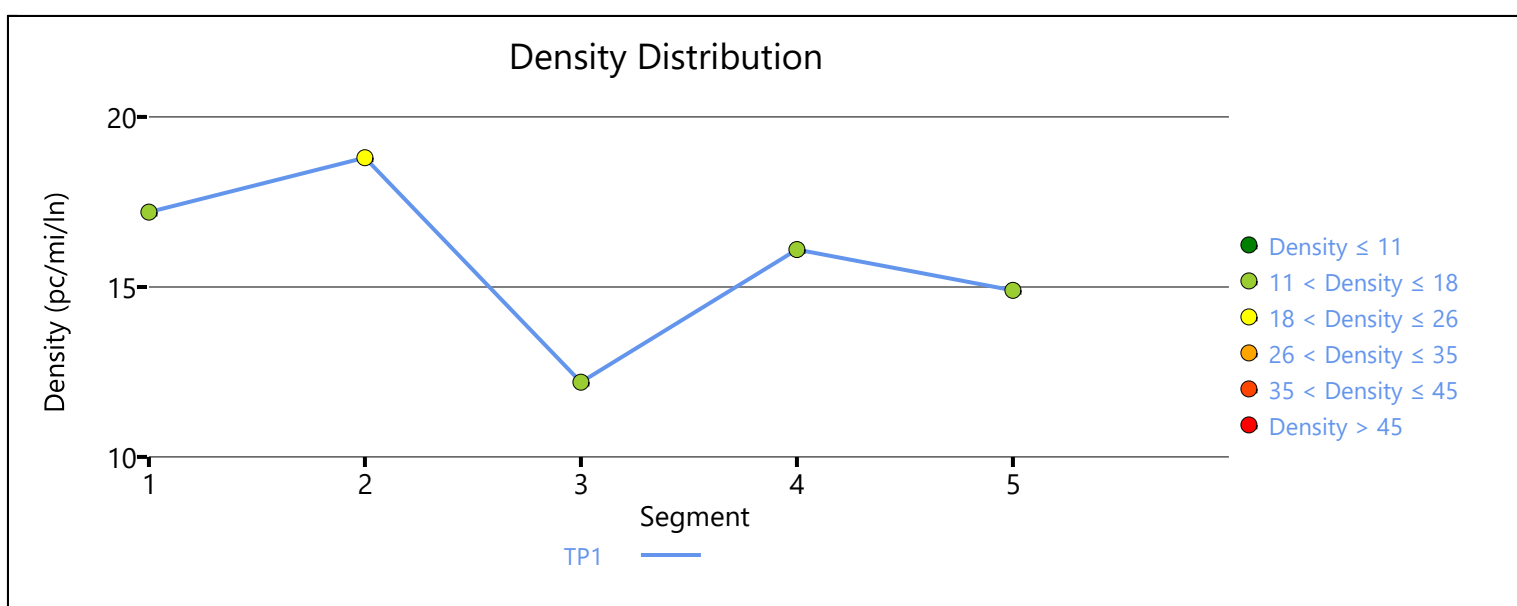
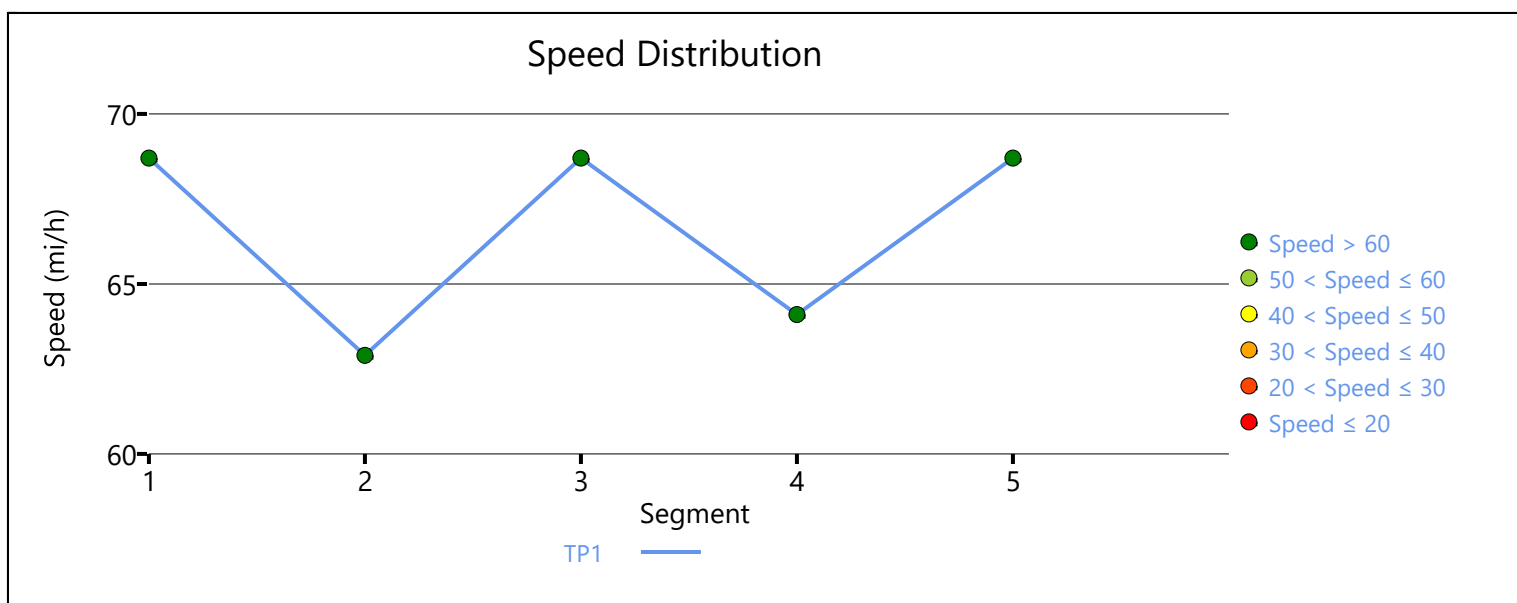
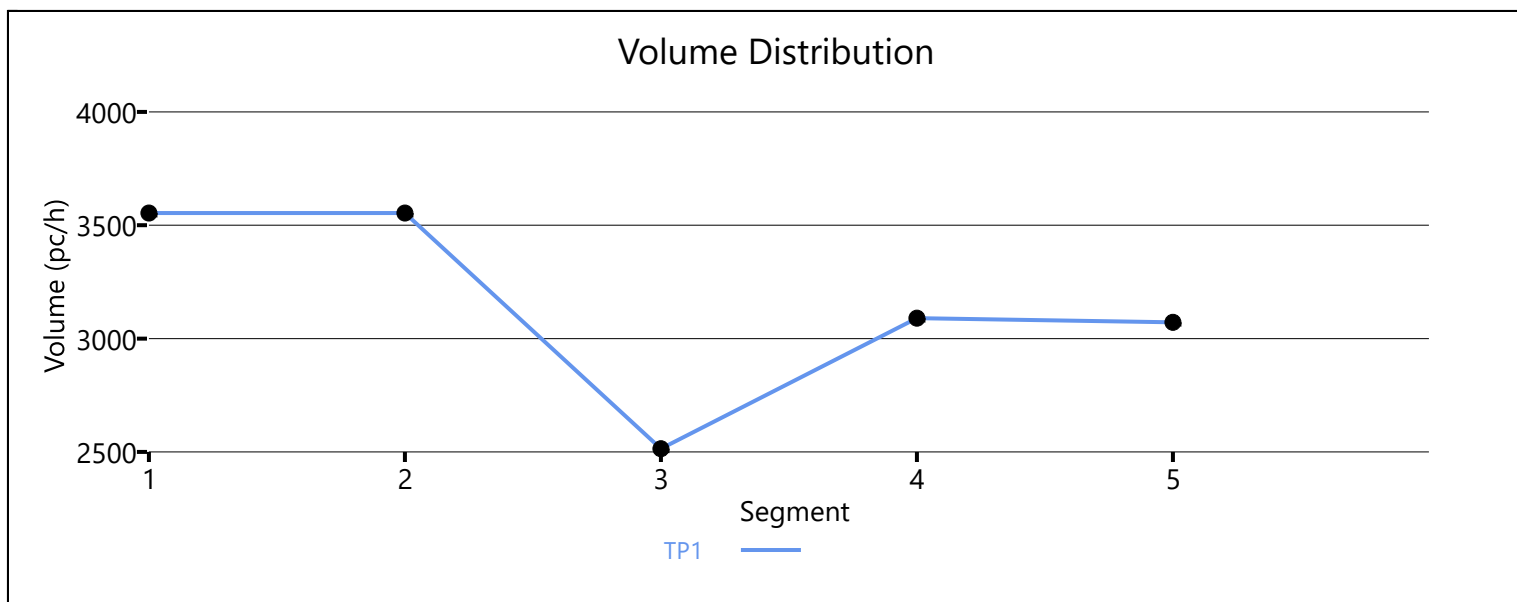
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	3090	576	7200	2100	0.43	0.27	64.1	62.3	16.1	16.2	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3072		7161		0.43		68.7		14.9		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.3	16.1	15.6	2.1	B
Facility Overall Results					
Space Mean Speed, mi/h		67.3	Density, veh/mi/ln		15.6
Average Travel Time, min		2.1	Density, pc/mi/ln		16.1



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		3663		7161		0.51		68.7		17.8		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	3663	928	7200	2100	0.51	0.44	63.3	59.3	19.3	22.9	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.917		2733		7161		0.38		68.7		13.3		B

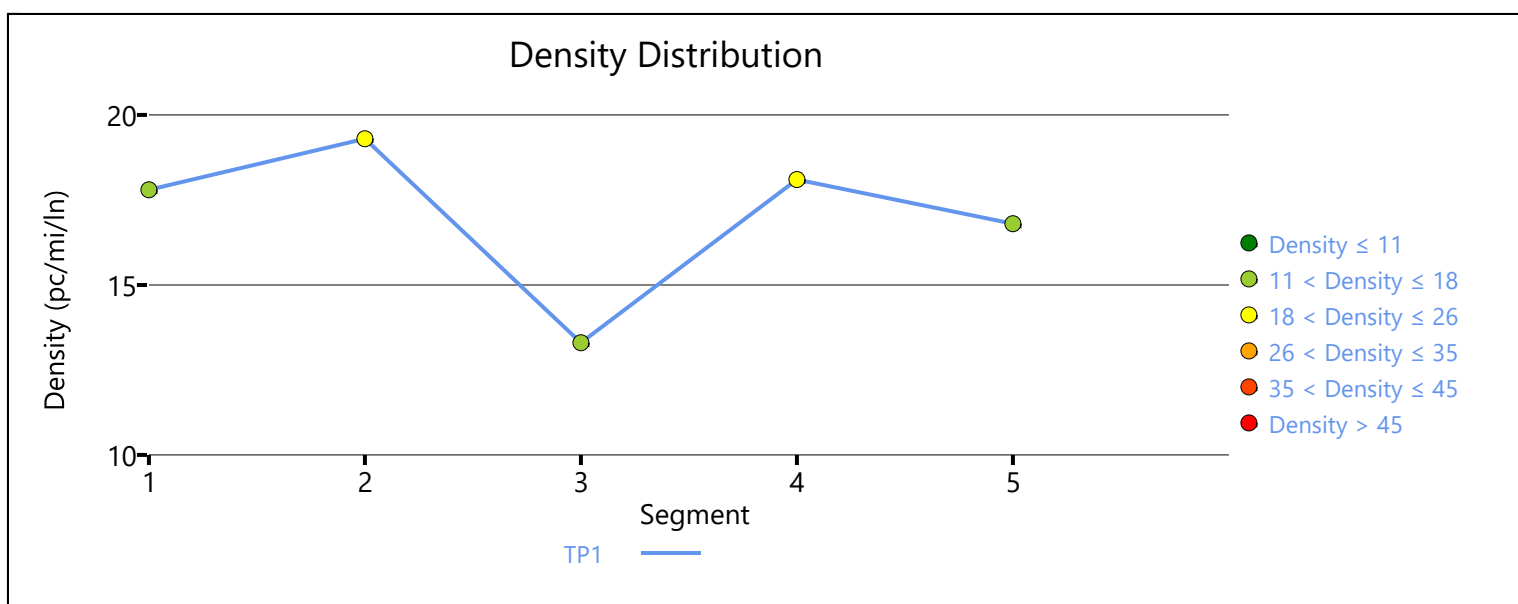
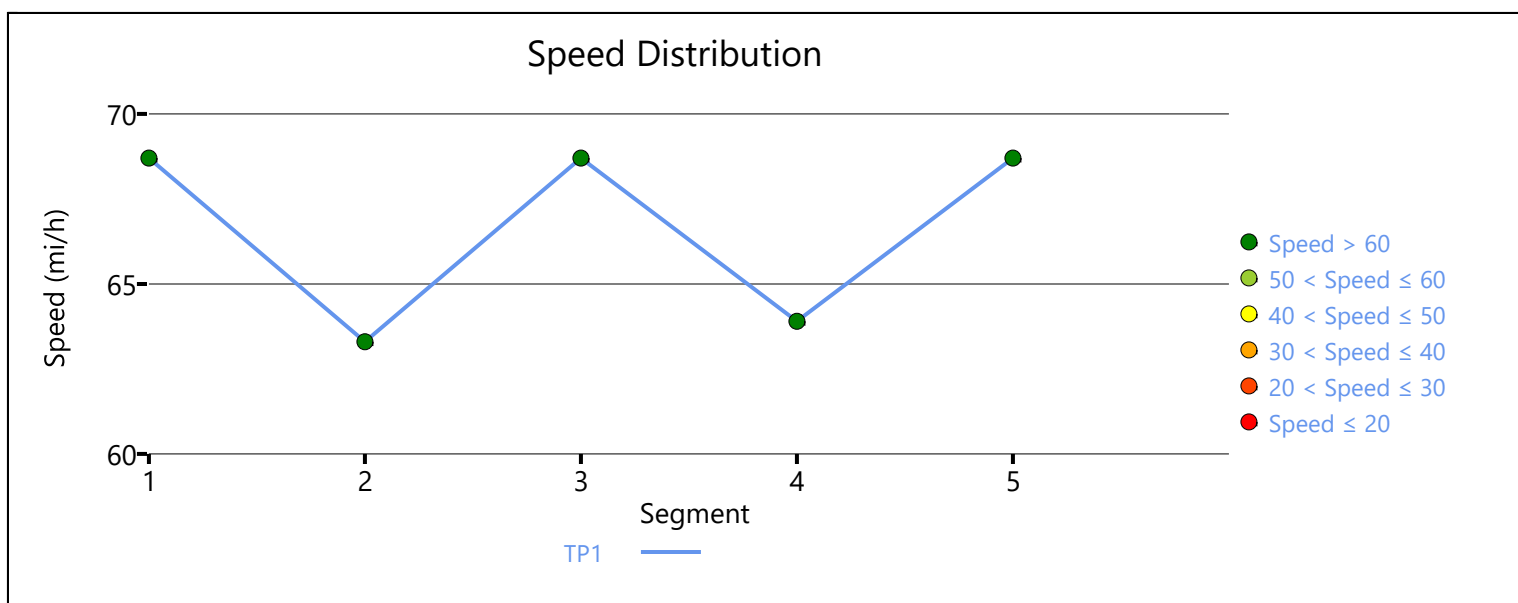
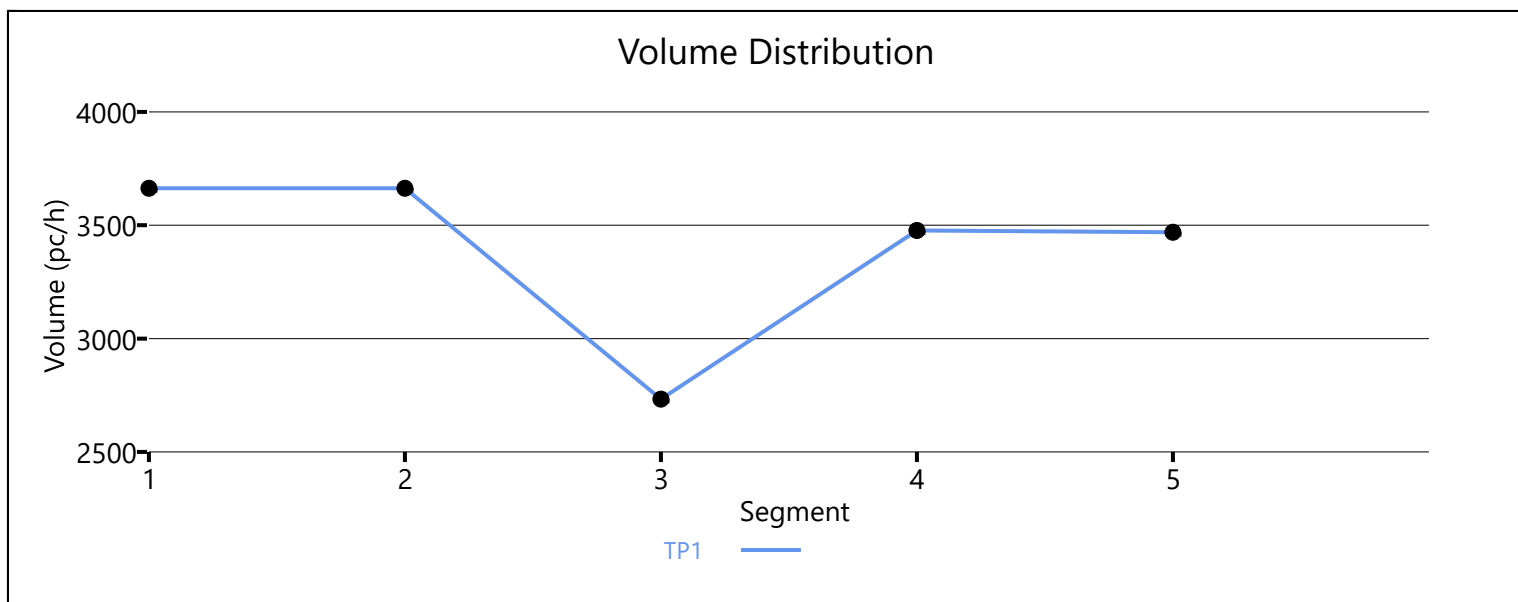
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.917	0.990	3477	744	7200	2100	0.48	0.35	63.9	62.2	18.1	17.9	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		3469		7161		0.48		68.7		16.8		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	17.1	15.9	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.4	Density, veh/mi/ln		15.9
Average Travel Time, min		2.2	Density, pc/mi/ln		17.1



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		3081		4764		0.65		67.3		22.9		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.962	3081	2809	4800	2100	0.64	1.34	53.3	54.6	45.0	28.9	D

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		272		4764		0.05		67.3		1.9		A

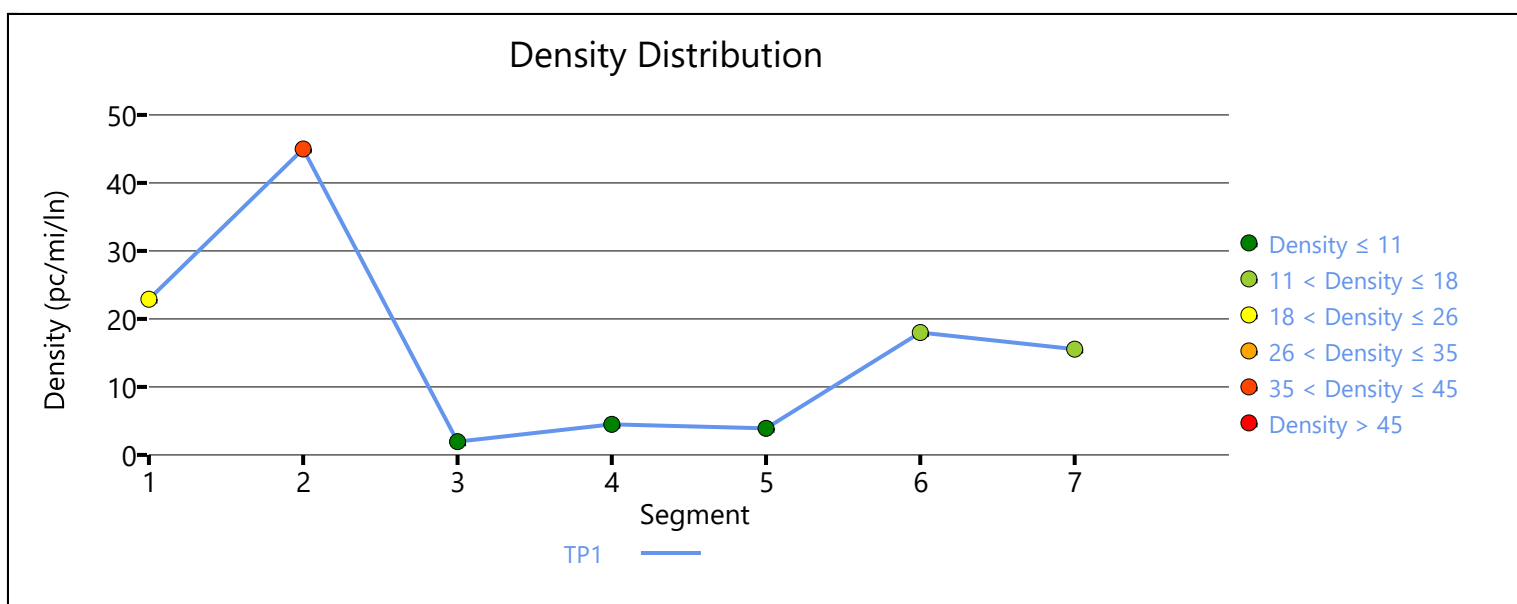
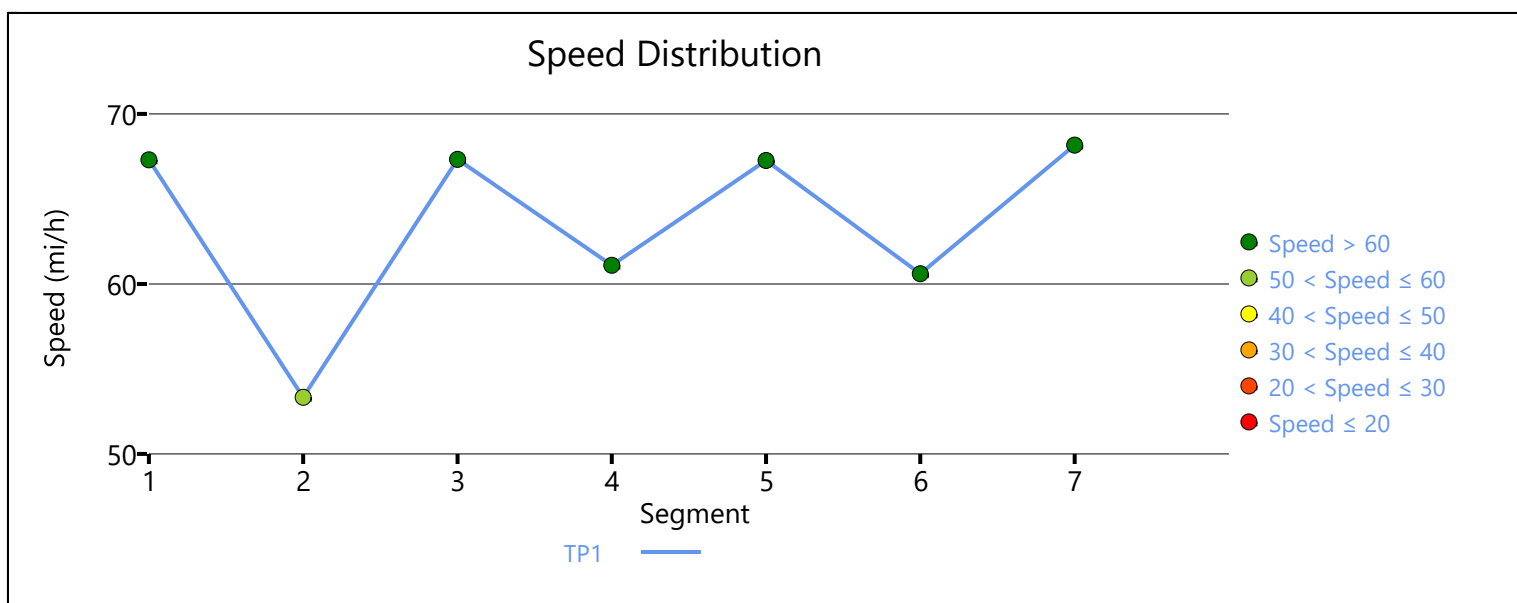
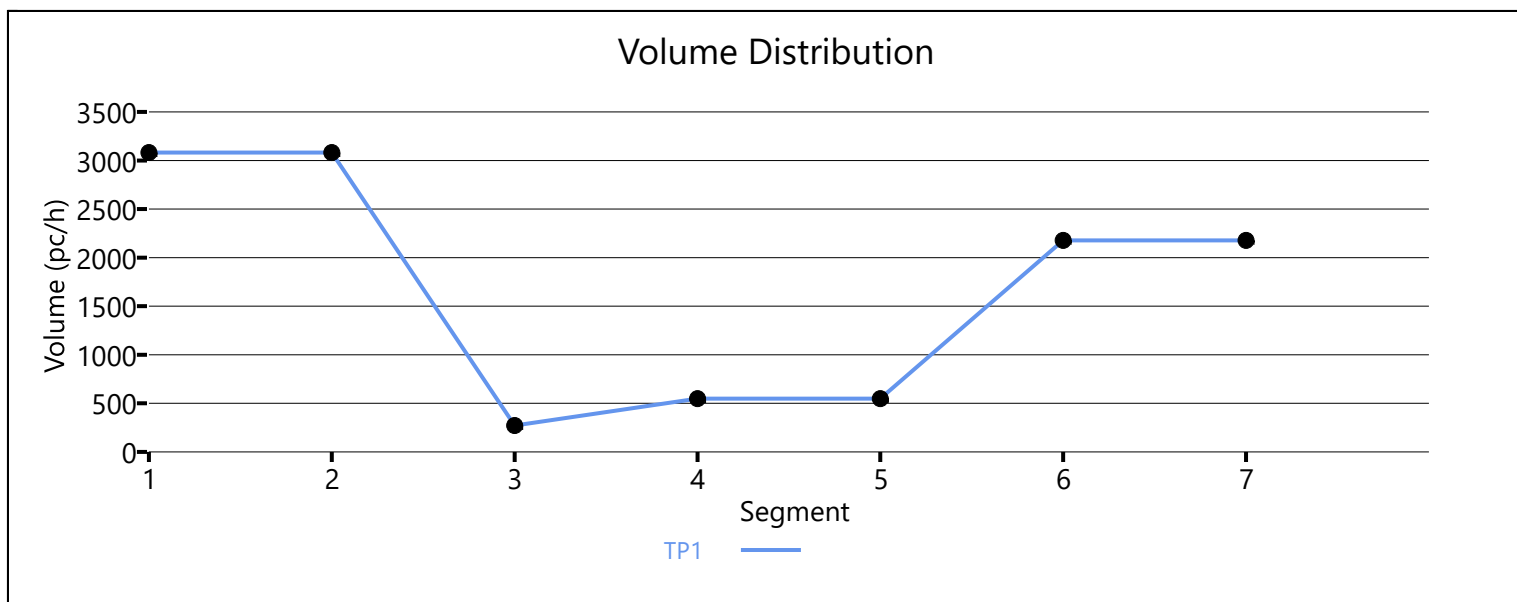
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	548	276	4800	1900	0.11	0.15	61.1	61.1	4.5	8.4	A

8.6-19

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		548		4764		0.11		67.3		3.9		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.962	2178	1630	4800	2100	0.45	0.78	60.6	60.6	18.0	20.5	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		2178		4764		0.45		68.2		15.6		B
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.1			17.2			16.6			3.2			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.1				Density, veh/mi/ln				16.6		
Average Travel Time, min					3.2				Density, pc/mi/ln				17.2		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1825		4764		0.38		68.2		13.4		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	1825	1739	4800	2100	0.38	0.83	57.3	57.3	15.9	18.1	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		101		4764		0.02		68.2		0.7		A

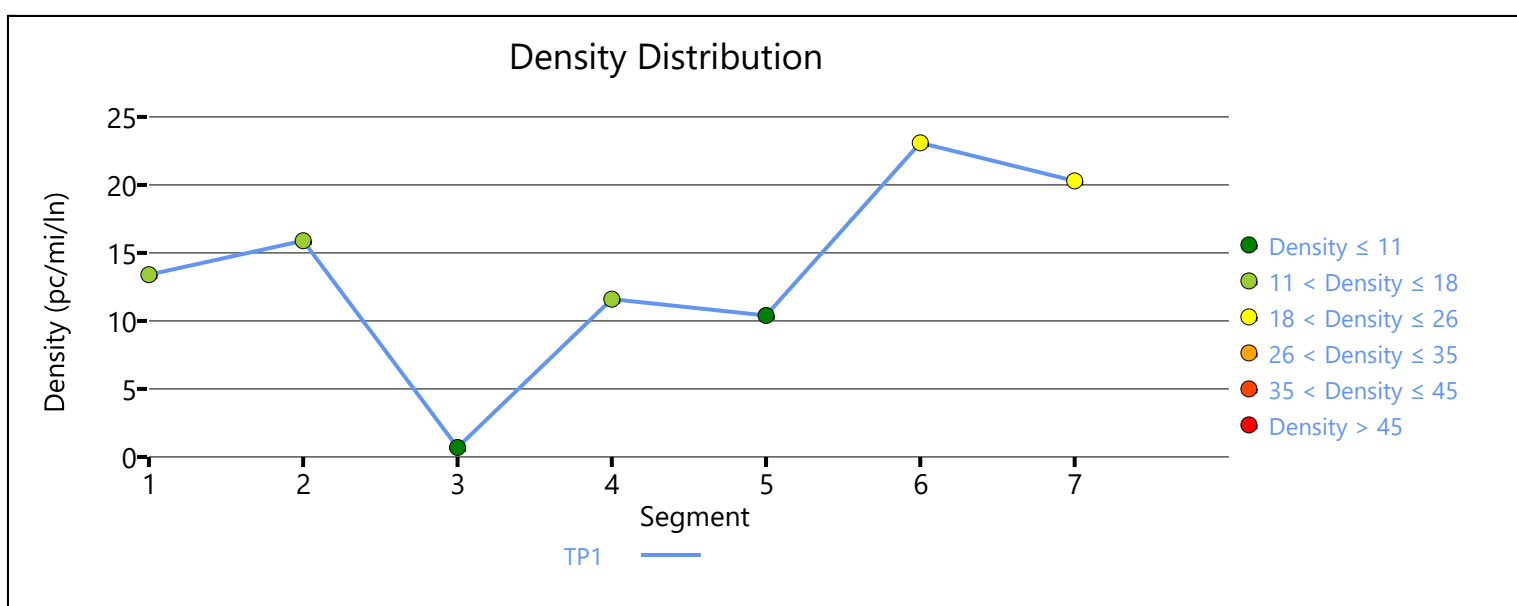
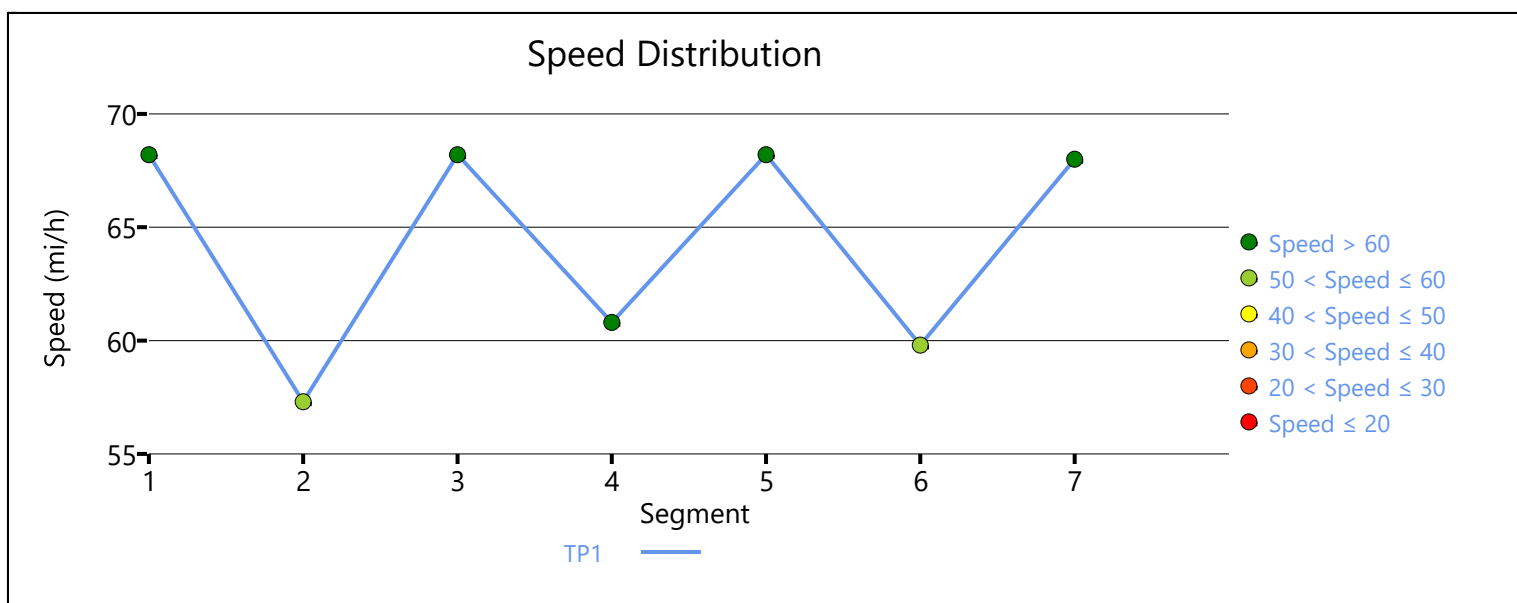
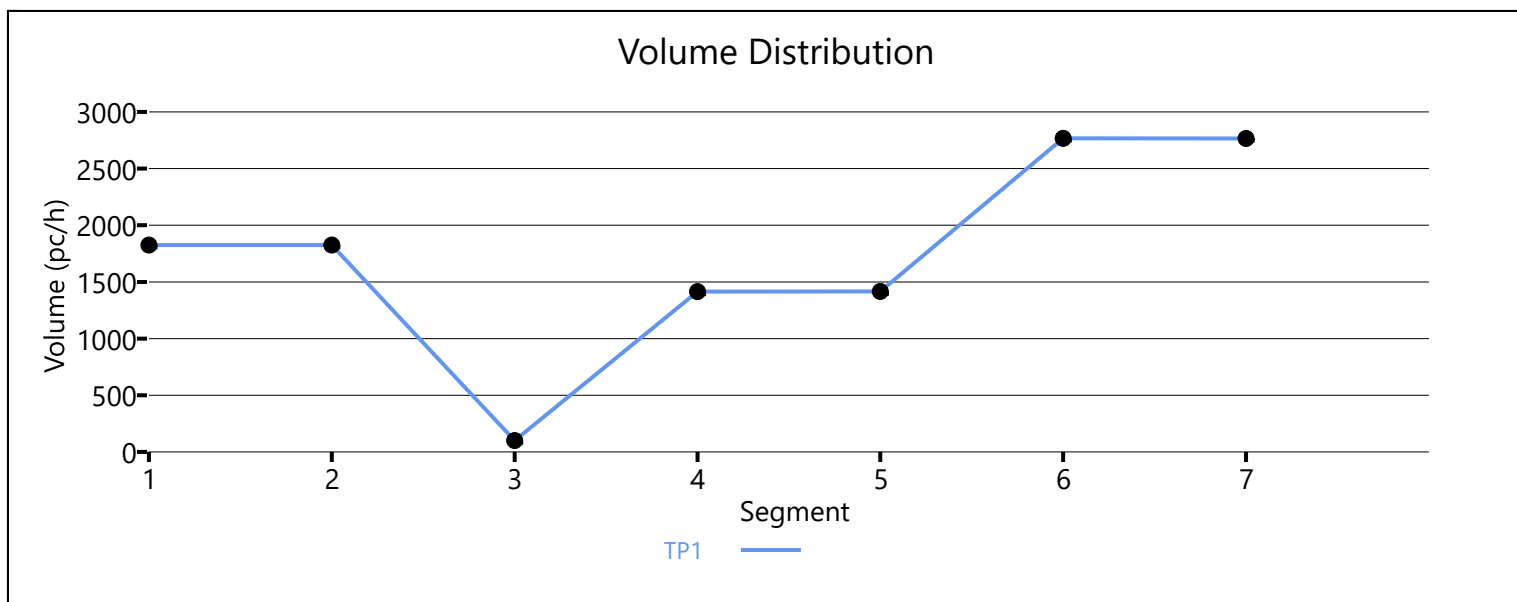
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.971	1414	1313	4800	1900	0.29	0.69	60.8	60.8	11.6	14.7	B

8.6-22

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		1416		4764		0.30		68.2		10.4		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.952	2767	1351	4800	2100	0.58	0.64	59.8	59.8	23.1	25.3	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2766		4764		0.58		68.0		20.3		C
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.5			14.7			14.2			3.1			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.5				Density, veh/mi/ln				14.2		
Average Travel Time, min					3.1				Density, pc/mi/ln				14.7		



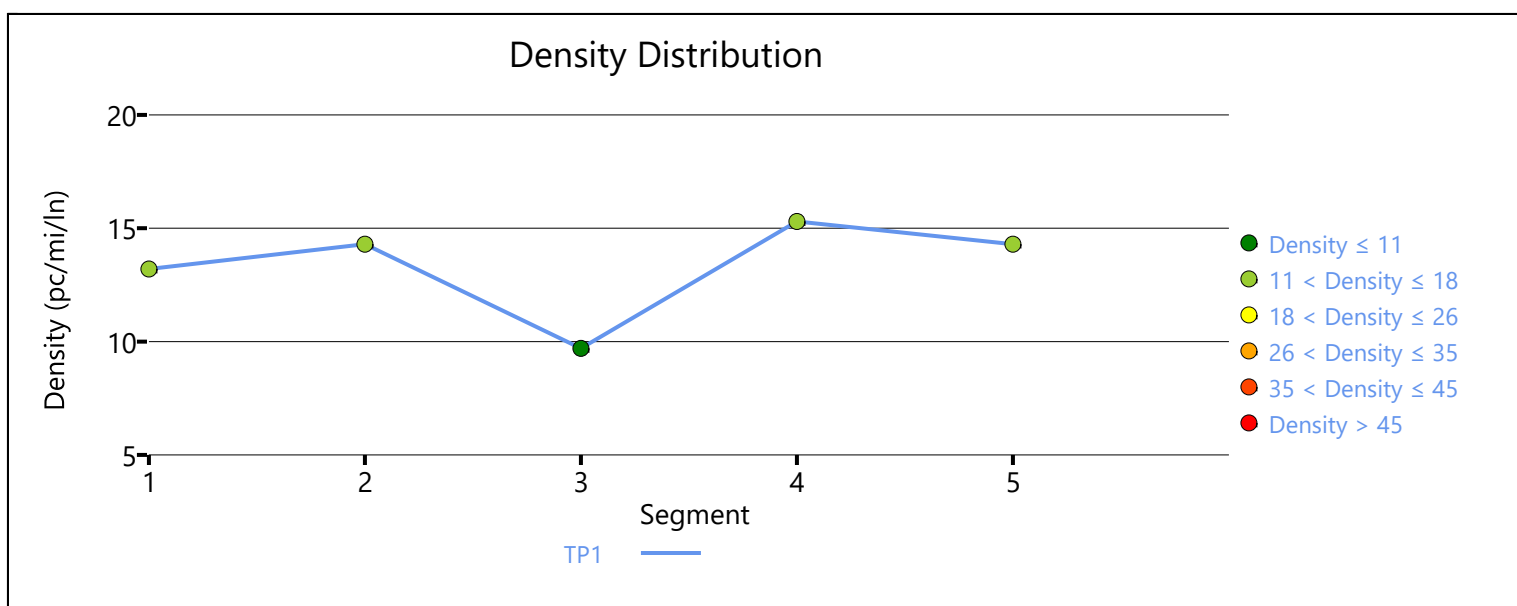
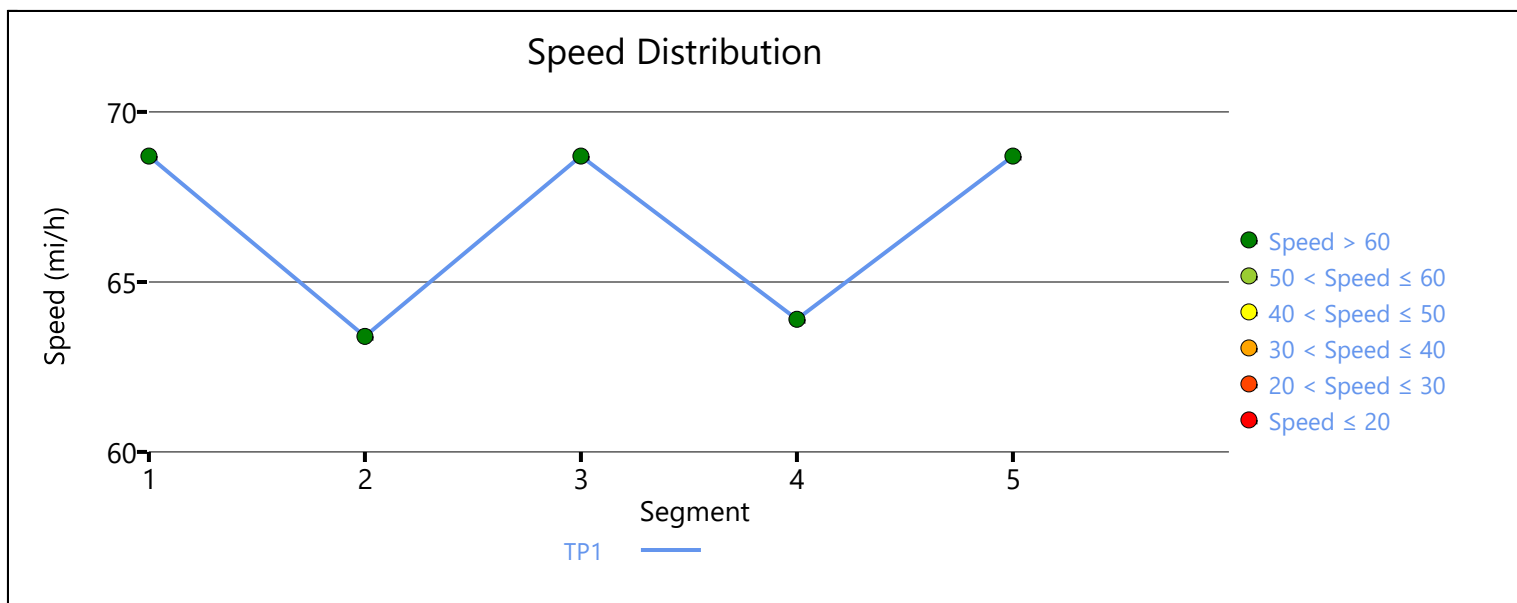
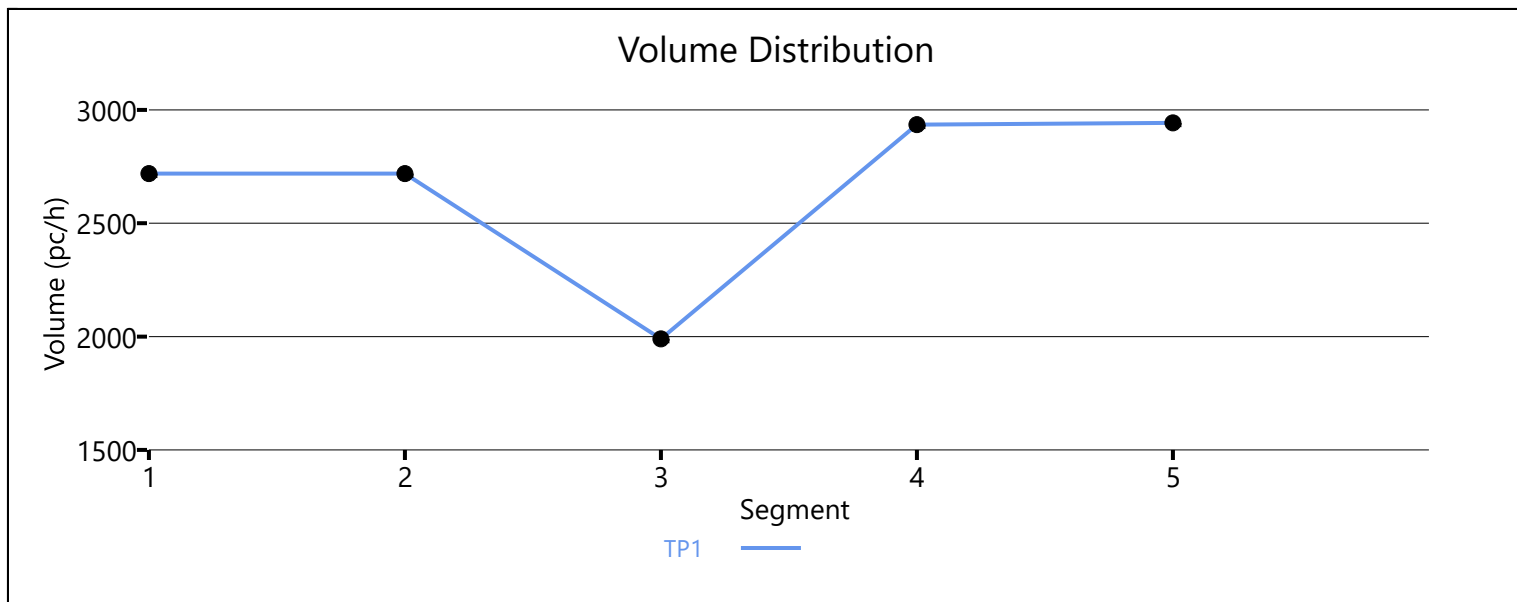
APPENDIX 8.7:

OPENING YEAR (2027) WITH PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report																
Project Information																
Analyst				JB				Date				7/14/2020				
Agency				Urban Crossroads, Inc.				Analysis Year				Opening Year Cumulative (2027) With Project				
Jurisdiction				Caltrans				Time Period Analyzed				AM Peak Hour				
Project Description				JN:12396 - I-10 EB												
Facility Global Input																
Jam Density, pc/mi/ln				190.0				Density at Capacity, pc/mi/ln				45.0				
Queue Discharge Capacity Drop, %				7				Total Segments				5				
Total Time Periods				1				Time Period Duration, min				15				
Facility Segment Data																
No.		Coded		Analyzed		Name				Length, ft				Lanes		
1		Basic		Basic		West of Oak Valley				5280				3		
2		Diverge		Diverge		Off-Ramp				1500				3		
3		Basic		Basic		Between				1770				3		
4		Merge		Merge		On-Ramp				1500				3		
5		Basic		Basic		East of Oak Valley				2250				3		
Facility Segment Data																
Segment 1: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.962		2719		7161		0.38		68.7		13.2		B
Segment 2: Diverge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.962	0.980	2719	715	7200	2100	0.38	0.34	63.4	59.9	14.3	17.8	B
Segment 3: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.962		1990		7161		0.28		68.7		9.7		A
Segment 4: Merge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.962	0.971	2935	945	7200	2100	0.41	0.45	63.9	62.2	15.3	16.5	B
Segment 5: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.962		2943		7161		0.41		68.7		14.3		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.3	13.3	12.8	2.1	B
Facility Overall Results					
Space Mean Speed, mi/h		67.3	Density, veh/mi/ln		12.8
Average Travel Time, min		2.1	Density, pc/mi/ln		13.3



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		2966		7161		0.41		68.7		14.4		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.971	2966	901	7200	2100	0.41	0.43	62.9	59.4	15.7	19.4	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.901		2077		7161		0.29		68.7		10.1		A

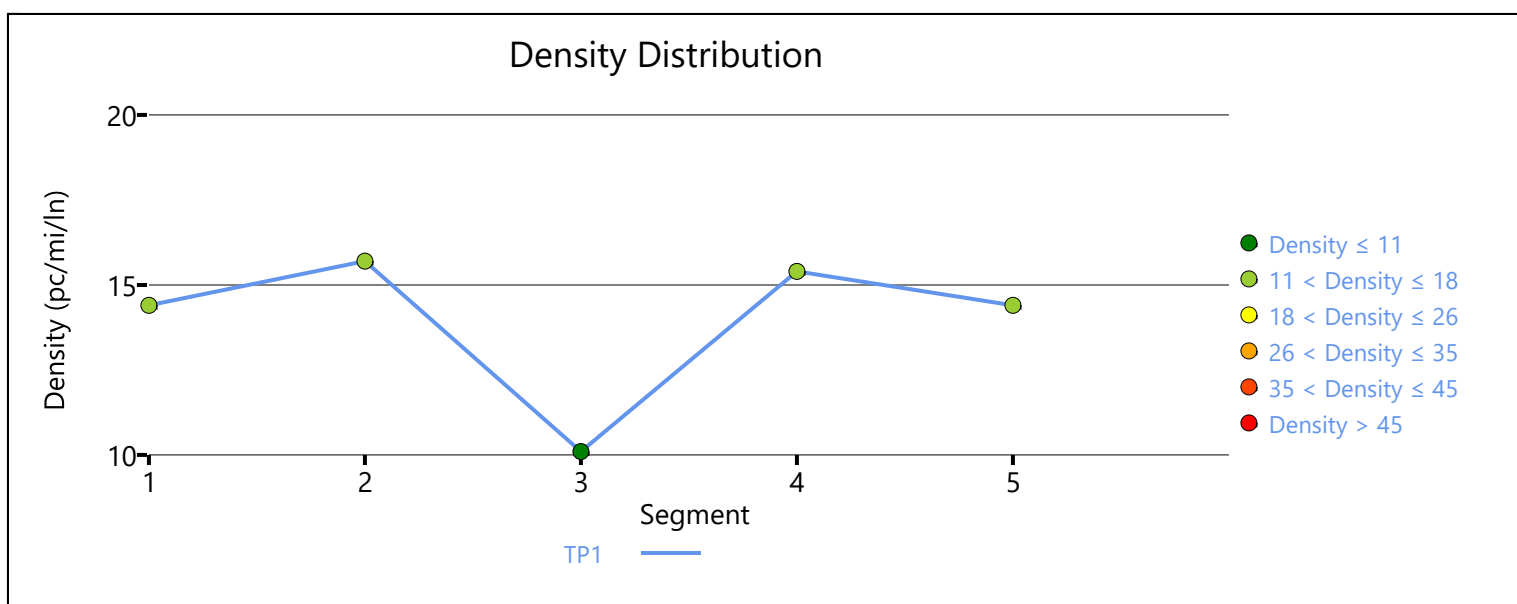
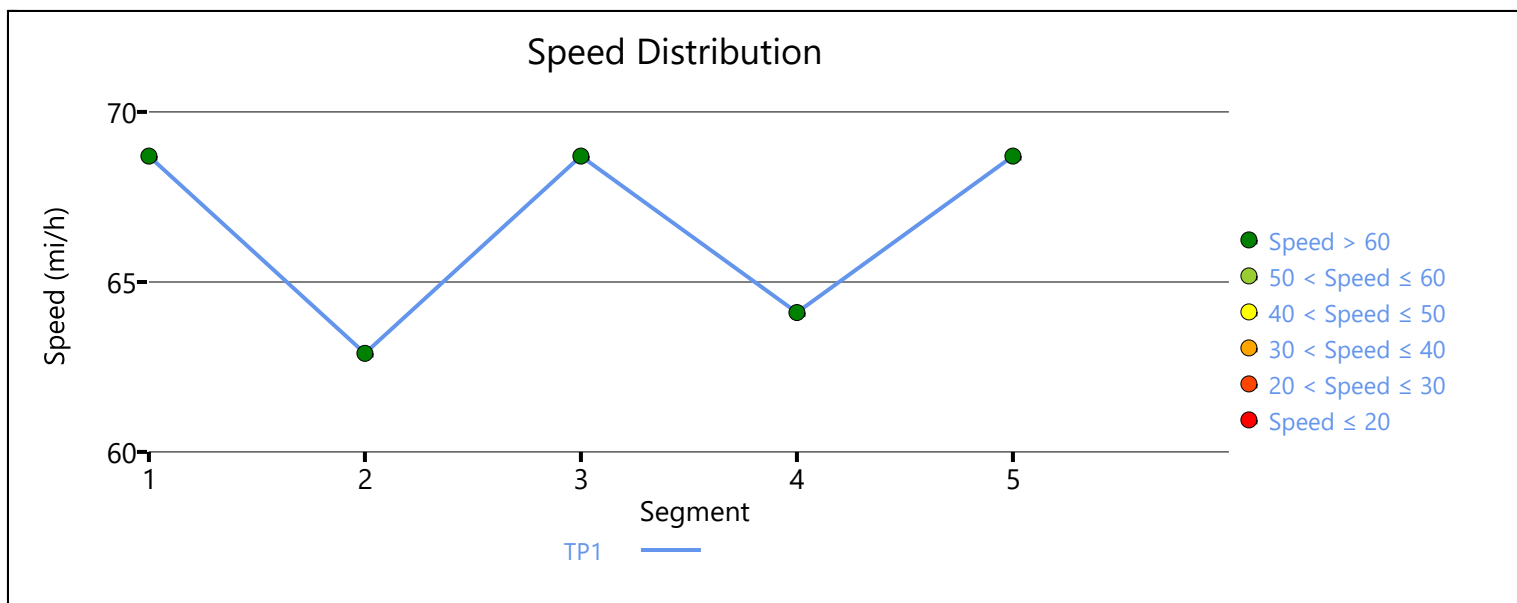
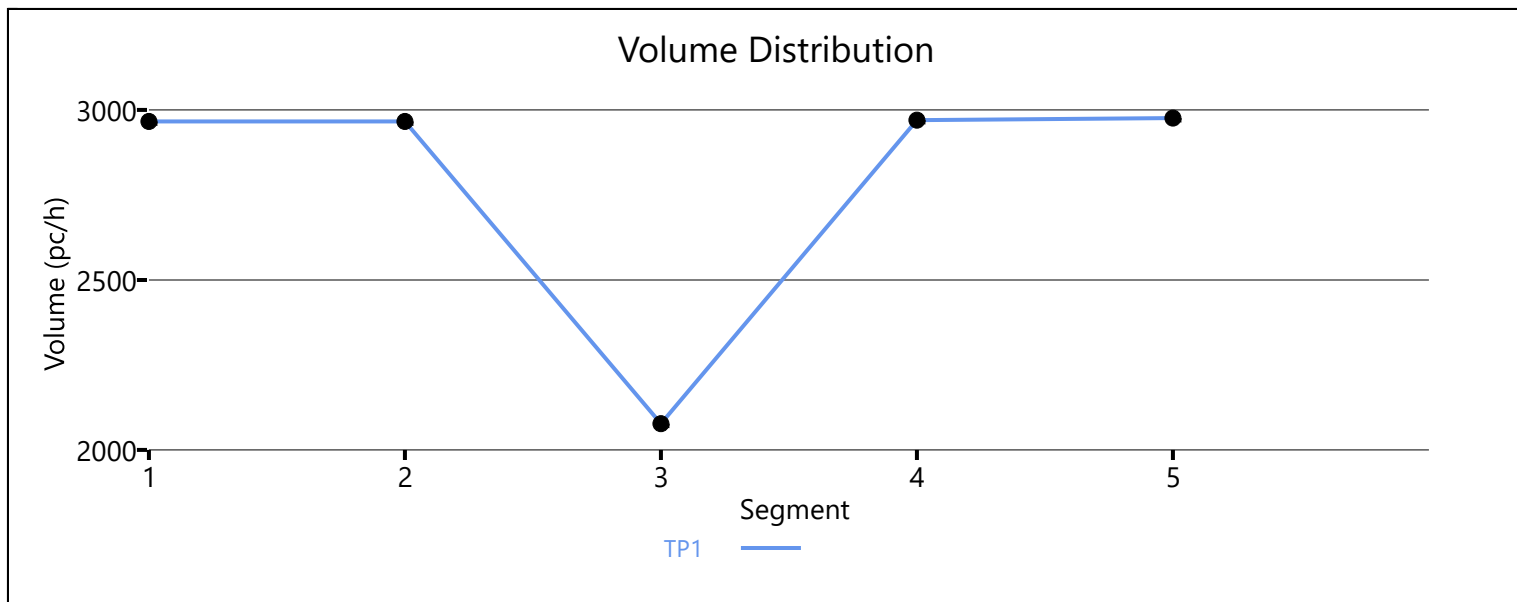
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.901	0.990	2970	893	7200	2100	0.41	0.43	64.1	62.5	15.4	15.9	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		2976		7161		0.42		68.7		14.4		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	14.1	13.0	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.4	Density, veh/mi/ln		13.0
Average Travel Time, min		2.2	Density, pc/mi/ln		14.1



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.943		3094		4764		0.65		67.3		23.0		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.943	3094	2582	4800	2100	0.64	1.23	53.3	55.2	45.0	29.1	D

Segment 3: Basic

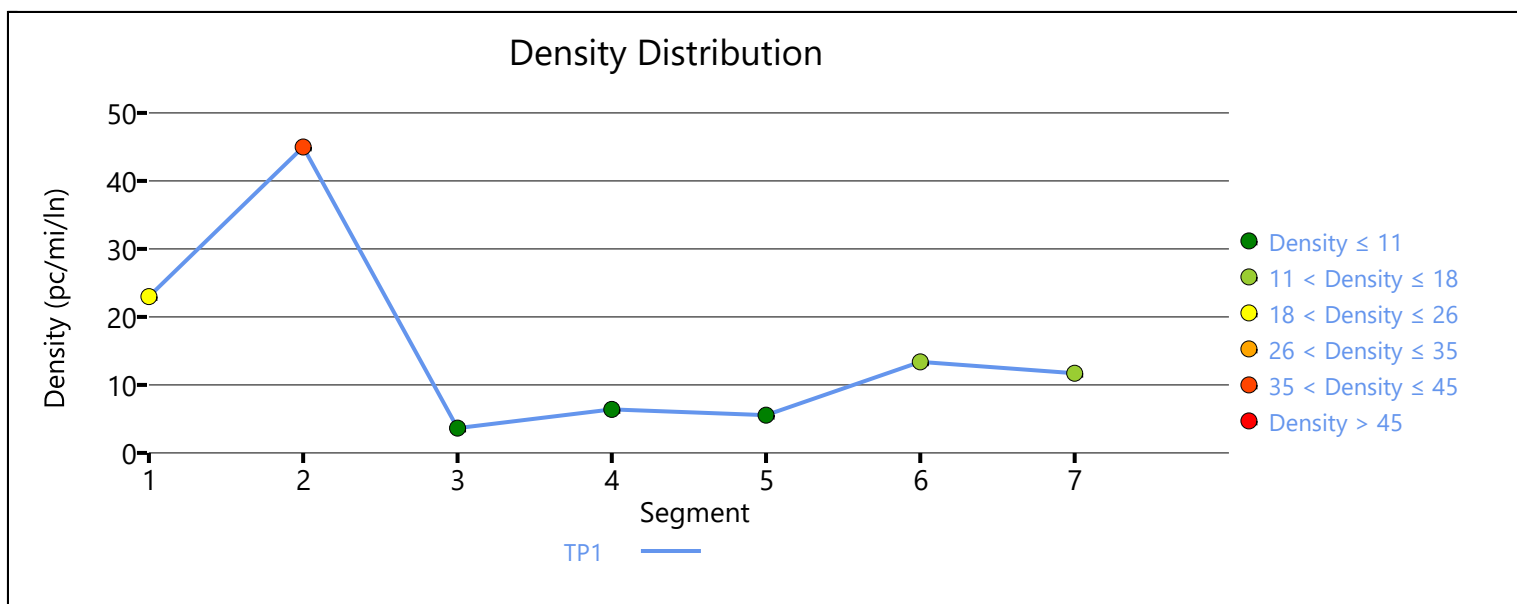
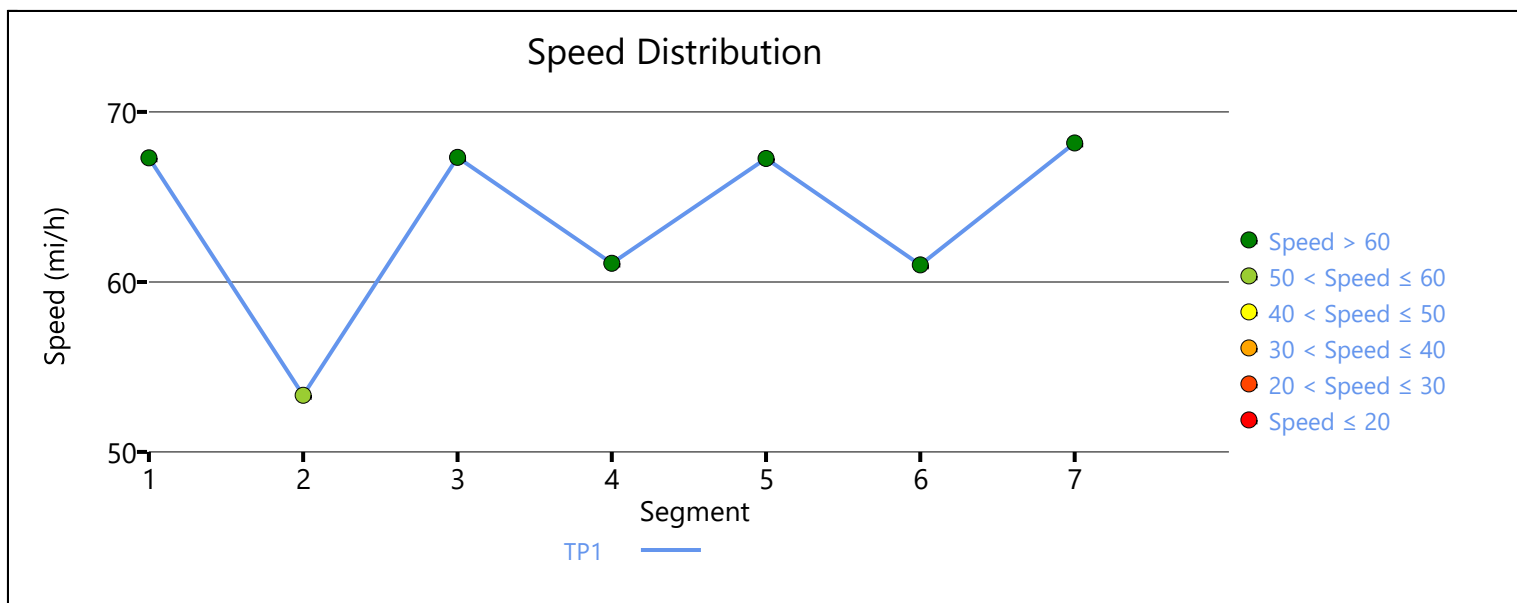
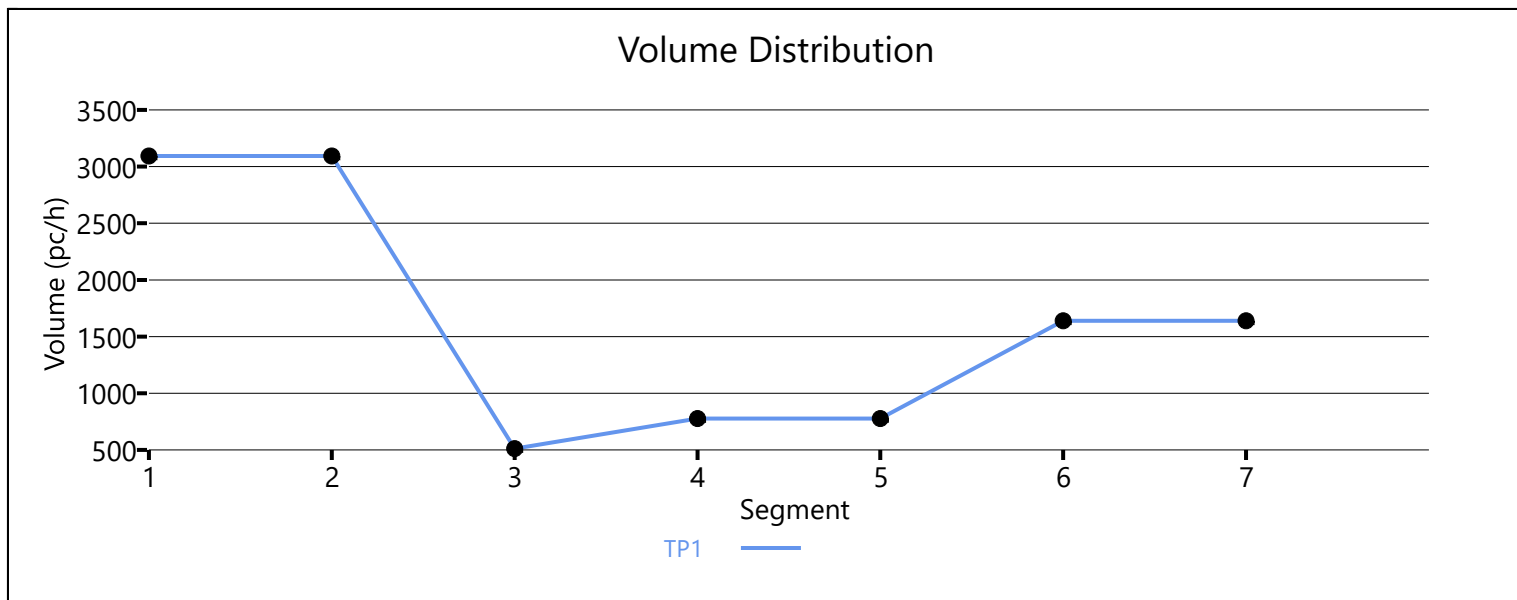
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		512		4764		0.10		67.3		3.7		A

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	777	265	4800	1900	0.16	0.14	61.1	61.1	6.4	10.2	B

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		777		4764		0.16		67.3		5.6		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.943	1640	863	4800	2100	0.34	0.41	61.0	61.0	13.4	16.7	B
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		1640		4764		0.34		68.2		11.7		B
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.0			16.1			15.3			3.2			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.0				Density, veh/mi/ln				15.3		
Average Travel Time, min					3.2				Density, pc/mi/ln				16.1		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		2084		4764		0.44		68.2		15.3		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.926	2084	1914	4800	2100	0.43	0.91	56.8	56.8	18.3	20.4	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		176		4764		0.04		68.2		1.3		A

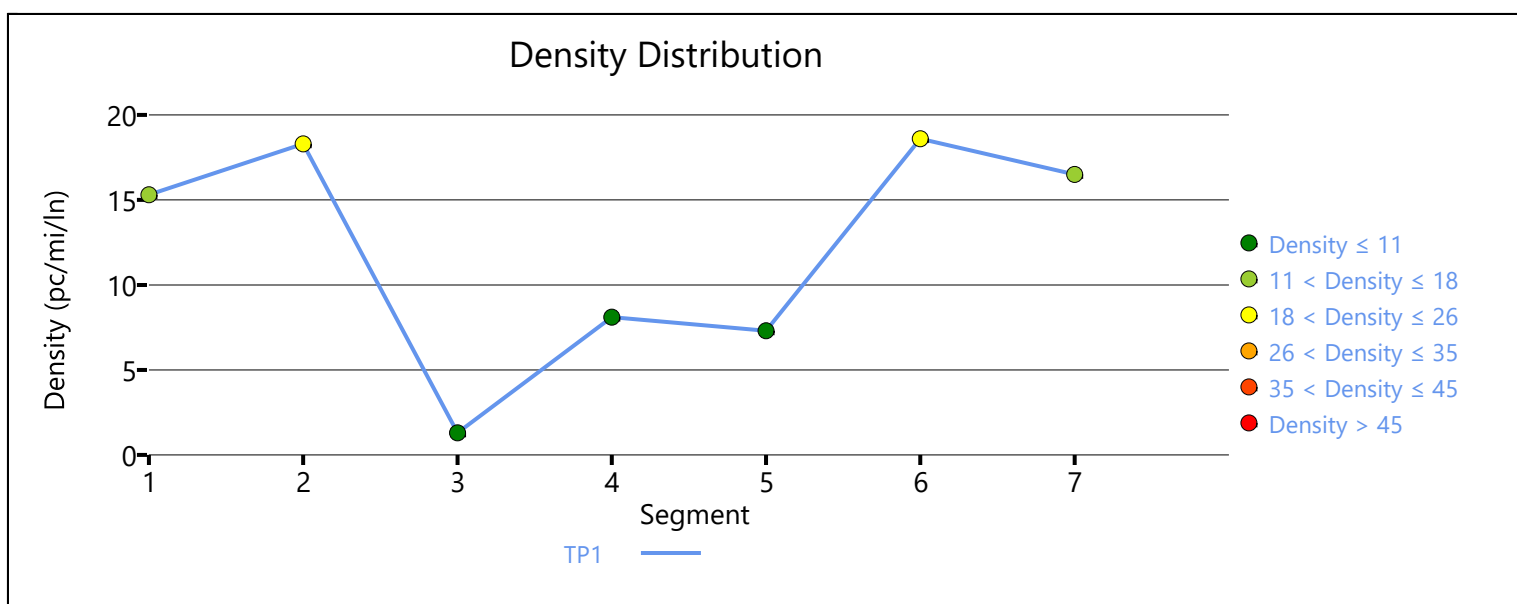
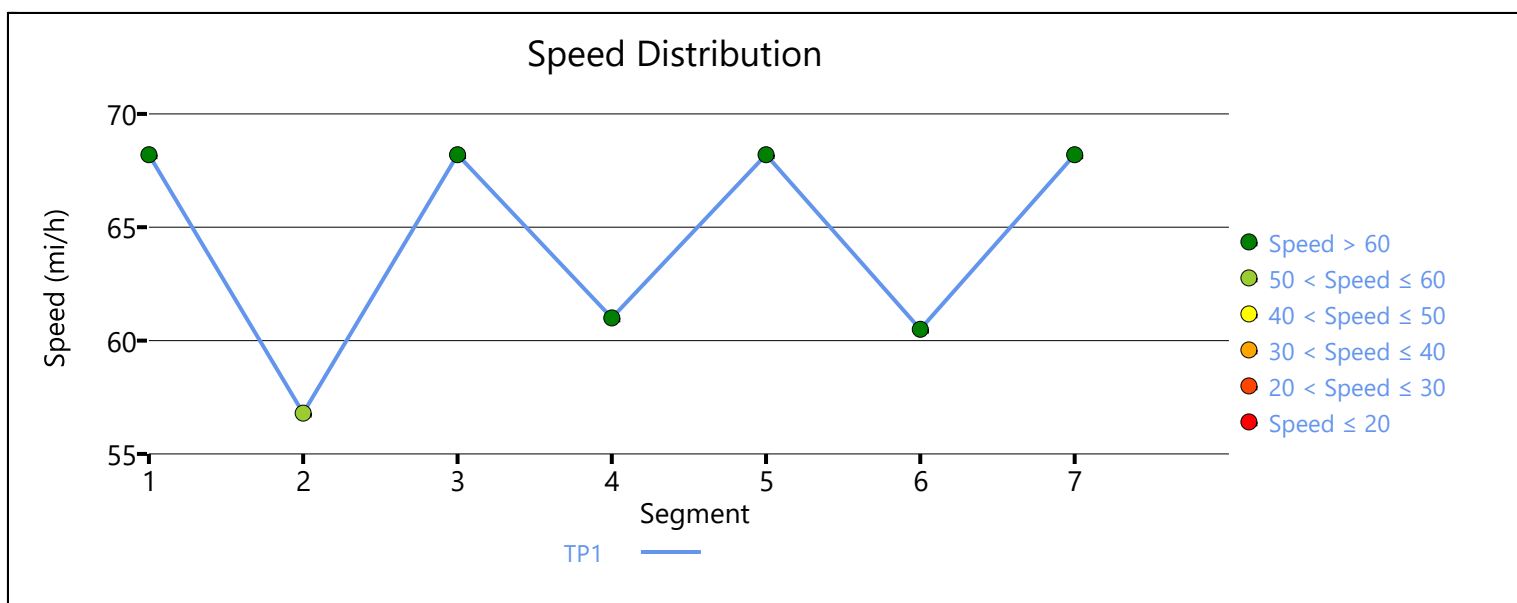
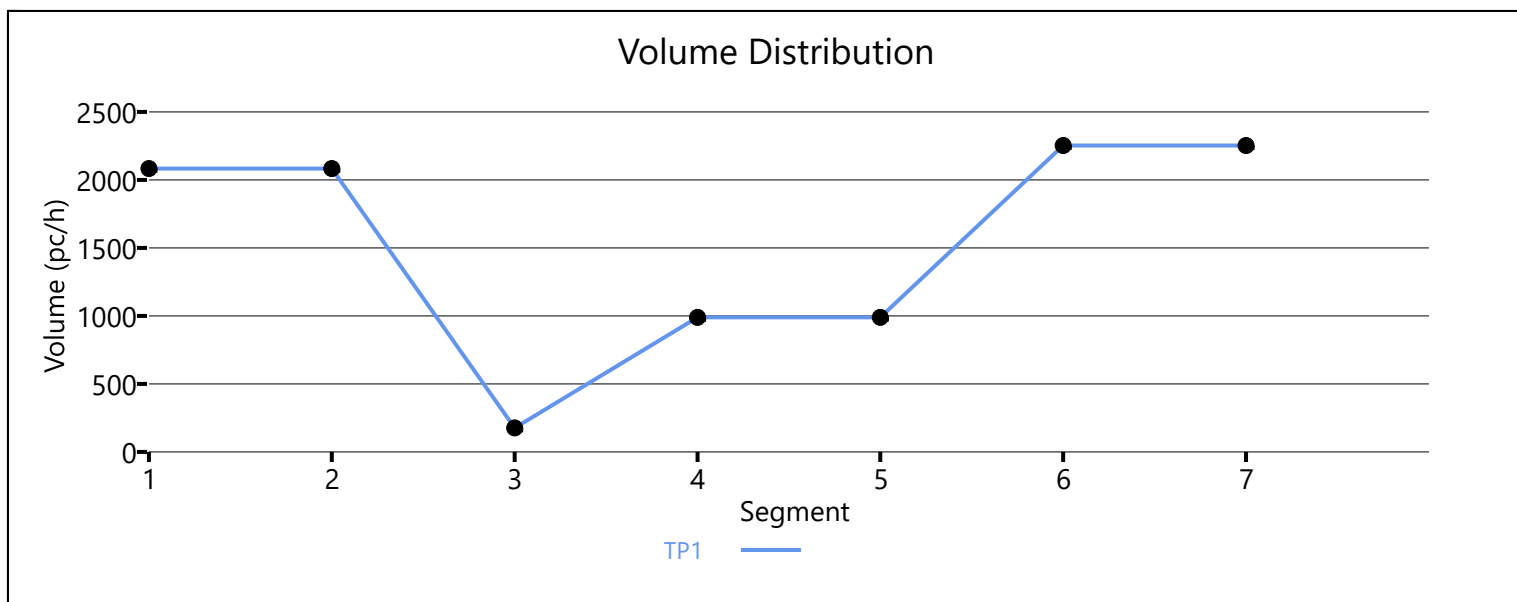
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.943	989	813	4800	1900	0.21	0.43	61.0	61.0	8.1	11.6	B

8.7-10

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		990		4764		0.21		68.2		7.3		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.952	2253	1263	4800	2100	0.47	0.60	60.5	60.5	18.6	21.3	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		2253		4764		0.47		68.2		16.5		B
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.7			13.6			12.9			3.1			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.7				Density, veh/mi/ln				12.9		
Average Travel Time, min					3.1				Density, pc/mi/ln				13.6		



HCS7 Freeway Facilities Report

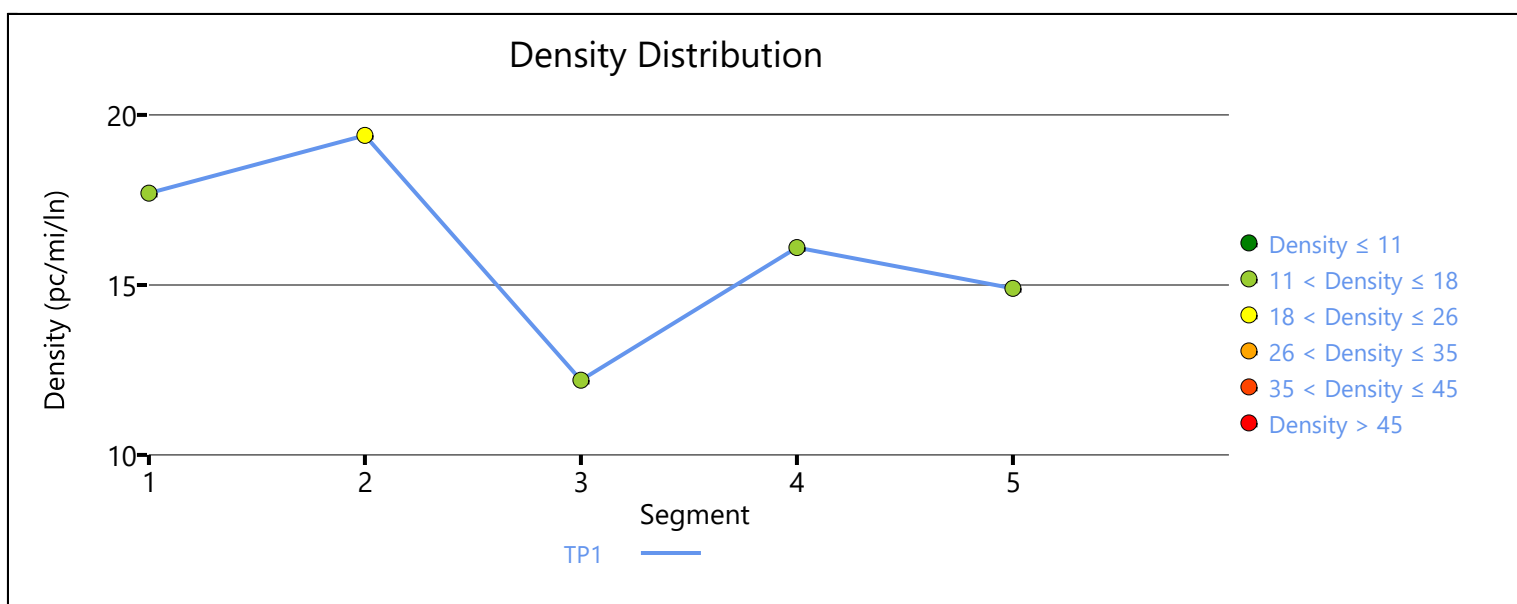
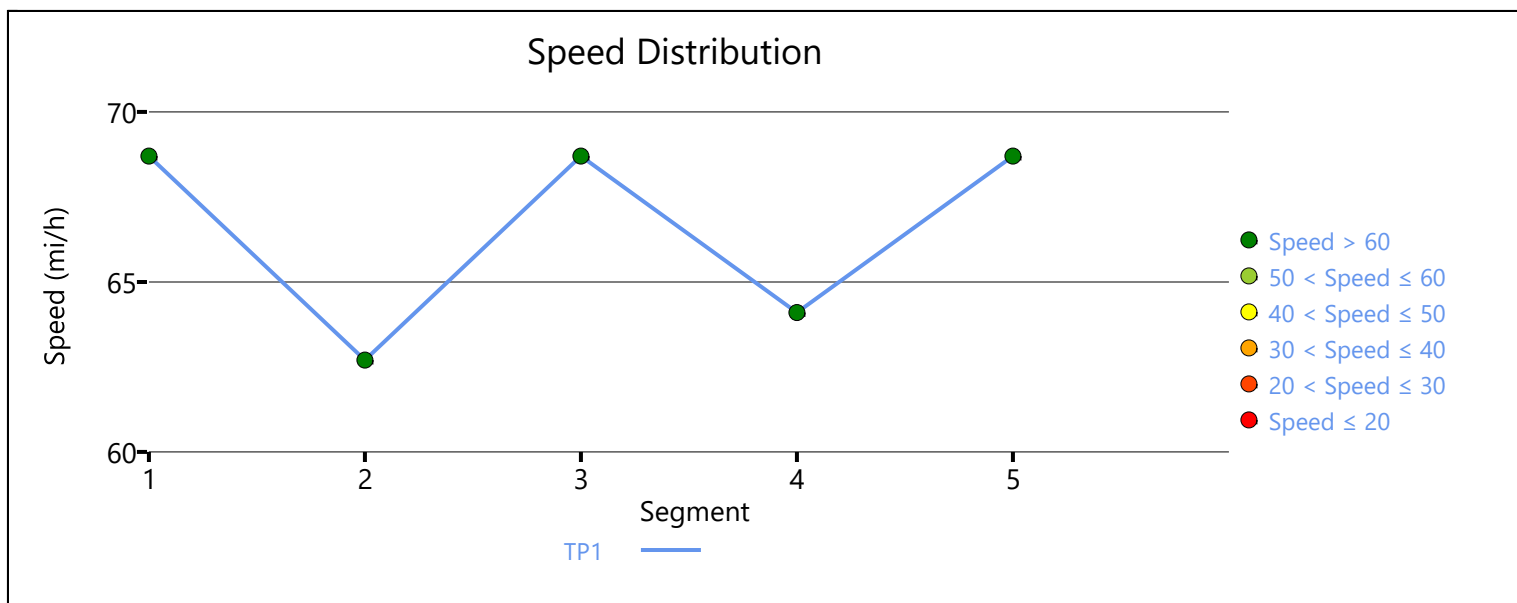
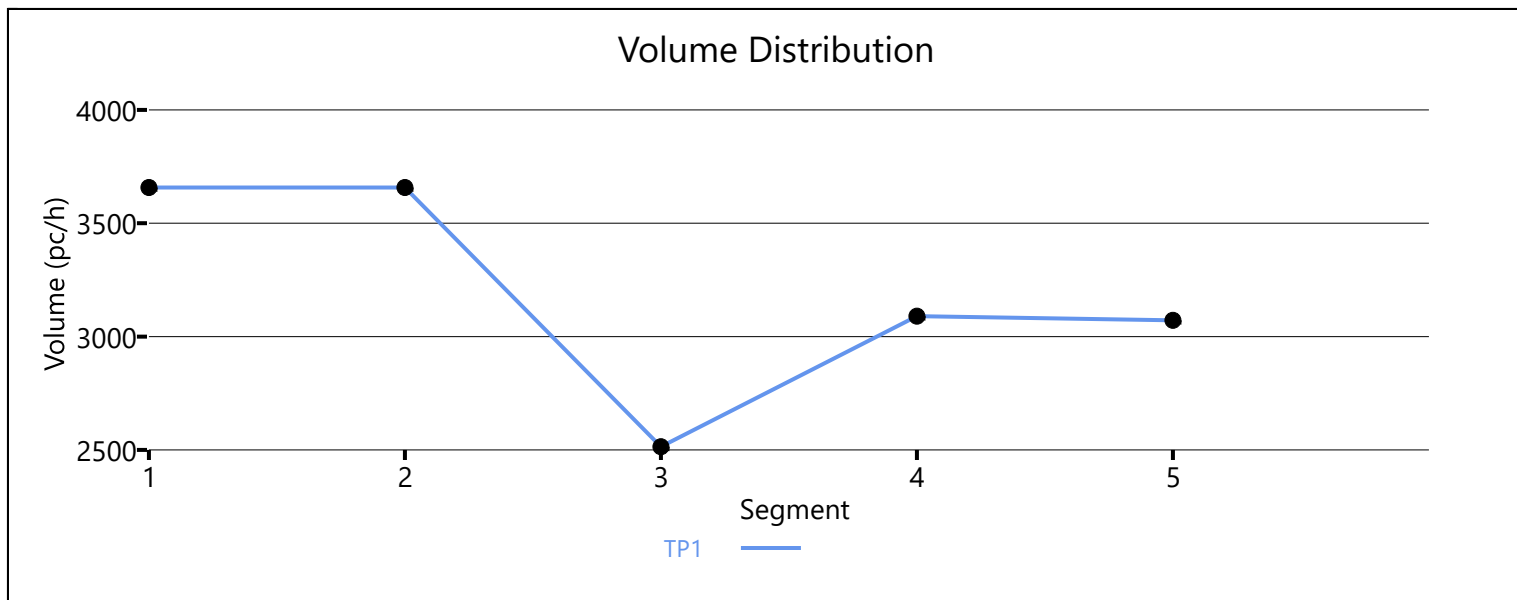
Project Information			
Analyst	JB	Date	7/8/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input			
Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data					
No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

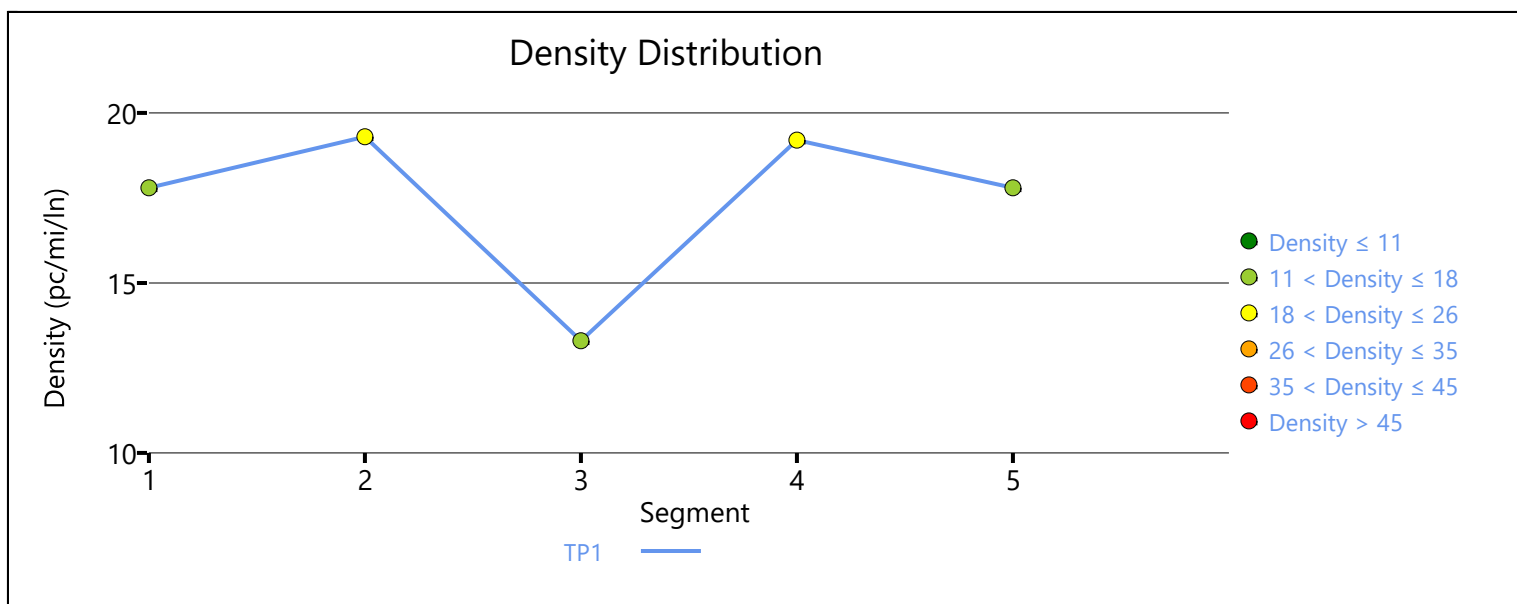
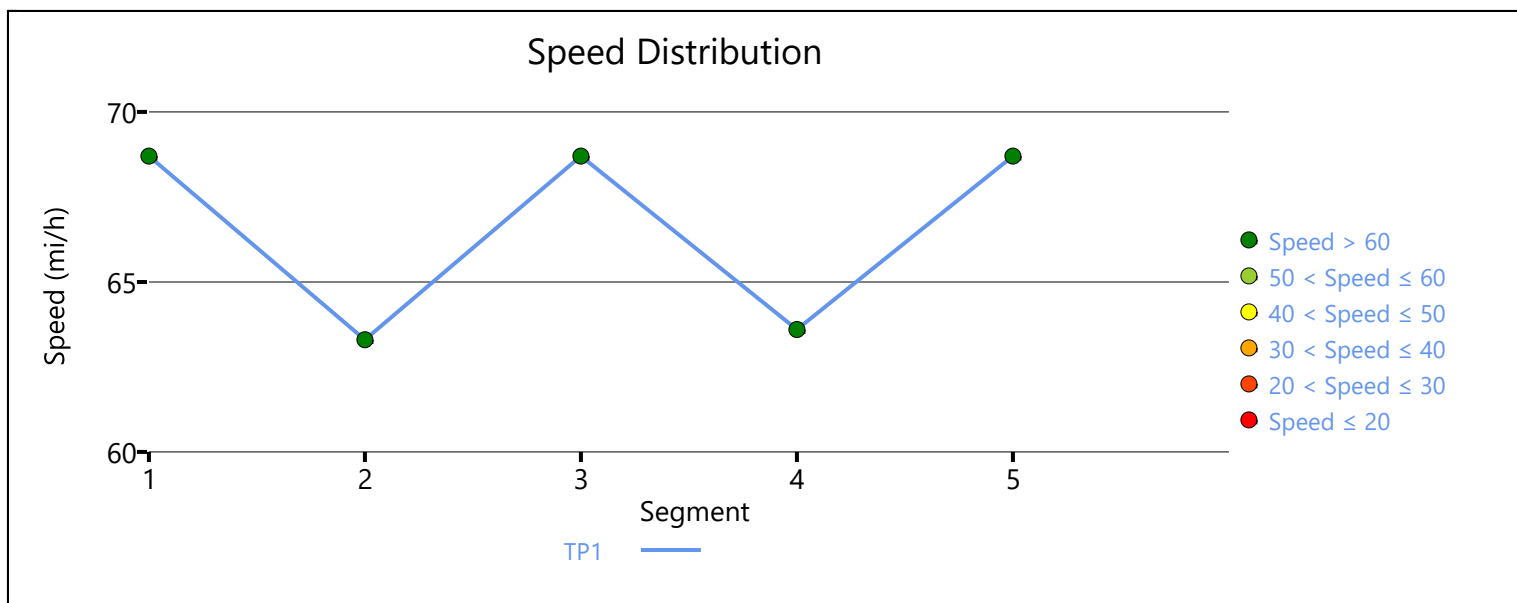
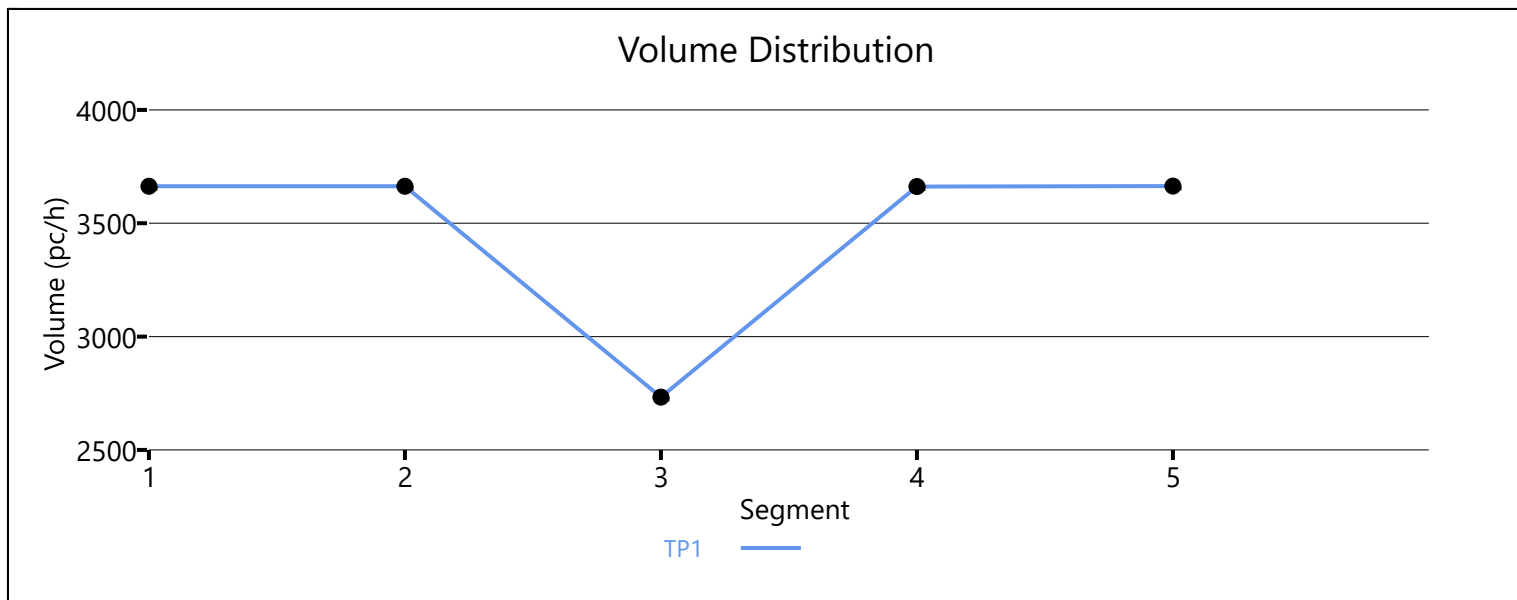
Facility Segment Data															
Segment 1: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3658		7161		0.51		68.7		17.7		B
Segment 2: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.990	3658	1145	7200	2100	0.51	0.55	62.7	58.8	19.4	23.4	C
Segment 3: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		2514		7161		0.35		68.7		12.2		B
Segment 4: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.980	3090	576	7200	2100	0.43	0.27	64.1	62.3	16.1	16.2	B
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3072		7161		0.43		68.7		14.9		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.3	16.4	15.9	2.1	B
Facility Overall Results					
Space Mean Speed, mi/h		67.3	Density, veh/mi/ln		15.9
Average Travel Time, min		2.1	Density, pc/mi/ln		16.4



HCS7 Freeway Facilities Report																
Project Information																
Analyst				JB				Date				7/14/2020				
Agency				Urban Crossroads, Inc.				Analysis Year				Opening Year Cumulative (2027) With Project				
Jurisdiction				Caltrans				Time Period Analyzed				PM Peak Hour				
Project Description				JN:12396 - I-10 WB at Oak Valley												
Facility Global Input																
Jam Density, pc/mi/ln				190.0				Density at Capacity, pc/mi/ln				45.0				
Queue Discharge Capacity Drop, %				7				Total Segments				5				
Total Time Periods				1				Time Period Duration, min				15				
Facility Segment Data																
No.		Coded		Analyzed		Name				Length, ft				Lanes		
1		Basic		Basic		East of Oak Valley				4150				3		
2		Diverge		Diverge		Off-Ramp				1500				3		
3		Basic		Basic		Between				1700				3		
4		Merge		Merge		On-Ramp				1500				3		
5		Basic		Basic		West of Oak Valley				4000				3		
Facility Segment Data																
Segment 1: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.935		3663		7161		0.51		68.7		17.8		B
Segment 2: Diverge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.935	0.990	3663	928	7200	2100	0.51	0.44	63.3	59.3	19.3	22.9	C
Segment 3: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.917		2733		7161		0.38		68.7		13.3		B
Segment 4: Merge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.917	0.990	3662	929	7200	2100	0.51	0.44	63.6	62.0	19.2	19.3	B
Segment 5: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.935		3664		7161		0.51		68.7		17.8		B

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.4	17.5	16.3	2.2	B
Facility Overall Results					
Space Mean Speed, mi/h		67.4	Density, veh/mi/ln		16.3
Average Travel Time, min		2.2	Density, pc/mi/ln		17.5



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		3286		4764		0.69		66.5		24.7		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.952	3286	3045	4800	2100	0.68	1.45	53.3	54.0	45.0	30.7	D

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		241		4764		0.05		67.3		1.7		A

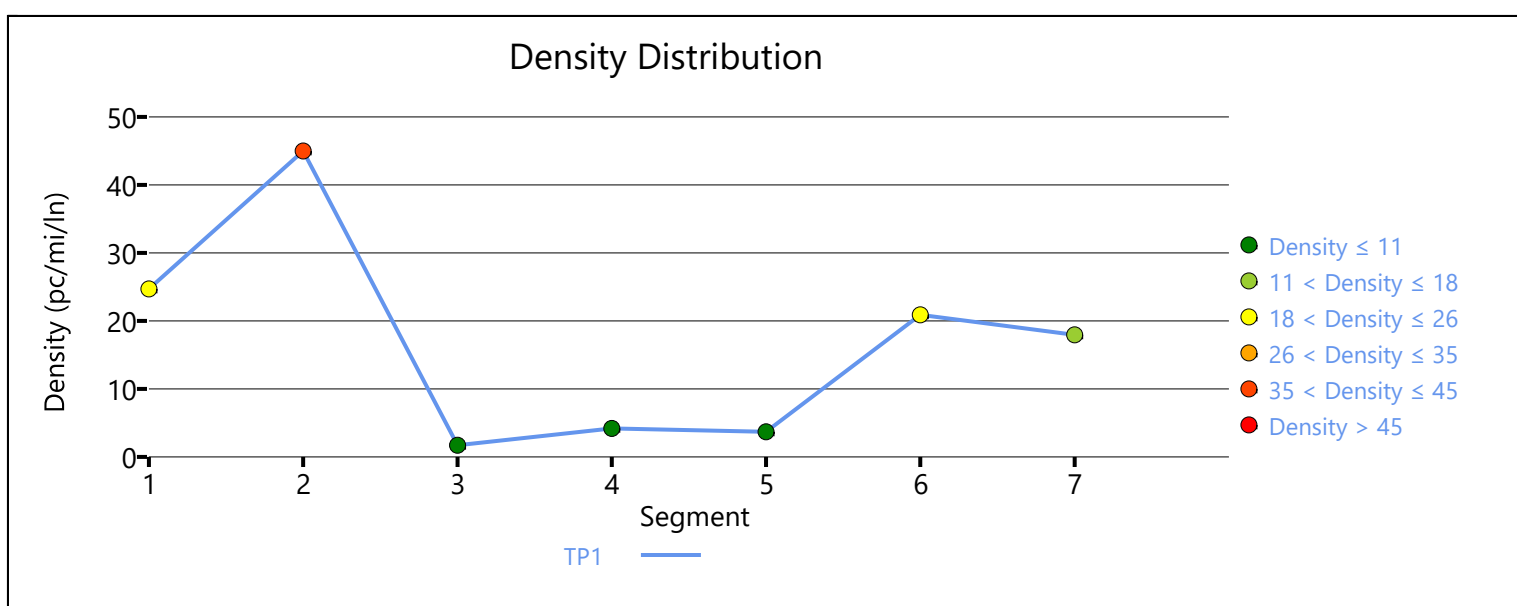
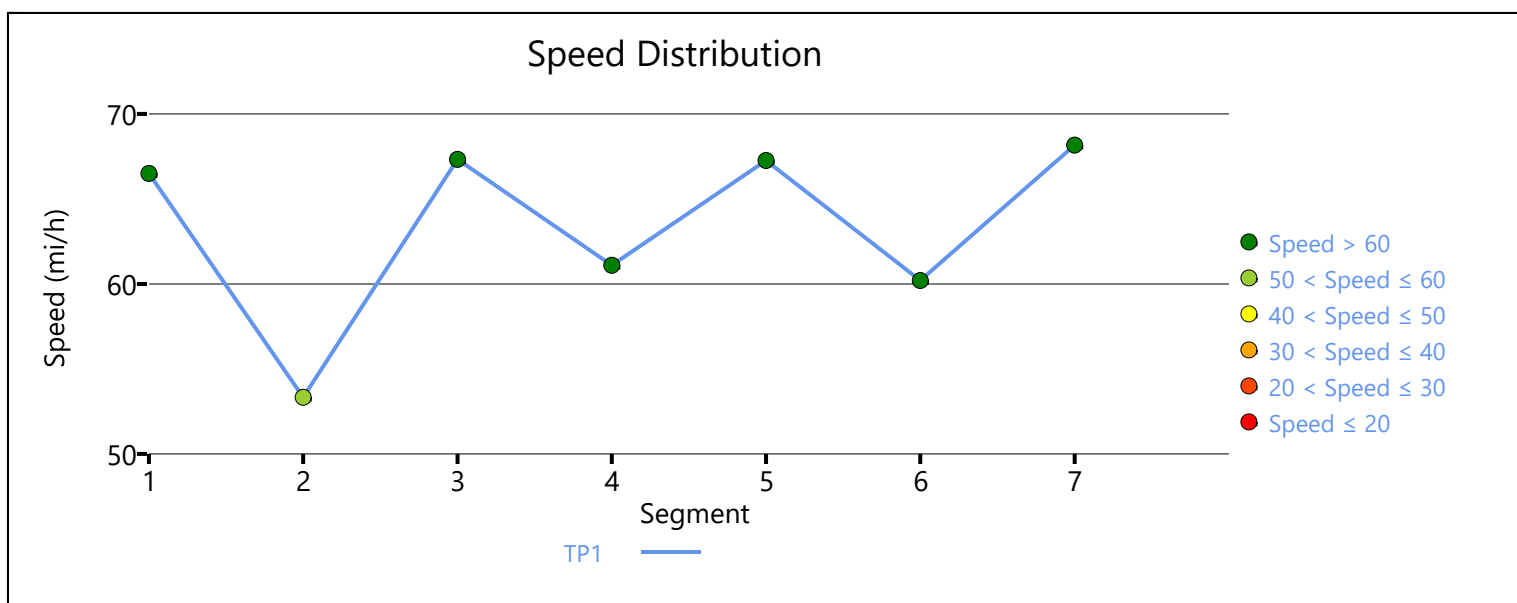
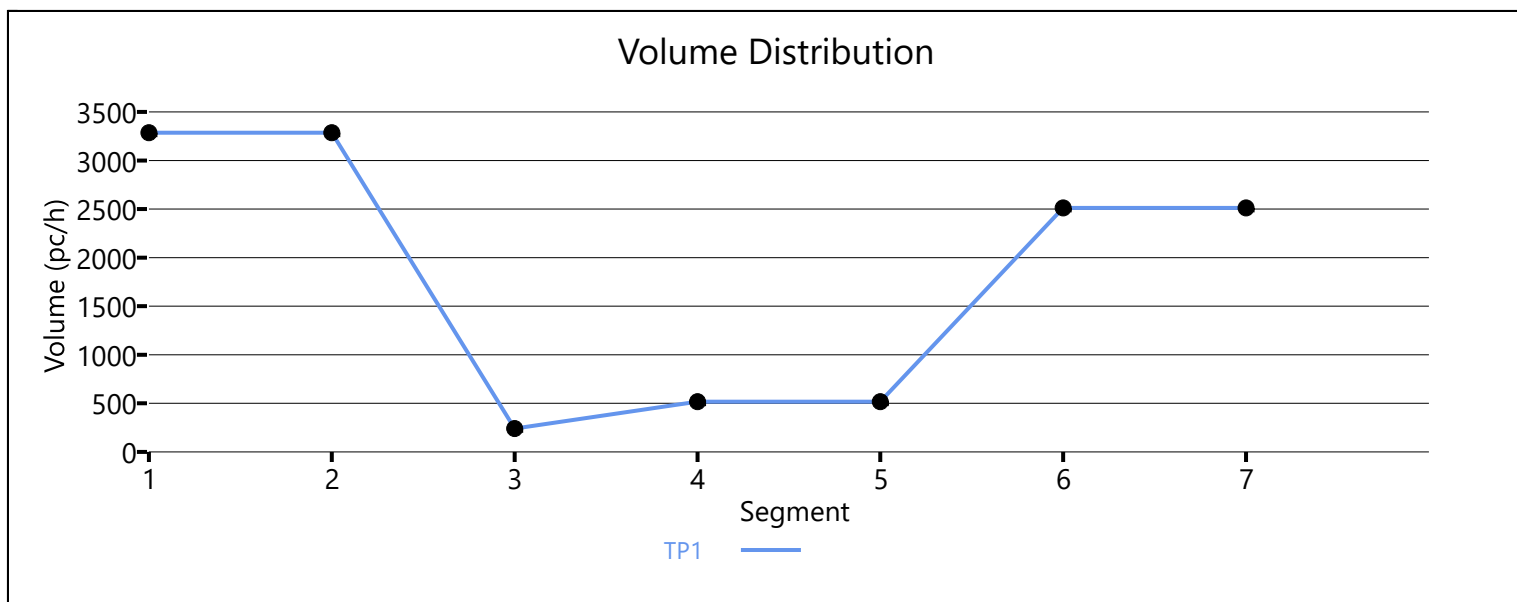
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	517	276	4800	1900	0.11	0.15	61.1	61.1	4.2	8.2	A

8.7-19

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		517		4764		0.11		67.3		3.7		A
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.935	2512	1995	4800	2100	0.53	0.95	60.2	60.2	20.9	23.0	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.943		2512		4764		0.53		68.2		18.0		B
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	64.9			18.6			17.8			3.2			C		
Facility Overall Results															
Space Mean Speed, mi/h					64.9				Density, veh/mi/ln				17.8		
Average Travel Time, min					3.2				Density, pc/mi/ln				18.6		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Opening Year Cumulative (2027) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		1997		4764		0.42		68.2		14.6		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.952	1997	1892	4800	2100	0.42	0.90	56.9	56.9	17.5	19.6	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		101		4764		0.02		68.2		0.7		A

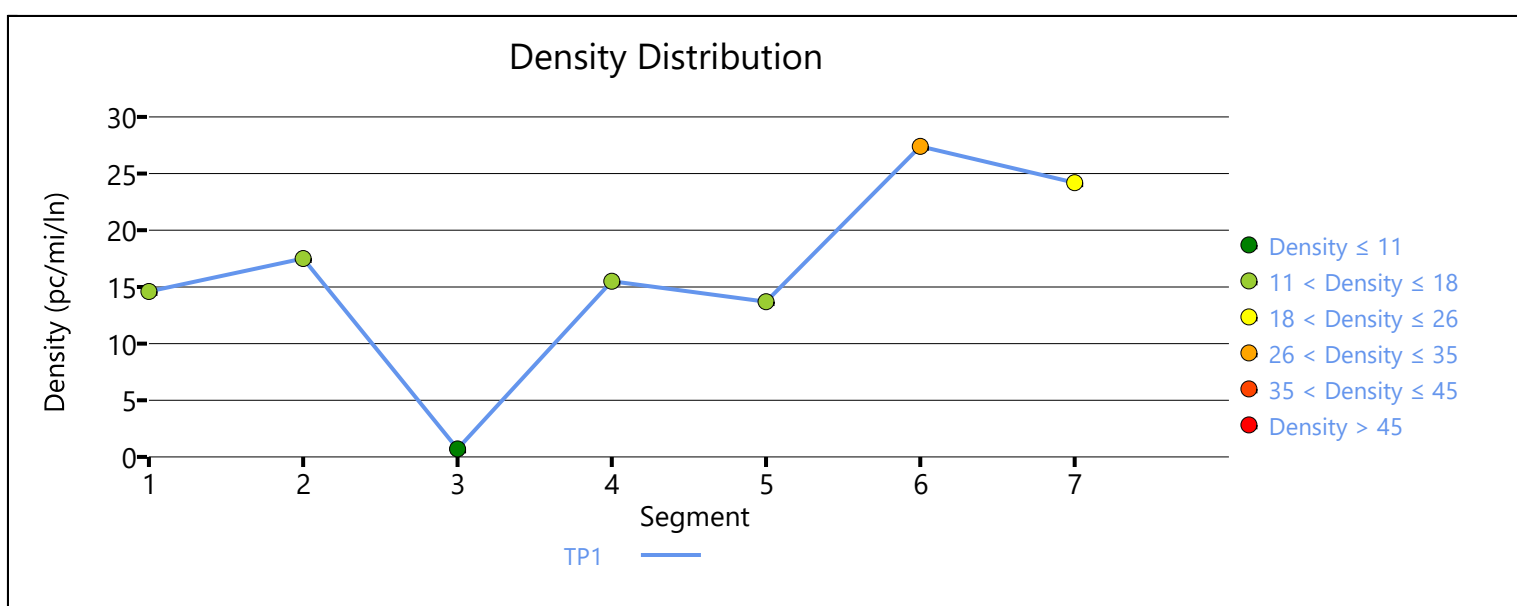
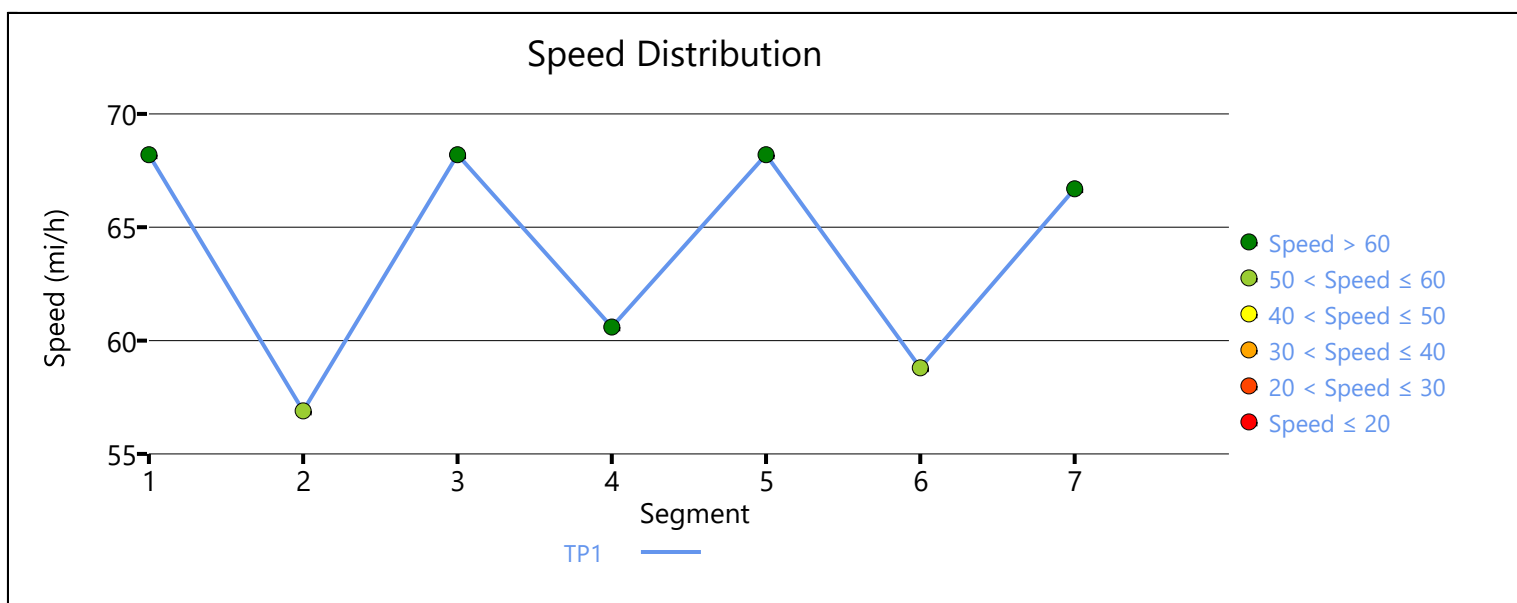
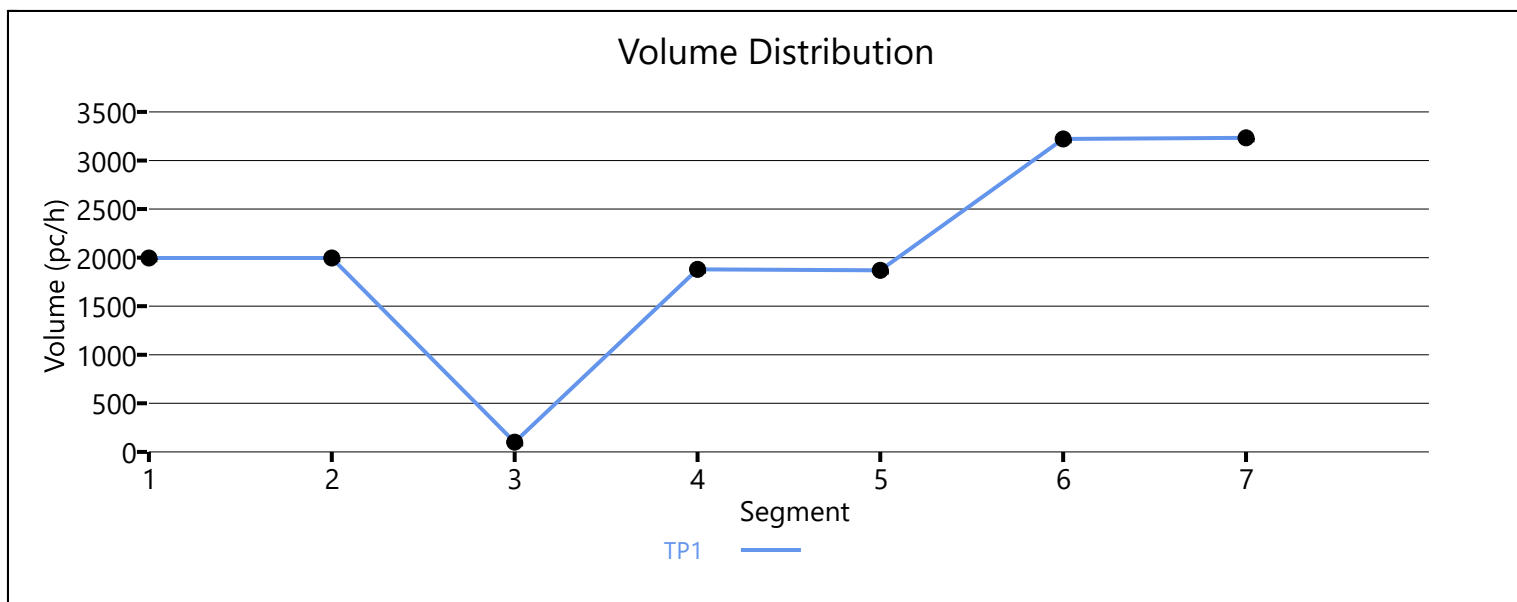
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.935	1880	1779	4800	1900	0.39	0.94	60.6	60.6	15.5	18.1	B

8.7-22

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.943		1870		4764		0.39		68.2		13.7		B
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.952	3221	1351	4800	2100	0.67	0.64	58.8	58.8	27.4	28.8	D
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.943		3233		4764		0.68		66.7		24.2		C
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	64.8			17.2			16.3			3.2			B		
Facility Overall Results															
Space Mean Speed, mi/h					64.8			Density, veh/mi/ln				16.3			
Average Travel Time, min					3.2			Density, pc/mi/ln				17.2			



APPENDIX 8.8:

OPENING YEAR (2027) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Timings
2: Potrero Bl. & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↗
Traffic Volume (vph)	327	45	255	349	66	259
Future Volume (vph)	327	45	255	349	66	259
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	33.2	33.2	9.6	24.2	38.2	38.2
Total Split (s)	33.2	33.2	23.0	56.2	38.8	38.8
Total Split (%)	34.9%	34.9%	24.2%	59.2%	40.8%	40.8%
Yellow Time (s)	5.2	5.2	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.6	6.2	6.2	6.2
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	13.6	13.6	14.9	33.3	13.4	13.4
Actuated g/C Ratio	0.23	0.23	0.25	0.56	0.22	0.22
v/c Ratio	0.47	0.13	0.66	0.20	0.19	0.51
Control Delay	23.0	8.0	31.8	7.6	21.3	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.0	8.0	31.8	7.6	21.3	6.2
LOS	C	A	C	A	C	A
Approach Delay	21.2			17.8	9.3	
Approach LOS	C			B	A	

Intersection Summary

Cycle Length: 95

Actuated Cycle Length: 60

Natural Cycle: 85

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 16.7

Intersection LOS: B

Intersection Capacity Utilization 45.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Potrero Bl. & Oak Valley Pkwy.

↖ Ø2	↙ Ø3	→ Ø4
38.8 s	23 s	33.2 s
	← Ø8	
	56.2 s	

HCM 6th Signalized Intersection Summary
2: Potrero Bl. & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↙	↑↑	↙	↗
Traffic Volume (veh/h)	327	45	255	349	66	259
Future Volume (veh/h)	327	45	255	349	66	259
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	380	52	297	406	77	301
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	748	334	363	1816	434	386
Arrive On Green	0.21	0.21	0.20	0.50	0.24	0.24
Sat Flow, veh/h	3705	1610	1810	3705	1810	1610
Grp Volume(v), veh/h	380	52	297	406	77	301
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1810	1610
Q Serve(g_s), s	4.5	1.3	7.6	3.0	1.6	8.4
Cycle Q Clear(g_c), s	4.5	1.3	7.6	3.0	1.6	8.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	748	334	363	1816	434	386
V/C Ratio(X)	0.51	0.16	0.82	0.22	0.18	0.78
Avail Cap(c_a), veh/h	2021	901	690	3742	1223	1088
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.9	15.7	18.4	6.7	14.6	17.1
Incr Delay (d2), s/veh	0.5	0.2	1.8	0.1	0.2	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.4	2.6	0.7	0.5	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.5	15.9	20.2	6.8	14.7	20.6
LnGrp LOS	B	B	C	A	B	C
Approach Vol, veh/h	432			703	378	
Approach Delay, s/veh	17.3			12.5	19.4	
Approach LOS	B			B	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		17.8	14.3	16.2		30.5
Change Period (Y+Rc), s		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s		32.6	18.4	27.0		50.0
Max Q Clear Time (g_c+l1), s		10.4	9.6	6.5		5.0
Green Ext Time (p_c), s		1.1	0.3	2.2		2.5
Intersection Summary						
HCM 6th Ctrl Delay			15.6			
HCM 6th LOS			B			

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	10	0	59	0	64	5	49	490	0
Future Vol, veh/h	0	0	0	10	0	59	0	64	5	49	490	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	15	0	91	0	98	8	75	754	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	629	1006	53	-	0	0
Stage 1	102	102	-	-	-	-
Stage 2	527	904	-	-	-	-
Critical Hdwy	6.8	6.5	6.9	-	-	4.1
Critical Hdwy Stg 1	5.8	5.5	-	-	-	-
Critical Hdwy Stg 2	5.8	5.5	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	-	-	2.2
Pot Cap-1 Maneuver	419	243	1010	0	-	1498
Stage 1	917	815	-	0	-	-
Stage 2	562	358	-	0	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	398	0	1010	-	-	1498
Mov Cap-2 Maneuver	462	0	-	-	-	-
Stage 1	917	0	-	-	-	-
Stage 2	534	0	-	-	-	-

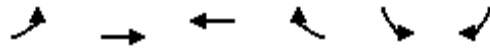
Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	0.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	862	1498
HCM Lane V/C Ratio	-	-	0.123	0.05
HCM Control Delay (s)	-	-	9.8	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.2

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

07/14/2020

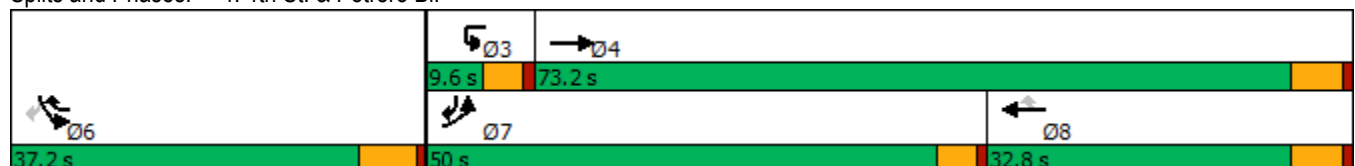


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	105	25	71	45	375	428	
Future Volume (vph)	105	25	71	45	375	428	
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov	
Protected Phases	7	4	8	6	6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	6	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	33.2	33.2	9.6	9.6
Total Split (s)	50.0	73.2	32.8	37.2	37.2	50.0	9.6
Total Split (%)	41.7%	61.0%	27.3%	31.0%	31.0%	41.7%	8%
Yellow Time (s)	3.6	4.8	4.8	5.2	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	6.2	6.2	4.6	
Lead/Lag	Lead	Lag	Lag			Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes
Recall Mode	None	None	None	Min	Min	None	None
Act Effect Green (s)	8.5	19.3	10.5	24.8	12.7	28.9	
Actuated g/C Ratio	0.19	0.43	0.24	0.56	0.29	0.65	
v/c Ratio	0.22	0.04	0.22	0.07	0.52	0.48	
Control Delay	19.1	7.6	17.7	1.4	16.0	2.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	19.1	7.6	17.7	1.4	16.0	2.1	
LOS	B	A	B	A	B	A	
Approach Delay		16.9	11.4		8.6		
Approach LOS		B	B		A		

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 44.4
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.52
 Intersection Signal Delay: 10.0
 Intersection LOS: A
 Intersection Capacity Utilization 43.5%
 ICU Level of Service A
 Analysis Period (min) 15

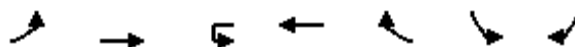
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	105	25	0	71	45	375	428
Future Volume (veh/h)	105	25	0	71	45	375	428
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	157	37		106	52	560	490
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	341	771		391	920	1283	745
Arrive On Green	0.09	0.39		0.20	0.20	0.35	0.35
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	157	37		106	52	560	490
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	1.9	0.5		2.1	0.7	5.5	10.7
Cycle Q Clear(g_c), s	1.9	0.5		2.1	0.7	5.5	10.7
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	341	771		391	920	1283	745
V/C Ratio(X)	0.46	0.05		0.27	0.06	0.44	0.66
Avail Cap(c_a), veh/h	3567	2866		1148	1562	2436	1274
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	8.8		15.8	4.9	11.5	10.1
Incr Delay (d2), s/veh	0.4	0.0		0.4	0.0	0.2	1.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.2		0.8	0.4	1.6	10.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	20.3	8.8		16.2	4.9	11.8	11.1
LnGrp LOS	C	A		B	A	B	B
Approach Vol, veh/h		194		158		1050	
Approach Delay, s/veh		18.1		12.5		11.5	
Approach LOS		B		B		B	
Timer - Assigned Phs				4		6	7 8
Phs Duration (G+Y+Rc), s				23.9		22.5	8.9 15.0
Change Period (Y+Rc), s				5.8		6.2	4.6 5.8
Max Green Setting (Gmax), s				67.4		31.0	45.4 27.0
Max Q Clear Time (g_c+l1), s				2.5		12.7	3.9 4.1
Green Ext Time (p_c), s				0.2		3.7	0.3 0.6

Intersection Summary

HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020

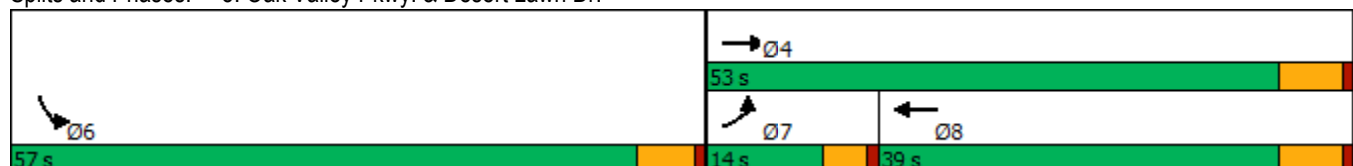


Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	86	709	565	553
Future Volume (vph)	86	709	565	553
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	14.0	53.0	39.0	57.0
Total Split (%)	12.7%	48.2%	35.5%	51.8%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effect Green (s)	8.6	36.6	26.6	42.6
Actuated g/C Ratio	0.09	0.40	0.29	0.46
v/c Ratio	0.59	0.57	0.70	0.88
Control Delay	61.2	23.4	29.0	37.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	61.2	23.4	29.0	37.0
LOS	E	C	C	D
Approach Delay		27.5	29.0	37.0
Approach LOS		C	C	D

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 92
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 30.7
Intersection Capacity Utilization 73.3%
Analysis Period (min) 15
Intersection LOS: C
ICU Level of Service D

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

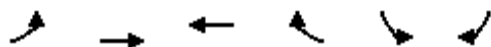


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↰	↑↑	↑↑↑		↰	
Traffic Volume (veh/h)	86	709	565	365	553	81
Future Volume (veh/h)	86	709	565	365	553	81
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	99	815	649	420	636	93
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	126	1557	1075	501	679	99
Arrive On Green	0.07	0.43	0.31	0.31	0.44	0.44
Sat Flow, veh/h	1810	3705	3629	1610	1552	227
Grp Volume(v), veh/h	99	815	649	420	730	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1729	1610	1782	0
Q Serve(g_s), s	4.9	15.1	14.5	22.2	35.7	0.0
Cycle Q Clear(g_c), s	4.9	15.1	14.5	22.2	35.7	0.0
Prop In Lane	1.00			1.00	0.87	0.13
Lane Grp Cap(c), veh/h	126	1557	1075	501	779	0
V/C Ratio(X)	0.78	0.52	0.60	0.84	0.94	0.00
Avail Cap(c_a), veh/h	186	1851	1243	579	999	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.8	19.1	26.7	29.3	24.5	0.0
Incr Delay (d2), s/veh	6.6	0.3	0.6	9.4	13.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	5.7	5.6	9.2	16.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.4	19.3	27.3	38.7	37.9	0.0
LnGrp LOS	D	B	C	D	D	A
Approach Vol, veh/h		914	1069		730	
Approach Delay, s/veh		22.5	31.8		37.9	
Approach LOS		C	C		D	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			45.6		45.7	11.0
Change Period (Y+Rc), s			6.2		5.8	4.6
Max Green Setting (Gmax), s			46.8		51.2	9.4
Max Q Clear Time (g_c+I1), s			17.1		37.7	6.9
Green Ext Time (p_c), s			5.5		2.3	0.0

Intersection Summary

HCM 6th Ctrl Delay	30.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations	↑↑	↑	↙	↑↑	↘	↓
Traffic Volume (vph)	702	561	300	720	305	3
Future Volume (vph)	702	561	300	720	305	3
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	31.0	31.0	28.0	59.0	31.0	31.0
Total Split (%)	34.4%	34.4%	31.1%	65.6%	34.4%	34.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effect Green (s)	38.0	38.0	21.0	63.6	14.8	14.8
Actuated g/C Ratio	0.42	0.42	0.23	0.71	0.16	0.16
v/c Ratio	0.52	0.60	0.80	0.32	0.60	0.57
Control Delay	22.7	4.9	48.3	2.5	38.8	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.7	4.9	48.3	2.5	38.8	15.1
LOS	C	A	D	A	D	B
Approach Delay	14.8			16.0		29.1
Approach LOS	B			B		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.80

Intersection Signal Delay: 17.9

Intersection LOS: B

Intersection Capacity Utilization 86.9%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

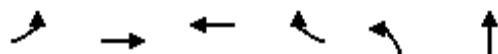
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘↗	↖	
Traffic Volume (veh/h)	0	702	561	300	720	0	0	0	0	305	3	209
Future Volume (veh/h)	0	702	561	300	720	0	0	0	0	305	3	209
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	789	543	337	809	0				343	3	216
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1583	706	376	2518	0				609	4	276
Arrive On Green	0.00	0.44	0.44	0.14	0.47	0.00				0.17	0.17	0.17
Sat Flow, veh/h	0	3705	1610	1810	3705	0				3510	22	1591
Grp Volume(v), veh/h	0	789	543	337	809	0				343	0	219
Grp Sat Flow(s), veh/h/ln	0	1805	1610	1810	1805	0				1755	0	1614
Q Serve(g_s), s	0.0	14.1	25.7	16.5	12.6	0.0				8.1	0.0	11.7
Cycle Q Clear(g_c), s	0.0	14.1	25.7	16.5	12.6	0.0				8.1	0.0	11.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1583	706	376	2518	0				609	0	280
V/C Ratio(X)	0.00	0.50	0.77	0.90	0.32	0.00				0.56	0.00	0.78
Avail Cap(c_a), veh/h	0	1583	706	470	2518	0				983	0	452
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.63	0.63	0.70	0.70	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.2	21.4	37.8	10.6	0.0				34.1	0.0	35.6
Incr Delay (d2), s/veh	0.0	0.7	5.1	11.1	0.2	0.0				0.8	0.0	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.4	9.6	8.5	4.8	0.0				3.3	0.0	4.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	18.9	26.5	48.9	10.9	0.0				34.9	0.0	40.3
LnGrp LOS	A	B	C	D	B	A				C	A	D
Approach Vol, veh/h	1332			1146			562					
Approach Delay, s/veh	22.0			22.0			37.0					
Approach LOS	C			C			D					
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	23.3	45.3		21.4		68.6						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	23.4	25.2		25.2		53.2						
Max Q Clear Time (g_c+I1), s	18.5	27.7		13.7		14.6						
Green Ext Time (p_c), s	0.2	0.0		1.9		5.9						
Intersection Summary												
HCM 6th Ctrl Delay				24.8								
HCM 6th LOS				C								

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	251	755	631	529	390	5
Future Volume (vph)	251	755	631	529	390	5
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	24.0	54.0	30.0	30.0	36.0	36.0
Total Split (%)	26.7%	60.0%	33.3%	33.3%	40.0%	40.0%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effect Green (s)	16.2	43.2	22.4	22.4	35.2	35.2
Actuated g/C Ratio	0.18	0.48	0.25	0.25	0.39	0.39
v/c Ratio	0.79	0.44	0.72	0.67	0.56	0.60
Control Delay	43.7	17.6	35.6	7.1	26.9	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.7	17.6	35.6	7.1	26.9	18.6
LOS	D	B	D	A	C	B
Approach Delay		24.1	22.6			22.5
Approach LOS		C	C			C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 23.1

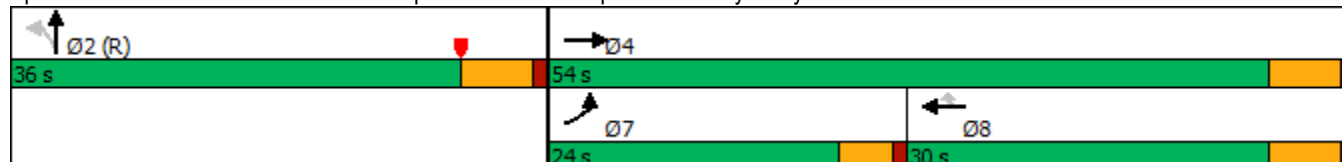
Intersection LOS: C

Intersection Capacity Utilization 86.9%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	755	0	0	631	529	390	5	427	0	0	0
Future Volume (veh/h)	251	755	0	0	631	529	390	5	427	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	256	770	0	0	644	424	398	5	314			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	295	1744	0	0	971	433	702	10	617			
Arrive On Green	0.11	0.32	0.00	0.00	0.27	0.27	0.39	0.39	0.39			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	1810	25	1589			
Grp Volume(v), veh/h	256	770	0	0	644	424	398	0	319			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1614			
Q Serve(g_s), s	12.5	15.1	0.0	0.0	14.3	23.5	15.5	0.0	13.6			
Cycle Q Clear(g_c), s	12.5	15.1	0.0	0.0	14.3	23.5	15.5	0.0	13.6			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.98			
Lane Grp Cap(c), veh/h	295	1744	0	0	971	433	702	0	626			
V/C Ratio(X)	0.87	0.44	0.00	0.00	0.66	0.98	0.57	0.00	0.51			
Avail Cap(c_a), veh/h	390	1933	0	0	971	433	702	0	626			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.82	0.82	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	39.1	20.9	0.0	0.0	29.3	32.7	21.6	0.0	21.0			
Incr Delay (d2), s/veh	10.3	0.1	0.0	0.0	1.7	37.7	3.3	0.0	2.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.4	6.6	0.0	0.0	6.0	13.0	6.6	0.0	5.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.5	21.0	0.0	0.0	31.0	70.4	24.9	0.0	23.9			
LnGrp LOS	D	C	A	A	C	E	C	A	C			
Approach Vol, veh/h	1026			1068			717					
Approach Delay, s/veh	28.1			46.6			24.5					
Approach LOS	C			D			C					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	40.7			49.3			19.3			30.0		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	30.2			48.2			19.4			24.2		
Max Q Clear Time (g_c+I1), s	17.5			17.1			14.5			25.5		
Green Ext Time (p_c), s	2.6			5.3			0.2			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	34.2											
HCM 6th LOS	C											

Intersection														
Int Delay, s/veh	2.6													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SER
Lane Configurations														
Traffic Vol, veh/h	9	636	159	171	980	29	0	0	70	0	0	173	0	0
Future Vol, veh/h	9	636	159	171	980	29	0	0	70	0	0	173	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	-	-	None	-	-	-	-	-
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	10	699	175	188	1077	32	0	0	77	0	0	190	0	0
Major/Minor	Major1			Major2			Minor1			Minor2				
Conflicting Flow All	1109	0	0	874	0	0	-	-	437	-	-	555		
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-		
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9		
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-		
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3		
Pot Cap-1 Maneuver	637	-	-	781	-	-	0	0	573	0	0	480		
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-		
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-		
Platoon blocked, %		-	-		-	-								
Mov Cap-1 Maneuver	637	-	-	781	-	-	-	-	573	-	-	480		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-		
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-		
Approach	EB			WB			NB			SB				
HCM Control Delay, s	0.1			1.6			12.3			17.3				
HCM LOS							B			C				
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1						
Capacity (veh/h)	573	637	-	-	781	-	-	480						
HCM Lane V/C Ratio	0.134	0.016	-	-	0.241	-	-	0.396						
HCM Control Delay (s)	12.3	10.7	-	-	11.1	-	-	17.3						
HCM Lane LOS	B	B	-	-	B	-	-	C						
HCM 95th %tile Q(veh)	0.5	0	-	-	0.9	-	-	1.9						

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	38	65	26	3	510	79	31	6	24	33	130
Future Volume (vph)	38	65	26	3	510	79	31	6	24	33	130
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		2			6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Total Split (s)	10.0	35.4	35.4	9.6	35.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	12.5%	44.3%	44.3%	12.0%	43.8%	43.8%	43.8%	43.8%	43.8%	43.8%	43.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effect Green (s)	5.4	33.9	33.9	5.1	30.0		13.9	13.9	13.9	13.9	13.9
Actuated g/C Ratio	0.09	0.55	0.55	0.08	0.49		0.23	0.23	0.23	0.23	0.23
v/c Ratio	0.32	0.08	0.04	0.03	0.77		0.45	0.02	0.11	0.10	0.35
Control Delay	35.9	9.6	0.1	31.7	23.5		25.5	0.0	20.1	19.6	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	9.6	0.1	31.7	23.5		25.5	0.0	20.1	19.6	5.7
LOS	D	A	A	C	C		C	A	C	B	A
Approach Delay		15.4			23.5		24.2			10.0	
Approach LOS		B			C		C			B	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 61.2

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 19.9

Intersection LOS: B

Intersection Capacity Utilization 59.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.

		
Ø2	Ø3	Ø4
35 s	9.6 s	35.4 s
		
Ø6	Ø7	Ø8
35 s	10 s	35 s

HCM 6th Signalized Intersection Summary
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

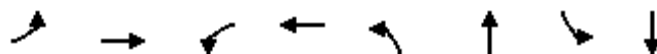
07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	65	26	3	510	22	79	31	6	24	33	130
Future Volume (veh/h)	38	65	26	3	510	22	79	31	6	24	33	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	87	35	4	680	29	105	41	8	32	44	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	91	919	778	10	793	34	310	103	314	290	371	
Arrive On Green	0.05	0.48	0.48	0.01	0.44	0.44	0.20	0.20	0.20	0.20	0.20	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1809	77	972	528	1610	1378	1900	1610
Grp Volume(v), veh/h	51	87	35	4	0	709	146	0	8	32	44	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1886	1500	0	1610	1378	1900	1610
Q Serve(g_s), s	1.4	1.3	0.6	0.1	0.0	17.3	3.5	0.0	0.2	1.1	1.0	0.0
Cycle Q Clear(g_c), s	1.4	1.3	0.6	0.1	0.0	17.3	4.4	0.0	0.2	5.5	1.0	0.0
Prop In Lane	1.00		1.00	1.00		0.04	0.72		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	91	919	778	10	0	827	413	0	314	290	371	
V/C Ratio(X)	0.56	0.09	0.04	0.41	0.00	0.86	0.35	0.00	0.03	0.11	0.12	
Avail Cap(c_a), veh/h	191	1097	930	177	0	1074	974	0	917	806	1082	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.8	7.2	7.0	25.4	0.0	12.9	18.4	0.0	16.7	20.9	17.0	0.0
Incr Delay (d2), s/veh	2.0	0.0	0.0	9.9	0.0	5.6	0.5	0.0	0.0	0.2	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.4	0.1	0.1	0.0	6.3	1.3	0.0	0.1	0.3	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.8	7.2	7.0	35.3	0.0	18.6	18.9	0.0	16.7	21.0	17.1	0.0
LnGrp LOS	C	A	A	D	A	B	B	A	B	C	B	
Approach Vol, veh/h		173			713			154			76	A
Approach Delay, s/veh		12.6			18.6			18.8			18.8	
Approach LOS		B			B			B			B	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.8	4.9	30.6		15.8	7.2	28.3				
Change Period (Y+Rc), s		5.8	4.6	5.8		5.8	4.6	5.8				
Max Green Setting (Gmax), s		29.2	5.0	29.6		29.2	5.4	29.2				
Max Q Clear Time (g_c+I1), s		6.4	2.1	3.3		7.5	3.4	19.3				
Green Ext Time (p_c), s		0.7	0.0	0.5		0.2	0.0	3.1				
Intersection Summary												
HCM 6th Ctrl Delay			17.7									
HCM 6th LOS			B									
Notes												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↰	↰↱	↰	↰↱	↰	↱	↰	↱
Traffic Volume (vph)	4	314	297	312	449	94	49	167
Future Volume (vph)	4	314	297	312	449	94	49	167
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	9.6	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	24.2	21.2	35.8	30.4	42.9	11.7	24.2
Total Split (%)	9.6%	24.2%	21.2%	35.8%	30.4%	42.9%	11.7%	24.2%
Yellow Time (s)	3.6	3.8	3.6	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.6	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.0	16.9	16.6	36.2	25.8	40.4	6.4	19.0
Actuated g/C Ratio	0.05	0.17	0.17	0.37	0.26	0.41	0.07	0.19
v/c Ratio	0.04	0.75	1.05	0.27	1.02	0.22	0.45	0.51
Control Delay	46.2	41.7	107.0	22.2	84.3	16.7	56.5	41.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.2	41.7	107.0	22.2	84.3	16.7	56.5	41.0
LOS	D	D	F	C	F	B	E	D
Approach Delay		41.7		62.2		67.1		44.4
Approach LOS		D		E		E		D

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 97.5

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 56.9

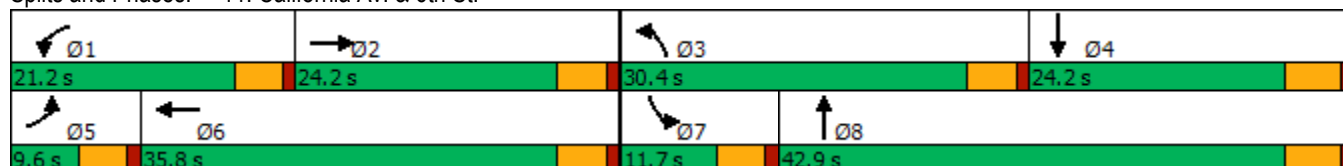
Intersection LOS: E

Intersection Capacity Utilization 79.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	314	129	297	312	22	449	94	60	49	167	5
Future Volume (veh/h)	4	314	129	297	312	22	449	94	60	49	167	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	341	58	323	339	15	488	102	43	53	182	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	442	74	319	1107	49	496	554	233	72	376	6
Arrive On Green	0.01	0.14	0.14	0.18	0.31	0.31	0.27	0.44	0.44	0.04	0.20	0.20
Sat Flow, veh/h	1810	3091	520	1810	3522	155	1810	1269	535	1810	1864	31
Grp Volume(v), veh/h	4	198	201	323	173	181	488	0	145	53	0	185
Grp Sat Flow(s),veh/h/ln	1810	1805	1806	1810	1805	1872	1810	0	1804	1810	0	1894
Q Serve(g_s), s	0.2	9.9	10.1	16.6	6.8	6.9	25.2	0.0	4.6	2.7	0.0	8.1
Cycle Q Clear(g_c), s	0.2	9.9	10.1	16.6	6.8	6.9	25.2	0.0	4.6	2.7	0.0	8.1
Prop In Lane	1.00		0.29	1.00		0.08	1.00		0.30	1.00		0.02
Lane Grp Cap(c), veh/h	10	258	258	319	567	588	496	0	787	72	0	383
V/C Ratio(X)	0.42	0.77	0.78	1.01	0.31	0.31	0.98	0.00	0.18	0.74	0.00	0.48
Avail Cap(c_a), veh/h	96	372	373	319	595	617	496	0	787	137	0	383
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	46.6	38.8	38.9	38.7	24.5	24.5	33.9	0.0	16.2	44.7	0.0	33.2
Incr Delay (d2), s/veh	10.5	5.7	6.4	53.3	0.3	0.3	35.8	0.0	0.5	5.3	0.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	4.7	4.9	11.9	2.9	3.1	15.2	0.0	1.9	1.3	0.0	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.1	44.5	45.3	92.0	24.8	24.8	69.7	0.0	16.8	50.0	0.0	37.5
LnGrp LOS	E	D	D	F	C	C	E	A	B	D	A	D
Approach Vol, veh/h	403			677			633			238		
Approach Delay, s/veh	45.0			56.8			57.6			40.3		
Approach LOS	D			E			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.2	18.3	30.4	24.2	5.1	34.4	8.3	46.3				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	16.6	* 19	25.8	19.0	5.0	* 31	7.1	37.7				
Max Q Clear Time (g_c+I1), s	18.6	12.1	27.2	10.1	2.2	8.9	4.7	6.6				
Green Ext Time (p_c), s	0.0	1.3	0.0	0.5	0.0	2.0	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay 52.6

HCM 6th LOS D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	3	82	42	10	33	325	600	24	14	532	2
Future Volume (vph)	2	3	82	42	10	33	325	600	24	14	532	2
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	27.8	27.8	27.8	27.8	27.8	27.8
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	93.4	93.4	93.4	93.4	93.4	93.4
Total Split (%)	22.2%	22.2%	22.2%	22.2%	22.2%	22.2%	77.8%	77.8%	77.8%	77.8%	77.8%	77.8%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)		4.6	4.6		4.6	4.6	5.8	5.8	5.8		5.8	5.8
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effect Green (s)		12.9	12.9		12.9	12.9	71.5	71.5	71.5		71.5	71.5
Actuated g/C Ratio		0.14	0.14		0.14	0.14	0.80	0.80	0.80		0.80	0.80
v/c Ratio		0.03	0.32		0.31	0.16	0.74	0.50	0.02		0.46	0.00
Control Delay		41.2	11.8		45.0	14.3	18.2	5.9	2.3		5.6	0.0
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.2	0.0		0.4	0.0
Total Delay		41.2	11.8		45.0	14.3	18.2	6.2	2.3		6.1	0.0
LOS		D	B		D	B	B	A	A		A	A
Approach Delay		13.6			33.1			10.2			6.0	
Approach LOS		B			C			B			A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 89.1

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 10.2

Intersection LOS: B

Intersection Capacity Utilization 83.4%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 12: California Av. & 5th St.

 Ø2	 Ø4
93.4 s	26.6 s
 Ø6	 Ø8
93.4 s	26.6 s

HCM 6th Signalized Intersection Summary

12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	82	42	10	33	325	600	24	14	532	2
Future Volume (veh/h)	2	3	82	42	10	33	325	600	24	14	532	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	72	53	13	23	411	759	17	18	673	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	45	44	306	56	8	306	497	1368	1159	48	1324	1159
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.72	0.72	0.72	0.72	0.72	0.72
Sat Flow, veh/h	0	230	1610	1	43	1610	775	1900	1610	22	1840	1610
Grp Volume(v), veh/h	7	0	72	66	0	23	411	759	17	691	0	3
Grp Sat Flow(s),veh/h/ln	230	0	1610	44	0	1610	775	1900	1610	1862	0	1610
Q Serve(g_s), s	0.0	0.0	4.4	0.0	0.0	1.4	57.4	21.6	0.3	0.0	0.0	0.1
Cycle Q Clear(g_c), s	22.0	0.0	4.4	22.0	0.0	1.4	75.8	21.6	0.3	18.5	0.0	0.1
Prop In Lane	0.43		1.00	0.80		1.00	1.00		1.00	0.03		1.00
Lane Grp Cap(c), veh/h	88	0	306	64	0	306	497	1368	1159	1372	0	1159
V/C Ratio(X)	0.08	0.00	0.24	1.02	0.00	0.08	0.83	0.55	0.01	0.50	0.00	0.00
Avail Cap(c_a), veh/h	88	0	306	64	0	306	526	1439	1220	1441	0	1220
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.7	0.0	39.7	55.1	0.0	38.5	23.8	7.6	4.6	7.1	0.0	4.5
Incr Delay (d2), s/veh	0.4	0.0	0.4	118.9	0.0	0.1	10.1	0.4	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	1.8	4.0	0.0	0.6	10.6	7.0	0.1	6.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	0.0	40.1	173.9	0.0	38.6	33.9	8.0	4.6	7.4	0.0	4.5
LnGrp LOS	D	A	D	F	A	D	C	A	A	A	A	A
Approach Vol, veh/h	79					89		1187		694		
Approach Delay, s/veh	40.1					139.0		16.9		7.4		
Approach LOS	D					F		B		A		
Timer - Assigned Phs	2		4			6		8				
Phs Duration (G+Y+Rc), s	89.0		26.6			89.0		26.6				
Change Period (Y+Rc), s	5.8		4.6			5.8		4.6				
Max Green Setting (Gmax), s	87.6		22.0			87.6		22.0				
Max Q Clear Time (g_c+I1), s	77.8		24.0			20.5		24.0				
Green Ext Time (p_c), s	5.3		0.0			5.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay	19.9											
HCM 6th LOS	B											

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
07/14/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	91	27	156	887	197	418
Future Volume (vph)	91	27	156	887	197	418
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	38.0	38.0	23.0	52.0	29.0	38.0
Total Split (%)	42.2%	42.2%	25.6%	57.8%	32.2%	42.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	Min	Min	None
Act Effect Green (s)	12.3	12.3	10.5	27.5	12.1	30.5
Actuated g/C Ratio	0.24	0.24	0.20	0.53	0.23	0.59
v/c Ratio	0.28	0.09	0.55	0.60	0.30	0.51
Control Delay	19.7	8.1	26.3	10.1	18.7	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.7	8.1	26.3	10.1	18.7	4.6
LOS	B	A	C	B	B	A
Approach Delay	17.1			12.5	9.1	
Approach LOS	B			B	A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 52

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 11.7

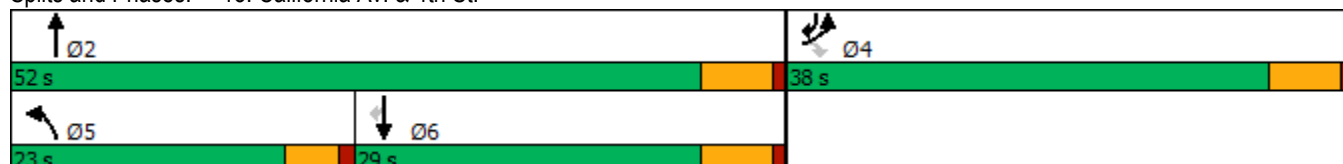
Intersection LOS: B

Intersection Capacity Utilization 43.2%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↕↕	↕↕	↱
Traffic Volume (veh/h)	91	27	156	887	197	418
Future Volume (veh/h)	91	27	156	887	197	418
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	118	35	203	1152	256	543
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	327	291	260	2086	1223	837
Arrive On Green	0.18	0.18	0.14	0.58	0.34	0.34
Sat Flow, veh/h	1810	1610	1810	3705	3705	1610
Grp Volume(v), veh/h	118	35	203	1152	256	543
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1805	1805	1610
Q Serve(g_s), s	2.7	0.9	5.2	9.5	2.4	11.8
Cycle Q Clear(g_c), s	2.7	0.9	5.2	9.5	2.4	11.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	327	291	260	2086	1223	837
V/C Ratio(X)	0.36	0.12	0.78	0.55	0.21	0.65
Avail Cap(c_a), veh/h	1211	1078	692	3466	1741	1068
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.3	16.5	19.9	6.3	11.3	8.4
Incr Delay (d2), s/veh	0.7	0.2	1.9	0.2	0.1	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.9	1.8	0.7	4.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.9	16.7	21.8	6.5	11.4	9.3
LnGrp LOS	B	B	C	A	B	A
Approach Vol, veh/h	153			1355	799	
Approach Delay, s/veh	17.6			8.8	10.0	
Approach LOS	B			A	A	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	33.6			14.5	11.5	22.1
Change Period (Y+Rc), s	5.8			5.8	4.6	5.8
Max Green Setting (Gmax), s	46.2			32.2	18.4	23.2
Max Q Clear Time (g_c+I1), s	11.5			4.7	7.2	13.8
Green Ext Time (p_c), s	9.3			0.4	0.2	2.5
Intersection Summary						
HCM 6th Ctrl Delay			9.8			
HCM 6th LOS			A			

Timings
2: Potrero Bl. & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↗
Traffic Volume (vph)	332	65	259	411	130	331
Future Volume (vph)	332	65	259	411	130	331
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	33.2	33.2	9.6	24.2	38.2	38.2
Total Split (s)	33.2	33.2	23.0	56.2	38.8	38.8
Total Split (%)	34.9%	34.9%	24.2%	59.2%	40.8%	40.8%
Yellow Time (s)	5.2	5.2	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.6	6.2	6.2	6.2
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	13.5	13.5	14.2	32.7	13.8	13.8
Actuated g/C Ratio	0.23	0.23	0.24	0.55	0.23	0.23
v/c Ratio	0.45	0.17	0.66	0.23	0.34	0.56
Control Delay	22.8	7.5	32.3	7.9	22.8	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	7.5	32.3	7.9	22.8	6.3
LOS	C	A	C	A	C	A
Approach Delay	20.3			17.4	11.0	
Approach LOS	C			B	B	

Intersection Summary

Cycle Length: 95

Actuated Cycle Length: 59.7

Natural Cycle: 85

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 16.2

Intersection LOS: B

Intersection Capacity Utilization 46.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Potrero Bl. & Oak Valley Pkwy.

↖ Ø2	↙ Ø3	→ Ø4
38.8 s	23 s	33.2 s
	← Ø8	
	56.2 s	

HCM 6th Signalized Intersection Summary

2: Potrero Bl. & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↙	↑↑	↙	↗
Traffic Volume (veh/h)	332	65	259	411	130	331
Future Volume (veh/h)	332	65	259	411	130	331
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	365	71	285	452	143	364
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	707	315	347	1724	506	450
Arrive On Green	0.20	0.20	0.19	0.48	0.28	0.28
Sat Flow, veh/h	3705	1610	1810	3705	1810	1610
Grp Volume(v), veh/h	365	71	285	452	143	364
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1810	1610
Q Serve(g_s), s	4.6	1.9	7.7	3.8	3.2	10.8
Cycle Q Clear(g_c), s	4.6	1.9	7.7	3.8	3.2	10.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	707	315	347	1724	506	450
V/C Ratio(X)	0.52	0.23	0.82	0.26	0.28	0.81
Avail Cap(c_a), veh/h	1908	851	652	3533	1155	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.4	17.3	19.8	8.0	14.4	17.1
Incr Delay (d2), s/veh	0.6	0.4	1.9	0.1	0.3	3.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.6	2.8	1.0	1.0	3.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.0	17.6	21.7	8.0	14.7	20.6
LnGrp LOS	B	B	C	A	B	C
Approach Vol, veh/h	436			737	507	
Approach Delay, s/veh	18.8			13.3	19.0	
Approach LOS	B			B	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		20.5	14.4	16.2		30.6
Change Period (Y+Rc), s		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s		32.6	18.4	27.0		50.0
Max Q Clear Time (g_c+I1), s		12.8	9.7	6.6		5.8
Green Ext Time (p_c), s		1.5	0.3	2.2		2.8
Intersection Summary						
HCM 6th Ctrl Delay			16.4			
HCM 6th LOS			B			

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	2	0	104	0	628	0	10	393	0
Future Vol, veh/h	0	0	0	2	0	104	0	628	0	10	393	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	135	0	816	0	13	510	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1097	1352	408	-	0	0
Stage 1	816	816	-	-	-	-
Stage 2	281	536	-	-	-	-
Critical Hdwy	6.8	6.5	6.9	-	-	4.1
Critical Hdwy Stg 1	5.8	5.5	-	-	-	-
Critical Hdwy Stg 2	5.8	5.5	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	-	-	2.2
Pot Cap-1 Maneuver	211	151	598	0	-	820
Stage 1	400	393	-	0	-	-
Stage 2	747	527	-	0	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	208	0	598	-	-	820
Mov Cap-2 Maneuver	318	0	-	-	-	-
Stage 1	400	0	-	-	-	-
Stage 2	735	0	-	-	-	-

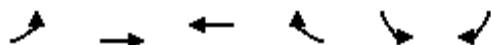
Approach	WB	NB	SB
HCM Control Delay, s	13	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	588	820
HCM Lane V/C Ratio	-	-	0.234	0.016
HCM Control Delay (s)	-	-	13	9.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.9	0

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations	↔↔	↑	↑	↔	↔↔	↔	
Traffic Volume (vph)	439	80	25	501	348	149	
Future Volume (vph)	439	80	25	501	348	149	
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov	
Protected Phases	7	4	8	6	6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	6	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	15.8	16.2	16.2	9.6	9.6
Total Split (s)	61.0	67.2	15.8	43.2	43.2	61.0	9.6
Total Split (%)	50.8%	56.0%	13.2%	36.0%	36.0%	50.8%	8%
Yellow Time (s)	3.6	4.8	4.8	5.2	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	6.2	6.2	4.6	
Lead/Lag	Lead	Lag	Lag			Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes
Recall Mode	None	None	None	Min	Min	None	None
Act Effect Green (s)	16.1	22.7	10.9	27.3	19.4	44.9	
Actuated g/C Ratio	0.29	0.41	0.20	0.49	0.35	0.81	
v/c Ratio	0.55	0.14	0.09	0.69	0.37	0.13	
Control Delay	20.3	10.2	26.6	11.3	16.3	0.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	20.3	10.2	26.6	11.3	16.3	0.7	
LOS	C	B	C	B	B	A	
Approach Delay		18.8	12.0		11.6		
Approach LOS		B	B		B		

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 55.2

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 14.2

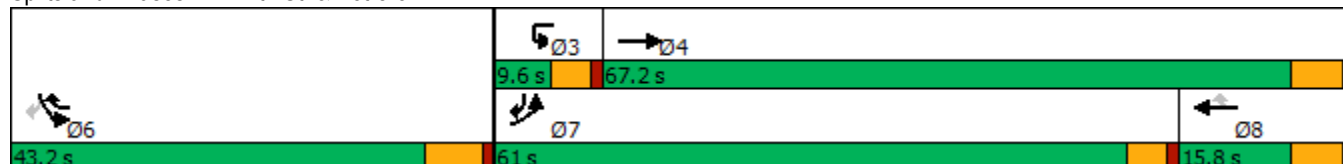
Intersection LOS: B

Intersection Capacity Utilization 52.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations	←←	↑	←	↑	←	←←	←
Traffic Volume (veh/h)	439	80	0	25	501	348	149
Future Volume (veh/h)	439	80	0	25	501	348	149
Initial Q (Qb), veh	1	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	655	119		37	487	519	140
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	867	1226		304	458	732	988
Arrive On Green	0.23	0.53		0.21	0.21	0.22	0.22
Sat Flow, veh/h	3764	1976		1976	1675	3764	1675
Grp Volume(v), veh/h	655	119		37	487	519	140
Grp Sat Flow(s),veh/h/ln	1882	1976		1976	1675	1882	1675
Q Serve(g_s), s	7.8	1.4		0.7	10.0	6.0	2.4
Cycle Q Clear(g_c), s	7.8	1.4		0.7	10.0	6.0	2.4
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	867	1226		304	458	732	988
V/C Ratio(X)	0.76	0.10		0.12	1.06	0.71	0.14
Avail Cap(c_a), veh/h	4434	2534		413	710	2909	1678
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	5.1		28.4	30.1	28.5	5.9
Incr Delay (d2), s/veh	0.5	0.0		0.2	48.3	1.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.5		0.6	17.3	4.0	3.9
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	17.8	5.1		28.6	78.4	29.7	6.0
LnGrp LOS	B	A		C	F	C	A
Approach Vol, veh/h		774		524		659	
Approach Delay, s/veh		15.8		74.9		24.7	
Approach LOS		B		E		C	
Timer - Assigned Phs				4		6	7 8
Phs Duration (G+Y+Rc), s				31.4		16.5	15.6 15.8
Change Period (Y+Rc), s				5.8		6.2	4.6 5.8
Max Green Setting (Gmax), s				61.4		37.0	56.4 10.0
Max Q Clear Time (g_c+I1), s				3.4		8.0	9.8 12.0
Green Ext Time (p_c), s				0.6		2.3	1.2 0.0

Intersection Summary

HCM 6th Ctrl Delay	34.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.
User approved ignoring U-Turning movement.

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	54	745	871	232
Future Volume (vph)	54	745	871	232
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	11.8	42.0	30.2	38.0
Total Split (%)	14.8%	52.5%	37.8%	47.5%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effect Green (s)	6.5	26.6	20.9	16.5
Actuated g/C Ratio	0.12	0.47	0.37	0.29
v/c Ratio	0.27	0.45	0.67	0.55
Control Delay	32.6	11.3	17.0	21.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	32.6	11.3	17.0	21.4
LOS	C	B	B	C
Approach Delay		12.7	17.0	21.4
Approach LOS		B	B	C

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 56.3

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 16.1

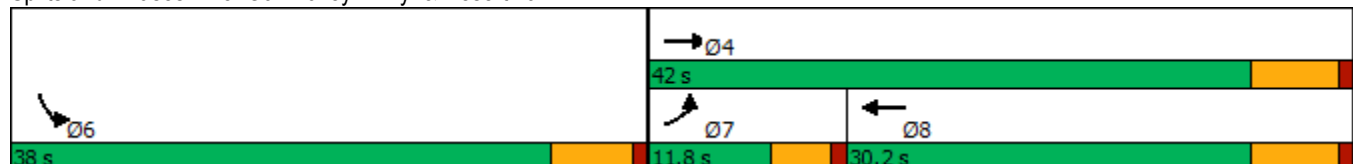
Intersection LOS: B

Intersection Capacity Utilization 59.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

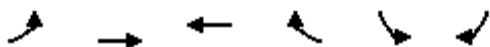


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations			 				
Traffic Volume (veh/h)	54	745	871	376	232	53	
Future Volume (veh/h)	54	745	871	376	232	53	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	56	768	898	388	239	55	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	99	1924	1356	585	310	71	
Arrive On Green	0.05	0.53	0.38	0.38	0.22	0.22	
Sat Flow, veh/h	1810	3705	3722	1531	1433	330	
Grp Volume(v), veh/h	56	768	874	412	295	0	
Grp Sat Flow(s),veh/h/ln	1810	1805	1729	1624	1769	0	
Q Serve(g_s), s	1.4	6.0	10.0	10.0	7.5	0.0	
Cycle Q Clear(g_c), s	1.4	6.0	10.0	10.0	7.5	0.0	
Prop In Lane	1.00			0.94	0.81	0.19	
Lane Grp Cap(c), veh/h	99	1924	1320	620	382	0	
V/C Ratio(X)	0.56	0.40	0.66	0.66	0.77	0.00	
Avail Cap(c_a), veh/h	273	2704	1736	816	1192	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	22.0	6.6	12.2	12.2	17.6	0.0	
Incr Delay (d2), s/veh	1.9	0.1	0.6	1.3	3.3	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.6	1.2	2.8	2.8	2.8	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	23.9	6.8	12.8	13.5	21.0	0.0	
LnGrp LOS	C	A	B	B	C	A	
Approach Vol, veh/h		824	1286		295		
Approach Delay, s/veh		7.9	13.0		21.0		
Approach LOS		A	B		C		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				31.7	16.1	7.2	24.5
Change Period (Y+Rc), s				6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s				35.8	32.2	7.2	24.0
Max Q Clear Time (g_c+I1), s				8.0	9.5	3.4	12.0
Green Ext Time (p_c), s				5.0	0.8	0.0	6.2
Intersection Summary							
HCM 6th Ctrl Delay			12.3				
HCM 6th LOS			B				
Notes							

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations	↑↑	↑	↙	↑↑	↘	↑
Traffic Volume (vph)	677	300	225	927	633	1
Future Volume (vph)	677	300	225	927	633	1
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	39.7	39.7	23.3	63.0	57.0	57.0
Total Split (%)	33.1%	33.1%	19.4%	52.5%	47.5%	47.5%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effect Green (s)	38.5	38.5	25.4	68.5	39.9	39.9
Actuated g/C Ratio	0.32	0.32	0.21	0.57	0.33	0.33
v/c Ratio	0.77	0.51	0.77	0.59	0.72	0.76
Control Delay	43.1	6.2	51.7	11.4	38.1	40.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.1	6.2	51.7	11.4	38.1	40.9
LOS	D	A	D	B	D	D
Approach Delay	31.8			19.3		39.1
Approach LOS	C			B		D

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 29.4

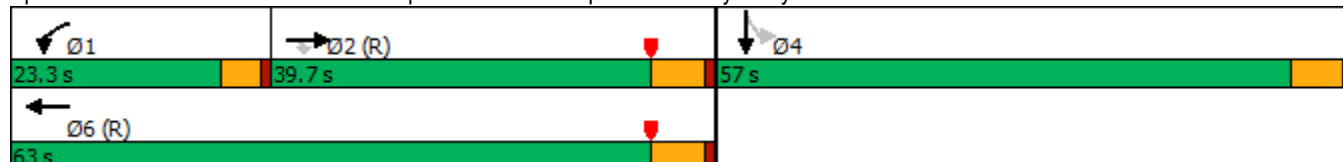
Intersection LOS: C

Intersection Capacity Utilization 79.8%

ICU Level of Service D

Analysis Period (min) 15

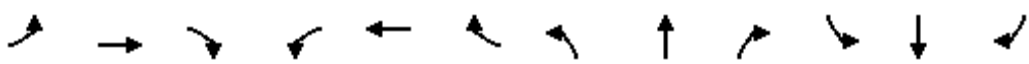
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑					↑↑	↑	↑
Traffic Volume (veh/h)	0	677	300	225	927	0	0	0	0	633	1	321
Future Volume (veh/h)	0	677	300	225	927	0	0	0	0	633	1	321
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	891	337	296	1220	0				833	1	356
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1529	682	282	2230	0				1002	1	459
Arrive On Green	0.00	0.42	0.42	0.05	0.20	0.00				0.29	0.29	0.29
Sat Flow, veh/h	0	3705	1610	1810	3705	0				3510	5	1606
Grp Volume(v), veh/h	0	891	337	296	1220	0				833	0	357
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1805	0				1755	0	1611
Q Serve(g_s), s	0.0	22.7	18.3	18.7	36.3	0.0				26.7	0.0	24.4
Cycle Q Clear(g_c), s	0.0	22.7	18.3	18.7	36.3	0.0				26.7	0.0	24.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1529	682	282	2230	0				1002	0	460
V/C Ratio(X)	0.00	0.58	0.49	1.05	0.55	0.00				0.83	0.00	0.78
Avail Cap(c_a), veh/h	0	1529	682	282	2230	0				1498	0	687
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.87	0.87	0.61	0.61	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	26.5	25.2	56.9	32.7	0.0				40.2	0.0	39.3
Incr Delay (d2), s/veh	0.0	1.4	2.2	55.5	0.6	0.0				2.6	0.0	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.5	7.1	13.4	17.6	0.0				11.4	0.0	9.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.9	27.4	112.4	33.3	0.0				42.8	0.0	42.6
LnGrp LOS	A	C	C	F	C	A				D	A	D
Approach Vol, veh/h		1228			1516						1190	
Approach Delay, s/veh		27.8			48.8						42.7	
Approach LOS		C			D						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	23.3	56.6		40.1		79.9						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	18.7	33.9		51.2		57.2						
Max Q Clear Time (g_c+I1), s	20.7	24.7		28.7		38.3						
Green Ext Time (p_c), s	0.0	4.6		5.6		8.0						
Intersection Summary												
HCM 6th Ctrl Delay				40.4								
HCM 6th LOS				D								

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020

						
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations						
Traffic Volume (vph)	295	1014	678	383	473	5
Future Volume (vph)	295	1014	678	383	473	5
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	40.0	73.0	33.0	33.0	47.0	47.0
Total Split (%)	33.3%	60.8%	27.5%	27.5%	39.2%	39.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effect Green (s)	24.7	59.1	29.8	29.8	49.3	49.3
Actuated g/C Ratio	0.21	0.49	0.25	0.25	0.41	0.41
v/c Ratio	0.82	0.59	0.78	0.57	0.66	0.54
Control Delay	51.3	14.6	48.7	6.9	36.0	25.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.3	14.6	48.7	6.9	36.0	25.4
LOS	D	B	D	A	D	C
Approach Delay		22.9	33.6			31.3
Approach LOS		C	C			C

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 28.6

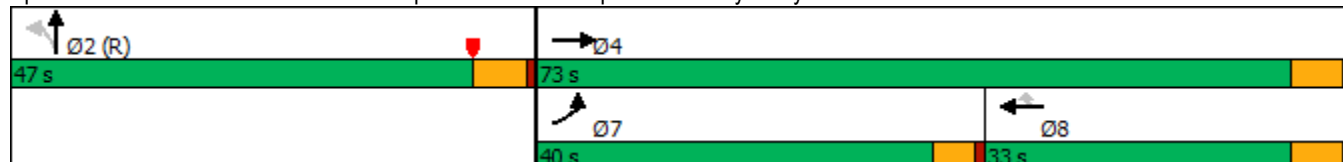
Intersection LOS: C

Intersection Capacity Utilization 79.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (veh/h)	295	1014	0	0	678	383	473	5	373	0	0	0
Future Volume (veh/h)	295	1014	0	0	678	383	473	5	373	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	304	1045	0	0	699	325	488	5	333			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	337	1609	0	0	798	356	828	11	727			
Arrive On Green	0.06	0.15	0.00	0.00	0.22	0.22	0.46	0.46	0.46			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	1810	24	1590			
Grp Volume(v), veh/h	304	1045	0	0	699	325	488	0	338			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1614			
Q Serve(g_s), s	20.0	32.8	0.0	0.0	22.4	23.6	24.0	0.0	17.2			
Cycle Q Clear(g_c), s	20.0	32.8	0.0	0.0	22.4	23.6	24.0	0.0	17.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	337	1609	0	0	798	356	828	0	738			
V/C Ratio(X)	0.90	0.65	0.00	0.00	0.88	0.91	0.59	0.00	0.46			
Avail Cap(c_a), veh/h	534	2022	0	0	818	365	828	0	738			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.59	0.59	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	55.2	42.3	0.0	0.0	45.2	45.6	24.2	0.0	22.3			
Incr Delay (d2), s/veh	5.3	0.3	0.0	0.0	10.4	26.4	3.1	0.0	2.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.2	15.8	0.0	0.0	10.9	11.7	10.4	0.0	6.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.5	42.6	0.0	0.0	55.5	72.0	27.2	0.0	24.4			
LnGrp LOS	E	D	A	A	E	E	C	A	C			
Approach Vol, veh/h	1349			1024			826					
Approach Delay, s/veh	46.7			60.8			26.1					
Approach LOS	D			E			C					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	60.7			59.3			27.0			32.3		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	41.2			67.2			35.4			27.2		
Max Q Clear Time (g_c+I1), s	26.0			34.8			22.0			25.6		
Green Ext Time (p_c), s	3.2			8.0			0.3			0.9		
Intersection Summary												
HCM 6th Ctrl Delay	45.9											
HCM 6th LOS	D											

Intersection														
Int Delay, s/veh	2.1													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SER
Lane Configurations														
Traffic Vol, veh/h	27	930	139	119	735	61	0	0	130	0	0	72	0	0
Future Vol, veh/h	27	930	139	119	735	61	0	0	130	0	0	72	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	-	-	None	-	-	-	-	-
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	29	1000	149	128	790	66	0	0	140	0	0	77	0	0
Major/Minor	Major1			Major2			Minor1			Minor2				
Conflicting Flow All	856	0	0	1149	0	0	-	-	575	-	-	428		
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-		
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9		
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-		
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3		
Pot Cap-1 Maneuver	793	-	-	615	-	-	0	0	466	0	0	581		
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-		
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-		
Platoon blocked, %		-	-		-	-								
Mov Cap-1 Maneuver	793	-	-	615	-	-	-	-	466	-	-	581		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-		
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-		
Approach	EB			WB			NB			SB				
HCM Control Delay, s	0.2			1.6			16			12.1				
HCM LOS							C			B				
Minor Lane/Major Mvmt	NBLn1		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	466		793	-	-	615	-	-	581					
HCM Lane V/C Ratio	0.3		0.037	-	-	0.208	-	-	0.133					
HCM Control Delay (s)	16		9.7	-	-	12.4	-	-	12.1					
HCM Lane LOS	C		A	-	-	B	-	-	B					
HCM 95th %tile Q(veh)	1.2		0.1	-	-	0.8	-	-	0.5					

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	117	479	85	10	424	44	41	12	15	65	65
Future Volume (vph)	117	479	85	10	424	44	41	12	15	65	65
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		2			6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Total Split (s)	14.0	37.2	37.2	9.6	32.8	33.2	33.2	33.2	33.2	33.2	33.2
Total Split (%)	17.5%	46.5%	46.5%	12.0%	41.0%	41.5%	41.5%	41.5%	41.5%	41.5%	41.5%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	9.0	39.4	39.4	5.1	27.3		13.3	13.3	13.3	13.3	13.3
Actuated g/C Ratio	0.14	0.60	0.60	0.08	0.41		0.20	0.20	0.20	0.20	0.20
v/c Ratio	0.68	0.60	0.12	0.10	0.84		0.40	0.04	0.08	0.24	0.23
Control Delay	44.6	15.0	3.1	33.3	31.1		26.5	0.2	20.9	23.0	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	44.6	15.0	3.1	33.3	31.1		26.5	0.2	20.9	23.0	5.8
LOS	D	B	A	C	C		C	A	C	C	A
Approach Delay		18.6			31.2		23.3			15.0	
Approach LOS		B			C		C			B	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 66

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 22.8

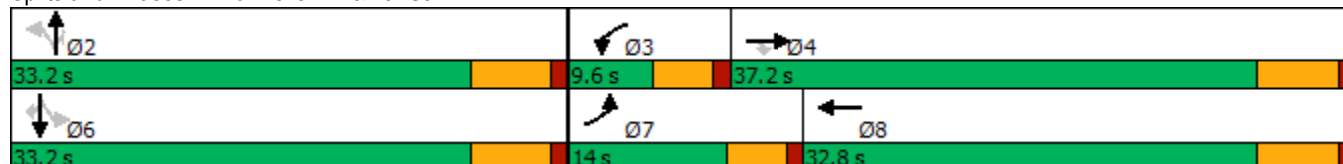
Intersection LOS: C

Intersection Capacity Utilization 56.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	117	479	85	10	424	33	44	41	12	15	65	65	
Future Volume (veh/h)	117	479	85	10	424	33	44	41	12	15	65	65	
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No			No			No			No			
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	167	684	121	14	606	47	63	59	17	21	93	0	
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0	
Cap, veh/h	212	951	806	32	698	54	214	170	296	285	349		
Arrive On Green	0.12	0.50	0.50	0.02	0.40	0.40	0.18	0.18	0.18	0.18	0.18	0.00	
Sat Flow, veh/h	1810	1900	1610	1810	1741	135	618	925	1610	1344	1900	1610	
Grp Volume(v), veh/h	167	684	121	14	0	653	122	0	17	21	93	0	
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1876	1543	0	1610	1344	1900	1610	
Q Serve(g_s), s	4.9	15.3	2.2	0.4	0.0	17.4	1.6	0.0	0.5	0.8	2.3	0.0	
Cycle Q Clear(g_c), s	4.9	15.3	2.2	0.4	0.0	17.4	3.8	0.0	0.5	4.6	2.3	0.0	
Prop In Lane	1.00		1.00	1.00		0.07	0.52		1.00	1.00		1.00	
Lane Grp Cap(c), veh/h	212	951	806	32	0	752	384	0	296	285	349		
V/C Ratio(X)	0.79	0.72	0.15	0.44	0.00	0.87	0.32	0.00	0.06	0.07	0.27		
Avail Cap(c_a), veh/h	313	1097	930	166	0	931	881	0	811	715	957		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	23.3	10.6	7.3	26.4	0.0	15.0	19.6	0.0	18.3	21.7	19.0	0.0	
Incr Delay (d2), s/veh	4.3	2.0	0.1	3.5	0.0	7.5	0.5	0.0	0.1	0.1	0.4	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	2.1	4.8	0.5	0.2	0.0	7.0	1.2	0.0	0.2	0.2	0.9	0.0	
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh	27.6	12.5	7.4	30.0	0.0	22.4	20.0	0.0	18.4	21.8	19.4	0.0	
LnGrp LOS	C	B	A	C	A	C	C	A	B	C	B		
Approach Vol, veh/h	972				667				139		114		A
Approach Delay, s/veh	14.5				22.6				19.8		19.9		
Approach LOS	B				C				B		B		
Timer - Assigned Phs	2		3	4	6		7	8					
Phs Duration (G+Y+Rc), s	15.8		5.6	33.0	15.8		11.0	27.6					
Change Period (Y+Rc), s	5.8		4.6	5.8	5.8		4.6	5.8					
Max Green Setting (Gmax), s	27.4		5.0	31.4	27.4		9.4	27.0					
Max Q Clear Time (g_c+I1), s	5.8		2.4	17.3	6.6		6.9	19.4					
Green Ext Time (p_c), s	0.6		0.0	4.0	0.4		0.1	2.4					

Intersection Summary

HCM 6th Ctrl Delay 18.1

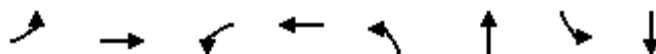
HCM 6th LOS B

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)
07/14/2020



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	21	498	292	294	304	142	15	85
Future Volume (vph)	21	498	292	294	304	142	15	85
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	9.6	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.9	24.7	20.1	34.9	21.0	35.6	9.6	24.2
Total Split (%)	11.0%	27.4%	22.3%	38.8%	23.3%	39.6%	10.7%	26.9%
Yellow Time (s)	3.6	3.8	3.6	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.6	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.2	19.7	15.5	35.8	16.4	38.1	5.0	19.0
Actuated g/C Ratio	0.06	0.22	0.17	0.40	0.18	0.42	0.06	0.21
v/c Ratio	0.21	0.90	0.99	0.22	0.97	0.51	0.16	0.26
Control Delay	45.5	47.4	87.5	19.1	82.1	17.4	44.3	29.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Total Delay	45.5	47.4	87.5	19.1	82.1	17.7	44.3	29.5
LOS	D	D	F	B	F	B	D	C
Approach Delay		47.3		52.5		46.1		31.6
Approach LOS		D		D		D		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 89.8

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay: 47.5

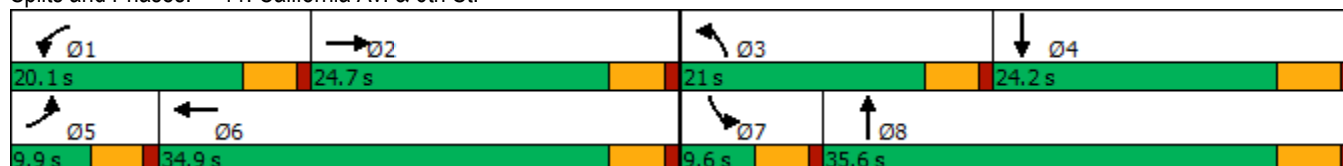
Intersection LOS: D

Intersection Capacity Utilization 71.6%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	498	188	292	294	11	304	142	244	15	85	12
Future Volume (veh/h)	21	498	188	292	294	11	304	142	244	15	85	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	524	145	307	309	7	320	149	226	16	89	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	43	595	164	315	1311	30	333	258	392	33	371	29
Arrive On Green	0.02	0.21	0.21	0.17	0.36	0.36	0.18	0.38	0.38	0.02	0.21	0.21
Sat Flow, veh/h	1810	2796	770	1810	3609	82	1810	681	1033	1810	1739	137
Grp Volume(v), veh/h	22	337	332	307	154	162	320	0	375	16	0	96
Grp Sat Flow(s),veh/h/ln	1810	1805	1761	1810	1805	1885	1810	0	1714	1810	0	1875
Q Serve(g_s), s	1.1	16.1	16.3	15.0	5.3	5.3	15.6	0.0	15.5	0.8	0.0	3.8
Cycle Q Clear(g_c), s	1.1	16.1	16.3	15.0	5.3	5.3	15.6	0.0	15.5	0.8	0.0	3.8
Prop In Lane	1.00		0.44	1.00		0.04	1.00		0.60	1.00		0.07
Lane Grp Cap(c), veh/h	43	384	375	315	656	685	333	0	650	33	0	400
V/C Ratio(X)	0.52	0.88	0.88	0.97	0.24	0.24	0.96	0.00	0.58	0.48	0.00	0.24
Avail Cap(c_a), veh/h	108	403	394	315	656	685	333	0	650	102	0	400
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.0	33.9	34.0	36.6	19.7	19.7	36.0	0.0	22.0	43.3	0.0	29.0
Incr Delay (d2), s/veh	3.6	18.7	20.0	43.6	0.2	0.2	38.5	0.0	3.7	4.0	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	8.9	8.9	10.3	2.2	2.3	10.0	0.0	6.3	0.4	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.5	52.6	53.9	80.2	19.9	19.9	74.5	0.0	25.7	47.3	0.0	30.5
LnGrp LOS	D	D	D	F	B	B	E	A	C	D	A	C
Approach Vol, veh/h		691			623			695			112	
Approach Delay, s/veh		53.1			49.6			48.1			32.9	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.1	23.8	21.0	24.2	6.7	37.2	6.2	39.0				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	15.5	* 20	16.4	19.0	5.3	* 30	5.0	30.4				
Max Q Clear Time (g_c+I1), s	17.0	18.3	17.6	5.8	3.1	7.3	2.8	17.5				
Green Ext Time (p_c), s	0.0	0.7	0.0	0.3	0.0	1.8	0.0	1.7				

Intersection Summary

HCM 6th Ctrl Delay 49.4

HCM 6th LOS D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	Ø1
Lane Configurations		↶	↷		↶	↷	↷	↶	↷	↶	↷	
Traffic Volume (vph)	5	3	94	49	3	22	194	659	36	496	7	
Future Volume (vph)	5	3	94	49	3	22	194	659	36	496	7	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	NA	Perm	
Protected Phases		4			8		5	2		6		1
Permitted Phases	4		4	8		8			2		6	
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.6	27.8	27.8	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	14.0	83.8	83.8	79.4	79.4	9.6
Total Split (%)	22.2%	22.2%	22.2%	22.2%	22.2%	22.2%	11.7%	69.8%	69.8%	66.2%	66.2%	8%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6	4.6	4.6	5.8	5.8	5.8	5.8	
Lead/Lag							Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	Min	Min	None
Act Effect Green (s)		12.5	12.5		12.5	12.5	9.4	87.7	87.7	73.7	73.7	
Actuated g/C Ratio		0.11	0.11		0.11	0.11	0.08	0.79	0.79	0.67	0.67	
v/c Ratio		0.04	0.37		0.35	0.10	1.33	0.46	0.03	9.45	0.01	
Control Delay		42.9	12.6		51.3	0.8	226.2	5.4	0.6	3842.4	0.0	
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.7	0.0	0.0	0.0	
Total Delay		42.9	12.6		51.3	0.8	226.2	6.0	0.6	3842.4	0.0	
LOS		D	B		D	A	F	A	A	F	A	
Approach Delay		14.8			36.4			53.8		3792.2		
Approach LOS		B			D			D		F		

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 110.6

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 9.45

Intersection Signal Delay: 1259.8

Intersection LOS: F

Intersection Capacity Utilization 84.2%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 12: California Av. & 5th St.

 Ø1 9.6 s	 Ø2 83.8 s	 Ø4 26.6 s
 Ø5 14 s	 Ø6 79.4 s	 Ø8 26.6 s

HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	3	94	49	3	22	194	659	36	7	496	7
Future Volume (veh/h)	5	3	94	49	3	22	194	659	36	7	496	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	5	3	99	52	3	23	204	694	38	7	522	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	110	45	441	144	5	441	245	1042	883	0	635	539
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.14	0.55	0.55	0.00	0.33	0.33
Sat Flow, veh/h	36	164	1610	88	19	1610	1810	1900	1610	0	1900	1610
Grp Volume(v), veh/h	8	0	99	55	0	23	204	694	38	0	522	7
Grp Sat Flow(s),veh/h/ln	200	0	1610	107	0	1610	1810	1900	1610	0	1900	1610
Q Serve(g_s), s	0.1	0.0	2.8	1.1	0.0	0.6	6.4	15.2	0.6	0.0	14.7	0.2
Cycle Q Clear(g_c), s	15.5	0.0	2.8	16.0	0.0	0.6	6.4	15.2	0.6	0.0	14.7	0.2
Prop In Lane	0.62		1.00	0.95		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	155	0	441	149	0	441	245	1042	883	0	635	539
V/C Ratio(X)	0.05	0.00	0.22	0.37	0.00	0.05	0.83	0.67	0.04	0.00	0.82	0.01
Avail Cap(c_a), veh/h	314	0	605	285	0	605	291	2533	2147	0	2390	2026
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	0.0	16.4	27.9	0.0	15.6	24.7	9.4	6.1	0.0	17.9	13.0
Incr Delay (d2), s/veh	0.1	0.0	0.3	1.5	0.0	0.0	14.0	0.7	0.0	0.0	2.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	1.0	0.8	0.0	0.2	3.4	4.3	0.2	0.0	5.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.4	0.0	16.7	29.4	0.0	15.7	38.7	10.1	6.1	0.0	20.6	13.0
LnGrp LOS	B	A	B	C	A	B	D	B	A	A	C	B
Approach Vol, veh/h		107			78			936			529	
Approach Delay, s/veh		16.7			25.4			16.2			20.5	
Approach LOS		B			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	38.3		21.2	12.6	25.6		21.2				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	78.0		22.0	9.4	73.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	17.2		17.5	8.4	16.7		18.0				
Green Ext Time (p_c), s	0.0	5.1		0.1	0.0	3.4		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			18.0									
HCM 6th LOS			B									

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	363	182	126	546	1059	365
Future Volume (vph)	363	182	126	546	1059	365
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	47.0	47.0	21.0	73.0	52.0	47.0
Total Split (%)	39.2%	39.2%	17.5%	60.8%	43.3%	39.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	Min	Min	None
Act Effect Green (s)	27.6	27.6	11.7	53.3	36.7	70.5
Actuated g/C Ratio	0.30	0.30	0.13	0.57	0.39	0.76
v/c Ratio	0.74	0.32	0.61	0.29	0.81	0.31
Control Delay	40.1	5.5	54.9	11.3	31.7	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.1	5.5	54.9	11.3	31.7	1.5
LOS	D	A	D	B	C	A
Approach Delay	28.5			19.5	24.0	
Approach LOS	C			B	C	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 93.2

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 23.8

Intersection LOS: C

Intersection Capacity Utilization 69.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↰	↱	↰	↗	↗	↰
Traffic Volume (veh/h)	363	182	126	546	1059	365
Future Volume (veh/h)	363	182	126	546	1059	365
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	395	198	137	593	1151	397
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	467	416	174	2119	1550	1107
Arrive On Green	0.26	0.26	0.10	0.59	0.43	0.43
Sat Flow, veh/h	1810	1610	1810	3705	3705	1610
Grp Volume(v), veh/h	395	198	137	593	1151	397
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1805	1805	1610
Q Serve(g_s), s	15.5	7.8	5.5	6.1	20.0	7.7
Cycle Q Clear(g_c), s	15.5	7.8	5.5	6.1	20.0	7.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	467	416	174	2119	1550	1107
V/C Ratio(X)	0.85	0.48	0.79	0.28	0.74	0.36
Avail Cap(c_a), veh/h	996	886	396	3240	2228	1409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	23.5	33.1	7.6	17.9	4.9
Incr Delay (d2), s/veh	4.3	0.8	3.0	0.1	0.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.6	7.3	2.4	1.8	7.2	4.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.7	24.3	36.1	7.7	18.7	5.0
LnGrp LOS	C	C	D	A	B	A
Approach Vol, veh/h	593			730	1548	
Approach Delay, s/veh	28.6			13.0	15.2	
Approach LOS	C			B	B	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	49.7			25.1	11.8	37.9
Change Period (Y+Rc), s	5.8			5.8	4.6	5.8
Max Green Setting (Gmax), s	67.2			41.2	16.4	46.2
Max Q Clear Time (g_c+I1), s	8.1			17.5	7.5	22.0
Green Ext Time (p_c), s	4.1			1.8	0.1	10.2
Intersection Summary						
HCM 6th Ctrl Delay			17.4			
HCM 6th LOS			B			

APPENDIX 8.9:

OPENING YEAR (2027) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Timings
2: Potrero Bl. & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↗
Traffic Volume (vph)	327	45	430	349	66	309
Future Volume (vph)	327	45	430	349	66	309
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	33.2	33.2	9.6	24.2	38.2	38.2
Total Split (s)	33.2	33.2	23.0	56.2	38.8	38.8
Total Split (%)	34.9%	34.9%	24.2%	59.2%	40.8%	40.8%
Yellow Time (s)	5.2	5.2	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.6	6.2	6.2	6.2
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	13.5	13.5	19.2	37.5	13.4	13.4
Actuated g/C Ratio	0.21	0.21	0.30	0.59	0.21	0.21
v/c Ratio	0.50	0.14	0.92	0.19	0.20	0.58
Control Delay	24.9	8.2	49.9	7.3	22.3	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.9	8.2	49.9	7.3	22.3	6.8
LOS	C	A	D	A	C	A
Approach Delay	22.9			30.8	9.6	
Approach LOS	C			C	A	

Intersection Summary

Cycle Length: 95

Actuated Cycle Length: 63.9

Natural Cycle: 105

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 23.6

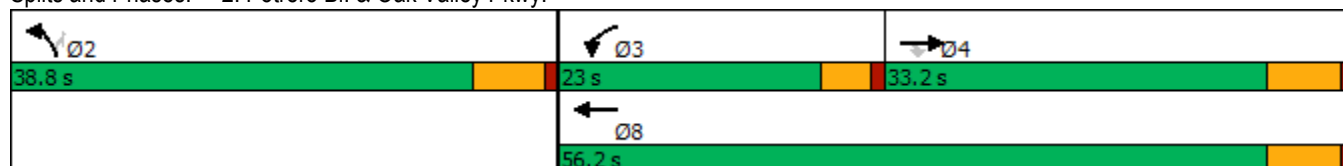
Intersection LOS: C

Intersection Capacity Utilization 55.4%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 2: Potrero Bl. & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
2: Potrero Bl. & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↙	↑↑	↙	↗
Traffic Volume (veh/h)	327	45	430	349	66	309
Future Volume (veh/h)	327	45	430	349	66	309
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	380	52	500	406	77	359
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	597	266	537	1935	478	425
Arrive On Green	0.17	0.17	0.30	0.54	0.26	0.26
Sat Flow, veh/h	3705	1610	1810	3705	1810	1610
Grp Volume(v), veh/h	380	52	500	406	77	359
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1810	1610
Q Serve(g_s), s	6.1	1.7	16.7	3.6	2.0	13.1
Cycle Q Clear(g_c), s	6.1	1.7	16.7	3.6	2.0	13.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	597	266	537	1935	478	425
V/C Ratio(X)	0.64	0.20	0.93	0.21	0.16	0.84
Avail Cap(c_a), veh/h	1571	701	537	2909	951	846
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	22.3	21.2	7.5	17.5	21.6
Incr Delay (d2), s/veh	1.1	0.4	22.9	0.1	0.2	4.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.6	9.2	1.0	0.7	4.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.3	22.7	44.1	7.6	17.7	26.3
LnGrp LOS	C	C	D	A	B	C
Approach Vol, veh/h	432			906	436	
Approach Delay, s/veh	25.0			27.8	24.7	
Approach LOS	C			C	C	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		22.6	23.0	16.5		39.5
Change Period (Y+Rc), s		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s		32.6	18.4	27.0		50.0
Max Q Clear Time (g_c+I1), s		15.1	18.7	8.1		5.6
Green Ext Time (p_c), s		1.3	0.0	2.2		2.5
Intersection Summary						
HCM 6th Ctrl Delay			26.3			
HCM 6th LOS			C			

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	10	0	59	0	114	5	49	665	0
Future Vol, veh/h	0	0	0	10	0	59	0	114	5	49	665	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	15	0	91	0	175	8	75	1023	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	841	1352	92	-	0	0
Stage 1	179	179	-	-	-	-
Stage 2	662	1173	-	-	-	-
Critical Hdwy	6.8	6.5	6.9	-	-	4.1
Critical Hdwy Stg 1	5.8	5.5	-	-	-	-
Critical Hdwy Stg 2	5.8	5.5	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	-	-	2.2
Pot Cap-1 Maneuver	308	151	954	0	-	1404
Stage 1	840	755	-	0	-	-
Stage 2	480	268	-	0	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	292	0	954	-	-	1404
Mov Cap-2 Maneuver	381	0	-	-	-	-
Stage 1	840	0	-	-	-	-
Stage 2	455	0	-	-	-	-

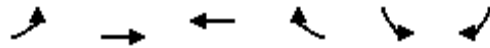
Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	783	1404
HCM Lane V/C Ratio	-	-	0.136	0.054
HCM Control Delay (s)	-	-	10.3	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0.2

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

07/14/2020

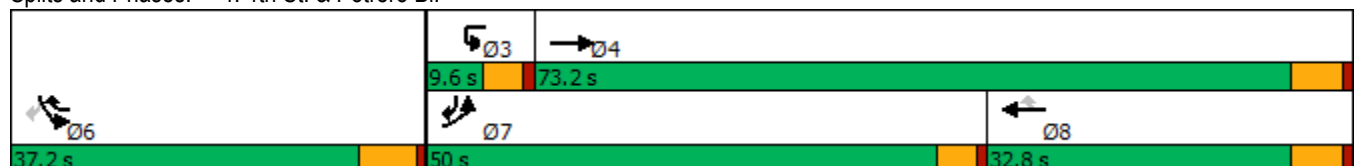


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	679	106	134	651	463	1063	
Future Volume (vph)	679	106	134	651	463	1063	
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov	
Protected Phases	7	4	8	6	6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	6	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	32.8	33.2	33.2	9.6	9.6
Total Split (s)	50.0	73.2	32.8	37.2	37.2	50.0	9.6
Total Split (%)	41.7%	61.0%	27.3%	31.0%	31.0%	41.7%	8%
Yellow Time (s)	3.6	4.8	4.8	5.2	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	6.2	6.2	4.6	
Lead/Lag	Lead	Lag	Lag			Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes
Recall Mode	None	None	None	Min	Min	None	None
Act Effect Green (s)	45.5	66.0	15.9	52.8	31.1	82.7	
Actuated g/C Ratio	0.42	0.60	0.15	0.48	0.29	0.76	
v/c Ratio	0.65	0.13	0.68	1.15	0.65	1.14	
Control Delay	28.4	9.4	55.8	106.7	38.2	87.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	28.4	9.4	55.8	106.7	38.2	87.6	
LOS	C	A	E	F	D	F	
Approach Delay		25.8	98.0		72.6		
Approach LOS		C	F		E		

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 109.1	
Natural Cycle: 150	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay: 67.2	Intersection LOS: E
Intersection Capacity Utilization 82.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	679	106	0	134	651	463	1063
Future Volume (veh/h)	679	106	0	134	651	463	1063
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	1013	158		200	524	691	990
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	1112	1162		473	898	1084	1007
Arrive On Green	0.30	0.59		0.24	0.24	0.30	0.30
Sat Flow, veh/h	3651	1976		1976	1675	3651	1675
Grp Volume(v), veh/h	1013	158		200	524	691	990
Grp Sat Flow(s),veh/h/ln	1825	1976		1976	1675	1825	1675
Q Serve(g_s), s	27.9	3.7		8.9	22.0	17.1	31.0
Cycle Q Clear(g_c), s	27.9	3.7		8.9	22.0	17.1	31.0
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1112	1162		473	898	1084	1007
V/C Ratio(X)	0.91	0.14		0.42	0.58	0.64	0.98
Avail Cap(c_a), veh/h	1588	1276		511	930	1084	1007
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.9	9.6		33.6	16.3	31.8	20.3
Incr Delay (d2), s/veh	4.9	0.1		0.6	0.9	1.3	24.2
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.4	1.5		4.2	13.5	7.3	6.8
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	39.9	9.7		34.2	17.2	33.1	44.4
LnGrp LOS	D	A		C	B	C	D
Approach Vol, veh/h		1171		724		1681	
Approach Delay, s/veh		35.8		21.9		39.8	
Approach LOS		D		C		D	
Timer - Assigned Phs				4		6	7 8
Phs Duration (G+Y+Rc), s				67.2		37.2	36.4 30.8
Change Period (Y+Rc), s				5.8		6.2	4.6 5.8
Max Green Setting (Gmax), s				67.4		31.0	45.4 27.0
Max Q Clear Time (g_c+l1), s				5.7		33.0	29.9 24.0
Green Ext Time (p_c), s				0.8		0.0	1.9 1.0
Intersection Summary							
HCM 6th Ctrl Delay			34.8				
HCM 6th LOS			C				
Notes							
User approved ignoring U-Turning movement.							

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020

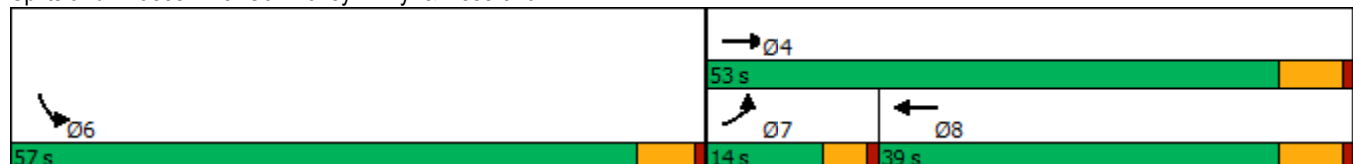


Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	96	749	705	553
Future Volume (vph)	96	749	705	553
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	16.2	28.2	37.8
Total Split (s)	14.0	53.0	39.0	57.0
Total Split (%)	12.7%	48.2%	35.5%	51.8%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effect Green (s)	8.8	43.5	30.0	46.6
Actuated g/C Ratio	0.09	0.43	0.29	0.46
v/c Ratio	0.71	0.56	0.80	0.94
Control Delay	73.0	24.4	35.3	47.1
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	73.0	24.4	35.3	47.1
LOS	E	C	D	D
Approach Delay		29.9	35.3	47.1
Approach LOS		C	D	D

Intersection Summary

Cycle Length: 110
 Actuated Cycle Length: 102.3
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 36.6
 Intersection LOS: D
 Intersection Capacity Utilization 78.7%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

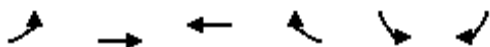


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	96	749	705	365	553	116
Future Volume (veh/h)	96	749	705	365	553	116
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	110	861	810	420	636	133
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	138	1532	1046	487	667	140
Arrive On Green	0.08	0.42	0.30	0.30	0.46	0.46
Sat Flow, veh/h	1810	3705	3629	1610	1463	306
Grp Volume(v), veh/h	110	861	810	420	770	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1729	1610	1772	0
Q Serve(g_s), s	6.0	18.1	21.4	24.7	42.0	0.0
Cycle Q Clear(g_c), s	6.0	18.1	21.4	24.7	42.0	0.0
Prop In Lane	1.00			1.00	0.83	0.17
Lane Grp Cap(c), veh/h	138	1532	1046	487	808	0
V/C Ratio(X)	0.80	0.56	0.77	0.86	0.95	0.00
Avail Cap(c_a), veh/h	169	1683	1130	526	904	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.6	21.8	31.9	33.0	26.3	0.0
Incr Delay (d2), s/veh	15.6	0.4	3.2	13.1	18.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	7.0	8.9	10.8	20.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	61.3	22.2	35.1	46.1	44.8	0.0
LnGrp LOS	E	C	D	D	D	A
Approach Vol, veh/h		971	1230		770	
Approach Delay, s/veh		26.6	38.9		44.8	
Approach LOS		C	D		D	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			48.8		51.6	12.2
Change Period (Y+Rc), s			6.2		5.8	4.6
Max Green Setting (Gmax), s			46.8		51.2	9.4
Max Q Clear Time (g_c+I1), s			20.1		44.0	8.0
Green Ext Time (p_c), s			5.7		1.8	0.0
Intersection Summary						
HCM 6th Ctrl Delay			36.4			
HCM 6th LOS			D			
Notes						

User approved volume balancing among the lanes for turning movement.

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations	↑↑	↑	↙	↑↑	↘	↓
Traffic Volume (vph)	742	561	300	720	305	3
Future Volume (vph)	742	561	300	720	305	3
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	31.0	31.0	28.0	59.0	31.0	31.0
Total Split (%)	34.4%	34.4%	31.1%	65.6%	34.4%	34.4%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effect Green (s)	34.7	34.7	20.2	59.5	18.9	18.9
Actuated g/C Ratio	0.39	0.39	0.22	0.66	0.21	0.21
v/c Ratio	0.60	0.62	0.83	0.34	0.47	0.82
Control Delay	26.8	5.5	48.5	3.1	32.2	31.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.8	5.5	48.5	3.1	32.2	31.7
LOS	C	A	D	A	C	C
Approach Delay	17.6			16.5		31.9
Approach LOS	B			B		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 20.4

Intersection LOS: C

Intersection Capacity Utilization 89.1%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

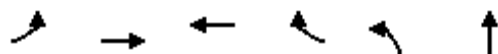
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑					↑↑	↑	
Traffic Volume (veh/h)	0	742	561	300	720	0	0	0	0	305	3	349
Future Volume (veh/h)	0	742	561	300	720	0	0	0	0	305	3	349
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	834	543	337	809	0				343	3	373
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89				0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1273	568	376	2208	0				911	3	415
Arrive On Green	0.00	0.35	0.35	0.14	0.41	0.00				0.26	0.26	0.26
Sat Flow, veh/h	0	3705	1610	1810	3705	0				3510	13	1599
Grp Volume(v), veh/h	0	834	543	337	809	0				343	0	376
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1805	0				1755	0	1612
Q Serve(g_s), s	0.0	17.5	29.6	16.5	14.0	0.0				7.2	0.0	20.3
Cycle Q Clear(g_c), s	0.0	17.5	29.6	16.5	14.0	0.0				7.2	0.0	20.3
Prop In Lane	0.00		1.00	1.00		0.00				1.00		0.99
Lane Grp Cap(c), veh/h	0	1273	568	376	2208	0				911	0	418
V/C Ratio(X)	0.00	0.66	0.96	0.90	0.37	0.00				0.38	0.00	0.90
Avail Cap(c_a), veh/h	0	1273	568	470	2208	0				983	0	451
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.59	0.59	0.69	0.69	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	24.5	28.5	37.8	14.4	0.0				27.4	0.0	32.2
Incr Delay (d2), s/veh	0.0	1.6	20.2	11.0	0.3	0.0				0.3	0.0	19.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.1	13.5	8.5	5.8	0.0				2.9	0.0	9.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	26.1	48.7	48.7	14.8	0.0				27.6	0.0	51.9
LnGrp LOS	A	C	D	D	B	A				C	A	D
Approach Vol, veh/h		1377			1146						719	
Approach Delay, s/veh		35.0			24.8						40.3	
Approach LOS		C			C						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	23.3	37.5		29.1		60.9						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	23.4	25.2		25.2		53.2						
Max Q Clear Time (g_c+I1), s	18.5	31.6		22.3		16.0						
Green Ext Time (p_c), s	0.2	0.0		1.1		5.8						
Intersection Summary												
HCM 6th Ctrl Delay				32.6								
HCM 6th LOS				C								

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations	↰	↗↗	↗↗	↰	↰	↗
Traffic Volume (vph)	291	755	631	529	390	5
Future Volume (vph)	291	755	631	529	390	5
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	24.0	54.0	30.0	30.0	36.0	36.0
Total Split (%)	26.7%	60.0%	33.3%	33.3%	40.0%	40.0%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effect Green (s)	17.6	44.6	22.4	22.4	33.8	33.8
Actuated g/C Ratio	0.20	0.50	0.25	0.25	0.38	0.38
v/c Ratio	0.84	0.43	0.72	0.67	0.59	0.62
Control Delay	43.0	15.6	35.7	7.1	28.2	19.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.0	15.6	35.7	7.1	28.2	19.4
LOS	D	B	D	A	C	B
Approach Delay		23.3	22.6			23.6
Approach LOS		C	C			C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 23.1

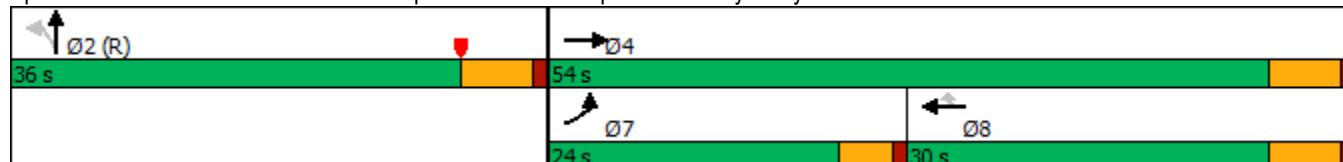
Intersection LOS: C

Intersection Capacity Utilization 89.1%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	291	755	0	0	631	529	390	5	427	0	0	0
Future Volume (veh/h)	291	755	0	0	631	529	390	5	427	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	297	770	0	0	644	424	398	5	314			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	333	1819	0	0	971	433	664	9	583			
Arrive On Green	0.18	0.50	0.00	0.00	0.27	0.27	0.37	0.37	0.37			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	1810	25	1589			
Grp Volume(v), veh/h	297	770	0	0	644	424	398	0	319			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1614			
Q Serve(g_s), s	14.4	12.1	0.0	0.0	14.3	23.5	16.1	0.0	14.0			
Cycle Q Clear(g_c), s	14.4	12.1	0.0	0.0	14.3	23.5	16.1	0.0	14.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.98			
Lane Grp Cap(c), veh/h	333	1819	0	0	971	433	664	0	593			
V/C Ratio(X)	0.89	0.42	0.00	0.00	0.66	0.98	0.60	0.00	0.54			
Avail Cap(c_a), veh/h	390	1933	0	0	971	433	664	0	593			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.81	0.81	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	35.9	14.1	0.0	0.0	29.3	32.7	23.1	0.0	22.5			
Incr Delay (d2), s/veh	15.5	0.1	0.0	0.0	1.7	37.7	4.0	0.0	3.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	7.4	4.4	0.0	0.0	6.0	13.0	7.0	0.0	5.4			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.3	14.2	0.0	0.0	31.0	70.4	27.1	0.0	25.9			
LnGrp LOS	D	B	A	A	C	E	C	A	C			
Approach Vol, veh/h	1067			1068			717					
Approach Delay, s/veh	24.5			46.6			26.6					
Approach LOS	C			D			C					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	38.8			51.2			21.2			30.0		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	30.2			48.2			19.4			24.2		
Max Q Clear Time (g_c+I1), s	18.1			14.1			16.4			25.5		
Green Ext Time (p_c), s	2.6			5.4			0.1			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	33.3											
HCM 6th LOS	C											

Intersection														
Int Delay, s/veh	2.7													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SER
Lane Configurations														
Traffic Vol, veh/h	27	636	159	171	980	29	0	0	70	0	0	173	0	0
Future Vol, veh/h	27	636	159	171	980	29	0	0	70	0	0	173	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	-	-	None	-	-	-	-	-
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	30	699	175	188	1077	32	0	0	77	0	0	190	0	0
Major/Minor	Major1			Major2			Minor1			Minor2				
Conflicting Flow All	1109	0	0	874	0	0	-	-	437	-	-	555		
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-		
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9		
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-		
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3		
Pot Cap-1 Maneuver	637	-	-	781	-	-	0	0	573	0	0	480		
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-		
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-		
Platoon blocked, %		-	-		-	-								
Mov Cap-1 Maneuver	637	-	-	781	-	-	-	-	573	-	-	480		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-		
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-		
Approach	EB			WB			NB			SB				
HCM Control Delay, s	0.4			1.6			12.3			17.3				
HCM LOS							B			C				
Minor Lane/Major Mvmt	NBLn1		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	573		637	-	-	781	-	-	480					
HCM Lane V/C Ratio	0.134		0.047	-	-	0.241	-	-	0.396					
HCM Control Delay (s)	12.3		10.9	-	-	11.1	-	-	17.3					
HCM Lane LOS	B		B	-	-	B	-	-	C					
HCM 95th %tile Q(veh)	0.5		0.1	-	-	0.9	-	-	1.9					

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	38	95	26	3	615	79	31	6	24	33	130
Future Volume (vph)	38	95	26	3	615	79	31	6	24	33	130
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		2			6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Total Split (s)	10.0	35.4	35.4	9.6	35.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	12.5%	44.3%	44.3%	12.0%	43.8%	43.8%	43.8%	43.8%	43.8%	43.8%	43.8%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effect Green (s)	5.4	33.9	33.9	5.1	30.0		13.9	13.9	13.9	13.9	13.9
Actuated g/C Ratio	0.09	0.55	0.55	0.08	0.49		0.23	0.23	0.23	0.23	0.23
v/c Ratio	0.32	0.12	0.04	0.03	0.92		0.45	0.02	0.11	0.10	0.35
Control Delay	35.9	9.6	0.1	31.7	35.3		25.5	0.0	20.1	19.6	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	35.9	9.6	0.1	31.7	35.3		25.5	0.0	20.1	19.6	5.7
LOS	D	A	A	C	D		C	A	C	B	A
Approach Delay		14.4			35.3		24.2			10.0	
Approach LOS		B			D		C			B	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 61.2

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.92

Intersection Signal Delay: 26.8

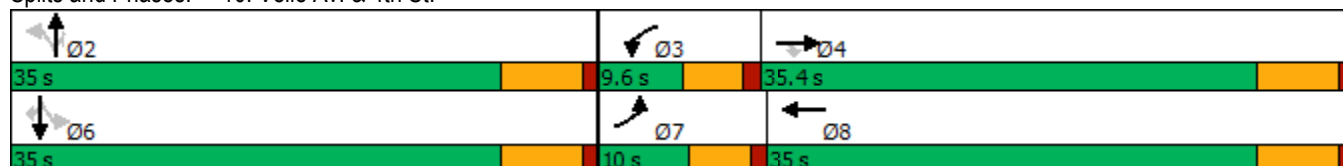
Intersection LOS: C

Intersection Capacity Utilization 64.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	95	26	3	615	22	79	31	6	24	33	130
Future Volume (veh/h)	38	95	26	3	615	22	79	31	6	24	33	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	51	127	35	4	820	29	105	41	8	32	44	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	88	1007	854	10	888	31	280	93	285	246	337	
Arrive On Green	0.05	0.53	0.53	0.01	0.49	0.49	0.18	0.18	0.18	0.18	0.18	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1824	65	959	523	1610	1378	1900	1610
Grp Volume(v), veh/h	51	127	35	4	0	849	146	0	8	32	44	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1888	1481	0	1610	1378	1900	1610
Q Serve(g_s), s	1.6	1.9	0.6	0.1	0.0	23.6	4.0	0.0	0.2	1.2	1.1	0.0
Cycle Q Clear(g_c), s	1.6	1.9	0.6	0.1	0.0	23.6	5.1	0.0	0.2	6.4	1.1	0.0
Prop In Lane	1.00		1.00	1.00		0.03	0.72		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	88	1007	854	10	0	919	372	0	285	246	337	
V/C Ratio(X)	0.58	0.13	0.04	0.41	0.00	0.92	0.39	0.00	0.03	0.13	0.13	
Avail Cap(c_a), veh/h	173	1007	854	160	0	978	882	0	834	715	984	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.3	6.7	6.4	28.0	0.0	13.5	21.2	0.0	19.2	24.1	19.5	0.0
Incr Delay (d2), s/veh	2.2	0.1	0.0	9.9	0.0	13.5	0.7	0.0	0.0	0.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.5	0.1	0.1	0.0	10.4	1.6	0.0	0.1	0.4	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.5	6.7	6.4	37.9	0.0	27.0	21.9	0.0	19.2	24.3	19.7	0.0
LnGrp LOS	C	A	A	D	A	C	C	A	B	C	B	
Approach Vol, veh/h		213			853			154			76	A
Approach Delay, s/veh		11.9			27.0			21.7			21.7	
Approach LOS		B			C			C			C	
Timer - Assigned Phs		2	3	4		6	7	8				
Phs Duration (G+Y+Rc), s		15.8	4.9	35.7		15.8	7.4	33.3				
Change Period (Y+Rc), s		5.8	4.6	5.8		5.8	4.6	5.8				
Max Green Setting (Gmax), s		29.2	5.0	29.6		29.2	5.4	29.2				
Max Q Clear Time (g_c+I1), s		7.1	2.1	3.9		8.4	3.6	25.6				
Green Ext Time (p_c), s		0.7	0.0	0.7		0.2	0.0	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			23.6									
HCM 6th LOS			C									
Notes												
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.												

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	314	297	312	449	104	49	202
Future Volume (vph)	4	314	297	312	449	104	49	202
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	9.6	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	24.2	21.2	35.8	30.4	42.9	11.7	24.2
Total Split (%)	9.6%	24.2%	21.2%	35.8%	30.4%	42.9%	11.7%	24.2%
Yellow Time (s)	3.6	3.8	3.6	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.6	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.0	16.9	16.6	36.2	25.8	40.4	6.4	19.0
Actuated g/C Ratio	0.05	0.17	0.17	0.37	0.26	0.41	0.07	0.19
v/c Ratio	0.04	0.75	1.05	0.27	1.02	0.23	0.45	0.61
Control Delay	46.2	41.7	107.0	22.2	84.3	17.5	56.5	44.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.2	41.7	107.0	22.2	84.3	17.5	56.5	44.2
LOS	D	D	F	C	F	B	E	D
Approach Delay		41.7		62.2		66.4		46.5
Approach LOS		D		E		E		D

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 97.5

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 56.8

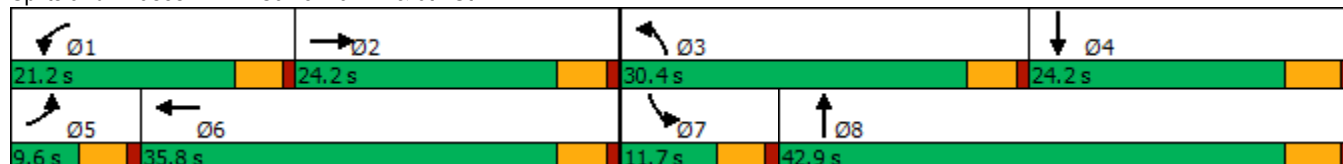
Intersection LOS: E

Intersection Capacity Utilization 81.1%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	314	129	297	312	22	449	104	60	49	202	5
Future Volume (veh/h)	4	314	129	297	312	22	449	104	60	49	202	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	341	86	323	339	15	488	113	43	53	220	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	434	108	316	1130	50	491	566	216	72	374	5
Arrive On Green	0.01	0.15	0.15	0.17	0.32	0.32	0.27	0.43	0.43	0.04	0.20	0.20
Sat Flow, veh/h	1810	2864	713	1810	3522	155	1810	1311	499	1810	1870	25
Grp Volume(v), veh/h	4	213	214	323	173	181	488	0	156	53	0	223
Grp Sat Flow(s),veh/h/ln	1810	1805	1772	1810	1805	1872	1810	0	1810	1810	0	1895
Q Serve(g_s), s	0.2	10.8	11.1	16.6	6.8	6.9	25.6	0.0	5.1	2.8	0.0	10.1
Cycle Q Clear(g_c), s	0.2	10.8	11.1	16.6	6.8	6.9	25.6	0.0	5.1	2.8	0.0	10.1
Prop In Lane	1.00		0.40	1.00		0.08	1.00		0.28	1.00		0.01
Lane Grp Cap(c), veh/h	10	273	268	316	579	601	491	0	782	72	0	379
V/C Ratio(X)	0.42	0.78	0.80	1.02	0.30	0.30	0.99	0.00	0.20	0.74	0.00	0.59
Avail Cap(c_a), veh/h	95	369	362	316	589	611	491	0	782	135	0	379
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	47.1	38.8	38.9	39.2	24.2	24.2	34.5	0.0	16.8	45.1	0.0	34.4
Incr Delay (d2), s/veh	10.5	7.3	8.6	56.2	0.3	0.3	38.6	0.0	0.6	5.4	0.0	6.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	5.3	5.4	12.2	2.9	3.1	15.7	0.0	2.1	1.3	0.0	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.6	46.1	47.5	95.4	24.5	24.5	73.1	0.0	17.3	50.6	0.0	41.0
LnGrp LOS	E	D	D	F	C	C	E	A	B	D	A	D
Approach Vol, veh/h	431			677			644			276		
Approach Delay, s/veh	46.9			58.3			59.6			42.8		
Approach LOS	D			E			E			D		
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	21.2	19.2	30.4	24.2	5.1	35.3	8.4	46.2				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	16.6	* 19	25.8	19.0	5.0	* 31	7.1	37.7				
Max Q Clear Time (g_c+I1), s	18.6	13.1	27.6	12.1	2.2	8.9	4.8	7.1				
Green Ext Time (p_c), s	0.0	1.3	0.0	0.6	0.0	2.0	0.0	0.8				

Intersection Summary

HCM 6th Ctrl Delay 54.2

HCM 6th LOS D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)
06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	3	82	77	10	33	325	610	34	14	567	2
Future Volume (vph)	2	3	82	77	10	33	325	610	34	14	567	2
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	27.8	27.8	27.8	27.8	27.8	27.8
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	93.4	93.4	93.4	93.4	93.4	93.4
Total Split (%)	22.2%	22.2%	22.2%	22.2%	22.2%	22.2%	77.8%	77.8%	77.8%	77.8%	77.8%	77.8%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)		4.6	4.6		4.6	4.6	5.8	5.8	5.8		5.8	5.8
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	Min	Min	Min	Min	Min	Min

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 106.3

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

Splits and Phases: 12: California Av. & 5th St.

 Ø2	 Ø4
93.4 s	26.6 s
 Ø6	 Ø8
93.4 s	26.6 s

HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	3	82	77	10	33	325	610	34	14	567	2
Future Volume (veh/h)	2	3	82	77	10	33	325	610	34	14	567	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	3	4	104	97	13	42	411	772	43	18	718	3
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	43	42	295	56	4	295	476	1387	1175	46	1343	1175
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.73	0.73	0.73	0.73	0.73	0.73
Sat Flow, veh/h	0	230	1610	0	23	1610	743	1900	1610	21	1840	1610
Grp Volume(v), veh/h	7	0	104	110	0	42	411	772	43	736	0	3
Grp Sat Flow(s),veh/h/ln	230	0	1610	23	0	1610	743	1900	1610	1862	0	1610
Q Serve(g_s), s	0.0	0.0	6.8	0.0	0.0	2.6	65.4	22.2	0.9	0.0	0.0	0.1
Cycle Q Clear(g_c), s	22.0	0.0	6.8	22.0	0.0	2.6	85.9	22.2	0.9	20.5	0.0	0.1
Prop In Lane	0.43		1.00	0.88		1.00	1.00		1.00	0.02		1.00
Lane Grp Cap(c), veh/h	85	0	295	61	0	295	476	1387	1175	1390	0	1175
V/C Ratio(X)	0.08	0.00	0.35	1.81	0.00	0.14	0.86	0.56	0.04	0.53	0.00	0.00
Avail Cap(c_a), veh/h	85	0	295	61	0	295	476	1387	1175	1390	0	1175
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.7	0.0	42.8	58.5	0.0	41.1	26.1	7.4	4.5	7.1	0.0	4.4
Incr Delay (d2), s/veh	0.4	0.0	0.7	422.7	0.0	0.2	15.2	0.5	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	2.8	9.0	0.0	1.1	12.2	7.2	0.2	6.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.1	0.0	43.5	481.2	0.0	41.3	41.2	7.9	4.5	7.5	0.0	4.4
LnGrp LOS	D	A	D	F	A	D	D	A	A	A	A	A
Approach Vol, veh/h		111			152			1226			739	
Approach Delay, s/veh		43.4			359.6			18.9			7.5	
Approach LOS		D			F			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		93.4		26.6		93.4		26.6				
Change Period (Y+Rc), s		5.8		4.6		5.8		4.6				
Max Green Setting (Gmax), s		87.6		22.0		87.6		22.0				
Max Q Clear Time (g_c+I1), s		87.9		24.0		22.5		24.0				
Green Ext Time (p_c), s		0.0		0.0		5.7		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			39.6									
HCM 6th LOS			D									

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
07/14/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	111	37	191	887	197	488
Future Volume (vph)	111	37	191	887	197	488
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	38.0	38.0	23.0	52.0	29.0	38.0
Total Split (%)	42.2%	42.2%	25.6%	57.8%	32.2%	42.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead	Lag		
Lead-Lag Optimize?			Yes	Yes		
Recall Mode	None	None	None	Min	Min	None
Act Effct Green (s)	14.0	14.0	11.7	28.7	12.2	32.2
Actuated g/C Ratio	0.26	0.26	0.21	0.52	0.22	0.59
v/c Ratio	0.31	0.11	0.65	0.61	0.32	0.61
Control Delay	20.1	7.2	29.8	11.0	20.4	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.1	7.2	29.8	11.0	20.4	7.5
LOS	C	A	C	B	C	A
Approach Delay	16.9			14.3	11.2	
Approach LOS	B			B	B	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 54.8

Natural Cycle: 70

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 13.4

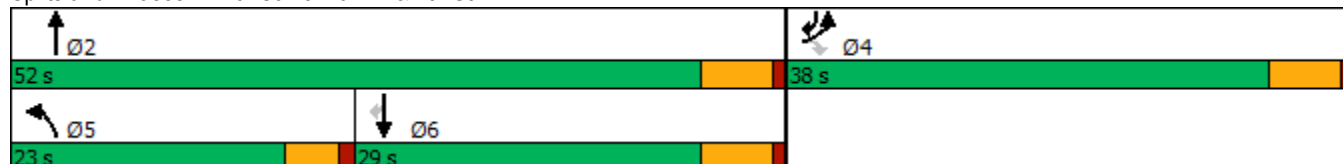
Intersection LOS: B

Intersection Capacity Utilization 49.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	111	37	191	887	197	488
Future Volume (veh/h)	111	37	191	887	197	488
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	144	48	248	1152	256	634
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	310	276	305	2236	1327	868
Arrive On Green	0.17	0.17	0.17	0.62	0.37	0.37
Sat Flow, veh/h	1810	1610	1810	3705	3705	1610
Grp Volume(v), veh/h	144	48	248	1152	256	634
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1805	1805	1610
Q Serve(g_s), s	4.0	1.4	7.3	9.9	2.7	16.6
Cycle Q Clear(g_c), s	4.0	1.4	7.3	9.9	2.7	16.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	310	276	305	2236	1327	868
V/C Ratio(X)	0.46	0.17	0.81	0.52	0.19	0.73
Avail Cap(c_a), veh/h	1052	937	601	3013	1513	950
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.7	19.6	22.2	5.9	11.9	9.7
Incr Delay (d2), s/veh	1.1	0.3	2.0	0.2	0.1	2.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	1.4	2.8	2.0	0.9	7.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.7	19.9	24.2	6.1	12.0	12.3
LnGrp LOS	C	B	C	A	B	B
Approach Vol, veh/h	192			1400	890	
Approach Delay, s/veh	21.3			9.3	12.2	
Approach LOS	C			A	B	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	40.1			15.3	13.9	26.2
Change Period (Y+Rc), s	5.8			5.8	4.6	5.8
Max Green Setting (Gmax), s	46.2			32.2	18.4	23.2
Max Q Clear Time (g_c+I1), s	11.9			6.0	9.3	18.6
Green Ext Time (p_c), s	9.3			0.5	0.2	1.8
Intersection Summary						
HCM 6th Ctrl Delay			11.3			
HCM 6th LOS			B			

Timings
2: Potrero Bl. & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↗
Traffic Volume (vph)	332	65	385	411	130	550
Future Volume (vph)	332	65	385	411	130	550
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	33.2	33.2	9.6	24.2	38.2	38.2
Total Split (s)	33.2	33.2	23.0	56.2	38.8	38.8
Total Split (%)	34.9%	34.9%	24.2%	59.2%	40.8%	40.8%
Yellow Time (s)	5.2	5.2	3.6	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.6	6.2	6.2	6.2
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	13.5	13.5	19.2	37.5	14.1	14.1
Actuated g/C Ratio	0.21	0.21	0.30	0.58	0.22	0.22
v/c Ratio	0.48	0.18	0.79	0.22	0.36	0.76
Control Delay	25.1	7.8	37.0	7.7	24.2	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.1	7.8	37.0	7.7	24.2	10.3
LOS	C	A	D	A	C	B
Approach Delay	22.3			21.8	12.9	
Approach LOS	C			C	B	

Intersection Summary

Cycle Length: 95

Actuated Cycle Length: 64.5

Natural Cycle: 95

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 18.7

Intersection LOS: B

Intersection Capacity Utilization 53.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 2: Potrero Bl. & Oak Valley Pkwy.

↖ Ø2	↖ Ø3	→ Ø4
38.8 s	23 s	33.2 s
	← Ø8	
	56.2 s	

HCM 6th Signalized Intersection Summary
2: Potrero Bl. & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↙	↑↑	↙	↗
Traffic Volume (veh/h)	332	65	385	411	130	550
Future Volume (veh/h)	332	65	385	411	130	550
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	365	71	423	452	143	604
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	535	239	427	1601	719	640
Arrive On Green	0.15	0.15	0.24	0.44	0.40	0.40
Sat Flow, veh/h	3705	1610	1810	3705	1810	1610
Grp Volume(v), veh/h	365	71	423	452	143	604
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1810	1610
Q Serve(g_s), s	7.5	3.1	18.1	6.2	4.0	28.2
Cycle Q Clear(g_c), s	7.5	3.1	18.1	6.2	4.0	28.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	535	239	427	1601	719	640
V/C Ratio(X)	0.68	0.30	0.99	0.28	0.20	0.94
Avail Cap(c_a), veh/h	1251	558	427	2317	757	674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	29.6	29.6	13.8	15.4	22.6
Incr Delay (d2), s/veh	1.5	0.7	40.6	0.1	0.1	21.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	1.1	11.9	2.2	1.5	12.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.0	30.3	70.2	13.9	15.5	44.1
LnGrp LOS	C	C	E	B	B	D
Approach Vol, veh/h	436			875	747	
Approach Delay, s/veh	32.5			41.1	38.6	
Approach LOS	C			D	D	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		37.1	23.0	17.7		40.7
Change Period (Y+Rc), s		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s		32.6	18.4	27.0		50.0
Max Q Clear Time (g_c+I1), s		30.2	20.1	9.5		8.2
Green Ext Time (p_c), s		0.8	0.0	2.1		2.8
Intersection Summary						
HCM 6th Ctrl Delay			38.4			
HCM 6th LOS			D			

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↕		↕	↕	
Traffic Vol, veh/h	0	0	0	2	0	104	0	847	0	10	519	0
Future Vol, veh/h	0	0	0	2	0	104	0	847	0	10	519	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	3	0	135	0	1100	0	13	674	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1463	1800	550	-	0	0
Stage 1	1100	1100	-	-	-	-
Stage 2	363	700	-	-	-	-
Critical Hdwy	6.8	6.5	6.9	-	-	4.1
Critical Hdwy Stg 1	5.8	5.5	-	-	-	-
Critical Hdwy Stg 2	5.8	5.5	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	-	-	2.2
Pot Cap-1 Maneuver	122	81	484	0	-	642
Stage 1	285	290	-	0	-	-
Stage 2	680	444	-	0	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	120	0	484	-	-	642
Mov Cap-2 Maneuver	225	0	-	-	-	-
Stage 1	285	0	-	-	-	-
Stage 2	666	0	-	-	-	-

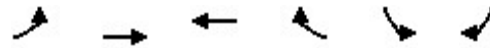
Approach	WB	NB	SB
HCM Control Delay, s	15.7	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	474	642
HCM Lane V/C Ratio	-	-	0.29	0.02
HCM Control Delay (s)	-	-	15.7	10.7
HCM Lane LOS	-	-	C	B
HCM 95th %tile Q(veh)	-	-	1.2	0.1

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

09/21/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations							
Traffic Volume (vph)	1483	211	100	501	348	662	
Future Volume (vph)	1483	211	100	501	348	662	
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov	
Protected Phases	7	4	8	6	6	7	3
Permitted Phases				8		6	
Detector Phase	7	4	8	6	6	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	23.8	15.8	16.2	16.2	9.6	9.6
Total Split (s)	61.0	67.2	15.8	43.2	43.2	61.0	9.6
Total Split (%)	50.8%	56.0%	13.2%	36.0%	36.0%	50.8%	8%
Yellow Time (s)	3.6	4.8	4.8	5.2	5.2	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	6.2	6.2	4.6	
Lead/Lag	Lead	Lag	Lag			Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes			Yes	Yes
Recall Mode	None	None	None	Min	Min	None	None
Act Effect Green (s)	56.5	71.1	10.0	50.4	34.6	97.3	
Actuated g/C Ratio	0.48	0.60	0.08	0.43	0.29	0.83	
v/c Ratio	1.14	0.26	0.87	0.86	0.44	0.58	
Control Delay	99.5	12.1	95.2	41.9	34.8	4.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	99.5	12.1	95.2	41.9	34.8	4.5	
LOS	F	B	F	D	C	A	
Approach Delay		88.6	50.8		14.9		
Approach LOS		F	D		B		

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 117.7

Natural Cycle: 110

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.14

Intersection Signal Delay: 59.2

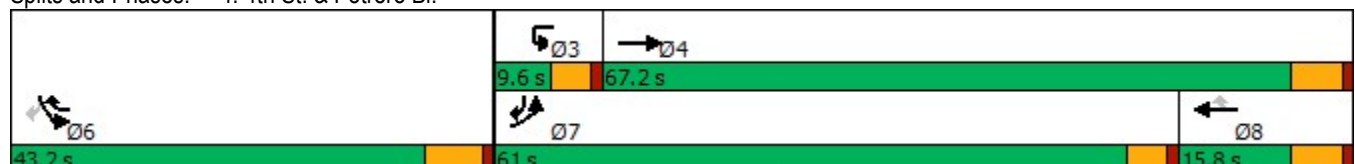
Intersection LOS: E

Intersection Capacity Utilization 82.3%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 4: 4th St. & Potrero Bl.

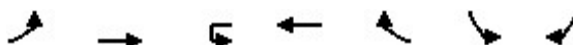


HCM 6th Signalized Intersection Summary

4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

09/21/2023



Movement	EBL	EBT	WBU	WBT	WBR	SBL	SBR
Lane Configurations							
Traffic Volume (veh/h)	1483	211	0	100	501	348	662
Future Volume (veh/h)	1483	211	0	100	501	348	662
Initial Q (Qb), veh	1	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No	
Adj Sat Flow, veh/h/ln	1976	1976		1976	1976	1976	1976
Adj Flow Rate, veh/h	2213	315		149	151	519	242
Peak Hour Factor	0.67	0.67		0.67	0.67	0.67	0.67
Percent Heavy Veh, %	0	0		0	0	0	0
Cap, veh/h	2105	1391		196	462	666	1233
Arrive On Green	0.56	0.70		0.10	0.10	0.18	0.18
Sat Flow, veh/h	3764	1976		1976	1675	3764	1675
Grp Volume(v), veh/h	2213	315		149	151	519	242
Grp Sat Flow(s),veh/h/ln	1882	1976		1976	1675	1882	1675
Q Serve(g_s), s	56.4	5.7		7.4	7.2	13.3	4.5
Cycle Q Clear(g_c), s	56.4	5.7		7.4	7.2	13.3	4.5
Prop In Lane	1.00				1.00	1.00	1.00
Lane Grp Cap(c), veh/h	2105	1391		196	462	666	1233
V/C Ratio(X)	1.05	0.23		0.76	0.33	0.78	0.20
Avail Cap(c_a), veh/h	2105	1391		196	462	1381	1551
HCM Platoon Ratio	1.00	1.00		1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00		1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	22.2	5.3		44.3	29.0	39.6	4.1
Incr Delay (d2), s/veh	34.8	0.1		15.9	0.4	2.0	0.1
Initial Q Delay(d3),s/veh	1.7	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	31.7	1.8		4.4	3.6	6.0	8.6
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	58.7	5.3		60.1	29.4	41.6	4.2
LnGrp LOS	F	A		E	C	D	A
Approach Vol, veh/h		2528		300		761	
Approach Delay, s/veh		52.1		44.7		29.7	
Approach LOS		D		D		C	
Timer - Assigned Phs				4		6	7
Phs Duration (G+Y+Rc), s				76.8		24.1	61.0
Change Period (Y+Rc), s				5.8		6.2	4.6
Max Green Setting (Gmax), s				61.4		37.0	56.4
Max Q Clear Time (g_c+l1), s				7.7		15.3	58.4
Green Ext Time (p_c), s				1.8		2.6	0.0
Intersection Summary							
HCM 6th Ctrl Delay			46.7				
HCM 6th LOS			D				
Notes							
User approved pedestrian interval to be less than phase max green.							
User approved ignoring U-Turning movement.							

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	SBL
Lane Configurations				
Traffic Volume (vph)	98	920	971	232
Future Volume (vph)	98	920	971	232
Turn Type	Prot	NA	NA	Prot
Protected Phases	7	4	8	6
Permitted Phases				
Detector Phase	7	4	8	6
Switch Phase				
Minimum Initial (s)	5.0	10.0	10.0	10.0
Minimum Split (s)	9.6	24.2	28.2	37.8
Total Split (s)	11.8	42.0	30.2	38.0
Total Split (%)	14.8%	52.5%	37.8%	47.5%
Yellow Time (s)	3.6	5.2	5.2	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	5.8
Lead/Lag	Lead		Lag	
Lead-Lag Optimize?	Yes		Yes	
Recall Mode	None	None	None	Min
Act Effect Green (s)	6.9	31.4	22.7	17.3
Actuated g/C Ratio	0.11	0.51	0.37	0.28
v/c Ratio	0.50	0.51	0.72	0.62
Control Delay	40.3	11.9	19.8	24.0
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	40.3	11.9	19.8	24.0
LOS	D	B	B	C
Approach Delay		14.6	19.8	24.0
Approach LOS		B	B	C

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 61.4

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.72

Intersection Signal Delay: 18.3

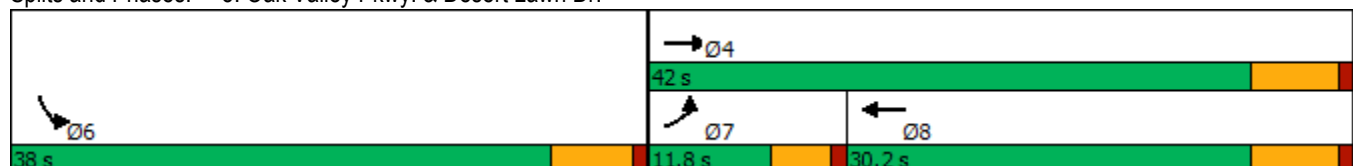
Intersection LOS: B

Intersection Capacity Utilization 64.0%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

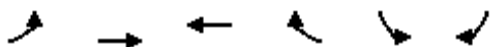


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	98	920	971	376	232	78	
Future Volume (veh/h)	98	920	971	376	232	78	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	101	948	1001	388	239	80	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	133	1960	1403	543	298	100	
Arrive On Green	0.07	0.54	0.38	0.38	0.23	0.23	
Sat Flow, veh/h	1810	3705	3848	1425	1311	439	
Grp Volume(v), veh/h	101	948	941	448	320	0	
Grp Sat Flow(s),veh/h/ln	1810	1805	1729	1644	1755	0	
Q Serve(g_s), s	2.9	8.5	12.1	12.1	9.0	0.0	
Cycle Q Clear(g_c), s	2.9	8.5	12.1	12.1	9.0	0.0	
Prop In Lane	1.00			0.87	0.75	0.25	
Lane Grp Cap(c), veh/h	133	1960	1319	627	400	0	
V/C Ratio(X)	0.76	0.48	0.71	0.71	0.80	0.00	
Avail Cap(c_a), veh/h	249	2471	1586	754	1081	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00	
Uniform Delay (d), s/veh	23.8	7.4	13.8	13.8	19.1	0.0	
Incr Delay (d2), s/veh	3.3	0.2	1.2	2.5	3.8	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.2	1.9	3.7	3.8	3.4	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	27.1	7.6	15.0	16.3	22.8	0.0	
LnGrp LOS	C	A	B	B	C	A	
Approach Vol, veh/h		1049	1389		320		
Approach Delay, s/veh		9.5	15.4		22.8		
Approach LOS		A	B		C		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				34.6	17.7	8.4	26.2
Change Period (Y+Rc), s				6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s				35.8	32.2	7.2	24.0
Max Q Clear Time (g_c+l1), s				10.5	11.0	4.9	14.1
Green Ext Time (p_c), s				6.4	0.9	0.0	5.8
Intersection Summary							
HCM 6th Ctrl Delay			14.0				
HCM 6th LOS			B				
Notes							

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations	↑↑	↑	↙	↑↑	↘	↓
Traffic Volume (vph)	852	300	225	927	633	1
Future Volume (vph)	852	300	225	927	633	1
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	39.7	39.7	23.3	63.0	57.0	57.0
Total Split (%)	33.1%	33.1%	19.4%	52.5%	47.5%	47.5%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effect Green (s)	35.2	35.2	22.4	62.1	46.3	46.3
Actuated g/C Ratio	0.29	0.29	0.19	0.52	0.39	0.39
v/c Ratio	1.06	0.57	0.88	0.65	0.62	0.86
Control Delay	86.4	12.2	63.9	12.0	31.4	45.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	86.4	12.2	63.9	12.0	31.4	45.9
LOS	F	B	E	B	C	D
Approach Delay	67.1			22.1		37.2
Approach LOS	E			C		D

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.06

Intersection Signal Delay: 42.3

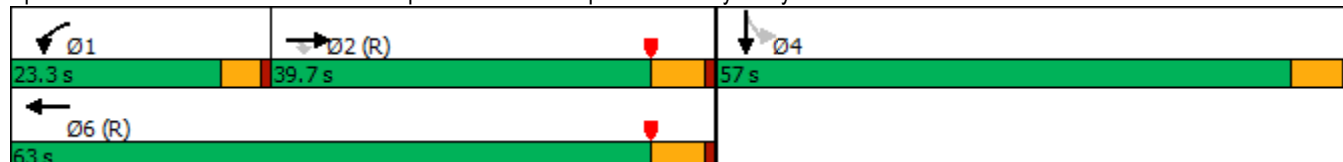
Intersection LOS: D

Intersection Capacity Utilization 89.5%

ICU Level of Service E

Analysis Period (min) 15

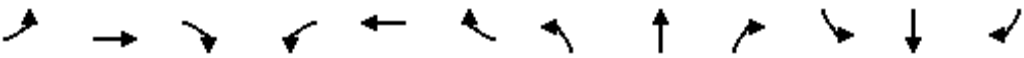
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

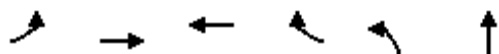
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘↗	↖	
Traffic Volume (veh/h)	0	852	300	225	927	0	0	0	0	633	1	421
Future Volume (veh/h)	0	852	300	225	927	0	0	0	0	633	1	421
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1121	337	296	1220	0				833	1	488
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76				0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1302	581	282	2003	0				1224	1	560
Arrive On Green	0.00	0.36	0.36	0.05	0.18	0.00				0.35	0.35	0.35
Sat Flow, veh/h	0	3705	1610	1810	3705	0				3510	3	1607
Grp Volume(v), veh/h	0	1121	337	296	1220	0				833	0	489
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1805	0				1755	0	1611
Q Serve(g_s), s	0.0	34.6	20.3	18.7	37.3	0.0				24.3	0.0	34.1
Cycle Q Clear(g_c), s	0.0	34.6	20.3	18.7	37.3	0.0				24.3	0.0	34.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1302	581	282	2003	0				1224	0	561
V/C Ratio(X)	0.00	0.86	0.58	1.05	0.61	0.00				0.68	0.00	0.87
Avail Cap(c_a), veh/h	0	1302	581	282	2003	0				1498	0	687
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	0.46	0.46	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	35.6	31.0	56.9	37.1	0.0				33.4	0.0	36.6
Incr Delay (d2), s/veh	0.0	6.4	3.5	50.1	0.6	0.0				0.9	0.0	10.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	15.6	8.1	13.0	18.1	0.0				10.1	0.0	14.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	42.0	34.5	107.0	37.7	0.0				34.3	0.0	46.7
LnGrp LOS	A	D	C	F	D	A				C	A	D
Approach Vol, veh/h		1458			1516						1322	
Approach Delay, s/veh		40.3			51.2						38.9	
Approach LOS		D			D						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	23.3	49.1		47.6		72.4						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	18.7	33.9		51.2		57.2						
Max Q Clear Time (g_c+I1), s	20.7	36.6		36.1		39.3						
Green Ext Time (p_c), s	0.0	0.0		5.7		7.8						
Intersection Summary												
HCM 6th Ctrl Delay			43.7									
HCM 6th LOS			D									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations	←	→	←	→	←	→
Traffic Volume (vph)	470	1014	678	383	473	5
Future Volume (vph)	470	1014	678	383	473	5
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	40.0	73.0	33.0	33.0	47.0	47.0
Total Split (%)	33.3%	60.8%	27.5%	27.5%	39.2%	39.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effect Green (s)	34.0	65.4	26.7	26.7	43.0	43.0
Actuated g/C Ratio	0.28	0.54	0.22	0.22	0.36	0.36
v/c Ratio	0.95	0.53	0.87	0.59	0.76	0.61
Control Delay	43.4	13.9	57.5	7.8	43.3	29.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.4	13.9	57.5	7.8	43.3	29.2
LOS	D	B	E	A	D	C
Approach Delay		23.3	39.5			37.1
Approach LOS		C	D			D

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 31.8

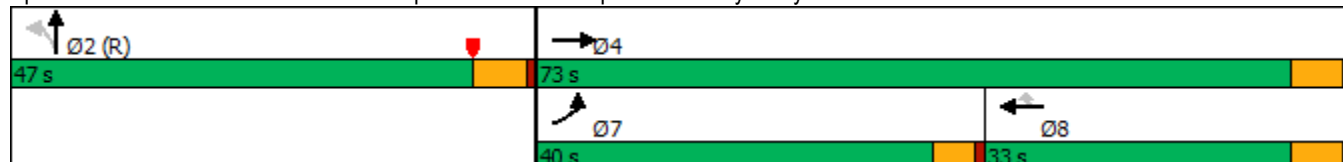
Intersection LOS: C

Intersection Capacity Utilization 89.5%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	470	1014	0	0	678	383	473	5	373	0	0	0
Future Volume (veh/h)	470	1014	0	0	678	383	473	5	373	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	485	1045	0	0	699	325	488	5	333			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	515	1963	0	0	798	356	651	9	572			
Arrive On Green	0.09	0.18	0.00	0.00	0.22	0.22	0.36	0.36	0.36			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	1810	24	1590			
Grp Volume(v), veh/h	485	1045	0	0	699	325	488	0	338			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1614			
Q Serve(g_s), s	32.0	31.5	0.0	0.0	22.4	23.6	28.4	0.0	20.4			
Cycle Q Clear(g_c), s	32.0	31.5	0.0	0.0	22.4	23.6	28.4	0.0	20.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	515	1963	0	0	798	356	651	0	580			
V/C Ratio(X)	0.94	0.53	0.00	0.00	0.88	0.91	0.75	0.00	0.58			
Avail Cap(c_a), veh/h	534	2022	0	0	818	365	651	0	580			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.37	0.37	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	53.4	35.4	0.0	0.0	45.2	45.6	33.7	0.0	31.1			
Incr Delay (d2), s/veh	12.0	0.1	0.0	0.0	10.4	26.4	7.8	0.0	4.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	17.2	15.2	0.0	0.0	10.9	11.7	13.3	0.0	8.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.4	35.5	0.0	0.0	55.5	72.0	41.4	0.0	35.4			
LnGrp LOS	E	D	A	A	E	E	D	A	D			
Approach Vol, veh/h	1530			1024			826					
Approach Delay, s/veh	45.0			60.8			39.0					
Approach LOS	D			E			D					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	49.0			71.0			38.7			32.3		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	41.2			67.2			35.4			27.2		
Max Q Clear Time (g_c+I1), s	30.4			33.5			34.0			25.6		
Green Ext Time (p_c), s	2.8			8.1			0.2			0.9		
Intersection Summary												
HCM 6th Ctrl Delay	48.3											
HCM 6th LOS	D											

Intersection														
Int Delay, s/veh	2.4													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SER
Lane Configurations														
Traffic Vol, veh/h	102	930	139	119	735	61	0	0	130	0	0	72	0	0
Future Vol, veh/h	102	930	139	119	735	61	0	0	130	0	0	72	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	-	-	None	-	-	-	-	-
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	110	1000	149	128	790	66	0	0	140	0	0	77	0	0
Major/Minor	Major1			Major2			Minor1			Minor2				
Conflicting Flow All	856	0	0	1149	0	0	-	-	575	-	-	428		
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-		
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9		
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-		
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-		
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3		
Pot Cap-1 Maneuver	793	-	-	615	-	-	0	0	466	0	0	581		
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-		
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-		
Platoon blocked, %		-	-		-	-								
Mov Cap-1 Maneuver	793	-	-	615	-	-	-	-	466	-	-	581		
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-		
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-		
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-		
Approach	EB			WB			NB			SB				
HCM Control Delay, s	0.9			1.6			16			12.1				
HCM LOS							C			B				
Minor Lane/Major Mvmt	NBLn1		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	466		793	-	-	615	-	-	581					
HCM Lane V/C Ratio	0.3		0.138	-	-	0.208	-	-	0.133					
HCM Control Delay (s)	16		10.3	-	-	12.4	-	-	12.1					
HCM Lane LOS	C		B	-	-	B	-	-	B					
HCM 95th %tile Q(veh)	1.2		0.5	-	-	0.8	-	-	0.5					

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	117	610	85	10	499	44	41	12	15	65	65
Future Volume (vph)	117	610	85	10	499	44	41	12	15	65	65
Turn Type	Prot	NA	Perm	Prot	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8		2			6	
Permitted Phases			4			2		2	6		6
Detector Phase	7	4	4	3	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	32.8	32.8	9.6	32.8	32.8	32.8	32.8	32.8	32.8	32.8
Total Split (s)	14.0	37.2	37.2	9.6	32.8	33.2	33.2	33.2	33.2	33.2	33.2
Total Split (%)	17.5%	46.5%	46.5%	12.0%	41.0%	41.5%	41.5%	41.5%	41.5%	41.5%	41.5%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8		5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effect Green (s)	9.0	39.4	39.4	5.1	27.3		13.3	13.3	13.3	13.3	13.3
Actuated g/C Ratio	0.14	0.60	0.60	0.08	0.41		0.20	0.20	0.20	0.20	0.20
v/c Ratio	0.68	0.77	0.12	0.10	0.97		0.40	0.04	0.08	0.24	0.23
Control Delay	44.6	19.7	3.4	33.3	49.6		26.5	0.2	20.9	23.0	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	44.6	19.7	3.4	33.3	49.6		26.5	0.2	20.9	23.0	5.8
LOS	D	B	A	C	D		C	A	C	C	A
Approach Delay		21.6			49.3		23.3			15.0	
Approach LOS		C			D		C			B	

Intersection Summary

Cycle Length: 80

Actuated Cycle Length: 66

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 30.5

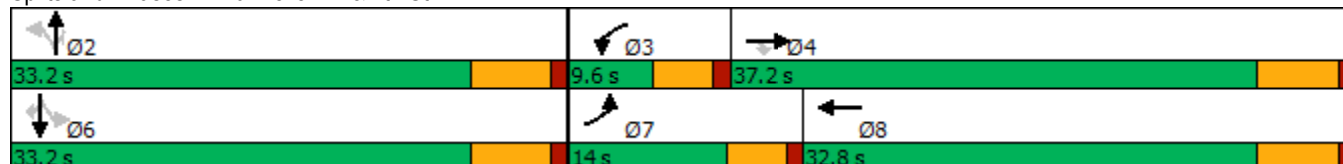
Intersection LOS: C

Intersection Capacity Utilization 63.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

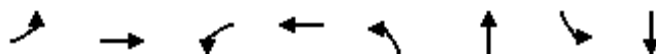
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	610	85	10	499	33	44	41	12	15	65	65
Future Volume (veh/h)	117	610	85	10	499	33	44	41	12	15	65	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	167	871	121	14	713	47	63	59	17	21	93	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	211	1019	863	31	770	51	195	155	274	250	324	
Arrive On Green	0.12	0.54	0.54	0.02	0.44	0.44	0.17	0.17	0.17	0.17	0.17	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1763	116	600	909	1610	1344	1900	1610
Grp Volume(v), veh/h	167	871	121	14	0	760	122	0	17	21	93	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1879	1509	0	1610	1344	1900	1610
Q Serve(g_s), s	5.3	23.0	2.2	0.4	0.0	22.4	1.9	0.0	0.5	0.8	2.5	0.0
Cycle Q Clear(g_c), s	5.3	23.0	2.2	0.4	0.0	22.4	4.4	0.0	0.5	5.3	2.5	0.0
Prop In Lane	1.00		1.00	1.00		0.06	0.52		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	211	1019	863	31	0	821	350	0	274	250	324	
V/C Ratio(X)	0.79	0.86	0.14	0.45	0.00	0.93	0.35	0.00	0.06	0.08	0.29	
Avail Cap(c_a), veh/h	290	1019	863	154	0	865	810	0	752	649	887	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.2	11.7	6.8	28.5	0.0	15.6	21.9	0.0	20.4	24.4	21.2	0.0
Incr Delay (d2), s/veh	6.7	7.3	0.1	3.6	0.0	15.2	0.6	0.0	0.1	0.1	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	8.5	0.5	0.2	0.0	10.6	1.4	0.0	0.2	0.2	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.9	18.9	6.9	32.2	0.0	30.8	22.5	0.0	20.5	24.6	21.7	0.0
LnGrp LOS	C	B	A	C	A	C	C	A	C	C	C	
Approach Vol, veh/h	1159				774				139			
Approach Delay, s/veh	19.5				30.8				22.3			
Approach LOS	B				C				C			
Timer - Assigned Phs	2		3	4	6		7	8				
Phs Duration (G+Y+Rc), s	15.8		5.6	37.3	15.8		11.4	31.4				
Change Period (Y+Rc), s	5.8		4.6	5.8	5.8		4.6	5.8				
Max Green Setting (Gmax), s	27.4		5.0	31.4	27.4		9.4	27.0				
Max Q Clear Time (g_c+I1), s	6.4		2.4	25.0	7.3		7.3	24.4				
Green Ext Time (p_c), s	0.6		0.0	3.2	0.4		0.0	1.2				
Intersection Summary												
HCM 6th Ctrl Delay	23.8											
HCM 6th LOS	C											

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)
07/14/2020



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	21	498	292	294	304	186	15	110
Future Volume (vph)	21	498	292	294	304	186	15	110
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	9.6	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.9	24.7	20.1	34.9	21.0	35.6	9.6	24.2
Total Split (%)	11.0%	27.4%	22.3%	38.8%	23.3%	39.6%	10.7%	26.9%
Yellow Time (s)	3.6	3.8	3.6	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.6	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.2	19.7	15.5	35.8	16.4	38.1	5.0	19.0
Actuated g/C Ratio	0.06	0.22	0.17	0.40	0.18	0.42	0.06	0.21
v/c Ratio	0.21	0.90	0.99	0.22	0.97	0.58	0.16	0.32
Control Delay	45.5	47.4	87.5	19.1	82.1	20.5	44.3	31.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
Total Delay	45.5	47.4	87.5	19.1	82.1	21.0	44.3	31.2
LOS	D	D	F	B	F	C	D	C
Approach Delay		47.3		52.5		46.3		32.7
Approach LOS		D		D		D		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 89.8

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay: 47.5

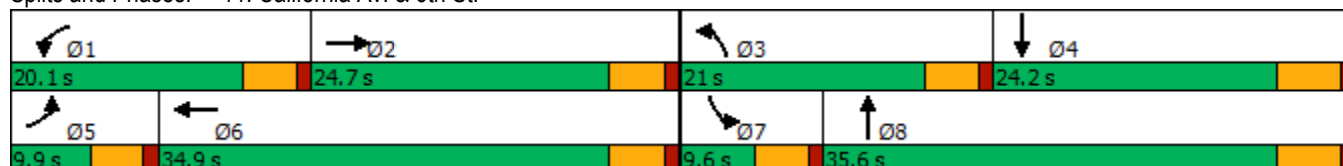
Intersection LOS: D

Intersection Capacity Utilization 80.9%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	498	188	292	294	11	304	186	244	15	110	12
Future Volume (veh/h)	21	498	188	292	294	11	304	186	244	15	110	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	22	524	194	307	309	7	320	196	226	16	116	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	43	571	210	312	1335	30	330	302	348	33	374	23
Arrive On Green	0.02	0.22	0.22	0.17	0.37	0.37	0.18	0.38	0.38	0.02	0.21	0.21
Sat Flow, veh/h	1810	2582	952	1810	3609	82	1810	805	928	1810	1774	107
Grp Volume(v), veh/h	22	366	352	307	154	162	320	0	422	16	0	123
Grp Sat Flow(s),veh/h/ln	1810	1805	1729	1810	1805	1885	1810	0	1733	1810	0	1881
Q Serve(g_s), s	1.1	17.8	17.9	15.2	5.3	5.3	15.8	0.0	18.1	0.8	0.0	5.0
Cycle Q Clear(g_c), s	1.1	17.8	17.9	15.2	5.3	5.3	15.8	0.0	18.1	0.8	0.0	5.0
Prop In Lane	1.00		0.55	1.00		0.04	1.00		0.54	1.00		0.06
Lane Grp Cap(c), veh/h	43	399	382	312	668	697	330	0	650	33	0	397
V/C Ratio(X)	0.52	0.92	0.92	0.99	0.23	0.23	0.97	0.00	0.65	0.48	0.00	0.31
Avail Cap(c_a), veh/h	107	399	382	312	668	697	330	0	650	101	0	397
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.4	34.2	34.3	37.1	19.5	19.5	36.6	0.0	23.2	43.8	0.0	30.0
Incr Delay (d2), s/veh	3.6	25.5	27.4	46.7	0.2	0.2	41.3	0.0	5.0	4.0	0.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	10.4	10.2	10.6	2.2	2.3	10.3	0.0	7.6	0.4	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.0	59.8	61.7	83.8	19.7	19.7	77.9	0.0	28.2	47.8	0.0	32.0
LnGrp LOS	D	E	E	F	B	B	E	A	C	D	A	C
Approach Vol, veh/h		740			623			742			139	
Approach Delay, s/veh		60.3			51.3			49.6			33.8	
Approach LOS		E			D			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	20.1	24.7	21.0	24.2	6.7	38.1	6.2	39.0				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	15.5	* 20	16.4	19.0	5.3	* 30	5.0	30.4				
Max Q Clear Time (g_c+I1), s	17.2	19.9	17.8	7.0	3.1	7.3	2.8	20.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.0	1.8	0.0	1.8				

Intersection Summary

HCM 6th Ctrl Delay 52.6

HCM 6th LOS D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)
06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	Ø1
Lane Configurations												
Traffic Volume (vph)	5	3	94	74	3	22	194	703	80	521	7	
Future Volume (vph)	5	3	94	74	3	22	194	703	80	521	7	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA	Perm	NA	Perm	
Protected Phases		4			8		5	2		6		1
Permitted Phases	4		4	8		8			2		6	
Detector Phase	4	4	4	8	8	8	5	2	2	6	6	
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	9.6	27.8	27.8	27.8	27.8	9.6
Total Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	14.0	83.8	83.8	79.4	79.4	9.6
Total Split (%)	22.2%	22.2%	22.2%	22.2%	22.2%	22.2%	11.7%	69.8%	69.8%	66.2%	66.2%	8%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.6	4.6		4.6	4.6	4.6	5.8	5.8	5.8	5.8	
Lead/Lag							Lead	Lag	Lag	Lag	Lag	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Min	Min	Min	Min	None

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 111.5

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Splits and Phases: 12: California Av. & 5th St.

 Ø1	 Ø2		 Ø4
9.6 s	83.8 s		26.6 s
 Ø5	 Ø6		 Ø8
14 s	79.4 s		26.6 s

HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	3	94	74	3	22	194	703	80	7	521	7
Future Volume (veh/h)	5	3	94	74	3	22	194	703	80	7	521	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	5	3	99	78	3	23	204	740	84	7	548	7
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	83	32	501	100	2	501	240	1030	873	0	654	554
Arrive On Green	0.31	0.31	0.31	0.31	0.31	0.31	0.13	0.54	0.54	0.00	0.34	0.34
Sat Flow, veh/h	0	104	1610	1	7	1610	1810	1900	1610	0	1900	1610
Grp Volume(v), veh/h	8	0	99	81	0	23	204	740	84	0	548	7
Grp Sat Flow(s),veh/h/ln	104	0	1610	8	0	1610	1810	1900	1610	0	1900	1610
Q Serve(g_s), s	0.0	0.0	3.2	0.0	0.0	0.7	7.8	20.7	1.8	0.0	18.8	0.2
Cycle Q Clear(g_c), s	22.0	0.0	3.2	22.0	0.0	0.7	7.8	20.7	1.8	0.0	18.8	0.2
Prop In Lane	0.62		1.00	0.96		1.00	1.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	115	0	501	102	0	501	240	1030	873	0	654	554
V/C Ratio(X)	0.07	0.00	0.20	0.79	0.00	0.05	0.85	0.72	0.10	0.00	0.84	0.01
Avail Cap(c_a), veh/h	115	0	501	102	0	501	240	2094	1775	0	1976	1675
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	19.9	0.0	17.9	34.8	0.0	17.0	30.0	12.1	7.8	0.0	21.4	15.3
Incr Delay (d2), s/veh	0.3	0.0	0.2	33.3	0.0	0.0	22.7	1.0	0.0	0.0	2.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	1.2	2.3	0.0	0.3	4.6	6.9	0.5	0.0	7.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.2	0.0	18.1	68.1	0.0	17.1	52.7	13.1	7.9	0.0	24.3	15.3
LnGrp LOS	C	A	B	E	A	B	D	B	A	A	C	B
Approach Vol, veh/h		107			104			1028			555	
Approach Delay, s/veh		18.3			56.8			20.5			24.2	
Approach LOS		B			E			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	0.0	44.2		26.6	14.0	30.2		26.6				
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6				
Max Green Setting (Gmax), s	5.0	78.0		22.0	9.4	73.6		22.0				
Max Q Clear Time (g_c+I1), s	0.0	22.7		24.0	9.8	20.8		24.0				
Green Ext Time (p_c), s	0.0	5.8		0.0	0.0	3.6		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			23.6									
HCM 6th LOS			C									

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)
07/14/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	451	226	151	546	1059	415
Future Volume (vph)	451	226	151	546	1059	415
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	15.8	27.8	27.8
Total Split (s)	47.0	47.0	21.0	73.0	52.0	47.0
Total Split (%)	39.2%	39.2%	17.5%	60.8%	43.3%	39.2%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	Min	Min	None
Act Effect Green (s)	33.6	33.6	13.2	57.0	39.0	78.6
Actuated g/C Ratio	0.33	0.33	0.13	0.56	0.38	0.77
v/c Ratio	0.83	0.35	0.71	0.30	0.84	0.35
Control Delay	46.5	5.0	63.3	13.1	36.6	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.5	5.0	63.3	13.1	36.6	2.5
LOS	D	A	E	B	D	A
Approach Delay	32.6			23.9	27.0	
Approach LOS	C			C	C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 102.7
 Natural Cycle: 75
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 27.6
 Intersection LOS: C
 Intersection Capacity Utilization 76.1%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	451	226	151	546	1059	415
Future Volume (veh/h)	451	226	151	546	1059	415
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	490	246	164	593	1151	451
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	551	491	199	2044	1461	1142
Arrive On Green	0.30	0.30	0.11	0.57	0.40	0.40
Sat Flow, veh/h	1810	1610	1810	3705	3705	1610
Grp Volume(v), veh/h	490	246	164	593	1151	451
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1805	1805	1610
Q Serve(g_s), s	23.2	11.3	8.0	7.7	25.0	10.2
Cycle Q Clear(g_c), s	23.2	11.3	8.0	7.7	25.0	10.2
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	551	491	199	2044	1461	1142
V/C Ratio(X)	0.89	0.50	0.82	0.29	0.79	0.39
Avail Cap(c_a), veh/h	830	739	330	2701	1857	1319
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	25.6	39.1	10.1	23.4	5.3
Incr Delay (d2), s/veh	8.0	0.8	3.2	0.1	1.8	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.5	0.1	3.5	2.6	9.9	7.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.8	26.4	42.3	10.2	25.2	5.5
LnGrp LOS	D	C	D	B	C	A
Approach Vol, veh/h	736			757	1602	
Approach Delay, s/veh	34.0			17.2	19.6	
Approach LOS	C			B	B	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	56.6			33.2	14.5	42.1
Change Period (Y+Rc), s	5.8			5.8	4.6	5.8
Max Green Setting (Gmax), s	67.2			41.2	16.4	46.2
Max Q Clear Time (g_c+I1), s	9.7			25.2	10.0	27.0
Green Ext Time (p_c), s	4.1			2.2	0.1	9.3
Intersection Summary						
HCM 6th Ctrl Delay			22.4			
HCM 6th LOS			C			

APPENDIX 9.1:

HORIZON YEAR (2045) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Intersection	
Intersection Delay, s/veh	687.3
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	360	906	1074	384	454	1054
Future Vol, veh/h	360	906	1074	384	454	1054
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	391	985	1167	417	493	1146
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	414	857.3	752.3
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	454	1054	180	180	906	1074	192	192
LT Vol	454	0	0	0	0	1074	0	0
Through Vol	0	0	180	180	0	0	192	192
RT Vol	0	1054	0	0	906	0	0	0
Lane Flow Rate	493	1146	196	196	985	1167	209	209
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	1.471	3.034	0.55	0.55	2.114	3.456	0.589	0.49
Departure Headway (Hd)	17.266	16.01	22.223	22.223	19.817	17.893	17.392	15.689
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	217	241	164	164	197	222	211	232
Service Time	14.966	13.71	19.923	19.923	17.517	15.593	15.092	13.389
HCM Lane V/C Ratio	2.272	4.755	1.195	1.195	5	5.257	0.991	0.901
HCM Control Delay	276.5	957.3	49.2	49.2	559	1150.4	42.3	32.6
HCM Lane LOS	F	F	E	E	F	F	E	D
HCM 95th-tile Q	18.5	61.3	2.8	2.8	30.1	65.7	3.3	2.5

Intersection

Intersection Delay, s/veh 432.4

Intersection LOS F

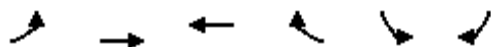
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	11	0	64	0	989	6	54	1413	0
Future Vol, veh/h	0	0	0	11	0	64	0	989	6	54	1413	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	12	0	70	0	1075	7	59	1536	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	12.8	256.2	573.3
HCM LOS	B	F	F

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	15%	4%
Vol Thru, %	99%	0%	96%
Vol Right, %	1%	85%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	995	75	1467
LT Vol	0	11	54
Through Vol	989	0	1413
RT Vol	6	64	0
Lane Flow Rate	1082	82	1595
Geometry Grp	1	1	1
Degree of Util (X)	1.511	0.147	2.233
Departure Headway (Hd)	6.185	8.395	5.55
Convergence, Y/N	Yes	Yes	Yes
Cap	595	430	670
Service Time	4.185	6.395	3.55
HCM Lane V/C Ratio	1.818	0.191	2.381
HCM Control Delay	256.2	12.8	573.3
HCM Lane LOS	F	B	F
HCM 95th-tile Q	44.6	0.5	105.1

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)
06/06/2023

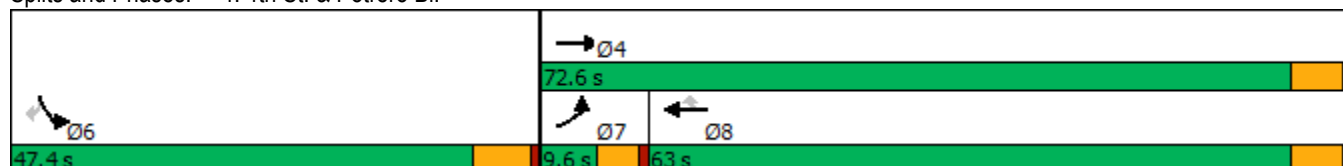


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	245	440	78	480	413	471
Future Volume (vph)	245	440	78	480	413	471
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	9.6	72.6	63.0	63.0	47.4	47.4
Total Split (%)	8.0%	60.5%	52.5%	52.5%	39.5%	39.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	5.2	23.2	13.3	13.3	16.5	16.5
Actuated g/C Ratio	0.10	0.45	0.26	0.26	0.32	0.32
v/c Ratio	2.06	0.41	0.24	0.76	0.56	0.71
Control Delay	513.0	11.0	17.2	7.6	17.3	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	513.0	11.0	17.2	7.6	17.3	6.2
LOS	F	B	B	A	B	A
Approach Delay		190.6	9.0		11.4	
Approach LOS		F	A		B	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 52
 Natural Cycle: 80
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 2.06
 Intersection Signal Delay: 68.5
 Intersection LOS: E
 Intersection Capacity Utilization 52.0%
 ICU Level of Service A
 Analysis Period (min) 15

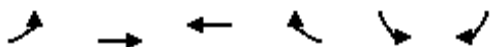
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	245	440	78	480	413	471	
Future Volume (veh/h)	245	440	78	480	413	471	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	366	657	116	716	616	703	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	77	1965	878	744	1239	568	
Arrive On Green	0.04	0.54	0.46	0.46	0.35	0.35	
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610	
Grp Volume(v), veh/h	366	657	116	716	616	703	
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610	
Q Serve(g_s), s	5.0	11.8	4.1	50.3	16.1	41.2	
Cycle Q Clear(g_c), s	5.0	11.8	4.1	50.3	16.1	41.2	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	77	1965	878	744	1239	568	
V/C Ratio(X)	4.72	0.33	0.13	0.96	0.50	1.24	
Avail Cap(c_a), veh/h	77	2065	931	789	1239	568	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	55.9	14.8	18.0	30.4	29.7	37.8	
Incr Delay (d2), s/veh	1704.4	0.0	0.1	22.6	0.3	121.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	38.9	4.5	1.7	22.6	6.5	49.5	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	1760.3	14.9	18.1	53.0	30.0	159.1	
LnGrp LOS	F	B	B	D	C	F	
Approach Vol, veh/h							
		1023	832	1319			
Approach Delay, s/veh							
		639.3	48.1	98.8			
Approach LOS							
		F	D	F			
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				69.4	47.4	9.6	59.8
Change Period (Y+Rc), s				5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s				66.8	41.2	5.0	57.2
Max Q Clear Time (g_c+I1), s				13.8	43.2	7.0	52.3
Green Ext Time (p_c), s				2.8	0.0	0.0	1.7
Intersection Summary							
HCM 6th Ctrl Delay			259.7				
HCM 6th LOS			F				

Intersection

Intersection Delay, s/veh 514.1

Intersection LOS F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	207	1079	1244	401	608	343
Future Vol, veh/h	207	1079	1244	401	608	343
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	225	1173	1352	436	661	373
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	841	121.9	750.4
HCM LOS	F	F	F

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	64%
Vol Thru, %	0%	100%	100%	100%	38%	0%
Vol Right, %	0%	0%	0%	0%	62%	36%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	207	1079	498	498	650	951
LT Vol	207	0	0	0	0	608
Through Vol	0	1079	498	498	249	0
RT Vol	0	0	0	0	401	343
Lane Flow Rate	225	1173	541	541	706	1034
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.631	3.126	1.158	1.158	1.094	2.601
Departure Headway (Hd)	14.99	14.427	11.373	11.373	8.996	10.524
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	243	270	325	325	410	362
Service Time	12.69	12.127	9.073	9.073	6.696	8.224
HCM Lane V/C Ratio	0.926	4.344	1.665	1.665	1.722	2.856
HCM Control Delay	40.3	994.6	134.4	134.4	102.7	750.4
HCM Lane LOS	E	F	F	F	F	F
HCM 95th-tile Q	3.8	70.5	15.3	15.3	15.4	73

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/16/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	↵	→	↕
Traffic Volume (vph)	1023	345	2006	4
Future Volume (vph)	1023	345	2006	4
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	42.8	14.8	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	2.08	1.27	1.66	3.35
Control Delay	511.3	156.4	317.1	1079.4
Queue Delay	0.0	0.0	0.3	0.0
Total Delay	511.3	156.4	317.3	1079.4
LOS	F	F	F	F
Approach Delay	511.3		293.7	1079.4
Approach LOS	F		F	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 3.35

Intersection Signal Delay: 520.2

Intersection LOS: F

Intersection Capacity Utilization 185.2%

ICU Level of Service H

Analysis Period (min) 15

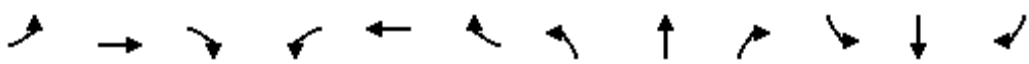
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/16/2020

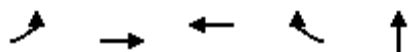
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩	
Traffic Volume (veh/h)	0	1023	665	345	2006	0	0	0	0	336	4	639
Future Volume (veh/h)	0	1023	665	345	2006	0	0	0	0	336	4	639
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1112	639	375	2180	0				365	4	677
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	538	309	298	1313	0				105	1	195
Arrive On Green	0.00	0.48	0.48	0.22	0.92	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	1132	651	1810	1900	0				585	6	1084
Grp Volume(v), veh/h	0	0	1751	375	2180	0				1046	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1783	1810	1900	0				1676	0	0
Q Serve(g_s), s	0.0	0.0	42.8	14.8	62.2	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	42.8	14.8	62.2	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.36	1.00		0.00				0.35		0.65
Lane Grp Cap(c), veh/h	0	0	848	298	1313	0				302	0	0
V/C Ratio(X)	0.00	0.00	2.07	1.26	1.66	0.00				3.47	0.00	0.00
Avail Cap(c_a), veh/h	0	0	848	298	1313	0				302	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	23.6	35.2	3.6	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	483.4	119.7	297.4	0.0				1119.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	129.3	15.6	110.2	0.0				100.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	507.0	154.8	301.0	0.0				1155.9	0.0	0.0
LnGrp LOS	A	A	F	F	F	A				F	A	A
Approach Vol, veh/h		1751			2555						1046	
Approach Delay, s/veh		507.0			279.6						1155.9	
Approach LOS		F			F						F	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.4	48.6		22.0		68.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	14.8	42.8		16.2		62.2						
Max Q Clear Time (g_c+I1), s	16.8	44.8		18.2		64.2						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.0						
Intersection Summary												
HCM 6th Ctrl Delay			525.3									
HCM 6th LOS			F									

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/16/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	301	1058	1922	756	5
Future Volume (vph)	301	1058	1922	756	5
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	5.4	37.0	27.0	27.0	41.4
Actuated g/C Ratio	0.06	0.41	0.30	0.30	0.46
v/c Ratio	2.84	1.38	3.44	1.17	1.14
Control Delay	849.3	197.9	1117.6	115.9	102.0
Queue Delay	0.0	0.0	5.6	0.0	5.6
Total Delay	849.3	197.9	1123.2	115.9	107.6
LOS	F	F	F	F	F
Approach Delay		342.1	838.9		107.6
Approach LOS		F	F		F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 3.44

Intersection Signal Delay: 568.4

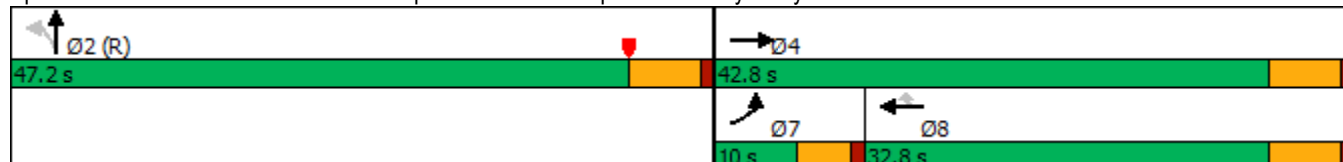
Intersection LOS: F

Intersection Capacity Utilization 185.2%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/16/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	301	1058	0	0	1922	756	429	5	469	0	0	0
Future Volume (veh/h)	301	1058	0	0	1922	756	429	5	469	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	307	1080	0	0	1961	655	438	5	357			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	781	0	0	570	483	432	5	352			
Arrive On Green	0.04	0.28	0.00	0.00	0.30	0.30	0.46	0.46	0.46			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	939	11	765			
Grp Volume(v), veh/h	307	1080	0	0	1961	655	800	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1715	0	0			
Q Serve(g_s), s	5.4	37.0	0.0	0.0	27.0	27.0	41.4	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	37.0	0.0	0.0	27.0	27.0	41.4	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.55		0.45			
Lane Grp Cap(c), veh/h	109	781	0	0	570	483	789	0	0			
V/C Ratio(X)	2.83	1.38	0.00	0.00	3.44	1.36	1.01	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	789	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	32.6	0.0	0.0	31.5	31.5	24.3	0.0	0.0			
Incr Delay (d2), s/veh	824.7	172.9	0.0	0.0	1102.6	173.3	35.5	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	27.2	54.5	0.0	0.0	185.9	32.9	22.3	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	867.9	205.5	0.0	0.0	1134.1	204.8	59.8	0.0	0.0			
LnGrp LOS	F	F	A	A	F	F	F	A	A			
Approach Vol, veh/h	1387			2616			800					
Approach Delay, s/veh	352.2			901.4			59.8					
Approach LOS	F			F			E					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	47.2			42.8			10.0			32.8		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	41.4			37.0			5.4			27.0		
Max Q Clear Time (g_c+I1), s	43.4			39.0			7.4			29.0		
Green Ext Time (p_c), s	0.0			0.0			0.0			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	602.6											
HCM 6th LOS	F											

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑				↑			↑
Traffic Vol, veh/h	144	700	174	188	1078	32	0	0	77	0	0	191
Future Vol, veh/h	144	700	174	188	1078	32	0	0	77	0	0	191
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	158	769	191	207	1185	35	0	0	85	0	0	210

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1220	0	0	960	0	0	-	-	480	-	-	610
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	579	-	-	725	-	-	0	0	537	0	0	442
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	579	-	-	725	-	-	-	-	537	-	-	442
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.9			1.7			13			20.3		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	537	579	-	-	725	-	-	442
HCM Lane V/C Ratio	0.158	0.273	-	-	0.285	-	-	0.475
HCM Control Delay (s)	13	13.5	-	-	11.9	-	-	20.3
HCM Lane LOS	B	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.6	1.1	-	-	1.2	-	-	2.5

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	316	428	29	4	667	47	86	34	7	100	37	1039
Future Volume (vph)	316	428	29	4	667	47	86	34	7	100	37	1039
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	27.8	9.6	27.8	27.8	27.8	27.8	27.8	15.8	15.8	15.8
Total Split (s)	23.0	56.2	56.2	12.8	46.0	46.0	51.0	51.0	51.0	51.0	51.0	51.0
Total Split (%)	19.2%	46.8%	46.8%	10.7%	38.3%	38.3%	42.5%	42.5%	42.5%	42.5%	42.5%	42.5%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effect Green (s)	18.4	61.1	61.1	5.2	40.2	40.2	45.2	45.2	45.2	45.2	45.2	45.2
Actuated g/C Ratio	0.15	0.51	0.51	0.04	0.34	0.34	0.38	0.38	0.38	0.38	0.38	0.38
v/c Ratio	1.53	0.59	0.05	0.06	1.40	0.10	0.22	0.06	0.01	0.26	0.07	1.74
Control Delay	289.4	24.6	1.6	56.8	221.1	1.2	26.9	24.3	0.0	27.5	24.4	361.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	289.4	24.6	1.6	56.8	221.1	1.2	26.9	24.3	0.0	27.5	24.4	361.5
LOS	F	C	A	E	F	A	C	C	A	C	C	F
Approach Delay		131.9			205.7			24.8			322.6	
Approach LOS		F			F			C			F	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.74

Intersection Signal Delay: 226.3

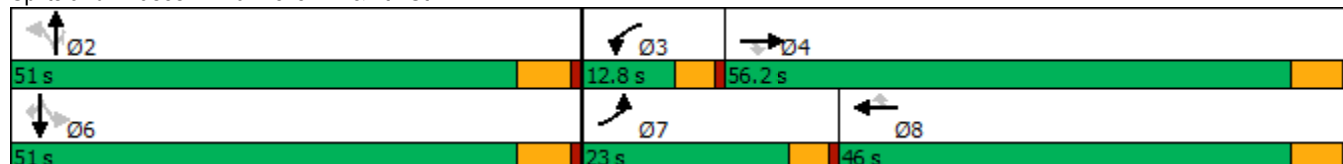
Intersection LOS: F

Intersection Capacity Utilization 122.3%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	316	428	29	4	667	47	86	34	7	100	37	1039
Future Volume (veh/h)	316	428	29	4	667	47	86	34	7	100	37	1039
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	421	571	39	5	889	63	115	45	9	133	49	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	381	1261	1069	12	874	740	250	274	233	252	274	
Arrive On Green	0.21	0.66	0.66	0.01	0.46	0.46	0.14	0.14	0.14	0.14	0.14	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1378	1900	1610	1371	1900	1610
Grp Volume(v), veh/h	421	571	39	5	889	63	115	45	9	133	49	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1378	1900	1610	1371	1900	1610
Q Serve(g_s), s	18.4	12.6	0.7	0.2	40.2	1.9	7.0	1.8	0.4	8.2	2.0	0.0
Cycle Q Clear(g_c), s	18.4	12.6	0.7	0.2	40.2	1.9	9.0	1.8	0.4	10.0	2.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	381	1261	1069	12	874	740	250	274	233	252	274	
V/C Ratio(X)	1.11	0.45	0.04	0.42	1.02	0.09	0.46	0.16	0.04	0.53	0.18	
Avail Cap(c_a), veh/h	381	1261	1069	170	874	740	763	982	832	763	982	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.5	7.1	5.1	43.3	23.6	13.3	36.8	32.8	32.2	37.2	32.8	0.0
Incr Delay (d2), s/veh	77.7	0.3	0.0	8.6	34.9	0.0	1.3	0.3	0.1	1.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.8	3.8	0.2	0.1	23.9	0.6	2.3	0.8	0.2	2.7	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	112.2	7.3	5.1	51.9	58.5	13.3	38.1	33.1	32.2	38.9	33.2	0.0
LnGrp LOS	F	A	A	D	F	B	D	C	C	D	C	
Approach Vol, veh/h	1031				957				169			
Approach Delay, s/veh	50.1				55.5				36.4			
Approach LOS	D				E				D			
Timer - Assigned Phs	2		3	4		6	7	8				
Phs Duration (G+Y+Rc), s	18.4		5.2	63.8		18.4	23.0	46.0				
Change Period (Y+Rc), s	5.8		4.6	5.8		5.8	4.6	5.8				
Max Green Setting (Gmax), s	45.2		8.2	50.4		45.2	18.4	40.2				
Max Q Clear Time (g_c+I1), s	11.0		2.2	14.6		12.0	20.4	42.2				
Green Ext Time (p_c), s	0.5		0.0	3.8		0.6	0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	50.3											
HCM 6th LOS	D											
Notes												

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/16/2020

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	468	260	327	670	35	494	104	54	184
Future Volume (vph)	4	468	260	327	670	35	494	104	54	184
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	23.8	23.8	13.0	27.2	27.2	28.0	42.2	11.0	25.2
Total Split (%)	10.7%	26.4%	26.4%	14.4%	30.2%	30.2%	31.1%	46.9%	12.2%	28.0%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.0	19.0	19.0	8.4	30.1	30.1	23.4	39.3	6.1	20.0
Actuated g/C Ratio	0.06	0.21	0.21	0.09	0.33	0.33	0.26	0.44	0.07	0.22
v/c Ratio	0.04	1.27	0.50	2.11	1.15	0.06	1.14	0.35	0.49	0.49
Control Delay	41.2	172.0	7.3	544.6	114.1	0.2	120.6	12.6	54.2	35.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	172.0	7.3	544.6	114.1	0.2	120.6	12.6	54.2	35.0
LOS	D	F	A	F	F	A	F	B	D	C
Approach Delay		112.8			246.5			83.0		39.3
Approach LOS		F			F			F		D

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.11

Intersection Signal Delay: 148.1

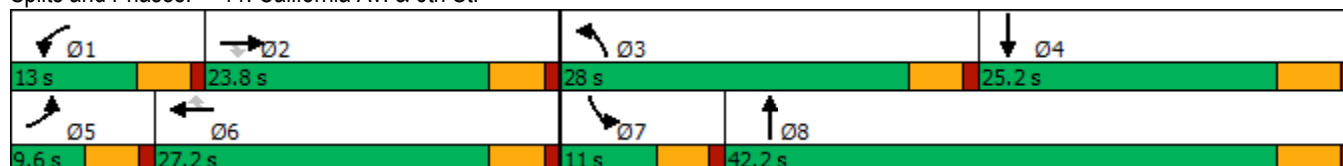
Intersection LOS: F

Intersection Capacity Utilization 96.1%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary

11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/16/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	468	260	327	670	35	494	104	159	54	184	5
Future Volume (veh/h)	4	468	260	327	670	35	494	104	159	54	184	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	509	282	355	728	29	537	113	151	59	200	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	401	340	169	568	482	470	324	433	78	415	6
Arrive On Green	0.01	0.21	0.21	0.09	0.30	0.30	0.26	0.44	0.44	0.04	0.22	0.22
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	737	985	1810	1867	28
Grp Volume(v), veh/h	4	509	282	355	728	29	537	0	264	59	0	203
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1723	1810	0	1895
Q Serve(g_s), s	0.2	19.0	15.1	8.4	26.9	1.2	23.4	0.0	9.1	2.9	0.0	8.4
Cycle Q Clear(g_c), s	0.2	19.0	15.1	8.4	26.9	1.2	23.4	0.0	9.1	2.9	0.0	8.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.57	1.00		0.01
Lane Grp Cap(c), veh/h	10	401	340	169	568	482	470	0	757	78	0	421
V/C Ratio(X)	0.42	1.27	0.83	2.10	1.28	0.06	1.14	0.00	0.35	0.76	0.00	0.48
Avail Cap(c_a), veh/h	101	401	340	169	568	482	470	0	757	129	0	421
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.6	35.5	34.0	40.8	31.5	22.5	33.3	0.0	16.7	42.6	0.0	30.5
Incr Delay (d2), s/veh	10.4	139.4	15.7	515.4	139.4	0.1	86.4	0.0	1.3	5.6	0.0	3.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	24.1	7.0	27.9	33.9	0.4	20.8	0.0	3.5	1.4	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.1	174.9	49.6	556.2	171.0	22.6	119.7	0.0	18.0	48.3	0.0	34.4
LnGrp LOS	E	F	D	F	F	C	F	A	B	D	A	C
Approach Vol, veh/h		795			1112			801			262	
Approach Delay, s/veh		129.9			290.1			86.2			37.5	
Approach LOS		F			F			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	23.8	28.0	25.2	5.1	31.7	8.5	44.7				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	8.4	* 19	23.4	20.0	5.0	* 22	6.4	37.0				
Max Q Clear Time (g_c+I1), s	10.4	21.0	25.4	10.4	2.2	28.9	4.9	11.1				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.6	0.0	0.0	0.0	1.5				

Intersection Summary

HCM 6th Ctrl Delay 169.9

HCM 6th LOS F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	2	4	90	46	11	36	358	660	26	15	585	3
Future Vol, veh/h	2	4	90	46	11	36	358	660	26	15	585	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	50	-	-	50
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	5	114	58	14	46	453	835	33	19	741	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2567	2553	741	2582	2524	835	745	0	0	868	0	0
Stage 1	779	779	-	1741	1741	-	-	-	-	-	-	-
Stage 2	1788	1774	-	841	783	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	18	27	420	~ 17	28	371	872	-	-	785	-	-
Stage 1	392	409	-	112	142	-	-	-	-	-	-	-
Stage 2	105	137	-	362	407	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	-	0	420	-	0	371	872	-	-	785	-	-
Mov Cap-2 Maneuver	~ -19	~ -18	-	233	0	-	-	-	-	-	-	-
Stage 1	392	392	-	112	0	-	-	-	-	-	-	-
Stage 2	-	0	-	250	390	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			4.6	0.2
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	872	-	-	-	420	-	371	785	-	-
HCM Lane V/C Ratio	0.52	-	-	-	0.271	-	0.123	0.024	-	-
HCM Control Delay (s)	13.5	0	-	-	16.7	-	16.1	9.7	0	-
HCM Lane LOS	B	A	-	-	C	-	C	A	A	-
HCM 95th %tile Q(veh)	3.1	-	-	-	1.1	-	0.4	0.1	-	-

Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						

Intersection						
Int Delay, s/veh	106.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	134	211	204	1061	403	460
Future Vol, veh/h	134	211	204	1061	403	460
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	146	229	222	1153	438	500

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2285	688	938	0	-	0
Stage 1	688	-	-	-	-	-
Stage 2	1597	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 44	450	739	-	-	-
Stage 1	503	-	-	-	-	-
Stage 2	185	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 31	450	739	-	-	-
Mov Cap-2 Maneuver	~ 31	-	-	-	-	-
Stage 1	352	-	-	-	-	-
Stage 2	185	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	759.3	1.9	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	739	-	31	450	-	-
HCM Lane V/C Ratio	0.3	-	4.698	0.51	-	-
HCM Control Delay (s)	11.9	\$	1921.8	21	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	1.3	-	17.5	2.8	-	-

Notes			
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)
07/16/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	100	19	23	6	71	959	81	968
Future Volume (vph)	100	19	23	6	71	959	81	968
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		12.4		12.2	7.1	32.8	6.6	34.4
Actuated g/C Ratio		0.21		0.20	0.12	0.55	0.11	0.57
v/c Ratio		0.56		0.33	0.36	0.54	0.44	0.68
Control Delay		24.7		9.2	26.7	13.0	32.9	17.8
Queue Delay		1.7		0.5	0.2	0.8	0.0	5.7
Total Delay		26.4		9.8	26.9	13.8	32.9	23.5
LOS		C		A	C	B	C	C
Approach Delay		26.4		9.8		14.7		24.1
Approach LOS		C		A		B		C

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.68

Intersection Signal Delay: 19.9

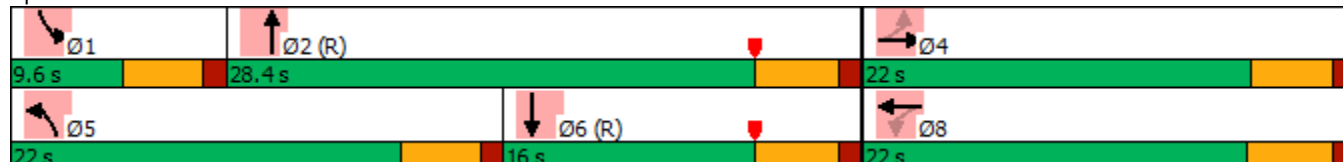
Intersection LOS: B

Intersection Capacity Utilization 67.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/16/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Volume (veh/h)	100	19	37	23	6	95	71	959	16	81	968	288
Future Volume (veh/h)	100	19	37	23	6	95	71	959	16	81	968	288
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	109	21	40	25	7	103	77	1042	17	88	1052	313
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	252	49	63	101	35	209	109	1940	32	116	1477	436
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.12	1.00	1.00	0.06	0.54	0.54
Sat Flow, veh/h	930	297	378	180	212	1260	1810	3635	59	1810	2748	811
Grp Volume(v), veh/h	170	0	0	135	0	0	77	517	542	88	688	677
Grp Sat Flow(s),veh/h/ln	1604	0	0	1652	0	0	1810	1805	1889	1810	1805	1754
Q Serve(g_s), s	1.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	2.9	17.1	17.4
Cycle Q Clear(g_c), s	5.4	0.0	0.0	4.4	0.0	0.0	2.5	0.0	0.0	2.9	17.1	17.4
Prop In Lane	0.64		0.24	0.19		0.76	1.00		0.03	1.00		0.46
Lane Grp Cap(c), veh/h	364	0	0	345	0	0	109	963	1008	116	970	943
V/C Ratio(X)	0.47	0.00	0.00	0.39	0.00	0.00	0.71	0.54	0.54	0.76	0.71	0.72
Avail Cap(c_a), veh/h	541	0	0	535	0	0	525	963	1008	151	970	943
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.0	0.0	0.0	22.7	0.0	0.0	25.9	0.0	0.0	27.6	10.4	10.5
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.7	0.0	0.0	3.0	2.1	2.0	10.4	4.4	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.0	1.7	0.0	0.0	1.1	0.6	0.6	1.5	6.5	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.0	0.0	0.0	23.4	0.0	0.0	28.9	2.1	2.0	38.0	14.7	15.1
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	B	B
Approach Vol, veh/h		170			135			1136			1453	
Approach Delay, s/veh		24.0			23.4			3.9			16.3	
Approach LOS		C			C			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	36.8		14.7	8.2	37.0		14.7				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	4.9	2.0		7.4	4.5	19.4		6.4				
Green Ext Time (p_c), s	0.0	7.4		0.7	0.1	0.0		0.5				

Intersection Summary

HCM 6th Ctrl Delay 12.2

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings

Jack Rabbit Trail (JN 12396)

17: Potrero Bl. & SR-60 WB Ramps

07/16/2020

	↖	↗	↑	↘	↓	↙
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↖↖	↖↖	↑↑↑	↖	↑↑↑	↖↖
Traffic Volume (vph)	178	233	1274	514	928	1052
Future Volume (vph)	178	233	1274	514	928	1052
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	12.5	11.2	32.9	32.9	32.9	32.9
Actuated g/C Ratio	0.22	0.20	0.58	0.58	0.58	0.58
v/c Ratio	0.25	0.41	0.47	0.48	0.34	0.54
Control Delay	22.2	18.3	6.8	2.0	6.0	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.2	18.3	6.8	2.0	6.0	1.4
LOS	C	B	A	A	A	A
Approach Delay			5.4		3.6	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 56.3

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.54

Intersection Signal Delay: 6.0

Intersection LOS: A

Intersection Capacity Utilization 42.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps



HCM 6th Signalized Intersection Summary
17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

07/16/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	178	0	233	0	1274	514	0	928	1052
Future Volume (veh/h)	0	0	0	178	0	233	0	1274	514	0	928	1052
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				193	0	226	0	1385	0	0	1009	1061
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				469	0	378	0	3287		0	3287	1796
Arrive On Green				0.14	0.00	0.14	0.00	0.64	0.00	0.00	0.64	0.64
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				193	0	226	0	1385	0	0	1009	1061
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				2.4	0.0	3.6	0.0	6.3	0.0	0.0	4.1	10.3
Cycle Q Clear(g_c), s				2.4	0.0	3.6	0.0	6.3	0.0	0.0	4.1	10.3
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				469	0	378	0	3287		0	3287	1796
V/C Ratio(X)				0.41	0.00	0.60	0.00	0.42		0.00	0.31	0.59
Avail Cap(c_a), veh/h				2962	0	2391	0	7496		0	7496	4095
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				18.7	0.0	19.2	0.0	4.1	0.0	0.0	3.7	4.8
Incr Delay (d2), s/veh				0.2	0.0	0.6	0.0	0.1	0.0	0.0	0.1	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.8	0.0	1.0	0.0	0.7	0.0	0.0	0.5	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				18.9	0.0	19.7	0.0	4.2	0.0	0.0	3.8	5.1
LnGrp LOS				B	A	B	A	A		A	A	A
Approach Vol, veh/h					419			1385	A		2070	
Approach Delay, s/veh					19.3			4.2			4.5	
Approach LOS					B			A			A	
Timer - Assigned Phs	2			6			8					
Phs Duration (G+Y+Rc), s	36.1			36.1			11.0					
Change Period (Y+Rc), s	5.8			5.8			4.6					
Max Green Setting (Gmax), s	69.2			69.2			40.4					
Max Q Clear Time (g_c+I1), s	8.3			12.3			5.6					
Green Ext Time (p_c), s	13.1			18.0			0.8					
Intersection Summary												
HCM 6th Ctrl Delay	6.0											
HCM 6th LOS	A											
Notes												

Timings
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/16/2020



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations	←←	→→	→→→	←←	→→→	←
Traffic Volume (vph)	779	358	1009	365	860	245
Future Volume (vph)	779	358	1009	365	860	245
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	49.0	49.0	71.0	71.0	71.0	71.0
Total Split (%)	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	18.7	17.5	25.7	25.7	25.7	25.7
Actuated g/C Ratio	0.34	0.32	0.46	0.46	0.46	0.46
v/c Ratio	0.73	0.38	0.46	0.26	0.40	0.30
Control Delay	21.0	9.0	11.0	1.7	10.5	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	9.0	11.0	1.7	10.5	2.6
LOS	C	A	B	A	B	A
Approach Delay			8.6		8.7	
Approach LOS			A		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 55.3

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 11.3

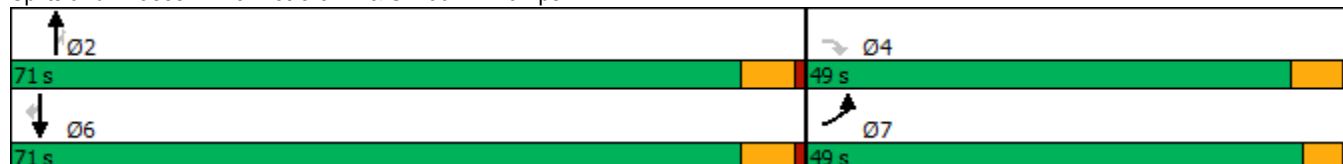
Intersection LOS: B

Intersection Capacity Utilization 49.9%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps



HCM 6th Signalized Intersection Summary 18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/16/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 		 					  	 		  	
Traffic Volume (veh/h)	779	0	358	0	0	0	0	1009	365	0	860	245
Future Volume (veh/h)	779	0	358	0	0	0	0	1009	365	0	860	245
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	847	0	307				0	1097	354	0	935	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1099	0	887				0	2306	1260	0	2306	
Arrive On Green	0.32	0.00	0.32				0.00	0.45	0.45	0.00	0.45	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	847	0	307				0	1097	354	0	935	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	10.0	0.0	3.8				0.0	6.8	3.6	0.0	5.6	0.0
Cycle Q Clear(g_c), s	10.0	0.0	3.8				0.0	6.8	3.6	0.0	5.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1099	0	887				0	2306	1260	0	2306	
V/C Ratio(X)	0.77	0.00	0.35				0.00	0.48	0.28	0.00	0.41	
Avail Cap(c_a), veh/h	3396	0	2742				0	7370	4026	0	7370	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	13.9	0.0	11.8				0.0	8.6	7.8	0.0	8.3	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.1				0.0	0.2	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.9				0.0	1.6	0.7	0.0	1.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.4	0.0	11.9				0.0	8.8	7.9	0.0	8.4	0.0
LnGrp LOS	B	A	B				A	A	A	A	A	
Approach Vol, veh/h	1154						1451			935		
Approach Delay, s/veh	13.7						8.6			8.4		
Approach LOS	B						A			A		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	26.2			19.0			26.2					
Change Period (Y+Rc), s	5.8			4.6			5.8					
Max Green Setting (Gmax), s	65.2			44.4			65.2					
Max Q Clear Time (g_c+I1), s	8.8			12.0			7.6					
Green Ext Time (p_c), s	11.6			2.4			7.3					
Intersection Summary												
HCM 6th Ctrl Delay	10.2											
HCM 6th LOS	B											
Notes												

Intersection	
Intersection Delay, s/veh	1089.5
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	365	898	1072	652	761	1486
Future Vol, veh/h	365	898	1072	652	761	1486
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	397	976	1165	709	827	1615
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	706.9	840.2	1495.8
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	761	1486	183	183	898	1072	326	326
LT Vol	761	0	0	0	0	1072	0	0
Through Vol	0	0	183	183	0	0	326	326
RT Vol	0	1486	0	0	898	0	0	0
Lane Flow Rate	827	1615	198	198	976	1165	354	354
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	2.814	4.958	0.657	0.657	2.582	3.596	1.044	0.877
Departure Headway (Hd)	17.423	16.193	86.256	86.256	84.498	36.742	36.388	35.185
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	215	242	46	46	59	117	103	106
Service Time	15.123	13.893	83.956	83.956	82.198	34.442	34.088	32.885
HCM Lane V/C Ratio	3.847	6.674	4.304	4.304	16.542	9.957	3.437	3.34
HCM Control Delay	862.6	1820.1	189.1	189.1	917.4	1256.5	180.1	131.3
HCM Lane LOS	F	F	F	F	F	F	F	F
HCM 95th-tile Q	51.1	113.6	2.4	2.4	11.9	35.5	6.5	5.1

Intersection

Intersection Delay, s/veh 604.8

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	2	0	114	0	1316	0	11	1623	0
Future Vol, veh/h	0	0	0	2	0	114	0	1316	0	11	1623	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	2	0	124	0	1430	0	12	1764	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	14.2	504.8	727.2
HCM LOS	B	F	F

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	2%	1%
Vol Thru, %	100%	0%	99%
Vol Right, %	0%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1316	116	1634
LT Vol	0	2	11
Through Vol	1316	0	1623
RT Vol	0	114	0
Lane Flow Rate	1430	126	1776
Geometry Grp	1	1	1
Degree of Util (X)	2.072	0.225	2.573
Departure Headway (Hd)	6.733	8.699	6.269
Convergence, Y/N	Yes	Yes	Yes
Cap	558	416	604
Service Time	4.733	6.699	4.269
HCM Lane V/C Ratio	2.563	0.303	2.94
HCM Control Delay	504.8	14.2	727.2
HCM Lane LOS	F	B	F
HCM 95th-tile Q	77	0.9	117.6

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	696	88	28	551	383	583
Future Volume (vph)	696	88	28	551	383	583
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	33.0	60.8	27.8	27.8	29.2	29.2
Total Split (%)	36.7%	67.6%	30.9%	30.9%	32.4%	32.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	28.4	55.0	22.0	22.0	20.2	20.2
Actuated g/C Ratio	0.33	0.63	0.25	0.25	0.23	0.23
v/c Ratio	1.77	0.06	0.09	1.06	0.71	0.83
Control Delay	377.5	6.8	26.8	64.0	35.9	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	377.5	6.8	26.8	64.0	35.9	10.7
LOS	F	A	C	E	D	B
Approach Delay		336.0	62.2		20.7	
Approach LOS		F	E		C	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 87.3

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.77

Intersection Signal Delay: 137.1

Intersection LOS: F

Intersection Capacity Utilization 81.3%

ICU Level of Service D

Analysis Period (min) 15

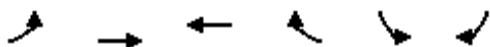
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	696	88	28	551	383	583	
Future Volume (veh/h)	696	88	28	551	383	583	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	1039	131	42	822	572	870	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	571	2206	464	394	897	411	
Arrive On Green	0.32	0.61	0.24	0.24	0.26	0.26	
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610	
Grp Volume(v), veh/h	1039	131	42	822	572	870	
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610	
Q Serve(g_s), s	28.4	1.3	1.5	22.0	13.0	23.0	
Cycle Q Clear(g_c), s	28.4	1.3	1.5	22.0	13.0	23.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	571	2206	464	394	897	411	
V/C Ratio(X)	1.82	0.06	0.09	2.09	0.64	2.11	
Avail Cap(c_a), veh/h	571	2206	464	394	897	411	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	30.8	7.1	26.3	34.0	29.8	33.5	
Incr Delay (d2), s/veh	375.7	0.0	0.1	498.4	1.5	509.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	70.9	0.4	0.7	62.5	5.2	76.2	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	406.5	7.1	26.4	532.4	31.3	543.1	
LnGrp LOS	F	A	C	F	C	F	
Approach Vol, veh/h	1170		864	1442			
Approach Delay, s/veh	361.8		507.8	340.1			
Approach LOS	F		F	F			
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				60.8	29.2	33.0	27.8
Change Period (Y+Rc), s				5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s				55.0	23.0	28.4	22.0
Max Q Clear Time (g_c+I1), s				3.3	25.0	30.4	24.0
Green Ext Time (p_c), s				0.5	0.0	0.0	0.0
Intersection Summary							
HCM 6th Ctrl Delay			389.1				
HCM 6th LOS			F				

Intersection

Intersection Delay, s/veh 455.5

Intersection LOS F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	517	919	909	510	256	916
Future Vol, veh/h	517	919	909	510	256	916
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	533	947	937	526	264	944
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	527.8	50.7	856.9
HCM LOS	F	F	F

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	22%
Vol Thru, %	0%	100%	100%	100%	26%	0%
Vol Right, %	0%	0%	0%	0%	74%	78%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	517	919	364	364	692	1172
LT Vol	517	0	0	0	0	256
Through Vol	0	919	364	364	182	0
RT Vol	0	0	0	0	510	916
Lane Flow Rate	533	947	375	375	713	1208
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	1.439	2.426	0.812	0.812	1.106	2.851
Departure Headway (Hd)	14.592	14.024	5.437	5.437	3.052	8.495
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	256	275	667	667	1191	447
Service Time	12.292	11.724	3.137	3.137	0.752	6.138
HCM Lane V/C Ratio	2.082	3.444	0.562	0.562	0.599	2.702
HCM Control Delay	254.7	681.5	27.3	27.3	75.3	856.9
HCM Lane LOS	F	F	D	D	F	F
HCM 95th-tile Q	20.1	50.4	8.4	8.4	31.3	103.1

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/16/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	EBT	WBL	WBT	SBT
Traffic Volume (vph)	2183	247	1905	1
Future Volume (vph)	2183	247	1905	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	29.1	10.6	43.7	38.3
Actuated g/C Ratio	0.32	0.12	0.49	0.43
v/c Ratio	4.60	1.26	2.25	4.10
Control Delay	1636.3	147.4	580.3	1411.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1636.3	147.4	580.3	1411.2
LOS	F	F	F	F
Approach Delay	1636.3		530.7	1411.2
Approach LOS	F		F	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 4.60

Intersection Signal Delay: 1235.7

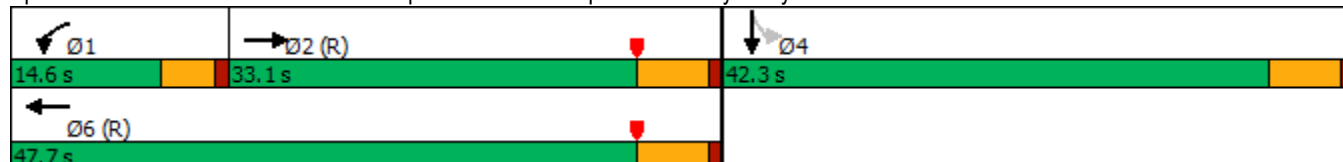
Intersection LOS: F

Intersection Capacity Utilization 449.8%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/16/2020

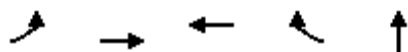
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↩		↩	↩						↩	
Traffic Volume (veh/h)	0	2183	391	247	1905	0	0	0	0	1254	1	1514
Future Volume (veh/h)	0	2183	391	247	1905	0	0	0	0	1254	1	1514
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	2373	365	268	2071	0				1363	1	1592
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	520	80	213	923	0				333	0	389
Arrive On Green	0.00	0.32	0.30	0.12	0.49	0.00				0.43	0.43	0.41
Sat Flow, veh/h	0	1608	247	1810	1900	0				782	1	914
Grp Volume(v), veh/h	0	0	2738	268	2071	0				2956	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1855	1810	1900	0				1696	0	0
Q Serve(g_s), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Prop In Lane	0.00		0.13	1.00		0.00				0.46		0.54
Lane Grp Cap(c), veh/h	0	0	600	213	923	0				722	0	0
V/C Ratio(X)	0.00	0.00	4.56	1.26	2.24	0.00				4.09	0.00	0.00
Avail Cap(c_a), veh/h	0	0	600	213	923	0				722	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	30.6	39.7	23.1	0.0				26.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1607.5	119.5	560.5	0.0				1395.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	279.8	11.5	160.3	0.0				293.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	1638.1	159.2	583.6	0.0				1422.2	0.0	0.0
LnGrp LOS	A	A	F	F	F	A				F	A	A
Approach Vol, veh/h	2738			2339			2956					
Approach Delay, s/veh	1638.1			535.0			1422.2					
Approach LOS	F			F			F					
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.6	33.1		42.3		47.7						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9						
Max Q Clear Time (g_c+I1), s	12.6	31.1		40.3		45.7						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.0						
Intersection Summary												
HCM 6th Ctrl Delay	1237.5											
HCM 6th LOS	F											

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/16/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	365	3072	1633	422	5
Future Volume (vph)	365	3072	1633	422	5
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	14.4	44.0	29.6	29.6	46.0
Total Split (%)	16.0%	48.9%	32.9%	32.9%	51.1%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	10.4	40.0	25.6	25.6	42.0
Actuated g/C Ratio	0.12	0.44	0.28	0.28	0.47
v/c Ratio	1.81	3.75	3.12	0.76	1.54
Control Delay	389.4	1252.1	974.6	28.3	272.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	389.4	1252.1	974.6	28.3	272.4
LOS	F	F	F	C	F
Approach Delay		1160.5	780.3		272.4
Approach LOS		F	F		F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 3.75

Intersection Signal Delay: 884.8

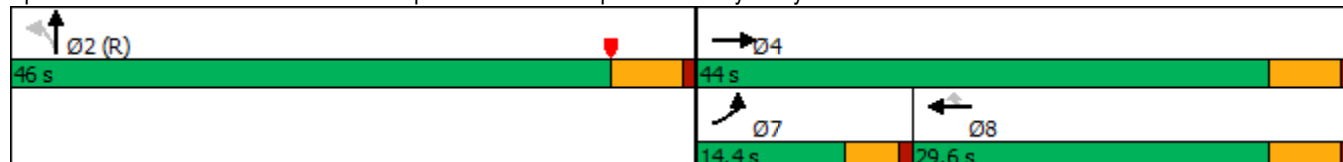
Intersection LOS: F

Intersection Capacity Utilization 449.8%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/16/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	365	3072	0	0	1633	422	520	5	672	0	0	0
Future Volume (veh/h)	365	3072	0	0	1633	422	520	5	672	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	376	3167	0	0	1684	365	536	5	641			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	209	844	0	0	540	458	359	3	429			
Arrive On Green	0.08	0.30	0.00	0.00	0.28	0.28	0.47	0.47	0.45			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	769	7	920			
Grp Volume(v), veh/h	376	3167	0	0	1684	365	1182	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1696	0	0			
Q Serve(g_s), s	10.4	40.0	0.0	0.0	25.6	18.9	42.0	0.0	0.0			
Cycle Q Clear(g_c), s	10.4	40.0	0.0	0.0	25.6	18.9	42.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.45		0.54			
Lane Grp Cap(c), veh/h	209	844	0	0	540	458	791	0	0			
V/C Ratio(X)	1.80	3.75	0.00	0.00	3.12	0.80	1.49	0.00	0.00			
Avail Cap(c_a), veh/h	209	844	0	0	540	458	791	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	41.5	31.6	0.0	0.0	32.2	29.8	24.5	0.0	0.0			
Incr Delay (d2), s/veh	360.9	1237.9	0.0	0.0	957.1	9.5	228.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	25.6	308.6	0.0	0.0	154.5	8.0	65.0	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	402.4	1269.5	0.0	0.0	989.3	39.3	253.2	0.0	0.0			
LnGrp LOS	F	F	A	A	F	D	F	A	A			
Approach Vol, veh/h	3543			2049			1182					
Approach Delay, s/veh	1177.5			820.0			253.2					
Approach LOS	F			F			F					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	46.0			44.0			14.4			29.6		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	40.2			38.2			9.8			23.8		
Max Q Clear Time (g_c+I1), s	44.0			42.0			12.4			27.6		
Green Ext Time (p_c), s	0.0			0.0			0.0			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	908.1											
HCM 6th LOS	F											

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑				↑			↑
Traffic Vol, veh/h	327	1023	153	131	808	67	0	0	143	0	0	79
Future Vol, veh/h	327	1023	153	131	808	67	0	0	143	0	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	352	1100	165	141	869	72	0	0	154	0	0	85
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	941	0	0	1265	0	0	-	-	633	-	-	471
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	737	-	-	556	-	-	0	0	427	0	0	545
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	737	-	-	556	-	-	-	-	427	-	-	545
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.1			1.8			18.1			12.8		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	427	737	-	-	556	-	-	545				
HCM Lane V/C Ratio	0.36	0.477	-	-	0.253	-	-	0.156				
HCM Control Delay (s)	18.1	14.3	-	-	13.7	-	-	12.8				
HCM Lane LOS	C	B	-	-	B	-	-	B				
HCM 95th %tile Q(veh)	1.6	2.6	-	-	1	-	-	0.5				

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	129	526	11	467	182	48	45	13	155	72	71
Future Volume (vph)	129	526	11	467	182	48	45	13	155	72	71
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	36.0	54.0	15.0	33.0	33.0	23.0	34.0	34.0	17.0	28.0	28.0
Total Split (%)	30.0%	45.0%	12.5%	27.5%	27.5%	19.2%	28.3%	28.3%	14.2%	23.3%	23.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	12.9	42.7	5.5	27.3	27.3	7.7	10.5	10.5	12.4	17.3	17.3
Actuated g/C Ratio	0.15	0.51	0.07	0.32	0.32	0.09	0.12	0.12	0.15	0.21	0.21
v/c Ratio	0.66	0.49	0.14	1.08	0.40	0.42	0.27	0.06	0.83	0.26	0.21
Control Delay	45.4	15.0	41.3	90.7	9.1	44.5	37.7	0.3	62.5	33.9	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.4	15.0	41.3	90.7	9.1	44.5	37.7	0.3	62.5	33.9	1.0
LOS	D	B	D	F	A	D	D	A	E	C	A
Approach Delay		20.3		67.4			36.1			41.0	
Approach LOS		C		E			D			D	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 84

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 41.7

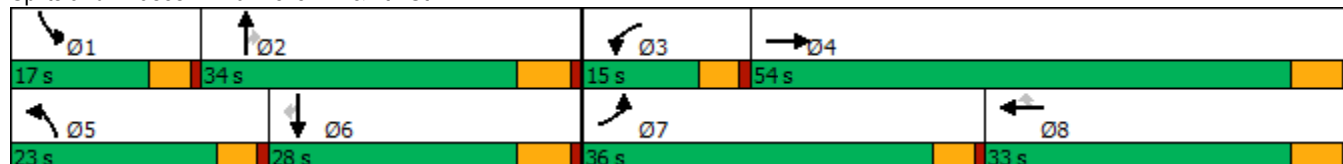
Intersection LOS: D

Intersection Capacity Utilization 60.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	526	94	11	467	182	48	45	13	155	72	71
Future Volume (veh/h)	129	526	94	11	467	182	48	45	13	155	72	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	184	751	134	16	667	260	69	64	19	221	103	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	226	1375	245	34	652	552	90	240	203	260	418	
Arrive On Green	0.12	0.45	0.45	0.02	0.34	0.34	0.05	0.13	0.13	0.14	0.22	0.00
Sat Flow, veh/h	1810	3061	546	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	184	443	442	16	667	260	69	64	19	221	103	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1802	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	7.9	14.2	14.2	0.7	27.2	10.0	3.0	2.4	0.8	9.4	3.5	0.0
Cycle Q Clear(g_c), s	7.9	14.2	14.2	0.7	27.2	10.0	3.0	2.4	0.8	9.4	3.5	0.0
Prop In Lane	1.00		0.30	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	226	811	809	34	652	552	90	240	203	260	418	
V/C Ratio(X)	0.81	0.55	0.55	0.47	1.02	0.47	0.77	0.27	0.09	0.85	0.25	
Avail Cap(c_a), veh/h	717	1097	1095	237	652	552	420	676	573	283	532	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.8	15.9	15.9	38.5	26.0	20.4	37.2	31.3	30.6	33.1	25.5	0.0
Incr Delay (d2), s/veh	2.7	0.6	0.6	3.8	41.3	0.6	5.1	0.6	0.2	18.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	5.2	5.2	0.3	18.3	3.5	1.4	1.1	0.3	5.2	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.5	16.5	16.5	42.3	67.3	21.0	42.3	31.9	30.8	51.5	25.8	0.0
LnGrp LOS	D	B	B	D	F	C	D	C	C	D	C	
Approach Vol, veh/h		1069			943			152			324	
Approach Delay, s/veh		20.0			54.1			36.5			43.3	
Approach LOS		B			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.0	15.8	6.1	41.4	8.5	23.3	14.5	33.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	12.4	28.2	10.4	48.2	18.4	22.2	31.4	27.2				
Max Q Clear Time (g_c+I1), s	11.4	4.4	2.7	16.2	5.0	5.5	9.9	29.2				
Green Ext Time (p_c), s	0.0	0.3	0.0	5.7	0.0	0.3	0.2	0.0				

Intersection Summary

HCM 6th Ctrl Delay 37.0

HCM 6th LOS D

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/16/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	23	686	207	322	521	13	454	156	24	94
Future Volume (vph)	23	686	207	322	521	13	454	156	24	94
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	19.0	36.6	9.6	27.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	21.1%	40.7%	10.7%	30.2%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.8	-0.8	-0.6	-0.8	-0.8	-0.6	-1.2	-0.6	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.7	29.4	29.4	6.4	35.9	35.9	15.0	38.4	5.6	23.2
Actuated g/C Ratio	0.06	0.33	0.33	0.07	0.40	0.40	0.17	0.43	0.06	0.26
v/c Ratio	0.21	1.16	0.33	2.65	0.72	0.02	1.59	0.80	0.22	0.23
Control Delay	44.6	120.9	6.0	783.8	31.3	0.1	311.0	25.8	45.2	26.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.6	120.9	6.0	783.8	31.3	0.1	311.0	25.8	45.2	26.0
LOS	D	F	A	F	C	A	F	C	D	C
Approach Delay		93.0			314.0			145.9		29.5
Approach LOS		F			F			F		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.65

Intersection Signal Delay: 172.8

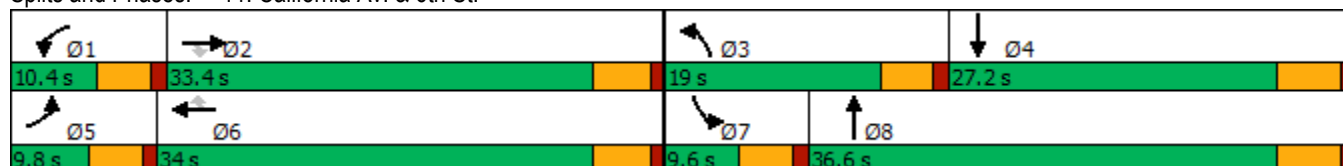
Intersection LOS: F

Intersection Capacity Utilization 100.9%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/16/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	686	207	322	521	13	454	156	468	24	94	13
Future Volume (veh/h)	23	686	207	322	521	13	454	156	468	24	94	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	722	214	339	548	9	478	164	462	25	99	8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	57	621	526	129	695	589	302	172	485	59	447	36
Arrive On Green	0.03	0.33	0.33	0.07	0.37	0.37	0.17	0.39	0.38	0.03	0.26	0.24
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	439	1238	1810	1735	140
Grp Volume(v), veh/h	24	722	214	339	548	9	478	0	626	25	0	107
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1677	1810	0	1875
Q Serve(g_s), s	1.2	29.4	9.3	6.4	23.1	0.3	15.0	0.0	32.6	1.2	0.0	4.0
Cycle Q Clear(g_c), s	1.2	29.4	9.3	6.4	23.1	0.3	15.0	0.0	32.6	1.2	0.0	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.74	1.00		0.07
Lane Grp Cap(c), veh/h	57	621	526	129	695	589	302	0	657	59	0	483
V/C Ratio(X)	0.42	1.16	0.41	2.63	0.79	0.02	1.58	0.00	0.95	0.43	0.00	0.22
Avail Cap(c_a), veh/h	117	621	526	129	695	589	302	0	657	113	0	483
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.8	30.3	23.5	41.8	25.4	18.2	37.5	0.0	27.0	42.7	0.0	26.3
Incr Delay (d2), s/veh	1.8	90.3	0.5	757.4	6.0	0.0	278.5	0.0	25.2	1.8	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	28.4	3.3	29.9	11.2	0.1	29.6	0.0	16.4	0.6	0.0	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.6	120.6	24.0	799.2	31.5	18.2	316.0	0.0	52.1	44.5	0.0	27.4
LnGrp LOS	D	F	C	F	C	B	F	A	D	D	A	C
Approach Vol, veh/h	960				896				1104			
Approach Delay, s/veh	97.2				321.8				166.4			
Approach LOS	F				F				F			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.4	33.4	19.0	27.2	6.9	36.9	6.9	39.3				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	5.8	* 29	14.4	22.0	5.2	* 29	5.0	31.4				
Max Q Clear Time (g_c+I1), s	8.4	31.4	17.0	6.0	3.2	25.1	3.2	34.6				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.4	0.0	1.3	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay 184.1

HCM 6th LOS F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	6.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱	↰	↱	↰		↰	↱
Traffic Vol, veh/h	5	4	103	54	4	25	213	725	40	8	546	8
Future Vol, veh/h	5	4	103	54	4	25	213	725	40	8	546	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	120	-	50	-	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	4	108	57	4	26	224	763	42	8	575	8

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1838	1844	575	1862	1810	763	583	0	0	805	0	0
Stage 1	591	591	-	1211	1211	-	-	-	-	-	-	-
Stage 2	1247	1253	-	651	599	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	59	76	521	57	80	408	1001	-	-	828	-	-
Stage 1	497	498	-	225	257	-	-	-	-	-	-	-
Stage 2	215	246	-	461	494	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	44	58	521	~36	61	408	1001	-	-	828	-	-
Mov Cap-2 Maneuver	111	141	-	85	131	-	-	-	-	-	-	-
Stage 1	386	491	-	175	199	-	-	-	-	-	-	-
Stage 2	153	191	-	357	487	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.5	82.5	2.1	0.1
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1001	-	-	123	521	87	408	828	-	-
HCM Lane V/C Ratio	0.224	-	-	0.077	0.208	0.702	0.064	0.01	-	-
HCM Control Delay (s)	9.6	-	-	36.7	13.7	111.8	14.4	9.4	0	-
HCM Lane LOS	A	-	-	E	B	F	B	A	A	-
HCM 95th %tile Q(veh)	0.9	-	-	0.2	0.8	3.4	0.2	0	-	-

Notes										
~: Volume exceeds capacity	\$: Delay exceeds 300s	+: Computation Not Defined						*: All major volume in platoon		

Intersection						
Int Delay, s/veh	6125.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	478	590	230	1005	1165	401
Future Vol, veh/h	478	590	230	1005	1165	401
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	520	641	250	1092	1266	436
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	3076	1484	1702	0	-	0
Stage 1	1484	-	-	-	-	-
Stage 2	1592	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 14	~ 155	379	-	-	-
Stage 1	~ 210	-	-	-	-	-
Stage 2	~ 186	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 5	~ 155	379	-	-	-
Mov Cap-2 Maneuver	~ 5	-	-	-	-	-
Stage 1	~ 71	-	-	-	-	-
Stage 2	~ 186	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay \$	2184.2	5.8		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	379	-	5	155	-	-
HCM Lane V/C Ratio	0.66	103.913	4.137		-	-
HCM Control Delay (s)	31.1	\$ 47751.	\$ 1470.1		-	-
HCM Lane LOS	D	-	F	F	-	-
HCM 95th %tile Q(veh)	4.5	-	67.2	64.5	-	-
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/16/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	253	19	87	5	28	1816	177	850
Future Volume (vph)	253	19	87	5	28	1816	177	850
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		-0.6		-0.8	-0.6	-0.8	-0.6	-0.8
Total Lost Time (s)		4.0		4.0	4.0	4.0	4.0	4.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		15.0		15.0	6.3	25.1	7.9	32.5
Actuated g/C Ratio		0.25		0.25	0.10	0.42	0.13	0.54
v/c Ratio		1.35		0.60	0.15	1.27	0.77	0.51
Control Delay		208.4		14.2	31.4	143.9	49.4	10.8
Queue Delay		3.2		4.7	1.6	0.0	0.0	51.6
Total Delay		211.5		18.9	33.0	143.9	49.4	62.4
LOS		F		B	C	F	D	E
Approach Delay		211.5		18.9		142.2		60.4
Approach LOS		F		B		F		E

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.35

Intersection Signal Delay: 112.8

Intersection LOS: F

Intersection Capacity Utilization 110.0%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/16/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	
Traffic Volume (veh/h)	253	19	47	87	5	203	28	1816	37	177	850	101
Future Volume (veh/h)	253	19	47	87	5	203	28	1816	37	177	850	101
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	261	20	48	90	5	209	29	1872	38	182	876	104
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	330	17	41	186	30	305	76	1906	39	241	2009	238
Arrive On Green	0.25	0.25	0.24	0.25	0.25	0.24	0.06	0.70	0.68	0.13	0.62	0.60
Sat Flow, veh/h	891	68	164	428	119	1203	1810	3619	73	1810	3250	386
Grp Volume(v), veh/h	329	0	0	304	0	0	29	931	979	182	487	493
Grp Sat Flow(s),veh/h/ln	1123	0	0	1750	0	0	1810	1805	1887	1810	1805	1831
Q Serve(g_s), s	5.5	0.0	0.0	0.0	0.0	0.0	0.9	29.5	30.1	5.8	8.5	8.5
Cycle Q Clear(g_c), s	15.0	0.0	0.0	9.5	0.0	0.0	0.9	29.5	30.1	5.8	8.5	8.5
Prop In Lane	0.79		0.15	0.30		0.69	1.00		0.04	1.00		0.21
Lane Grp Cap(c), veh/h	388	0	0	521	0	0	76	951	994	241	1116	1131
V/C Ratio(X)	0.85	0.00	0.00	0.58	0.00	0.00	0.38	0.98	0.99	0.75	0.44	0.44
Avail Cap(c_a), veh/h	388	0	0	521	0	0	241	951	994	241	1116	1131
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.9	0.0	0.0	20.6	0.0	0.0	27.6	8.7	8.8	25.1	6.0	6.0
Incr Delay (d2), s/veh	15.9	0.0	0.0	1.7	0.0	0.0	1.0	22.3	23.1	11.4	1.2	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.0	0.0	3.9	0.0	0.0	0.4	10.3	11.0	3.1	2.7	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	0.0	0.0	22.2	0.0	0.0	28.6	31.0	31.8	36.4	7.2	7.3
LnGrp LOS	D	A	A	C	A	A	C	C	C	D	A	A
Approach Vol, veh/h		329			304			1939			1162	
Approach Delay, s/veh		39.8			22.2			31.4			11.8	
Approach LOS		D			C			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	35.8		19.2	6.5	41.3		19.2				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	7.8	32.1		17.0	2.9	10.5		11.5				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	5.4		0.5				
Intersection Summary												
HCM 6th Ctrl Delay			25.3									
HCM 6th LOS			C									
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings
17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

04/01/2022

	↖	↗	↑	↘	↓	↙
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↖↖	↖↖	↑↑↑	↖	↑↑↑	↖↖
Traffic Volume (vph)	530	283	2716	417	1585	1107
Future Volume (vph)	530	283	2716	417	1585	1107
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	42.0	42.0	78.0	78.0	78.0	78.0
Total Split (%)	35.0%	35.0%	65.0%	65.0%	65.0%	65.0%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	21.6	20.4	72.3	72.3	72.3	72.3
Actuated g/C Ratio	0.21	0.20	0.69	0.69	0.69	0.69
v/c Ratio	0.81	0.55	0.84	0.38	0.49	0.52
Control Delay	49.0	38.1	15.4	3.9	8.4	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	38.1	15.4	3.9	8.4	1.3
LOS	D	D	B	A	A	A
Approach Delay			13.8		5.5	
Approach LOS			B		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 104.4

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 14.3

Intersection LOS: B

Intersection Capacity Utilization 75.8%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps

↑ Ø2	↖ Ø3
78 s	42 s
↓ Ø6	↘ Ø8
78 s	42 s

HCM 6th Signalized Intersection Summary

17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

04/01/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	530	0	283	0	2716	417	0	1585	1107
Future Volume (veh/h)	0	0	0	530	0	283	0	2716	417	0	1585	1107
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No		No		No		No		No
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				576	0	281	0	2952	0	0	1723	1121
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				682	0	550	0	3562		0	3562	1946
Arrive On Green				0.20	0.00	0.20	0.00	0.70	0.00	0.00	0.70	0.70
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				576	0	281	0	2952	0	0	1723	1121
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				15.9	0.0	8.9	0.0	41.0	0.0	0.0	15.2	20.1
Cycle Q Clear(g_c), s				15.9	0.0	8.9	0.0	41.0	0.0	0.0	15.2	20.1
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				682	0	550	0	3562		0	3562	1946
V/C Ratio(X)				0.84	0.00	0.51	0.00	0.83		0.00	0.48	0.58
Avail Cap(c_a), veh/h				1307	0	1055	0	3728		0	3728	2037
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				38.2	0.0	35.4	0.0	10.7	0.0	0.0	6.8	7.6
Incr Delay (d2), s/veh				1.1	0.0	0.3	0.0	1.6	0.0	0.0	0.1	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.5	0.0	2.9	0.0	11.7	0.0	0.0	4.2	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				39.4	0.0	35.7	0.0	12.3	0.0	0.0	6.9	7.9
LnGrp LOS				D	A	D	A	B		A	A	A
Approach Vol, veh/h					857			2952	A		2844	
Approach Delay, s/veh					38.2			12.3			7.3	
Approach LOS					D			B			A	
Timer - Assigned Phs	2			6			8					
Phs Duration (G+Y+Rc), s	74.8			74.8			24.1					
Change Period (Y+Rc), s	5.8			5.8			4.6					
Max Green Setting (Gmax), s	72.2			72.2			37.4					
Max Q Clear Time (g_c+I1), s	43.0			22.1			17.9					
Green Ext Time (p_c), s	26.0			31.1			1.6					
Intersection Summary												
HCM 6th Ctrl Delay	13.5											
HCM 6th LOS	B											
Notes												

Timings
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

04/01/2022



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations	←←	→→	→→→	←←	→→→	←
Traffic Volume (vph)	1702	413	1431	365	1806	309
Future Volume (vph)	1702	413	1431	365	1806	309
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	69.0	69.0	51.0	51.0	51.0	51.0
Total Split (%)	57.5%	57.5%	42.5%	42.5%	42.5%	42.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	64.4	63.2	45.2	45.2	45.2	45.2
Actuated g/C Ratio	0.54	0.53	0.38	0.38	0.38	0.38
v/c Ratio	1.00	0.30	0.81	0.31	1.03	0.47
Control Delay	50.2	15.7	37.8	3.0	64.3	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	15.7	37.8	3.0	64.3	14.2
LOS	D	B	D	A	E	B
Approach Delay			30.7		57.0	
Approach LOS			C		E	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.03

Intersection Signal Delay: 44.4

Intersection LOS: D

Intersection Capacity Utilization 91.6%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps

↑ Ø2	↘ Ø4
51 s	69 s
↓ Ø6	↗ Ø7
51 s	69 s

HCM 6th Signalized Intersection Summary 18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

04/01/2022

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 		 					  	 		  	
Traffic Volume (veh/h)	1702	0	413	0	0	0	0	1431	365	0	1806	309
Future Volume (veh/h)	1702	0	413	0	0	0	0	1431	365	0	1806	309
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	1850	0	313				0	1555	288	0	1963	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1855	0	1497				0	1923	1051	0	1923	
Arrive On Green	0.54	0.00	0.54				0.00	0.38	0.38	0.00	0.38	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	1850	0	313				0	1555	288	0	1963	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	64.1	0.0	7.0				0.0	32.8	8.6	0.0	45.2	0.0
Cycle Q Clear(g_c), s	64.1	0.0	7.0				0.0	32.8	8.6	0.0	45.2	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1855	0	1497				0	1923	1051	0	1923	
V/C Ratio(X)	1.00	0.00	0.21				0.00	0.81	0.27	0.00	1.02	
Avail Cap(c_a), veh/h	1855	0	1497				0	1923	1051	0	1923	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	27.7	0.0	14.5				0.0	33.5	26.0	0.0	37.4	0.0
Incr Delay (d2), s/veh	20.3	0.0	0.0				0.0	2.7	0.1	0.0	25.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	28.9	0.0	2.1				0.0	13.3	2.8	0.0	22.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.0	0.0	14.5				0.0	36.2	26.1	0.0	63.3	0.0
LnGrp LOS	D	A	B				A	D	C	A	F	
Approach Vol, veh/h	2163						1843			1963		
Approach Delay, s/veh	43.2						34.6			63.3		
Approach LOS	D						C			E		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	51.0			69.0			51.0					
Change Period (Y+Rc), s	5.8			4.6			5.8					
Max Green Setting (Gmax), s	45.2			64.4			45.2					
Max Q Clear Time (g_c+I1), s	34.8			66.1			47.2					
Green Ext Time (p_c), s	7.4			0.0			0.0					
Intersection Summary												
HCM 6th Ctrl Delay	47.1											
HCM 6th LOS	D											
Notes												

APPENDIX 9.2:

HORIZON YEAR (2045) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

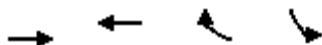
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Timings

Jack Rabbit Trail (JN 12396)

07/16/2020

1: 4th St. & Jack Rabbit Trail



Lane Group	EBT	WBT	WBR	SBL
Lane Configurations	↑	↑	↰	↱
Traffic Volume (vph)	170	785	234	100
Future Volume (vph)	170	785	234	100
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8	22.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effect Green (s)	33.4	33.4	33.4	13.7
Actuated g/C Ratio	0.68	0.68	0.68	0.28
v/c Ratio	0.14	0.66	0.22	0.22
Control Delay	5.2	10.7	1.2	23.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	5.2	10.7	1.2	23.4
LOS	A	B	A	C
Approach Delay	5.2	8.5		23.4
Approach LOS	A	A		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 49.4

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 9.2

Intersection LOS: A

Intersection Capacity Utilization 59.3%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 1: 4th St. & Jack Rabbit Trail

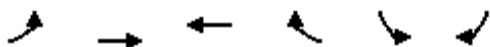


HCM 6th Signalized Intersection Summary

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

07/16/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	170	785	234	100	0
Future Volume (veh/h)	0	170	785	234	100	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	185	853	254	109	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	162	1087	1087	921	301	268
Arrive On Green	0.00	0.57	0.57	0.57	0.17	0.00
Sat Flow, veh/h	517	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	185	853	254	109	0
Grp Sat Flow(s),veh/h/ln	517	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	2.0	15.5	3.6	2.4	0.0
Cycle Q Clear(g_c), s	0.0	2.0	15.5	3.6	2.4	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	162	1087	1087	921	301	268
V/C Ratio(X)	0.00	0.17	0.78	0.28	0.36	0.00
Avail Cap(c_a), veh/h	498	2321	2321	1967	987	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	4.5	7.4	4.8	16.4	0.0
Incr Delay (d2), s/veh	0.0	0.1	1.3	0.2	0.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.4	3.0	0.5	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	4.6	8.7	5.0	17.1	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		185	1107		109	
Approach Delay, s/veh		4.6	7.8		17.1	
Approach LOS		A	A		B	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				31.2	13.2	31.2
Change Period (Y+Rc), s				5.8	5.8	5.8
Max Green Setting (Gmax), s				54.2	24.2	54.2
Max Q Clear Time (g_c+I1), s				4.0	4.4	17.5
Green Ext Time (p_c), s				1.0	0.2	7.9
Intersection Summary						
HCM 6th Ctrl Delay			8.1			
HCM 6th LOS			A			

Intersection

Intersection Delay, s/veh 98.2

Intersection LOS F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	360	906	1249	384	454	1104
Future Vol, veh/h	360	906	1249	384	454	1104
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	391	985	1358	417	493	1200
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	420.6	1082.2	807.3
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	454	1104	180	180	906	1249	192	192
LT Vol	454	0	0	0	0	1249	0	0
Through Vol	0	0	180	180	0	0	192	192
RT Vol	0	1104	0	0	906	0	0	0
Lane Flow Rate	493	1200	196	196	985	1358	209	209
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	1.471	3.178	0.55	0.55	2.114	4.019	0.589	0.49
Departure Headway (Hd)	18.345	17.083	24.9	24.9	22.503	18.189	17.69	15.992
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	202	228	147	147	177	217	207	227
Service Time	16.045	14.783	22.6	22.6	20.203	15.889	15.39	13.692
HCM Lane V/C Ratio	2.441	5.263	1.333	1.333	5.565	6.258	1.01	0.921
HCM Control Delay	279.9	1024.2	54.5	54.5	566.1	1403.2	43	33.1
HCM Lane LOS	F	F	F	F	F	F	E	D
HCM 95th-tile Q	17.7	61.5	2.7	2.7	27	78.5	3.3	2.5

Intersection

Intersection Delay, s/veh 522.2

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	11	0	64	0	1039	6	54	1588	0
Future Vol, veh/h	0	0	0	11	0	64	0	1039	6	54	1588	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	12	0	70	0	1129	7	59	1726	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	13.2	290.4	692.9
HCM LOS	B	F	F

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	15%	3%
Vol Thru, %	99%	0%	97%
Vol Right, %	1%	85%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1045	75	1642
LT Vol	0	11	54
Through Vol	1039	0	1588
RT Vol	6	64	0
Lane Flow Rate	1136	82	1785
Geometry Grp	1	1	1
Degree of Util (X)	1.588	0.148	2.5
Departure Headway (Hd)	6.427	8.657	5.621
Convergence, Y/N	Yes	Yes	Yes
Cap	579	417	660
Service Time	4.427	6.657	3.621
HCM Lane V/C Ratio	1.962	0.197	2.705
HCM Control Delay	290.4	13.2	692.9
HCM Lane LOS	F	B	F
HCM 95th-tile Q	48.1	0.5	124.9

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023

						
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	245	440	78	480	413	471
Future Volume (vph)	245	440	78	480	413	471
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	9.6	72.6	63.0	63.0	47.4	47.4
Total Split (%)	8.0%	60.5%	52.5%	52.5%	39.5%	39.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	5.2	23.2	13.3	13.3	16.5	16.5
Actuated g/C Ratio	0.10	0.45	0.26	0.26	0.32	0.32
v/c Ratio	2.06	0.41	0.24	0.76	0.56	0.71
Control Delay	513.0	11.0	17.2	7.6	17.3	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	513.0	11.0	17.2	7.6	17.3	6.2
LOS	F	B	B	A	B	A
Approach Delay		190.6	9.0		11.4	
Approach LOS		F	A		B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 52

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.06

Intersection Signal Delay: 68.5

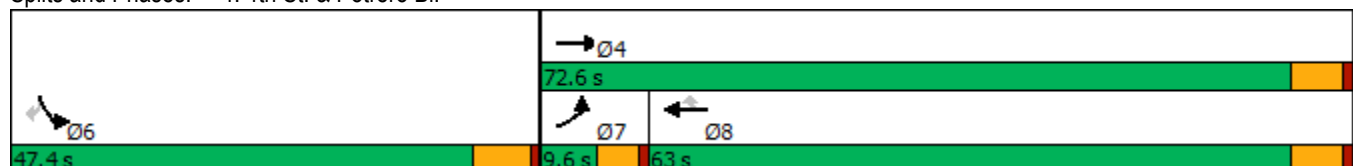
Intersection LOS: E

Intersection Capacity Utilization 52.0%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 4: 4th St. & Potrero Bl.

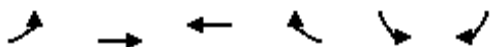


HCM 6th Signalized Intersection Summary

4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	245	440	78	480	413	471	
Future Volume (veh/h)	245	440	78	480	413	471	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	366	657	116	716	616	703	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	77	1965	878	744	1239	568	
Arrive On Green	0.04	0.54	0.46	0.46	0.35	0.35	
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610	
Grp Volume(v), veh/h	366	657	116	716	616	703	
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610	
Q Serve(g_s), s	5.0	11.8	4.1	50.3	16.1	41.2	
Cycle Q Clear(g_c), s	5.0	11.8	4.1	50.3	16.1	41.2	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	77	1965	878	744	1239	568	
V/C Ratio(X)	4.72	0.33	0.13	0.96	0.50	1.24	
Avail Cap(c_a), veh/h	77	2065	931	789	1239	568	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	55.9	14.8	18.0	30.4	29.7	37.8	
Incr Delay (d2), s/veh	1704.4	0.0	0.1	22.6	0.3	121.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	38.9	4.5	1.7	22.6	6.5	49.5	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	1760.3	14.9	18.1	53.0	30.0	159.1	
LnGrp LOS	F	B	B	D	C	F	
Approach Vol, veh/h							
		1023	832	1319			
Approach Delay, s/veh							
		639.3	48.1	98.8			
Approach LOS							
		F	D	F			
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				69.4	47.4	9.6	59.8
Change Period (Y+Rc), s				5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s				66.8	41.2	5.0	57.2
Max Q Clear Time (g_c+I1), s				13.8	43.2	7.0	52.3
Green Ext Time (p_c), s				2.8	0.0	0.0	1.7
Intersection Summary							
HCM 6th Ctrl Delay			259.7				
HCM 6th LOS			F				

Intersection

Intersection Delay, s/veh 42.4

Intersection LOS F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	217	919	938	401	608	378
Future Vol, veh/h	217	919	938	401	608	378
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	236	999	1020	436	661	411
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	612	63.6	761.3
HCM LOS	F	F	F

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	62%
Vol Thru, %	0%	100%	100%	100%	32%	0%
Vol Right, %	0%	0%	0%	0%	68%	38%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	217	919	375	375	589	986
LT Vol	217	0	0	0	0	608
Through Vol	0	919	375	375	188	0
RT Vol	0	0	0	0	401	378
Lane Flow Rate	236	999	408	408	640	1072
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	0.641	2.577	0.873	0.873	0.983	2.627
Departure Headway (Hd)	14.068	13.505	11.32	11.32	8.905	10.267
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	259	280	322	322	416	364
Service Time	11.768	11.205	9.02	9.02	6.605	7.967
HCM Lane V/C Ratio	0.911	3.568	1.267	1.267	1.538	2.945
HCM Control Delay	38.9	747.3	58	58	70.7	761.3
HCM Lane LOS	E	F	F	F	F	F
HCM 95th-tile Q	4	57.1	8	8	11.8	75.9

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/16/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	↵	→	↕
Traffic Volume (vph)	1063	345	2006	4
Future Volume (vph)	1063	345	2006	4
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	48.6	19.4	68.0	22.0
Total Split (%)	54.0%	21.6%	75.6%	24.4%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	4.6	5.8	5.8
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	42.8	14.8	62.2	16.2
Actuated g/C Ratio	0.48	0.16	0.69	0.18
v/c Ratio	2.13	1.27	1.66	3.84
Control Delay	532.9	156.4	317.1	1297.8
Queue Delay	0.0	0.0	0.3	0.0
Total Delay	532.9	156.4	317.3	1297.8
LOS	F	F	F	F
Approach Delay	532.9		293.7	1297.8
Approach LOS	F		F	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 3.84

Intersection Signal Delay: 589.4

Intersection LOS: F

Intersection Capacity Utilization 195.9%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/16/2020

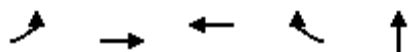
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1063	665	345	2006	0	0	0	0	336	4	779
Future Volume (veh/h)	0	1063	665	345	2006	0	0	0	0	336	4	779
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1155	639	375	2180	0				365	4	829
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	547	302	298	1313	0				91	1	208
Arrive On Green	0.00	0.48	0.48	0.22	0.92	0.00				0.18	0.18	0.18
Sat Flow, veh/h	0	1150	636	1810	1900	0				508	6	1154
Grp Volume(v), veh/h	0	0	1794	375	2180	0				1198	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1786	1810	1900	0				1667	0	0
Q Serve(g_s), s	0.0	0.0	42.8	14.8	62.2	0.0				16.2	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	42.8	14.8	62.2	0.0				16.2	0.0	0.0
Prop In Lane	0.00		0.36	1.00		0.00				0.30		0.69
Lane Grp Cap(c), veh/h	0	0	849	298	1313	0				300	0	0
V/C Ratio(X)	0.00	0.00	2.11	1.26	1.66	0.00				3.99	0.00	0.00
Avail Cap(c_a), veh/h	0	0	849	298	1313	0				300	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	23.6	35.2	3.6	0.0				36.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	504.7	119.7	297.4	0.0				1354.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	134.5	15.6	110.2	0.0				119.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	528.3	154.8	301.0	0.0				1391.5	0.0	0.0
LnGrp LOS	A	A	F	F	F	A				F	A	A
Approach Vol, veh/h	1794		2555				1198					
Approach Delay, s/veh	528.3		279.6				1391.5					
Approach LOS	F		F				F					
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	19.4	48.6	22.0		68.0							
Change Period (Y+Rc), s	4.6	5.8	5.8		5.8							
Max Green Setting (Gmax), s	14.8	42.8	16.2		62.2							
Max Q Clear Time (g_c+I1), s	16.8	44.8	18.2		64.2							
Green Ext Time (p_c), s	0.0	0.0	0.0		0.0							
Intersection Summary												
HCM 6th Ctrl Delay	600.2											
HCM 6th LOS	F											

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/16/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations	↰	↑	↑	↰	↕
Traffic Volume (vph)	341	1058	1922	756	5
Future Volume (vph)	341	1058	1922	756	5
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	10.0	42.8	32.8	32.8	47.2
Total Split (%)	11.1%	47.6%	36.4%	36.4%	52.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	5.4	37.0	27.0	27.0	41.4
Actuated g/C Ratio	0.06	0.41	0.30	0.30	0.46
v/c Ratio	3.22	1.38	3.44	1.17	1.14
Control Delay	1018.2	198.0	1117.6	115.9	102.0
Queue Delay	0.0	0.0	5.6	0.0	5.6
Total Delay	1018.2	198.0	1123.2	115.9	107.6
LOS	F	F	F	F	F
Approach Delay		397.9	838.9		107.6
Approach LOS		F	F		F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 3.44

Intersection Signal Delay: 582.3

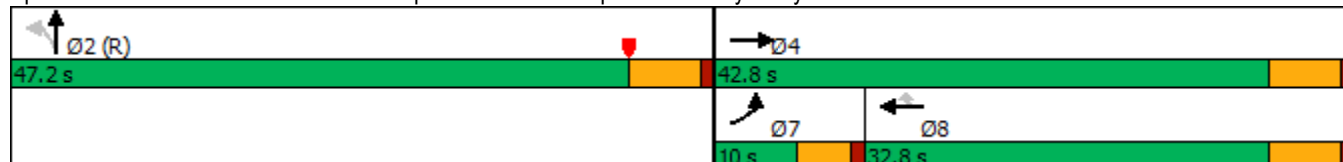
Intersection LOS: F

Intersection Capacity Utilization 195.9%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/16/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	341	1058	0	0	1922	756	429	5	469	0	0	0
Future Volume (veh/h)	341	1058	0	0	1922	756	429	5	469	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	348	1080	0	0	1961	655	438	5	357			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	109	781	0	0	570	483	432	5	352			
Arrive On Green	0.04	0.28	0.00	0.00	0.30	0.30	0.46	0.46	0.46			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	939	11	765			
Grp Volume(v), veh/h	348	1080	0	0	1961	655	800	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1715	0	0			
Q Serve(g_s), s	5.4	37.0	0.0	0.0	27.0	27.0	41.4	0.0	0.0			
Cycle Q Clear(g_c), s	5.4	37.0	0.0	0.0	27.0	27.0	41.4	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.55		0.45			
Lane Grp Cap(c), veh/h	109	781	0	0	570	483	789	0	0			
V/C Ratio(X)	3.21	1.38	0.00	0.00	3.44	1.36	1.01	0.00	0.00			
Avail Cap(c_a), veh/h	109	781	0	0	570	483	789	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	43.2	32.6	0.0	0.0	31.5	31.5	24.3	0.0	0.0			
Incr Delay (d2), s/veh	994.5	172.9	0.0	0.0	1102.6	173.3	35.5	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	32.3	54.5	0.0	0.0	185.9	32.9	22.3	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1037.7	205.5	0.0	0.0	1134.1	204.8	59.8	0.0	0.0			
LnGrp LOS	F	F	A	A	F	F	F	A	A			
Approach Vol, veh/h	1428		2616			800						
Approach Delay, s/veh	408.3		901.4			59.8						
Approach LOS	F		F			E						
Timer - Assigned Phs	2		4			7			8			
Phs Duration (G+Y+Rc), s	47.2		42.8			10.0			32.8			
Change Period (Y+Rc), s	5.8		5.8			4.6			5.8			
Max Green Setting (Gmax), s	41.4		37.0			5.4			27.0			
Max Q Clear Time (g_c+I1), s	43.4		39.0			7.4			29.0			
Green Ext Time (p_c), s	0.0		0.0			0.0			0.0			
Intersection Summary												
HCM 6th Ctrl Delay	617.1											
HCM 6th LOS	F											

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑				↑			↑
Traffic Vol, veh/h	144	700	174	188	1078	32	0	0	77	0	0	191
Future Vol, veh/h	144	700	174	188	1078	32	0	0	77	0	0	191
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	158	769	191	207	1185	35	0	0	85	0	0	210

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1220	0	0	960	0	0	-	-	480	-	-	610
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	579	-	-	725	-	-	0	0	537	0	0	442
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	579	-	-	725	-	-	-	-	537	-	-	442
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.9			1.7			13			20.3		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	537	579	-	-	725	-	-	442
HCM Lane V/C Ratio	0.158	0.273	-	-	0.285	-	-	0.475
HCM Control Delay (s)	13	13.5	-	-	11.9	-	-	20.3
HCM Lane LOS	B	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.6	1.1	-	-	1.2	-	-	2.5

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	316	428	29	4	667	47	86	34	7	100	37	1039
Future Volume (vph)	316	428	29	4	667	47	86	34	7	100	37	1039
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Detector Phase	7	4	4	3	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	27.8	9.6	27.8	27.8	27.8	27.8	27.8	15.8	15.8	15.8
Total Split (s)	23.0	56.2	56.2	12.8	46.0	46.0	51.0	51.0	51.0	51.0	51.0	51.0
Total Split (%)	19.2%	46.8%	46.8%	10.7%	38.3%	38.3%	42.5%	42.5%	42.5%	42.5%	42.5%	42.5%
Yellow Time (s)	3.6	4.8	4.8	3.6	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	4.6	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	None	None	None	None	None	Min	Min	Min	Min	Min	Min
Act Effect Green (s)	18.4	61.1	61.1	5.2	40.2	40.2	45.2	45.2	45.2	45.2	45.2	45.2
Actuated g/C Ratio	0.15	0.51	0.51	0.04	0.34	0.34	0.38	0.38	0.38	0.38	0.38	0.38
v/c Ratio	1.53	0.59	0.05	0.06	1.40	0.10	0.22	0.06	0.01	0.26	0.07	1.74
Control Delay	289.4	24.6	1.6	56.8	221.1	1.2	26.9	24.3	0.0	27.5	24.4	361.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	289.4	24.6	1.6	56.8	221.1	1.2	26.9	24.3	0.0	27.5	24.4	361.5
LOS	F	C	A	E	F	A	C	C	A	C	C	F
Approach Delay		131.9			205.7			24.8			322.6	
Approach LOS		F			F			C			F	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.74

Intersection Signal Delay: 226.3

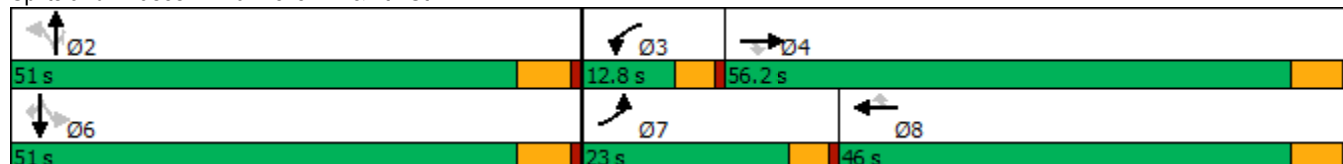
Intersection LOS: F

Intersection Capacity Utilization 122.3%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

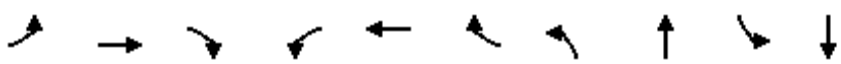
06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	316	428	29	4	667	47	86	34	7	100	37	1039
Future Volume (veh/h)	316	428	29	4	667	47	86	34	7	100	37	1039
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	421	571	39	5	889	63	115	45	9	133	49	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	381	1261	1069	12	874	740	250	274	233	252	274	
Arrive On Green	0.21	0.66	0.66	0.01	0.46	0.46	0.14	0.14	0.14	0.14	0.14	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1378	1900	1610	1371	1900	1610
Grp Volume(v), veh/h	421	571	39	5	889	63	115	45	9	133	49	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1378	1900	1610	1371	1900	1610
Q Serve(g_s), s	18.4	12.6	0.7	0.2	40.2	1.9	7.0	1.8	0.4	8.2	2.0	0.0
Cycle Q Clear(g_c), s	18.4	12.6	0.7	0.2	40.2	1.9	9.0	1.8	0.4	10.0	2.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	381	1261	1069	12	874	740	250	274	233	252	274	
V/C Ratio(X)	1.11	0.45	0.04	0.42	1.02	0.09	0.46	0.16	0.04	0.53	0.18	
Avail Cap(c_a), veh/h	381	1261	1069	170	874	740	763	982	832	763	982	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	34.5	7.1	5.1	43.3	23.6	13.3	36.8	32.8	32.2	37.2	32.8	0.0
Incr Delay (d2), s/veh	77.7	0.3	0.0	8.6	34.9	0.0	1.3	0.3	0.1	1.7	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.8	3.8	0.2	0.1	23.9	0.6	2.3	0.8	0.2	2.7	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	112.2	7.3	5.1	51.9	58.5	13.3	38.1	33.1	32.2	38.9	33.2	0.0
LnGrp LOS	F	A	A	D	F	B	D	C	C	D	C	
Approach Vol, veh/h	1031				957				169			
Approach Delay, s/veh	50.1				55.5				36.4			
Approach LOS	D				E				D			
Timer - Assigned Phs	2		3	4	6		7	8				
Phs Duration (G+Y+Rc), s	18.4		5.2	63.8	18.4		23.0	46.0				
Change Period (Y+Rc), s	5.8		4.6	5.8	5.8		4.6	5.8				
Max Green Setting (Gmax), s	45.2		8.2	50.4	45.2		18.4	40.2				
Max Q Clear Time (g_c+I1), s	11.0		2.2	14.6	12.0		20.4	42.2				
Green Ext Time (p_c), s	0.5		0.0	3.8	0.6		0.0	0.0				
Intersection Summary												
HCM 6th Ctrl Delay	50.3											
HCM 6th LOS	D											

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/16/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	4	468	260	327	670	35	494	114	54	219
Future Volume (vph)	4	468	260	327	670	35	494	114	54	219
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.6	23.8	23.8	13.0	27.2	27.2	27.0	43.2	10.0	26.2
Total Split (%)	10.7%	26.4%	26.4%	14.4%	30.2%	30.2%	30.0%	48.0%	11.1%	29.1%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.8	4.6	4.8	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.0	19.0	19.0	8.4	30.1	30.1	22.4	40.0	5.3	21.0
Actuated g/C Ratio	0.06	0.21	0.21	0.09	0.33	0.33	0.25	0.44	0.06	0.23
v/c Ratio	0.04	1.27	0.50	2.11	1.15	0.06	1.20	0.36	0.56	0.55
Control Delay	41.2	172.0	7.3	544.6	114.1	0.2	140.5	12.9	61.6	35.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	172.0	7.3	544.6	114.1	0.2	140.5	12.9	61.6	35.7
LOS	D	F	A	F	F	A	F	B	E	D
Approach Delay		112.8			246.5			95.1		40.8
Approach LOS		F			F			F		D

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.11

Intersection Signal Delay: 149.9

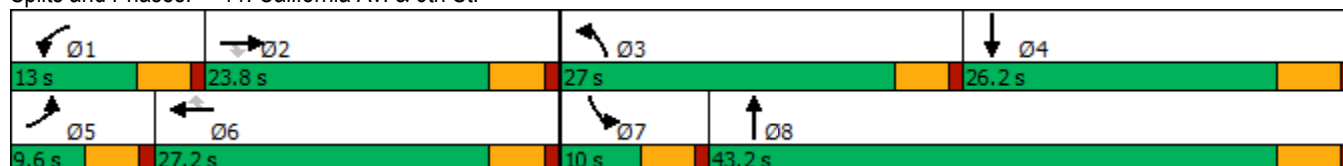
Intersection LOS: F

Intersection Capacity Utilization 97.9%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/16/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	468	260	327	670	35	494	114	159	54	219	5
Future Volume (veh/h)	4	468	260	327	670	35	494	114	159	54	219	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	509	282	355	728	29	537	124	151	59	238	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	10	401	340	169	568	482	450	343	417	78	437	6
Arrive On Green	0.01	0.21	0.21	0.09	0.30	0.30	0.25	0.44	0.44	0.04	0.23	0.23
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	780	949	1810	1872	24
Grp Volume(v), veh/h	4	509	282	355	728	29	537	0	275	59	0	241
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1729	1810	0	1896
Q Serve(g_s), s	0.2	19.0	15.1	8.4	26.9	1.2	22.4	0.0	9.5	2.9	0.0	10.0
Cycle Q Clear(g_c), s	0.2	19.0	15.1	8.4	26.9	1.2	22.4	0.0	9.5	2.9	0.0	10.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.55	1.00		0.01
Lane Grp Cap(c), veh/h	10	401	340	169	568	482	450	0	760	78	0	442
V/C Ratio(X)	0.42	1.27	0.83	2.10	1.28	0.06	1.19	0.00	0.36	0.76	0.00	0.54
Avail Cap(c_a), veh/h	101	401	340	169	568	482	450	0	760	109	0	442
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	44.6	35.5	34.0	40.8	31.5	22.5	33.8	0.0	16.8	42.6	0.0	30.3
Incr Delay (d2), s/veh	10.4	139.4	15.7	515.4	139.4	0.1	106.7	0.0	1.3	10.8	0.0	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	24.1	7.0	27.9	33.9	0.4	22.5	0.0	3.7	1.5	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.1	174.9	49.6	556.2	171.0	22.6	140.5	0.0	18.2	53.4	0.0	35.1
LnGrp LOS	E	F	D	F	F	C	F	A	B	D	A	D
Approach Vol, veh/h		795			1112			812			300	
Approach Delay, s/veh		129.9			290.1			99.0			38.7	
Approach LOS		F			F			F			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.0	23.8	27.0	26.2	5.1	31.7	8.5	44.7				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	8.4	* 19	22.4	21.0	5.0	* 22	5.4	38.0				
Max Q Clear Time (g_c+I1), s	10.4	21.0	24.4	12.0	2.2	28.9	4.9	11.5				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.7	0.0	0.0	0.0	1.5				

Intersection Summary

HCM 6th Ctrl Delay 171.5

HCM 6th LOS F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↰	↱		↰	↱
Traffic Vol, veh/h	2	4	90	46	11	36	358	660	26	15	585	3
Future Vol, veh/h	2	4	90	46	11	36	358	660	26	15	585	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	50	-	-	50
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	5	114	58	14	46	453	835	33	19	741	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2567	2553	741	2582	2524	835	745	0	0	868	0	0
Stage 1	779	779	-	1741	1741	-	-	-	-	-	-	-
Stage 2	1788	1774	-	841	783	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	18	27	420	~ 17	28	371	872	-	-	785	-	-
Stage 1	392	409	-	112	142	-	-	-	-	-	-	-
Stage 2	105	137	-	362	407	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	-	0	420	-	0	371	872	-	-	785	-	-
Mov Cap-2 Maneuver	~ -19	~ -18	-	233	0	-	-	-	-	-	-	-
Stage 1	392	392	-	112	0	-	-	-	-	-	-	-
Stage 2	-	0	-	250	390	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			4.6	0.2
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	872	-	-	-	420	-	371	785	-	-
HCM Lane V/C Ratio	0.52	-	-	-	0.271	-	0.123	0.024	-	-
HCM Control Delay (s)	13.5	0	-	-	16.7	-	16.1	9.7	0	-
HCM Lane LOS	B	A	-	-	C	-	C	A	A	-
HCM 95th %tile Q(veh)	3.1	-	-	-	1.1	-	0.4	0.1	-	-

Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined		*: All major volume in platoon						

Intersection						
Int Delay, s/veh	189.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	154	221	239	1061	403	530
Future Vol, veh/h	154	221	239	1061	403	530
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	167	240	260	1153	438	576
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2399	726	1014	0	-	0
Stage 1	726	-	-	-	-	-
Stage 2	1673	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 37	428	692	-	-	-
Stage 1	483	-	-	-	-	-
Stage 2	169	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 23	428	692	-	-	-
Mov Cap-2 Maneuver	~ 23	-	-	-	-	-
Stage 1	301	-	-	-	-	-
Stage 2	169	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	1310.7	2.4		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	692	-	23	428	-	-
HCM Lane V/C Ratio	0.375	-	7.278	0.561	-	-
HCM Control Delay (s)	13.3	\$	3157.7	23.6	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	1.7	-	21	3.4	-	-
Notes						
~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon						

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/16/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	110	19	23	6	71	959	81	968
Future Volume (vph)	110	19	23	6	71	959	81	968
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	28.4	9.6	16.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	36.7%	47.3%	16.0%	26.7%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.8	4.6	4.8	4.6	4.8
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		12.8		12.7	7.1	32.6	6.4	33.9
Actuated g/C Ratio		0.21		0.21	0.12	0.54	0.11	0.56
v/c Ratio		0.58		0.33	0.36	0.54	0.46	0.70
Control Delay		25.3		8.9	26.1	13.2	35.7	19.2
Queue Delay		2.1		0.5	0.2	0.8	0.0	7.8
Total Delay		27.4		9.4	26.3	13.9	35.7	27.0
LOS		C		A	C	B	D	C
Approach Delay		27.4		9.4		14.8		27.5
Approach LOS		C		A		B		C

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 60

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 21.8

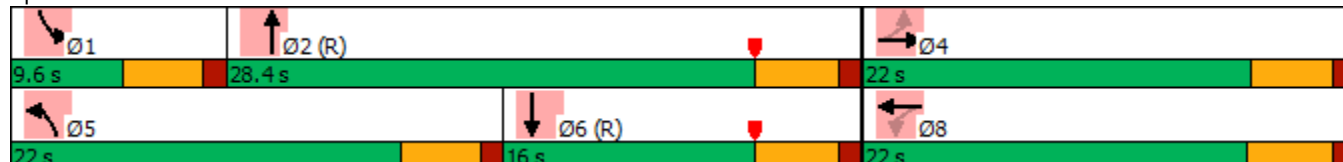
Intersection LOS: C

Intersection Capacity Utilization 68.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/16/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↕		↔	↕	
Traffic Volume (veh/h)	110	19	37	23	6	95	71	959	16	81	968	323
Future Volume (veh/h)	110	19	37	23	6	95	71	959	16	81	968	323
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	120	21	40	25	7	103	77	1042	17	88	1052	351
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	263	44	59	101	35	211	109	1939	32	116	1433	473
Arrive On Green	0.17	0.17	0.17	0.17	0.17	0.17	0.12	1.00	1.00	0.06	0.54	0.54
Sat Flow, veh/h	984	262	354	183	213	1272	1810	3635	59	1810	2667	880
Grp Volume(v), veh/h	181	0	0	135	0	0	77	517	542	88	708	695
Grp Sat Flow(s),veh/h/ln	1600	0	0	1667	0	0	1810	1805	1889	1810	1805	1742
Q Serve(g_s), s	1.5	0.0	0.0	0.0	0.0	0.0	2.5	0.0	0.0	2.9	17.9	18.4
Cycle Q Clear(g_c), s	5.9	0.0	0.0	4.4	0.0	0.0	2.5	0.0	0.0	2.9	17.9	18.4
Prop In Lane	0.66		0.22	0.19		0.76	1.00		0.03	1.00		0.51
Lane Grp Cap(c), veh/h	365	0	0	348	0	0	109	963	1008	116	970	936
V/C Ratio(X)	0.50	0.00	0.00	0.39	0.00	0.00	0.71	0.54	0.54	0.76	0.73	0.74
Avail Cap(c_a), veh/h	541	0	0	537	0	0	525	963	1008	151	970	936
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.2	0.0	0.0	22.7	0.0	0.0	25.9	0.0	0.0	27.6	10.6	10.7
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.7	0.0	0.0	3.0	2.1	2.0	10.4	4.8	5.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	0.0	0.0	1.7	0.0	0.0	1.1	0.6	0.6	1.5	6.9	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.2	0.0	0.0	23.4	0.0	0.0	28.9	2.1	2.0	38.0	15.4	16.0
LnGrp LOS	C	A	A	C	A	A	C	A	A	D	B	B
Approach Vol, veh/h		181			135			1136			1491	
Approach Delay, s/veh		24.2			23.4			3.9			17.0	
Approach LOS		C			C			A			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	36.8		14.7	8.2	37.0		14.7				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	5.0	* 24		* 17	17.4	* 11		* 17				
Max Q Clear Time (g_c+I1), s	4.9	2.0		7.9	4.5	20.4		6.4				
Green Ext Time (p_c), s	0.0	7.4		0.7	0.1	0.0		0.5				

Intersection Summary

HCM 6th Ctrl Delay 12.7

HCM 6th LOS B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings

Jack Rabbit Trail (JN 12396)

07/16/2020

17: Potrero Bl. & SR-60 WB Ramps

						
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations	 	 	  		  	 
Traffic Volume (vph)	512	233	1324	619	1103	1052
Future Volume (vph)	512	233	1324	619	1103	1052
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	45.0	45.0	75.0	75.0	75.0	75.0
Total Split (%)	37.5%	37.5%	62.5%	62.5%	62.5%	62.5%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effct Green (s)	17.4	16.1	43.6	43.6	43.6	43.6
Actuated g/C Ratio	0.24	0.22	0.60	0.60	0.60	0.60
v/c Ratio	0.67	0.38	0.47	0.55	0.39	0.54
Control Delay	31.5	21.4	8.3	2.5	7.7	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	21.4	8.3	2.5	7.7	1.4
LOS	C	C	A	A	A	A
Approach Delay			6.4		4.6	
Approach LOS			A		A	
Intersection Summary						
Cycle Length: 120						
Actuated Cycle Length: 72.2						
Natural Cycle: 55						
Control Type: Actuated-Uncoordinated						
Maximum v/c Ratio: 0.67						
Intersection Signal Delay: 9.0				Intersection LOS: A		
Intersection Capacity Utilization 48.4%				ICU Level of Service A		
Analysis Period (min) 15						

Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps



HCM 6th Signalized Intersection Summary
17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

07/16/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	512	0	233	0	1324	619	0	1103	1052
Future Volume (veh/h)	0	0	0	512	0	233	0	1324	619	0	1103	1052
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				557	0	226	0	1439	0	0	1199	1061
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				725	0	585	0	3155		0	3155	1724
Arrive On Green				0.21	0.00	0.21	0.00	0.62	0.00	0.00	0.62	0.62
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				557	0	226	0	1439	0	0	1199	1061
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				9.2	0.0	4.2	0.0	9.1	0.0	0.0	7.1	14.2
Cycle Q Clear(g_c), s				9.2	0.0	4.2	0.0	9.1	0.0	0.0	7.1	14.2
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				725	0	585	0	3155		0	3155	1724
V/C Ratio(X)				0.77	0.00	0.39	0.00	0.46		0.00	0.38	0.62
Avail Cap(c_a), veh/h				2313	0	1867	0	5853		0	5853	3198
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				22.5	0.0	20.5	0.0	6.1	0.0	0.0	5.8	7.1
Incr Delay (d2), s/veh				0.7	0.0	0.2	0.0	0.1	0.0	0.0	0.1	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.3	0.0	1.2	0.0	1.9	0.0	0.0	1.5	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				23.1	0.0	20.7	0.0	6.2	0.0	0.0	5.8	7.5
LnGrp LOS				C	A	C	A	A		A	A	A
Approach Vol, veh/h					783			1439	A		2260	
Approach Delay, s/veh					22.4			6.2			6.6	
Approach LOS					C			A			A	
Timer - Assigned Phs	2			6			8					
Phs Duration (G+Y+Rc), s	43.1			43.1			17.3					
Change Period (Y+Rc), s	5.8			5.8			4.6					
Max Green Setting (Gmax), s	69.2			69.2			40.4					
Max Q Clear Time (g_c+I1), s	11.1			16.2			11.2					
Green Ext Time (p_c), s	13.9			21.1			1.5					
Intersection Summary												
HCM 6th Ctrl Delay	9.2											
HCM 6th LOS	A											

Timings
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/16/2020



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations	←←	→→	→→→	←←	→→→	←
Traffic Volume (vph)	779	762	1164	450	1370	245
Future Volume (vph)	779	762	1164	450	1370	245
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	49.0	49.0	71.0	71.0	71.0	71.0
Total Split (%)	40.8%	40.8%	59.2%	59.2%	59.2%	59.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	29.8	28.5	38.8	38.8	38.8	38.8
Actuated g/C Ratio	0.37	0.36	0.49	0.49	0.49	0.49
v/c Ratio	0.66	0.81	0.51	0.30	0.60	0.29
Control Delay	24.4	29.6	15.2	1.9	16.4	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.4	29.6	15.2	1.9	16.4	2.7
LOS	C	C	B	A	B	A
Approach Delay			11.5		14.3	
Approach LOS			B		B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 79.7

Natural Cycle: 50

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 17.5

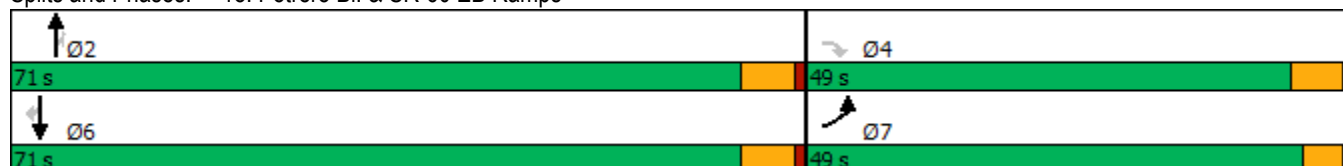
Intersection LOS: B

Intersection Capacity Utilization 62.8%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps



HCM 6th Signalized Intersection Summary 18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/16/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	779	0	762	0	0	0	0	1164	450	0	1370	245
Future Volume (veh/h)	779	0	762	0	0	0	0	1164	450	0	1370	245
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h	847	0	746				0	1265	446	0	1489	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2
Cap, veh/h	1165	0	940				0	2489	1360	0	2489	
Arrive On Green	0.34	0.00	0.34				0.00	0.49	0.49	0.00	0.49	0.00
Sat Flow, veh/h	3456	0	2790				0	5274	2790	0	5274	1585
Grp Volume(v), veh/h	847	0	746				0	1265	446	0	1489	0
Grp Sat Flow(s),veh/h/ln	1728	0	1395				0	1702	1395	0	1702	1585
Q Serve(g_s), s	12.8	0.0	14.3				0.0	10.0	5.8	0.0	12.5	0.0
Cycle Q Clear(g_c), s	12.8	0.0	14.3				0.0	10.0	5.8	0.0	12.5	0.0
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h	1165	0	940				0	2489	1360	0	2489	
V/C Ratio(X)	0.73	0.00	0.79				0.00	0.51	0.33	0.00	0.60	
Avail Cap(c_a), veh/h	2589	0	2090				0	5617	3069	0	5617	
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00
Uniform Delay (d), s/veh	17.3	0.0	17.8				0.0	10.3	9.3	0.0	11.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.6				0.0	0.2	0.1	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	0.0	3.8				0.0	2.8	1.3	0.0	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.6	0.0	18.4				0.0	10.5	9.4	0.0	11.2	0.0
LnGrp LOS	B	A	B				A	B	A	A	B	
Approach Vol, veh/h	1593						1711			1489		
Approach Delay, s/veh	18.0						10.2			11.2		
Approach LOS	B						B			B		
Timer - Assigned Phs	2			4			6					
Phs Duration (G+Y+Rc), s	34.7			24.6			34.7					
Change Period (Y+Rc), s	5.8			4.6			5.8					
Max Green Setting (Gmax), s	65.2			44.4			65.2					
Max Q Clear Time (g_c+I1), s	12.0			16.3			14.5					
Green Ext Time (p_c), s	14.9			3.6			14.4					
Intersection Summary												
HCM 6th Ctrl Delay	13.1											
HCM 6th LOS	B											
Notes												

Timings

Jack Rabbit Trail (JN 12396)

09/21/2023

1: 4th St. & Jack Rabbit Trail



Lane Group	EBT	WBT	WBR	SBL
Lane Configurations	↑	↑	↗	↖
Traffic Volume (vph)	878	266	322	297
Future Volume (vph)	878	266	322	297
Turn Type	NA	NA	Perm	Prot
Protected Phases	4	8		6
Permitted Phases			8	
Detector Phase	4	8	8	6
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	22.8	22.8	22.8
Total Split (s)	60.0	60.0	60.0	30.0
Total Split (%)	66.7%	66.7%	66.7%	33.3%
Yellow Time (s)	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	5.8
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	None	None	None	None
Act Effect Green (s)	41.6	41.6	41.6	18.1
Actuated g/C Ratio	0.58	0.58	0.58	0.25
v/c Ratio	0.87	0.26	0.32	0.71
Control Delay	23.7	8.5	1.8	36.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	23.7	8.5	1.8	36.4
LOS	C	A	A	D
Approach Delay	23.7	4.8		36.4
Approach LOS	C	A		D

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 72.1

Natural Cycle: 65

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 19.5

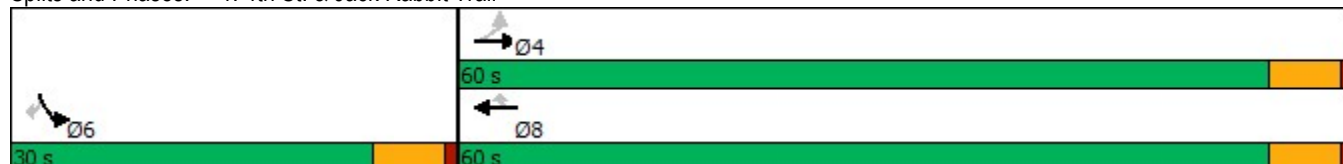
Intersection LOS: B

Intersection Capacity Utilization 72.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 1: 4th St. & Jack Rabbit Trail

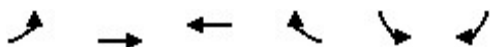


HCM 6th Signalized Intersection Summary

1: 4th St. & Jack Rabbit Trail

Jack Rabbit Trail (JN 12396)

09/21/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	878	266	322	297	0
Future Volume (veh/h)	0	878	266	322	297	0
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	954	289	350	323	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	123	1112	1112	942	391	348
Arrive On Green	0.00	0.59	0.59	0.59	0.22	0.00
Sat Flow, veh/h	802	1900	1900	1610	1810	1610
Grp Volume(v), veh/h	0	954	289	350	323	0
Grp Sat Flow(s),veh/h/ln	802	1900	1900	1610	1810	1610
Q Serve(g_s), s	0.0	24.4	4.3	6.7	9.9	0.0
Cycle Q Clear(g_c), s	0.0	24.4	4.3	6.7	9.9	0.0
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	123	1112	1112	942	391	348
V/C Ratio(X)	0.00	0.86	0.26	0.37	0.83	0.00
Avail Cap(c_a), veh/h	398	1763	1763	1494	750	667
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	10.1	5.9	6.4	21.8	0.0
Incr Delay (d2), s/veh	0.0	2.6	0.1	0.2	4.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.9	1.1	1.5	4.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	12.7	6.0	6.7	26.3	0.0
LnGrp LOS	A	B	A	A	C	A
Approach Vol, veh/h		954	639		323	
Approach Delay, s/veh		12.7	6.4		26.3	
Approach LOS		B	A		C	
Timer - Assigned Phs				4	6	8
Phs Duration (G+Y+Rc), s				40.0	18.4	40.0
Change Period (Y+Rc), s				5.8	5.8	5.8
Max Green Setting (Gmax), s				54.2	24.2	54.2
Max Q Clear Time (g_c+I1), s				26.4	11.9	8.7
Green Ext Time (p_c), s				7.8	0.7	2.9
Intersection Summary						
HCM 6th Ctrl Delay			12.9			
HCM 6th LOS			B			

Intersection

Intersection Delay, s/v~~4~~75.6

Intersection LOS F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Vol, veh/h	365	898	1198	652	761	1705
Future Vol, veh/h	365	898	1198	652	761	1705
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	397	976	1302	709	827	1853
Number of Lanes	2	1	1	2	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	3	3	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	3
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	3
HCM Control Delay	750.6	998.1	1752.6
HCM LOS	F	F	F

Lane	NBLn1	NBLn2	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3
Vol Left, %	100%	0%	0%	0%	0%	100%	0%	0%
Vol Thru, %	0%	0%	100%	100%	0%	0%	100%	100%
Vol Right, %	0%	100%	0%	0%	100%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	761	1705	183	183	898	1198	326	326
LT Vol	761	0	0	0	0	1198	0	0
Through Vol	0	0	183	183	0	0	326	326
RT Vol	0	1705	0	0	898	0	0	0
Lane Flow Rate	827	1853	198	198	976	1302	354	354
Geometry Grp	8	8	8	8	8	8	8	8
Degree of Util (X)	2.814	5.689	0.657	0.657	2.582	4.018	1.044	0.877
Departure Headway (Hd)	17.858	16.629	107.154	107.154	105.533	39.888	39.565	38.468
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	215	241	36	36	49	104	96	99
Service Time	15.558	14.329	104.854	104.854	103.233	37.588	37.265	36.168
HCM Lane V/C Ratio	3.847	7.689	5.5	5.5	19.918	12.519	3.688	3.576
HCM Control Delay	863.7	2149.4	226.7	226.7	963.5	1451.9	188.9	139.8
HCM Lane LOS	F	F	F	F	F	F	F	F
HCM 95th-tile Q	50	130.4	2.2	2.2	10	37.7	6.2	4.9

Intersection

Intersection Delay, s/veh 18.8

Intersection LOS F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔			↔			↔	
Traffic Vol, veh/h	0	0	0	2	0	114	0	1535	0	11	1749	0
Future Vol, veh/h	0	0	0	2	0	114	0	1535	0	11	1749	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	2	0	124	0	1668	0	12	1901	0
Number of Lanes	0	0	0	0	1	0	0	1	0	0	1	0

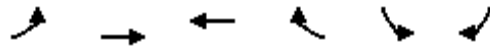
Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	14.4	659.2	817.2
HCM LOS	B	F	F

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	2%	1%
Vol Thru, %	100%	0%	99%
Vol Right, %	0%	98%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	1535	116	1760
LT Vol	0	2	11
Through Vol	1535	0	1749
RT Vol	0	114	0
Lane Flow Rate	1668	126	1913
Geometry Grp	1	1	1
Degree of Util (X)	2.417	0.225	2.772
Departure Headway (Hd)	6.917	8.821	6.589
Convergence, Y/N	Yes	Yes	Yes
Cap	551	410	574
Service Time	4.917	6.821	4.589
HCM Lane V/C Ratio	3.027	0.307	3.333
HCM Control Delay	659.2	14.4	817.2
HCM Lane LOS	F	B	F
HCM 95th-tile Q	97	0.9	125.5

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	696	88	28	551	383	583
Future Volume (vph)	696	88	28	551	383	583
Turn Type	Prot	NA	NA	Perm	Prot	Perm
Protected Phases	7	4	8		6	
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	27.8	27.8	28.2	28.2
Total Split (s)	33.0	60.8	27.8	27.8	29.2	29.2
Total Split (%)	36.7%	67.6%	30.9%	30.9%	32.4%	32.4%
Yellow Time (s)	3.6	4.8	4.8	4.8	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	6.2	6.2
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effect Green (s)	28.4	55.0	22.0	22.0	20.2	20.2
Actuated g/C Ratio	0.33	0.63	0.25	0.25	0.23	0.23
v/c Ratio	1.77	0.06	0.09	1.06	0.71	0.83
Control Delay	377.5	6.8	26.8	64.0	35.9	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	377.5	6.8	26.8	64.0	35.9	10.7
LOS	F	A	C	E	D	B
Approach Delay		336.0	62.2		20.7	
Approach LOS		F	E		C	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 87.3

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.77

Intersection Signal Delay: 137.1

Intersection LOS: F

Intersection Capacity Utilization 81.3%

ICU Level of Service D

Analysis Period (min) 15

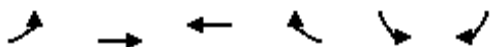
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

06/06/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	696	88	28	551	383	583	
Future Volume (veh/h)	696	88	28	551	383	583	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	1039	131	42	822	572	870	
Peak Hour Factor	0.67	0.67	0.67	0.67	0.67	0.67	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	571	2206	464	394	897	411	
Arrive On Green	0.32	0.61	0.24	0.24	0.26	0.26	
Sat Flow, veh/h	1810	3705	1900	1610	3510	1610	
Grp Volume(v), veh/h	1039	131	42	822	572	870	
Grp Sat Flow(s),veh/h/ln	1810	1805	1900	1610	1755	1610	
Q Serve(g_s), s	28.4	1.3	1.5	22.0	13.0	23.0	
Cycle Q Clear(g_c), s	28.4	1.3	1.5	22.0	13.0	23.0	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	571	2206	464	394	897	411	
V/C Ratio(X)	1.82	0.06	0.09	2.09	0.64	2.11	
Avail Cap(c_a), veh/h	571	2206	464	394	897	411	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	30.8	7.1	26.3	34.0	29.8	33.5	
Incr Delay (d2), s/veh	375.7	0.0	0.1	498.4	1.5	509.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	70.9	0.4	0.7	62.5	5.2	76.2	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	406.5	7.1	26.4	532.4	31.3	543.1	
LnGrp LOS	F	A	C	F	C	F	
Approach Vol, veh/h	1170		864	1442			
Approach Delay, s/veh	361.8		507.8	340.1			
Approach LOS	F		F	F			
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				60.8	29.2	33.0	27.8
Change Period (Y+Rc), s				5.8	6.2	4.6	5.8
Max Green Setting (Gmax), s				55.0	23.0	28.4	22.0
Max Q Clear Time (g_c+I1), s				3.3	25.0	30.4	24.0
Green Ext Time (p_c), s				0.5	0.0	0.0	0.0
Intersection Summary							
HCM 6th Ctrl Delay			389.1				
HCM 6th LOS			F				

Intersection

Intersection Delay, s/veh 477.8

Intersection LOS F

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	561	949	909	510	256	941
Future Vol, veh/h	561	949	909	510	256	941
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	578	978	937	526	264	970
Number of Lanes	1	1	3	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	3	2	0
Conflicting Approach Left SB			WB
Conflicting Lanes Left	1	0	3
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	2
HCM Control Delay	564.9	43.1	883.2
HCM LOS	F	E	F

Lane	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBLn1
Vol Left, %	100%	0%	0%	0%	0%	21%
Vol Thru, %	0%	100%	100%	100%	26%	0%
Vol Right, %	0%	0%	0%	0%	74%	79%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	561	949	364	364	692	1197
LT Vol	561	0	0	0	0	256
Through Vol	0	949	364	364	182	0
RT Vol	0	0	0	0	510	941
Lane Flow Rate	578	978	375	375	713	1234
Geometry Grp	8	8	7	7	7	7
Degree of Util (X)	1.562	2.507	0.812	0.812	1.106	2.911
Departure Headway (Hd)	14.737	14.167	4.037	4.037	1.666	8.208
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	254	264	896	896	2168	457
Service Time	12.437	11.867	1.737	1.737	-0.634	5.908
HCM Lane V/C Ratio	2.276	3.705	0.419	0.419	0.329	2.7
HCM Control Delay	306.2	717.8	21.6	21.6	65.6	883.2
HCM Lane LOS	F	F	C	C	F	F
HCM 95th-tile Q	23.3	52.4	9	9	47.5	109.2

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/16/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Configurations	→	→	→	→
Traffic Volume (vph)	2358	247	1905	1
Future Volume (vph)	2358	247	1905	1
Turn Type	NA	Prot	NA	NA
Protected Phases	2	1	6	4
Permitted Phases				
Detector Phase	2	1	6	4
Switch Phase				
Minimum Initial (s)	10.0	5.0	10.0	10.0
Minimum Split (s)	15.8	9.6	15.8	15.8
Total Split (s)	33.1	14.6	47.7	42.3
Total Split (%)	36.8%	16.2%	53.0%	47.0%
Yellow Time (s)	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	-0.6	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?	Yes	Yes		
Recall Mode	C-Max	None	C-Max	None
Act Effect Green (s)	29.1	10.6	43.7	38.3
Actuated g/C Ratio	0.32	0.12	0.49	0.43
v/c Ratio	4.91	1.26	2.25	4.25
Control Delay	1772.6	147.4	580.3	1479.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1772.6	147.4	580.3	1479.6
LOS	F	F	F	F
Approach Delay	1772.6		530.7	1479.6
Approach LOS	F		F	F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 150

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 4.91

Intersection Signal Delay: 1320.4

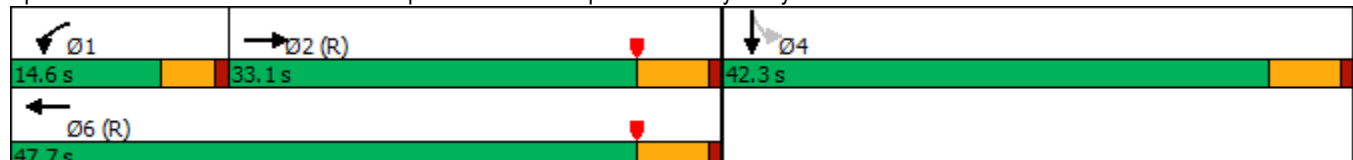
Intersection LOS: F

Intersection Capacity Utilization 465.2%

ICU Level of Service H

Analysis Period (min) 15

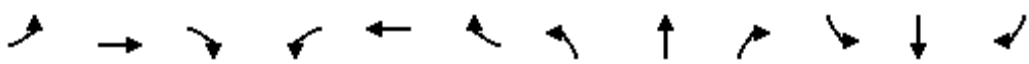
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/16/2020

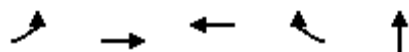
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰		↰	↰						↰	
Traffic Volume (veh/h)	0	2358	391	247	1905	0	0	0	0	1254	1	1614
Future Volume (veh/h)	0	2358	391	247	1905	0	0	0	0	1254	1	1614
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	2563	365	268	2071	0				1363	1	1700
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	526	75	213	923	0				321	0	400
Arrive On Green	0.00	0.32	0.30	0.12	0.49	0.00				0.43	0.43	0.41
Sat Flow, veh/h	0	1627	232	1810	1900	0				753	1	939
Grp Volume(v), veh/h	0	0	2928	268	2071	0				3064	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1858	1810	1900	0				1693	0	0
Q Serve(g_s), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	29.1	10.6	43.7	0.0				38.3	0.0	0.0
Prop In Lane	0.00		0.12	1.00		0.00				0.44		0.55
Lane Grp Cap(c), veh/h	0	0	601	213	923	0				721	0	0
V/C Ratio(X)	0.00	0.00	4.87	1.26	2.24	0.00				4.25	0.00	0.00
Avail Cap(c_a), veh/h	0	0	601	213	923	0				721	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	0.09	0.09	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	30.6	39.7	23.1	0.0				26.3	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	1746.7	119.5	560.5	0.0				1466.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	303.4	11.5	160.3	0.0				307.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	1777.2	159.2	583.6	0.0				1493.1	0.0	0.0
LnGrp LOS	A	A	F	F	F	A				F	A	A
Approach Vol, veh/h	2928				2339				3064			
Approach Delay, s/veh	1777.2				535.0				1493.1			
Approach LOS	F				F				F			
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.6	33.1		42.3		47.7						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	10.0	27.3		36.5		41.9						
Max Q Clear Time (g_c+I1), s	12.6	31.1		40.3		45.7						
Green Ext Time (p_c), s	0.0	0.0		0.0		0.0						
Intersection Summary												
HCM 6th Ctrl Delay	1324.0											
HCM 6th LOS	F											

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/16/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Traffic Volume (vph)	540	3072	1633	422	5
Future Volume (vph)	540	3072	1633	422	5
Turn Type	Prot	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases				8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8
Total Split (s)	14.4	44.0	29.6	29.6	46.0
Total Split (%)	16.0%	48.9%	32.9%	32.9%	51.1%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes	
Recall Mode	None	None	None	None	C-Max
Act Effect Green (s)	10.4	40.0	25.6	25.6	42.0
Actuated g/C Ratio	0.12	0.44	0.28	0.28	0.47
v/c Ratio	2.68	3.75	3.12	0.76	1.54
Control Delay	774.5	1252.1	974.6	28.3	272.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	774.5	1252.1	974.6	28.3	272.4
LOS	F	F	F	C	F
Approach Delay		1180.7	780.3		272.4
Approach LOS		F	F		F

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 140

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 3.75

Intersection Signal Delay: 902.4

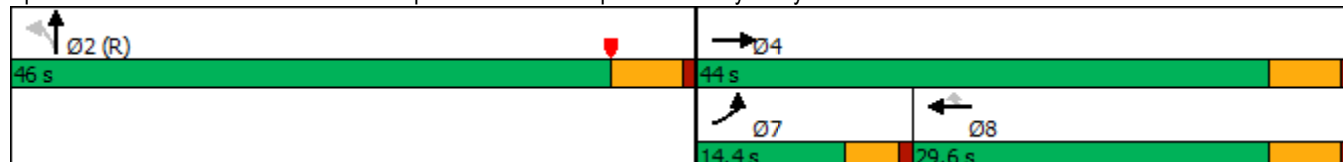
Intersection LOS: F

Intersection Capacity Utilization 465.2%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/16/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	540	3072	0	0	1633	422	520	5	672	0	0	0
Future Volume (veh/h)	540	3072	0	0	1633	422	520	5	672	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	557	3167	0	0	1684	365	536	5	641			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	209	844	0	0	540	458	359	3	429			
Arrive On Green	0.08	0.30	0.00	0.00	0.28	0.28	0.47	0.47	0.45			
Sat Flow, veh/h	1810	1900	0	0	1900	1610	769	7	920			
Grp Volume(v), veh/h	557	3167	0	0	1684	365	1182	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1900	0	0	1900	1610	1696	0	0			
Q Serve(g_s), s	10.4	40.0	0.0	0.0	25.6	18.9	42.0	0.0	0.0			
Cycle Q Clear(g_c), s	10.4	40.0	0.0	0.0	25.6	18.9	42.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.45		0.54			
Lane Grp Cap(c), veh/h	209	844	0	0	540	458	791	0	0			
V/C Ratio(X)	2.66	3.75	0.00	0.00	3.12	0.80	1.49	0.00	0.00			
Avail Cap(c_a), veh/h	209	844	0	0	540	458	791	0	0			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	41.5	31.6	0.0	0.0	32.2	29.8	24.5	0.0	0.0			
Incr Delay (d2), s/veh	749.9	1237.9	0.0	0.0	957.1	9.5	228.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	48.2	308.6	0.0	0.0	154.5	8.0	65.0	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	791.5	1269.5	0.0	0.0	989.3	39.3	253.2	0.0	0.0			
LnGrp LOS	F	F	A	A	F	D	F	A	A			
Approach Vol, veh/h	3724			2049			1182					
Approach Delay, s/veh	1198.0			820.0			253.2					
Approach LOS	F			F			F					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	46.0			44.0			14.4			29.6		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	40.2			38.2			9.8			23.8		
Max Q Clear Time (g_c+I1), s	44.0			42.0			12.4			27.6		
Green Ext Time (p_c), s	0.0			0.0			0.0			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	926.1											
HCM 6th LOS	F											

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑				↑			↑
Traffic Vol, veh/h	327	1023	153	131	808	67	0	0	143	0	0	79
Future Vol, veh/h	327	1023	153	131	808	67	0	0	143	0	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	352	1100	165	141	869	72	0	0	154	0	0	85
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	941	0	0	1265	0	0	-	-	633	-	-	471
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	737	-	-	556	-	-	0	0	427	0	0	545
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	737	-	-	556	-	-	-	-	427	-	-	545
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.1			1.8			18.1			12.8		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	427	737	-	-	556	-	-	545				
HCM Lane V/C Ratio	0.36	0.477	-	-	0.253	-	-	0.156				
HCM Control Delay (s)	18.1	14.3	-	-	13.7	-	-	12.8				
HCM Lane LOS	C	B	-	-	B	-	-	B				
HCM 95th %tile Q(veh)	1.6	2.6	-	-	1	-	-	0.5				

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

											
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	129	526	11	467	182	48	45	13	155	72	71
Future Volume (vph)	129	526	11	467	182	48	45	13	155	72	71
Turn Type	Prot	NA	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases					8			2			6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	27.8	9.6	27.8	27.8	9.6	27.8	27.8	9.6	15.8	15.8
Total Split (s)	36.0	54.0	15.0	33.0	33.0	23.0	34.0	34.0	17.0	28.0	28.0
Total Split (%)	30.0%	45.0%	12.5%	27.5%	27.5%	19.2%	28.3%	28.3%	14.2%	23.3%	23.3%
Yellow Time (s)	3.6	4.8	3.6	4.8	4.8	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	4.6	5.8	5.8	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min	Min
Act Effect Green (s)	12.9	42.7	5.5	27.3	27.3	7.7	10.5	10.5	12.4	17.3	17.3
Actuated g/C Ratio	0.15	0.51	0.07	0.32	0.32	0.09	0.12	0.12	0.15	0.21	0.21
v/c Ratio	0.66	0.49	0.14	1.08	0.40	0.42	0.27	0.06	0.83	0.26	0.21
Control Delay	45.4	15.0	41.3	90.7	9.1	44.5	37.7	0.3	62.5	33.9	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.4	15.0	41.3	90.7	9.1	44.5	37.7	0.3	62.5	33.9	1.0
LOS	D	B	D	F	A	D	D	A	E	C	A
Approach Delay		20.3		67.4			36.1			41.0	
Approach LOS		C		E			D			D	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 84

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 41.7

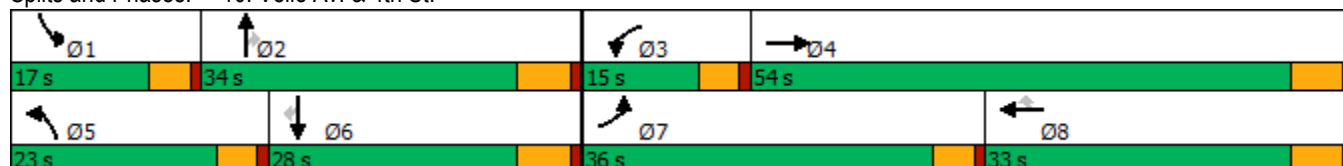
Intersection LOS: D

Intersection Capacity Utilization 60.5%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	526	94	11	467	182	48	45	13	155	72	71
Future Volume (veh/h)	129	526	94	11	467	182	48	45	13	155	72	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	184	751	134	16	667	260	69	64	19	221	103	0
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	226	1375	245	34	652	552	90	240	203	260	418	
Arrive On Green	0.12	0.45	0.45	0.02	0.34	0.34	0.05	0.13	0.13	0.14	0.22	0.00
Sat Flow, veh/h	1810	3061	546	1810	1900	1610	1810	1900	1610	1810	1900	1610
Grp Volume(v), veh/h	184	443	442	16	667	260	69	64	19	221	103	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1802	1810	1900	1610	1810	1900	1610	1810	1900	1610
Q Serve(g_s), s	7.9	14.2	14.2	0.7	27.2	10.0	3.0	2.4	0.8	9.4	3.5	0.0
Cycle Q Clear(g_c), s	7.9	14.2	14.2	0.7	27.2	10.0	3.0	2.4	0.8	9.4	3.5	0.0
Prop In Lane	1.00		0.30	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	226	811	809	34	652	552	90	240	203	260	418	
V/C Ratio(X)	0.81	0.55	0.55	0.47	1.02	0.47	0.77	0.27	0.09	0.85	0.25	
Avail Cap(c_a), veh/h	717	1097	1095	237	652	552	420	676	573	283	532	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	33.8	15.9	15.9	38.5	26.0	20.4	37.2	31.3	30.6	33.1	25.5	0.0
Incr Delay (d2), s/veh	2.7	0.6	0.6	3.8	41.3	0.6	5.1	0.6	0.2	18.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	5.2	5.2	0.3	18.3	3.5	1.4	1.1	0.3	5.2	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.5	16.5	16.5	42.3	67.3	21.0	42.3	31.9	30.8	51.5	25.8	0.0
LnGrp LOS	D	B	B	D	F	C	D	C	C	D	C	
Approach Vol, veh/h		1069			943			152			324	
Approach Delay, s/veh		20.0			54.1			36.5			43.3	
Approach LOS		B			D			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.0	15.8	6.1	41.4	8.5	23.3	14.5	33.0				
Change Period (Y+Rc), s	4.6	5.8	4.6	5.8	4.6	5.8	4.6	5.8				
Max Green Setting (Gmax), s	12.4	28.2	10.4	48.2	18.4	22.2	31.4	27.2				
Max Q Clear Time (g_c+I1), s	11.4	4.4	2.7	16.2	5.0	5.5	9.9	29.2				
Green Ext Time (p_c), s	0.0	0.3	0.0	5.7	0.0	0.3	0.2	0.0				

Intersection Summary

HCM 6th Ctrl Delay	37.0
HCM 6th LOS	D

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/16/2020

										
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	23	686	207	322	521	13	454	200	24	119
Future Volume (vph)	23	686	207	322	521	13	454	200	24	119
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Prot	NA
Protected Phases	5	2		1	6		3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	6	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	23.8	9.6	26.8	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	33.4	33.4	10.4	34.0	34.0	19.0	36.6	9.6	27.2
Total Split (%)	10.9%	37.1%	37.1%	11.6%	37.8%	37.8%	21.1%	40.7%	10.7%	30.2%
Yellow Time (s)	3.6	3.8	3.8	3.6	3.8	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.8	-0.8	-0.6	-0.8	-0.8	-0.6	-1.2	-0.6	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	Max	None	Max
Act Effect Green (s)	5.7	29.4	29.4	6.4	35.9	35.9	15.0	38.4	5.6	23.2
Actuated g/C Ratio	0.06	0.33	0.33	0.07	0.40	0.40	0.17	0.43	0.06	0.26
v/c Ratio	0.21	1.16	0.33	2.65	0.72	0.02	1.59	0.87	0.22	0.29
Control Delay	44.6	120.9	6.0	783.8	31.3	0.1	311.0	33.6	45.2	27.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.6	120.9	6.0	783.8	31.3	0.1	311.0	33.6	45.2	27.5
LOS	D	F	A	F	C	A	F	C	D	C
Approach Delay		93.0			314.0			145.8		30.2
Approach LOS		F			F			F		C

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 90

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 2.65

Intersection Signal Delay: 171.2

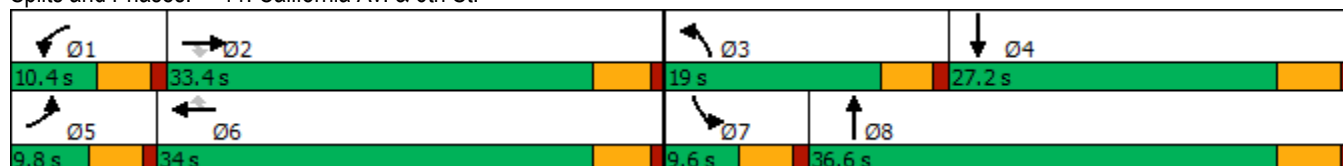
Intersection LOS: F

Intersection Capacity Utilization 110.7%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/16/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	686	207	322	521	13	454	200	468	24	119	13
Future Volume (veh/h)	23	686	207	322	521	13	454	200	468	24	119	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	722	214	339	548	9	478	211	465	25	125	8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	57	621	526	129	695	589	302	207	456	59	455	29
Arrive On Green	0.03	0.33	0.33	0.07	0.37	0.37	0.17	0.39	0.38	0.03	0.26	0.24
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1810	528	1163	1810	1767	113
Grp Volume(v), veh/h	24	722	214	339	548	9	478	0	676	25	0	133
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1810	0	1691	1810	0	1880
Q Serve(g_s), s	1.2	29.4	9.3	6.4	23.1	0.3	15.0	0.0	35.3	1.2	0.0	5.1
Cycle Q Clear(g_c), s	1.2	29.4	9.3	6.4	23.1	0.3	15.0	0.0	35.3	1.2	0.0	5.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.69	1.00		0.06
Lane Grp Cap(c), veh/h	57	621	526	129	695	589	302	0	663	59	0	485
V/C Ratio(X)	0.42	1.16	0.41	2.63	0.79	0.02	1.58	0.00	1.02	0.43	0.00	0.27
Avail Cap(c_a), veh/h	117	621	526	129	695	589	302	0	663	113	0	485
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.8	30.3	23.5	41.8	25.4	18.2	37.5	0.0	27.8	42.7	0.0	26.7
Incr Delay (d2), s/veh	1.8	90.3	0.5	757.4	6.0	0.0	278.5	0.0	40.1	1.8	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	28.4	3.3	29.9	11.2	0.1	29.6	0.0	20.2	0.6	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.6	120.6	24.0	799.2	31.5	18.2	316.0	0.0	67.9	44.5	0.0	28.1
LnGrp LOS	D	F	C	F	C	B	F	A	F	D	A	C
Approach Vol, veh/h		960			896			1154			158	
Approach Delay, s/veh		97.2			321.8			170.7			30.7	
Approach LOS		F			F			F			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.4	33.4	19.0	27.2	6.9	36.9	6.9	39.3				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	5.8	* 29	14.4	22.0	5.2	* 29	5.0	31.4				
Max Q Clear Time (g_c+I1), s	8.4	31.4	17.0	7.1	3.2	25.1	3.2	37.3				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.0	1.3	0.0	0.0				

Intersection Summary

HCM 6th Ctrl Delay 184.2

HCM 6th LOS F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection												
Int Delay, s/veh	6.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖	↗		↖	↗	↖	↗	↖		↖	↗
Traffic Vol, veh/h	5	4	103	54	4	25	213	725	40	8	546	8
Future Vol, veh/h	5	4	103	54	4	25	213	725	40	8	546	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	120	-	50	-	-	100
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	4	108	57	4	26	224	763	42	8	575	8

Major/Minor	Minor2		Minor1		Major1		Major2		Major2		Major2	
Conflicting Flow All	1838	1844	575	1862	1810	763	583	0	0	805	0	0
Stage 1	591	591	-	1211	1211	-	-	-	-	-	-	-
Stage 2	1247	1253	-	651	599	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	59	76	521	57	80	408	1001	-	-	828	-	-
Stage 1	497	498	-	225	257	-	-	-	-	-	-	-
Stage 2	215	246	-	461	494	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	44	58	521	~36	61	408	1001	-	-	828	-	-
Mov Cap-2 Maneuver	111	141	-	85	131	-	-	-	-	-	-	-
Stage 1	386	491	-	175	199	-	-	-	-	-	-	-
Stage 2	153	191	-	357	487	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.5	82.5	2.1	0.1
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1001	-	-	123	521	87	408	828	-	-
HCM Lane V/C Ratio	0.224	-	-	0.077	0.208	0.702	0.064	0.01	-	-
HCM Control Delay (s)	9.6	-	-	36.7	13.7	111.8	14.4	9.4	0	-
HCM Lane LOS	A	-	-	E	B	F	B	A	A	-
HCM 95th %tile Q(veh)	0.9	-	-	0.2	0.8	3.4	0.2	0	-	-

Notes												
~: Volume exceeds capacity			\$: Delay exceeds 300s			+: Computation Not Defined			*: All major volume in platoon			

Intersection

Int Delay, s/veh 13350.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	566	634	255	1005	1165	451
Future Vol, veh/h	566	634	255	1005	1165	451
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	615	689	277	1092	1266	490

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	3157	1511	1756
Stage 1	1511	-	-
Stage 2	1646	-	-
Critical Hdwy	6.4	6.2	4.1
Critical Hdwy Stg 1	5.4	-	-
Critical Hdwy Stg 2	5.4	-	-
Follow-up Hdwy	3.5	3.3	2.2
Pot Cap-1 Maneuver	~ 12	~ 149	361
Stage 1	~ 203	-	-
Stage 2	~ 175	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	~ 3	~ 149	361
Mov Cap-2 Maneuver	~ 3	-	-
Stage 1	~ 47	-	-
Stage 2	~ 175	-	-

Approach	EB	NB	SB
HCM Control Delay \$	45337.5	8.4	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	361	-	3	149	-	-
HCM Lane V/C Ratio	0.768	205.072	4.625	-	-	-
HCM Control Delay (s)	41.3	\$ 94228.	\$ 1690.7	-	-	-
HCM Lane LOS	E	-	F	F	-	-
HCM 95th %tile Q(veh)	6.2	-	79.4	71.1	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Timings
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)
07/16/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	297	19	87	5	28	1816	177	850
Future Volume (vph)	297	19	87	5	28	1816	177	850
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA
Protected Phases		4		8	5	2	1	6
Permitted Phases	4		8					
Detector Phase	4	4	8	8	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	14.6	14.6	14.8	14.8	9.6	21.8	9.6	14.8
Total Split (s)	19.0	19.0	19.0	19.0	12.0	29.0	12.0	29.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	20.0%	48.3%	20.0%	48.3%
Yellow Time (s)	3.6	3.6	3.8	3.8	3.6	3.8	3.6	3.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		-0.6		-0.8	-0.6	-0.8	-0.6	-0.8
Total Lost Time (s)		4.0		4.0	4.0	4.0	4.0	4.0
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	None	C-Max
Act Effect Green (s)		15.0		15.0	6.3	25.1	7.9	32.5
Actuated g/C Ratio		0.25		0.25	0.10	0.42	0.13	0.54
v/c Ratio		1.56		0.59	0.15	1.27	0.77	0.52
Control Delay		296.8		14.0	31.4	143.9	49.4	10.9
Queue Delay		3.7		5.3	1.6	0.0	0.0	51.5
Total Delay		300.4		19.2	33.0	143.9	49.4	62.5
LOS		F		B	C	F	D	E
Approach Delay		300.4		19.2		142.2		60.5
Approach LOS		F		B		F		E

Intersection Summary

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow

Natural Cycle: 120

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.56

Intersection Signal Delay: 122.4

Intersection LOS: F

Intersection Capacity Utilization 112.4%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 14: Beaumont Av. & 5th St.



HCM 6th Signalized Intersection Summary
14: Beaumont Av. & 5th St.

Jack Rabbit Trail (JN 12396)

07/16/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	297	19	47	87	5	203	28	1816	37	177	850	126
Future Volume (veh/h)	297	19	47	87	5	203	28	1816	37	177	850	126
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	306	20	48	90	5	209	29	1872	38	182	876	130
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	337	15	36	187	30	307	76	1906	39	241	1949	289
Arrive On Green	0.25	0.25	0.24	0.25	0.25	0.24	0.06	0.70	0.68	0.13	0.62	0.60
Sat Flow, veh/h	912	60	143	432	119	1213	1810	3619	73	1810	3153	468
Grp Volume(v), veh/h	374	0	0	304	0	0	29	931	979	182	501	505
Grp Sat Flow(s),veh/h/ln	1114	0	0	1764	0	0	1810	1805	1887	1810	1805	1816
Q Serve(g_s), s	5.6	0.0	0.0	0.0	0.0	0.0	0.9	29.5	30.1	5.8	8.8	8.9
Cycle Q Clear(g_c), s	15.0	0.0	0.0	9.4	0.0	0.0	0.9	29.5	30.1	5.8	8.8	8.9
Prop In Lane	0.82		0.13	0.30		0.69	1.00		0.04	1.00		0.26
Lane Grp Cap(c), veh/h	388	0	0	525	0	0	76	951	994	241	1116	1122
V/C Ratio(X)	0.96	0.00	0.00	0.58	0.00	0.00	0.38	0.98	0.99	0.75	0.45	0.45
Avail Cap(c_a), veh/h	388	0	0	525	0	0	241	951	994	241	1116	1122
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.7	0.0	0.0	20.5	0.0	0.0	27.6	8.7	8.8	25.1	6.1	6.1
Incr Delay (d2), s/veh	36.5	0.0	0.0	1.6	0.0	0.0	1.0	22.3	23.1	11.4	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	0.0	0.0	3.9	0.0	0.0	0.4	10.3	11.0	3.1	2.8	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.2	0.0	0.0	22.1	0.0	0.0	28.6	31.0	31.8	36.4	7.4	7.4
LnGrp LOS	E	A	A	C	A	A	C	C	C	D	A	A
Approach Vol, veh/h		374			304			1939			1188	
Approach Delay, s/veh		61.2			22.1			31.4			11.8	
Approach LOS		E			C			C			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	35.8		19.2	6.5	41.3		19.2				
Change Period (Y+Rc), s	4.6	* 4.8		* 4.8	4.6	* 4.8		* 4.8				
Max Green Setting (Gmax), s	7.4	* 24		* 14	7.4	* 24		* 14				
Max Q Clear Time (g_c+I1), s	7.8	32.1		17.0	2.9	10.9		11.4				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	5.5		0.5				
Intersection Summary												
HCM 6th Ctrl Delay				27.5								
HCM 6th LOS				C								
Notes												
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.												

Timings

Jack Rabbit Trail (JN 12396)

17: Potrero Bl. & SR-60 WB Ramps

07/16/2020

	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Configurations	↔↔	↔↔	↑↑↑	↔	↑↑↑	↔↔
Traffic Volume (vph)	699	283	2935	873	1711	1107
Future Volume (vph)	699	283	2935	873	1711	1107
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	3		2		6	
Permitted Phases		8		2		6
Detector Phase	3	8	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	40.0	40.0	80.0	80.0	80.0	80.0
Total Split (%)	33.3%	33.3%	66.7%	66.7%	66.7%	66.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	28.8	27.6	74.4	74.4	74.4	74.4
Actuated g/C Ratio	0.25	0.24	0.65	0.65	0.65	0.65
v/c Ratio	0.87	0.44	0.96	0.78	0.56	0.54
Control Delay	52.4	35.1	27.9	11.2	12.0	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.4	35.1	27.9	11.2	12.0	1.5
LOS	D	D	C	B	B	A
Approach Delay			24.1		7.9	
Approach LOS			C		A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 113.6

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.96

Intersection Signal Delay: 21.1

Intersection LOS: C

Intersection Capacity Utilization 84.8%

ICU Level of Service E

Analysis Period (min) 15

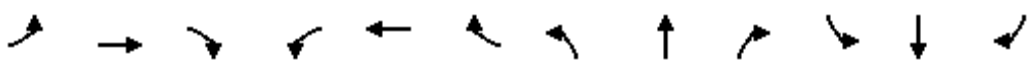
Splits and Phases: 17: Potrero Bl. & SR-60 WB Ramps

↑ Ø2	↔ Ø3
80 s	40 s
↓ Ø6	↔ Ø8
80 s	40 s

HCM 6th Signalized Intersection Summary 17: Potrero Bl. & SR-60 WB Ramps

Jack Rabbit Trail (JN 12396)

07/16/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	699	0	283	0	2935	873	0	1711	1107
Future Volume (veh/h)	0	0	0	699	0	283	0	2935	873	0	1711	1107
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach				No			No				No	
Adj Sat Flow, veh/h/ln				1870	0	1870	0	1870	1870	0	1870	1870
Adj Flow Rate, veh/h				760	0	281	0	3190	0	0	1860	1121
Peak Hour Factor				0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %				2	0	2	0	2	2	0	2	2
Cap, veh/h				850	0	686	0	3375		0	3375	1844
Arrive On Green				0.25	0.00	0.25	0.00	0.66	0.00	0.00	0.66	0.66
Sat Flow, veh/h				3456	0	2790	0	5274	1585	0	5274	2790
Grp Volume(v), veh/h				760	0	281	0	3190	0	0	1860	1121
Grp Sat Flow(s),veh/h/ln				1728	0	1395	0	1702	1585	0	1702	1395
Q Serve(g_s), s				23.8	0.0	9.4	0.0	63.1	0.0	0.0	21.7	25.5
Cycle Q Clear(g_c), s				23.8	0.0	9.4	0.0	63.1	0.0	0.0	21.7	25.5
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				850	0	686	0	3375		0	3375	1844
V/C Ratio(X)				0.89	0.00	0.41	0.00	0.95		0.00	0.55	0.61
Avail Cap(c_a), veh/h				1094	0	883	0	3387		0	3387	1851
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				40.8	0.0	35.4	0.0	17.1	0.0	0.0	10.1	10.7
Incr Delay (d2), s/veh				6.9	0.0	0.1	0.0	6.6	0.0	0.0	0.2	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				10.5	0.0	3.1	0.0	21.8	0.0	0.0	6.9	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				47.6	0.0	35.5	0.0	23.7	0.0	0.0	10.3	11.3
LnGrp LOS				D	A	D	A	C		A	B	B
Approach Vol, veh/h					1041			3190	A		2981	
Approach Delay, s/veh					44.4			23.7			10.7	
Approach LOS					D			C			B	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		79.7				79.7		32.1				
Change Period (Y+Rc), s		5.8				5.8		4.6				
Max Green Setting (Gmax), s		74.2				74.2		35.4				
Max Q Clear Time (g_c+I1), s		65.1				27.5		25.8				
Green Ext Time (p_c), s		8.8				32.0		1.7				
Intersection Summary												
HCM 6th Ctrl Delay				21.3								
HCM 6th LOS				C								
Notes												
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.												

Timings
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/16/2020

						
Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1702	632	2106	734	2100	309
Future Volume (vph)	1702	632	2106	734	2100	309
Turn Type	Prot	Perm	NA	Perm	NA	Perm
Protected Phases	7		2		6	
Permitted Phases		4		2		6
Detector Phase	7	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	14.6	23.8	23.8	23.8	23.8	23.8
Total Split (s)	64.0	64.0	56.0	56.0	56.0	56.0
Total Split (%)	53.3%	53.3%	46.7%	46.7%	46.7%	46.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	Min	Min	None	None	None	None
Act Effect Green (s)	59.4	58.2	50.2	50.2	50.2	50.2
Actuated g/C Ratio	0.50	0.48	0.42	0.42	0.42	0.42
v/c Ratio	1.06	0.44	0.98	0.45	0.98	0.43
Control Delay	68.5	20.6	49.0	2.3	48.5	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.5	20.6	49.0	2.3	48.5	12.0
LOS	E	C	D	A	D	B
Approach Delay			36.9		43.8	
Approach LOS			D		D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.06
 Intersection Signal Delay: 44.8
 Intersection LOS: D
 Intersection Capacity Utilization 97.4%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 18: Potrero Bl. & SR-60 EB Ramps

	
56 s	64 s
	
56 s	64 s

HCM 6th Signalized Intersection Summary
18: Potrero Bl. & SR-60 EB Ramps

Jack Rabbit Trail (JN 12396)

07/16/2020

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	1702	0	632	0	0	0	0	2106	734	0	2100	309	
Future Volume (veh/h)	1702	0	632	0	0	0	0	2106	734	0	2100	309	
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00	
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No						No			No			
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1870	1870	0	1870	1870	
Adj Flow Rate, veh/h	1850	0	519				0	2289	581	0	2283	0	
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	0	2				0	2	2	0	2	2	
Cap, veh/h	1764	0	1569				0	2347	1326	0	2347		
Arrive On Green	0.50	0.00	0.50				0.00	0.42	0.42	0.00	0.42	0.00	
Sat Flow, veh/h	3563	0	3170				0	5611	3170	0	5611	1585	
Grp Volume(v), veh/h	1850	0	519				0	2289	581	0	2283	0	
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1870	1585	0	1870	1585	
Q Serve(g_s), s	59.4	0.0	11.9				0.0	48.1	15.7	0.0	47.9	0.0	
Cycle Q Clear(g_c), s	59.4	0.0	11.9				0.0	48.1	15.7	0.0	47.9	0.0	
Prop In Lane	1.00		1.00				0.00		1.00	0.00		1.00	
Lane Grp Cap(c), veh/h	1764	0	1569				0	2347	1326	0	2347		
V/C Ratio(X)	1.05	0.00	0.33				0.00	0.98	0.44	0.00	0.97		
Avail Cap(c_a), veh/h	1764	0	1569				0	2347	1326	0	2347		
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.00	1.00	0.00	
Uniform Delay (d), s/veh	30.3	0.0	18.3				0.0	34.3	24.9	0.0	34.2	0.0	
Incr Delay (d2), s/veh	35.6	0.0	0.0				0.0	13.2	0.2	0.0	12.8	0.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	31.9	0.0	4.1				0.0	23.3	5.7	0.0	23.1	0.0	
Unsig. Movement Delay, s/veh													
LnGrp Delay(d),s/veh	65.9	0.0	18.3				0.0	47.5	25.1	0.0	47.0	0.0	
LnGrp LOS	F	A	B				A	D	C	A	D		
Approach Vol, veh/h	2369						2870			2283			A
Approach Delay, s/veh	55.5						43.0			47.0			
Approach LOS	E						D			D			
Timer - Assigned Phs	2			4			6						
Phs Duration (G+Y+Rc), s	56.0			64.0			56.0						
Change Period (Y+Rc), s	5.8			4.6			5.8						
Max Green Setting (Gmax), s	50.2			59.4			50.2						
Max Q Clear Time (g_c+I1), s	50.1			61.4			49.9						
Green Ext Time (p_c), s	0.1			0.0			0.3						
Intersection Summary													
HCM 6th Ctrl Delay			48.1										
HCM 6th LOS			D										
Notes													

APPENDIX 9.3:

HORIZON YEAR (2045) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Queues

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1835	375	2180	1064
v/c Ratio	2.08	1.27	1.66	3.35
Control Delay	511.3	156.4	317.1	1079.4
Queue Delay	0.0	0.0	0.3	0.0
Total Delay	511.3	156.4	317.3	1079.4
Queue Length 50th (ft)	~1676	~256	~1879	~1094
Queue Length 95th (ft)	#1943	m63	m519	#1337
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	881	296	1313	318
Starvation Cap Reductn	0	0	87	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	2.08	1.27	1.78	3.35

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

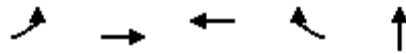
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	307	1080	1961	771	922
v/c Ratio	2.84	1.38	3.44	1.17	1.14
Control Delay	849.3	197.9	1117.6	115.9	102.0
Queue Delay	0.0	0.0	5.6	0.0	5.6
Total Delay	849.3	197.9	1123.2	115.9	107.6
Queue Length 50th (ft)	~304	~862	~2003	~424	~610
Queue Length 95th (ft)	m#95	m220	#2265	#647	#845
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	657	810
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	255	0	420
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	2.84	1.38	6.23	1.17	2.36

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

17: Potrero Bl. & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	193	253	1385	559	1009	1895
v/c Ratio	0.35	0.54	0.38	0.44	0.28	0.75
Control Delay	35.4	29.2	5.0	1.5	4.5	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.4	29.2	5.0	1.5	4.5	2.4
Queue Length 50th (ft)	52	53	82	0	54	0
Queue Length 95th (ft)	86	98	123	26	83	18
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	1745	1413	4244	1413	4244	2639
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.18	0.33	0.40	0.24	0.72
Intersection Summary						

Queues

Jack Rabbit Trail (JN 12396)

07/14/2020

18: Potrero Bl. & SR-60 EB Ramps



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	847	389	1097	397	935	266
v/c Ratio	0.73	0.38	0.46	0.26	0.40	0.30
Control Delay	21.0	9.0	11.0	1.7	10.5	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	9.0	11.0	1.7	10.5	2.6
Queue Length 50th (ft)	119	25	80	0	65	0
Queue Length 95th (ft)	227	68	144	22	120	34
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	2805	2270	4959	2728	4959	1550
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.17	0.22	0.15	0.19	0.17
Intersection Summary						

Queues

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	2798	268	2071	3010
v/c Ratio	4.60	1.26	2.25	4.10
Control Delay	1636.3	147.4	580.3	1411.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1636.3	147.4	580.3	1411.2
Queue Length 50th (ft)	~3036	~186	~1984	~3220
Queue Length 95th (ft)	#3298	m50	m534	#3480
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	608	212	922	734
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	4.60	1.26	2.25	4.10

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

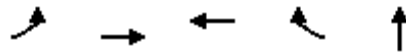
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	376	3167	1684	435	1234
v/c Ratio	1.81	3.75	3.12	0.76	1.54
Control Delay	389.4	1252.1	974.6	28.3	272.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	389.4	1252.1	974.6	28.3	272.4
Queue Length 50th (ft)	~330	~3359	~1690	144	~996
Queue Length 95th (ft)	m40	m374	#1948	#288	#1240
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	208	844	540	573	802
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.81	3.75	3.12	0.76	1.54

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/14/2020

17: Potrero Bl. & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	576	308	2952	453	1723	1747
v/c Ratio	0.81	0.55	0.83	0.38	0.49	0.71
Control Delay	50.2	39.0	15.3	3.7	8.4	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	39.0	15.3	3.7	8.4	2.2
Queue Length 50th (ft)	194	99	473	36	175	0
Queue Length 95th (ft)	256	147	672	94	254	24
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	1139	911	3539	1186	3539	2470
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.34	0.83	0.38	0.49	0.71
Intersection Summary						

Queues

Jack Rabbit Trail (JN 12396)

07/14/2020

18: Potrero Bl. & SR-60 EB Ramps



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	1850	449	1555	397	1963	336
v/c Ratio	1.02	0.31	0.79	0.30	1.00	0.46
Control Delay	55.0	16.3	36.4	3.0	58.1	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.0	16.3	36.4	3.0	58.1	13.6
Queue Length 50th (ft)	~783	102	386	0	~553	77
Queue Length 95th (ft)	#919	141	447	34	#677	160
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	1813	1456	1957	1317	1957	726
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.31	0.79	0.30	1.00	0.46

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

APPENDIX 9.4:

HORIZON YEAR (2045) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS

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Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	1878	375	2180	1216
v/c Ratio	2.13	1.27	1.66	3.84
Control Delay	532.9	156.4	317.1	1297.8
Queue Delay	0.0	0.0	0.3	0.0
Total Delay	532.9	156.4	317.3	1297.8
Queue Length 50th (ft)	~1729	~256	~1879	~1280
Queue Length 95th (ft)	#1996	m63	m519	#1531
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	881	296	1313	317
Starvation Cap Reductn	0	0	87	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	2.13	1.27	1.78	3.84

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

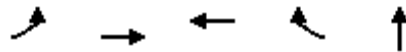
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	348	1080	1961	771	922
v/c Ratio	3.22	1.38	3.44	1.17	1.14
Control Delay	1018.2	198.0	1117.6	115.9	102.0
Queue Delay	0.0	0.0	5.6	0.0	5.6
Total Delay	1018.2	198.0	1123.2	115.9	107.6
Queue Length 50th (ft)	~353	~862	~2003	~424	~610
Queue Length 95th (ft)	m#109	m214	#2265	#647	#845
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	108	781	570	657	810
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	255	0	420
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	3.22	1.38	6.23	1.17	2.36

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

07/14/2020

17: Potrero Bl. & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	557	253	1439	673	1199	1895
v/c Ratio	0.77	0.42	0.42	0.52	0.35	0.76
Control Delay	44.0	27.3	7.5	2.1	7.0	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.0	27.3	7.5	2.1	7.0	2.7
Queue Length 50th (ft)	175	59	126	0	99	0
Queue Length 95th (ft)	234	100	186	37	147	24
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	1502	1221	3809	1354	3809	2563
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.21	0.38	0.50	0.31	0.74
Intersection Summary						

Queues

Jack Rabbit Trail (JN 12396)

07/14/2020

18: Potrero Bl. & SR-60 EB Ramps



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	847	828	1265	489	1489	266
v/c Ratio	0.66	0.81	0.51	0.30	0.60	0.29
Control Delay	24.4	29.6	15.2	1.9	16.4	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.4	29.6	15.2	1.9	16.4	2.7
Queue Length 50th (ft)	171	190	144	0	180	0
Queue Length 95th (ft)	307	351	249	27	308	41
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	2039	1630	4201	2387	4201	1354
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.51	0.30	0.20	0.35	0.20
Intersection Summary						

Queues

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBT	WBL	WBT	SBT
Lane Group Flow (vph)	2988	268	2071	3118
v/c Ratio	4.91	1.26	2.25	4.25
Control Delay	1772.6	147.4	580.3	1479.6
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	1772.6	147.4	580.3	1479.6
Queue Length 50th (ft)	~3268	~186	~1984	~3353
Queue Length 95th (ft)	#3528	m50	m534	#3611
Internal Link Dist (ft)	1308		748	928
Turn Bay Length (ft)		70		
Base Capacity (vph)	609	212	922	733
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	4.91	1.26	2.25	4.25

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

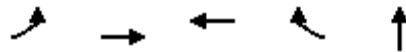
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Group Flow (vph)	557	3167	1684	435	1234
v/c Ratio	2.68	3.75	3.12	0.76	1.54
Control Delay	774.5	1252.1	974.6	28.3	272.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	774.5	1252.1	974.6	28.3	272.4
Queue Length 50th (ft)	~551	~3360	~1690	144	~996
Queue Length 95th (ft)	m58	m348	#1948	#288	#1240
Internal Link Dist (ft)		748	697		778
Turn Bay Length (ft)	125				
Base Capacity (vph)	208	844	540	573	802
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	2.68	3.75	3.12	0.76	1.54

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

04/01/2022

17: Potrero Bl. & SR-60 WB Ramps



Lane Group	WBL	WBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	576	308	2952	453	1723	1203
v/c Ratio	0.81	0.55	0.84	0.38	0.49	0.52
Control Delay	49.0	38.1	15.4	3.9	8.4	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	38.1	15.4	3.9	8.4	1.3
Queue Length 50th (ft)	189	97	465	39	172	0
Queue Length 95th (ft)	250	144	663	98	250	23
Internal Link Dist (ft)			916		1315	
Turn Bay Length (ft)	525	525		185		450
Base Capacity (vph)	1232	984	3523	1178	3523	2300
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.31	0.84	0.38	0.49	0.52
Intersection Summary						

18: Potrero Bl. & SR-60 EB Ramps



Lane Group	EBL	EBR	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	1850	449	1555	397	1963	336
v/c Ratio	1.00	0.30	0.81	0.31	1.03	0.47
Control Delay	50.2	15.7	37.8	3.0	64.3	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.2	15.7	37.8	3.0	64.3	14.2
Queue Length 50th (ft)	~719	100	392	0	~593	79
Queue Length 95th (ft)	#907	138	454	34	#689	164
Internal Link Dist (ft)			1316		916	
Turn Bay Length (ft)	550	550		415		185
Base Capacity (vph)	1842	1479	1915	1297	1915	714
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.00	0.30	0.81	0.31	1.03	0.47

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

APPENDIX 9.5:

**HORIZON YEAR (2045) WITHOUT PROJECT CONDITIONS FREEWAY FACILITY
ANALYSIS WORKSHEETS**

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HCS7 Freeway Facilities Report

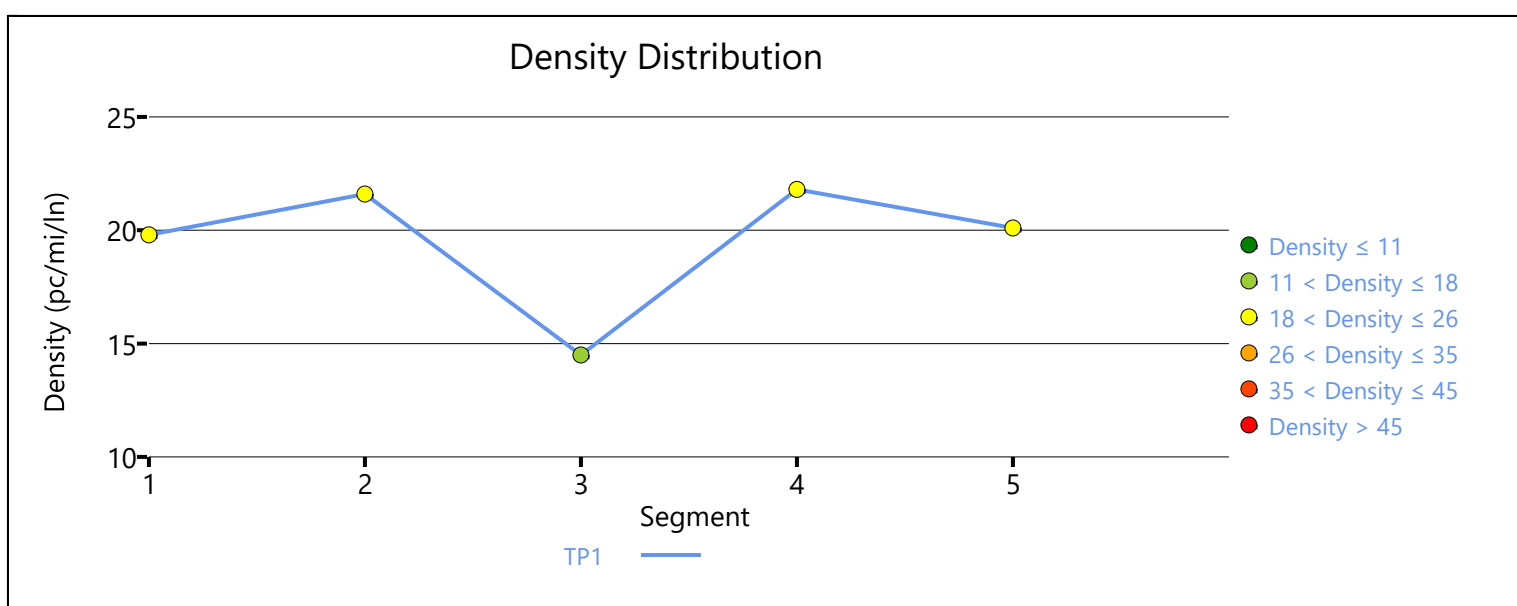
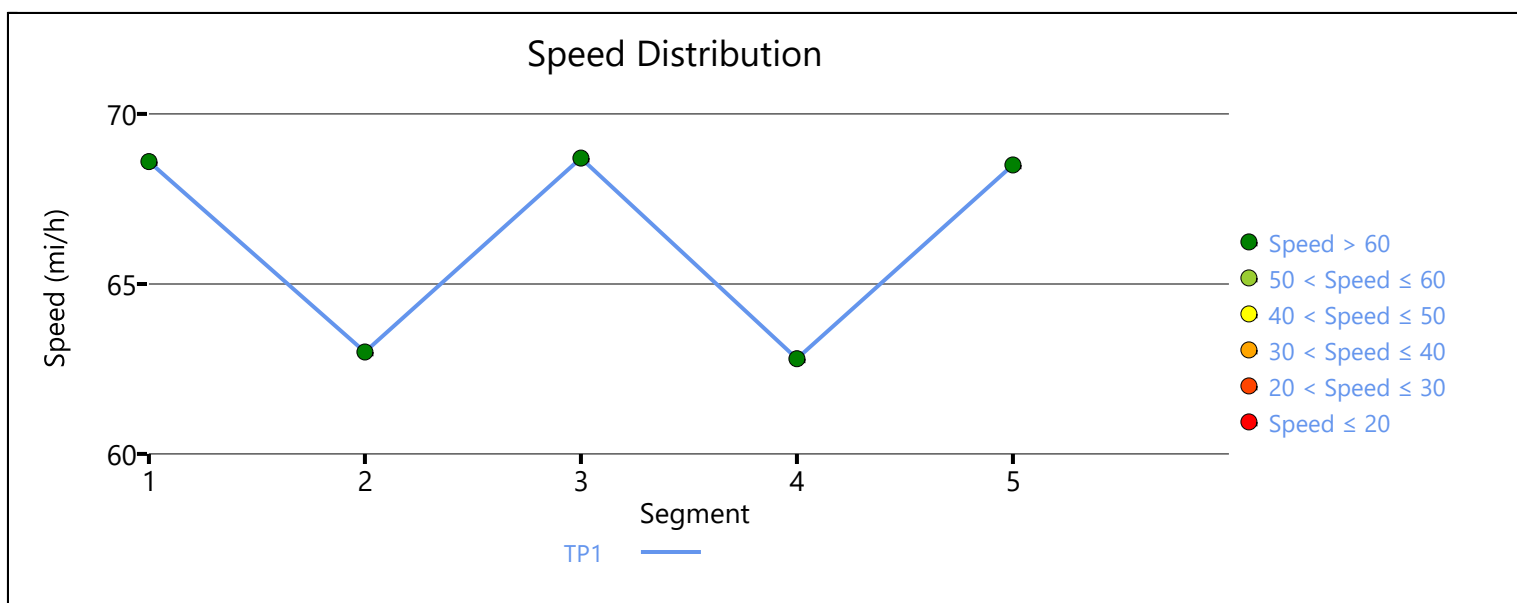
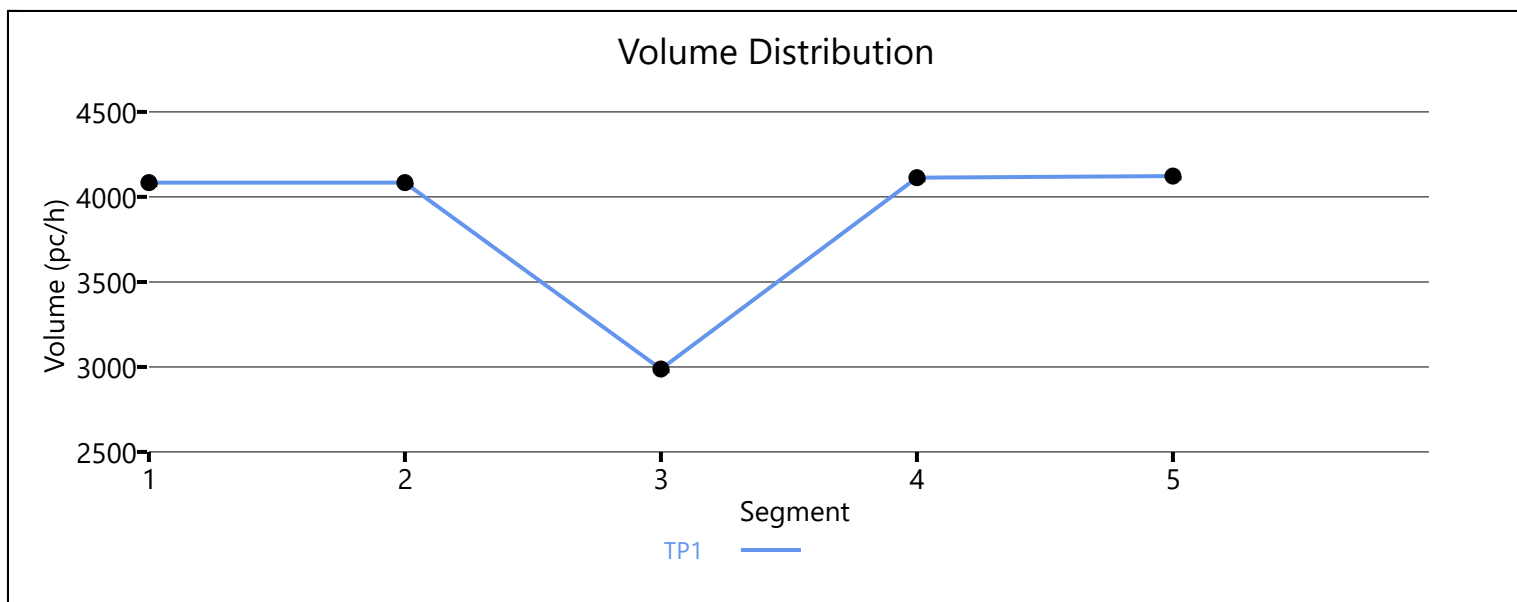
Project Information			
Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input			
Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data					
No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data															
Segment 1: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		4084		7161		0.57		68.6		19.8		C
Segment 2: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.980	4084	1086	7200	2100	0.57	0.52	63.0	58.9	21.6	25.3	C
Segment 3: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		2988		7161		0.42		68.7		14.5		B
Segment 4: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.980	4113	1125	7200	2100	0.57	0.54	62.8	61.1	21.8	22.5	C
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		4123		7161		0.58		68.5		20.1		C

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.1	19.6	19.0	2.1	C
Facility Overall Results					
Space Mean Speed, mi/h		67.1	Density, veh/mi/ln		19.0
Average Travel Time, min		2.1	Density, pc/mi/ln		19.6



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/14/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - I-10 WB at Oak Valley		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Oak Valley	4150	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1700	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	West of Oak Valley	4000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.943		4116		7161		0.57		68.5		20.0		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.971	4116	1011	7200	2100	0.57	0.48	63.2	59.1	21.7	25.2	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.926		3132		7161		0.44		68.7		15.2		B

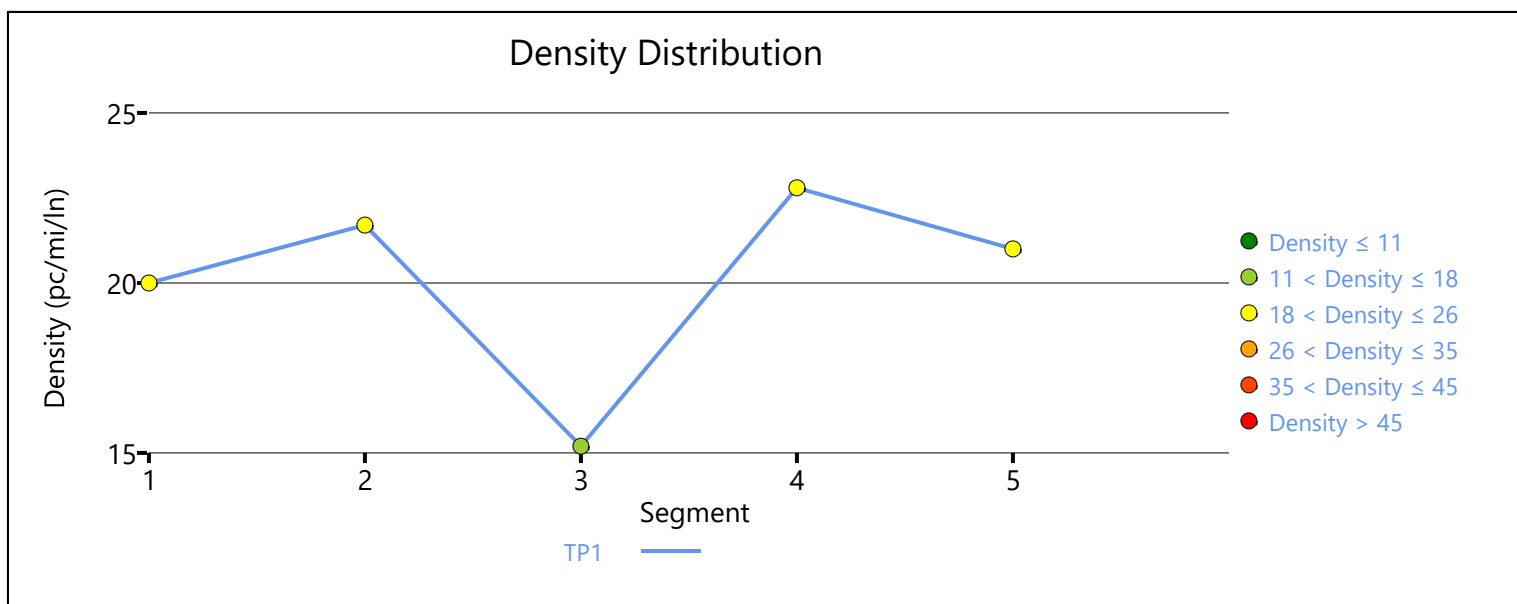
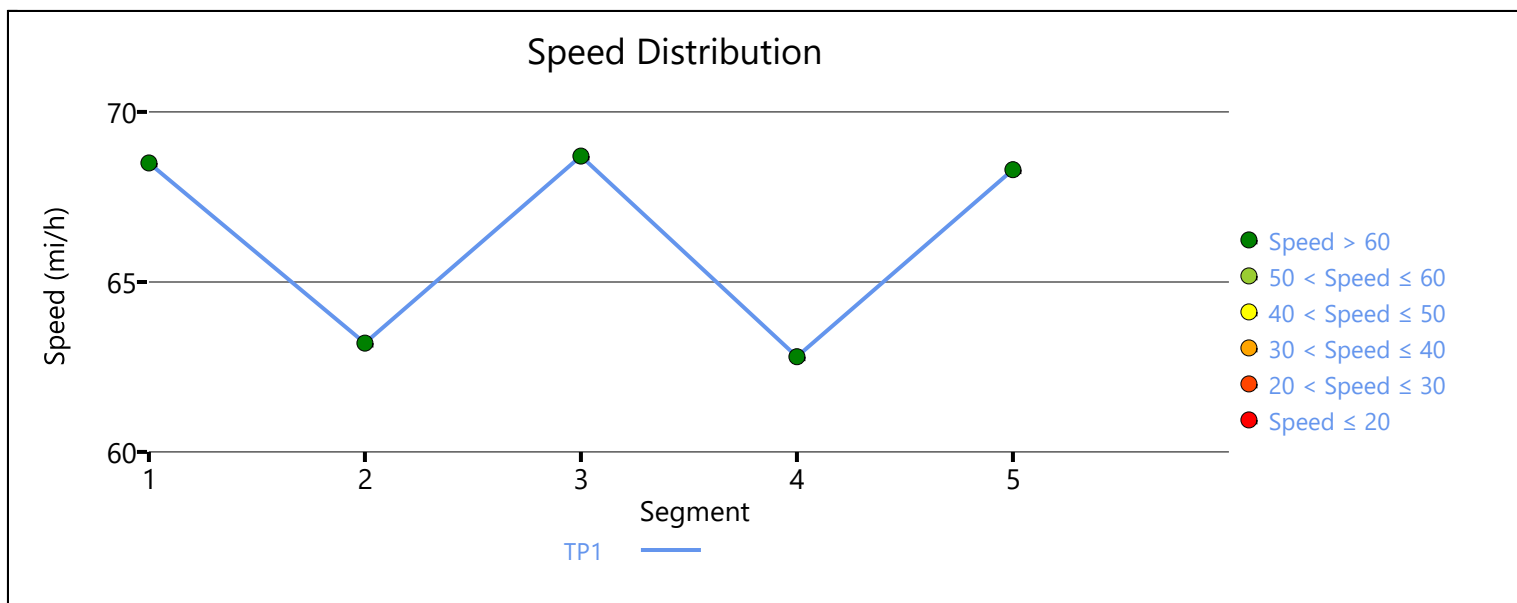
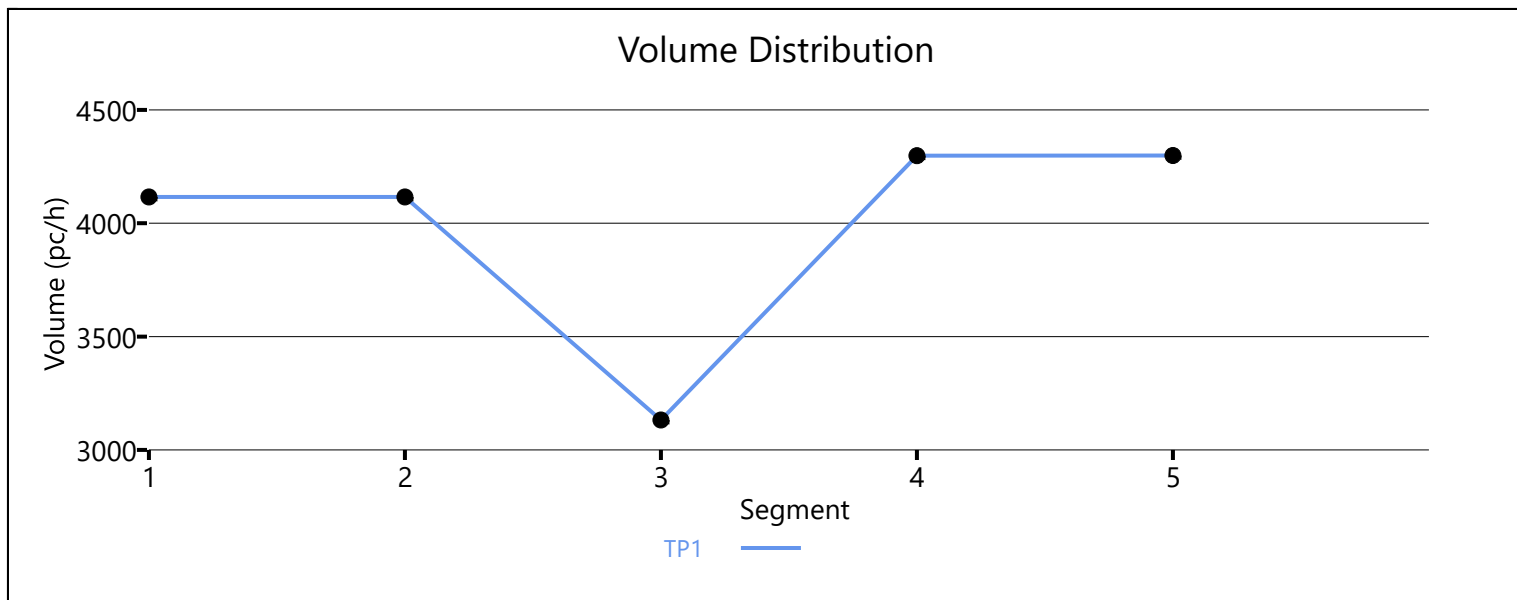
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.926	0.990	4298	1166	7200	2100	0.60	0.56	62.8	61.1	22.8	22.9	C

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.943		4299		7161		0.60		68.3		21.0		C

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.1	20.2	19.0	2.2	C
Facility Overall Results					
Space Mean Speed, mi/h		67.1	Density, veh/mi/ln		19.0
Average Travel Time, min		2.2	Density, pc/mi/ln		20.2



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		4999		4764		1.05		52.9		45.0		F

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.935	4764	1322	4800	2100	1.04	0.63	58.3	58.3	40.9	43.4	F

Segment 3: Basic

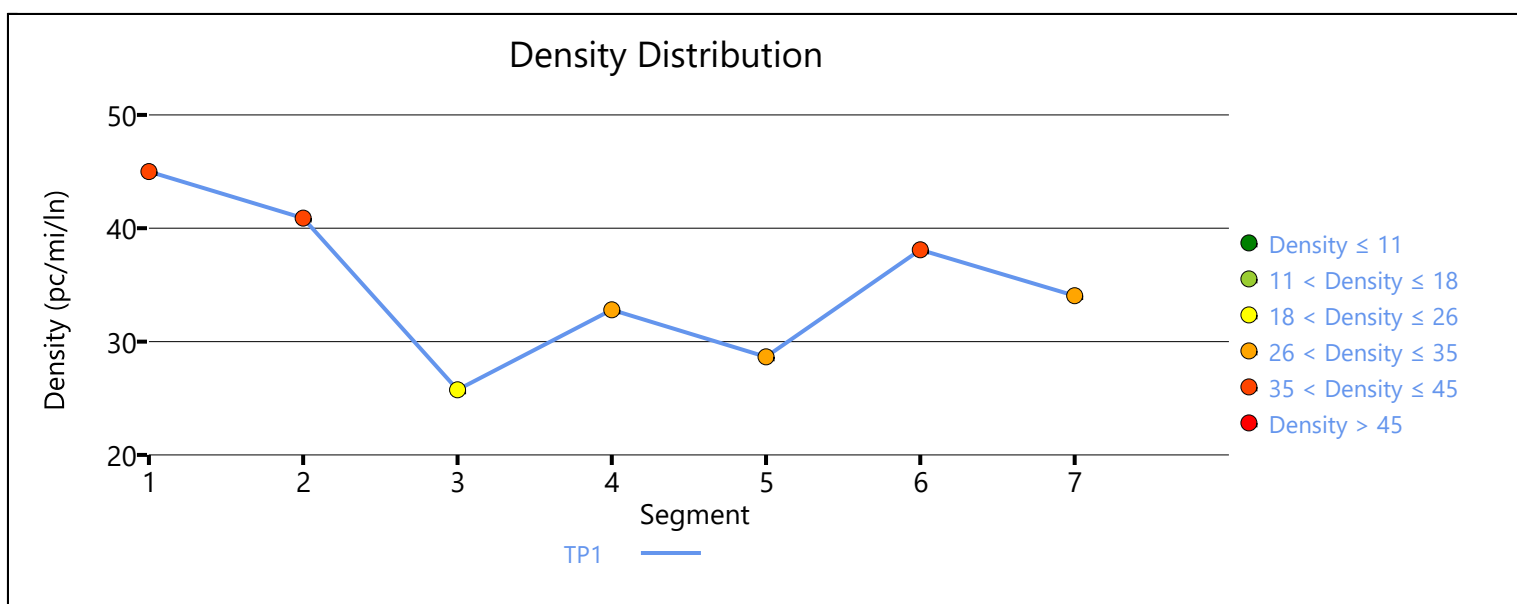
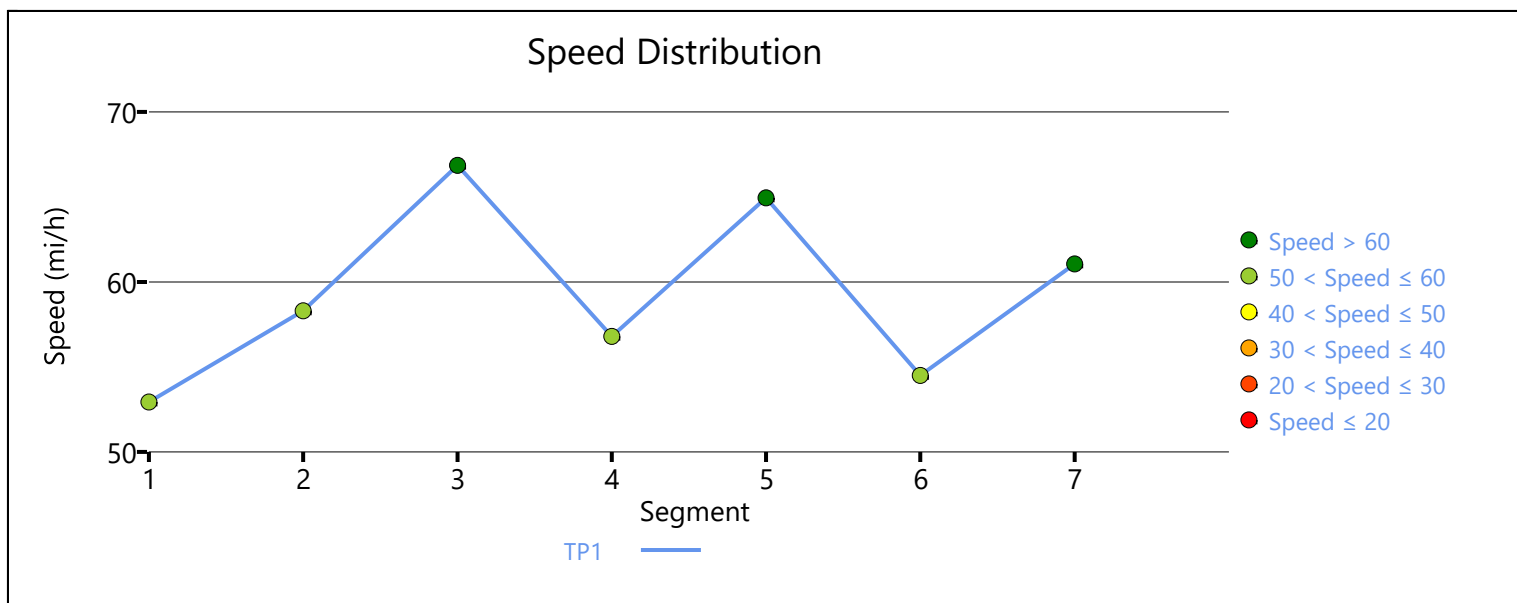
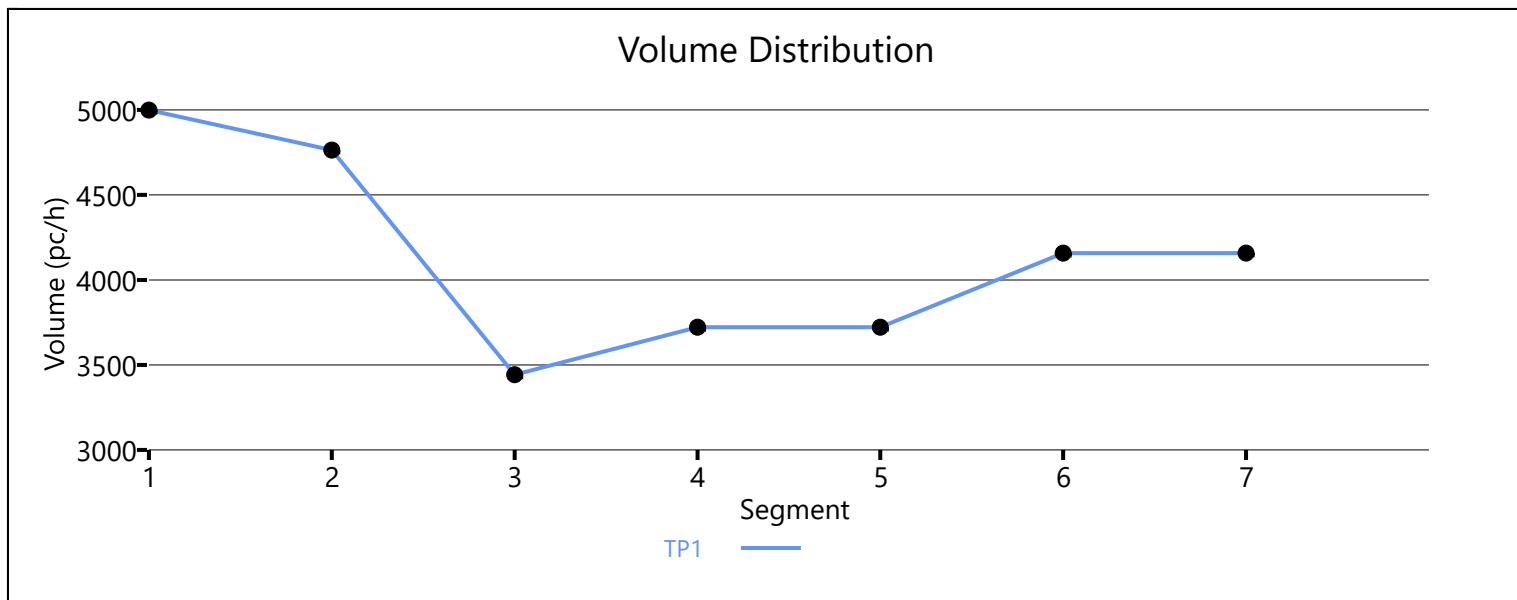
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		3442		4764		0.77		66.9		25.7		C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	3722	280	4800	1900	0.82	0.15	56.8	56.8	32.8	33.2	D

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		3722		4764		0.83		64.9		28.7		D
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.909	4158	436	4800	2100	0.92	0.21	54.5	54.5	38.1	36.5	E
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		4158		4764		0.92		61.1		34.0		D
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	58.0			36.6			36.1			3.5			F		
Facility Overall Results															
Space Mean Speed, mi/h					58.0				Density, veh/mi/ln				36.1		
Average Travel Time, min					3.5				Density, pc/mi/ln				36.6		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		1720		4764		0.36		68.2		12.6		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.870	1720	513	4800	2100	0.36	0.24	60.4	60.4	14.2	17.2	B

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		1208		4764		0.25		68.2		8.9		A

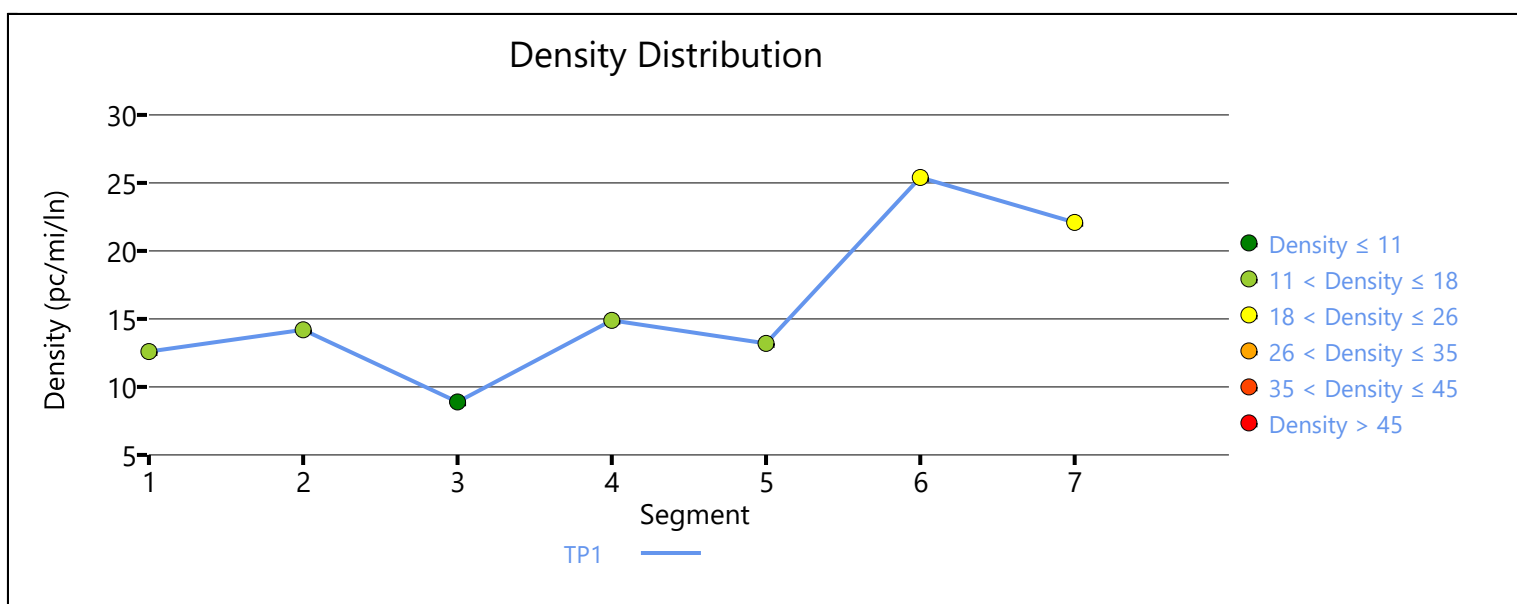
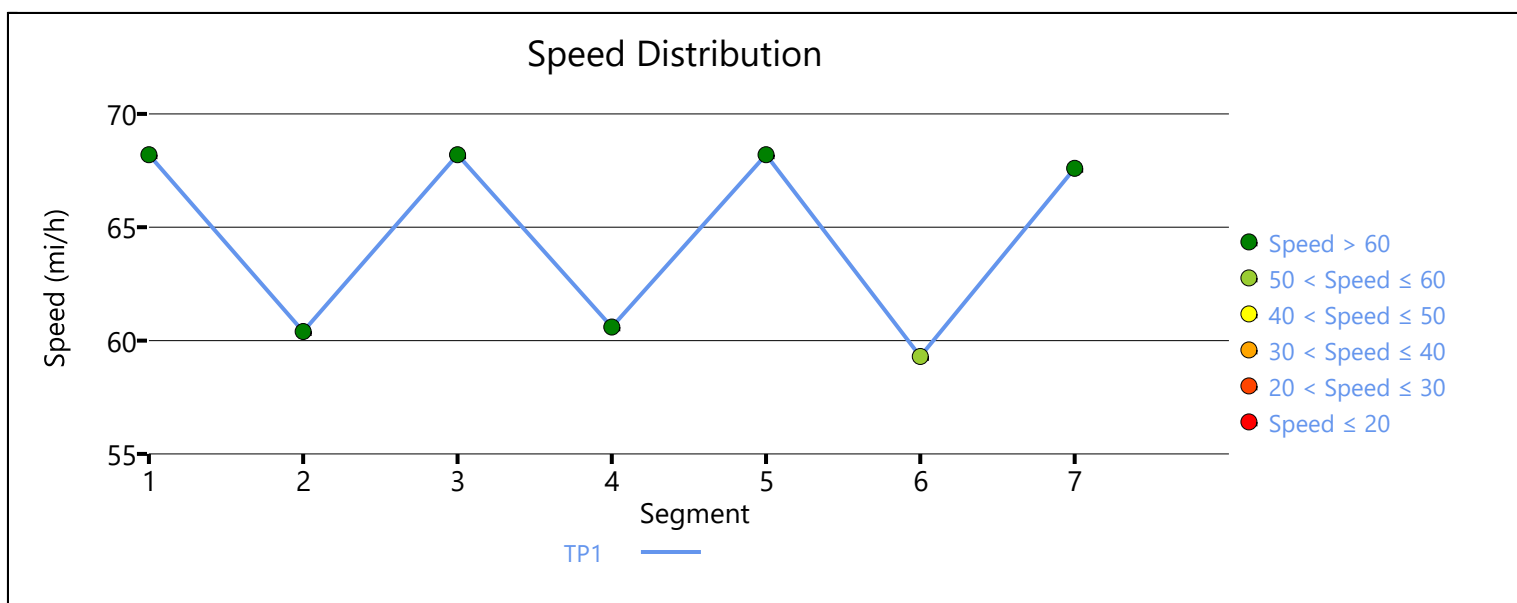
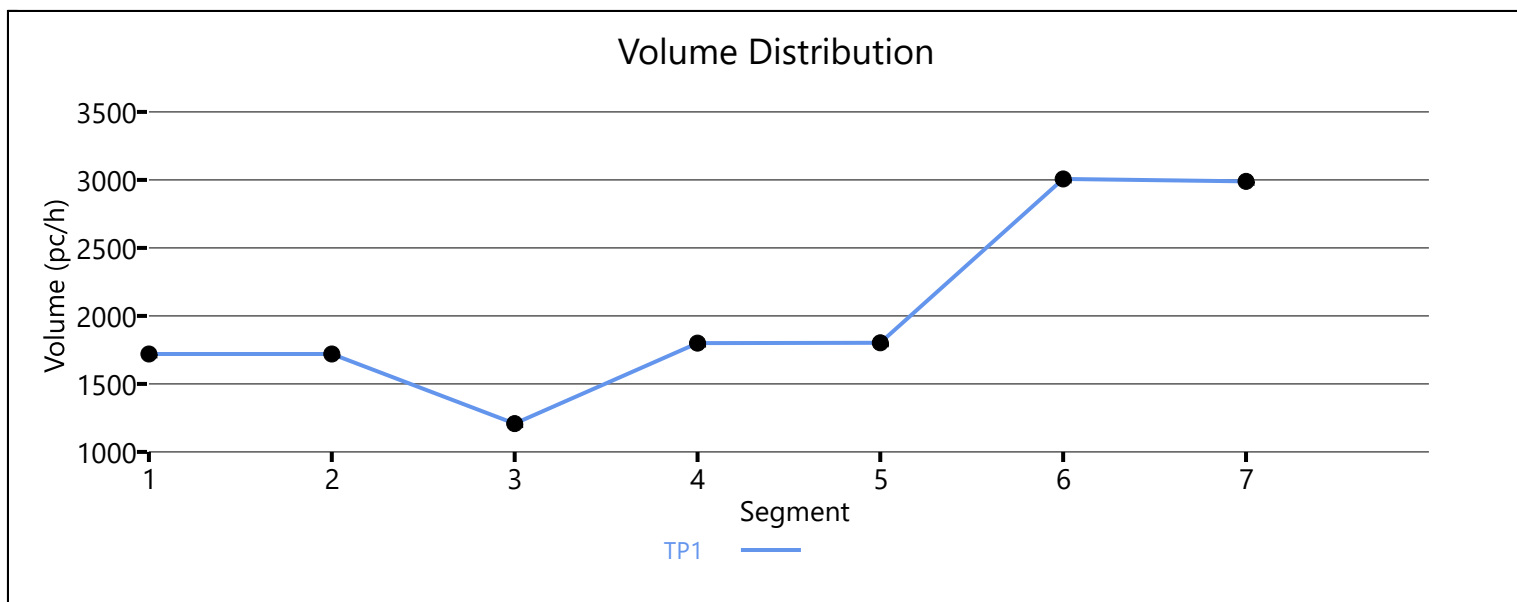
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.943	1800	592	4800	1900	0.38	0.31	60.6	60.6	14.9	18.1	B

9.5-10

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		1802		4764		0.38		68.2		13.2		B
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.943	3007	1205	4800	2100	0.63	0.57	59.3	59.3	25.4	27.2	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		2989		4764		0.63		67.6		22.1		C
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.7			16.4			16.0			3.1			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.7				Density, veh/mi/ln				16.0		
Average Travel Time, min					3.1				Density, pc/mi/ln				16.4		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		6665		7161		0.93		57.3		38.8		E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	1.000	6665	3010	7200	2100	0.93	1.43	53.3	54.1	45.0	40.4	E

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3655		7161		0.51		67.6		17.4		B

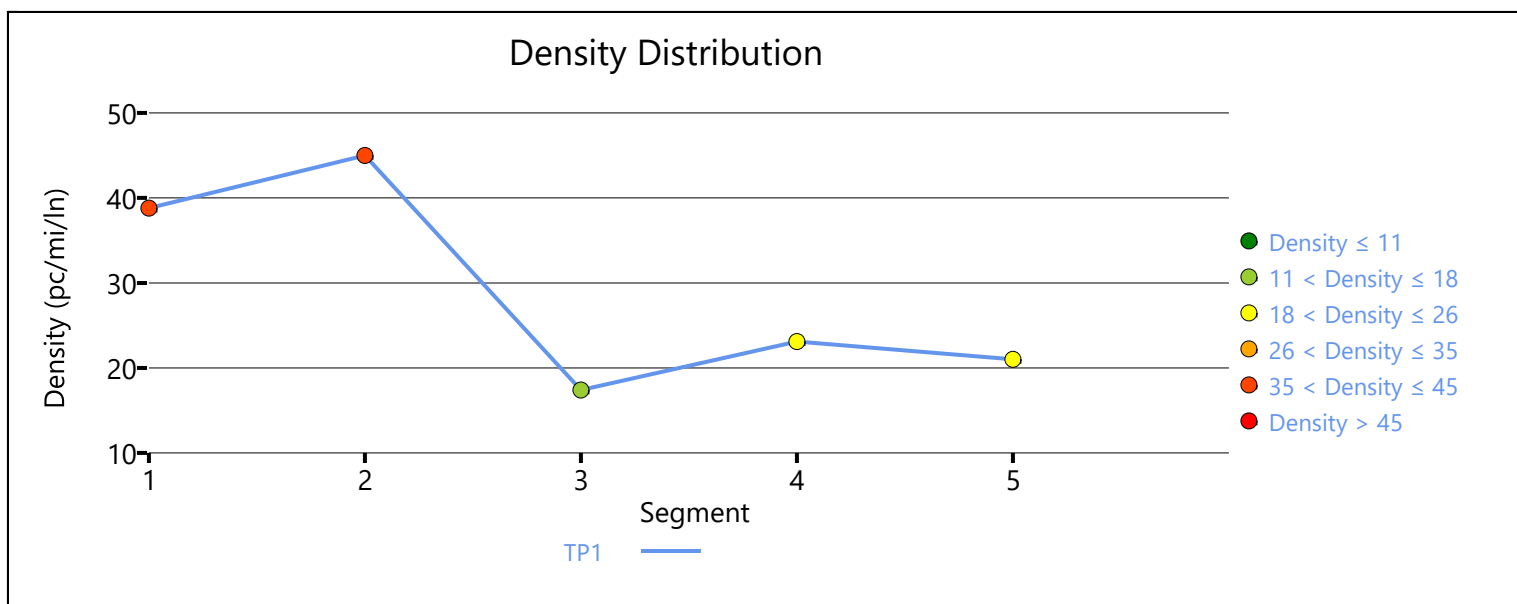
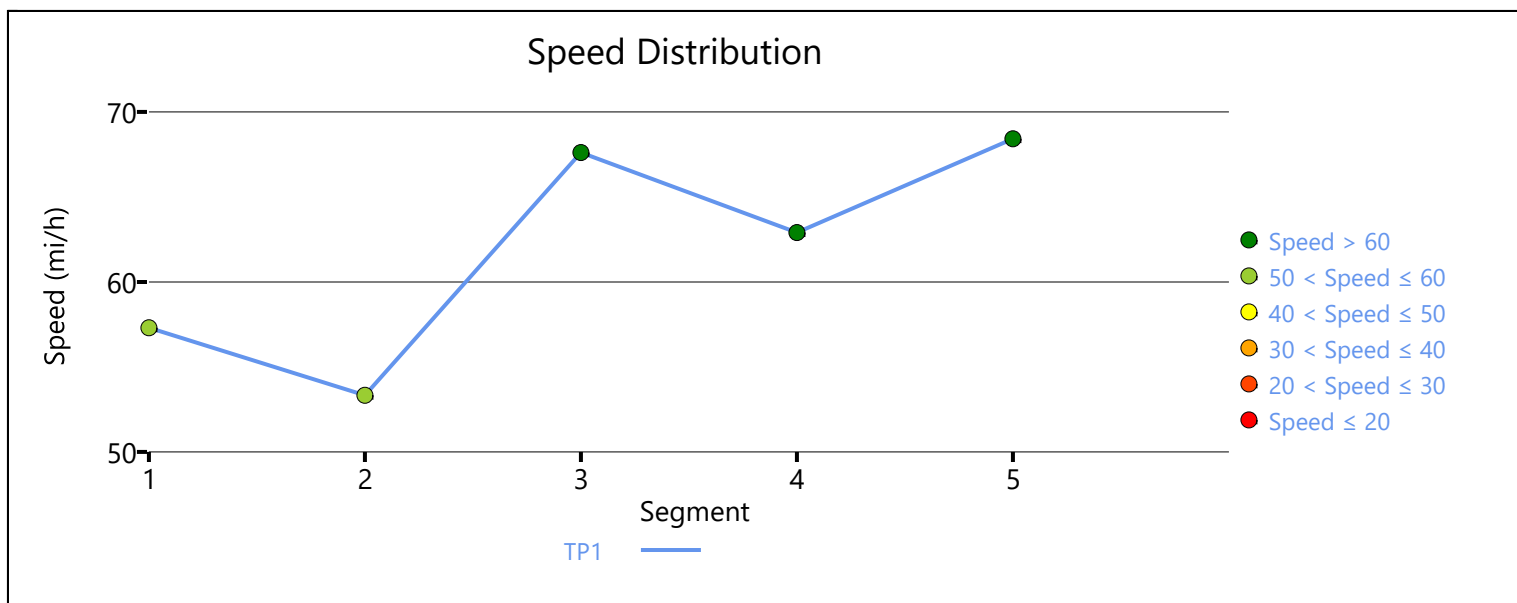
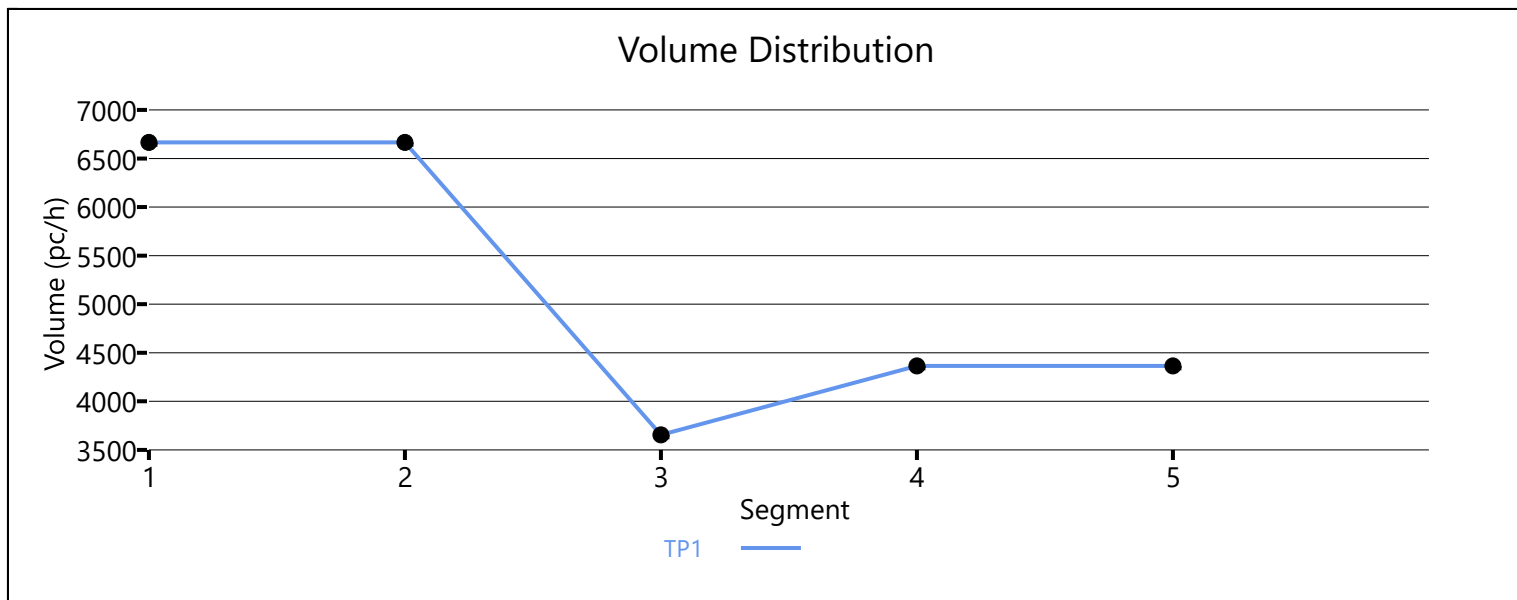
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.980	4364	709	7200	2100	0.60	0.34	62.9	61.2	23.1	22.6	C

Segment 5: Basic

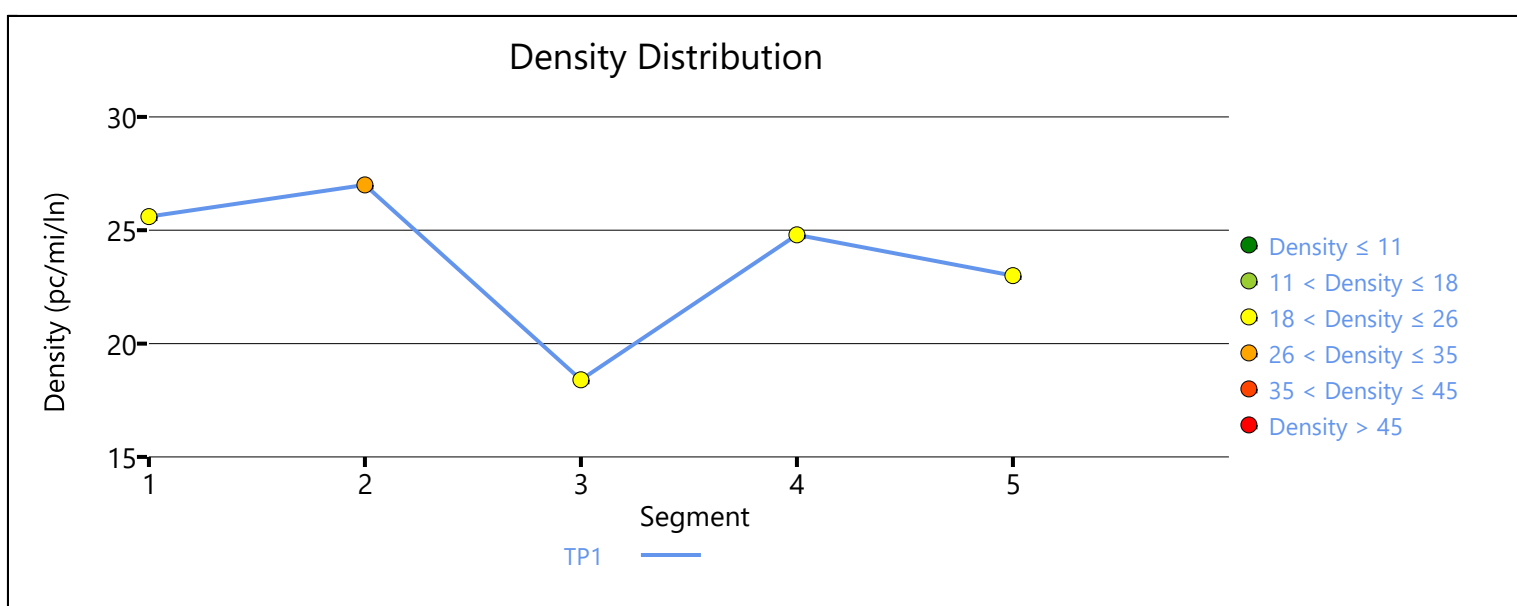
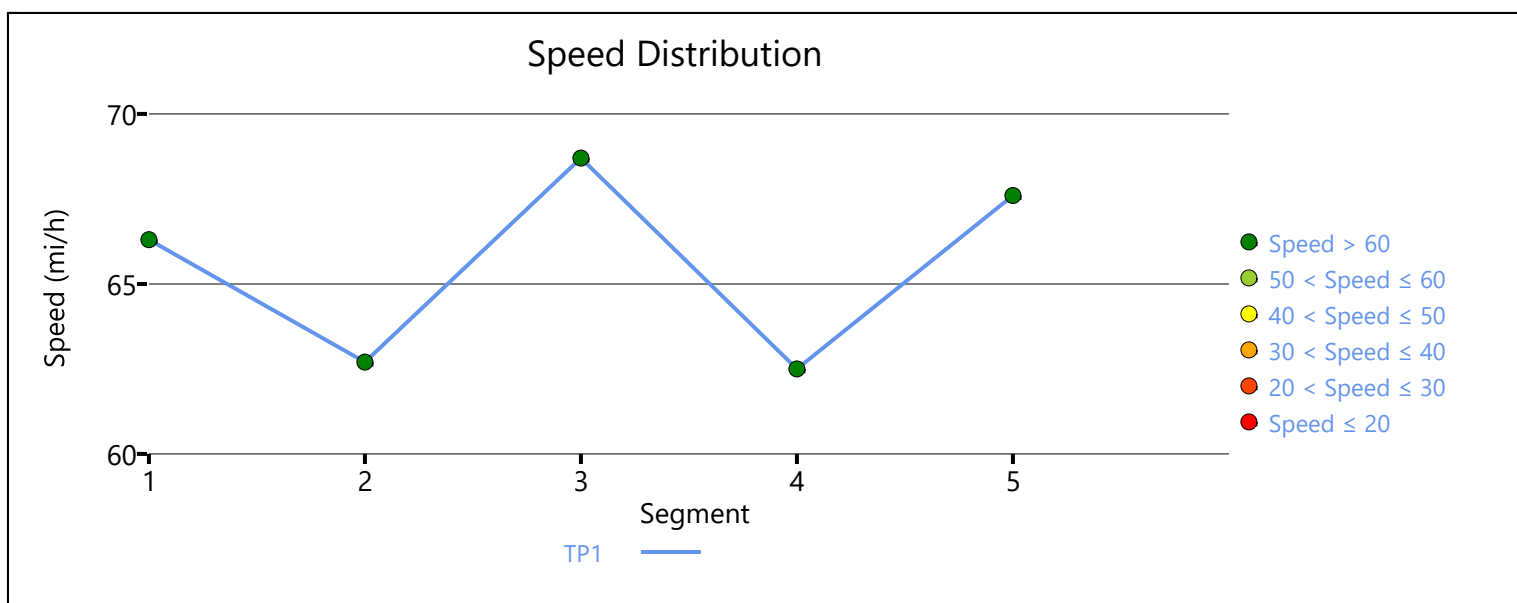
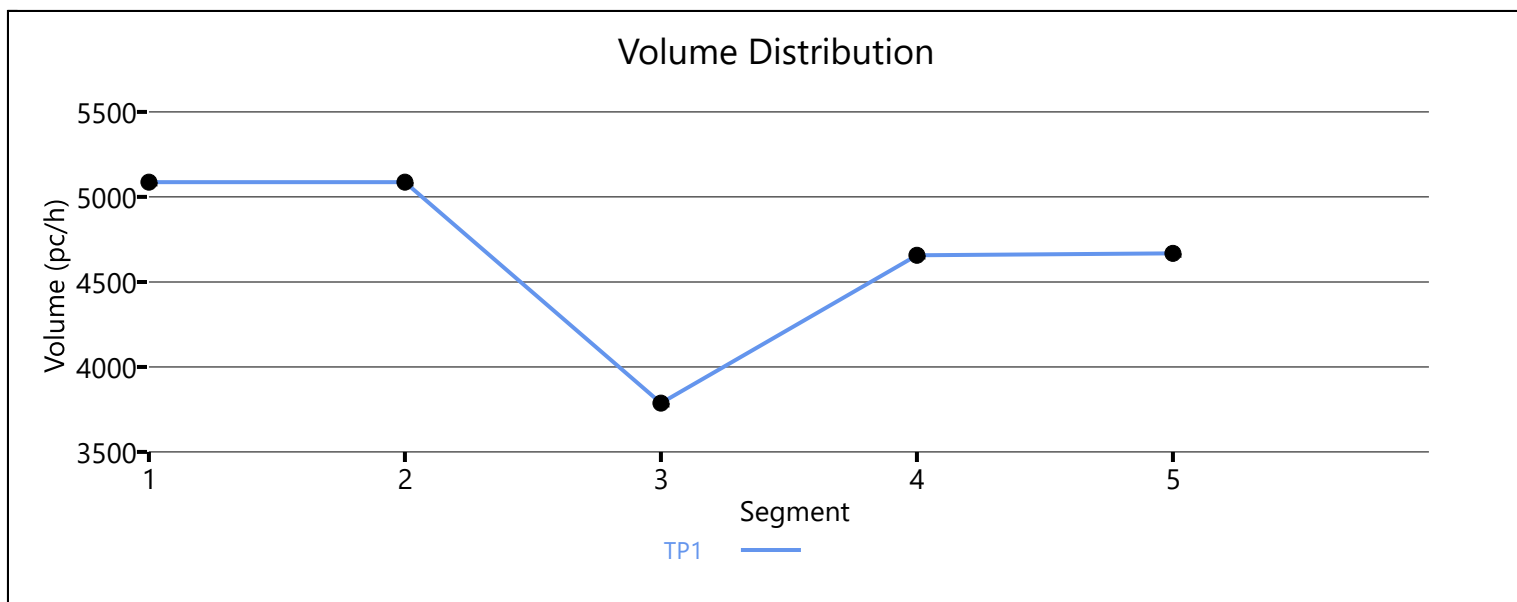
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		4364		7161		0.60		68.4		21.0		C

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	59.8	31.1	30.5	2.3	D
Facility Overall Results					
Space Mean Speed, mi/h		59.8	Density, veh/mi/ln		30.5
Average Travel Time, min		2.3	Density, pc/mi/ln		31.1



HCS7 Freeway Facilities Report																
Project Information																
Analyst				JB				Date				7/15/2020				
Agency				Urban Crossroads, Inc.				Analysis Year				Horizon Year (2045) Without Project				
Jurisdiction				Caltrans				Time Period Analyzed				PM Peak Hour				
Project Description				JN:12396 - I-10 WB at Oak Valley												
Facility Global Input																
Jam Density, pc/mi/ln				190.0				Density at Capacity, pc/mi/ln				45.0				
Queue Discharge Capacity Drop, %				7				Total Segments				5				
Total Time Periods				1				Time Period Duration, min				15				
Facility Segment Data																
No.		Coded		Analyzed		Name				Length, ft				Lanes		
1		Basic		Basic		East of Oak Valley				4150				3		
2		Diverge		Diverge		Off-Ramp				1500				3		
3		Basic		Basic		Between				1700				3		
4		Merge		Merge		On-Ramp				1500				3		
5		Basic		Basic		West of Oak Valley				4000				3		
Facility Segment Data																
Segment 1: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.952		5087		7161		0.71		66.3		25.6		C
Segment 2: Diverge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.952	0.990	5087	1314	7200	2100	0.71	0.63	62.7	58.4	27.0	30.1	D
Segment 3: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.935		3787		7161		0.53		68.7		18.4		C
Segment 4: Merge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.935	0.990	4657	870	7200	2100	0.65	0.41	62.5	60.8	24.8	23.8	C
Segment 5: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.943		4668		7161		0.65		67.6		23.0		C

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.0	23.9	22.6	2.2	C
Facility Overall Results					
Space Mean Speed, mi/h		66.0	Density, veh/mi/ln		22.6
Average Travel Time, min		2.2	Density, pc/mi/ln		23.9



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		6186		4764		1.30		52.9		45.0		F

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.943	4764	2438	4800	2100	1.29	1.16	53.3	55.5	45.0	43.4	F

Segment 3: Basic

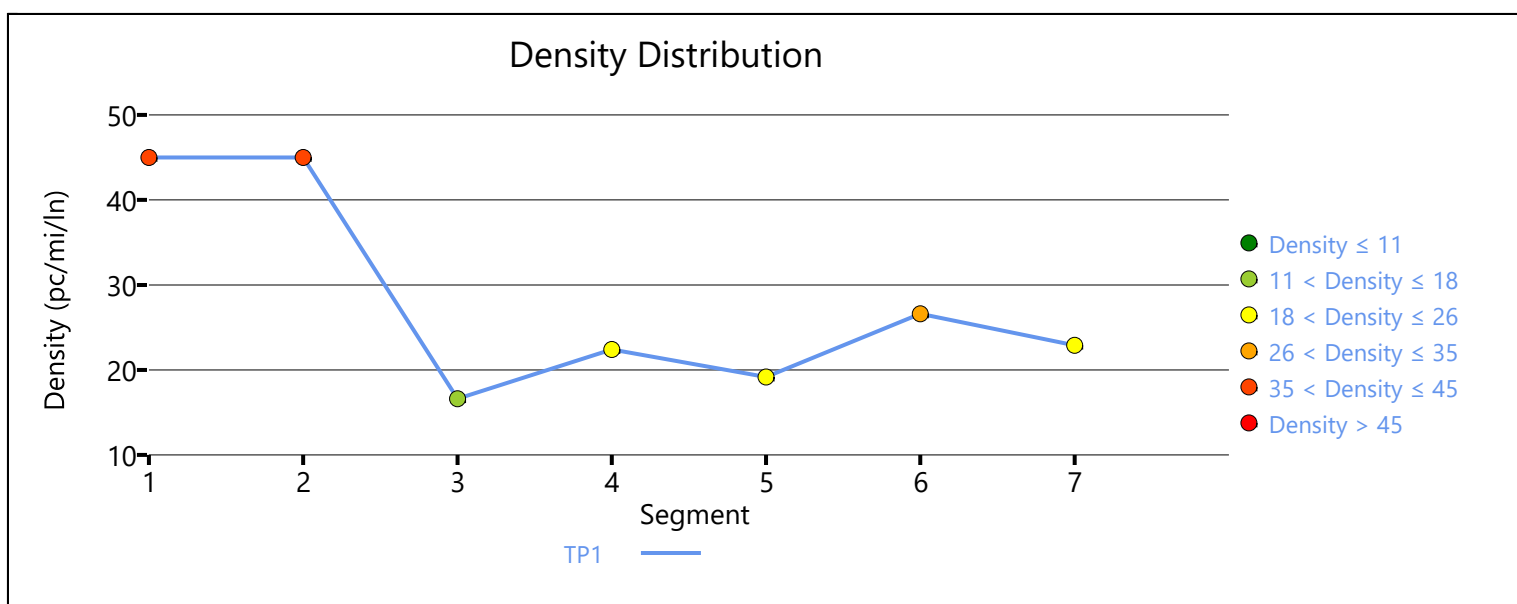
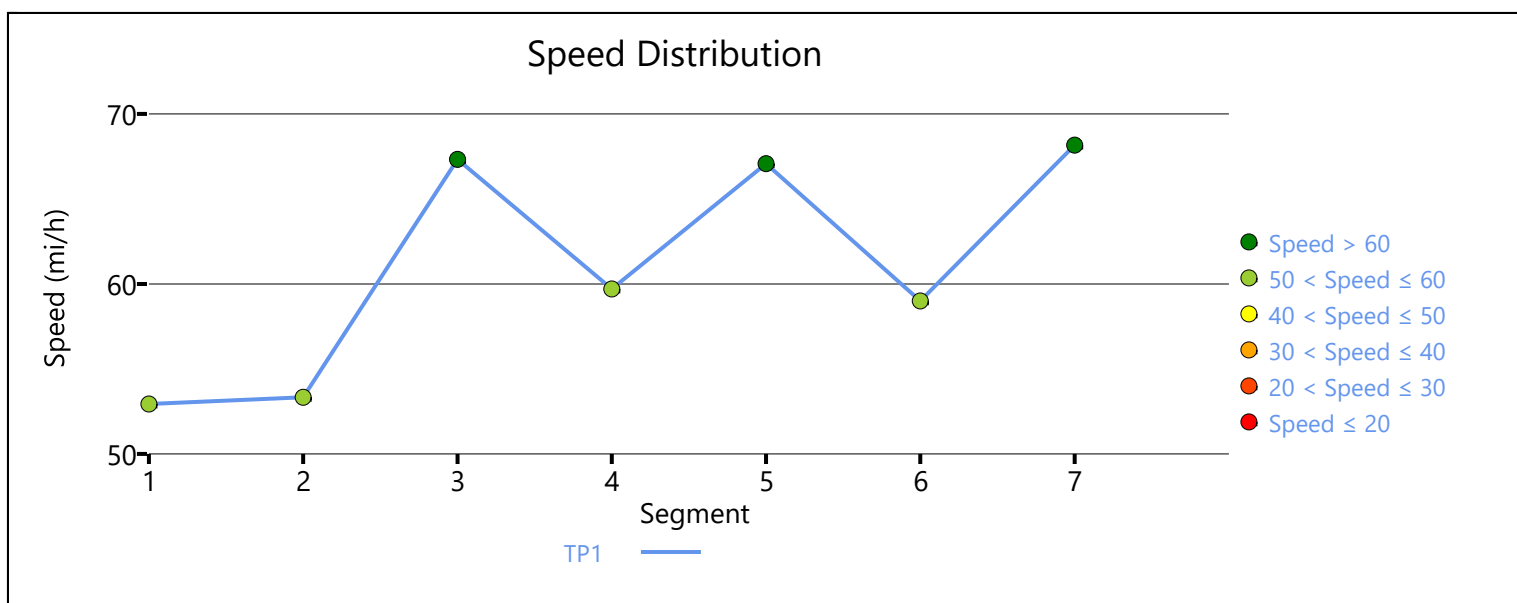
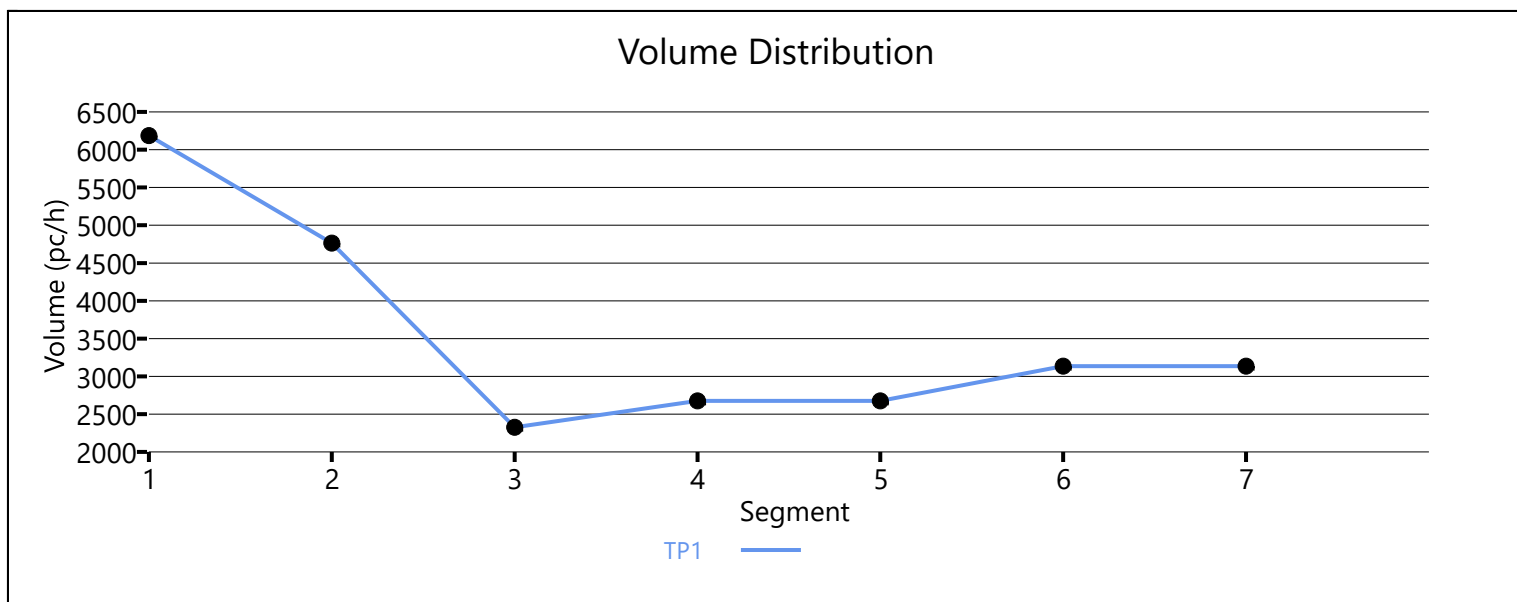
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		2326		4764		0.79		67.3		16.6		B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.962	2675	349	4800	1900	0.86	0.18	59.7	59.7	22.4	25.0	C

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		2675		4764		0.86		67.1		19.2		C
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.862	3135	460	4800	2100	0.95	0.22	59.0	59.0	26.6	28.5	D
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		3135		4764		0.96		68.2		22.9		C
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	59.0			30.3			29.9			3.5			F		
Facility Overall Results															
Space Mean Speed, mi/h					59.0				Density, veh/mi/ln				29.9		
Average Travel Time, min					3.5				Density, pc/mi/ln				30.3		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) Without Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3078		4764		0.65		67.3		22.9		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.917	3078	964	4800	2100	0.64	0.46	59.2	59.2	26.0	28.9	D

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		2105		4764		0.44		68.2		15.4		B

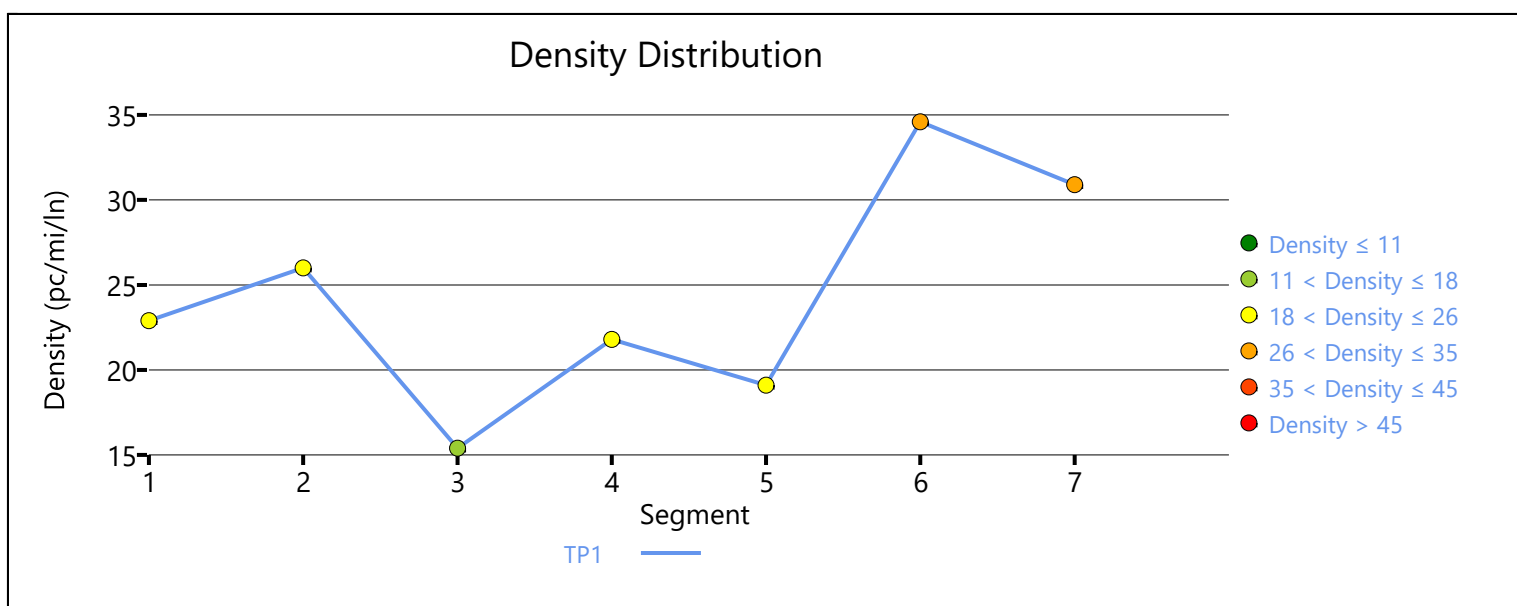
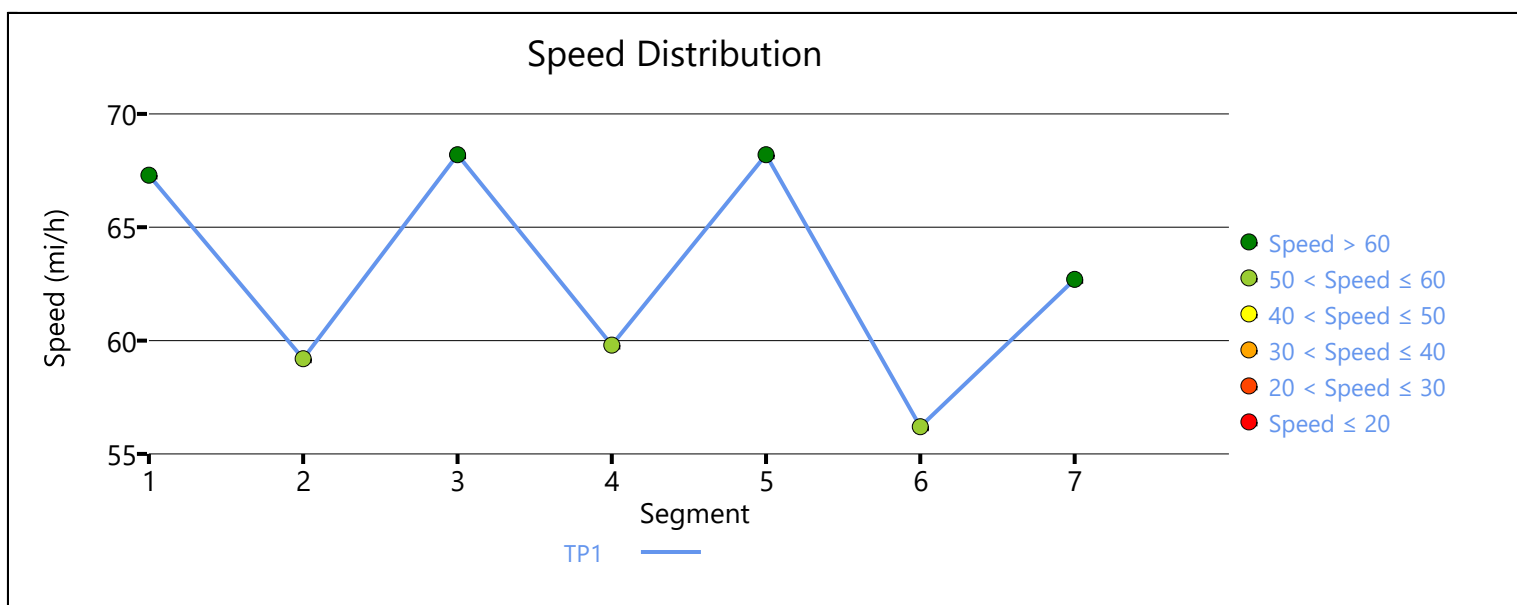
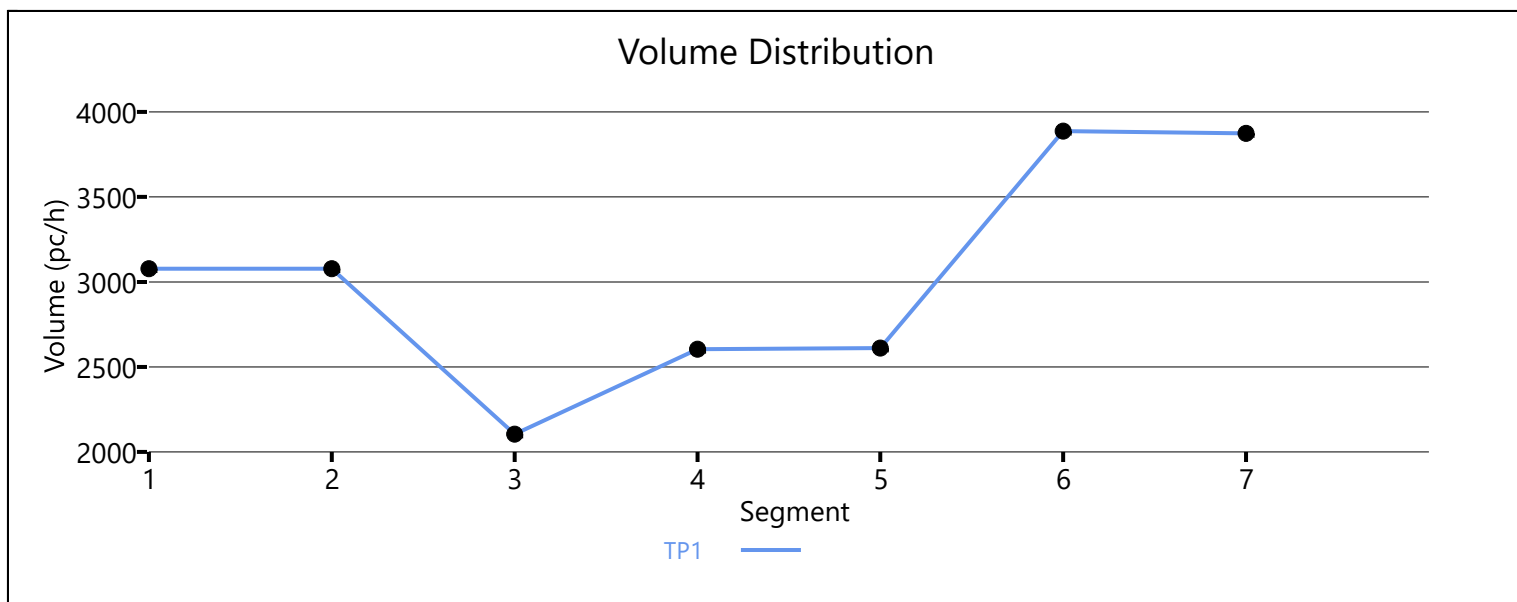
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.909	2604	499	4800	1900	0.54	0.26	59.8	59.8	21.8	24.4	C

9.5-22

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		2611		4764		0.55		68.2		19.1		C
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.943	3887	1276	4800	2100	0.81	0.61	56.2	56.2	34.6	34.0	D
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3874		4764		0.81		62.7		30.9		D
Facility Time Period Results															
T	Speed, mi/h				Density, pc/mi/ln		Density, veh/mi/ln		Travel Time, min				LOS		
1	63.3				25.3		24.7		3.2				C		
Facility Overall Results															
Space Mean Speed, mi/h					63.3			Density, veh/mi/ln					24.7		
Average Travel Time, min					3.2			Density, pc/mi/ln					25.3		



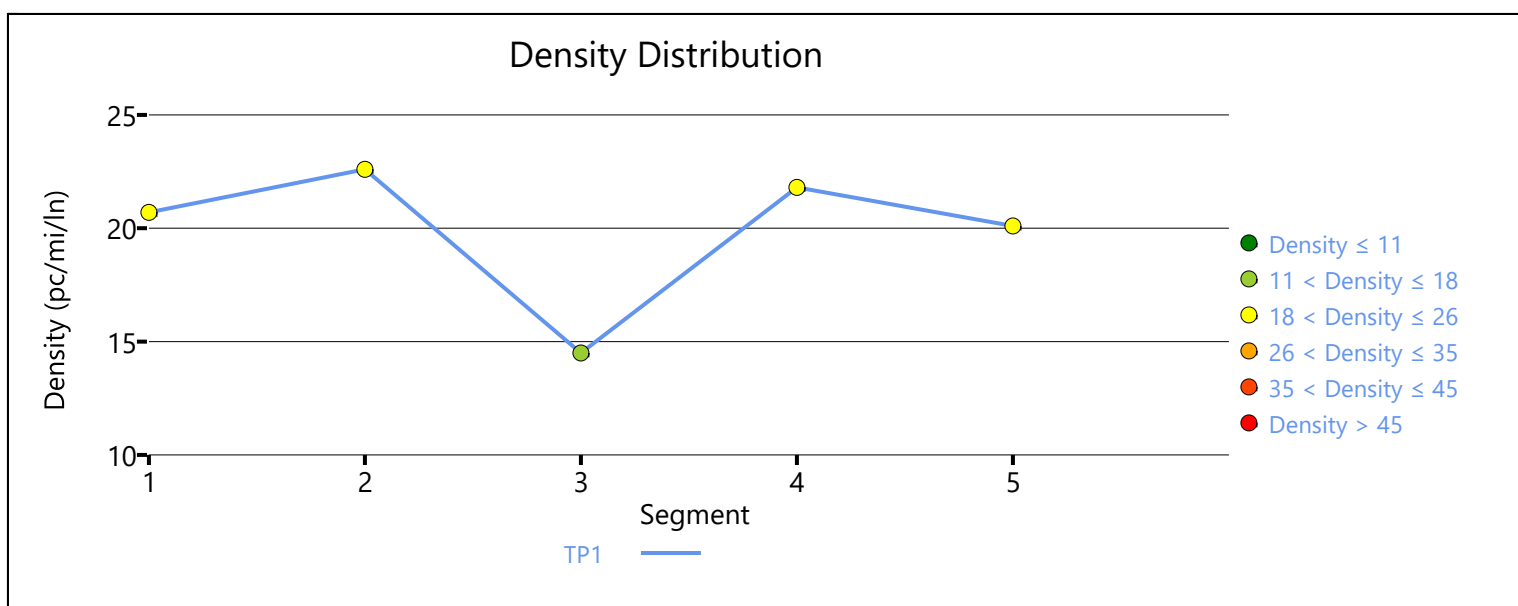
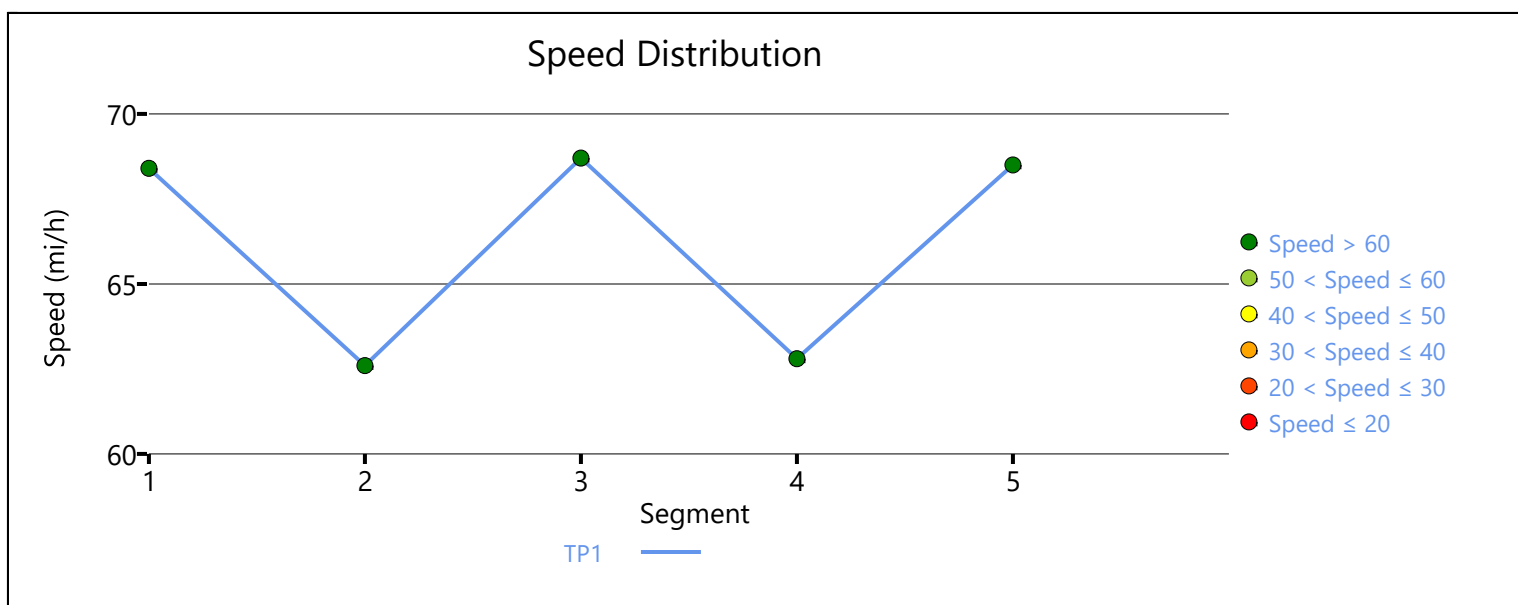
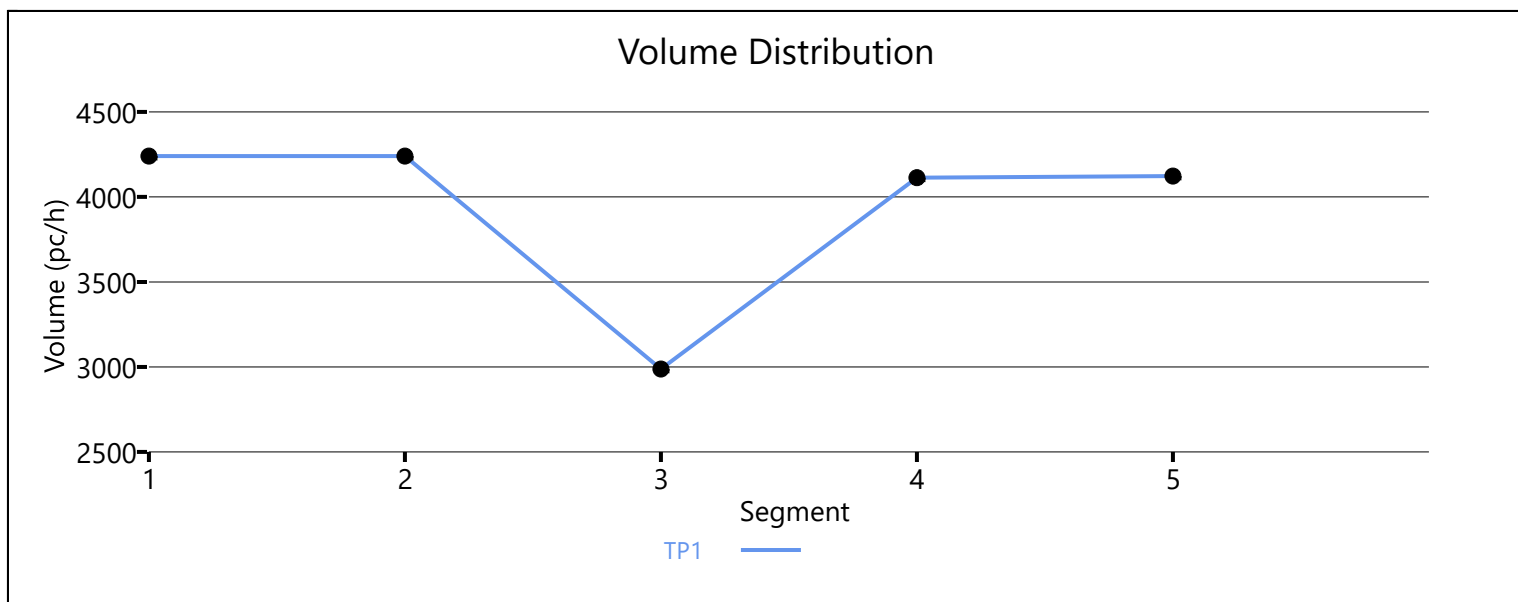
APPENDIX 9.6:

HORIZON YEAR (2045) WITH PROJECT CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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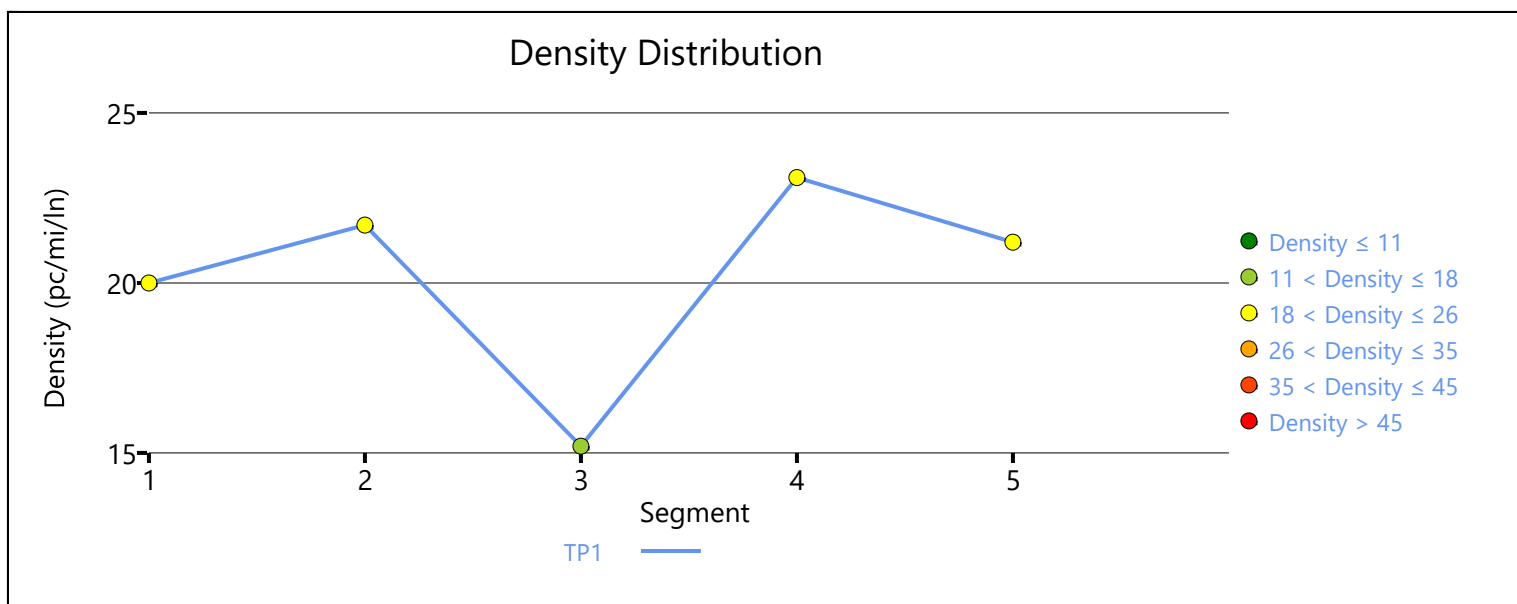
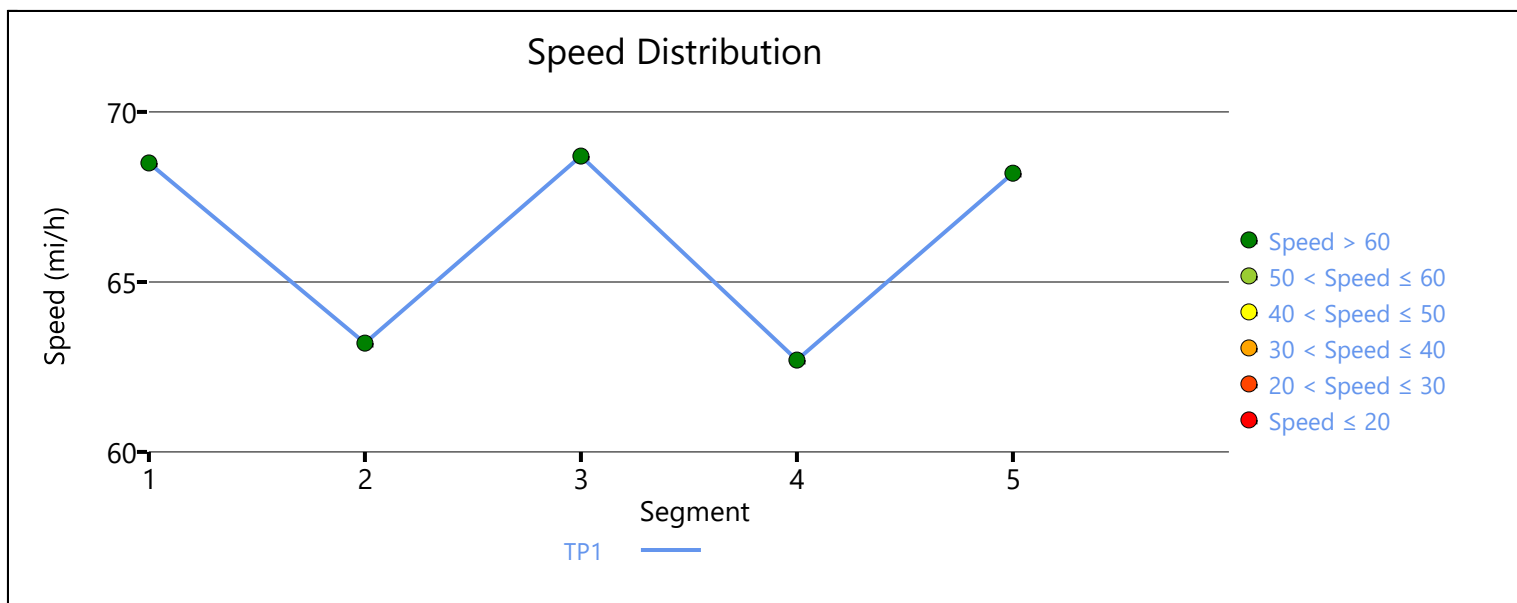
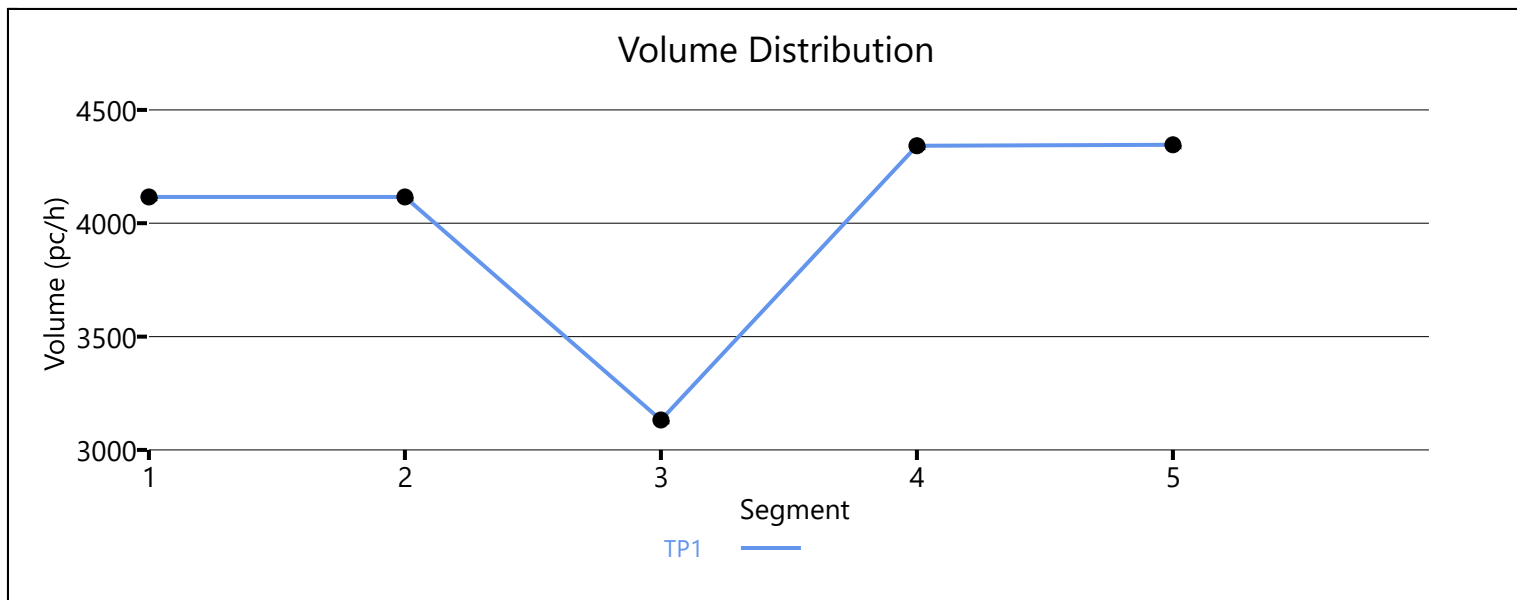
HCS7 Freeway Facilities Report																
Project Information																
Analyst				JB				Date				7/15/2020				
Agency				Urban Crossroads, Inc.				Analysis Year				Horizon Year (2045) With Project				
Jurisdiction				Caltrans				Time Period Analyzed				AM Peak Hour				
Project Description				JN:12396 - I-10 EB												
Facility Global Input																
Jam Density, pc/mi/ln				190.0				Density at Capacity, pc/mi/ln				45.0				
Queue Discharge Capacity Drop, %				7				Total Segments				5				
Total Time Periods				1				Time Period Duration, min				15				
Facility Segment Data																
No.		Coded		Analyzed		Name				Length, ft				Lanes		
1		Basic		Basic		West of Oak Valley				5280				3		
2		Diverge		Diverge		Off-Ramp				1500				3		
3		Basic		Basic		Between				1770				3		
4		Merge		Merge		On-Ramp				1500				3		
5		Basic		Basic		East of Oak Valley				2250				3		
Facility Segment Data																
Segment 1: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.971		4240		7161		0.59		68.4		20.7		C
Segment 2: Diverge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.971	0.990	4240	1229	7200	2100	0.59	0.59	62.6	58.5	22.6	26.3	C
Segment 3: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.971		2988		7161		0.42		68.7		14.5		B
Segment 4: Merge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.971	0.980	4113	1125	7200	2100	0.57	0.54	62.8	61.1	21.8	22.5	C
Segment 5: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.971		4123		7161		0.58		68.5		20.1		C

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.9	20.1	19.5	2.1	C
Facility Overall Results					
Space Mean Speed, mi/h		66.9	Density, veh/mi/ln		19.5
Average Travel Time, min		2.1	Density, pc/mi/ln		20.1



HCS7 Freeway Facilities Report																
Project Information																
Analyst				JB				Date				7/14/2020				
Agency				Urban Crossroads, Inc.				Analysis Year				Horizon Year (2045) With Project				
Jurisdiction				Caltrans				Time Period Analyzed				AM Peak Hour				
Project Description				JN:12396 - I-10 WB at Oak Valley												
Facility Global Input																
Jam Density, pc/mi/ln				190.0				Density at Capacity, pc/mi/ln				45.0				
Queue Discharge Capacity Drop, %				7				Total Segments				5				
Total Time Periods				1				Time Period Duration, min				15				
Facility Segment Data																
No.		Coded		Analyzed		Name				Length, ft				Lanes		
1		Basic		Basic		East of Oak Valley				4150				3		
2		Diverge		Diverge		Off-Ramp				1500				3		
3		Basic		Basic		Between				1700				3		
4		Merge		Merge		On-Ramp				1500				3		
5		Basic		Basic		West of Oak Valley				4000				3		
Facility Segment Data																
Segment 1: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.943		4116		7161		0.57		68.5		20.0		C
Segment 2: Diverge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.943	0.971	4116	1011	7200	2100	0.57	0.48	63.2	59.1	21.7	25.2	C
Segment 3: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.926		3132		7161		0.44		68.7		15.2		B
Segment 4: Merge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.926	0.990	4342	1210	7200	2100	0.60	0.58	62.7	61.0	23.1	23.2	C
Segment 5: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.943		4346		7161		0.61		68.2		21.2		C

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.0	20.3	19.1	2.2	C
Facility Overall Results					
Space Mean Speed, mi/h		67.0	Density, veh/mi/ln		19.1
Average Travel Time, min		2.2	Density, pc/mi/ln		20.3



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		5393		4764		1.13		52.9		45.0		F

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.909	4764	1731	4800	2100	1.12	0.82	57.3	57.3	41.6	43.4	F

Segment 3: Basic

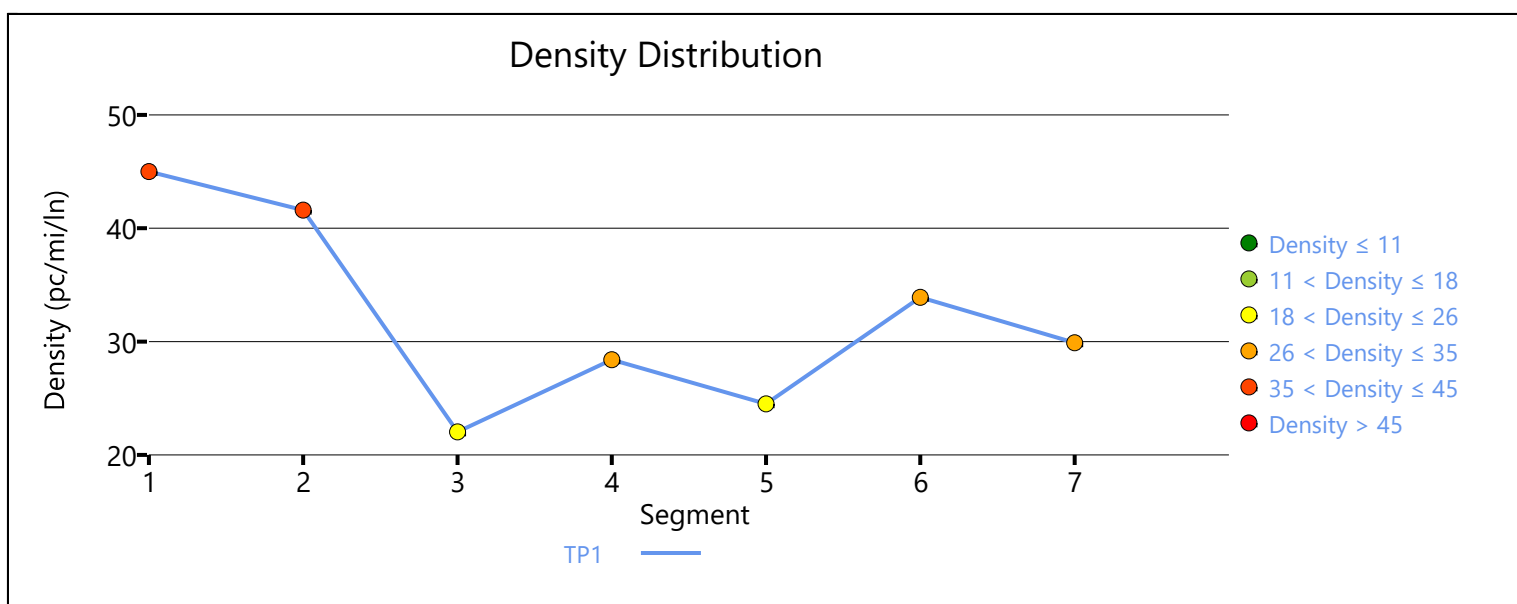
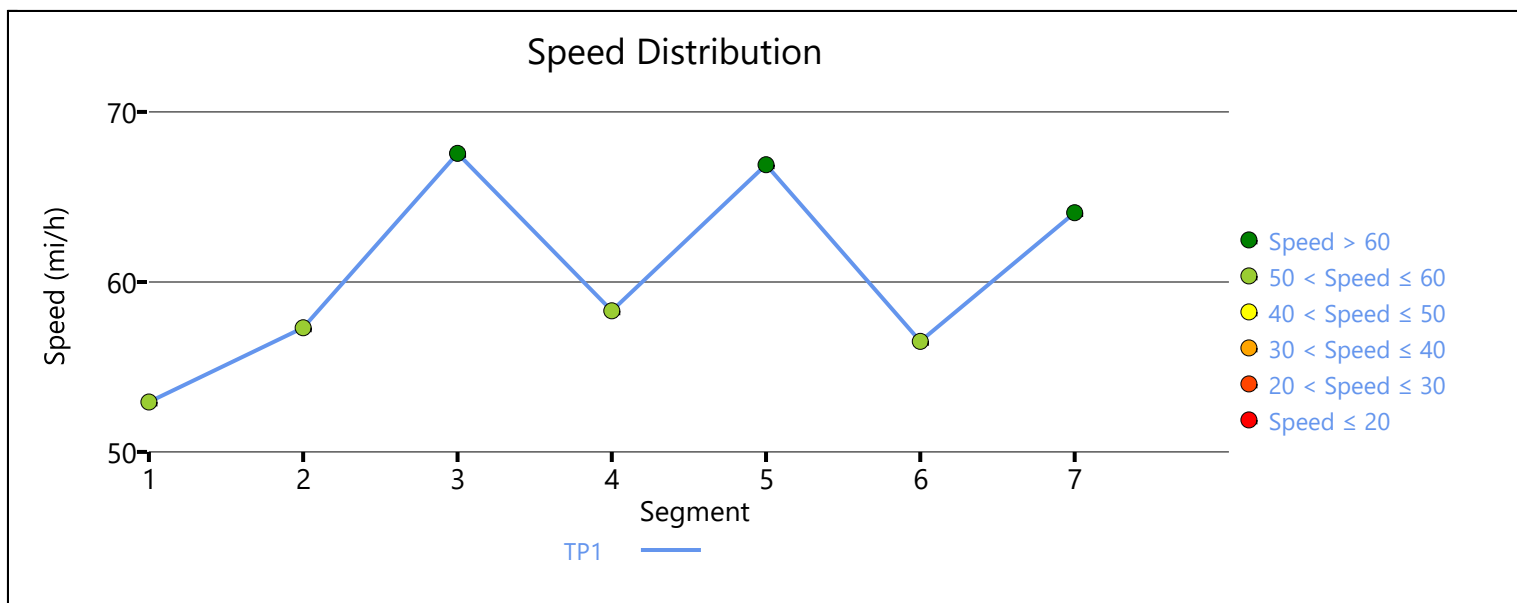
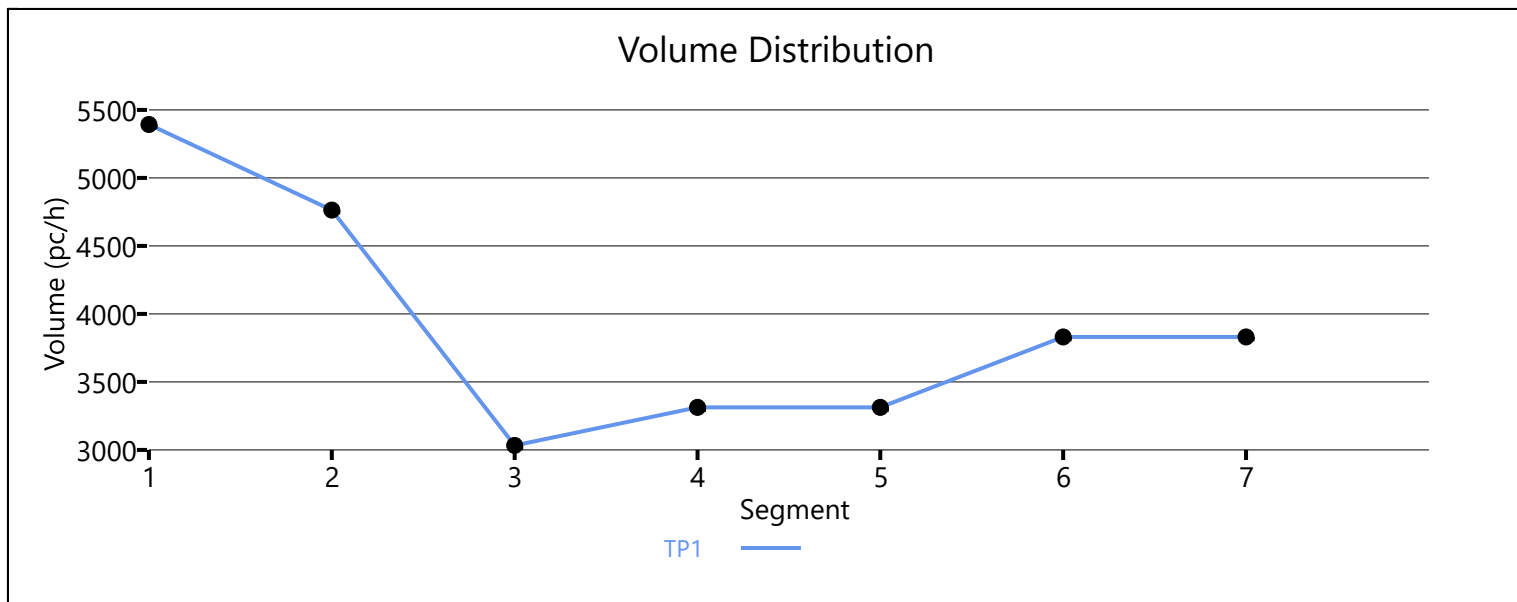
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		3033		4764		0.77		67.6		22.0		C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.952	3313	280	4800	1900	0.82	0.15	58.3	58.3	28.4	30.0	D

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		3313		4764		0.83		66.9		24.5		C
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.901	3831	518	4800	2100	0.93	0.25	56.5	56.5	33.9	33.9	D
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		3831		4764		0.94		64.1		29.9		D
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	58.9			34.1			33.4			3.5			F		
Facility Overall Results															
Space Mean Speed, mi/h					58.9				Density, veh/mi/ln				33.4		
Average Travel Time, min					3.5				Density, pc/mi/ln				34.1		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) With Project
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		2050		4764		0.43		68.2		15.0		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.833	2050	851	4800	2100	0.43	0.41	59.5	59.5	17.2	20.1	C

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		1208		4764		0.25		68.2		8.9		A

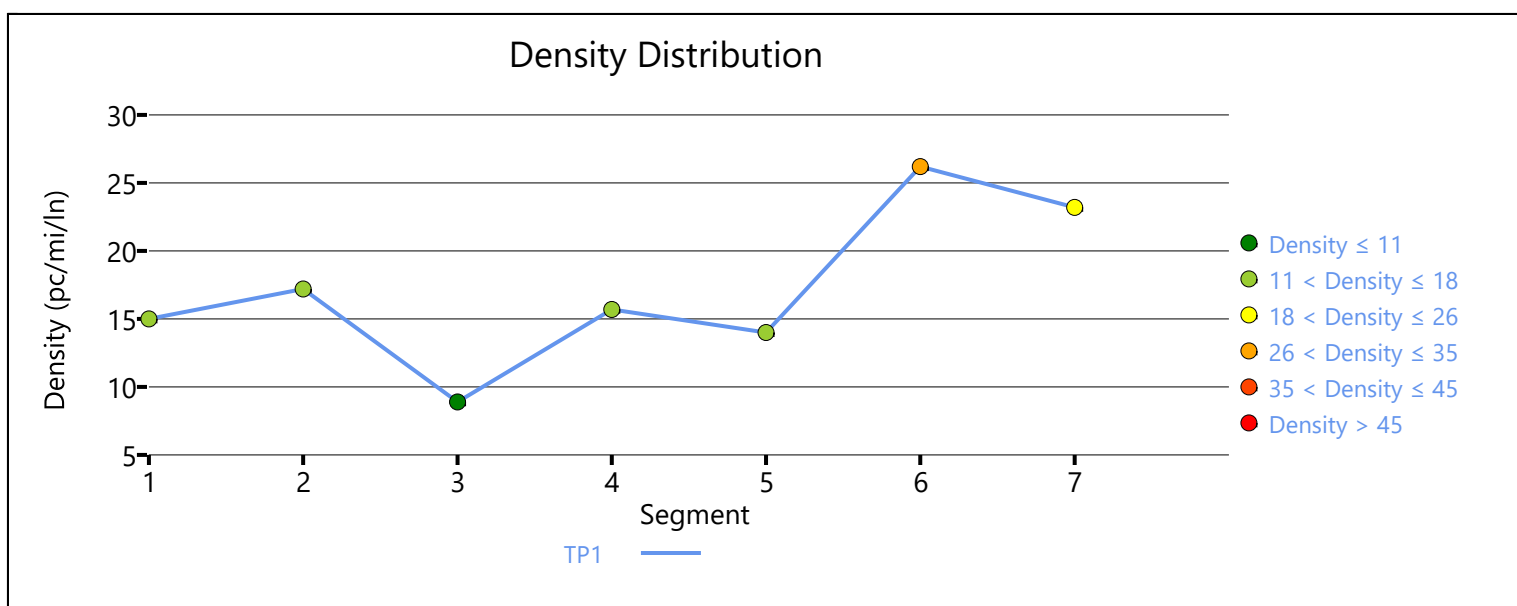
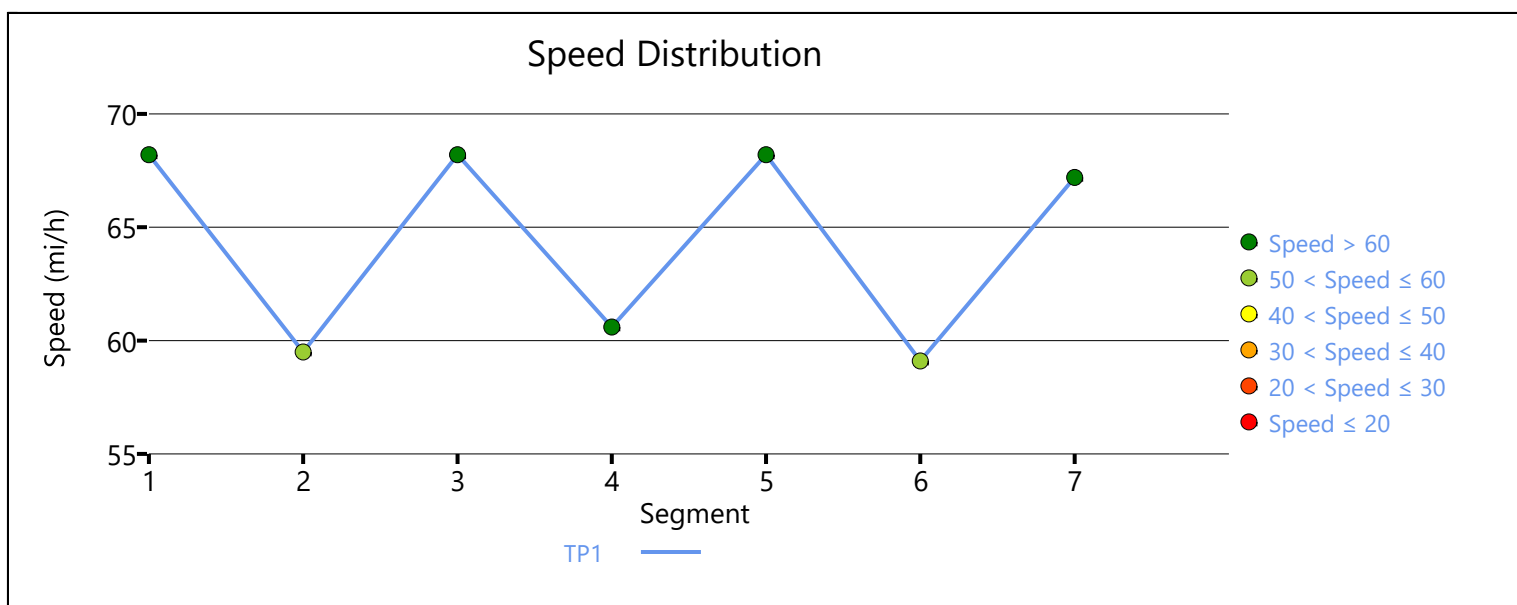
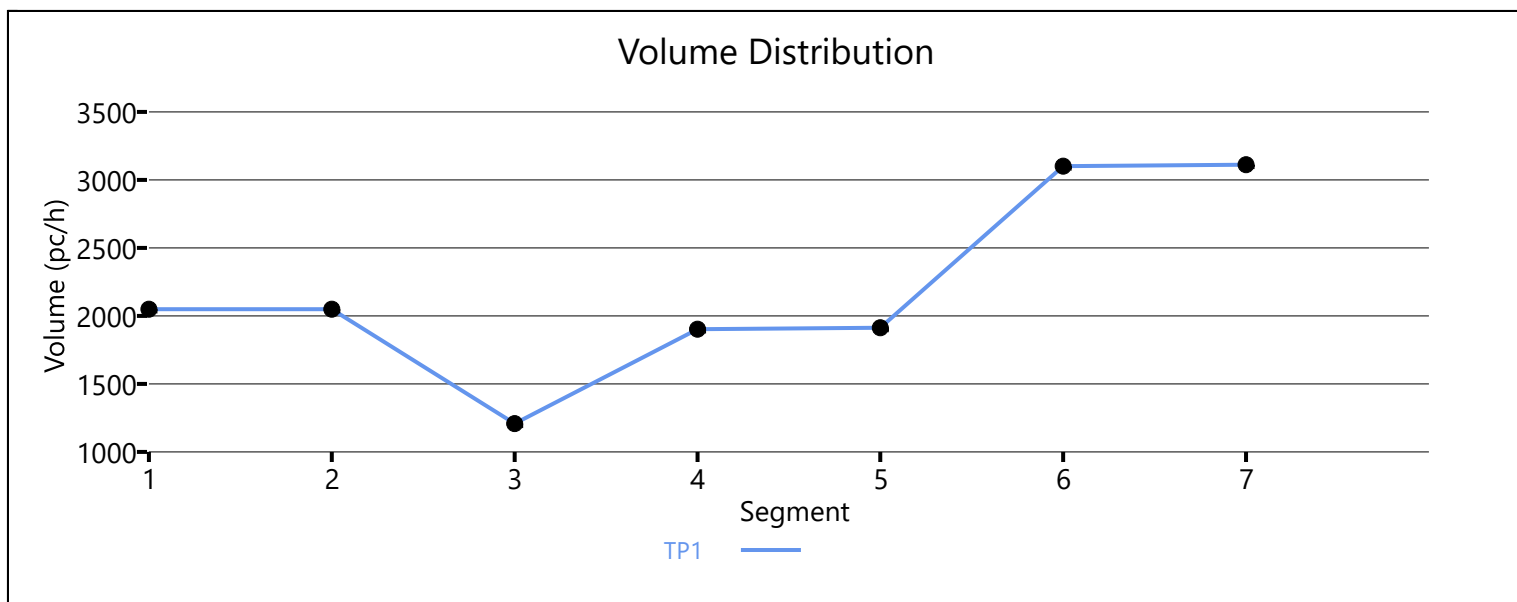
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.935	1903	695	4800	1900	0.40	0.37	60.6	60.6	15.7	18.8	B

9.6-10

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		1913		4764		0.40		68.2		14.0		B
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.943	3101	1205	4800	2100	0.65	0.57	59.1	59.1	26.2	27.9	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		3112		4764		0.65		67.2		23.2		C
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.4			17.8			17.1			3.1			B		
Facility Overall Results															
Space Mean Speed, mi/h					65.4				Density, veh/mi/ln				17.1		
Average Travel Time, min					3.1				Density, pc/mi/ln				17.8		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - I-10 EB		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	5
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Oak Valley	5280	3
2	Diverge	Diverge	Off-Ramp	1500	3
3	Basic	Basic	Between	1770	3
4	Merge	Merge	On-Ramp	1500	3
5	Basic	Basic	East of Oak Valley	2250	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		6768		7161		0.95		56.4		40.0		E

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	1.000	6768	3111	7200	2100	0.94	1.48	53.3	53.8	45.0	41.1	E

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3657		7161		0.51		67.6		17.4		B

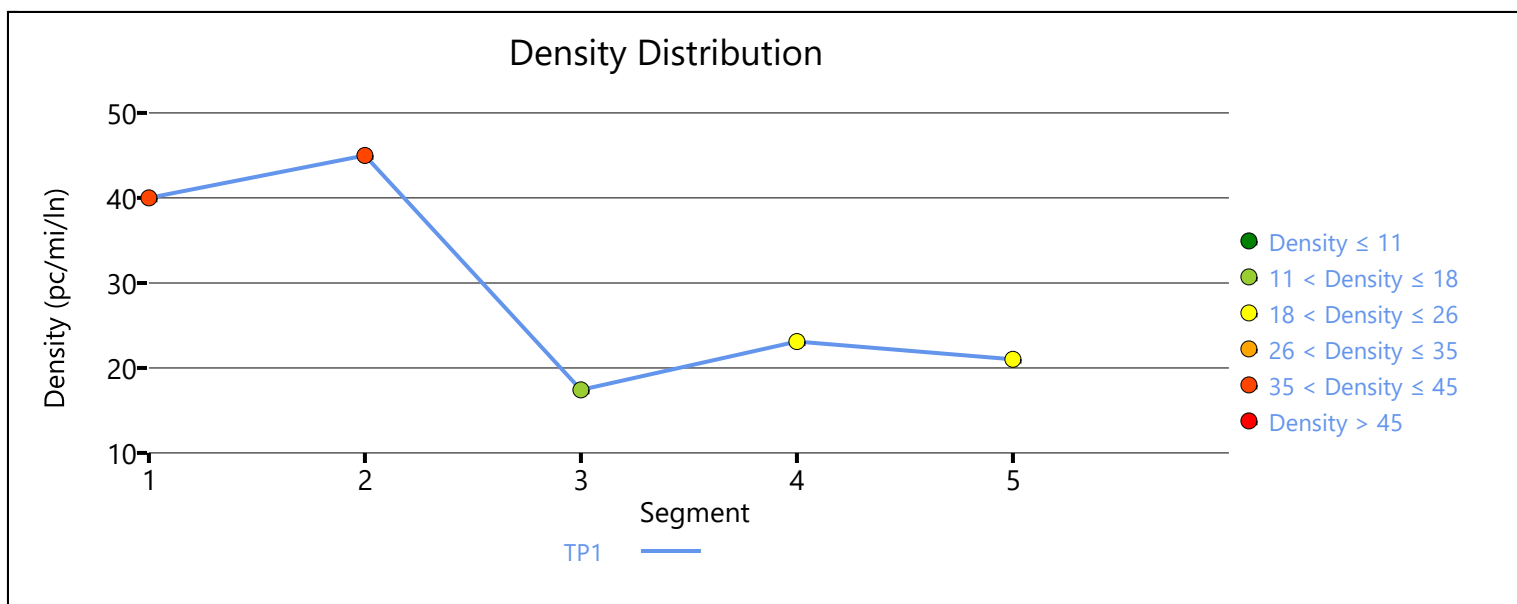
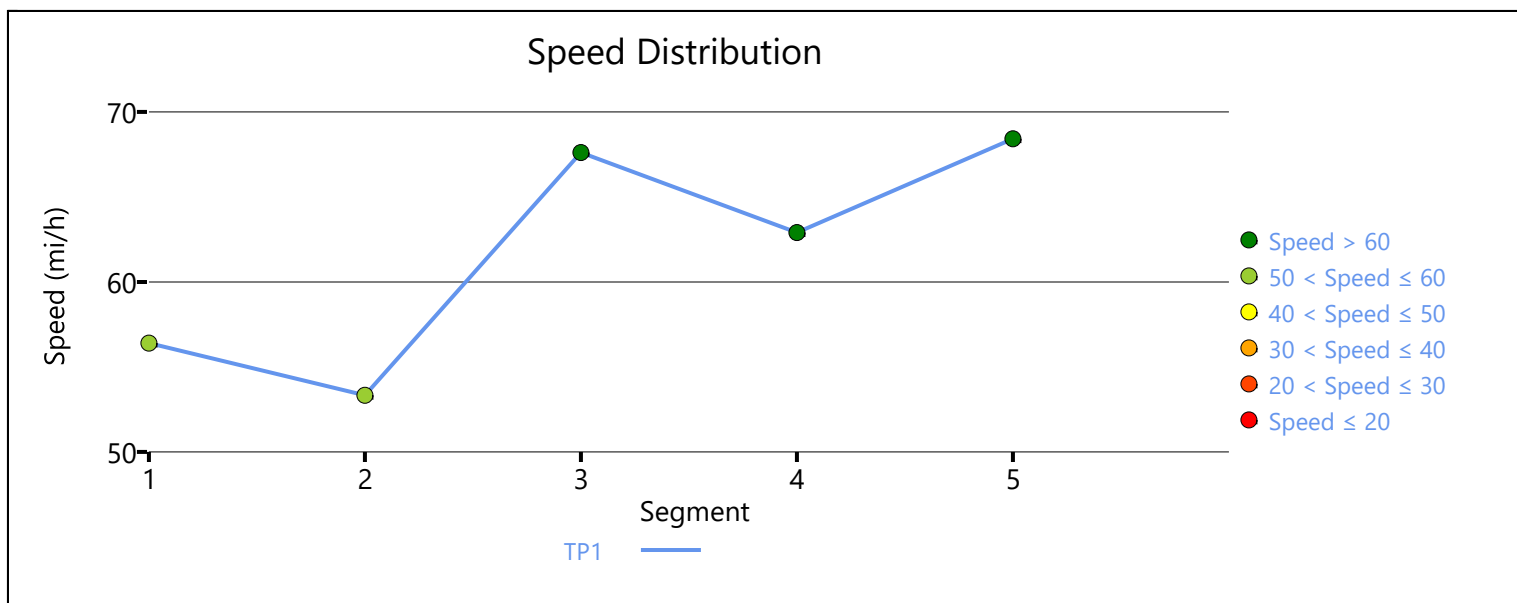
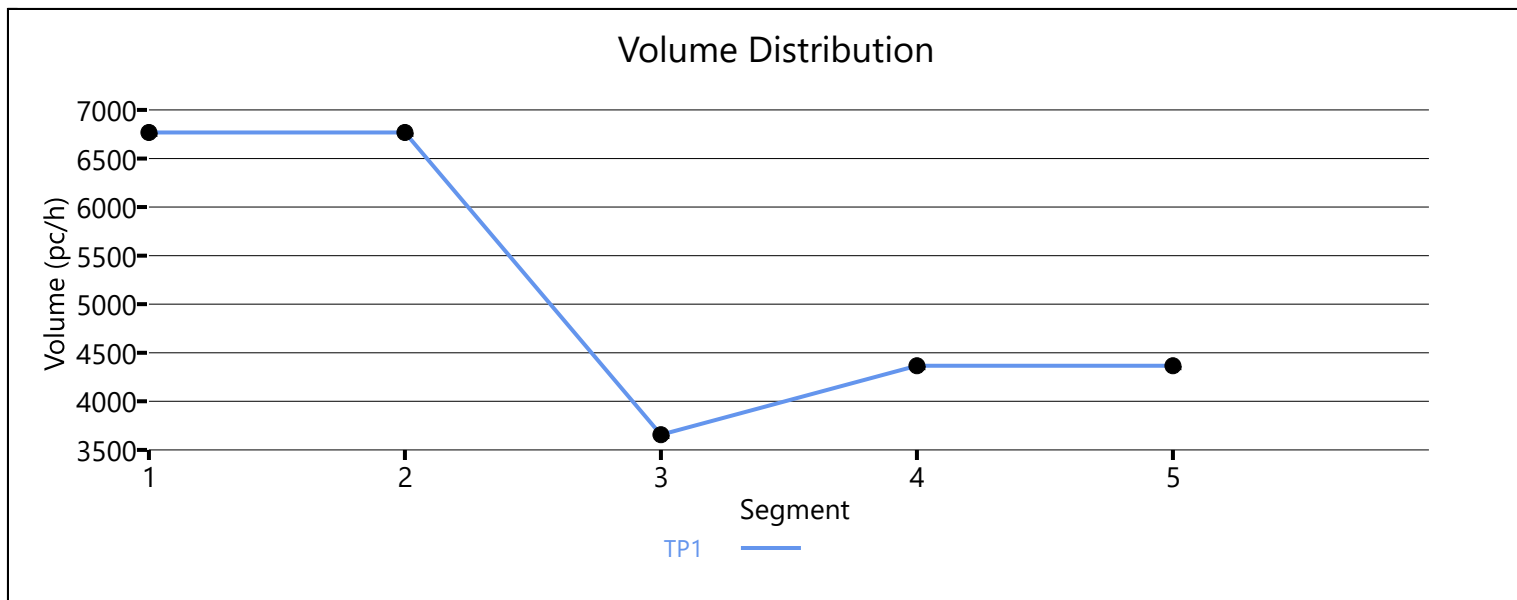
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.980	4366	709	7200	2100	0.60	0.34	62.9	61.2	23.1	22.6	C

Segment 5: Basic

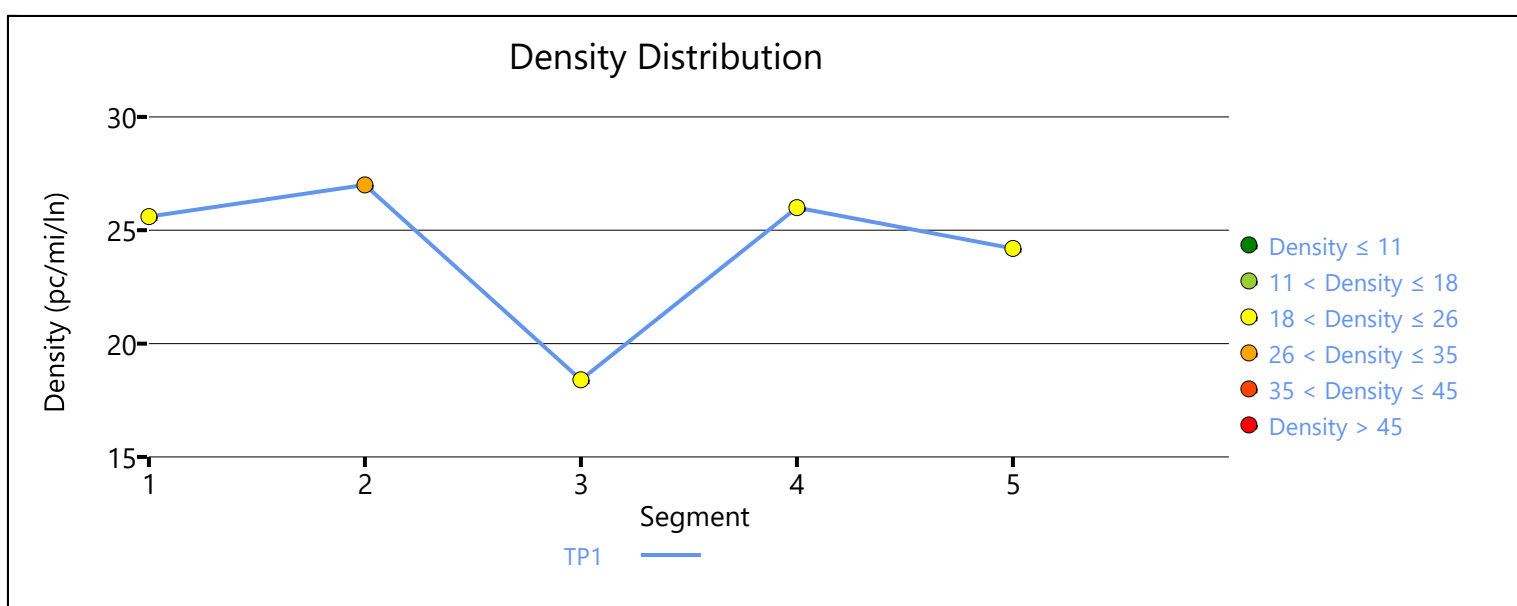
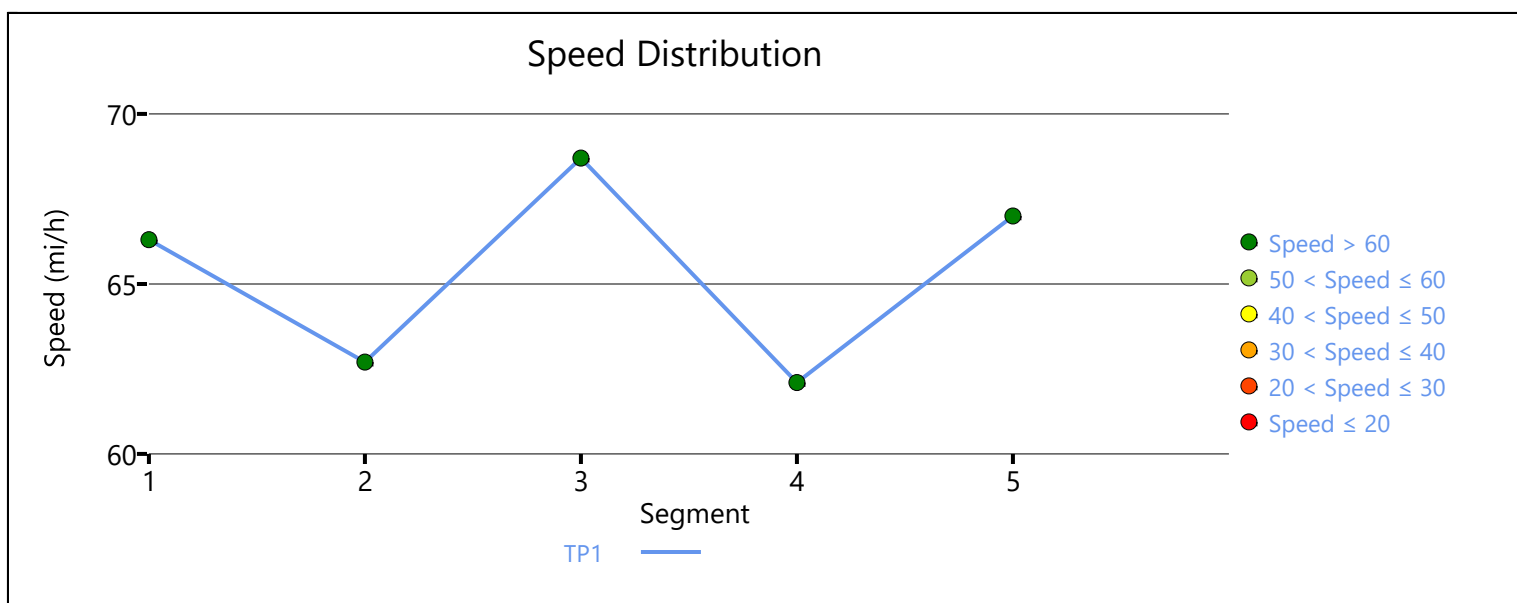
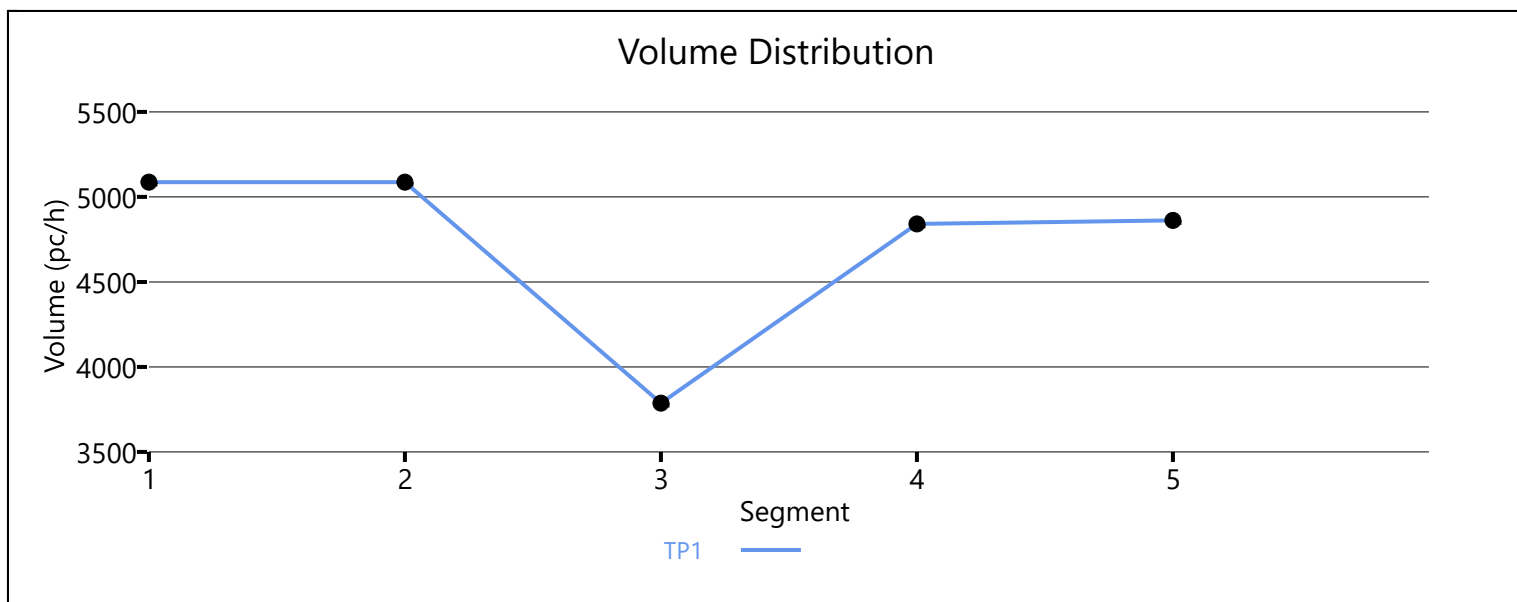
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		4366		7161		0.60		68.4		21.0		C

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	59.3	31.6	30.9	2.4	D
Facility Overall Results					
Space Mean Speed, mi/h		59.3	Density, veh/mi/ln		30.9
Average Travel Time, min		2.4	Density, pc/mi/ln		31.6



HCS7 Freeway Facilities Report															
Project Information															
Analyst				JB				Date				7/15/2020			
Agency				Urban Crossroads, Inc.				Analysis Year				Horizon Year (2045) With Project			
Jurisdiction				Caltrans				Time Period Analyzed				PM Peak Hour			
Project Description				JN:12396 - I-10 WB at Oak Valley											
Facility Global Input															
Jam Density, pc/mi/ln				190.0				Density at Capacity, pc/mi/ln				45.0			
Queue Discharge Capacity Drop, %				7				Total Segments				5			
Total Time Periods				1				Time Period Duration, min				15			
Facility Segment Data															
No.	Coded			Analyzed			Name				Length, ft			Lanes	
1	Basic			Basic			East of Oak Valley				4150			3	
2	Diverge			Diverge			Off-Ramp				1500			3	
3	Basic			Basic			Between				1700			3	
4	Merge			Merge			On-Ramp				1500			3	
5	Basic			Basic			West of Oak Valley				4000			3	
Facility Segment Data															
Segment 1: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.952		5087		7161		0.71		66.3		25.6		C
Segment 2: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.990	5087	1314	7200	2100	0.71	0.63	62.7	58.4	27.0	30.1	D
Segment 3: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		3787		7161		0.53		68.7		18.4		C
Segment 4: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.990	4841	1054	7200	2100	0.67	0.50	62.1	60.3	26.0	25.2	C
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.943		4862		7161		0.68		67.0		24.2		C

Facility Time Period Results					
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.8	24.4	23.1	2.2	C
Facility Overall Results					
Space Mean Speed, mi/h		65.8	Density, veh/mi/ln		23.1
Average Travel Time, min		2.2	Density, pc/mi/ln		24.4



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 EB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	West of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	East of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		6386		4764		1.34		52.9		45.0		F

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.943	4764	2647	4800	2100	1.33	1.26	53.3	55.0	45.0	43.4	F

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		2117		4764		0.79		67.3		15.1		B

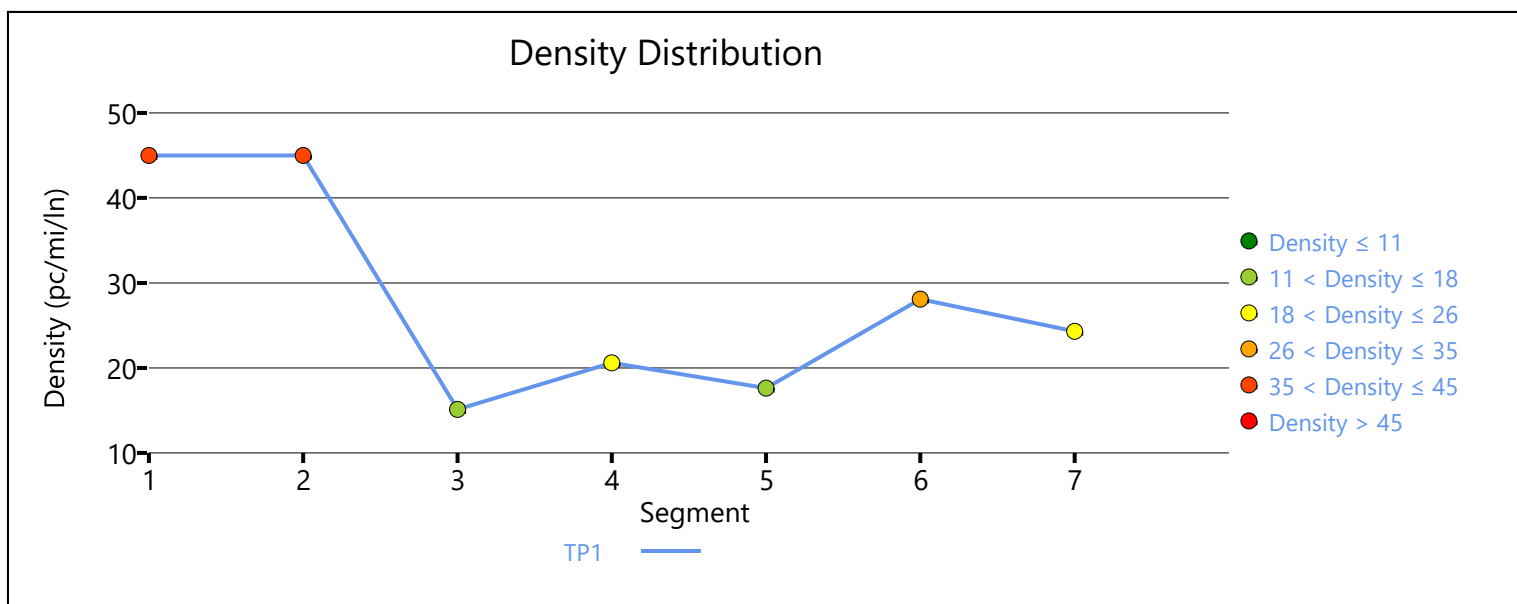
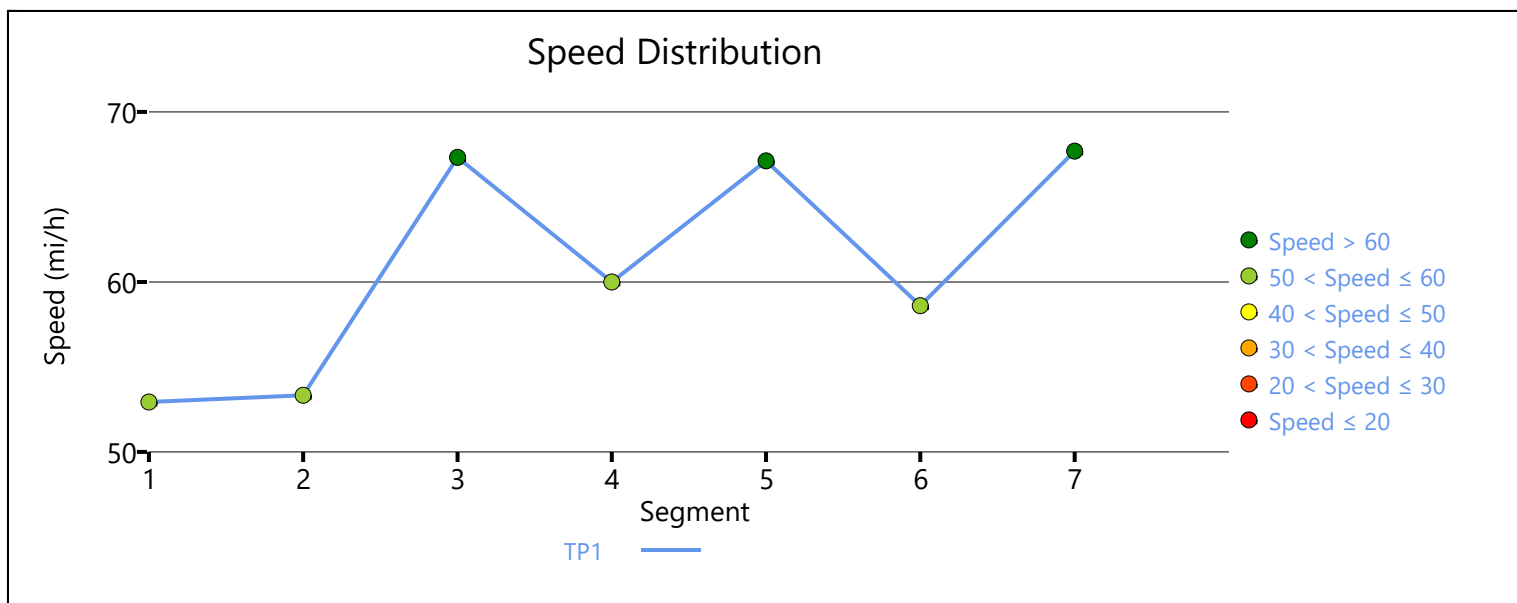
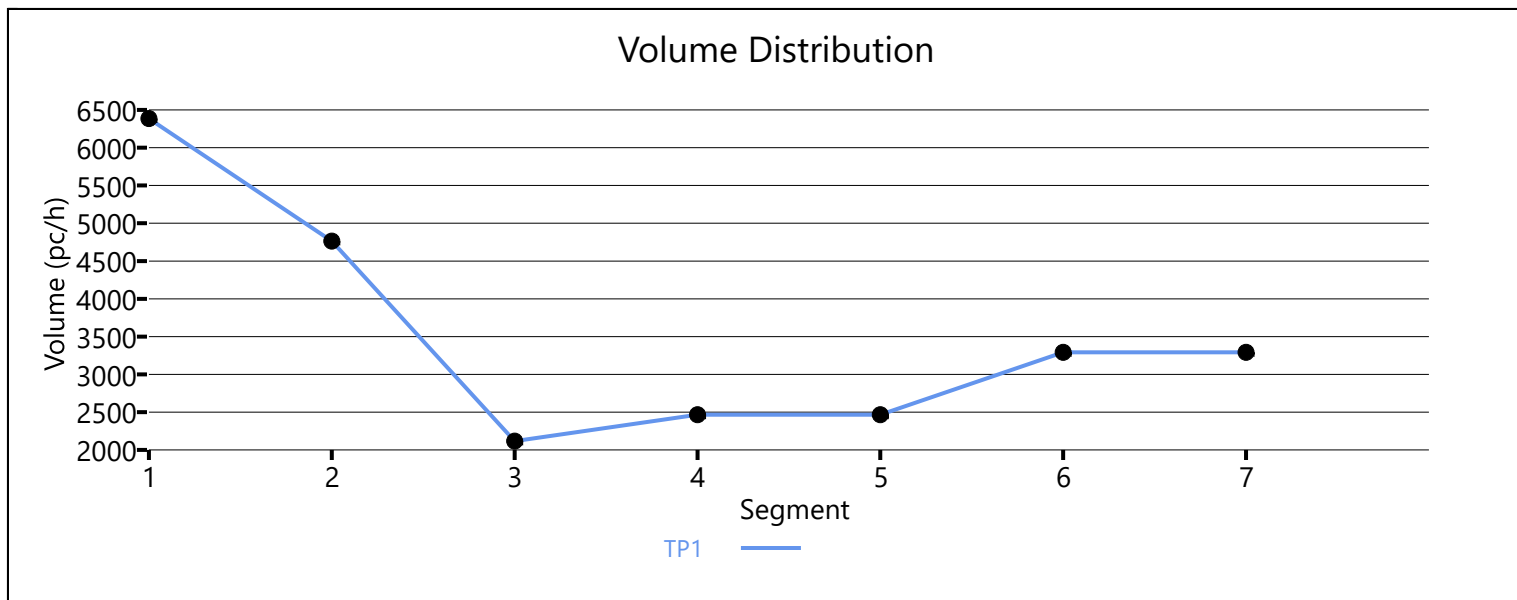
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.962	2466	349	4800	1900	0.86	0.18	60.0	60.0	20.6	23.4	C

9.6-19

Segment 5: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		2466		4764		0.86		67.1		17.6		B
Segment 6: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.840	3292	826	4800	2100	1.03	0.39	58.6	58.6	28.1	29.6	F
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3292		4764		1.04		67.7		24.3		F
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	58.9			30.5			29.9			3.5			F		
Facility Overall Results															
Space Mean Speed, mi/h					58.9			Density, veh/mi/ln					29.9		
Average Travel Time, min					3.5			Density, pc/mi/ln					30.5		



HCS7 Freeway Facilities Report

Project Information

Analyst	JB	Date	7/15/2020
Agency	Urban Crossroads, Inc.	Analysis Year	Horizon Year (2045) With Project
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	JN:12396 - SR-60 WB at Potrero		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	East of Potrero	5280	2
2	Diverge	Diverge	Off-Ramp	1500	2
3	Basic	Basic	Between	2000	2
4	Merge	Merge	Loop On-Ramp	1500	2
5	Basic	Basic	Between	1000	2
6	Merge	Merge	On-Ramp	1500	2
7	Basic	Basic	West of Potrero	5280	2

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3228		4764		0.68		66.8		24.2		C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.909	3228	1132	4800	2100	0.67	0.54	58.8	58.8	27.4	30.2	D

Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		1.000		2105		4764		0.44		68.2		15.4		B

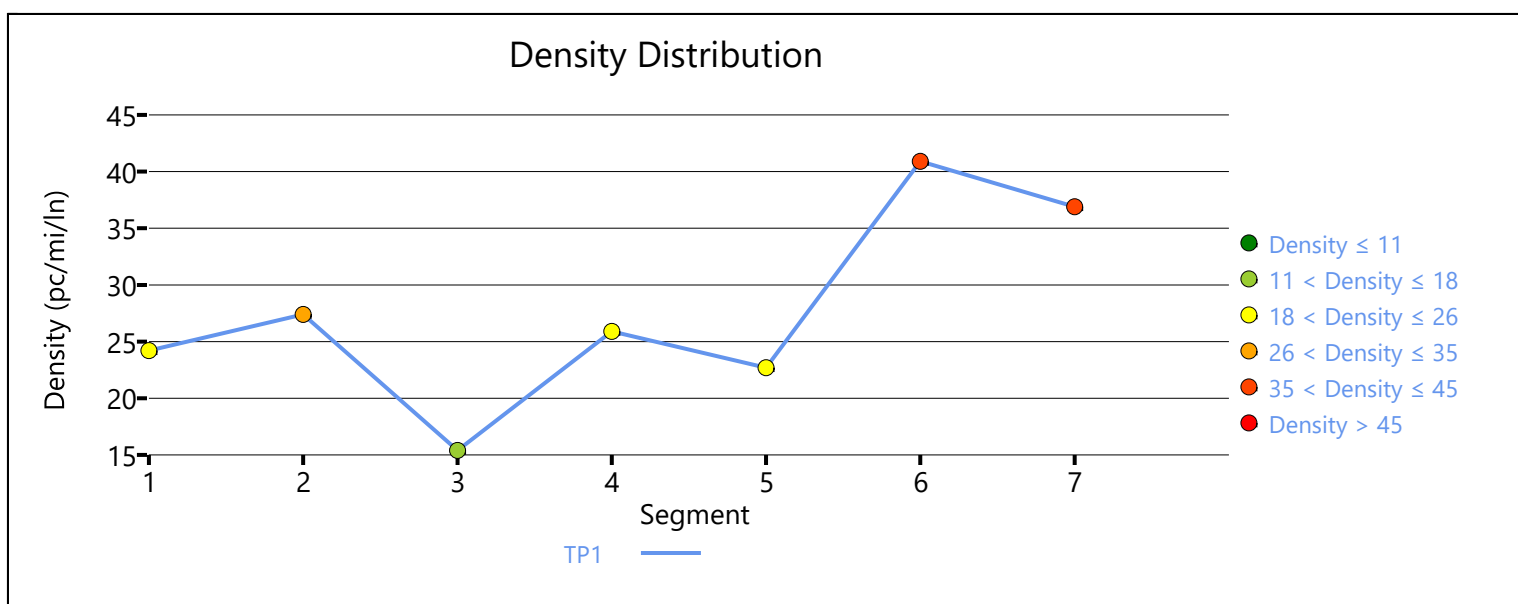
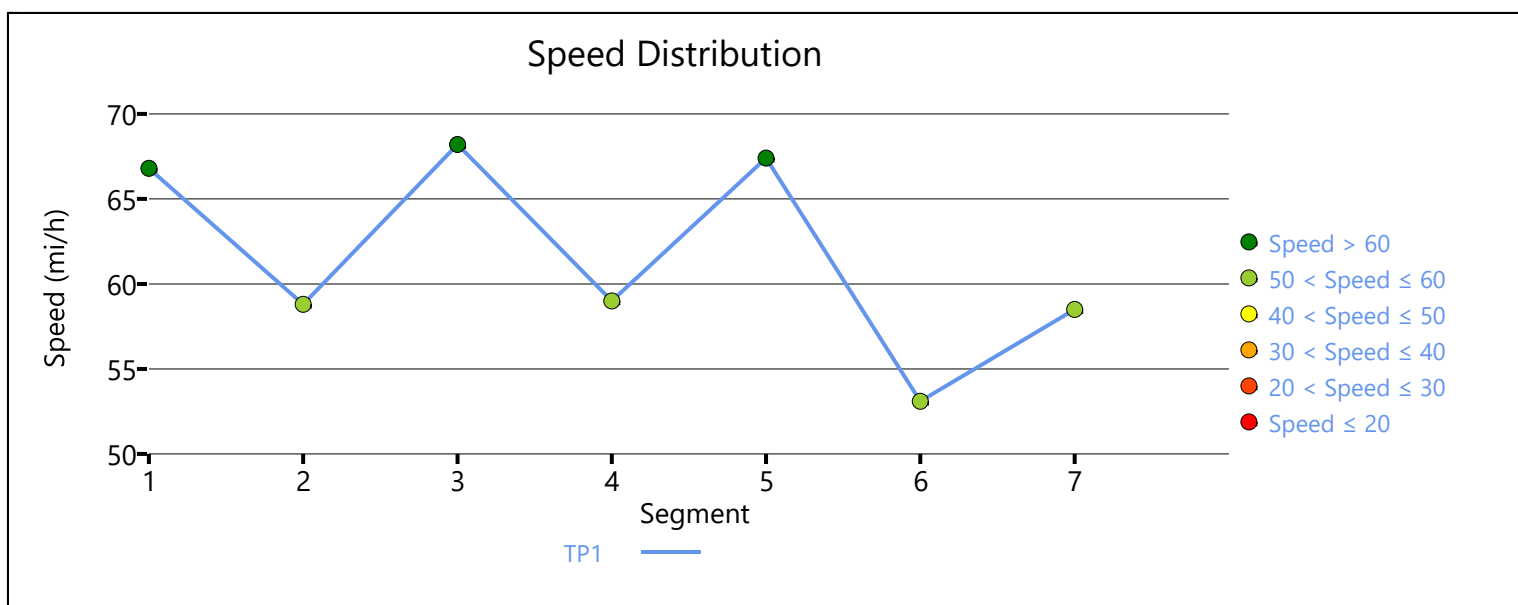
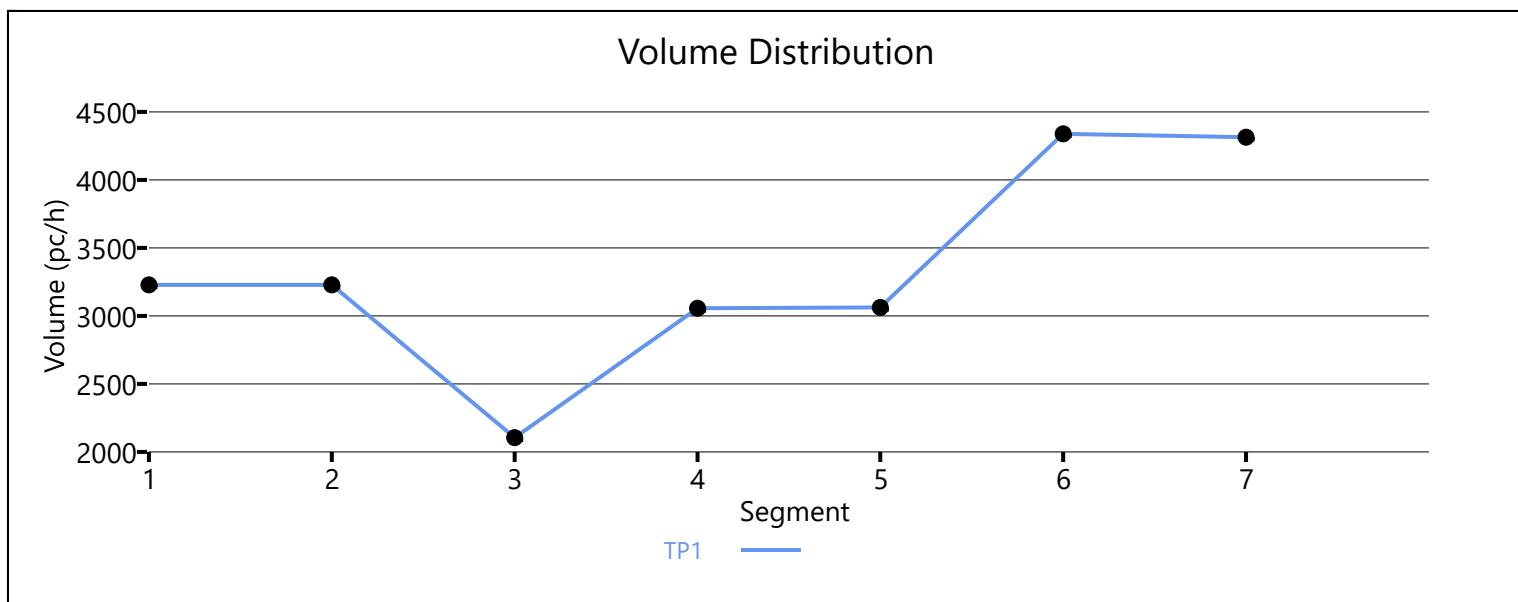
Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.885	3056	951	4800	1900	0.64	0.50	59.0	59.0	25.9	27.7	C

9.6-22

Segment 5: Basic

Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.962		3063		4764		0.64		67.4		22.7		C
Segment 6: Merge																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
		F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1		0.92	0.92	0.962	0.943	4339	1276	4800	2100	0.90	0.61	53.1	53.1	40.9	37.6	E
Segment 7: Basic																
Time Period		PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1		0.92		0.962		4314		4764		0.91		58.5		36.9		E
Facility Time Period Results																
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS			
1	61.0			28.7			27.8			3.4			D			
Facility Overall Results																
Space Mean Speed, mi/h						61.0			Density, veh/mi/ln				27.8			
Average Travel Time, min						3.4			Density, pc/mi/ln				28.7			



APPENDIX 9.7:

HORIZON YEAR (2045) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Timings
2: Potrero Bl. & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘↙	↑↑	↘↙	↑
Traffic Volume (vph)	360	906	1074	384	454	1054
Future Volume (vph)	360	906	1074	384	454	1054
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	4	2	3	8	2	3
Permitted Phases		4				2
Detector Phase	4	2	3	8	2	3
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	28.2	9.6	16.2	28.2	9.6
Total Split (s)	28.2	45.8	46.0	74.2	45.8	46.0
Total Split (%)	23.5%	38.2%	38.3%	61.8%	38.2%	38.3%
Yellow Time (s)	5.2	5.2	3.6	5.2	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.6	6.2	6.2	4.6
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	None	None	None	None	None	None
Act Effect Green (s)	17.5	63.4	40.6	62.7	39.7	86.5
Actuated g/C Ratio	0.15	0.55	0.35	0.55	0.35	0.75
v/c Ratio	0.71	1.10	0.94	0.21	0.41	0.93
Control Delay	54.0	87.4	51.7	13.5	30.5	26.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.0	87.4	51.7	13.5	30.5	26.8
LOS	D	F	D	B	C	C
Approach Delay	77.9			41.6	27.9	
Approach LOS	E			D	C	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 114.8

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.10

Intersection Signal Delay: 47.6

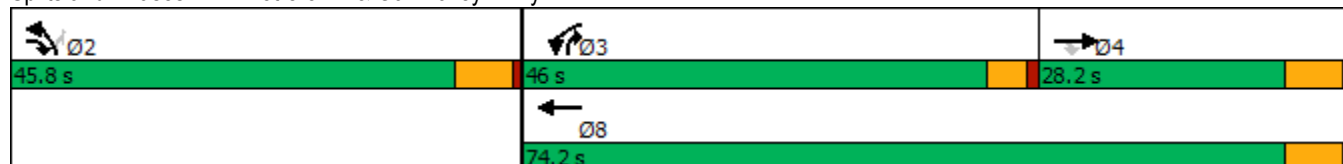
Intersection LOS: D

Intersection Capacity Utilization 95.7%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 2: Potrero Bl. & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
2: Potrero Bl. & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

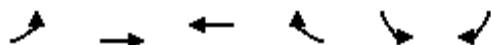
	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↘↙	↑↑	↘↙	↗
Traffic Volume (veh/h)	360	906	1074	384	454	1054
Future Volume (veh/h)	360	906	1074	384	454	1054
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	391	713	1167	417	493	820
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	663	828	1208	2044	1160	1086
Arrive On Green	0.18	0.18	0.34	0.57	0.33	0.33
Sat Flow, veh/h	3705	1610	3510	3705	3510	1610
Grp Volume(v), veh/h	391	713	1167	417	493	820
Grp Sat Flow(s),veh/h/ln	1805	1610	1755	1805	1755	1610
Q Serve(g_s), s	11.9	22.0	39.1	6.8	13.1	39.6
Cycle Q Clear(g_c), s	11.9	22.0	39.1	6.8	13.1	39.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	663	828	1208	2044	1160	1086
V/C Ratio(X)	0.59	0.86	0.97	0.20	0.43	0.75
Avail Cap(c_a), veh/h	663	828	1213	2048	1160	1086
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.8	19.5	38.6	12.8	31.3	12.9
Incr Delay (d2), s/veh	1.4	9.2	18.0	0.0	0.2	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.1	2.1	3.0	0.0	0.0	0.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	46.2	28.7	56.7	12.8	31.5	16.0
LnGrp LOS	D	C	E	B	C	B
Approach Vol, veh/h	1104			1584	1313	
Approach Delay, s/veh	34.9			45.1	21.8	
Approach LOS	C			D	C	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		45.8	45.8	28.2		74.0
Change Period (Y+Rc), s		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s		39.6	41.4	22.0		68.0
Max Q Clear Time (g_c+I1), s		41.6	41.1	24.0		8.8
Green Ext Time (p_c), s		0.0	0.1	0.0		2.6
Intersection Summary						
HCM 6th Ctrl Delay			34.7			
HCM 6th LOS			C			

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↑↑↑		↙	↑↑↑	
Traffic Vol, veh/h	0	0	0	11	0	64	0	989	6	54	1413	0
Future Vol, veh/h	0	0	0	11	0	64	0	989	6	54	1413	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	12	0	70	0	1075	7	59	1536	0
Major/Minor				Minor1		Major1			Major2			
Conflicting Flow All				1811	2733	541	-	0	0	1082	0	0
Stage 1				1079	1079	-	-	-	-	-	-	-
Stage 2				732	1654	-	-	-	-	-	-	-
Critical Hdwy				5.7	6.5	7.1	-	-	-	5.3	-	-
Critical Hdwy Stg 1				6.6	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2				6	5.5	-	-	-	-	-	-	-
Follow-up Hdwy				3.8	4	3.9	-	-	-	3.1	-	-
Pot Cap-1 Maneuver				121	21	420	0	-	-	363	-	0
Stage 1				220	297	-	0	-	-	-	-	0
Stage 2				402	157	-	0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver				101	0	420	-	-	-	363	-	-
Mov Cap-2 Maneuver				101	0	-	-	-	-	-	-	-
Stage 1				220	0	-	-	-	-	-	-	-
Stage 2				336	0	-	-	-	-	-	-	-
Approach				WB		NB			SB			
HCM Control Delay, s				22.4		0			0.6			
HCM LOS				C								
Minor Lane/Major Mvmt		NBT	NBR	WBLn1	SBL	SBT						
Capacity (veh/h)		-	-	287	363	-						
HCM Lane V/C Ratio		-	-	0.284	0.162	-						
HCM Control Delay (s)		-	-	22.4	16.8	-						
HCM Lane LOS		-	-	C	C	-						
HCM 95th %tile Q(veh)		-	-	1.1	0.6	-						

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø6
Lane Configurations	←←	↑	↑	↑	←←	↑	
Traffic Volume (vph)	245	440	78	480	413	471	
Future Volume (vph)	245	440	78	480	413	471	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		1	7	6
Permitted Phases				8		6	
Detector Phase	7	4	8	8	1	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	22.8	22.8	22.8	9.6	9.6	23.2
Total Split (s)	56.2	79.0	22.8	22.8	41.0	56.2	41.0
Total Split (%)	46.8%	65.8%	19.0%	19.0%	34.2%	46.8%	34%
Yellow Time (s)	3.6	4.8	4.8	4.8	3.6	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	4.6	4.6	
Lead/Lag	Lead		Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	Yes		Yes	
Recall Mode	None	None	None	None	None	None	None
Act Effect Green (s)	8.3	24.0	11.1	11.1	12.1	25.0	
Actuated g/C Ratio	0.18	0.52	0.24	0.24	0.26	0.54	
v/c Ratio	0.42	0.49	0.19	0.67	0.48	0.47	
Control Delay	19.6	9.2	15.8	6.7	17.4	2.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	19.6	9.2	15.8	6.7	17.4	2.4	
LOS	B	A	B	A	B	A	
Approach Delay		12.9	8.0		9.4		
Approach LOS		B	A		A		

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 46.6

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 10.2

Intersection LOS: B

Intersection Capacity Utilization 46.2%

ICU Level of Service A

Analysis Period (min) 15

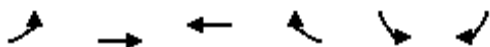
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↰↱	↑	↑	↰	↰↱	↰	
Traffic Volume (veh/h)	245	440	78	480	413	471	
Future Volume (veh/h)	245	440	78	480	413	471	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	266	478	85	305	449	132	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	460	994	516	437	704	518	
Arrive On Green	0.13	0.52	0.27	0.27	0.19	0.19	
Sat Flow, veh/h	3619	1900	1900	1610	3619	1610	
Grp Volume(v), veh/h	266	478	85	305	449	132	
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1610	1810	1610	
Q Serve(g_s), s	2.6	5.9	1.3	6.3	4.2	2.2	
Cycle Q Clear(g_c), s	2.6	5.9	1.3	6.3	4.2	2.2	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	460	994	516	437	704	518	
V/C Ratio(X)	0.58	0.48	0.16	0.70	0.64	0.25	
Avail Cap(c_a), veh/h	5068	3775	877	743	3575	1795	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	15.2	5.6	10.2	12.1	13.6	9.2	
Incr Delay (d2), s/veh	0.4	0.4	0.1	2.0	0.4	0.1	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(0%),veh/ln	0.0	0.1	0.0	0.2	0.0	0.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	15.6	6.0	10.4	14.1	14.0	9.3	
LnGrp LOS	B	A	B	B	B	A	
Approach Vol, veh/h		744	390		581		
Approach Delay, s/veh		9.4	13.3		12.9		
Approach LOS		A	B		B		
Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			25.1		11.8	9.3	15.8
Change Period (Y+Rc), s			5.8		4.6	4.6	5.8
Max Green Setting (Gmax), s			73.2		36.4	51.6	17.0
Max Q Clear Time (g_c+I1), s			7.9		6.2	4.6	8.3
Green Ext Time (p_c), s			3.0		1.0	0.5	1.0

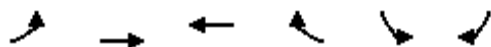
Intersection Summary

HCM 6th Ctrl Delay	11.5
HCM 6th LOS	B

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←	→→→	←←←	→	←←	→
Traffic Volume (vph)	207	1079	2244	401	608	343
Future Volume (vph)	207	1079	2244	401	608	343
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	7
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	9.6	16.2	28.2	28.2	27.8	9.6
Total Split (s)	21.4	88.5	67.1	67.1	31.5	21.4
Total Split (%)	17.8%	73.8%	55.9%	55.9%	26.3%	17.8%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	6.2	5.8	4.6
Lead/Lag	Lead		Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes	Yes		Yes
Recall Mode	None	None	None	None	None	None
Act Effect Green (s)	11.6	77.3	61.0	61.0	24.4	41.9
Actuated g/C Ratio	0.10	0.68	0.54	0.54	0.21	0.37
v/c Ratio	0.63	0.33	0.88	0.43	0.88	0.63
Control Delay	57.2	7.9	28.3	5.5	57.6	34.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.2	7.9	28.3	5.5	57.6	34.6
LOS	E	A	C	A	E	C
Approach Delay		15.9	24.8		49.3	
Approach LOS		B	C		D	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 113.7

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 27.2

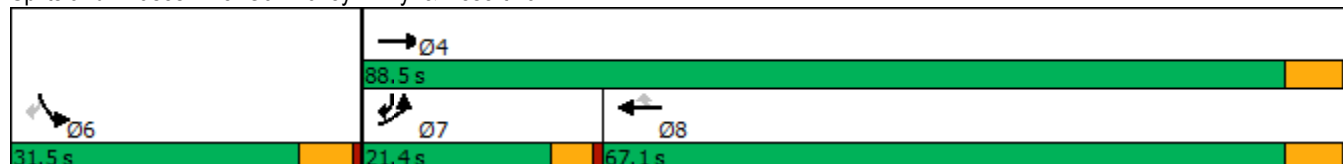
Intersection LOS: C

Intersection Capacity Utilization 80.4%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

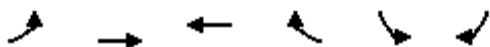


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←	↑↑↑	↑↑↑	↑	←←	↑
Traffic Volume (veh/h)	207	1079	2244	401	608	343
Future Volume (veh/h)	207	1079	2244	401	608	343
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	225	1173	2439	327	661	264
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	293	3496	2842	882	753	480
Arrive On Green	0.08	0.67	0.55	0.55	0.21	0.21
Sat Flow, veh/h	3510	5358	5358	1610	3510	1610
Grp Volume(v), veh/h	225	1173	2439	327	661	264
Grp Sat Flow(s),veh/h/ln	1755	1729	1729	1610	1755	1610
Q Serve(g_s), s	6.8	10.2	43.2	12.4	19.6	14.8
Cycle Q Clear(g_c), s	6.8	10.2	43.2	12.4	19.6	14.8
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	293	3496	2842	882	753	480
V/C Ratio(X)	0.77	0.34	0.86	0.37	0.88	0.55
Avail Cap(c_a), veh/h	548	3969	2937	912	839	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.3	7.4	20.8	13.8	40.9	31.7
Incr Delay (d2), s/veh	1.6	0.1	2.7	0.3	9.8	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	3.4	11.7	25.0	9.8	10.9	13.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.9	7.4	23.5	14.1	50.7	32.8
LnGrp LOS	D	A	C	B	D	C
Approach Vol, veh/h		1398	2766		925	
Approach Delay, s/veh		14.3	22.3		45.6	
Approach LOS		B	C		D	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			78.7		28.9	13.6
Change Period (Y+Rc), s			6.2		5.8	4.6
Max Green Setting (Gmax), s			82.3		25.7	16.8
Max Q Clear Time (g_c+I1), s			12.2		21.6	8.8
Green Ext Time (p_c), s			9.6		1.5	0.2
Intersection Summary						
HCM 6th Ctrl Delay			24.3			
HCM 6th LOS			C			

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑↑	↑	↘↘	↑↑↑	↘↘	↑	↘
Traffic Volume (vph)	1023	665	345	2006	336	4	639
Future Volume (vph)	1023	665	345	2006	336	4	639
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8	15.8
Total Split (s)	49.0	49.0	22.0	71.0	49.0	49.0	49.0
Total Split (%)	40.8%	40.8%	18.3%	59.2%	40.8%	40.8%	40.8%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None
Act Effect Green (s)	53.1	53.1	16.3	74.0	34.4	34.4	34.4
Actuated g/C Ratio	0.44	0.44	0.14	0.62	0.29	0.29	0.29
v/c Ratio	0.48	0.65	0.79	0.68	0.36	0.79	0.71
Control Delay	26.2	5.1	55.3	10.6	34.0	51.8	38.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	5.1	55.3	10.6	34.0	51.8	38.1
LOS	C	A	E	B	C	D	D
Approach Delay	17.9			17.2		41.2	
Approach LOS	B			B		D	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 55

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 22.1

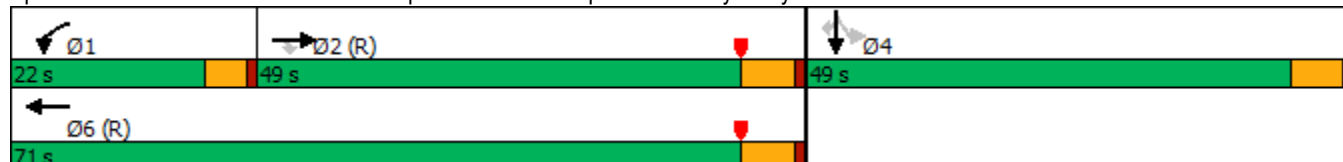
Intersection LOS: C

Intersection Capacity Utilization 98.2%

ICU Level of Service F

Analysis Period (min) 15

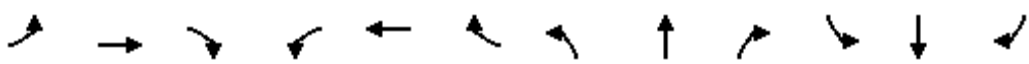
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

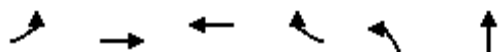
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑↑					↑↑	↑	↑
Traffic Volume (veh/h)	0	1023	665	345	2006	0	0	0	0	336	4	639
Future Volume (veh/h)	0	1023	665	345	2006	0	0	0	0	336	4	639
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1112	560	375	2180	0				365	0	480
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2880	894	433	3719	0				674	0	600
Arrive On Green	0.00	0.56	0.56	0.12	0.72	0.00				0.19	0.00	0.19
Sat Flow, veh/h	0	5358	1610	3510	5358	0				3619	0	3220
Grp Volume(v), veh/h	0	1112	560	375	2180	0				365	0	480
Grp Sat Flow(s),veh/h/ln	0	1729	1610	1755	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	14.6	28.5	12.6	24.6	0.0				11.0	0.0	17.1
Cycle Q Clear(g_c), s	0.0	14.6	28.5	12.6	24.6	0.0				11.0	0.0	17.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2880	894	433	3719	0				674	0	600
V/C Ratio(X)	0.00	0.39	0.63	0.87	0.59	0.00				0.54	0.00	0.80
Avail Cap(c_a), veh/h	0	2880	894	509	3719	0				1303	0	1159
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	0.39	0.39	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	15.1	18.2	51.6	8.3	0.0				44.2	0.0	46.7
Incr Delay (d2), s/veh	0.0	0.3	2.8	5.0	0.3	0.0				0.7	0.0	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.0	12.4	19.3	6.5	24.3	0.0				6.1	0.0	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.4	20.9	56.6	8.6	0.0				44.9	0.0	49.2
LnGrp LOS	A	B	C	E	A	A				D	A	D
Approach Vol, veh/h		1672			2555						845	
Approach Delay, s/veh		17.3			15.6						47.3	
Approach LOS		B			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.4	72.4		28.2		91.8						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	17.4	43.2		43.2		65.2						
Max Q Clear Time (g_c+I1), s	14.6	30.5		19.1		26.6						
Green Ext Time (p_c), s	0.2	7.3		3.2		23.6						
Intersection Summary												
HCM 6th Ctrl Delay			21.4									
HCM 6th LOS			C									
Notes												
User approved volume balancing among the lanes for turning movement.												

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations	←←	→→→	←←←	→	←	→
Traffic Volume (vph)	301	1058	1922	756	429	5
Future Volume (vph)	301	1058	1922	756	429	5
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	19.8	75.4	55.6	55.6	44.6	44.6
Total Split (%)	16.5%	62.8%	46.3%	46.3%	37.2%	37.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effect Green (s)	13.8	69.6	51.2	51.2	38.8	38.8
Actuated g/C Ratio	0.12	0.58	0.43	0.43	0.32	0.32
v/c Ratio	0.76	0.36	0.89	0.74	0.75	0.83
Control Delay	58.2	24.6	38.0	11.1	45.7	43.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.2	24.6	38.0	11.1	45.7	43.5
LOS	E	C	D	B	D	D
Approach Delay		32.1	30.4			44.6
Approach LOS		C	C			D

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 33.5

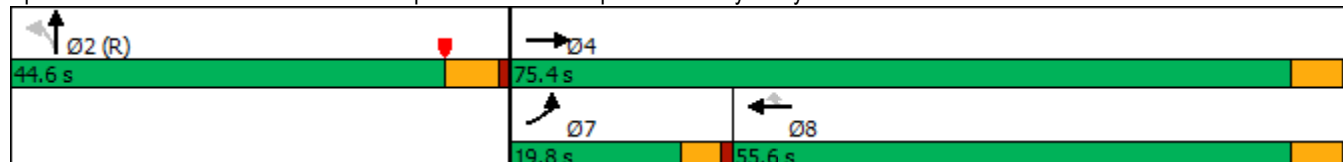
Intersection LOS: C

Intersection Capacity Utilization 98.2%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  							
Traffic Volume (veh/h)	301	1058	0	0	1922	756	429	5	469	0	0	0
Future Volume (veh/h)	301	1058	0	0	1922	756	429	5	469	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	307	1080	0	0	1961	592	438	5	357			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	363	2868	0	0	2132	662	634	8	558			
Arrive On Green	0.14	0.74	0.00	0.00	0.41	0.41	0.35	0.35	0.35			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	1810	22	1591			
Grp Volume(v), veh/h	307	1080	0	0	1961	592	438	0	362			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1614			
Q Serve(g_s), s	10.2	9.1	0.0	0.0	43.0	41.1	24.9	0.0	22.5			
Cycle Q Clear(g_c), s	10.2	9.1	0.0	0.0	43.0	41.1	24.9	0.0	22.5			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	363	2868	0	0	2132	662	634	0	565			
V/C Ratio(X)	0.84	0.38	0.00	0.00	0.92	0.89	0.69	0.00	0.64			
Avail Cap(c_a), veh/h	445	3008	0	0	2153	668	634	0	565			
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.89	0.89	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	50.8	8.3	0.0	0.0	33.5	32.9	33.4	0.0	32.6			
Incr Delay (d2), s/veh	9.1	0.1	0.0	0.0	7.0	14.5	6.1	0.0	5.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(0%),veh/ln	5.6	12.0	0.0	0.0	23.1	22.4	15.7	0.0	12.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.9	8.4	0.0	0.0	40.4	47.4	39.5	0.0	38.1			
LnGrp LOS	E	A	A	A	D	D	D	A	D			
Approach Vol, veh/h	1387			2553			800					
Approach Delay, s/veh	19.8			42.0			38.9					
Approach LOS	B			D			D					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	47.8			72.2			17.0			55.1		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	38.8			69.6			15.2			49.8		
Max Q Clear Time (g_c+I1), s	26.9			11.1			12.2			45.0		
Green Ext Time (p_c), s	2.9			8.9			0.2			4.4		
Intersection Summary												
HCM 6th Ctrl Delay	35.0											
HCM 6th LOS	C											

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	144	700	174	188	1078	32	0	0	77	0	0	191
Future Vol, veh/h	144	700	174	188	1078	32	0	0	77	0	0	191
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	157	761	189	204	1172	35	0	0	84	0	0	208

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1207	0	0	950	0	0	-	-	475	-	-	604
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	585	-	-	731	-	-	0	0	541	0	0	446
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	585	-	-	731	-	-	-	-	541	-	-	446
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.9			1.7			12.9			19.9		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	541	585	-	-	731	-	-	446
HCM Lane V/C Ratio	0.155	0.268	-	-	0.28	-	-	0.465
HCM Control Delay (s)	12.9	13.4	-	-	11.8	-	-	19.9
HCM Lane LOS	B	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.5	1.1	-	-	1.1	-	-	2.4

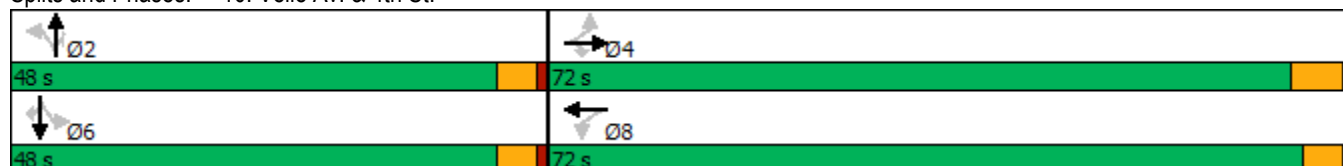
Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	316	428	29	4	667	86	34	7	100	37	1039
Future Volume (vph)	316	428	29	4	667	86	34	7	100	37	1039
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		2			6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	4	4	4	8	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	27.8	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	72.0	72.0	72.0	72.0	72.0	48.0	48.0	48.0	48.0	48.0	48.0
Total Split (%)	60.0%	60.0%	60.0%	60.0%	60.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	4.8	4.8	4.8	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	4.6	4.6		4.6	4.6	4.6	4.6	4.6
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	66.2	66.2	66.2	67.4	67.4		43.4	43.4	43.4	43.4	43.4
Actuated g/C Ratio	0.55	0.55	0.55	0.56	0.56		0.36	0.36	0.36	0.36	0.36
v/c Ratio	1.88	0.44	0.04	0.01	0.73		0.24	0.01	0.24	0.06	1.59
Control Delay	440.6	17.7	4.2	11.8	24.7		28.4	1.4	28.7	25.4	295.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	440.6	17.7	4.2	11.8	24.7		28.4	1.4	28.7	25.4	295.1
LOS	F	B	A	B	C		C	A	C	C	F
Approach Delay		189.9			24.6		26.8			264.0	
Approach LOS		F			C		C			F	
Intersection Summary											
Cycle Length: 120											
Actuated Cycle Length: 120											
Natural Cycle: 150											
Control Type: Actuated-Uncoordinated											
Maximum v/c Ratio: 1.88											
Intersection Signal Delay: 171.2						Intersection LOS: F					
Intersection Capacity Utilization 122.1%						ICU Level of Service H					
Analysis Period (min) 15											

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	316	428	29	4	667	47	86	34	7	100	37	1039
Future Volume (veh/h)	316	428	29	4	667	47	86	34	7	100	37	1039
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	343	465	32	4	725	51	93	37	8	109	40	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	424	1335	1131	631	1233	87	248	89	301	219	355	
Arrive On Green	0.70	0.70	0.70	0.70	0.70	0.70	0.19	0.19	0.19	0.19	0.19	0.00
Sat Flow, veh/h	706	1900	1610	915	1754	123	976	474	1610	1383	1900	1610
Grp Volume(v), veh/h	343	465	32	4	0	776	130	0	8	109	40	0
Grp Sat Flow(s),veh/h/ln	706	1900	1610	915	0	1878	1451	0	1610	1383	1900	1610
Q Serve(g_s), s	45.1	9.1	0.6	0.2	0.0	19.7	6.3	0.0	0.4	7.2	1.6	0.0
Cycle Q Clear(g_c), s	64.9	9.1	0.6	9.3	0.0	19.7	7.9	0.0	0.4	15.2	1.6	0.0
Prop In Lane	1.00		1.00	1.00		0.07	0.72		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	424	1335	1131	631	0	1319	337	0	301	219	355	
V/C Ratio(X)	0.81	0.35	0.03	0.01	0.00	0.59	0.39	0.00	0.03	0.50	0.11	
Avail Cap(c_a), veh/h	424	1335	1131	643	0	1343	748	0	742	597	875	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	23.6	5.5	4.3	7.3	0.0	7.1	34.5	0.0	31.3	41.2	31.8	0.0
Incr Delay (d2), s/veh	11.1	0.2	0.0	0.0	0.0	0.7	0.7	0.0	0.0	1.8	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	1.3	0.1	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.6	5.7	4.3	7.3	0.0	7.8	35.3	0.0	31.3	42.9	31.9	0.0
LnGrp LOS	C	A	A	A	A	A	D	A	C	D	C	
Approach Vol, veh/h		840			780			138			149	A
Approach Delay, s/veh		17.4			7.8			35.0			40.0	
Approach LOS		B			A			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.2		72.0		22.2		72.0				
Change Period (Y+Rc), s		4.6		5.8		4.6		* 5.8				
Max Green Setting (Gmax), s		43.4		66.2		43.4		* 67				
Max Q Clear Time (g_c+I1), s		9.9		66.9		17.2		21.7				
Green Ext Time (p_c), s		0.7		0.0		0.4		6.0				

Intersection Summary

HCM 6th Ctrl Delay 16.5

HCM 6th LOS B

Notes

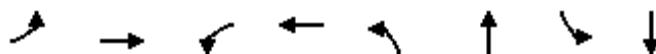
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	468	327	670	494	104	54	184
Future Volume (vph)	4	468	327	670	494	104	54	184
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	9.6	26.8	9.6	32.2	9.6	24.2
Total Split (s)	15.0	32.0	26.0	43.0	37.8	43.2	18.8	24.2
Total Split (%)	12.5%	26.7%	21.7%	35.8%	31.5%	36.0%	15.7%	20.2%
Yellow Time (s)	3.6	3.8	3.6	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.6	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None
Act Effect Green (s)	5.1	26.1	21.4	50.2	33.3	43.5	8.3	16.4
Actuated g/C Ratio	0.04	0.22	0.18	0.43	0.29	0.37	0.07	0.14
v/c Ratio	0.05	0.90	1.07	0.47	1.04	0.42	0.46	0.77
Control Delay	56.2	52.8	115.4	25.6	92.7	23.9	64.1	67.2
Queue Delay	0.0	0.0	0.0	0.0	21.3	0.0	0.0	0.0
Total Delay	56.2	52.8	115.4	25.6	114.0	23.9	64.1	67.2
LOS	E	D	F	C	F	C	E	E
Approach Delay		52.8		54.0		82.7		66.5
Approach LOS		D		D		F		E

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 116.5

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay: 62.7

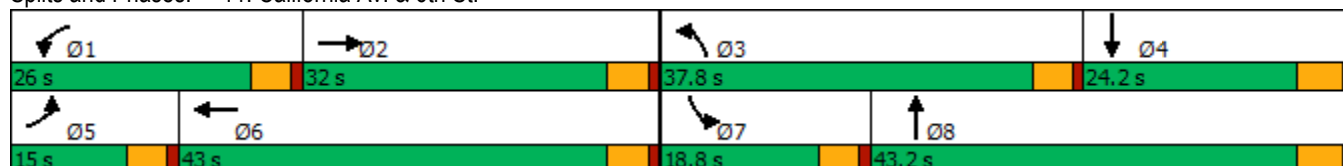
Intersection LOS: E

Intersection Capacity Utilization 92.7%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary

11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	468	260	327	670	35	494	104	159	54	184	5
Future Volume (veh/h)	4	468	260	327	670	35	494	104	159	54	184	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	509	109	355	728	22	537	113	108	59	200	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	9	610	130	353	1434	43	548	345	330	77	237	2
Arrive On Green	0.01	0.20	0.20	0.23	0.47	0.39	0.36	0.46	0.39	0.04	0.13	0.13
Sat Flow, veh/h	1810	3037	647	1810	3669	111	1810	893	853	1810	1878	19
Grp Volume(v), veh/h	4	318	300	355	377	373	537	0	221	59	0	202
Grp Sat Flow(s),veh/h/ln	1810	1900	1784	1810	1900	1880	1810	0	1746	1810	0	1897
Q Serve(g_s), s	0.2	17.6	17.8	21.4	15.2	15.3	32.2	0.0	9.3	3.5	0.0	11.4
Cycle Q Clear(g_c), s	0.2	17.6	17.8	21.4	15.2	15.3	32.2	0.0	9.3	3.5	0.0	11.4
Prop In Lane	1.00		0.36	1.00		0.06	1.00		0.49	1.00		0.01
Lane Grp Cap(c), veh/h	9	382	358	353	742	735	548	0	675	77	0	239
V/C Ratio(X)	0.42	0.83	0.84	1.01	0.51	0.51	0.98	0.00	0.33	0.77	0.00	0.84
Avail Cap(c_a), veh/h	172	471	442	353	742	735	548	0	675	234	0	329
HCM Platoon Ratio	1.00	1.00	1.00	1.20	1.20	1.00	1.20	1.20	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	54.4	42.0	42.1	42.0	21.8	22.0	34.6	0.0	22.0	52.0	0.0	46.9
Incr Delay (d2), s/veh	10.7	10.1	11.3	49.2	0.6	0.6	33.2	0.0	0.3	6.0	0.0	13.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.1	10.7	10.3	15.6	11.6	11.5	21.4	0.0	6.8	1.9	0.0	7.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.1	52.1	53.4	91.2	22.3	22.6	67.8	0.0	22.2	57.9	0.0	60.4
LnGrp LOS	E	D	D	F	C	C	E	A	C	E	A	E
Approach Vol, veh/h	622				1105				758			
Approach Delay, s/veh	52.8				44.5				54.5			
Approach LOS	D				D				D			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.0	26.8	37.8	19.0	5.2	47.6	9.2	47.6				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	21.4	* 27	33.2	19.0	10.4	* 38	14.2	38.0				
Max Q Clear Time (g_c+I1), s	23.4	19.8	34.2	13.4	2.2	17.3	5.5	11.3				
Green Ext Time (p_c), s	0.0	2.3	0.0	0.4	0.0	4.7	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay 50.6

HCM 6th LOS D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	4	90	46	11	36	358	660	26	15	585	3
Future Volume (vph)	2	4	90	46	11	36	358	660	26	15	585	3
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	22.8	22.8	22.8	22.8	22.8	22.8
Total Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	98.4	98.4	98.4	98.4	98.4	98.4
Total Split (%)	18.0%	18.0%	18.0%	18.0%	18.0%	18.0%	82.0%	82.0%	82.0%	82.0%	82.0%	82.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6	4.6		4.6	4.6	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None
Act Effect Green (s)		13.1	13.1		13.1	13.1	46.4	46.4	46.4	46.4	46.4	46.4
Actuated g/C Ratio		0.21	0.21		0.21	0.21	0.74	0.74	0.74	0.74	0.74	0.74
v/c Ratio		0.02	0.24		0.20	0.11	0.73	0.51	0.02	0.03	0.45	0.00
Control Delay		34.3	10.5		33.9	13.7	16.3	6.3	2.0	3.3	5.7	0.0
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay		34.3	10.5		33.9	13.7	16.3	6.3	2.0	3.3	5.8	0.0
LOS		C	B		C	B	B	A	A	A	A	A
Approach Delay		11.9			26.1			9.7			5.7	
Approach LOS		B			C			A			A	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 62.6

Natural Cycle: 80

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 9.3

Intersection LOS: A

Intersection Capacity Utilization 73.9%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 12: California Av. & 5th St.

					
98.4 s			21.6 s		
					
98.4 s			21.6 s		

HCM 6th Signalized Intersection Summary

12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	4	90	46	11	36	358	660	26	15	585	3
Future Volume (veh/h)	2	4	90	46	11	36	358	660	26	15	585	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2	4	98	50	12	39	389	717	28	16	636	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	119	194	224	241	49	224	558	1356	1149	494	1356	1149
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.71	0.71	0.71	0.71	0.71	0.71
Sat Flow, veh/h	364	1397	1610	1071	350	1610	802	1900	1610	727	1900	1610
Grp Volume(v), veh/h	6	0	98	62	0	39	389	717	28	16	636	3
Grp Sat Flow(s),veh/h/ln	1761	0	1610	1421	0	1610	802	1900	1610	727	1900	1610
Q Serve(g_s), s	0.0	0.0	3.9	2.2	0.0	1.5	28.7	12.3	0.4	0.7	10.2	0.0
Cycle Q Clear(g_c), s	0.2	0.0	3.9	2.6	0.0	1.5	38.9	12.3	0.4	13.1	10.2	0.0
Prop In Lane	0.33		1.00	0.81		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	313	0	224	290	0	224	558	1356	1149	494	1356	1149
V/C Ratio(X)	0.02	0.00	0.44	0.21	0.00	0.17	0.70	0.53	0.02	0.03	0.47	0.00
Avail Cap(c_a), veh/h	484	0	387	431	0	387	1037	2490	2110	928	2490	2110
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.3	0.0	27.9	27.3	0.0	26.8	12.7	4.6	2.9	7.7	4.3	2.9
Incr Delay (d2), s/veh	0.0	0.0	1.3	0.4	0.0	0.4	1.6	0.3	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.1	0.0	2.0	1.2	0.0	0.8	7.9	14.2	0.6	0.3	12.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	0.0	29.2	27.6	0.0	27.2	14.3	5.0	3.0	7.7	4.6	2.9
LnGrp LOS	C	A	C	C	A	C	B	A	A	A	A	A
Approach Vol, veh/h		104			101			1134			655	
Approach Delay, s/veh		29.1			27.5			8.1			4.7	
Approach LOS		C			C			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		56.3		14.4		56.3		14.4				
Change Period (Y+Rc), s		5.8		4.6		5.8		4.6				
Max Green Setting (Gmax), s		92.6		17.0		92.6		17.0				
Max Q Clear Time (g_c+I1), s		40.9		5.9		15.1		4.6				
Green Ext Time (p_c), s		9.6		0.2		4.6		0.3				
Intersection Summary												
HCM 6th Ctrl Delay			9.1									
HCM 6th LOS			A									

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	134	211	204	1061	403	460
Future Volume (vph)	134	211	204	1061	403	460
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	22.8	22.8	9.5	9.6	22.8	22.8
Total Split (s)	46.0	46.0	39.0	74.0	35.0	46.0
Total Split (%)	38.3%	38.3%	32.5%	61.7%	29.2%	38.3%
Yellow Time (s)	4.8	4.8	3.5	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.5	4.6	5.8	5.8
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	None	None	None
Act Effect Green (s)	12.2	12.2	11.8	30.6	12.9	31.1
Actuated g/C Ratio	0.23	0.23	0.22	0.57	0.24	0.58
v/c Ratio	0.36	0.42	0.56	0.56	0.50	0.45
Control Delay	21.9	6.2	25.3	8.5	20.7	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.9	6.2	25.3	8.5	20.7	3.0
LOS	C	A	C	A	C	A
Approach Delay	12.3			11.2	11.3	
Approach LOS	B			B	B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 53.5

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.56

Intersection Signal Delay: 11.4

Intersection LOS: B

Intersection Capacity Utilization 48.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	134	211	204	1061	403	460
Future Volume (veh/h)	134	211	204	1061	403	460
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	146	169	222	1153	438	364
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	388	346	285	1920	996	790
Arrive On Green	0.21	0.21	0.16	0.53	0.28	0.28
Sat Flow, veh/h	1810	1610	1810	3705	3705	1610
Grp Volume(v), veh/h	146	169	222	1153	438	364
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1805	1805	1610
Q Serve(g_s), s	3.2	4.2	5.4	10.1	4.6	6.8
Cycle Q Clear(g_c), s	3.2	4.2	5.4	10.1	4.6	6.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	388	346	285	1920	996	790
V/C Ratio(X)	0.38	0.49	0.78	0.60	0.44	0.46
Avail Cap(c_a), veh/h	1590	1415	1365	5476	2304	1373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.3	15.8	18.5	7.4	13.6	7.7
Incr Delay (d2), s/veh	0.6	1.1	1.8	0.3	0.3	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.1	0.1	0.1	0.1	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.0	16.8	20.3	7.7	14.0	8.1
LnGrp LOS	B	B	C	A	B	A
Approach Vol, veh/h	315			1375	802	
Approach Delay, s/veh	16.4			9.7	11.3	
Approach LOS	B			A	B	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	30.1			15.6	11.7	18.4
Change Period (Y+Rc), s	* 5.8			5.8	4.5	5.8
Max Green Setting (Gmax), s	* 69			40.2	34.5	29.2
Max Q Clear Time (g_c+I1), s	12.1			6.2	7.4	8.8
Green Ext Time (p_c), s	10.1			0.9	0.3	3.8

Intersection Summary

HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
2: Potrero Bl. & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘↙	↑↑	↘↙	↑
Traffic Volume (vph)	365	898	1072	652	761	1486
Future Volume (vph)	365	898	1072	652	761	1486
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	4	2	3	8	2	3
Permitted Phases		4				2
Detector Phase	4	2	3	8	2	3
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	28.2	9.6	16.2	28.2	9.6
Total Split (s)	28.2	39.8	52.0	80.2	39.8	52.0
Total Split (%)	23.5%	33.2%	43.3%	66.8%	33.2%	43.3%
Yellow Time (s)	5.2	5.2	3.6	5.2	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.6	6.2	6.2	4.6
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	None	None	None	None	None	None
Act Effect Green (s)	17.7	57.5	47.4	69.8	33.6	87.3
Actuated g/C Ratio	0.15	0.50	0.41	0.60	0.29	0.75
v/c Ratio	0.72	1.20	0.81	0.33	0.81	1.31
Control Delay	54.5	130.5	36.2	11.8	46.1	164.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.5	130.5	36.2	11.8	46.1	164.8
LOS	D	F	D	B	D	F
Approach Delay	108.5			27.0	124.6	
Approach LOS	F			C	F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 115.8
 Natural Cycle: 150
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.31
 Intersection Signal Delay: 88.6
 Intersection LOS: F
 Intersection Capacity Utilization 111.1%
 ICU Level of Service H
 Analysis Period (min) 15

Splits and Phases: 2: Potrero Bl. & Oak Valley Pkwy.

↙ 02	↘ 03	→ 04
39.8 s	52 s	28.2 s
	← 08	
	80.2 s	

HCM 6th Signalized Intersection Summary

2: Potrero Bl. & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

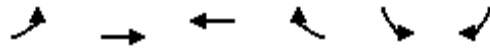
	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↘↙	↑↑	↘↙	↗
Traffic Volume (veh/h)	365	898	1072	652	761	1486
Future Volume (veh/h)	365	898	1072	652	761	1486
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	397	731	1165	709	827	745
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	705	795	1247	2135	1048	1052
Arrive On Green	0.20	0.20	0.36	0.59	0.30	0.30
Sat Flow, veh/h	3705	1610	3510	3705	3510	1610
Grp Volume(v), veh/h	397	731	1165	709	827	745
Grp Sat Flow(s),veh/h/ln	1805	1610	1755	1805	1755	1610
Q Serve(g_s), s	11.2	22.0	36.1	11.2	24.3	33.6
Cycle Q Clear(g_c), s	11.2	22.0	36.1	11.2	24.3	33.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	705	795	1247	2135	1048	1052
V/C Ratio(X)	0.56	0.92	0.93	0.33	0.79	0.71
Avail Cap(c_a), veh/h	705	795	1478	2372	1048	1052
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	20.0	35.0	11.7	36.3	12.6
Incr Delay (d2), s/veh	1.0	15.7	9.5	0.1	4.1	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.9	23.6	15.9	4.0	10.4	10.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	42.0	35.7	44.5	11.8	40.4	14.8
LnGrp LOS	D	D	D	B	D	B
Approach Vol, veh/h	1128			1874	1572	
Approach Delay, s/veh	37.9			32.1	28.3	
Approach LOS	D			C	C	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		39.8	44.6	28.2		72.8
Change Period (Y+Rc), s		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s		33.6	47.4	22.0		74.0
Max Q Clear Time (g_c+I1), s		35.6	38.1	24.0		13.2
Green Ext Time (p_c), s		0.0	1.9	0.0		4.9
Intersection Summary						
HCM 6th Ctrl Delay			32.2			
HCM 6th LOS			C			

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↑↑↑		↕	↑↑↑	
Traffic Vol, veh/h	0	0	0	2	0	114	0	1316	0	11	1623	0
Future Vol, veh/h	0	0	0	2	0	114	0	1316	0	11	1623	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	2	0	124	0	1430	0	12	1764	0
Major/Minor				Minor1		Major1			Major2			
Conflicting Flow All				2160	3218	715	-	0	0	1430	0	0
Stage 1				1430	1430	-	-	-	-	-	-	-
Stage 2				730	1788	-	-	-	-	-	-	-
Critical Hdwy				5.7	6.5	7.1	-	-	-	5.3	-	-
Critical Hdwy Stg 1				6.6	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2				6	5.5	-	-	-	-	-	-	-
Follow-up Hdwy				3.8	4	3.9	-	-	-	3.1	-	-
Pot Cap-1 Maneuver				79	10	324	0	-	-	246	-	0
Stage 1				133	202	-	0	-	-	-	-	0
Stage 2				402	135	-	0	-	-	-	-	0
Platoon blocked, %								-	-		-	
Mov Cap-1 Maneuver				75	0	324	-	-	-	246	-	-
Mov Cap-2 Maneuver				75	0	-	-	-	-	-	-	-
Stage 1				133	0	-	-	-	-	-	-	-
Stage 2				382	0	-	-	-	-	-	-	-
Approach				WB		NB			SB			
HCM Control Delay, s				24.8		0			0.1			
HCM LOS				C								
Minor Lane/Major Mvmt		NBT	NBR	WBLn1	SBL	SBT						
Capacity (veh/h)		-	-	306	246	-						
HCM Lane V/C Ratio		-	-	0.412	0.049	-						
HCM Control Delay (s)		-	-	24.8	20.4	-						
HCM Lane LOS		-	-	C	C	-						
HCM 95th %tile Q(veh)		-	-	1.9	0.2	-						

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø6
Lane Configurations	←←	↑	↑	↑	←←	↑	
Traffic Volume (vph)	696	88	28	551	383	583	
Future Volume (vph)	696	88	28	551	383	583	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		1	7	6
Permitted Phases				8		6	
Detector Phase	7	4	8	8	1	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	22.8	22.8	22.8	9.6	9.6	23.2
Total Split (s)	64.0	95.2	31.2	31.2	24.8	64.0	24.8
Total Split (%)	53.3%	79.3%	26.0%	26.0%	20.7%	53.3%	21%
Yellow Time (s)	3.6	4.8	4.8	4.8	3.6	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	4.6	4.6	
Lead/Lag	Lead		Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	Yes		Yes	
Recall Mode	None	None	None	None	None	None	None
Act Effect Green (s)	21.1	48.0	22.2	22.2	13.7	39.5	
Actuated g/C Ratio	0.29	0.66	0.31	0.31	0.19	0.55	
v/c Ratio	0.72	0.08	0.05	0.80	0.61	0.54	
Control Delay	27.8	4.5	20.2	18.8	32.7	2.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	27.8	4.5	20.2	18.8	32.7	2.7	
LOS	C	A	C	B	C	A	
Approach Delay		25.2	18.8		14.6		
Approach LOS		C	B		B		

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 72.4	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 19.2	Intersection LOS: B
Intersection Capacity Utilization 62.6%	ICU Level of Service B
Analysis Period (min) 15	

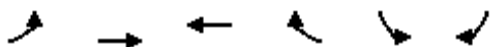
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

07/14/2020

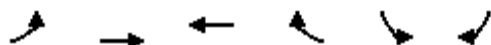


Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	696	88	28	551	383	583	
Future Volume (veh/h)	696	88	28	551	383	583	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	757	96	30	327	416	362	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	941	1128	471	399	767	760	
Arrive On Green	0.26	0.59	0.25	0.25	0.21	0.21	
Sat Flow, veh/h	3619	1900	1900	1610	3619	1610	
Grp Volume(v), veh/h	757	96	30	327	416	362	
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1610	1810	1610	
Q Serve(g_s), s	10.5	1.2	0.6	10.3	5.5	8.2	
Cycle Q Clear(g_c), s	10.5	1.2	0.6	10.3	5.5	8.2	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	941	1128	471	399	767	760	
V/C Ratio(X)	0.80	0.09	0.06	0.82	0.54	0.48	
Avail Cap(c_a), veh/h	4020	3176	902	765	1367	1027	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	18.5	4.6	15.4	19.0	18.8	9.6	
Incr Delay (d2), s/veh	0.6	0.0	0.1	4.2	0.2	0.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	3.6	0.3	0.2	9.0	1.9	8.2	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	19.1	4.7	15.4	23.2	19.0	9.8	
LnGrp LOS	B	A	B	C	B	A	
Approach Vol, veh/h							
		853	357	778			
Approach Delay, s/veh							
		17.5	22.5	14.7			
Approach LOS							
		B	C	B			
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				37.5	15.9	18.5	19.1
Change Period (Y+Rc), s				5.8	4.6	4.6	5.8
Max Green Setting (Gmax), s				89.4	20.2	59.4	25.4
Max Q Clear Time (g_c+I1), s				3.2	10.2	12.5	12.3
Green Ext Time (p_c), s				0.5	1.1	1.4	1.0
Intersection Summary							
HCM 6th Ctrl Delay			17.3				
HCM 6th LOS			B				

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←	→→→	←←←	→	←←	→
Traffic Volume (vph)	517	2319	2909	510	256	916
Future Volume (vph)	517	2319	2909	510	256	916
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	7
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	9.6	16.2	28.2	28.2	27.8	9.6
Total Split (s)	22.0	91.0	69.0	69.0	29.0	22.0
Total Split (%)	18.3%	75.8%	57.5%	57.5%	24.2%	18.3%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	6.2	5.8	4.6
Lead/Lag	Lead		Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes	Yes		Yes
Recall Mode	None	None	None	None	None	None
Act Effect Green (s)	17.4	84.8	62.8	62.8	13.4	36.6
Actuated g/C Ratio	0.16	0.77	0.57	0.57	0.12	0.33
v/c Ratio	0.94	0.54	0.92	0.49	0.60	1.76
Control Delay	71.4	5.8	27.9	5.8	52.0	377.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.4	5.8	27.9	5.8	52.0	377.6
LOS	E	A	C	A	D	F
Approach Delay		17.7	24.6		306.4	
Approach LOS		B	C		F	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 110.2

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.76

Intersection Signal Delay: 66.4

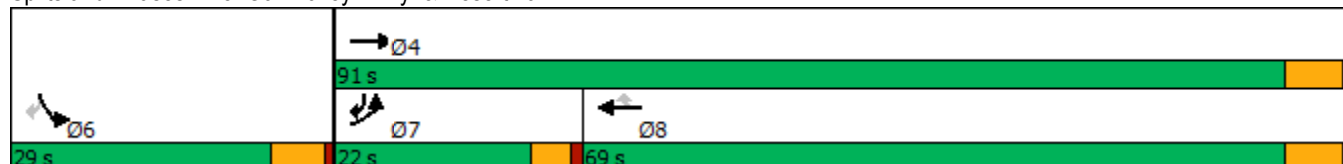
Intersection LOS: E

Intersection Capacity Utilization 121.9%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

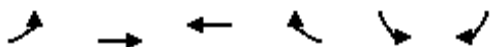


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←	↑↑↑	↑↑↑	↑	←←	↑
Traffic Volume (veh/h)	517	2319	2909	510	256	916
Future Volume (veh/h)	517	2319	2909	510	256	916
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	533	2391	2999	397	264	635
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	525	4028	2983	843	700	545
Arrive On Green	0.14	0.71	0.52	0.52	0.19	0.19
Sat Flow, veh/h	3619	5700	5700	1610	3619	1610
Grp Volume(v), veh/h	533	2391	2999	397	264	635
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1610	1810	1610
Q Serve(g_s), s	17.4	25.4	62.8	18.7	7.6	23.2
Cycle Q Clear(g_c), s	17.4	25.4	62.8	18.7	7.6	23.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	525	4028	2983	843	700	545
V/C Ratio(X)	1.02	0.59	1.01	0.47	0.38	1.17
Avail Cap(c_a), veh/h	525	4028	2983	843	700	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.3	8.9	28.6	18.1	42.1	39.7
Incr Delay (d2), s/veh	43.3	0.2	17.8	0.4	0.3	93.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.7	8.3	30.6	6.6	3.4	44.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	94.6	9.1	46.4	18.5	42.5	132.8
LnGrp LOS	F	A	F	B	D	F
Approach Vol, veh/h		2924	3396		899	
Approach Delay, s/veh		24.7	43.1		106.3	
Approach LOS		C	D		F	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			91.0		29.0	22.0
Change Period (Y+Rc), s			6.2		5.8	4.6
Max Green Setting (Gmax), s			84.8		23.2	17.4
Max Q Clear Time (g_c+l1), s			27.4		25.2	19.4
Green Ext Time (p_c), s			33.1		0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			43.5			
HCM 6th LOS			D			

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑↑	↑	↘↘	↑↑↑	↘↘	↑	↘
Traffic Volume (vph)	2183	391	247	1905	1254	1	1514
Future Volume (vph)	2183	391	247	1905	1254	1	1514
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8	15.8
Total Split (s)	53.0	53.0	11.0	64.0	56.0	56.0	56.0
Total Split (%)	44.2%	44.2%	9.2%	53.3%	46.7%	46.7%	46.7%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	0.0	-0.6	-1.8	-1.8	-1.8	0.0
Total Lost Time (s)	4.0	5.8	4.0	4.0	4.0	4.0	5.8
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None
Act Effect Green (s)	49.0	47.2	7.0	60.0	52.0	52.0	50.2
Actuated g/C Ratio	0.41	0.39	0.06	0.50	0.43	0.43	0.42
v/c Ratio	1.02	0.54	1.28	0.73	0.83	1.05	0.99
Control Delay	59.2	14.5	184.9	19.3	35.4	80.5	60.8
Queue Delay	0.0	0.0	0.0	0.0	50.4	0.0	0.0
Total Delay	59.2	14.5	184.9	19.3	85.8	80.5	60.8
LOS	E	B	F	B	F	F	E
Approach Delay	52.4			38.3		77.5	
Approach LOS	D			D		E	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.28

Intersection Signal Delay: 57.6

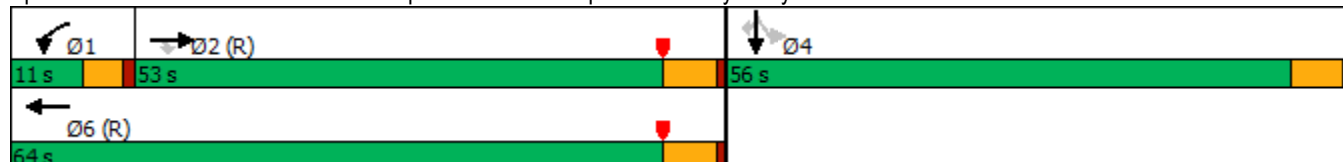
Intersection LOS: E

Intersection Capacity Utilization 107.9%

ICU Level of Service G

Analysis Period (min) 15

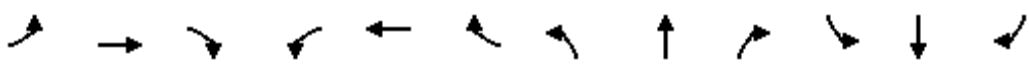
Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑↑					↑↑	↑	↑
Traffic Volume (veh/h)	0	2183	391	247	1905	0	0	0	0	1254	1	1514
Future Volume (veh/h)	0	2183	391	247	1905	0	0	0	0	1254	1	1514
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	2373	289	268	2071	0				1363	0	1103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2394	652	211	2917	0				1526	0	1309
Arrive On Green	0.00	0.42	0.41	0.06	0.51	0.00				0.42	0.00	0.41
Sat Flow, veh/h	0	5700	1610	3619	5700	0				3619	0	3220
Grp Volume(v), veh/h	0	2373	289	268	2071	0				1363	0	1103
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1610
Q Serve(g_s), s	0.0	49.6	15.6	7.0	33.4	0.0				41.9	0.0	37.1
Cycle Q Clear(g_c), s	0.0	49.6	15.6	7.0	33.4	0.0				41.9	0.0	37.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2394	652	211	2917	0				1526	0	1309
V/C Ratio(X)	0.00	0.99	0.44	1.27	0.71	0.00				0.89	0.00	0.84
Avail Cap(c_a), veh/h	0	2394	652	211	2917	0				1568	0	1347
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.82	0.82	0.47	0.47	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	34.6	25.9	56.5	22.5	0.0				32.2	0.0	32.1
Incr Delay (d2), s/veh	0.0	14.7	1.8	137.9	0.7	0.0				6.9	0.0	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	24.6	6.0	7.2	14.0	0.0				18.6	0.0	14.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	49.3	27.7	194.4	23.2	0.0				39.1	0.0	37.1
LnGrp LOS	A	D	C	F	C	A				D	A	D
Approach Vol, veh/h		2662			2339						2466	
Approach Delay, s/veh		46.9			42.8						38.2	
Approach LOS		D			D						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	11.0	54.4		54.6		65.4						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	6.4	47.2		50.2		58.2						
Max Q Clear Time (g_c+I1), s	9.0	51.6		43.9		35.4						
Green Ext Time (p_c), s	0.0	0.0		4.9		15.7						

Intersection Summary

HCM 6th Ctrl Delay	42.7
HCM 6th LOS	D

Notes

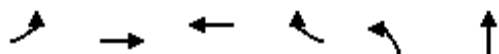
User approved volume balancing among the lanes for turning movement.

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations	←←	→→→	←←←	→	←	→
Traffic Volume (vph)	365	3072	1633	422	520	5
Future Volume (vph)	365	3072	1633	422	520	5
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	29.1	74.0	44.9	44.9	46.0	46.0
Total Split (%)	24.3%	61.7%	37.4%	37.4%	38.3%	38.3%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effect Green (s)	17.8	70.0	48.2	48.2	42.0	42.0
Actuated g/C Ratio	0.15	0.58	0.40	0.40	0.35	0.35
v/c Ratio	0.72	1.05	0.81	0.51	0.85	1.24
Control Delay	45.6	57.3	36.1	8.0	50.3	155.4
Queue Delay	0.0	22.5	0.0	0.0	0.0	0.0
Total Delay	45.6	79.9	36.1	8.0	50.3	155.4
LOS	D	E	D	A	D	F
Approach Delay		76.2	30.4			109.8
Approach LOS		E	C			F

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.24

Intersection Signal Delay: 68.1

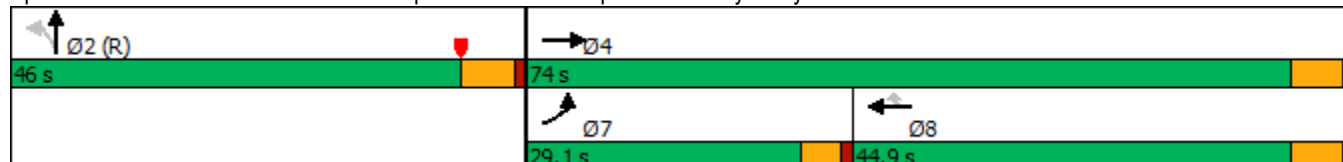
Intersection LOS: E

Intersection Capacity Utilization 107.9%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  							
Traffic Volume (veh/h)	365	3072	0	0	1633	422	520	5	672	0	0	0
Future Volume (veh/h)	365	3072	0	0	1633	422	520	5	672	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	376	3167	0	0	1684	322	536	5	513			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	457	3026	0	0	2177	676	633	5	559			
Arrive On Green	0.13	0.58	0.00	0.00	0.42	0.42	0.35	0.35	0.34			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	1810	16	1597			
Grp Volume(v), veh/h	376	3167	0	0	1684	322	536	0	518			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1613			
Q Serve(g_s), s	12.5	70.0	0.0	0.0	33.5	17.4	32.8	0.0	37.0			
Cycle Q Clear(g_c), s	12.5	70.0	0.0	0.0	33.5	17.4	32.8	0.0	37.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	457	3026	0	0	2177	676	633	0	564			
V/C Ratio(X)	0.82	1.05	0.00	0.00	0.77	0.48	0.85	0.00	0.92			
Avail Cap(c_a), veh/h	734	3026	0	0	2177	676	633	0	564			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.21	0.21	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	50.8	25.0	0.0	0.0	29.9	25.3	36.0	0.0	38.2			
Incr Delay (d2), s/veh	0.4	23.5	0.0	0.0	1.8	0.5	13.2	0.0	22.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.4	31.6	0.0	0.0	13.5	6.5	16.1	0.0	17.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.2	48.5	0.0	0.0	31.7	25.8	49.2	0.0	60.5			
LnGrp LOS	D	F	A	A	C	C	D	A	E			
Approach Vol, veh/h	3543			2006			1054					
Approach Delay, s/veh	48.8			30.8			54.7					
Approach LOS	D			C			D					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	46.0			74.0			19.6			54.4		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	40.2			68.2			24.5			39.1		
Max Q Clear Time (g_c+I1), s	39.0			72.0			14.5			35.5		
Green Ext Time (p_c), s	0.7			0.0			0.5			3.1		
Intersection Summary												
HCM 6th Ctrl Delay	44.3											
HCM 6th LOS	D											

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	327	1023	153	131	808	67	0	0	143	0	0	79
Future Vol, veh/h	327	1023	153	131	808	67	0	0	143	0	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	352	1100	165	141	869	72	0	0	154	0	0	85

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	941	0	0	1265	0	0	-	-	633	-	-	471
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	737	-	-	556	-	-	0	0	427	0	0	545
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	737	-	-	556	-	-	-	-	427	-	-	545
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	3.1			1.8			18.1			12.8		
HCM LOS							C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	427	737	-	-	556	-	-	545
HCM Lane V/C Ratio	0.36	0.477	-	-	0.253	-	-	0.156
HCM Control Delay (s)	18.1	14.3	-	-	13.7	-	-	12.8
HCM Lane LOS	C	B	-	-	B	-	-	B
HCM 95th %tile Q(veh)	1.6	2.6	-	-	1	-	-	0.5

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	129	526	94	11	467	48	45	13	155	72	71
Future Volume (vph)	129	526	94	11	467	48	45	13	155	72	71
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		2			6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	4	4	4	8	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	83.0	83.0	83.0	83.0	83.0	37.0	37.0	37.0	37.0	37.0	37.0
Total Split (%)	69.2%	69.2%	69.2%	69.2%	69.2%	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	4.6	4.6	4.6	4.6
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	26.9	26.9	26.9	26.9	26.9		13.8	13.8	13.8	13.8	13.8
Actuated g/C Ratio	0.53	0.53	0.53	0.53	0.53		0.27	0.27	0.27	0.27	0.27
v/c Ratio	0.57	0.57	0.11	0.03	0.72		0.24	0.03	0.47	0.15	0.16
Control Delay	18.5	10.3	1.9	6.1	13.2		19.4	10.0	23.7	18.3	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	18.5	10.3	1.9	6.1	13.2		19.4	10.0	23.7	18.3	6.6
LOS	B	B	A	A	B		B	A	C	B	A
Approach Delay		10.7			13.1		18.3			18.3	
Approach LOS		B			B		B			B	
Intersection Summary											
Cycle Length: 120											
Actuated Cycle Length: 50.8											
Natural Cycle: 65											
Control Type: Actuated-Uncoordinated											
Maximum v/c Ratio: 0.72											
Intersection Signal Delay: 13.3						Intersection LOS: B					
Intersection Capacity Utilization 70.7%						ICU Level of Service C					
Analysis Period (min) 15											

Splits and Phases: 10: Veile Av. & 4th St.

 Ø2	 Ø4
37 s	83 s
 Ø6	 Ø8
37 s	83 s

HCM 6th Signalized Intersection Summary
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	526	94	11	467	182	48	45	13	155	72	71
Future Volume (veh/h)	129	526	94	11	467	182	48	45	13	155	72	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	140	572	102	12	508	198	52	49	14	168	78	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	393	1108	939	468	759	296	262	211	353	392	416	
Arrive On Green	0.58	0.58	0.58	0.58	0.58	0.58	0.22	0.22	0.22	0.22	0.22	0.00
Sat Flow, veh/h	754	1900	1610	777	1301	507	661	965	1610	1360	1900	1610
Grp Volume(v), veh/h	140	572	102	12	0	706	101	0	14	168	78	0
Grp Sat Flow(s),veh/h/ln	754	1900	1610	777	0	1809	1625	0	1610	1360	1900	1610
Q Serve(g_s), s	7.3	8.4	1.3	0.4	0.0	12.4	0.2	0.0	0.3	5.4	1.6	0.0
Cycle Q Clear(g_c), s	19.7	8.4	1.3	8.8	0.0	12.4	2.1	0.0	0.3	7.5	1.6	0.0
Prop In Lane	1.00		1.00	1.00		0.28	0.51		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	393	1108	939	468	0	1055	473	0	353	392	416	
V/C Ratio(X)	0.36	0.52	0.11	0.03	0.00	0.67	0.21	0.00	0.04	0.43	0.19	
Avail Cap(c_a), veh/h	1223	3201	2713	1324	0	3047	1220	0	1121	1041	1323	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.4	5.8	4.3	8.4	0.0	6.6	15.0	0.0	14.3	18.1	14.8	0.0
Incr Delay (d2), s/veh	0.5	0.4	0.1	0.0	0.0	0.7	0.2	0.0	0.0	0.7	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.6	0.2	0.1	0.0	2.3	0.7	0.0	0.1	1.4	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.9	6.2	4.4	8.4	0.0	7.4	15.2	0.0	14.4	18.8	15.0	0.0
LnGrp LOS	B	A	A	A	A	A	B	A	B	B	B	
Approach Vol, veh/h		814			718			115			246	A
Approach Delay, s/veh		7.3			7.4			15.1			17.6	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		14.8		31.7		14.8		31.7				
Change Period (Y+Rc), s		4.6		4.6		4.6		4.6				
Max Green Setting (Gmax), s		32.4		78.4		32.4		78.4				
Max Q Clear Time (g_c+I1), s		4.1		21.7		9.5		14.4				
Green Ext Time (p_c), s		0.5		5.5		0.8		5.5				

Intersection Summary

HCM 6th Ctrl Delay	9.1
HCM 6th LOS	A

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	23	686	322	521	454	156	24	94
Future Volume (vph)	23	686	322	521	454	156	24	94
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	9.6	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	35.5	26.0	51.7	34.3	48.9	9.6	24.2
Total Split (%)	8.2%	29.6%	21.7%	43.1%	28.6%	40.8%	8.0%	20.2%
Yellow Time (s)	3.6	3.8	3.6	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.8	-0.6	-0.8	-0.6	-1.2	-0.6	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None
Act Effect Green (s)	5.7	31.5	22.0	51.9	30.3	45.2	5.6	16.5
Actuated g/C Ratio	0.05	0.27	0.19	0.45	0.26	0.39	0.05	0.14
v/c Ratio	0.27	0.97	0.99	0.35	1.02	0.89	0.29	0.42
Control Delay	62.7	64.2	95.6	23.4	89.5	41.7	63.7	48.2
Queue Delay	0.0	0.0	0.0	0.0	2.6	22.5	0.0	0.0
Total Delay	62.7	64.2	95.6	23.4	92.0	64.2	63.7	48.2
LOS	E	E	F	C	F	E	E	D
Approach Delay		64.1		50.5		75.9		51.0
Approach LOS		E		D		E		D

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 116.4

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.02

Intersection Signal Delay: 63.9

Intersection LOS: E

Intersection Capacity Utilization 90.4%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.

 Ø1	 Ø2	 Ø3	 Ø4
26 s	35.5 s	34.3 s	24.2 s
 Ø5	 Ø6	 Ø7	 Ø8
9.8 s	51.7 s	9.6 s	48.9 s

HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	686	207	322	521	13	454	156	468	24	94	13
Future Volume (veh/h)	23	686	207	322	521	13	454	156	468	24	94	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	722	107	339	548	9	478	164	361	25	99	8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	53	837	124	368	1597	26	507	187	411	54	179	15
Arrive On Green	0.03	0.27	0.27	0.20	0.44	0.44	0.28	0.35	0.34	0.03	0.10	0.09
Sat Flow, veh/h	1810	3154	467	1810	3635	60	1810	528	1163	1810	1735	140
Grp Volume(v), veh/h	24	413	416	339	272	285	478	0	525	25	0	107
Grp Sat Flow(s),veh/h/ln	1810	1805	1816	1810	1805	1889	1810	0	1691	1810	0	1875
Q Serve(g_s), s	1.4	23.6	23.6	19.9	10.8	10.8	28.0	0.0	31.6	1.5	0.0	5.9
Cycle Q Clear(g_c), s	1.4	23.6	23.6	19.9	10.8	10.8	28.0	0.0	31.6	1.5	0.0	5.9
Prop In Lane	1.00		0.26	1.00		0.03	1.00		0.69	1.00		0.07
Lane Grp Cap(c), veh/h	53	479	482	368	793	830	507	0	598	54	0	194
V/C Ratio(X)	0.45	0.86	0.86	0.92	0.34	0.34	0.94	0.00	0.88	0.46	0.00	0.55
Avail Cap(c_a), veh/h	97	525	529	368	795	833	507	0	701	94	0	350
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	51.7	37.9	37.9	42.3	20.0	20.0	38.1	0.0	33.2	51.6	0.0	46.2
Incr Delay (d2), s/veh	2.2	12.9	12.9	27.6	0.3	0.2	26.2	0.0	11.0	2.3	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	12.0	12.1	11.6	4.5	4.7	15.4	0.0	14.0	0.7	0.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.9	50.8	50.8	69.9	20.3	20.3	64.3	0.0	44.2	53.9	0.0	48.6
LnGrp LOS	D	D	D	E	C	C	E	A	D	D	A	D
Approach Vol, veh/h	853				896				1003			
Approach Delay, s/veh	50.9				39.0				53.8			
Approach LOS	D				D				D			
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.0	32.7	34.3	15.2	7.2	51.6	7.2	42.3				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	21.4	* 31	29.7	19.0	5.2	* 47	5.0	43.7				
Max Q Clear Time (g_c+I1), s	21.9	25.6	30.0	7.9	3.4	12.8	3.5	33.6				
Green Ext Time (p_c), s	0.0	2.3	0.0	0.3	0.0	3.7	0.0	2.4				

Intersection Summary

HCM 6th Ctrl Delay 48.2

HCM 6th LOS D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	4	103	54	4	25	213	725	40	8	546	8
Future Volume (vph)	5	4	103	54	4	25	213	725	40	8	546	8
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	22.8	22.8	22.8	22.8	22.8	22.8
Total Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	67.0	67.0	67.0	67.0	67.0	67.0
Total Split (%)	25.6%	25.6%	25.6%	25.6%	25.6%	25.6%	74.4%	74.4%	74.4%	74.4%	74.4%	74.4%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6	4.6		4.6	4.6	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None
Act Effect Green (s)		12.5	12.5		12.5	12.5	27.7	27.7	27.7	27.7	27.7	27.7
Actuated g/C Ratio		0.30	0.30		0.30	0.30	0.65	0.65	0.65	0.65	0.65	0.65
v/c Ratio		0.02	0.19		0.15	0.05	0.45	0.61	0.04	0.02	0.46	0.01
Control Delay		18.6	6.5		19.3	7.6	9.4	9.3	2.9	4.4	7.2	1.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		18.6	6.5		19.3	7.6	9.4	9.3	2.9	4.4	7.2	1.1
LOS		B	A		B	A	A	A	A	A	A	A
Approach Delay		7.4			15.8			9.1			7.1	
Approach LOS		A			B			A			A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 42.3

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 8.6

Intersection LOS: A

Intersection Capacity Utilization 69.9%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 12: California Av. & 5th St.



HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	4	103	54	4	25	213	725	40	8	546	8
Future Volume (veh/h)	5	4	103	54	4	25	213	725	40	8	546	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	5	4	108	57	4	26	224	763	42	8	575	8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	101	57	441	140	6	441	425	1059	898	299	1059	898
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.56	0.56	0.56	0.56	0.56	0.56
Sat Flow, veh/h	37	210	1610	98	23	1610	845	1900	1610	687	1900	1610
Grp Volume(v), veh/h	9	0	108	61	0	26	224	763	42	8	575	8
Grp Sat Flow(s),veh/h/ln	246	0	1610	121	0	1610	845	1900	1610	687	1900	1610
Q Serve(g_s), s	0.1	0.0	3.2	1.3	0.0	0.7	14.1	18.3	0.7	0.5	11.8	0.1
Cycle Q Clear(g_c), s	16.2	0.0	3.2	16.9	0.0	0.7	26.0	18.3	0.7	18.5	11.8	0.1
Prop In Lane	0.56		1.00	0.93		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	158	0	441	146	0	441	425	1059	898	299	1059	898
V/C Ratio(X)	0.06	0.00	0.25	0.42	0.00	0.06	0.53	0.72	0.05	0.03	0.54	0.01
Avail Cap(c_a), veh/h	198	0	481	179	0	481	794	1888	1600	599	1888	1600
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	0.0	17.4	29.3	0.0	16.5	16.9	10.1	6.2	16.8	8.6	6.1
Incr Delay (d2), s/veh	0.1	0.0	0.3	1.9	0.0	0.1	1.0	0.9	0.0	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	1.2	1.0	0.0	0.3	2.4	5.4	0.2	0.1	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.2	0.0	17.7	31.2	0.0	16.6	17.9	11.0	6.2	16.9	9.1	6.1
LnGrp LOS	B	A	B	C	A	B	B	B	A	B	A	A
Approach Vol, veh/h		117			87			1029			591	
Approach Delay, s/veh		17.7			26.8			12.3			9.1	
Approach LOS		B			C			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		40.8		22.2		40.8		22.2				
Change Period (Y+Rc), s		5.8		4.6		5.8		4.6				
Max Green Setting (Gmax), s		61.2		18.4		61.2		18.4				
Max Q Clear Time (g_c+I1), s		28.0		18.2		20.5		18.9				
Green Ext Time (p_c), s		7.6		0.0		3.9		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				12.3								
HCM 6th LOS				B								

Timings
13: California Av. & 4th St.

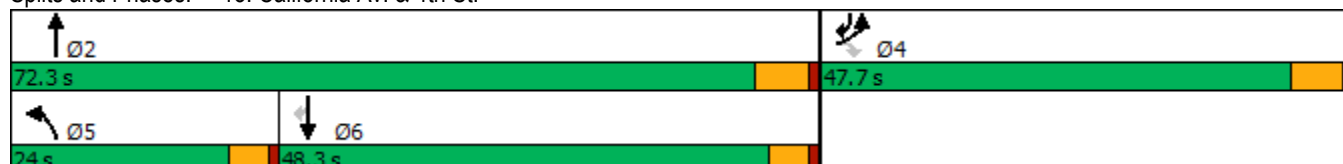
Jack Rabbit Trail (JN 12396)
07/14/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	478	590	230	1005	1165	401
Future Volume (vph)	478	590	230	1005	1165	401
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.8	22.8	9.5	15.8	21.6	22.8
Total Split (s)	47.7	47.7	24.0	72.3	48.3	47.7
Total Split (%)	39.8%	39.8%	20.0%	60.3%	40.3%	39.8%
Yellow Time (s)	4.8	4.8	3.5	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.5	5.8	4.6	5.8
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	None	None	None
Act Effect Green (s)	37.7	37.7	18.1	63.9	42.5	84.9
Actuated g/C Ratio	0.33	0.33	0.16	0.56	0.37	0.75
v/c Ratio	0.87	0.83	0.87	0.54	0.94	0.35
Control Delay	51.8	26.2	76.2	17.1	48.6	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.8	26.2	76.2	17.1	48.6	3.9
LOS	D	C	E	B	D	A
Approach Delay	37.6			28.1	37.2	
Approach LOS	D			C	D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 113.4
 Natural Cycle: 90
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 34.4
 Intersection LOS: C
 Intersection Capacity Utilization 83.8%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary

13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	478	590	230	1005	1165	401
Future Volume (veh/h)	478	590	230	1005	1165	401
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	520	478	250	1092	1266	306
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	586	522	279	2069	1368	1132
Arrive On Green	0.32	0.32	0.15	0.57	0.38	0.38
Sat Flow, veh/h	1810	1610	1810	3705	3705	1610
Grp Volume(v), veh/h	520	478	250	1092	1266	306
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1805	1805	1610
Q Serve(g_s), s	30.7	32.1	15.3	20.8	37.8	7.8
Cycle Q Clear(g_c), s	30.7	32.1	15.3	20.8	37.8	7.8
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	586	522	279	2069	1368	1132
V/C Ratio(X)	0.89	0.92	0.90	0.53	0.93	0.27
Avail Cap(c_a), veh/h	674	599	313	2133	1401	1147
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	36.6	46.7	14.7	33.4	6.1
Incr Delay (d2), s/veh	12.5	17.6	23.4	0.2	10.5	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	14.9	27.6	8.5	7.7	17.5	6.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	48.6	54.2	70.1	14.9	44.0	6.3
LnGrp LOS	D	D	E	B	D	A
Approach Vol, veh/h	998			1342	1572	
Approach Delay, s/veh	51.3			25.2	36.6	
Approach LOS	D			C	D	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	70.3			42.3	21.8	48.5
Change Period (Y+Rc), s	5.8			5.8	4.5	* 5.8
Max Green Setting (Gmax), s	66.5			41.9	19.5	* 44
Max Q Clear Time (g_c+I1), s	22.8			34.1	17.3	39.8
Green Ext Time (p_c), s	9.0			2.3	0.1	2.9

Intersection Summary

HCM 6th Ctrl Delay	36.4
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 9.8:

HORIZON YEAR (2045) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Timings
2: Potrero Bl. & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘↙	↑↑	↘↙	↑
Traffic Volume (vph)	360	906	1249	384	454	1104
Future Volume (vph)	360	906	1249	384	454	1104
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	4	2	3	8	2	3
Permitted Phases		4				2
Detector Phase	4	2	3	8	2	3
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	28.2	9.6	16.2	28.2	9.6
Total Split (s)	28.2	45.8	46.0	74.2	45.8	46.0
Total Split (%)	23.5%	38.2%	38.3%	61.8%	38.2%	38.3%
Yellow Time (s)	5.2	5.2	3.6	5.2	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.6	6.2	6.2	4.6
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	None	None	None	None	None	None
Act Effect Green (s)	17.5	63.4	41.4	63.6	39.6	87.2
Actuated g/C Ratio	0.15	0.55	0.36	0.55	0.34	0.75
v/c Ratio	0.71	1.11	1.08	0.21	0.41	0.97
Control Delay	54.4	91.9	86.9	13.5	30.8	34.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.4	91.9	86.9	13.5	30.8	34.2
LOS	D	F	F	B	C	C
Approach Delay	81.2			69.7	33.2	
Approach LOS	F			E	C	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 115.6

Natural Cycle: 140

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.11

Intersection Signal Delay: 60.2

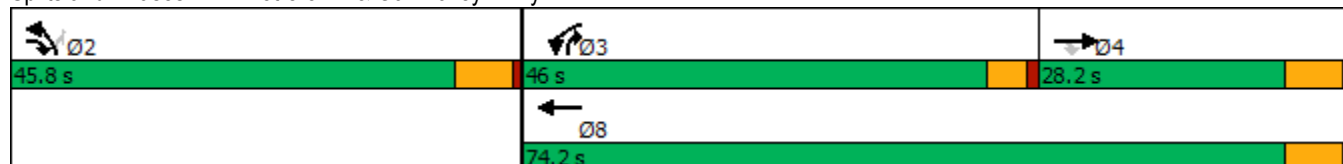
Intersection LOS: E

Intersection Capacity Utilization 100.7%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 2: Potrero Bl. & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

2: Potrero Bl. & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↘↙	↑↑	↘↙	↗
Traffic Volume (veh/h)	360	906	1249	384	454	1104
Future Volume (veh/h)	360	906	1249	384	454	1104
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	391	713	1358	417	493	874
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	662	827	1211	2046	1158	1087
Arrive On Green	0.18	0.18	0.34	0.57	0.33	0.33
Sat Flow, veh/h	3705	1610	3510	3705	3510	1610
Grp Volume(v), veh/h	391	713	1358	417	493	874
Grp Sat Flow(s),veh/h/ln	1805	1610	1755	1805	1755	1610
Q Serve(g_s), s	11.9	22.0	41.4	6.8	13.1	39.6
Cycle Q Clear(g_c), s	11.9	22.0	41.4	6.8	13.1	39.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	662	827	1211	2046	1158	1087
V/C Ratio(X)	0.59	0.86	1.12	0.20	0.43	0.80
Avail Cap(c_a), veh/h	662	827	1211	2046	1158	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.9	19.6	39.3	12.7	31.3	13.9
Incr Delay (d2), s/veh	1.4	9.3	65.9	0.0	0.2	4.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	6.6	25.9	31.3	7.0	8.2	39.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	46.3	28.9	105.2	12.8	31.6	18.3
LnGrp LOS	D	C	F	B	C	B
Approach Vol, veh/h	1104			1775	1367	
Approach Delay, s/veh	35.0			83.5	23.1	
Approach LOS	D			F	C	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		45.8	46.0	28.2		74.2
Change Period (Y+Rc), s		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s		39.6	41.4	22.0		68.0
Max Q Clear Time (g_c+I1), s		41.6	43.4	24.0		8.8
Green Ext Time (p_c), s		0.0	0.0	0.0		2.6
Intersection Summary						
HCM 6th Ctrl Delay			51.5			
HCM 6th LOS			D			

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↑↑↑		↙	↑↑↑	
Traffic Vol, veh/h	0	0	0	11	0	64	0	1039	6	54	1588	0
Future Vol, veh/h	0	0	0	11	0	64	0	1039	6	54	1588	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	12	0	70	0	1129	7	59	1726	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1941	2977	568	-	0	0
Stage 1	1133	1133	-	-	-	-
Stage 2	808	1844	-	-	-	-
Critical Hdwy	5.7	6.5	7.1	-	-	5.3
Critical Hdwy Stg 1	6.6	5.5	-	-	-	-
Critical Hdwy Stg 2	6	5.5	-	-	-	-
Follow-up Hdwy	3.8	4	3.9	-	-	3.1
Pot Cap-1 Maneuver	103	14	403	0	-	342
Stage 1	203	280	-	0	-	-
Stage 2	366	127	-	0	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	85	0	403	-	-	342
Mov Cap-2 Maneuver	85	0	-	-	-	-
Stage 1	203	0	-	-	-	-
Stage 2	303	0	-	-	-	-

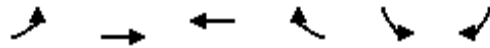
Approach	WB	NB	SB
HCM Control Delay, s	25	0	0.6
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	260	342
HCM Lane V/C Ratio	-	-	0.314	0.172
HCM Control Delay (s)	-	-	25	17.7
HCM Lane LOS	-	-	D	C
HCM 95th %tile Q(veh)	-	-	1.3	0.6

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø6
Lane Configurations	←←	↑	↑	↑	←←	↑	
Traffic Volume (vph)	485	470	183	480	413	1385	
Future Volume (vph)	485	470	183	480	413	1385	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		1	7	6
Permitted Phases				8		6	
Detector Phase	7	4	8	8	1	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	22.8	22.8	22.8	9.6	9.6	23.2
Total Split (s)	56.2	79.0	22.8	22.8	41.0	56.2	41.0
Total Split (%)	46.8%	65.8%	19.0%	19.0%	34.2%	46.8%	34%
Yellow Time (s)	3.6	4.8	4.8	4.8	3.6	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	4.6	4.6	
Lead/Lag	Lead		Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	Yes		Yes	
Recall Mode	None	None	None	None	None	None	None
Act Effect Green (s)	51.8	71.5	15.1	15.1	16.5	72.9	
Actuated g/C Ratio	0.53	0.73	0.15	0.15	0.17	0.74	
v/c Ratio	0.28	0.37	0.68	0.76	0.74	1.21	
Control Delay	14.2	6.3	52.7	11.5	47.1	120.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	14.2	6.3	52.7	11.5	47.1	120.1	
LOS	B	A	D	B	D	F	
Approach Delay		10.3	22.9		103.3		
Approach LOS		B	C		F		

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 98.5
 Natural Cycle: 140
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.21
 Intersection Signal Delay: 61.7
 Intersection LOS: E
 Intersection Capacity Utilization 104.1%
 ICU Level of Service G
 Analysis Period (min) 15

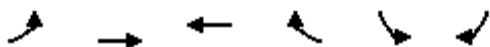
Splits and Phases: 4: 4th St. & Potrero Bl.



HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

07/14/2020

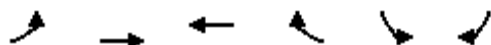


Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↰↱	↑	↑	↰	↰↱	↰	
Traffic Volume (veh/h)	485	470	183	480	413	1385	
Future Volume (veh/h)	485	470	183	480	413	1385	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	527	511	199	305	449	1125	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	637	829	389	330	1587	989	
Arrive On Green	0.18	0.44	0.20	0.20	0.44	0.44	
Sat Flow, veh/h	3619	1900	1900	1610	3619	1610	
Grp Volume(v), veh/h	527	511	199	305	449	1125	
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1610	1810	1610	
Q Serve(g_s), s	11.7	17.2	7.7	15.4	6.6	36.4	
Cycle Q Clear(g_c), s	11.7	17.2	7.7	15.4	6.6	36.4	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	637	829	389	330	1587	989	
V/C Ratio(X)	0.83	0.62	0.51	0.92	0.28	1.14	
Avail Cap(c_a), veh/h	2250	1676	389	330	1587	989	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	33.0	18.0	29.3	32.4	14.9	16.0	
Incr Delay (d2), s/veh	1.1	0.8	1.1	31.0	0.0	74.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(0%),veh/ln	0.1	0.2	0.1	2.8	0.0	20.4	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	34.1	18.8	30.4	63.3	15.0	90.2	
LnGrp LOS	C	B	C	E	B	F	
Approach Vol, veh/h	1038		504	1574			
Approach Delay, s/veh	26.5		50.3	68.7			
Approach LOS	C		D	E			
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				42.0	41.0	19.2	22.8
Change Period (Y+Rc), s				5.8	4.6	4.6	5.8
Max Green Setting (Gmax), s				73.2	36.4	51.6	17.0
Max Q Clear Time (g_c+I1), s				19.2	38.4	13.7	17.4
Green Ext Time (p_c), s				3.2	0.0	0.9	0.0
Intersection Summary							
HCM 6th Ctrl Delay			51.7				
HCM 6th LOS			D				

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←	→→→	←←←	→	←←	→
Traffic Volume (vph)	217	1119	2384	401	608	378
Future Volume (vph)	217	1119	2384	401	608	378
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	7
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	9.6	16.2	28.2	28.2	27.8	9.6
Total Split (s)	21.4	88.5	67.1	67.1	31.5	21.4
Total Split (%)	17.8%	73.8%	55.9%	55.9%	26.3%	17.8%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	6.2	5.8	4.6
Lead/Lag	Lead		Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes	Yes		Yes
Recall Mode	None	None	None	None	None	None
Act Effect Green (s)	12.2	77.8	61.0	61.0	24.5	42.5
Actuated g/C Ratio	0.11	0.68	0.53	0.53	0.21	0.37
v/c Ratio	0.63	0.34	0.94	0.43	0.88	0.69
Control Delay	57.0	8.0	33.3	6.3	58.3	36.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.0	8.0	33.3	6.3	58.3	36.8
LOS	E	A	C	A	E	D
Approach Delay		16.0	29.4		50.1	
Approach LOS		B	C		D	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 114.3

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 29.9

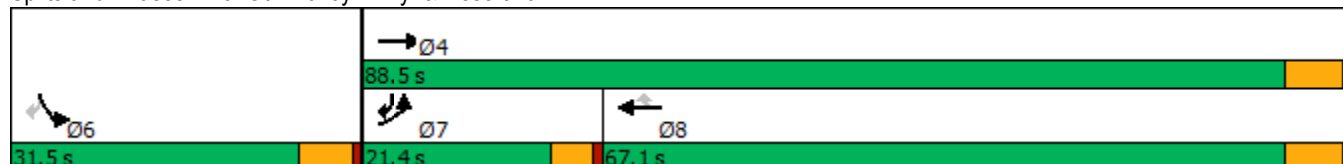
Intersection LOS: C

Intersection Capacity Utilization 83.4%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

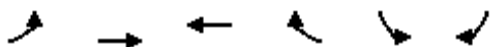


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	↖↖	↗↗↗	↗↗↗	↖	↖↖	↖	
Traffic Volume (veh/h)	217	1119	2384	401	608	378	
Future Volume (veh/h)	217	1119	2384	401	608	378	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	236	1216	2591	327	661	302	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	303	3513	2848	884	749	483	
Arrive On Green	0.09	0.68	0.55	0.55	0.21	0.21	
Sat Flow, veh/h	3510	5358	5358	1610	3510	1610	
Grp Volume(v), veh/h	236	1216	2591	327	661	302	
Grp Sat Flow(s),veh/h/ln	1755	1729	1729	1610	1755	1610	
Q Serve(g_s), s	7.2	10.8	49.4	12.6	20.0	17.7	
Cycle Q Clear(g_c), s	7.2	10.8	49.4	12.6	20.0	17.7	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	303	3513	2848	884	749	483	
V/C Ratio(X)	0.78	0.35	0.91	0.37	0.88	0.63	
Avail Cap(c_a), veh/h	538	3891	2879	894	822	516	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	49.1	7.5	22.3	14.0	41.8	33.1	
Incr Delay (d2), s/veh	1.7	0.1	4.8	0.3	10.4	2.2	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(0%),veh/ln	0.1	0.0	1.3	0.1	1.1	0.3	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	50.8	7.5	27.1	14.3	52.2	35.3	
LnGrp LOS	D	A	C	B	D	D	
Approach Vol, veh/h		1452	2918	963			
Approach Delay, s/veh		14.6	25.7	46.9			
Approach LOS		B	C	D			
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				80.5	29.2	14.1	66.4
Change Period (Y+Rc), s				6.2	5.8	4.6	6.2
Max Green Setting (Gmax), s				82.3	25.7	16.8	60.9
Max Q Clear Time (g_c+I1), s				12.8	22.0	9.2	51.4
Green Ext Time (p_c), s				10.2	1.4	0.2	8.9
Intersection Summary							
HCM 6th Ctrl Delay			26.5				
HCM 6th LOS			C				

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓	↙
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑↑	↑	↘↘	↑↑↑	↘↘	↑	↘
Traffic Volume (vph)	1063	665	345	2006	336	4	779
Future Volume (vph)	1063	665	345	2006	336	4	779
Turn Type	NA	Perm	Prot	NA	Perm	NA	Perm
Protected Phases	2		1	6		4	
Permitted Phases		2			4		4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8	15.8
Total Split (s)	49.0	49.0	22.0	71.0	49.0	49.0	49.0
Total Split (%)	40.8%	40.8%	18.3%	59.2%	40.8%	40.8%	40.8%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None
Act Effect Green (s)	48.9	48.9	16.0	69.5	38.9	38.9	38.9
Actuated g/C Ratio	0.41	0.41	0.13	0.58	0.32	0.32	0.32
v/c Ratio	0.55	0.67	0.81	0.73	0.32	0.86	0.78
Control Delay	29.4	5.5	52.8	13.8	30.7	54.2	40.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.4	5.5	52.8	13.8	30.7	54.2	40.9
LOS	C	A	D	B	C	D	D
Approach Delay	20.2			19.5		42.5	
Approach LOS	C			B		D	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 24.7

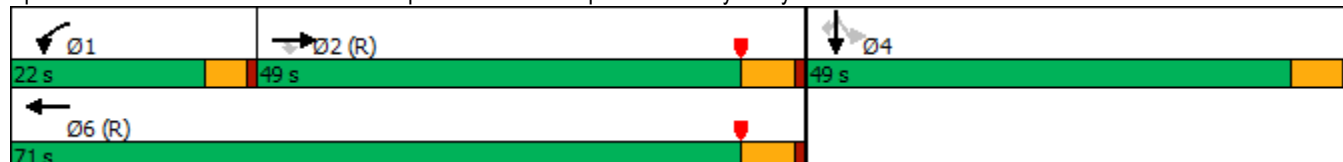
Intersection LOS: C

Intersection Capacity Utilization 99.3%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

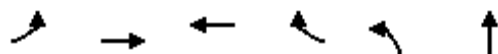
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑	↑	↑↑	↑↑↑					↑↑	↑	↑
Traffic Volume (veh/h)	0	1063	665	345	2006	0	0	0	0	336	4	779
Future Volume (veh/h)	0	1063	665	345	2006	0	0	0	0	336	4	779
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	1155	560	375	2180	0				365	0	632
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2627	816	433	3466	0				851	0	757
Arrive On Green	0.00	0.51	0.51	0.12	0.67	0.00				0.24	0.00	0.24
Sat Flow, veh/h	0	5358	1610	3510	5358	0				3619	0	3220
Grp Volume(v), veh/h	0	1155	560	375	2180	0				365	0	632
Grp Sat Flow(s),veh/h/ln	0	1729	1610	1755	1729	0				1810	0	1610
Q Serve(g_s), s	0.0	17.0	31.6	12.6	28.9	0.0				10.3	0.0	22.4
Cycle Q Clear(g_c), s	0.0	17.0	31.6	12.6	28.9	0.0				10.3	0.0	22.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2627	816	433	3466	0				851	0	757
V/C Ratio(X)	0.00	0.44	0.69	0.87	0.63	0.00				0.43	0.00	0.83
Avail Cap(c_a), veh/h	0	2627	816	509	3466	0				1303	0	1159
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	0.37	0.37	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.8	22.4	51.6	11.4	0.0				39.0	0.0	43.7
Incr Delay (d2), s/veh	0.0	0.4	3.9	4.7	0.3	0.0				0.3	0.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.0	12.9	19.5	6.5	24.3	0.0				6.1	0.0	10.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.2	26.3	56.3	11.7	0.0				39.4	0.0	47.0
LnGrp LOS	A	B	C	E	B	A				D	A	D
Approach Vol, veh/h		1715			2555						997	
Approach Delay, s/veh		21.6			18.3						44.2	
Approach LOS		C			B						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.4	66.6		34.0		86.0						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	17.4	43.2		43.2		65.2						
Max Q Clear Time (g_c+I1), s	14.6	33.6		24.4		30.9						
Green Ext Time (p_c), s	0.2	6.2		3.8		22.0						
Intersection Summary												
HCM 6th Ctrl Delay				24.2								
HCM 6th LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations	←←	→→→	←←←	→	←	→
Traffic Volume (vph)	341	1058	1922	756	429	5
Future Volume (vph)	341	1058	1922	756	429	5
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	19.8	75.4	55.6	55.6	44.6	44.6
Total Split (%)	16.5%	62.8%	46.3%	46.3%	37.2%	37.2%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effect Green (s)	14.5	69.6	50.5	50.5	38.8	38.8
Actuated g/C Ratio	0.12	0.58	0.42	0.42	0.32	0.32
v/c Ratio	0.82	0.36	0.90	0.75	0.75	0.83
Control Delay	58.7	25.6	39.2	11.2	45.7	43.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	25.6	39.2	11.2	45.7	43.5
LOS	E	C	D	B	D	D
Approach Delay		33.7	31.3			44.6
Approach LOS		C	C			D

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.90

Intersection Signal Delay: 34.4

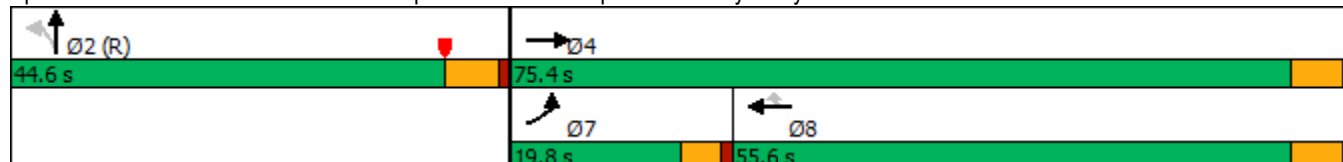
Intersection LOS: C

Intersection Capacity Utilization 99.3%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 							
Traffic Volume (veh/h)	341	1058	0	0	1922	756	429	5	469	0	0	0
Future Volume (veh/h)	341	1058	0	0	1922	756	429	5	469	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	348	1080	0	0	1961	592	438	5	357			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	402	2925	0	0	2132	662	614	8	540			
Arrive On Green	0.15	0.75	0.00	0.00	0.41	0.41	0.34	0.34	0.34			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	1810	22	1591			
Grp Volume(v), veh/h	348	1080	0	0	1961	592	438	0	362			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1614			
Q Serve(g_s), s	11.6	8.6	0.0	0.0	43.0	41.1	25.3	0.0	22.9			
Cycle Q Clear(g_c), s	11.6	8.6	0.0	0.0	43.0	41.1	25.3	0.0	22.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	402	2925	0	0	2132	662	614	0	548			
V/C Ratio(X)	0.87	0.37	0.00	0.00	0.92	0.89	0.71	0.00	0.66			
Avail Cap(c_a), veh/h	445	3008	0	0	2153	668	614	0	548			
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.86	0.86	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	50.0	7.6	0.0	0.0	33.5	32.9	34.5	0.0	33.8			
Incr Delay (d2), s/veh	12.4	0.1	0.0	0.0	7.0	14.5	6.9	0.0	6.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(0%),veh/ln	6.5	12.0	0.0	0.0	23.1	22.4	15.8	0.0	13.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.3	7.7	0.0	0.0	40.4	47.4	41.5	0.0	39.9			
LnGrp LOS	E	A	A	A	D	D	D	A	D			
Approach Vol, veh/h	1428				2553		800					
Approach Delay, s/veh	21.0				42.0		40.8					
Approach LOS	C				D		D					
Timer - Assigned Phs	2		4				7	8				
Phs Duration (G+Y+Rc), s	46.5		73.5				18.3	55.1				
Change Period (Y+Rc), s	5.8		5.8				4.6	5.8				
Max Green Setting (Gmax), s	38.8		69.6				15.2	49.8				
Max Q Clear Time (g_c+I1), s	27.3		10.6				13.6	45.0				
Green Ext Time (p_c), s	2.9		8.9				0.1	4.4				
Intersection Summary												
HCM 6th Ctrl Delay			35.5									
HCM 6th LOS			D									

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	162	700	174	188	1078	32	0	0	77	0	0	191
Future Vol, veh/h	162	700	174	188	1078	32	0	0	77	0	0	191
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	176	761	189	204	1172	35	0	0	84	0	0	208

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1207	0	0	950	0	0	-	-	475	-	-	604
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	585	-	-	731	-	-	0	0	541	0	0	446
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	585	-	-	731	-	-	-	-	541	-	-	446
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.2			1.7			12.9			19.9		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	541	585	-	-	731	-	-	446
HCM Lane V/C Ratio	0.155	0.301	-	-	0.28	-	-	0.465
HCM Control Delay (s)	12.9	13.8	-	-	11.8	-	-	19.9
HCM Lane LOS	B	B	-	-	B	-	-	C
HCM 95th %tile Q(veh)	0.5	1.3	-	-	1.1	-	-	2.4

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	316	458	29	4	772	86	34	7	100	37	1039
Future Volume (vph)	316	458	29	4	772	86	34	7	100	37	1039
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		2			6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	4	4	4	8	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	27.8	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	72.0	72.0	72.0	72.0	72.0	48.0	48.0	48.0	48.0	48.0	48.0
Total Split (%)	60.0%	60.0%	60.0%	60.0%	60.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	4.8	4.8	4.8	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	5.8	4.6	4.6		4.6	4.6	4.6	4.6	4.6
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effect Green (s)	66.2	66.2	66.2	67.4	67.4		43.4	43.4	43.4	43.4	43.4
Actuated g/C Ratio	0.55	0.55	0.55	0.56	0.56		0.36	0.36	0.36	0.36	0.36
v/c Ratio	3.36	0.48	0.04	0.01	0.84		0.24	0.01	0.24	0.06	1.66
Control Delay	1102.7	18.2	4.2	11.8	30.7		28.4	1.4	28.7	25.4	327.7
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	1102.7	18.2	4.2	11.8	30.7		28.4	1.4	28.7	25.4	327.7
LOS	F	B	A	B	C		C	A	C	C	F
Approach Delay		443.8			30.6		26.8			292.7	
Approach LOS		F			C		C			F	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 3.36

Intersection Signal Delay: 249.0

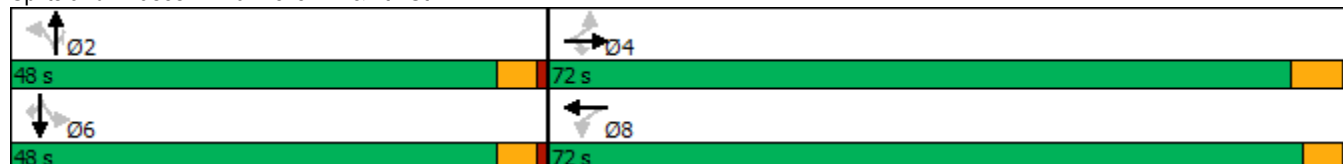
Intersection LOS: F

Intersection Capacity Utilization 127.6%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	316	458	29	4	772	47	86	34	7	100	37	1039
Future Volume (veh/h)	316	458	29	4	772	47	86	34	7	100	37	1039
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	343	498	32	4	839	51	93	37	8	109	40	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	352	1335	1131	606	1246	76	248	89	301	219	355	
Arrive On Green	0.70	0.70	0.70	0.70	0.70	0.70	0.19	0.19	0.19	0.19	0.19	0.00
Sat Flow, veh/h	635	1900	1610	887	1773	108	978	475	1610	1383	1900	1610
Grp Volume(v), veh/h	343	498	32	4	0	890	130	0	8	109	40	0
Grp Sat Flow(s),veh/h/ln	635	1900	1610	887	0	1881	1453	0	1610	1383	1900	1610
Q Serve(g_s), s	40.9	10.0	0.6	0.2	0.0	25.2	6.3	0.0	0.4	7.2	1.6	0.0
Cycle Q Clear(g_c), s	66.2	10.0	0.6	10.2	0.0	25.2	7.9	0.0	0.4	15.1	1.6	0.0
Prop In Lane	1.00		1.00	1.00		0.06	0.72		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	352	1335	1131	606	0	1321	337	0	301	219	355	
V/C Ratio(X)	0.97	0.37	0.03	0.01	0.00	0.67	0.39	0.00	0.03	0.50	0.11	
Avail Cap(c_a), veh/h	352	1335	1131	617	0	1345	749	0	742	598	875	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	30.6	5.6	4.2	7.7	0.0	7.9	34.5	0.0	31.3	41.1	31.8	0.0
Incr Delay (d2), s/veh	40.8	0.2	0.0	0.0	0.0	1.3	0.7	0.0	0.0	1.7	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	4.0	0.1	0.0	0.0	0.0	0.5	0.1	0.0	0.0	0.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	71.5	5.8	4.3	7.7	0.0	9.2	35.3	0.0	31.3	42.9	31.9	0.0
LnGrp LOS	E	A	A	A	A	A	D	A	C	D	C	
Approach Vol, veh/h		873			894			138			149	A
Approach Delay, s/veh		31.5			9.2			35.0			39.9	
Approach LOS		C			A			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.2		72.0		22.2		72.0				
Change Period (Y+Rc), s		4.6		5.8		4.6		* 5.8				
Max Green Setting (Gmax), s		43.4		66.2		43.4		* 67				
Max Q Clear Time (g_c+I1), s		9.9		68.2		17.1		27.2				
Green Ext Time (p_c), s		0.7		0.0		0.4		7.5				

Intersection Summary

HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

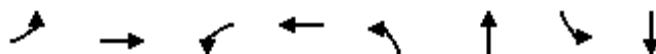
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	468	327	670	494	114	54	219
Future Volume (vph)	4	468	327	670	494	114	54	219
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	9.6	26.8	9.6	32.2	9.6	24.2
Total Split (s)	15.0	32.0	26.0	43.0	37.8	43.2	18.8	24.2
Total Split (%)	12.5%	26.7%	21.7%	35.8%	31.5%	36.0%	15.7%	20.2%
Yellow Time (s)	3.6	3.8	3.6	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.8	4.6	4.8	4.6	5.2	4.6	5.2
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None
Act Effect Green (s)	5.1	26.2	21.4	50.3	33.2	44.8	8.3	17.8
Actuated g/C Ratio	0.04	0.22	0.18	0.43	0.28	0.38	0.07	0.15
v/c Ratio	0.05	0.91	1.09	0.48	1.06	0.43	0.46	0.85
Control Delay	56.5	54.1	120.2	26.1	97.3	24.9	64.7	74.9
Queue Delay	0.0	0.0	0.0	0.0	16.5	0.0	0.0	0.0
Total Delay	56.5	54.1	120.2	26.1	113.8	24.9	64.7	74.9
LOS	E	D	F	C	F	C	E	E
Approach Delay		54.1		55.9		82.1		72.9
Approach LOS		D		E		F		E

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 117.9

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.09

Intersection Signal Delay: 64.3

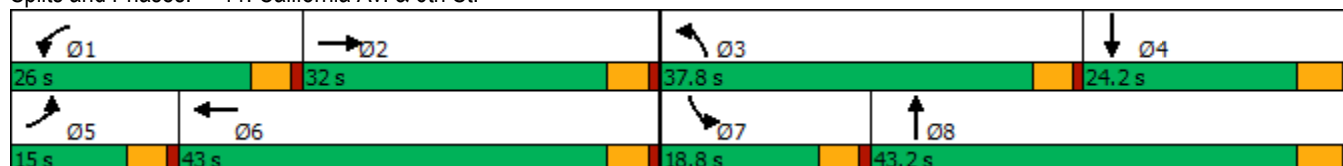
Intersection LOS: E

Intersection Capacity Utilization 94.6%

ICU Level of Service F

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.



HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	468	260	327	670	35	494	114	159	54	219	5
Future Volume (veh/h)	4	468	260	327	670	35	494	114	159	54	219	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	4	509	109	355	728	22	537	124	108	59	238	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	9	605	129	344	1410	43	534	372	324	77	272	2
Arrive On Green	0.01	0.20	0.20	0.23	0.46	0.38	0.35	0.48	0.40	0.04	0.14	0.14
Sat Flow, veh/h	1810	3037	647	1810	3669	111	1810	937	816	1810	1881	16
Grp Volume(v), veh/h	4	318	300	355	377	373	537	0	232	59	0	240
Grp Sat Flow(s),veh/h/ln	1810	1900	1784	1810	1900	1880	1810	0	1753	1810	0	1897
Q Serve(g_s), s	0.2	18.1	18.2	21.4	15.8	15.9	33.2	0.0	9.8	3.6	0.0	13.9
Cycle Q Clear(g_c), s	0.2	18.1	18.2	21.4	15.8	15.9	33.2	0.0	9.8	3.6	0.0	13.9
Prop In Lane	1.00		0.36	1.00		0.06	1.00		0.47	1.00		0.01
Lane Grp Cap(c), veh/h	9	379	355	344	730	722	534	0	697	77	0	274
V/C Ratio(X)	0.42	0.84	0.85	1.03	0.52	0.52	1.01	0.00	0.33	0.77	0.00	0.88
Avail Cap(c_a), veh/h	167	460	431	344	730	722	534	0	697	228	0	321
HCM Platoon Ratio	1.00	1.00	1.00	1.20	1.20	1.00	1.20	1.20	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	55.8	43.3	43.4	43.4	22.9	23.1	36.3	0.0	21.7	53.3	0.0	47.1
Incr Delay (d2), s/veh	10.8	11.1	12.4	56.7	0.6	0.6	40.2	0.0	0.3	6.0	0.0	20.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.2	11.1	10.6	16.2	11.9	11.8	22.6	0.0	7.3	2.0	0.0	9.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.5	54.4	55.7	100.1	23.5	23.8	76.6	0.0	22.0	59.3	0.0	67.6
LnGrp LOS	E	D	E	F	C	C	F	A	C	E	A	E
Approach Vol, veh/h		622			1105			769			299	
Approach Delay, s/veh		55.1			48.2			60.1			65.9	
Approach LOS		E			D			E			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.0	27.2	37.8	21.5	5.2	48.0	9.4	49.9				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	21.4	* 27	33.2	19.0	10.4	* 38	14.2	38.0				
Max Q Clear Time (g_c+I1), s	23.4	20.2	35.2	15.9	2.2	17.9	5.6	11.8				
Green Ext Time (p_c), s	0.0	2.2	0.0	0.3	0.0	4.7	0.0	1.2				

Intersection Summary

HCM 6th Ctrl Delay 54.9

HCM 6th LOS D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	4	90	81	11	36	358	670	36	15	620	3
Future Volume (vph)	2	4	90	81	11	36	358	670	36	15	620	3
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	22.8	22.8	22.8	22.8	22.8	22.8
Total Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	68.4	68.4	68.4	68.4	68.4	68.4
Total Split (%)	24.0%	24.0%	24.0%	24.0%	24.0%	24.0%	76.0%	76.0%	76.0%	76.0%	76.0%	76.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6	4.6		4.6	4.6	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None
Act Effect Green (s)		14.2	14.2		14.2	14.2	52.7	52.7	52.7	52.7	52.7	52.7
Actuated g/C Ratio		0.21	0.21		0.21	0.21	0.77	0.77	0.77	0.77	0.77	0.77
v/c Ratio		0.02	0.24		0.34	0.11	0.74	0.50	0.03	0.03	0.46	0.00
Control Delay		30.5	9.1		35.4	11.6	19.5	6.6	2.4	3.9	6.2	0.0
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.2	0.0	0.0	0.4	0.0
Total Delay		30.5	9.1		35.4	11.6	19.5	6.7	2.4	3.9	6.6	0.0
LOS		C	A		D	B	B	A	A	A	A	A
Approach Delay		10.3			28.7			10.9			6.5	
Approach LOS		B			C			B			A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 68.8

Natural Cycle: 90

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.74

Intersection Signal Delay: 10.6

Intersection LOS: B

Intersection Capacity Utilization 77.7%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 12: California Av. & 5th St.



HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	4	90	81	11	36	358	670	36	15	620	3
Future Volume (veh/h)	2	4	90	81	11	36	358	670	36	15	620	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2	4	98	88	12	39	389	728	39	16	674	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	54	83	307	76	6	307	486	1316	1115	438	1316	1115
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.69	0.69	0.69	0.69	0.69	0.69
Sat Flow, veh/h	0	433	1610	0	30	1610	774	1900	1610	712	1900	1610
Grp Volume(v), veh/h	6	0	98	100	0	39	389	728	39	16	674	3
Grp Sat Flow(s),veh/h/ln	433	0	1610	30	0	1610	774	1900	1610	712	1900	1610
Q Serve(g_s), s	0.0	0.0	4.7	0.0	0.0	1.8	42.9	17.0	0.7	1.0	15.1	0.1
Cycle Q Clear(g_c), s	17.0	0.0	4.7	17.0	0.0	1.8	57.9	17.0	0.7	18.0	15.1	0.1
Prop In Lane	0.33		1.00	0.88		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	136	0	307	82	0	307	486	1316	1115	438	1316	1115
V/C Ratio(X)	0.04	0.00	0.32	1.22	0.00	0.13	0.80	0.55	0.03	0.04	0.51	0.00
Avail Cap(c_a), veh/h	136	0	307	82	0	307	494	1335	1131	445	1335	1131
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.2	0.0	31.1	43.3	0.0	29.9	20.3	6.8	4.3	11.3	6.5	4.2
Incr Delay (d2), s/veh	0.1	0.0	0.6	171.0	0.0	0.2	9.0	0.5	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	0.2	0.0	2.5	5.9	0.0	1.0	10.8	18.2	1.0	0.4	16.8	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.4	0.0	31.6	214.3	0.0	30.1	29.3	7.3	4.3	11.4	6.9	4.2
LnGrp LOS	C	A	C	F	A	C	C	A	A	B	A	A
Approach Vol, veh/h	104		139				1156				693	
Approach Delay, s/veh	31.6		162.6				14.6				6.9	
Approach LOS	C		F				B				A	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	67.5		21.6		67.5		21.6					
Change Period (Y+Rc), s	5.8		4.6		5.8		4.6					
Max Green Setting (Gmax), s	62.6		17.0		62.6		17.0					
Max Q Clear Time (g_c+I1), s	59.9		19.0		20.0		19.0					
Green Ext Time (p_c), s	1.8		0.0		4.9		0.0					
Intersection Summary												
HCM 6th Ctrl Delay	22.8											
HCM 6th LOS	C											

Timings
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	154	221	239	1061	403	530
Future Volume (vph)	154	221	239	1061	403	530
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	5.0	10.0	10.0
Minimum Split (s)	22.8	22.8	9.5	9.6	22.8	22.8
Total Split (s)	46.0	46.0	39.0	74.0	35.0	46.0
Total Split (%)	38.3%	38.3%	32.5%	61.7%	29.2%	38.3%
Yellow Time (s)	4.8	4.8	3.5	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.5	4.6	5.8	5.8
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	None	None	None
Act Effect Green (s)	13.4	13.4	13.7	33.2	13.6	33.0
Actuated g/C Ratio	0.23	0.23	0.24	0.58	0.24	0.57
v/c Ratio	0.40	0.43	0.60	0.55	0.51	0.54
Control Delay	23.5	6.1	27.1	8.8	22.7	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.5	6.1	27.1	8.8	22.7	5.2
LOS	C	A	C	A	C	A
Approach Delay	13.2			12.2	12.8	
Approach LOS	B			B	B	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 57.4

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.60

Intersection Signal Delay: 12.5

Intersection LOS: B

Intersection Capacity Utilization 54.6%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	154	221	239	1061	403	530
Future Volume (veh/h)	154	221	239	1061	403	530
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	167	180	260	1153	438	440
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	356	316	324	2071	1103	808
Arrive On Green	0.20	0.20	0.18	0.57	0.31	0.31
Sat Flow, veh/h	1810	1610	1810	3705	3705	1610
Grp Volume(v), veh/h	167	180	260	1153	438	440
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1805	1805	1610
Q Serve(g_s), s	4.1	5.1	7.0	10.1	4.8	9.5
Cycle Q Clear(g_c), s	4.1	5.1	7.0	10.1	4.8	9.5
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	356	316	324	2071	1103	808
V/C Ratio(X)	0.47	0.57	0.80	0.56	0.40	0.54
Avail Cap(c_a), veh/h	1441	1282	1236	4962	2088	1248
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.0	18.4	19.9	6.7	13.9	8.6
Incr Delay (d2), s/veh	1.0	1.6	1.8	0.2	0.2	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(0%),veh/ln	2.4	4.7	3.8	8.1	3.1	6.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.9	20.0	21.6	7.0	14.1	9.2
LnGrp LOS	B	B	C	A	B	A
Approach Vol, veh/h	347			1413	878	
Approach Delay, s/veh	19.5			9.7	11.6	
Approach LOS	B			A	B	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	34.8			15.7	13.5	21.2
Change Period (Y+Rc), s	* 5.8			5.8	4.5	5.8
Max Green Setting (Gmax), s	* 69			40.2	34.5	29.2
Max Q Clear Time (g_c+I1), s	12.1			7.1	9.0	11.5
Green Ext Time (p_c), s	10.1			1.0	0.3	4.0

Intersection Summary

HCM 6th Ctrl Delay	11.6
HCM 6th LOS	B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
2: Potrero Bl. & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘↙	↑↑	↘↙	↑
Traffic Volume (vph)	365	898	1198	652	761	1705
Future Volume (vph)	365	898	1198	652	761	1705
Turn Type	NA	pm+ov	Prot	NA	Prot	pm+ov
Protected Phases	4	2	3	8	2	3
Permitted Phases		4				2
Detector Phase	4	2	3	8	2	3
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	5.0
Minimum Split (s)	28.2	28.2	9.6	16.2	28.2	9.6
Total Split (s)	28.2	39.8	52.0	80.2	39.8	52.0
Total Split (%)	23.5%	33.2%	43.3%	66.8%	33.2%	43.3%
Yellow Time (s)	5.2	5.2	3.6	5.2	5.2	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	4.6	6.2	6.2	4.6
Lead/Lag	Lag		Lead			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Recall Mode	None	None	None	None	None	None
Act Effect Green (s)	17.7	57.5	47.4	69.8	33.6	87.3
Actuated g/C Ratio	0.15	0.50	0.41	0.60	0.29	0.75
v/c Ratio	0.72	1.21	0.91	0.33	0.81	1.51
Control Delay	54.5	133.1	42.9	11.8	46.1	250.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.5	133.1	42.9	11.8	46.1	250.8
LOS	D	F	D	B	D	F
Approach Delay	110.4			32.0	187.6	
Approach LOS	F			C	F	

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 115.8

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.51

Intersection Signal Delay: 118.5

Intersection LOS: F

Intersection Capacity Utilization 124.7%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 2: Potrero Bl. & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

2: Potrero Bl. & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↘↙	↑↑	↘↙	↗
Traffic Volume (veh/h)	365	898	1198	652	761	1705
Future Volume (veh/h)	365	898	1198	652	761	1705
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	397	731	1302	709	827	983
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	671	756	1358	2208	996	1080
Arrive On Green	0.19	0.19	0.39	0.61	0.28	0.28
Sat Flow, veh/h	3705	1610	3510	3705	3510	1610
Grp Volume(v), veh/h	397	731	1302	709	827	983
Grp Sat Flow(s),veh/h/ln	1805	1610	1755	1805	1755	1610
Q Serve(g_s), s	11.9	22.0	42.8	11.2	26.1	33.6
Cycle Q Clear(g_c), s	11.9	22.0	42.8	11.2	26.1	33.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	671	756	1358	2208	996	1080
V/C Ratio(X)	0.59	0.97	0.96	0.32	0.83	0.91
Avail Cap(c_a), veh/h	671	756	1405	2256	996	1080
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.1	22.5	35.4	11.1	39.7	16.5
Incr Delay (d2), s/veh	1.4	24.8	14.8	0.1	6.0	11.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	26.4	19.8	4.0	11.5	21.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	45.5	47.2	50.2	11.2	45.7	27.8
LnGrp LOS	D	D	D	B	D	C
Approach Vol, veh/h	1128			2011	1810	
Approach Delay, s/veh	46.6			36.4	36.0	
Approach LOS	D			D	D	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		39.8	50.4	28.2		78.6
Change Period (Y+Rc), s		6.2	4.6	6.2		6.2
Max Green Setting (Gmax), s		33.6	47.4	22.0		74.0
Max Q Clear Time (g_c+I1), s		35.6	44.8	24.0		13.2
Green Ext Time (p_c), s		0.0	1.0	0.0		4.9
Intersection Summary						
HCM 6th Ctrl Delay			38.6			
HCM 6th LOS			D			

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↕			↑↑↑		↕	↑↑↑	
Traffic Vol, veh/h	0	0	0	2	0	114	0	1535	0	11	1749	0
Future Vol, veh/h	0	0	0	2	0	114	0	1535	0	11	1749	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	0	2	0	124	0	1668	0	12	1901	0

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2452	3593	834	-	0	0
Stage 1	1668	1668	-	-	-	-
Stage 2	784	1925	-	-	-	-
Critical Hdwy	5.7	6.5	7.1	-	-	5.3
Critical Hdwy Stg 1	6.6	5.5	-	-	-	-
Critical Hdwy Stg 2	6	5.5	-	-	-	-
Follow-up Hdwy	3.8	4	3.9	-	-	3.1
Pot Cap-1 Maneuver	55	6	271	0	-	188
Stage 1	95	155	-	0	-	-
Stage 2	377	115	-	0	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	51	0	271	-	-	188
Mov Cap-2 Maneuver	51	0	-	-	-	-
Stage 1	95	0	-	-	-	-
Stage 2	353	0	-	-	-	-

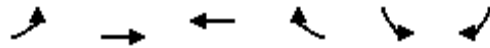
Approach	WB	NB	SB
HCM Control Delay, s	32.8	0	0.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	252	188
HCM Lane V/C Ratio	-	-	0.5	0.064
HCM Control Delay (s)	-	-	32.8	25.4
HCM Lane LOS	-	-	D	D
HCM 95th %tile Q(veh)	-	-	2.6	0.2

Timings
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø6
Lane Configurations	↔↔	↑	↑	↔	↔↔	↔	
Traffic Volume (vph)	1740	219	103	551	383	1096	
Future Volume (vph)	1740	219	103	551	383	1096	
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov	
Protected Phases	7	4	8		1	7	6
Permitted Phases				8		6	
Detector Phase	7	4	8	8	1	7	
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	5.0	10.0
Minimum Split (s)	9.6	22.8	22.8	22.8	9.6	9.6	23.2
Total Split (s)	64.0	95.2	31.2	31.2	24.8	64.0	24.8
Total Split (%)	53.3%	79.3%	26.0%	26.0%	20.7%	53.3%	21%
Yellow Time (s)	3.6	4.8	4.8	4.8	3.6	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.6	5.8	5.8	5.8	4.6	4.6	
Lead/Lag	Lead		Lag	Lag		Lead	
Lead-Lag Optimize?	Yes		Yes	Yes		Yes	
Recall Mode	None	None	None	None	None	None	None
Act Effect Green (s)	59.4	89.5	25.4	25.4	17.2	81.3	
Actuated g/C Ratio	0.51	0.76	0.22	0.22	0.15	0.69	
v/c Ratio	1.03	0.16	0.27	1.08	0.78	0.92	
Control Delay	59.2	4.3	41.0	85.4	59.2	21.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	59.2	4.3	41.0	85.4	59.2	21.2	
LOS	E	A	D	F	E	C	
Approach Delay		53.0	78.4		31.0		
Approach LOS		D	E		C		

Intersection Summary

Cycle Length: 120	
Actuated Cycle Length: 117.1	
Natural Cycle: 130	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.08	
Intersection Signal Delay: 49.1	Intersection LOS: D
Intersection Capacity Utilization 92.4%	ICU Level of Service F
Analysis Period (min) 15	

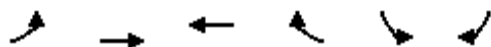
Splits and Phases: 4: 4th St. & Potrero Bl.

Ø1		Ø4			
24.8 s		95.2 s			
Ø6		Ø7		Ø8	
24.8 s		64 s		31.2 s	

HCM 6th Signalized Intersection Summary
4: 4th St. & Potrero Bl.

Jack Rabbit Trail (JN 12396)

07/14/2020

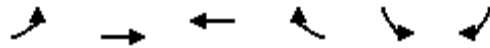


Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations							
Traffic Volume (veh/h)	1740	219	103	551	383	1096	
Future Volume (veh/h)	1740	219	103	551	383	1096	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach		No	No		No		
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	
Adj Flow Rate, veh/h	1891	238	112	327	416	919	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	0	0	0	0	0	0	
Cap, veh/h	1791	1415	402	341	609	1068	
Arrive On Green	0.50	0.74	0.21	0.21	0.17	0.17	
Sat Flow, veh/h	3619	1900	1900	1610	3619	1610	
Grp Volume(v), veh/h	1891	238	112	327	416	919	
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1610	1810	1610	
Q Serve(g_s), s	59.4	4.4	5.9	24.1	13.0	20.2	
Cycle Q Clear(g_c), s	59.4	4.4	5.9	24.1	13.0	20.2	
Prop In Lane	1.00			1.00	1.00	1.00	
Lane Grp Cap(c), veh/h	1791	1415	402	341	609	1068	
V/C Ratio(X)	1.06	0.17	0.28	0.96	0.68	0.86	
Avail Cap(c_a), veh/h	1791	1416	402	341	609	1068	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	30.3	4.5	39.6	46.8	46.9	15.8	
Incr Delay (d2), s/veh	37.7	0.1	0.4	38.0	2.6	7.0	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	32.9	1.4	2.7	23.1	5.8	43.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	68.0	4.5	40.0	84.8	49.5	22.8	
LnGrp LOS	F	A	D	F	D	C	
Approach Vol, veh/h		2129	439		1335		
Approach Delay, s/veh		60.9	73.3		31.1		
Approach LOS		E	E		C		
Timer - Assigned Phs				4	6	7	8
Phs Duration (G+Y+Rc), s				95.2	24.8	64.0	31.2
Change Period (Y+Rc), s				5.8	4.6	4.6	5.8
Max Green Setting (Gmax), s				89.4	20.2	59.4	25.4
Max Q Clear Time (g_c+I1), s				6.4	22.2	61.4	26.1
Green Ext Time (p_c), s				1.3	0.0	0.0	0.0
Intersection Summary							
HCM 6th Ctrl Delay			52.1				
HCM 6th LOS			D				

Timings
5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020

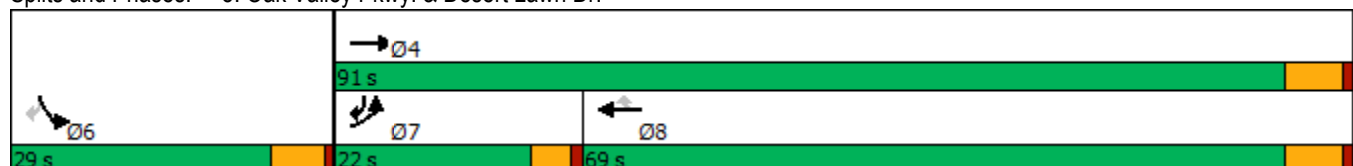


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←	↑↑↑	←←←	↑	←←	↑
Traffic Volume (vph)	561	2494	3009	510	256	941
Future Volume (vph)	561	2494	3009	510	256	941
Turn Type	Prot	NA	NA	Perm	Prot	pm+ov
Protected Phases	7	4	8		6	7
Permitted Phases				8		6
Detector Phase	7	4	8	8	6	7
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	5.0
Minimum Split (s)	9.6	16.2	28.2	28.2	27.8	9.6
Total Split (s)	22.0	91.0	69.0	69.0	29.0	22.0
Total Split (%)	18.3%	75.8%	57.5%	57.5%	24.2%	18.3%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	6.2	5.8	4.6
Lead/Lag	Lead		Lag	Lag		Lead
Lead-Lag Optimize?	Yes		Yes	Yes		Yes
Recall Mode	None	None	None	None	None	None
Act Effect Green (s)	17.4	84.8	62.8	62.8	13.4	36.6
Actuated g/C Ratio	0.16	0.77	0.57	0.57	0.12	0.33
v/c Ratio	1.01	0.59	0.95	0.49	0.60	1.81
Control Delay	88.0	6.2	31.3	6.1	52.0	398.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.0	6.2	31.3	6.1	52.0	398.7
LOS	F	A	C	A	D	F
Approach Delay		21.2	27.7		324.5	
Approach LOS		C	C		F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 110.2
 Natural Cycle: 150
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.81
 Intersection Signal Delay: 70.8
 Intersection LOS: E
 Intersection Capacity Utilization 125.4%
 ICU Level of Service H
 Analysis Period (min) 15

Splits and Phases: 5: Oak Valley Pkwy. & Desert Lawn Dr.

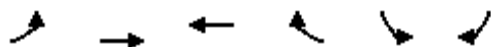


HCM 6th Signalized Intersection Summary

5: Oak Valley Pkwy. & Desert Lawn Dr.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	←←	↑↑↑	↑↑↑	↑	←←	↑
Traffic Volume (veh/h)	561	2494	3009	510	256	941
Future Volume (veh/h)	561	2494	3009	510	256	941
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	578	2571	3102	397	264	661
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	525	4028	2983	843	700	545
Arrive On Green	0.14	0.71	0.52	0.52	0.19	0.19
Sat Flow, veh/h	3619	5700	5700	1610	3619	1610
Grp Volume(v), veh/h	578	2571	3102	397	264	661
Grp Sat Flow(s),veh/h/ln	1810	1900	1900	1610	1810	1610
Q Serve(g_s), s	17.4	28.9	62.8	18.7	7.6	23.2
Cycle Q Clear(g_c), s	17.4	28.9	62.8	18.7	7.6	23.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	525	4028	2983	843	700	545
V/C Ratio(X)	1.10	0.64	1.04	0.47	0.38	1.21
Avail Cap(c_a), veh/h	525	4028	2983	843	700	545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.3	9.4	28.6	18.1	42.1	39.7
Incr Delay (d2), s/veh	70.0	0.3	28.0	0.4	0.3	112.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.7	9.5	33.5	6.6	3.4	47.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	121.3	9.7	56.6	18.5	42.5	151.8
LnGrp LOS	F	A	F	B	D	F
Approach Vol, veh/h		3149	3499		925	
Approach Delay, s/veh		30.2	52.3		120.6	
Approach LOS		C	D		F	
Timer - Assigned Phs			4		6	7
Phs Duration (G+Y+Rc), s			91.0		29.0	22.0
Change Period (Y+Rc), s			6.2		5.8	4.6
Max Green Setting (Gmax), s			84.8		23.2	17.4
Max Q Clear Time (g_c+l1), s			30.9		25.2	19.4
Green Ext Time (p_c), s			35.9		0.0	0.0
Intersection Summary						
HCM 6th Ctrl Delay			51.5			
HCM 6th LOS			D			

Timings

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020

	→	↘	↙	←	↘	↓
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT
Lane Configurations	↑↑↑	↑	↘↘	↑↑↑	↘↘	↑
Traffic Volume (vph)	2358	391	247	1905	1254	1
Future Volume (vph)	2358	391	247	1905	1254	1
Turn Type	NA	Perm	Prot	NA	Perm	NA
Protected Phases	2		1	6		4
Permitted Phases		2			4	
Detector Phase	2	2	1	6	4	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	53.0	53.0	11.0	64.0	56.0	56.0
Total Split (%)	44.2%	44.2%	9.2%	53.3%	46.7%	46.7%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	0.0	-0.6	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	5.8	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Act Effect Green (s)	49.0	47.2	7.0	60.0	52.0	52.0
Actuated g/C Ratio	0.41	0.39	0.06	0.50	0.43	0.43
v/c Ratio	1.10	0.55	1.28	0.73	0.87	2.64
Control Delay	87.2	15.9	185.0	16.2	38.4	759.1
Queue Delay	0.0	0.0	0.0	0.0	50.1	0.0
Total Delay	87.2	15.9	185.0	16.2	88.5	759.1
LOS	F	B	F	B	F	F
Approach Delay	77.0			35.6		466.0
Approach LOS	E			D		F

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow

Natural Cycle: 110

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 2.64

Intersection Signal Delay: 209.2

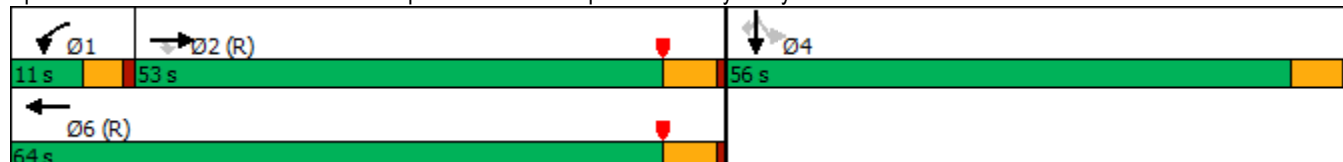
Intersection LOS: F

Intersection Capacity Utilization 111.6%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary
7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

Jack Rabbit Trail (JN 12396)

07/14/2020

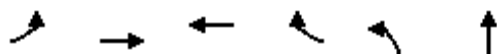
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑↑	↑	↑↑	↑↑↑↑					↑↑	↑	↑
Traffic Volume (veh/h)	0	2358	391	247	1905	0	0	0	0	1254	1	1614
Future Volume (veh/h)	0	2358	391	247	1905	0	0	0	0	1254	1	1614
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	2563	289	268	2071	0				1363	0	1211
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	2377	647	211	2900	0				1537	0	1319
Arrive On Green	0.00	0.42	0.40	0.06	0.51	0.00				0.42	0.00	0.41
Sat Flow, veh/h	0	5700	1610	3619	5700	0				3619	0	3220
Grp Volume(v), veh/h	0	2563	289	268	2071	0				1363	0	1211
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1810	1900	0				1810	0	1610
Q Serve(g_s), s	0.0	50.0	15.7	7.0	33.6	0.0				41.7	0.0	42.7
Cycle Q Clear(g_c), s	0.0	50.0	15.7	7.0	33.6	0.0				41.7	0.0	42.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	2377	647	211	2900	0				1537	0	1319
V/C Ratio(X)	0.00	1.08	0.45	1.27	0.71	0.00				0.89	0.00	0.92
Avail Cap(c_a), veh/h	0	2377	647	211	2900	0				1568	0	1347
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.78	0.78	0.34	0.34	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	35.0	26.1	56.5	22.7	0.0				31.9	0.0	33.5
Incr Delay (d2), s/veh	0.0	42.0	1.7	133.7	0.5	0.0				6.5	0.0	10.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	30.8	6.1	7.0	14.0	0.0				18.5	0.0	17.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	76.9	27.9	190.2	23.3	0.0				38.4	0.0	43.6
LnGrp LOS	A	F	C	F	C	A				D	A	D
Approach Vol, veh/h	2852			2339						2574		
Approach Delay, s/veh	72.0			42.4						40.8		
Approach LOS	E			D						D		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	11.0	54.0	55.0		65.0							
Change Period (Y+Rc), s	4.6	5.8	5.8		5.8							
Max Green Setting (Gmax), s	6.4	47.2	50.2		58.2							
Max Q Clear Time (g_c+I1), s	9.0	52.0	44.7		35.6							
Green Ext Time (p_c), s	0.0	0.0	4.4		15.6							
Intersection Summary												
HCM 6th Ctrl Delay			52.7									
HCM 6th LOS			D									
Notes												

Timings

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Configurations	←←	→→→	←←←	→	←	→
Traffic Volume (vph)	540	3072	1633	422	520	5
Future Volume (vph)	540	3072	1633	422	520	5
Turn Type	Prot	NA	NA	Perm	Perm	NA
Protected Phases	7	4	8			2
Permitted Phases				8	2	
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	15.8	15.8	15.8	15.8	15.8
Total Split (s)	29.1	74.0	44.9	44.9	46.0	46.0
Total Split (%)	24.3%	61.7%	37.4%	37.4%	38.3%	38.3%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effect Green (s)	22.8	70.0	43.2	43.2	42.0	42.0
Actuated g/C Ratio	0.19	0.58	0.36	0.36	0.35	0.35
v/c Ratio	0.84	1.05	0.90	0.54	0.85	1.24
Control Delay	41.4	55.1	44.6	9.1	50.3	155.4
Queue Delay	0.0	22.5	0.0	0.0	0.0	0.0
Total Delay	41.4	77.6	44.6	9.1	50.3	155.4
LOS	D	E	D	A	D	F
Approach Delay		72.2	37.3			109.8
Approach LOS		E	D			F

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:, Start of Yellow

Natural Cycle: 130

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.24

Intersection Signal Delay: 68.3

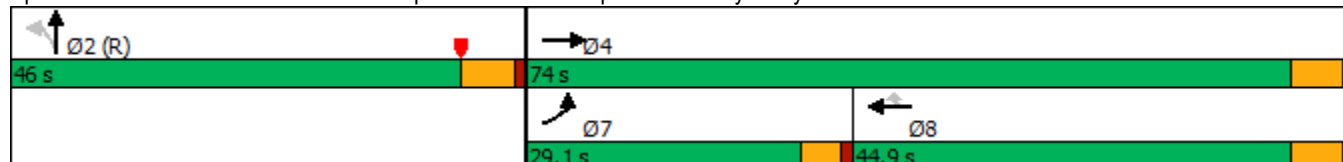
Intersection LOS: E

Intersection Capacity Utilization 111.6%

ICU Level of Service H

Analysis Period (min) 15

Splits and Phases: 8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.



HCM 6th Signalized Intersection Summary

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	  			  							
Traffic Volume (veh/h)	540	3072	0	0	1633	422	520	5	672	0	0	0
Future Volume (veh/h)	540	3072	0	0	1633	422	520	5	672	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No			No					
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	557	3167	0	0	1684	322	536	5	513			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	633	3026	0	0	1917	595	633	5	559			
Arrive On Green	0.18	0.58	0.00	0.00	0.37	0.37	0.35	0.35	0.34			
Sat Flow, veh/h	3510	5358	0	0	5358	1610	1810	16	1597			
Grp Volume(v), veh/h	557	3167	0	0	1684	322	536	0	518			
Grp Sat Flow(s),veh/h/ln	1755	1729	0	0	1729	1610	1810	0	1613			
Q Serve(g_s), s	18.5	70.0	0.0	0.0	36.4	18.9	32.8	0.0	37.0			
Cycle Q Clear(g_c), s	18.5	70.0	0.0	0.0	36.4	18.9	32.8	0.0	37.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		0.99			
Lane Grp Cap(c), veh/h	633	3026	0	0	1917	595	633	0	564			
V/C Ratio(X)	0.88	1.05	0.00	0.00	0.88	0.54	0.85	0.00	0.92			
Avail Cap(c_a), veh/h	734	3026	0	0	1917	595	633	0	564			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	47.9	25.0	0.0	0.0	35.3	29.8	36.0	0.0	38.2			
Incr Delay (d2), s/veh	1.0	22.1	0.0	0.0	5.0	1.0	13.2	0.0	22.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.0	31.2	0.0	0.0	15.4	7.2	16.1	0.0	17.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.9	47.1	0.0	0.0	40.3	30.8	49.2	0.0	60.5			
LnGrp LOS	D	F	A	A	D	C	D	A	E			
Approach Vol, veh/h	3724			2006			1054					
Approach Delay, s/veh	47.4			38.8			54.7					
Approach LOS	D			D			D					
Timer - Assigned Phs	2			4			7			8		
Phs Duration (G+Y+Rc), s	46.0			74.0			25.6			48.4		
Change Period (Y+Rc), s	5.8			5.8			4.6			5.8		
Max Green Setting (Gmax), s	40.2			68.2			24.5			39.1		
Max Q Clear Time (g_c+I1), s	39.0			72.0			20.5			38.4		
Green Ext Time (p_c), s	0.7			0.0			0.5			0.7		
Intersection Summary												
HCM 6th Ctrl Delay	46.0											
HCM 6th LOS	D											

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	402	1023	153	131	808	67	0	0	143	0	0	79
Future Vol, veh/h	402	1023	153	131	808	67	0	0	143	0	0	79
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	50	-	-	0	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	432	1100	165	141	869	72	0	0	154	0	0	85
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	941	0	0	1265	0	0	-	-	633	-	-	471
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	4.1	-	-	-	-	6.9	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	-	-	3.3	-	-	3.3
Pot Cap-1 Maneuver	737	-	-	556	-	-	0	0	427	0	0	545
Stage 1	-	-	-	-	-	-	0	0	-	0	0	-
Stage 2	-	-	-	-	-	-	0	0	-	0	0	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	737	-	-	556	-	-	-	-	427	-	-	545
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	4.2			1.8			18.1			12.8		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	427	737	-	-	556	-	-	545				
HCM Lane V/C Ratio	0.36	0.587	-	-	0.253	-	-	0.156				
HCM Control Delay (s)	18.1	16.6	-	-	13.7	-	-	12.8				
HCM Lane LOS	C	C	-	-	B	-	-	B				
HCM 95th %tile Q(veh)	1.6	3.9	-	-	1	-	-	0.5				

Timings
10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

											
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	129	657	94	11	542	48	45	13	155	72	71
Future Volume (vph)	129	657	94	11	542	48	45	13	155	72	71
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		2			6	
Permitted Phases	4		4	8		2		2	6		6
Detector Phase	4	4	4	8	8	2	2	2	6	6	6
Switch Phase											
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6
Total Split (s)	83.0	83.0	83.0	83.0	83.0	37.0	37.0	37.0	37.0	37.0	37.0
Total Split (%)	69.2%	69.2%	69.2%	69.2%	69.2%	30.8%	30.8%	30.8%	30.8%	30.8%	30.8%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	4.6		4.6	4.6	4.6	4.6	4.6
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	None	None	None	None	None
Act Effct Green (s)	31.2	31.2	31.2	31.2	31.2		14.6	14.6	14.6	14.6	14.6
Actuated g/C Ratio	0.56	0.56	0.56	0.56	0.56		0.26	0.26	0.26	0.26	0.26
v/c Ratio	0.65	0.67	0.11	0.04	0.76		0.25	0.03	0.49	0.16	0.16
Control Delay	25.0	12.3	1.8	6.3	14.6		21.6	10.8	26.5	20.4	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	25.0	12.3	1.8	6.3	14.6		21.6	10.8	26.5	20.4	7.1
LOS	C	B	A	A	B		C	B	C	C	A
Approach Delay		13.0			14.5		20.3			20.4	
Approach LOS		B			B		C			C	
Intersection Summary											
Cycle Length: 120											
Actuated Cycle Length: 55.8											
Natural Cycle: 70											
Control Type: Actuated-Uncoordinated											
Maximum v/c Ratio: 0.76											
Intersection Signal Delay: 15.0						Intersection LOS: B					
Intersection Capacity Utilization 74.7%						ICU Level of Service D					
Analysis Period (min) 15											

Splits and Phases: 10: Veile Av. & 4th St.



HCM 6th Signalized Intersection Summary

10: Veile Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	129	657	94	11	542	182	48	45	13	155	72	71
Future Volume (veh/h)	129	657	94	11	542	182	48	45	13	155	72	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	140	714	102	12	589	198	52	49	14	168	78	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	362	1181	1001	397	846	284	243	200	344	356	406	
Arrive On Green	0.62	0.62	0.62	0.62	0.62	0.62	0.21	0.21	0.21	0.21	0.21	0.00
Sat Flow, veh/h	699	1900	1610	680	1360	457	679	936	1610	1360	1900	1610
Grp Volume(v), veh/h	140	714	102	12	0	787	101	0	14	168	78	0
Grp Sat Flow(s),veh/h/ln	699	1900	1610	680	0	1818	1615	0	1610	1360	1900	1610
Q Serve(g_s), s	9.3	12.7	1.4	0.6	0.0	16.1	0.7	0.0	0.4	6.5	1.9	0.0
Cycle Q Clear(g_c), s	25.4	12.7	1.4	13.3	0.0	16.1	2.6	0.0	0.4	9.2	1.9	0.0
Prop In Lane	1.00		1.00	1.00		0.25	0.51		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	362	1181	1001	397	0	1130	443	0	344	356	406	
V/C Ratio(X)	0.39	0.60	0.10	0.03	0.00	0.70	0.23	0.00	0.04	0.47	0.19	
Avail Cap(c_a), veh/h	910	2672	2264	931	0	2556	1018	0	936	856	1104	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.5	6.4	4.3	10.4	0.0	7.0	18.2	0.0	17.4	22.1	18.0	0.0
Incr Delay (d2), s/veh	0.7	0.5	0.0	0.0	0.0	0.8	0.3	0.0	0.0	1.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.8	0.3	0.1	0.0	3.5	0.9	0.0	0.1	1.9	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	6.9	4.3	10.5	0.0	7.8	18.5	0.0	17.4	23.1	18.2	0.0
LnGrp LOS	B	A	A	B	A	A	B	A	B	C	B	
Approach Vol, veh/h		956			799			115			246	A
Approach Delay, s/veh		8.0			7.9			18.4			21.5	
Approach LOS		A			A			B			C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		16.5		39.3		16.5		39.3				
Change Period (Y+Rc), s		4.6		4.6		4.6		4.6				
Max Green Setting (Gmax), s		32.4		78.4		32.4		78.4				
Max Q Clear Time (g_c+I1), s		4.6		27.4		11.2		18.1				
Green Ext Time (p_c), s		0.5		7.2		0.8		6.6				

Intersection Summary

HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Timings
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

								
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	23	686	322	521	454	200	24	119
Future Volume (vph)	23	686	322	521	454	200	24	119
Turn Type	Prot	NA	Prot	NA	Prot	NA	Prot	NA
Protected Phases	5	2	1	6	3	8	7	4
Permitted Phases								
Detector Phase	5	2	1	6	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	23.8	9.6	26.8	9.6	32.2	9.6	24.2
Total Split (s)	9.8	35.5	26.0	51.7	34.3	48.9	9.6	24.2
Total Split (%)	8.2%	29.6%	21.7%	43.1%	28.6%	40.8%	8.0%	20.2%
Yellow Time (s)	3.6	3.8	3.6	3.8	3.6	4.2	3.6	4.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-0.8	-0.6	-0.8	-0.6	-1.2	-0.6	-1.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	None
Act Effect Green (s)	5.7	31.5	22.0	51.9	30.3	45.5	5.6	16.8
Actuated g/C Ratio	0.05	0.27	0.19	0.44	0.26	0.39	0.05	0.14
v/c Ratio	0.27	0.97	1.00	0.35	1.02	0.96	0.29	0.51
Control Delay	62.7	64.8	96.4	23.5	90.2	55.9	63.8	51.5
Queue Delay	0.0	0.0	0.0	0.0	2.6	41.6	0.0	0.0
Total Delay	62.7	64.8	96.4	23.5	92.9	97.5	63.8	51.5
LOS	E	E	F	C	F	F	E	D
Approach Delay		64.8		50.9		95.6		53.3
Approach LOS		E		D		F		D

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 116.7

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.02

Intersection Signal Delay: 71.6

Intersection LOS: E

Intersection Capacity Utilization 100.2%

ICU Level of Service G

Analysis Period (min) 15

Splits and Phases: 11: California Av. & 6th St.

 Ø1	 Ø2	 Ø3	 Ø4
26 s	35.5 s	34.3 s	24.2 s
 Ø5	 Ø6	 Ø7	 Ø8
9.8 s	51.7 s	9.6 s	48.9 s

HCM 6th Signalized Intersection Summary
11: California Av. & 6th St.

Jack Rabbit Trail (JN 12396)

07/14/2020

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	686	207	322	521	13	454	200	468	24	119	13
Future Volume (veh/h)	23	686	207	322	521	13	454	200	468	24	119	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	24	722	107	339	548	9	478	211	361	25	125	8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	52	828	123	358	1569	26	493	230	394	54	217	14
Arrive On Green	0.03	0.26	0.26	0.20	0.43	0.43	0.27	0.37	0.35	0.03	0.12	0.11
Sat Flow, veh/h	1810	3154	467	1810	3635	60	1810	629	1077	1810	1767	113
Grp Volume(v), veh/h	24	413	416	339	272	285	478	0	572	25	0	133
Grp Sat Flow(s),veh/h/ln	1810	1805	1816	1810	1805	1889	1810	0	1706	1810	0	1880
Q Serve(g_s), s	1.5	24.3	24.3	20.5	11.2	11.2	29.0	0.0	35.6	1.5	0.0	7.4
Cycle Q Clear(g_c), s	1.5	24.3	24.3	20.5	11.2	11.2	29.0	0.0	35.6	1.5	0.0	7.4
Prop In Lane	1.00		0.26	1.00		0.03	1.00		0.63	1.00		0.06
Lane Grp Cap(c), veh/h	52	474	477	358	779	816	493	0	624	54	0	231
V/C Ratio(X)	0.46	0.87	0.87	0.95	0.35	0.35	0.97	0.00	0.92	0.47	0.00	0.58
Avail Cap(c_a), veh/h	94	512	515	358	779	816	493	0	689	91	0	342
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.1	39.2	39.2	44.0	21.1	21.1	39.9	0.0	34.0	53.1	0.0	46.1
Incr Delay (d2), s/veh	2.3	14.4	14.4	33.4	0.3	0.3	32.3	0.0	16.2	2.3	0.0	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	12.5	12.6	12.5	4.7	5.0	16.7	0.0	16.7	0.7	0.0	3.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	55.4	53.5	53.6	77.4	21.4	21.4	72.3	0.0	50.2	55.4	0.0	48.3
LnGrp LOS	E	D	D	E	C	C	E	A	D	E	A	D
Approach Vol, veh/h		853			896			1050			158	
Approach Delay, s/veh		53.6			42.6			60.3			49.4	
Approach LOS		D			D			E			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	26.0	33.2	34.3	17.6	7.2	52.0	7.3	44.6				
Change Period (Y+Rc), s	4.6	* 4.8	4.6	5.2	4.6	* 4.8	4.6	5.2				
Max Green Setting (Gmax), s	21.4	* 31	29.7	19.0	5.2	* 47	5.0	43.7				
Max Q Clear Time (g_c+I1), s	22.5	26.3	31.0	9.4	3.5	13.2	3.5	37.6				
Green Ext Time (p_c), s	0.0	2.0	0.0	0.4	0.0	3.7	0.0	1.9				

Intersection Summary

HCM 6th Ctrl Delay 52.4

HCM 6th LOS D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Timings
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	4	103	79	4	25	213	769	84	8	571	8
Future Volume (vph)	5	4	103	79	4	25	213	769	84	8	571	8
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2		2	6		6
Detector Phase	4	4	4	8	8	8	2	2	2	6	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	21.6	21.6	21.6	21.6	21.6	21.6	22.8	22.8	22.8	22.8	22.8	22.8
Total Split (s)	22.0	22.0	22.0	22.0	22.0	22.0	68.0	68.0	68.0	68.0	68.0	68.0
Total Split (%)	24.4%	24.4%	24.4%	24.4%	24.4%	24.4%	75.6%	75.6%	75.6%	75.6%	75.6%	75.6%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	3.6	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6	4.6		4.6	4.6	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	None	None	None	None	None
Act Effect Green (s)		13.4	13.4		13.4	13.4	31.3	31.3	31.3	31.3	31.3	31.3
Actuated g/C Ratio		0.29	0.29		0.29	0.29	0.67	0.67	0.67	0.67	0.67	0.67
v/c Ratio		0.02	0.20		0.22	0.05	0.45	0.63	0.08	0.03	0.47	0.01
Control Delay		20.9	6.9		22.3	8.1	9.6	9.6	2.8	4.5	7.2	1.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		20.9	6.9		22.3	8.1	9.6	9.6	2.8	4.5	7.2	1.1
LOS		C	A		C	A	A	A	A	A	A	A
Approach Delay		8.0			19.0			9.0			7.1	
Approach LOS		A			B			A			A	

Intersection Summary

Cycle Length: 90

Actuated Cycle Length: 46.4

Natural Cycle: 60

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 8.9

Intersection LOS: A

Intersection Capacity Utilization 73.6%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 12: California Av. & 5th St.



HCM 6th Signalized Intersection Summary
12: California Av. & 5th St.

Jack Rabbit Trail (JN 12396)

06/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	4	103	79	4	25	213	769	84	8	571	8
Future Volume (veh/h)	5	4	103	79	4	25	213	769	84	8	571	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	5	4	108	83	4	26	224	809	88	8	601	8
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	85	46	423	106	3	423	427	1103	934	278	1103	934
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.58	0.58	0.58	0.58	0.58	0.58
Sat Flow, veh/h	0	175	1610	0	11	1610	825	1900	1610	630	1900	1610
Grp Volume(v), veh/h	9	0	108	87	0	26	224	809	88	8	601	8
Grp Sat Flow(s),veh/h/ln	175	0	1610	11	0	1610	825	1900	1610	630	1900	1610
Q Serve(g_s), s	0.0	0.0	3.5	0.0	0.0	0.8	15.2	20.6	1.6	0.6	12.9	0.1
Cycle Q Clear(g_c), s	17.4	0.0	3.5	17.4	0.0	0.8	28.0	20.6	1.6	21.2	12.9	0.1
Prop In Lane	0.56		1.00	0.95		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	130	0	423	109	0	423	427	1103	934	278	1103	934
V/C Ratio(X)	0.07	0.00	0.26	0.80	0.00	0.06	0.52	0.73	0.09	0.03	0.55	0.01
Avail Cap(c_a), veh/h	130	0	423	109	0	423	723	1784	1512	504	1784	1512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.0	0.0	19.3	32.6	0.0	18.3	17.1	10.2	6.2	17.9	8.5	5.9
Incr Delay (d2), s/veh	0.2	0.0	0.3	32.8	0.0	0.1	1.0	1.0	0.0	0.0	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	1.3	2.4	0.0	0.3	2.5	6.1	0.4	0.1	3.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.2	0.0	19.6	65.4	0.0	18.4	18.1	11.1	6.2	18.0	9.0	5.9
LnGrp LOS	C	A	B	E	A	B	B	B	A	B	A	A
Approach Vol, veh/h		117			113			1121			617	
Approach Delay, s/veh		19.7			54.6			12.1			9.0	
Approach LOS		B			D			B			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		44.2		22.0		44.2		22.0				
Change Period (Y+Rc), s		5.8		4.6		5.8		4.6				
Max Green Setting (Gmax), s		62.2		17.4		62.2		17.4				
Max Q Clear Time (g_c+I1), s		30.0		19.4		23.2		19.4				
Green Ext Time (p_c), s		8.4		0.0		4.1		0.0				
Intersection Summary												
HCM 6th Ctrl Delay			14.1									
HCM 6th LOS			B									

Timings
13: California Av. & 4th St.

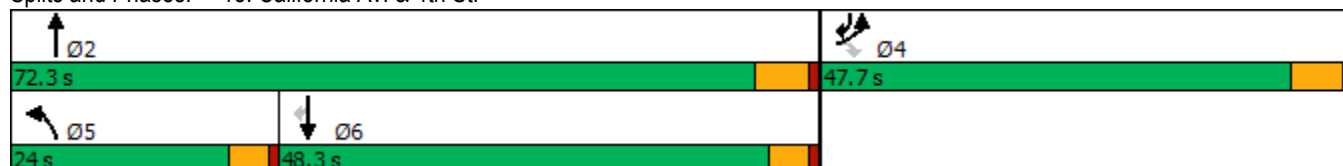
Jack Rabbit Trail (JN 12396)
07/14/2020

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	566	634	255	1005	1165	451
Future Volume (vph)	566	634	255	1005	1165	451
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		5	2	6	4
Permitted Phases		4				6
Detector Phase	4	4	5	2	6	4
Switch Phase						
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0
Minimum Split (s)	22.8	22.8	9.5	15.8	21.6	22.8
Total Split (s)	47.7	47.7	24.0	72.3	48.3	47.7
Total Split (%)	39.8%	39.8%	20.0%	60.3%	40.3%	39.8%
Yellow Time (s)	4.8	4.8	3.5	4.8	3.6	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.5	5.8	4.6	5.8
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None	None	None	None
Act Effect Green (s)	41.9	41.9	19.3	66.3	43.7	90.2
Actuated g/C Ratio	0.35	0.35	0.16	0.55	0.36	0.75
v/c Ratio	0.97	0.87	0.95	0.55	0.96	0.39
Control Delay	69.3	30.7	92.1	18.4	54.9	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.3	30.7	92.1	18.4	54.9	4.8
LOS	E	C	F	B	D	A
Approach Delay	48.9			33.3	40.9	
Approach LOS	D			C	D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 119.8
 Natural Cycle: 110
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 40.9
 Intersection LOS: D
 Intersection Capacity Utilization 90.1%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 13: California Av. & 4th St.



HCM 6th Signalized Intersection Summary
13: California Av. & 4th St.

Jack Rabbit Trail (JN 12396)

07/14/2020



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	566	634	255	1005	1165	451
Future Volume (veh/h)	566	634	255	1005	1165	451
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	615	526	277	1092	1266	360
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	626	557	291	2016	1302	1137
Arrive On Green	0.35	0.35	0.16	0.56	0.36	0.36
Sat Flow, veh/h	1810	1610	1810	3705	3705	1610
Grp Volume(v), veh/h	615	526	277	1092	1266	360
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1805	1805	1610
Q Serve(g_s), s	40.8	38.5	18.4	23.2	41.9	10.3
Cycle Q Clear(g_c), s	40.8	38.5	18.4	23.2	41.9	10.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	626	557	291	2016	1302	1137
V/C Ratio(X)	0.98	0.94	0.95	0.54	0.97	0.32
Avail Cap(c_a), veh/h	626	557	291	2016	1302	1137
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	39.3	38.5	50.4	16.9	38.2	6.7
Incr Delay (d2), s/veh	31.6	25.2	39.4	0.3	18.7	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	22.7	33.2	11.2	8.9	20.9	8.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	70.9	63.7	89.8	17.2	56.8	6.9
LnGrp LOS	E	E	F	B	E	A
Approach Vol, veh/h	1141			1369	1626	
Approach Delay, s/veh	67.6			31.9	45.8	
Approach LOS	E			C	D	
Timer - Assigned Phs	2			4	5	6
Phs Duration (G+Y+Rc), s	73.5			47.7	24.0	49.5
Change Period (Y+Rc), s	5.8			5.8	4.5	* 5.8
Max Green Setting (Gmax), s	66.5			41.9	19.5	* 44
Max Q Clear Time (g_c+I1), s	25.2			42.8	20.4	43.9
Green Ext Time (p_c), s	8.9			0.0	0.0	0.0

Intersection Summary

HCM 6th Ctrl Delay	47.2
HCM 6th LOS	D

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 9.9:

HORIZON YEAR (2045) WITHOUT PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS WITH IMPROVEMENTS

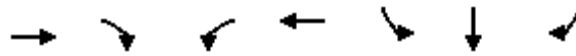
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Queues

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1112	723	375	2180	365	352	347
v/c Ratio	0.48	0.65	0.79	0.68	0.36	0.79	0.71
Control Delay	26.2	5.1	55.3	10.6	34.0	51.8	38.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	5.1	55.3	10.6	34.0	51.8	38.1
Queue Length 50th (ft)	224	0	124	492	114	260	205
Queue Length 95th (ft)	303	91	m156	632	141	346	290
Internal Link Dist (ft)	1308			748		928	
Turn Bay Length (ft)		200	70				
Base Capacity (vph)	2295	1117	516	3197	1260	556	595
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.65	0.73	0.68	0.29	0.63	0.58

Intersection Summary

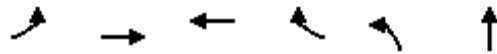
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	307	1080	1961	771	438	484
v/c Ratio	0.76	0.36	0.89	0.74	0.75	0.83
Control Delay	58.2	24.6	38.0	11.1	45.7	43.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.2	24.6	38.0	11.1	45.7	43.5
Queue Length 50th (ft)	123	252	512	92	302	287
Queue Length 95th (ft)	173	313	587	266	429	#467
Internal Link Dist (ft)		748	697			778
Turn Bay Length (ft)	125					
Base Capacity (vph)	443	3008	2213	1036	583	585
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.69	0.36	0.89	0.74	0.75	0.83

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

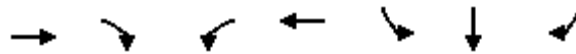
Queue shown is maximum after two cycles.

Queues

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	2373	425	268	2071	1363	824	823
v/c Ratio	1.02	0.54	1.28	0.73	0.83	1.05	0.99
Control Delay	59.2	14.5	184.9	19.3	35.4	80.5	60.8
Queue Delay	0.0	0.0	0.0	0.0	50.4	0.0	0.0
Total Delay	59.2	14.5	184.9	19.3	85.8	80.5	60.8
Queue Length 50th (ft)	~649	104	~127	458	458	~732	586
Queue Length 95th (ft)	#734	204	m#178	525	549	#993	#868
Internal Link Dist (ft)	1308			748		928	
Turn Bay Length (ft)		200	70				
Base Capacity (vph)	2327	780	210	2850	1646	783	833
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	901	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.02	0.54	1.28	0.73	1.83	1.05	0.99

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

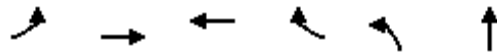
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	376	3167	1684	435	536	698
v/c Ratio	0.72	1.05	0.81	0.51	0.85	1.24
Control Delay	45.6	57.3	36.1	8.0	50.3	155.4
Queue Delay	0.0	22.5	0.0	0.0	0.0	0.0
Total Delay	45.6	79.9	36.1	8.0	50.3	155.4
Queue Length 50th (ft)	148	~1010	417	40	381	~669
Queue Length 95th (ft)	m154	m#1017	514	134	#572	#901
Internal Link Dist (ft)		748	697			778
Turn Bay Length (ft)	125					
Base Capacity (vph)	732	3025	2083	859	631	565
Starvation Cap Reductn	0	306	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	1.16	0.81	0.51	0.85	1.24

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 9.10:

HORIZON YEAR (2045) WITH PROJECT CONDITIONS OFF-RAMP QUEUING ANALYSIS WORKSHEETS WITH IMPROVEMENTS

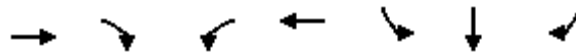
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Queues

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	1155	723	375	2180	365	428	423
v/c Ratio	0.55	0.67	0.81	0.73	0.32	0.86	0.78
Control Delay	29.4	5.5	52.8	13.8	30.7	54.2	40.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.4	5.5	52.8	13.8	30.7	54.2	40.9
Queue Length 50th (ft)	261	1	124	553	105	309	254
Queue Length 95th (ft)	317	93	m154	632	141	444	382
Internal Link Dist (ft)	1308			748		928	
Turn Bay Length (ft)		200	70				
Base Capacity (vph)	2114	1085	507	3003	1260	555	595
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.67	0.74	0.73	0.29	0.77	0.71

Intersection Summary

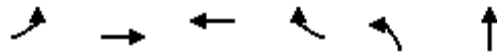
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	348	1080	1961	771	438	484
v/c Ratio	0.82	0.36	0.90	0.75	0.75	0.83
Control Delay	58.7	25.6	39.2	11.2	45.7	43.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.7	25.6	39.2	11.2	45.7	43.5
Queue Length 50th (ft)	140	257	515	93	302	287
Queue Length 95th (ft)	#200	316	587	266	429	#467
Internal Link Dist (ft)		748	697			778
Turn Bay Length (ft)	125					
Base Capacity (vph)	443	3008	2183	1030	583	585
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.36	0.90	0.75	0.75	0.83

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

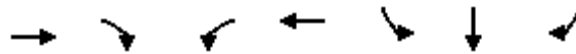
Queue shown is maximum after two cycles.

Queues

Jack Rabbit Trail (JN 12396)

7: I-10 EB On-Ramp/I-10 EB Off-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	2563	425	268	2071	1363	878	877
v/c Ratio	1.10	0.55	1.28	0.73	0.83	1.12	1.05
Control Delay	87.2	15.9	185.0	16.2	35.4	103.8	78.1
Queue Delay	0.0	0.0	0.0	0.0	50.7	0.0	0.0
Total Delay	87.2	15.9	185.0	16.2	86.2	103.8	78.1
Queue Length 50th (ft)	~751	116	~127	458	458	~826	~710
Queue Length 95th (ft)	#834	217	m#158	525	549	#1089	#961
Internal Link Dist (ft)	1308			748		928	
Turn Bay Length (ft)		200	70				
Base Capacity (vph)	2327	769	210	2850	1646	783	833
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	944	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	1.10	0.55	1.28	0.73	1.94	1.12	1.05

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

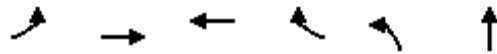
m Volume for 95th percentile queue is metered by upstream signal.

Queues

Jack Rabbit Trail (JN 12396)

8: I-10 WB Off-Ramp/I-10 WB On-Ramp & Oak Valley Pkwy.

07/14/2020



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT
Lane Group Flow (vph)	557	3167	1684	435	536	698
v/c Ratio	0.84	1.05	0.90	0.54	0.85	1.24
Control Delay	41.4	55.1	44.6	9.1	50.3	155.4
Queue Delay	0.0	22.5	0.0	0.0	0.0	0.0
Total Delay	41.4	77.6	44.6	9.1	50.3	155.4
Queue Length 50th (ft)	218	~1009	456	43	381	~669
Queue Length 95th (ft)	m217	m#924	#569	139	#572	#901
Internal Link Dist (ft)		748	697			778
Turn Bay Length (ft)	125					
Base Capacity (vph)	732	3025	1867	807	631	565
Starvation Cap Reductn	0	316	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.76	1.17	0.90	0.54	0.85	1.24

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.