APPENDIX 1.1: TRAFFIC STUDY SCOPING AGREEMENT

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July 18, 2023

Mr. Nathan Perez
CITY OF PERRIS (Planning Division)
135 North "D" Street
Perris, CA 92570

Subject: Perris Airport Logistics Project (DPR 22-00005 & CUP 23-05107) Scoping Agreement and VMT Analysis Review #7, City of Perris

Dear Mr. Perez,

Introduction

RK ENGINEERING GROUP, INC. (RK) has reviewed the Scoping Agreement and VMT Analysis #7 for the Perris Airport Logistics Project (DPR 22-00005 & CUP 23-05107) in the City of Perris. The proposed project will consist of 795,109 square feet of high-cube fulfillment center warehouse, 71,961 square foot warehouse building (Building 2), and a truck/trailer storage lot with approximately 323 spaces plus 2 auto parking stalls and 20 tractor stalls. For the purposes of the traffic study, the storage yard on Site 2 will be evaluated assuming it is an independent use in an effort to evaluate the most conservative trip generation for the project.

The project is located at the southeast corner of Goetz Road and Ellis Avenue in the City of Perris. Access to the project is proposed via two (2) passenger car driveways along Goetz Road (i.e. Driveways 1 & 3), one truck driveway along Goetz Road which will be aligned as the 4th leg of the Mountain Avenue intersection (i.e. Driveway 2), one truck only driveway along Ellis Avenue (i.e. Driveway 4), and one (1) shared passenger car/truck driveway along Case Road (i.e. Driveway 5).

The Scoping Agreement #7 is dated June 14, 2023 and the VMT Analysis is dated June 2, 2023. Both of these documents were prepared by Urban Crossroads. RK has reviewed the Scoping Agreement and VMT Analysis #7 pursuant to City of Perris requirements. Based upon this review, it is acceptable as currently written.

Comments

1. The Scoping Agreement #7 is acceptable as currently written. **Please include "DPR 22-00005" in addition to "CUP 23-05107" in the final traffic study since the project has two sites (the DPR is for the large industrial**

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building/small warehouse building site and the CUP is for the outdoor truck terminal yard).

Conclusions

RK has reviewed the Scoping Agreement and VMT Analysis #7 for the Perris Airport Logistics Project (DPR 22-00005 & CUP 23-05107) in the City of Perris. Based upon this review, the scoping agreement is acceptable. The traffic engineer can begin on the traffic impact study and submit to the City when completed.

RK appreciates this opportunity to work with the City of Perris on this project and if you have any questions, please contact me at 949-293-9639.

Sincerely,

Robert Kahn
Founding Principal

Justin Tucker, P.E.
Principal Engineer

Registered Civil Engineer 92866

XC: Kenneth Phung, City of Perris
Stuart McKibbin, City of Perris
John Pourkazemi, Tri-Lake Consultants
Patricia Brenes, City of Perris

RK 19219
JN: 2126-2022-16



July 14, 2023

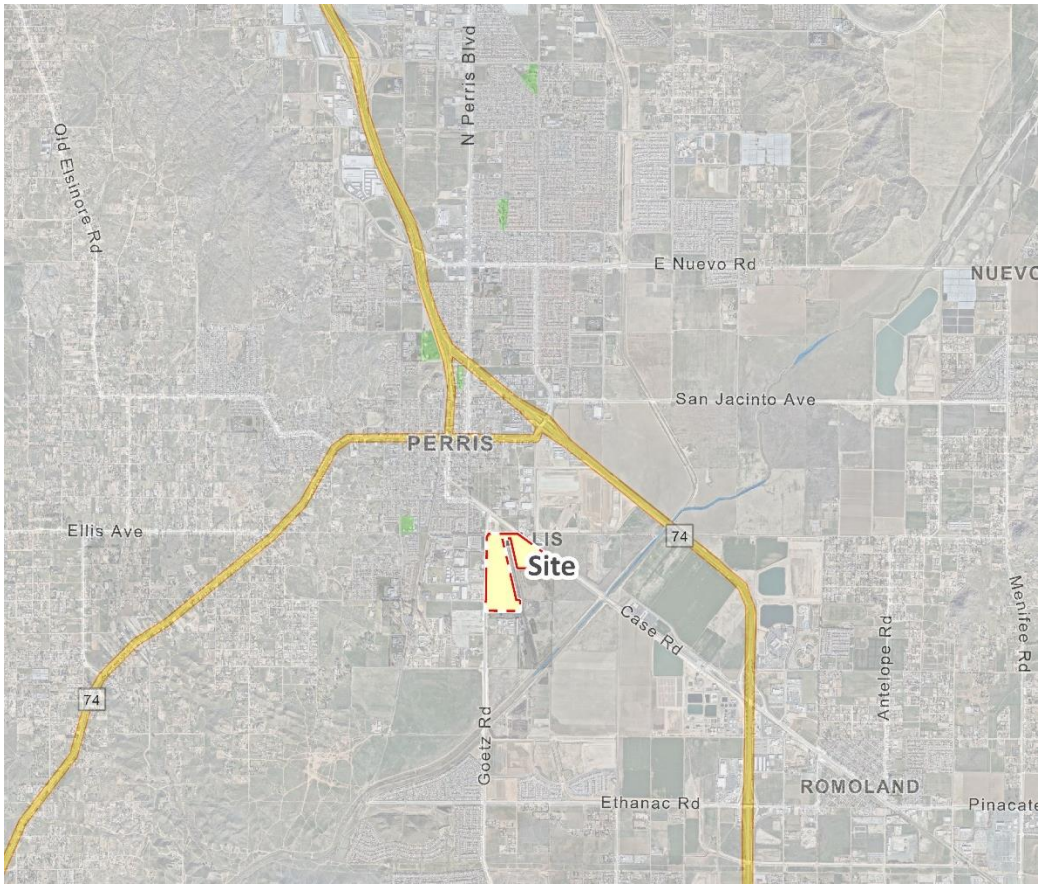
Mr. Nathan Perez
City of Perris
135 N. D Street
Perris, CA 92570

PERRIS AIRPORT LOGISTICS CENTER (CUP 23-05107) SCOPING AGREEMENT

Mr. Nathan Perez,

Urban Crossroads, Inc. is pleased to submit this scoping agreement to the City of Perris for the proposed Perris Airport Logistics Center development ("Project"), which is located on the southeast corner of Goetz Road and Ellis Avenue in the City of Perris (see Exhibit 1).

EXHIBIT 1: LOCATION MAP



It is our understanding that the Project is to consist of a 795,109 square foot (sf) high-cube fulfillment center warehouse building (Building 1), 71,961 square foot warehouse building (Building 2), and a truck/trailer storage lot with approximately 323 spaces plus 2 auto parking stalls and 20 tractor stalls. For the purposes of this analysis 4the storage yard on Site 2 will be evaluated assuming it is an independent use in an effort to evaluate the most conservative trip generation for the Project (for Site 2). The Project is anticipated to be constructed in one phase by the year 2025. A preliminary site plan, of which the traffic study will be based on, is shown on Exhibit 2. The following describes the access proposed for the site:

- Driveway 1 on Goetz Road – right-in/right-out access for passenger cars only for Building 1
- Driveway 2 on Goetz Road – private new driveway assumed to align with Mountain Avenue and would allow for full access via a signalized intersection, only serving trucks for both Building 1 and Building 2
- Driveway 3 on Goetz Road – right-in/right-out access driveway serving passenger cars only for Building 2
- Driveway 4 on Ellis Avenue – right-in/right-out/left-in access for trucks only for Building 1
- Driveway 5 on Case Road – full access for trucks and passenger cars to the truck/trailer lot

The purpose of this agreement is to obtain comments from City of Perris on the proposed traffic study scope of work. The remainder of this agreement describes the proposed analysis methodology, trip generation, trip distribution, and traffic assignment/project trips on the surrounding roadway network, which have been used to establish the proposed project study area and analysis locations.

EXHIBIT 2: PRELIMINARY SITE PLAN



STUDY AREA

Consistent with the City's traffic study guidelines, the study area limits have been set based upon a threshold of 50 peak hour project trips. In other words, the study area includes any intersection of Collector roadway or higher classification street with another Collector roadway or higher classification street, at which the proposed Project will add 50 or more peak hour trips. This methodology has been utilized to establish the study area for the proposed Project. The proposed intersection analysis locations have been identified on Exhibit 3.

EXHIBIT 3: STUDY AREA

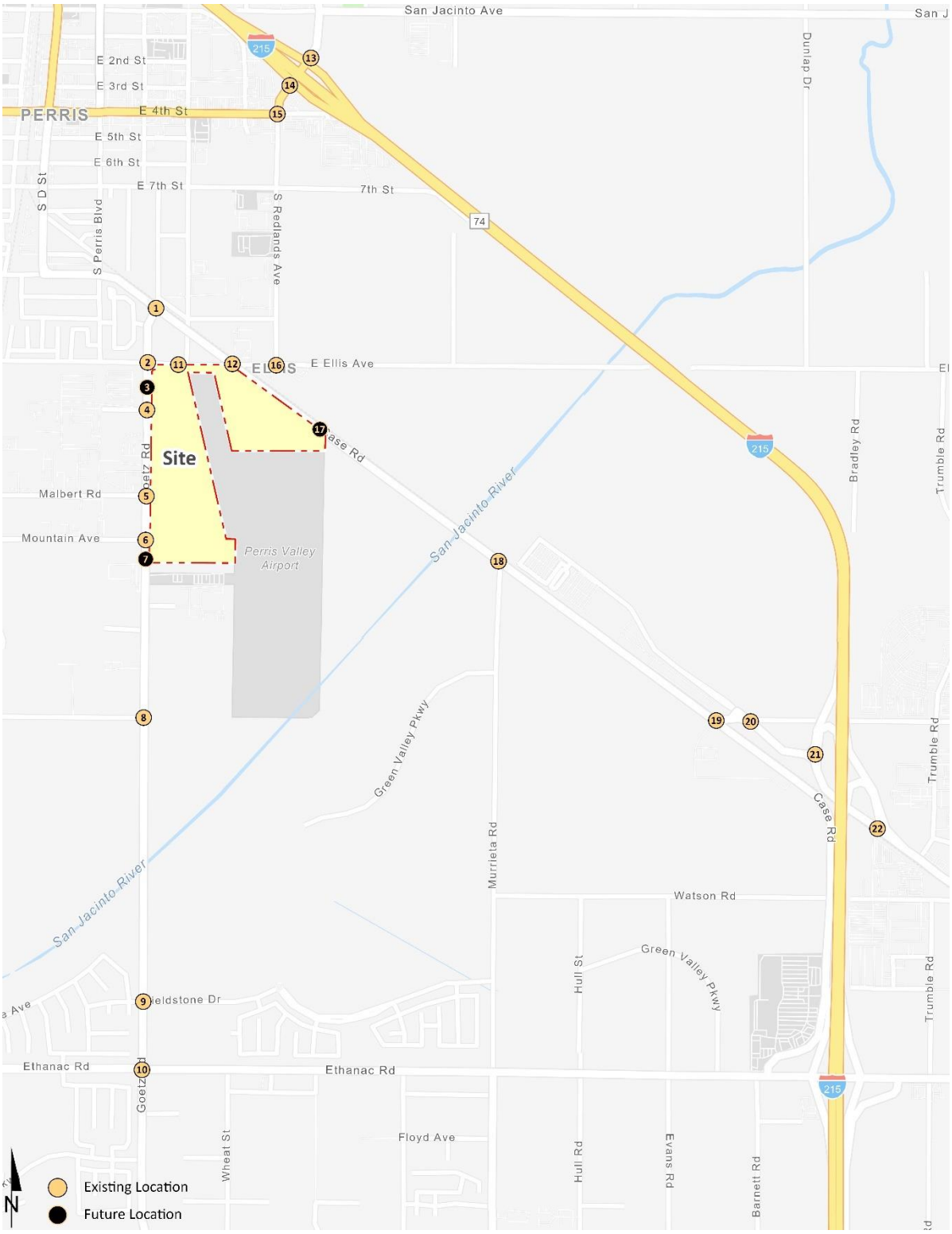


TABLE 1: LIST OF STUDY INTERSECTIONS

#	Intersection
1	Goetz Rd. & Case Rd.
2	Goetz Rd. & Ellis Av.
3	Goetz Rd. & Driveway 1
4	Goetz Rd. & Cai Ct.
5	Goetz Rd. & Malbert St.
6	Goetz Rd. & Mountain Av./Driveway 2
7	Goetz Rd. & Driveway 3
8	Goetz Rd. & Mapes Rd.
9	Goetz Rd. & Fieldstone Dr.
10	Goetz Rd. & Ethanac Rd.
11	Driveway 4 & Ellis Av.
12	Case Rd. & Ellis Av.
13	Redlands Av. & I-215 NB Ramps
14	Redlands Av. & I-215 SB Ramps
15	Redlands Av. & 4th St.
16	Redlands Av. & Ellis Av.
17	Case Rd. & Driveway 5
18	Murrieta Rd. & Case Rd.
19	Case Rd. & Mapes Rd.
20	Bonnie Dr. & Mapes Rd.
21	I-215 SB Ramps/SR-74 & Bonnie Dr.
22	I-215 NB Ramps & SR-74

ANALYSIS SCENARIOS

The following analysis scenarios will be analyzed for this traffic study:

- Existing (2023)
- Existing Plus Project (E+P) - with Project Improvements
- Existing plus Project (E+P) – with Project Improvements + Improvements by Others
- Existing Plus Ambient Growth Plus Cumulative (E+A+C) (2025)
- Existing Plus Ambient Growth Plus Project Plus Cumulative (E+A+P+C) (2025)

Improvements by others include those improvements that are conditioned on and are either under construction or would be in place prior to the proposed Project's occupancy and would be completed by other developers in the immediate area.

METHODOLOGY

The methodology used to evaluate peak hour intersection performance is based on the Transportation Research Board's Highway Capacity Manual (HCM), 6th Edition. This methodology rates operations based on peak hour delay and associated level of service (LOS).

LEVEL OF SERVICE (LOS) CRITERIA

Required LOS for roadway segments and intersections within the City of Perris is LOS D. An exception to the local road standard is LOS E, at intersections of any Arterials and Expressways with SR-74, the Ramona-Cajalco Expressway or at I-215 Freeway ramps. Although the City's LOS standard is LOS E for the freeway ramps, these Caltrans facilities will be evaluated based on an acceptable LOS of LOS D. Similarly, there are no intersections with the SR-74 that are Arterials or Expressway with the exception of the I-215 Freeway ramps. For the purposes of this traffic impact analysis, LOS D has also been considered the acceptable threshold for all intersections within the study area.

PROJECT 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 (11th Edition, 2021) have been used. For purposes of this analysis, the following ITE land use codes and vehicle mixes have been utilized:

- Site 1 – Building 1: High-Cube Fulfillment Center Warehouse has been used. The ITE Trip Generation Manual has trip generation rates for high-cube fulfillment center use for both non-sort and sort facilities (ITE Land Use Code 155). While there is sufficient data to support use of the trip generation rates for non-sort facilities, the sort facility rate appears to be unreliable because they are based on limited data (i.e., one to two surveyed sites). The proposed Project is speculative and whether a non-sort or sort facility end-user would occupy the buildings is not known at this time. Lastly, the ITE Trip Generation Manual recommends the use of local data sources where available. As such, the best available source for high-cube fulfilment center use would be the trip-generation and vehicle mix statistics published in the 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 in the County of Riverside. The WSP trip generation rates were published in January 2019 and are based on data collected at 11 local high-cube fulfillment center sites located throughout Southern California (specifically Riverside County and San Bernardino County). However, the WSP study does not include a split for inbound and outbound vehicles, as such, the inbound and outbound splits per the ITE Trip Generation Manual for Land Use Code 154 have been utilized.

- Site 1 – Building 2: General Light Industrial (ITE Land Use Code 110) has been used. A light industrial facility is a free-standing facility devoted to a single use that has an emphasis on activities other than manufacturing. Typically, there is minimum office space. The vehicle mix has been obtained from the ITE's Trip Generation Manual. The truck percentages were further broken down by axle type per the following SCAQMD recommended truck mix: 2-Axle = 16.7%; 3-Axle = 20.7%; 4+-Axle = 62.6%.
- Site 2 – Trailer Storage Yard: The ITE Trip Generation Manual (11th Edition, 2021) does not currently have any trip generation rates for a truck trailer storage yard, as such, trip generation estimates for the trailer storage yard component of the Project have been developed using data collected at other facilities with operations similar to those proposed. Table 1A in Attachment A summarizes the count data collected at 2 existing facilities located at 11215 Riverside Drive in the City of Jurupa Valley and 602 W. Agua Mansa Road in the City of Colton. The actual driveway counts have been attached to this scoping agreement for each of these facilities (see Attachment A).

Table 2 shows the trip generation rates for each existing facility which have been developed by dividing the data collected at the sites by their respective total number of truck parking stalls/spaces as shown in Attachment A. The average trip rate has been calculated by averaging the 2 sites. As noted in Table 2, refinements to the raw trip generation estimates have been made to provide a more detailed breakdown of trips between passenger cars and trucks. Trip generation for heavy trucks was further broken down by truck type (or axle type). The total truck percentage is comprised of 3 different truck types: 2-axle, 3-axle, and 4+-axle trucks. Passenger Car Equivalent (PCE) factors were applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+-axles). PCEs allow the typical "real-world" mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses. The PCE factors are consistent with the recommended PCE factors in City's guidelines: 1.5, 2.0, and 3.0 have been applied to 2-axle, 3-axle, and 4+-axle vehicles, respectively.

TABLE 2: PROJECT TRIP GENERATION RATES

Land Use	ITE Land Use Code	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicle Trip Generation Rates									
High-Cube Fulfillment Center Warehouse[2]	--	TSF	0.094	0.028	0.122	0.046	0.119	0.165	2.129
Passenger Cars (AM-84.4%, PM-87.3%, Daily-82.2%)			0.079	0.024	0.103	0.040	0.104	0.144	1.750
2-4 Axle Trucks (AM-6.6%, PM-6.7%, Daily-7.6%)			0.006	0.002	0.008	0.003	0.008	0.011	0.162
5+-Axle Trucks (AM-9.0%, PM-6.0%, Daily-10.2%)			0.008	0.003	0.011	0.003	0.007	0.010	0.217
General Light Industrial[3]	110	TSF	0.651	0.089	0.740	0.091	0.559	0.650	4.870
Passenger Cars (AM=98.6%, PM=98.5%, Daily=94.9%)			0.645	0.085	0.730	0.086	0.554	0.640	4.620
2-Axle Trucks (AM-0.2%, PM-0.1%, Daily-0.8%)			0.001	0.001	0.002	0.001	0.001	0.002	0.042
3-Axle Trucks (AM-0.3%, PM-0.1%, Daily-1.1%)			0.001	0.001	0.002	0.001	0.001	0.002	0.052
4+-Axle Trucks (AM-0.9%, PM-0.4%, Daily-3.2%)			0.004	0.002	0.006	0.003	0.003	0.006	0.157
Truck/Trailer Lot[4]	--	Spaces	0.077	0.065	0.142	0.072	0.086	0.157	2.107
Passenger Cars (AM=30.2%, PM=44.4%, Daily=39.6%)			0.026	0.017	0.043	0.021	0.049	0.070	0.834
2-Axle Trucks (AM=10.5%, PM=3.3%, Daily=5.1%)			0.007	0.008	0.015	0.005	0.000	0.005	0.108
3-Axle Trucks (AM=27.8%, PM=33.9%, Daily=29.4%)			0.014	0.025	0.039	0.033	0.020	0.053	0.620
4+-Axle Trucks (AM=31.5%, PM=18.4%, Daily=25.9%)			0.030	0.015	0.045	0.012	0.017	0.029	0.545
Passenger Car Equivalent (PCE) Trip Generation Rates[3]									
High-Cube Fulfillment Center Warehouse[2]		TSF	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
General Light Industrial[3]	110	TSF	0.651	0.089	0.740	0.091	0.559	0.650	4.870
Passenger Cars			0.645	0.085	0.730	0.086	0.554	0.640	4.620
2-Axle Trucks (PCE = 1.5)			0.002	0.001	0.003	0.002	0.001	0.003	0.063
3-Axle Trucks (PCE = 2.0)			0.002	0.002	0.004	0.002	0.002	0.004	0.104
4+-Axle Trucks (PCE = 3.0)			0.012	0.007	0.019	0.009	0.010	0.019	0.470
Truck/Trailer Lot[4]		Spaces	0.077	0.065	0.142	0.072	0.086	0.157	2.107
Passenger Cars			0.026	0.017	0.043	0.021	0.049	0.070	0.834
2-Axle Trucks (PCE = 1.5)			0.010	0.012	0.022	0.008	0.000	0.008	0.163
3-Axle Trucks (PCE = 2.0)			0.028	0.051	0.079	0.066	0.040	0.107	1.240
4+-Axle Trucks (PCE = 3.0)			0.089	0.045	0.134	0.037	0.050	0.087	1.634

[1] TSF = thousand square feet

[2] Trip Generation Rates and Vehicle Mix Source: High Cube Warehouse Trip Generation Study, WSP, January 29, 2019.
Inbound and outbound split source: ITE Trip Generation Manual, Eleventh Edition (2021) for ITE Land Use Code 154.

[3] Trip Generation & Vehicle Mix Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, Eleventh Edition (2021).
Truck Mix: South Coast Air Quality Management District's (SCAQMD) recommended truck mix, by axle type.
Normalized % - Without Cold Storage: 16.7% 2-Axle trucks, 20.7% 3-Axle trucks, 62.6% 4-Axle trucks.

[4] See Attachment A for Trip Generation Rates based on empirical data.

Based on the calculated average trip generation rates shown on Table 2, the Project's trip generation is summarized on Table 3. As shown in Table 3, the Project is anticipated to generate 2,730 two-way trips per day with 195 AM peak hour trips and 227 PM peak hour trips (actual vehicles). The Project is anticipated to generate a total of 3,800 PCE two-way trips per day with 262 AM PCE peak hour trips and 292 PM PCE peak hour trips as shown in Table 4. The trip

generation in actual vehicles is shown for informational purposes only (on Table 3) as the operations analyses will utilize the PCE trip generation shown on Table 4.

TABLE 3: PROJECT TRIP GENERATION SUMMARY (ACTUAL VEHICLES)

Land Use	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Actual Vehicles:									
High-Cube Fulfillment Warehouse	795.109	TSF							
Passenger Cars:			63	19	82	32	82	114	1,392
2-4-axle Trucks:			5	1	6	2	6	9	130
5+-axle Trucks:			7	2	9	2	6	8	174
Total Truck Trips (Actual Vehicles):			12	3	15	4	12	16	304
Total Trips (Actual Vehicles)[2]			**75**	**22**	**97**	**36**	**94**	**130**	**1,696**
General Light Industrial	71.961	TSF							
Passenger Cars:			46	6	52	6	40	46	332
2-axle Trucks:			0	0	0	0	0	0	4
3-axle Trucks:			0	0	0	0	0	0	4
4+-axle Trucks:			0	0	0	0	0	0	12
Total Truck Trips (Actual Vehicles):			0	0	0	0	0	0	20
Total Trips (Actual Vehicles)[2]			**46**	**6**	**52**	**6**	**40**	**46**	**352**
Truck/Trailer Lot	323	Spaces							
Passenger Cars:			8	5	13	7	16	23	270
2-axle Trucks:			2	3	5	2	0	2	36
3-axle Trucks:			5	8	13	11	6	17	200
4+-axle Trucks:			10	5	15	4	5	9	176
Total Truck Trips (Actual Vehicles):			17	16	33	17	11	28	412
Total Trips (Actual Vehicles)[2]			**25**	**21**	**46**	**24**	**27**	**51**	**682**
Project Total (Actual Vehicles)			**146**	**49**	**195**	**66**	**161**	**227**	**2,730**

[1] TSF = thousand square feet

[2] Total Trips = Passenger Cars + Truck Trips.

TABLE 4: PROJECT TRIP GENERATION SUMMARY (PCE)

Land Use	Quantity	Units[1]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Passenger Car Equivalent (PCE):									
High-Cube Fulfillment Warehouse	795.109	TSF							
Passenger Cars:			63	19	82	32	82	114	1,392
2-4-axle Trucks:			10	3	13	5	13	17	258
5+-axle Trucks:			20	6	26	7	17	24	518
Total Truck Trips (PCE):			30	9	39	12	30	42	776
Total Trips (PCE)[2]			**93**	**28**	**121**	**44**	**112**	**156**	**2,168**
General Light Industrial	71.961	TSF							
Passenger Cars:			46	6	52	6	40	46	332
2-axle Trucks:			0	0	0	0	0	0	6
3-axle Trucks:			0	0	0	0	0	0	8
4+-axle Trucks:			1	0	1	1	1	2	34
Total Truck Trips (PCE):			1	0	1	1	1	2	48
Total Trips (PCE)[2]			**47**	**6**	**53**	**7**	**41**	**48**	**380**
Truck/Trailer Lot	323	Spaces							
Passenger Cars:			8	5	13	7	16	23	270
2-axle Trucks:			3	4	7	3	0	3	54
3-axle Trucks:			9	16	25	21	13	34	400
4+-axle Trucks:			29	14	43	12	16	28	528
Total Truck Trips (PCE):			41	34	75	36	29	65	982
Total Trips (PCE)[2]			**49**	**39**	**88**	**43**	**45**	**88**	**1,252**
Project Total (PCE)			**189**	**73**	**262**	**94**	**198**	**292**	**3,800**

[1] TSF = thousand square feet

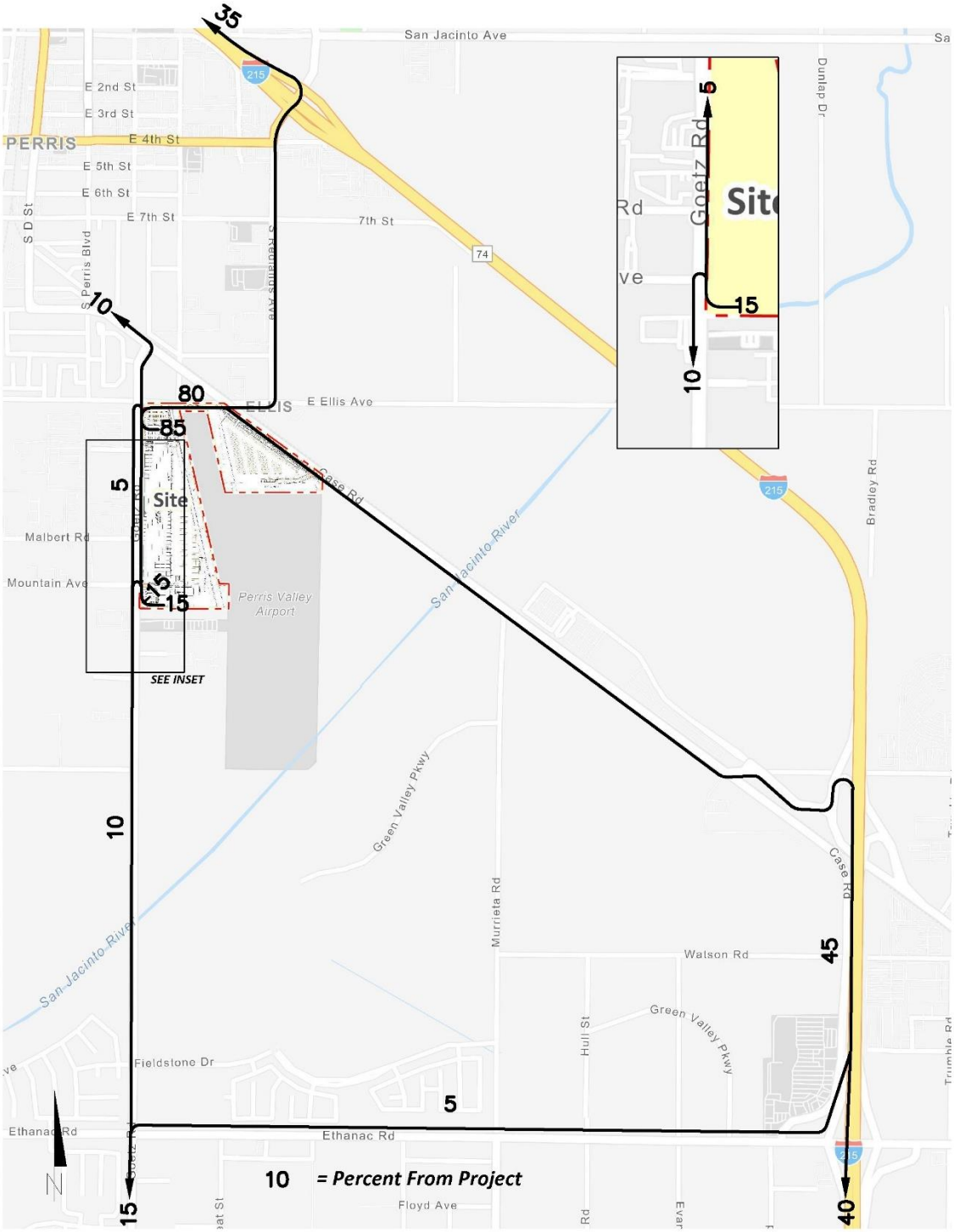
[2] Total Trips = Passenger Cars + Truck Trips.

PROJECT TRIP DISTRIBUTIONS

The project trip distribution patterns for both passenger cars and trucks have been developed based on recent experience on other studies for similar land uses in the vicinity and comments provided by City of Perris staff. Passenger car distribution patterns will be based on existing and planned land uses and roadway infrastructure in the area. Truck distribution patterns will be based on City truck routes, proximity to the freeway system, and the Project Applicant's input on percentage of traffic oriented to the Port of Long Beach or other destination. Based on the City's latest adopted truck routes, the study area roadways of Goetz Road north to Ellis Avenue and Case Road are designated truck routes and have been utilized for the purposes of the truck trip distribution patterns for the Project. The passenger car trip distributions for the warehouse and truck/trailer lot are shown on Exhibits 4 and 5, respectively. The truck trip distributions are illustrated on Exhibits 6 and 7 for the warehouse and truck/trailer lot, respectively. Distribution patterns for each vehicle type have been provided for the warehouse building and truck/trailer lot components.

EXHIBIT 4: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION – WAREHOUSE

Outbound:



Inbound:

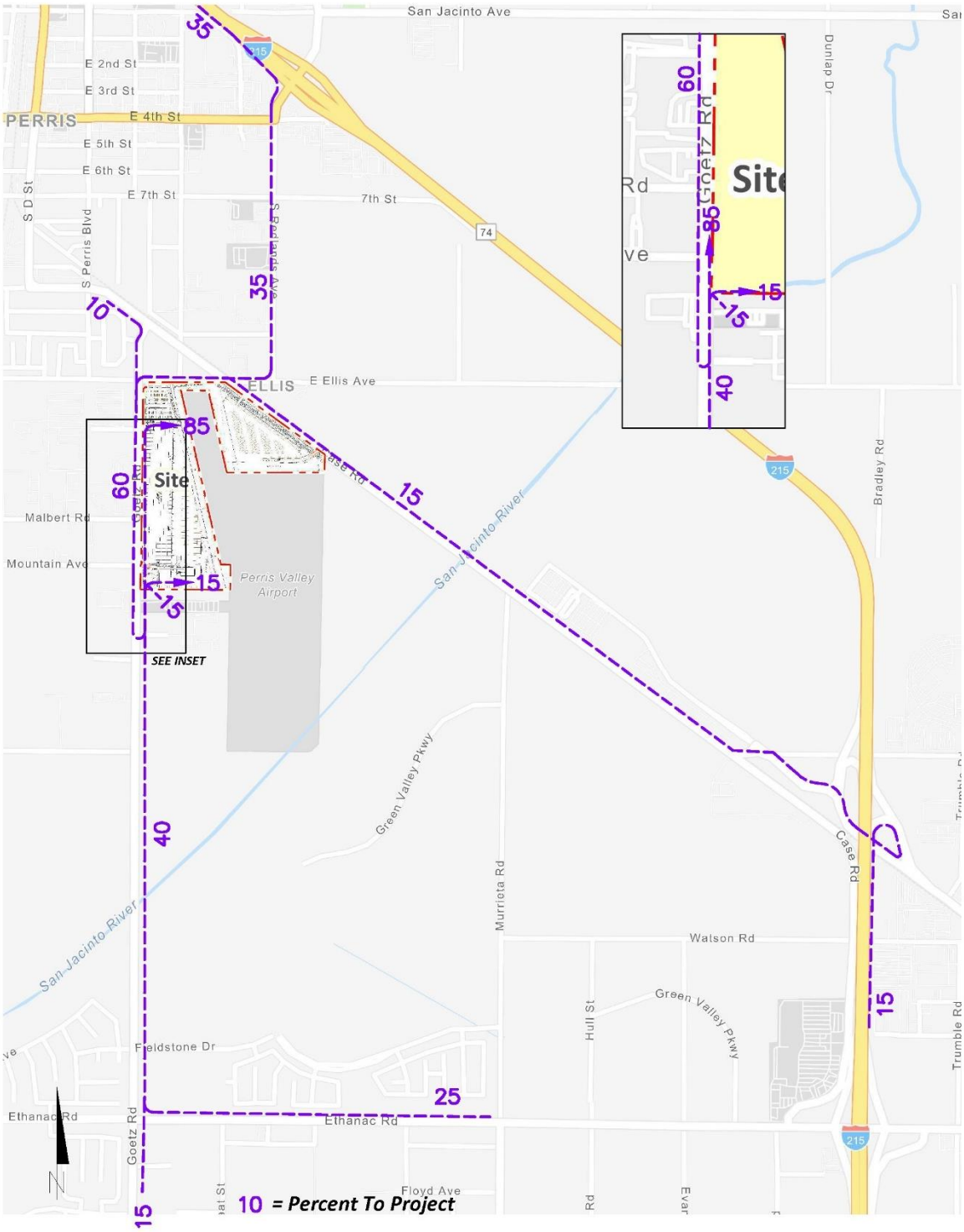
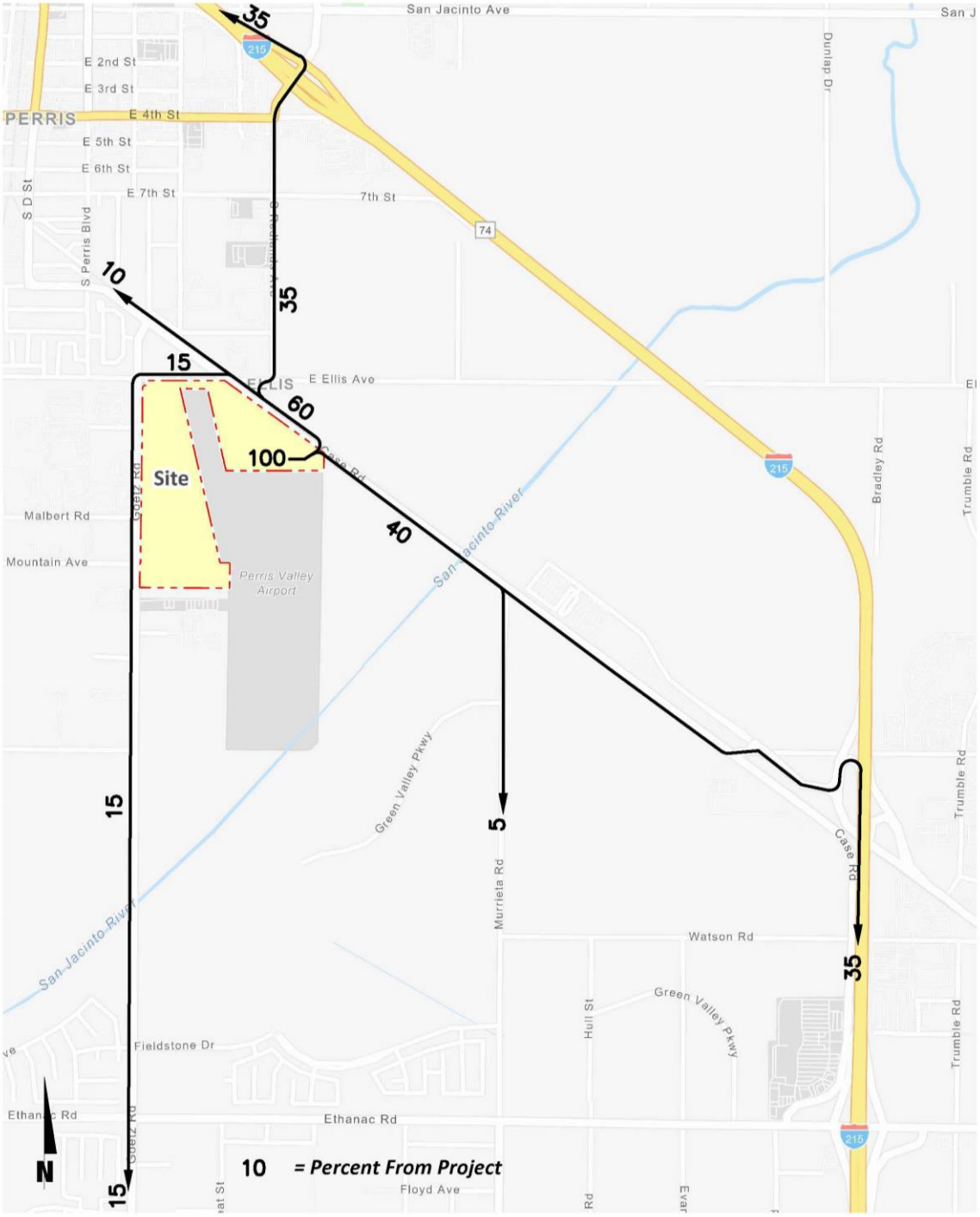

San Jacinto Ave
E 2nd St
E 3rd St
PERRIS
E 4th St
E 5th St
E 6th St
E 7th St
7th St
S D St
S Perris Blvd
S Redlands Ave
E Ellis Ave
ELLIS
Site
Goetz Rd
Dunlap Dr
Bradley Rd
Malbert Rd
Mountain Ave
Perris Valley Airport
SEE INSET
San Jacinto River
Green Valley Pkwy
Murrieta Rd
Case Rd
Walson Rd
Hull St
Trumble Rd
Fieldstone Dr
Ethanac Rd
Floyd Ave
35
10
85
60
15
40
25
74
215
N
10 = Percent To Project

EXHIBIT 5: PROJECT (PASSENGER CAR) TRIP DISTRIBUTION – TRUCK/TRAILER LOT

Outbound:



Inbound:

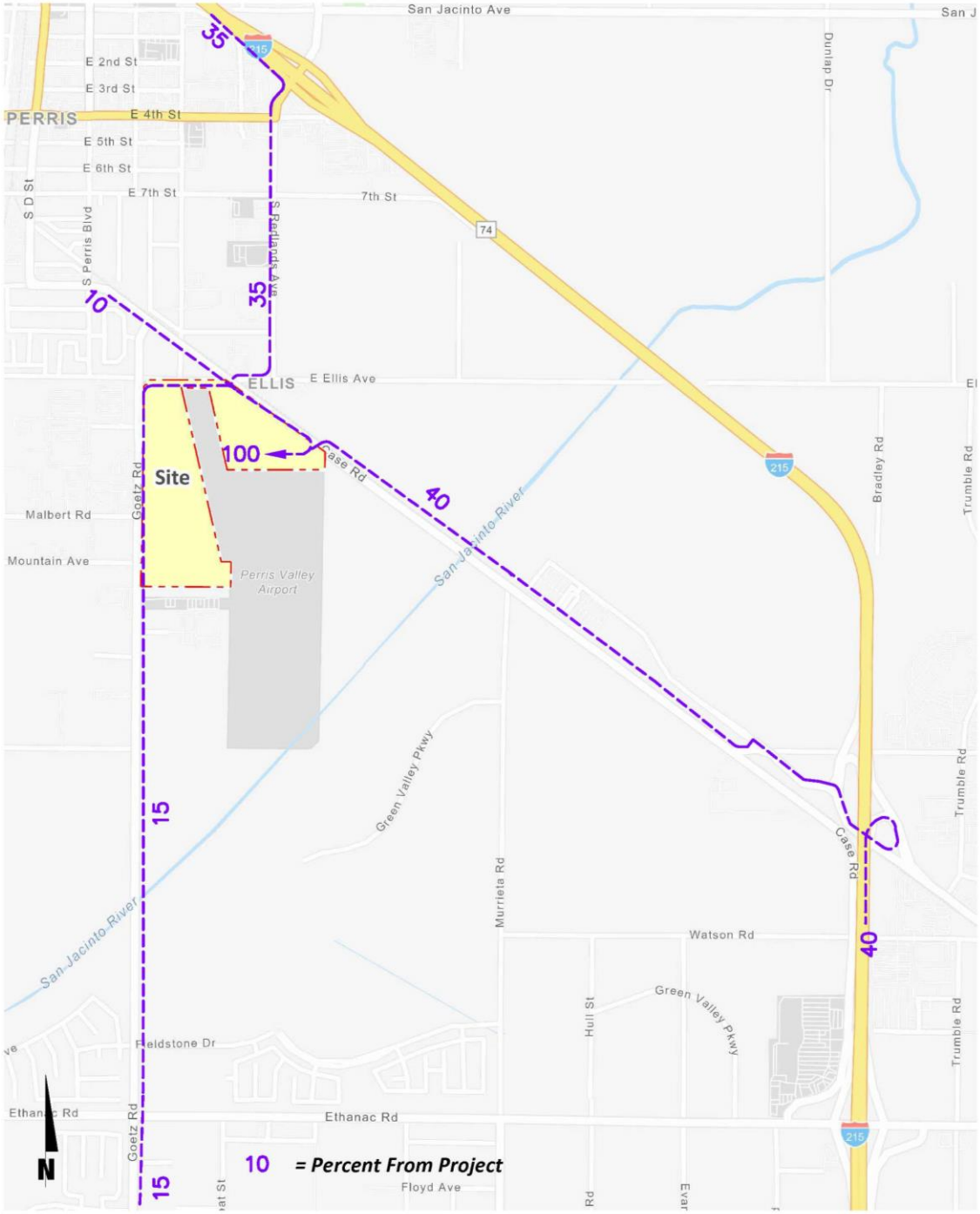
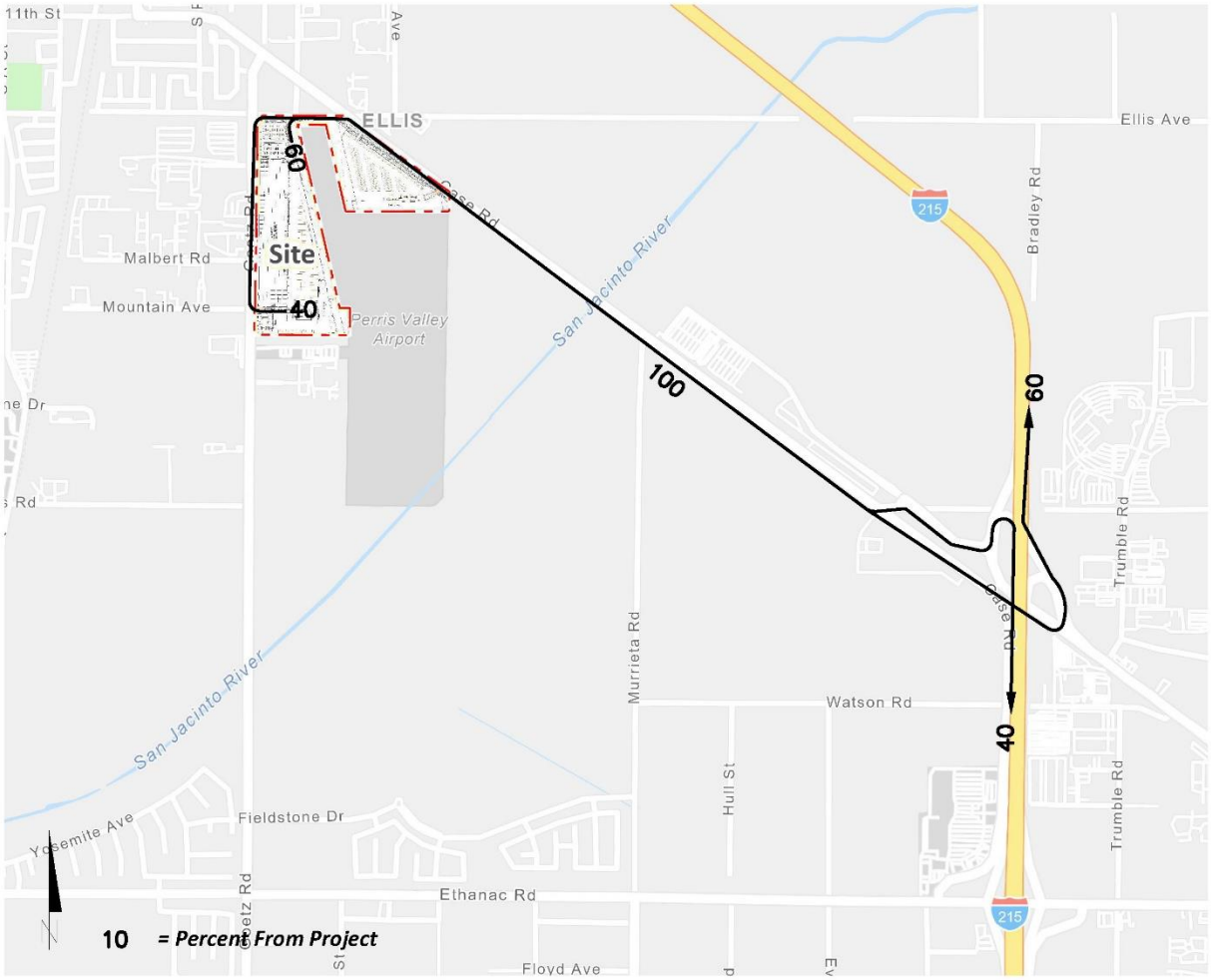

San Jacinto Ave
E 2nd St
E 3rd St
PERRIS
E 4th St
E 5th St
E 6th St
E 7th St
7th St
S D St
S Perris Blvd
S Perris Blvd
35
35
10
ELLIS
E Ellis Ave
100
Site
Goetz Rd
Case Rd
40
Malbert Rd
Mountain Ave
Perris Valley Airport
San Jacinto River
Dunlap Dr
Bradley Rd
Trumble Rd
74
215
Green Valley Pkwy
Murrieta Rd
Watson Rd
Hull St
Green Valley Pkwy
Trumble Rd
Case Rd
40
San Jacinto River
Fieldstone Dr
Ethanac Rd
Goetz Rd
Ethanac Rd
15
15
N
10 = Percent From Project
Floyd Ave
215

EXHIBIT 6: PROJECT (TRUCK) TRIP DISTRIBUTION – WAREHOUSE

Outbound:



Inbound:

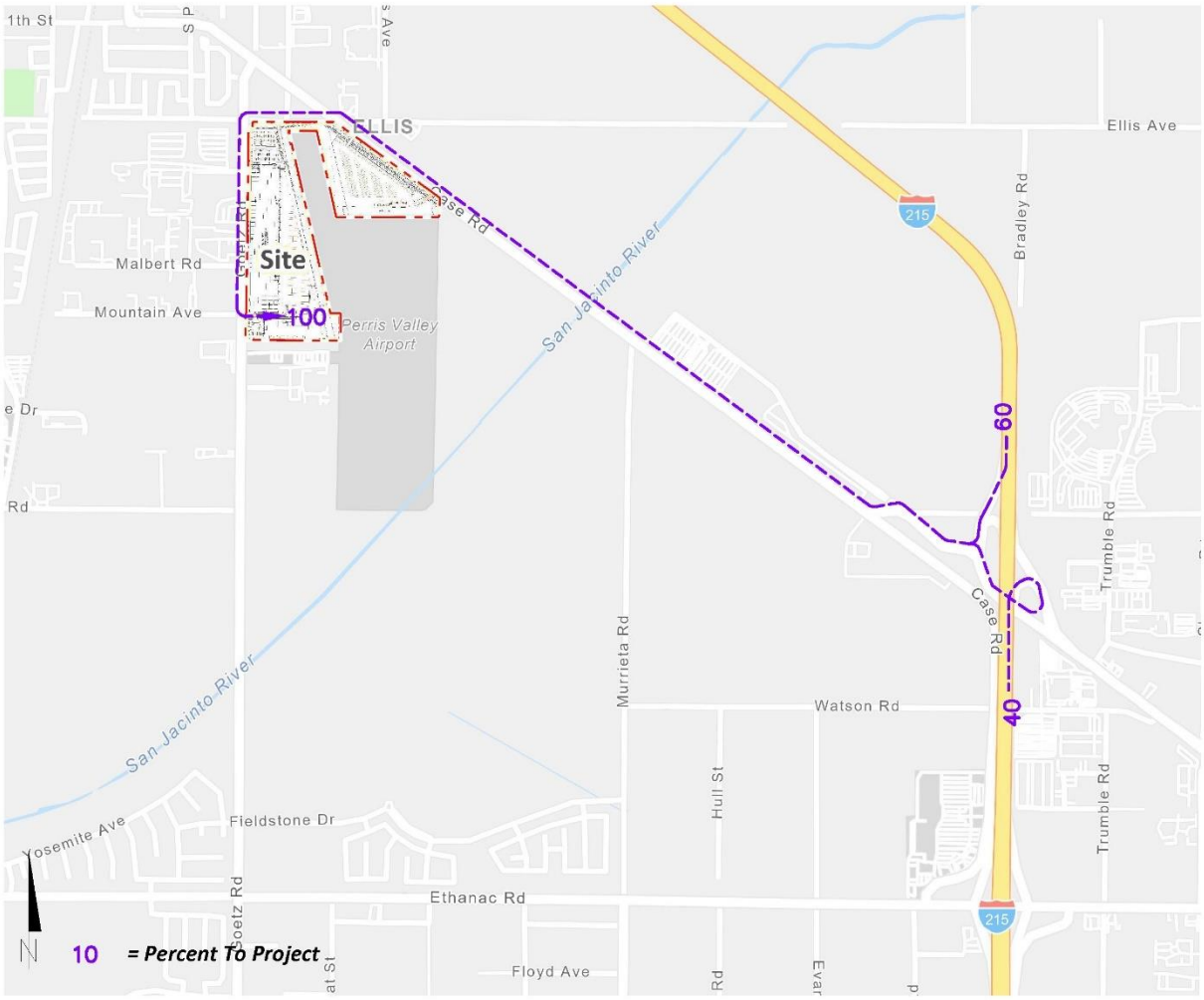

Site
100
60
40
10 = Percent To Project
ELLIS
Ellis Ave
Malbert Rd
Mountain Ave
Perris Valley Airport
Case Rd
San Jacinto River
Bradley Rd
Murrieta Rd
Watson Rd
Hull St
Trumble Rd
Fieldstone Dr
Yosemite Ave
Ethanac Rd
Floyd Ave
Goetz Rd
215

EXHIBIT 7: PROJECT (TRUCK) TRIP DISTRIBUTION – TRUCK/TRAILER LOT

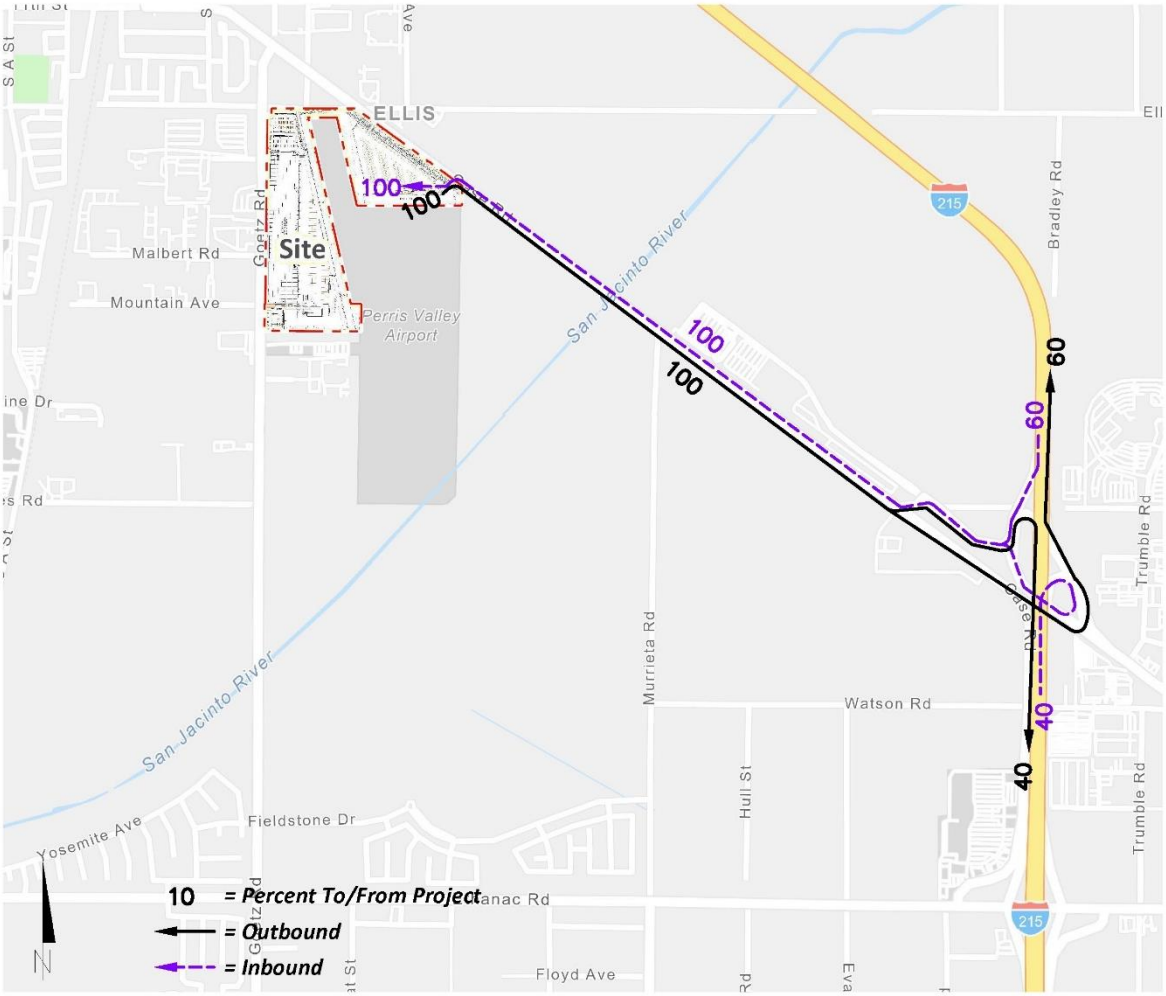


Table 5 shows the Project trips on each roadway segment leaving the study area in order to verify that the number of trips leaving the site is less than 50 peak hour trips.

TABLE 5: PROJECT TRIPS

Segment	AM Trips	PM Trips
Case Rd. W of Goetz Rd.	15	18
Goetz Rd. S of Ethanac Rd.	22	27
Ethanac Rd. E of Goetz Rd.	45	21
SR-74 E of I-215 Freeway	0	0

EXISTING COUNT DATA

Traffic counts (classified by vehicle type) have been collected in May 2022 during a typical Tuesday, Wednesday, or Thursday when local schools were in session and operating on a typical bell schedule. Time periods for the count collection were from 7:00-9:00 AM and 4:00-6:00 PM and includes pedestrian and bicycle counts at each analysis location. A 3% growth rate is proposed to collected counts to reflect a 2023 baseline for Existing (2023) conditions.

New traffic counts (not previously collected in 2022) are proposed at the following intersection:

- Redlands Avenue & Ellis Avenue (#16)

Traffic counts for this location will be collected during a typical Tuesday, Wednesday, or Thursday when local schools are in session and operating on a typical bell schedule. Time periods for the count collection will be from 7:00-9:00 AM and 4:00-6:00 PM and will include pedestrian and bicycle counts.

AMBIENT GROWTH RATE

Consistent with other City of Perris traffic studies performed by Urban Crossroads, an ambient growth rate of 3 percent per year, compounded annually, will be used for this analysis (3% per year over 2 years or 6.09%).

SPECIAL ISSUES

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

- A truck turning template will be overlaid on the site plan for the applicable driveways which are anticipated to be utilized by heavy trucks in order to determine appropriate curb radii and to verify that trucks will have sufficient space to execute turn maneuvers.
- Traffic signal warrant analyses will be conducted for all unsignalized study area intersections for all applicable analysis scenarios.
- Peak hour off-ramp queues will be evaluated at the I-215 Freeway ramps on SR-74 and Redlands Avenue.
- Evaluate the peak hour queuing at the Project driveways located along the Project frontages of Goetz Road, Ellis Avenue, and Case Road.

CUMULATIVE DEVELOPMENT PROJECTS

A list of cumulative development projects and their proposed land uses are shown in Table 6. Exhibit 8 illustrates the locations of these cumulative development projects. Please provide any updated projects for inclusion on the list.

VEHICLE MILES TRAVELED

The City of Perris' Scoping Form was used to evaluate the Project's applicability to the screening criteria outlined in the City of Perris' Transportation Impact Analysis Guidelines for CEQA (May 2020). The Project's truck/trailer lot component meets the local serving screening criteria and is not subject to further VMT analysis. However, the remaining industrial warehousing component of the Project does not meet any of the applicable screening criteria. Additionally, the Project's traffic analysis zone (TAZ) was further examined in Riverside Transportation Analysis Model (RIVTAM) to determine if the land use proposed by the Project was adequately represented in the base year model. The Project was found to reside in TAZ 3812, which for the base year model contained 53 professional office employees, 91 manufacturing employees and 123 educational employees, however, there are no wholesale or transportation related employment types. The proposed Project would result in the addition of 808 wholesale and/or transportation employees to the zone. Therefore, it is recommended that the base year model be updated to include the Project, and a project-level VMT analysis be prepared. The City Guidelines note the use of RIVCOM when available, however, it is our understanding that the City is currently still utilizing RIVTAM for screening and scoping form purposes and that a full VMT analysis shall be analyzed using WRCOG's latest model, which is RIVCOM. Urban Crossroads' requests that the City please confirm the preferred travel demand model to be used to conduct this VMT analysis.

Additionally, Urban Crossroads understands that projects in Perris should utilize the Perris Scoping form to perform VMT mitigation (see Attachment B). Based on our review of the feasible mitigation measures, the Project will not be able to effectively mitigate the VMT impact using the Perris Scoping Form. Thus, also requiring the Project to assess the VMT impacts using a model-based approach.

If you have any questions or comments, I can be reached at cso@urbanxroads.com.

Respectfully submitted,

URBAN CROSSROADS, INC.



Charlene So, PE
Principal

EXHIBIT 8: CUMULATIVE DEVELOPMENT PROJECT LOCATION MAP

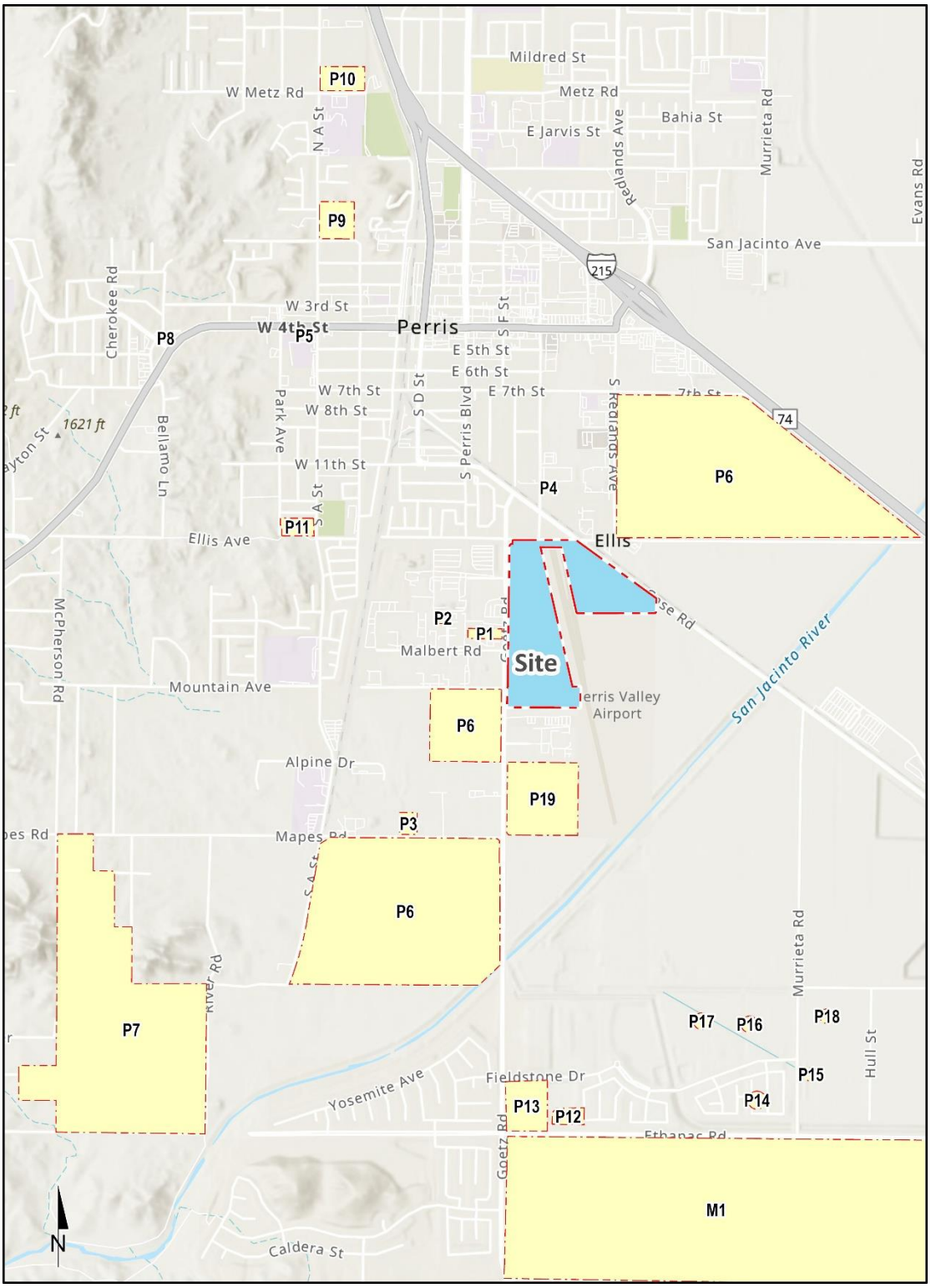


TABLE 6: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

No.	Project Name / Case Number	Jurisdiction	Land Use	Quantity	Units[1]
P1	Malbert Cultivation / DPR 17-00008	Perris	Industrial	33.000	TSF
P2	Marijuana Manufacturing / DPR 18-00005	Perris	Manufacturing	61.050	TSF
P3	Marijuana Manufacturing/Cul /DPR 18-00010	Perris	Manufacturing	30.000	TSF
P4	Perez Indus / DPR 16-00016	Perris	Industrial	2.500	TSF
P5	Pharmacy / DPR 20-00022	Perris	Industrial	15.000	TSF
P6	South Perris Industrial Project	Perris	Industrial		
	Site 1			784.000	TSF
	Site 2			3,448.734	TSF
	Site 3			2,300.000	TSF
P7	Riverwoods	Perris	Single Family Housing	663	DU
			Elementary School	600	STU
			Park	12.0	Acres
P8	Go Fresh Gas Station	Perris	Gasoline/Conven. Mkt./Retail Store/Car W	16	VSP
			Convenient Store	3.960	TSF
			Retail Store	1.406	TSF
			Car Wash Tunnel	2.505	TSF
P9	Track 37803	Perris	Residential	145	DU
P10	Villa Verona Apt - Track 37181 / DPR 16-00002	Perris	Multifamily Housing	360	DU
P11	Senior Housing / DPR 17-00005	Perris	Multifamily Housing	141	DU
	Green Valley Specific Plan	Perris	Single/Multifamily Housing	1,240	DU
P12	GVSP - Track 37262		Single Family Housing	191	DU
P13	GVSP - Track 37716		Multifamily Housing	97	DU
P14	GVSP - Track 37722		Single Family Housing	116	DU
P15	GVSP - Track 37817		Multifamily Housing	227	DU
P16	GVSP - Track 37818		Single Family Housing	138	DU
P17	GVSP - Track 37818		Multifamily Housing	236	DU
P18	GVSP - Track 37223		Single Family Housing	235	DU
P19	Airport Industrial	Perris	Industrial	650.000	TSF
M1	Goetz/Ethanac Commercial (PP PLN21-0319)	Menifee	Gas Station + Retail	14.290	TSF
	Corsica Business Park (DEV2022-010)	Menifee	Business Park	276.682	TSF
	Capstone Industrial (PLN21-0370)	Menifee	Industrial	700.037	TSF
	DEV2022-017	Menifee	Industrial	551.685	TSF
	Northern Gateway Commerce Center II (PP PLN21-0281)	Menifee	Industrial	1,312.601	TSF
	Ethanac/Evans Warehouse (DEV2022-018)	Menifee	Industrial	137.896	TSF
	Ethanac Square (MJMOD PLN21-0104)	Menifee	Gas Station	3.800	TSF
	Ethanac/Barnett Warehouse (PP PLN21-0290)	Menifee	Industrial	250.000	TSF

[1] TSF = Thousand Square Feet; DU = Dwelling Units; VSP = Vehicle Fueling Positions; STU = Students

ATTACHMENT A

DRIVEWAY COUNTS FOR EXISTING TRUCK AND TRAILER STORAGE YARDS

Table A-1

Empirical Data for Existing Facility

Source	Quantity	Units	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
11215 Riverside Drive, Jurupa Valley	320	Spaces							
Passenger Cars:			12	7	19	10	16	26	353
2-axle Trucks:			3	4	7	3	0	3	59
3-axle Trucks:			2	2	4	3	5	8	105
4+-axle Trucks:			4	5	9	5	5	10	135
Total Trucks (Actual Vehicles)			9	11	20	11	10	21	299
11215 Riverside Dr. Total Trips (Actual Vehicles)			**21**	**18**	**39**	**21**	**26**	**47**	**652**
602 W. Agua Mansa Road, Colton, CA	252	Spaces							
Passenger Cars:			3	3	6	2	12	14	124
2-axle Trucks:			1	1	2	0	0	0	3
3-axle Trucks:			6	13	19	16	7	23	250
4+-axle Trucks:			13	4	17	2	5	7	177
Total Trucks (Actual Vehicles)			20	17	37	18	11	29	429
602 W. Agua Mansa Rd. Total Trips (Actual Vehicles)			**23**	**19**	**42**	**20**	**23**	**43**	**553**

** Data presented based on driveway counts conducted on March 30, 2021 and November 16/17, 2021.

Table A-2

Calculated Trip Generation Rates[1]

Land Use	Units	Weekday AM Peak Hour In	Weekday AM Peak Hour Out	Weekday AM Peak Hour Total	Weekday PM Peak Hour In	Weekday PM Peak Hour Out	Weekday PM Peak Hour Total	Weekday Daily
Actual Vehicles:[1]								
Average Truck/Trailer Yard	Spaces							
Passenger Cars:		0.026	0.017	0.043	0.021	0.049	0.070	0.834
2-axle Trucks:		0.007	0.008	0.015	0.005	0.000	0.005	0.108
3-axle Trucks:		0.014	0.025	0.039	0.033	0.020	0.053	0.620
4+-axle Trucks:		0.030	0.015	0.045	0.012	0.017	0.029	0.545
Passenger Car Equivalent (PCE):[2]								
Average Truck/Trailer Yard	Spaces							
Passenger Cars:		0.026	0.017	0.043	0.021	0.049	0.070	0.834
2-axle Trucks (PCE = 1.5):		0.010	0.012	0.022	0.008	0.000	0.008	0.163
3-axle Trucks (PCE = 2.0):		0.028	0.051	0.079	0.066	0.040	0.107	1.240
4+-axle Trucks (PCE = 3.0):		0.089	0.045	0.134	0.037	0.050	0.087	1.634

[1] The trip generation rates were calculated by taking the AM, PM and daily trips for both sites identified in Table 1 and divided by the sum of the total trailer parking spaces for both existing sites.

[2] PCE rates were calculated by taking the actual vehicle trip generation rates and applying the PCE factors shown.

City:	Jurupa Valley
Location:	11215 Riverside Drive - CFL Trucking
Date:	3/30/2021
Count Type:	24 Hour Driveway Count

	Entering				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
0:00	0	0	0	0	0
0:15	0	0	0	0	0
0:30	1	0	1	1	3
0:45	1	0	1	0	2
1:00	0	0	0	0	0
1:15	1	0	0	1	2
1:30	0	0	0	0	0
1:45	1	0	0	0	1
2:00	0	0	0	0	0
2:15	0	0	1	0	1
2:30	1	0	0	0	1
2:45	4	0	2	1	7
3:00	0	0	0	1	1
3:15	0	0	0	1	1
3:30	2	0	0	0	2
3:45	2	0	0	0	2
4:00	0	0	0	0	0
4:15	2	0	0	0	2
4:30	1	1	0	0	2
4:45	3	0	0	0	3
5:00	4	0	0	0	4
5:15	0	1	0	0	1
5:30	2	0	0	0	2
5:45	5	0	0	1	6
6:00	2	0	0	0	2
6:15	3	0	0	0	3
6:30	5	1	0	0	6
6:45	2	0	0	0	2
7:00	2	0	1	0	3
7:15	4	0	1	0	5
7:30	1	0	1	2	4
7:45	1	0	0	0	1
8:00	1	0	0	1	2
8:15	3	0	0	1	4
8:30	6	1	1	1	9
8:45	2	2	1	1	6
9:00	1	1	0	0	2
9:15	4	0	0	1	5
9:30	2	0	0	0	2
9:45	2	1	0	0	3
10:00	2	1	0	2	5
10:15	2	0	2	0	4
10:30	3	0	1	0	4
10:45	3	0	3	0	6
11:00	3	0	0	0	3
11:15	1	1	2	0	4
11:30	2	0	0	1	3
11:45	2	0	1	0	3

	Exiting				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
0:00	0	1	0	0	1
0:15	0	0	0	0	0
0:30	0	0	0	0	0
0:45	2	1	0	0	3
1:00	1	1	0	0	2
1:15	1	1	0	0	2
1:30	0	0	0	0	0
1:45	0	0	0	0	0
2:00	0	1	0	0	1
2:15	0	0	0	0	0
2:30	2	0	0	0	2
2:45	0	0	1	1	2
3:00	2	0	0	0	2
3:15	1	0	0	1	2
3:30	0	1	0	1	2
3:45	0	0	0	0	0
4:00	1	1	0	1	3
4:15	0	0	0	0	0
4:30	2	0	0	0	2
4:45	0	0	1	0	1
5:00	1	0	3	1	5
5:15	0	0	0	1	1
5:30	0	0	1	0	1
5:45	0	0	4	1	5
6:00	0	0	3	3	6
6:15	0	0	0	0	0
6:30	3	0	3	2	8
6:45	2	1	1	0	4
7:00	0	0	2	1	3
7:15	1	1	1	1	4
7:30	0	0	1	5	6
7:45	2	2	0	1	5
8:00	2	1	0	1	4
8:15	1	1	0	0	2
8:30	2	0	1	2	5
8:45	2	2	1	2	7
9:00	2	0	0	1	3
9:15	1	0	0	0	1
9:30	0	0	1	0	1
9:45	1	0	1	0	2
10:00	3	0	0	0	3
10:15	3	4	0	2	9
10:30	1	0	0	0	1
10:45	1	0	1	0	2
11:00	4	0	2	3	9
11:15	3	0	0	0	3
11:30	2	0	1	1	4
11:45	2	0	0	1	3

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

City:	Jurupa Valley
Location:	11215 Riverside Drive - CFL Trucking
Date:	3/30/2021
Count Type:	24 Hour Driveway Count

	Entering				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
12:00	4	0	1	0	5
12:15	3	0	0	0	3
12:30	4	0	0	2	6
12:45	3	0	1	0	4
13:00	5	0	0	1	6
13:15	4	0	2	3	9
13:30	3	1	1	2	7
13:45	3	0	0	2	5
14:00	3	0	2	2	7
14:15	2	2	0	1	5
14:30	3	0	0	2	5
14:45	1	0	5	2	8
15:00	3	0	2	0	5
15:15	3	2	1	1	7
15:30	0	1	3	2	6
15:45	2	0	1	1	4
16:00	1	0	1	1	3
16:15	2	0	2	2	6
16:30	4	1	1	1	7
16:45	3	1	1	1	6
17:00	0	1	0	3	4
17:15	3	0	1	0	4
17:30	1	1	1	0	3
17:45	0	0	1	1	2
18:00	2	3	0	0	5
18:15	1	1	0	3	5
18:30	2	0	0	1	3
18:45	0	0	1	1	2
19:00	3	0	0	1	4
19:15	1	0	0	2	3
19:30	1	0	1	0	2
19:45	1	2	0	3	6
20:00	0	0	0	3	3
20:15	0	0	0	2	2
20:30	3	0	1	1	5
20:45	2	0	0	0	2
21:00	2	0	0	1	3
21:15	1	1	1	3	6
21:30	1	0	0	1	2
21:45	1	0	0	0	1
22:00	0	1	0	0	1
22:15	1	1	0	0	2
22:30	1	0	0	1	2
22:45	1	0	0	2	3
23:00	0	0	0	1	1
23:15	0	0	0	1	1
23:30	0	0	0	0	0
23:45	2	0	0	1	3
TOTAL	**175**	**29**	**50**	**74**	**328**

	Exiting				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
12:00	4	0	0	0	4
12:15	3	0	0	1	4
12:30	6	0	1	0	7
12:45	2	0	0	2	4
13:00	1	0	0	0	1
13:15	4	1	0	0	5
13:30	3	1	3	2	9
13:45	2	0	0	0	2
14:00	1	0	1	0	2
14:15	5	0	0	2	7
14:30	3	0	0	1	4
14:45	4	1	0	1	6
15:00	7	0	0	2	9
15:15	1	1	2	0	4
15:30	4	0	1	0	5
15:45	4	0	1	0	5
16:00	7	0	0	0	7
16:15	2	0	1	0	3
16:30	2	0	1	1	4
16:45	6	0	0	3	9
17:00	2	0	3	0	5
17:15	6	0	1	1	8
17:30	1	0	0	1	2
17:45	4	0	1	0	5
18:00	2	0	0	0	2
18:15	5	0	0	0	5
18:30	2	0	1	2	5
18:45	4	1	0	1	6
19:00	2	0	0	0	2
19:15	1	0	1	1	3
19:30	0	1	0	0	1
19:45	3	0	0	1	4
20:00	0	0	0	1	1
20:15	3	0	1	0	4
20:30	5	1	0	1	7
20:45	0	0	0	0	0
21:00	0	0	1	1	2
21:15	0	1	3	1	5
21:30	4	0	1	1	6
21:45	1	0	1	0	2
22:00	1	0	0	0	1
22:15	3	2	0	0	5
22:30	1	1	0	0	2
22:45	2	0	0	1	3
23:00	1	0	0	0	1
23:15	1	0	0	0	1
23:30	0	0	1	0	1
23:45	2	0	0	0	2
	178	**30**	**55**	**61**	**324**

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

City:	Colton
Location:	Rancho Avenue Driveway at Fogg St
Date:	Tuesday, 11/16/2021
Count Type:	Driveway Count

	Entering				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
0:00	0	0	0	0	0
0:15	0	0	0	0	0
0:30	0	0	0	0	0
0:45	0	0	0	0	0
1:00	0	0	0	0	0
1:15	0	0	0	0	0
1:30	0	0	0	0	0
1:45	0	0	0	0	0
2:00	0	0	0	0	0
2:15	0	0	0	0	0
2:30	0	0	0	0	0
2:45	0	0	0	0	0
3:00	0	0	0	0	0
3:15	0	0	0	0	0
3:30	0	0	0	0	0
3:45	0	0	0	0	0
4:00	2	0	0	0	2
4:15	1	0	0	0	1
4:30	6	0	1	0	7
4:45	6	0	0	0	6
5:00	5	0	0	0	5
5:15	7	0	1	0	8
5:30	5	0	0	0	5
5:45	3	0	1	0	4
6:00	1	0	0	1	2
6:15	0	0	1	0	1
6:30	1	0	1	0	2
6:45	1	0	1	0	2
7:00	0	0	0	0	0
7:15	0	0	1	0	1
7:30	0	0	1	3	4
7:45	1	0	2	1	4
8:00	0	0	2	3	5
8:15	1	0	0	4	5
8:30	0	0	1	4	5
8:45	0	0	3	3	6
9:00	0	0	2	3	5
9:15	1	0	2	2	5
9:30	2	0	3	3	8
9:45	0	0	2	0	2
10:00	0	0	1	4	5
10:15	0	0	3	1	4
10:30	2	0	1	6	9
10:45	0	0	0	0	0
11:00	1	0	2	4	7
11:15	1	0	1	2	4
11:30	0	0	1	1	2
11:45	0	0	1	1	2

	Exiting				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
0:00	0	0	0	0	0
0:15	0	0	0	0	0
0:30	0	0	0	0	0
0:45	0	0	0	0	0
1:00	0	0	0	0	0
1:15	0	0	0	0	0
1:30	0	0	0	0	0
1:45	0	0	0	0	0
2:00	0	0	0	0	0
2:15	0	0	0	0	0
2:30	0	0	0	0	0
2:45	0	0	0	0	0
3:00	0	0	0	0	0
3:15	0	0	0	0	0
3:30	0	0	0	0	0
3:45	0	0	0	0	0
4:00	0	0	0	0	0
4:15	0	0	1	0	1
4:30	0	0	1	1	2
4:45	0	0	0	2	2
5:00	1	0	3	1	5
5:15	0	0	3	1	4
5:30	1	0	2	1	4
5:45	1	0	3	1	5
6:00	1	0	3	1	5
6:15	1	0	0	1	2
6:30	0	0	1	0	1
6:45	0	0	2	0	2
7:00	0	0	0	0	0
7:15	1	0	0	0	1
7:30	0	0	2	0	2
7:45	0	0	3	0	3
8:00	1	0	4	1	6
8:15	2	0	3	2	7
8:30	1	0	5	1	7
8:45	0	0	4	1	5
9:00	1	0	2	1	4
9:15	1	0	3	3	7
9:30	1	0	2	1	4
9:45	0	0	2	0	2
10:00	0	0	1	4	5
10:15	0	0	4	2	6
10:30	2	0	5	4	11
10:45	0	0	0	0	0
11:00	2	0	1	2	5
11:15	2	0	1	3	6
11:30	0	0	0	0	0
11:45	0	0	4	2	6

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

City: Colton
Location: Rancho Avenue Driveway at Fogg St
Date: Tuesday, 11/16/2021
Count Type: Driveway Count

	Entering				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
12:00	0	0	0	0	0
12:15	0	0	1	0	1
12:30	1	0	2	0	3
12:45	0	0	0	1	1
13:00	2	0	2	1	5
13:15	1	0	1	3	5
13:30	0	0	3	0	3
13:45	2	0	3	3	8
14:00	1	0	4	0	5
14:15	0	0	1	0	1
14:30	2	0	5	0	7
14:45	0	0	4	0	4
15:00	0	0	1	2	3
15:15	1	0	5	0	6
15:30	0	0	1	0	1
15:45	1	0	1	0	2
16:00	1	0	2	2	5
16:15	0	0	6	1	7
16:30	0	0	3	0	3
16:45	2	0	0	0	2
17:00	0	0	2	0	2
17:15	0	0	2	0	2
17:30	0	0	0	0	0
17:45	0	0	3	0	3
18:00	0	0	2	0	2
18:15	0	0	0	0	0
18:30	0	0	1	1	2
18:45	0	0	1	0	1
19:00	0	0	1	0	1
19:15	0	0	0	0	0
19:30	0	0	0	0	0
19:45	0	0	0	0	0
20:00	0	0	0	0	0
20:15	0	0	0	0	0
20:30	0	0	0	0	0
20:45	0	0	0	0	0
21:00	0	0	3	0	3
21:15	0	0	1	0	1
21:30	0	0	0	0	0
21:45	1	0	1	0	2
22:00	0	0	1	0	1
22:15	1	0	0	0	1
22:30	0	0	0	0	0
22:45	0	0	0	0	0
23:00	0	0	1	0	1
23:15	0	0	1	0	1
23:30	1	0	0	0	1
23:45	0	0	0	0	0
TOTAL	**64**	**0**	**100**	**60**	**224**

	Exiting				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
12:00	0	0	1	1	2
12:15	0	0	0	0	0
12:30	1	0	0	2	3
12:45	0	0	0	1	1
13:00	0	0	0	1	1
13:15	3	0	4	2	9
13:30	1	0	1	2	4
13:45	3	0	1	1	5
14:00	3	0	1	2	6
14:15	4	0	1	2	7
14:30	0	0	2	3	5
14:45	0	0	2	2	4
15:00	1	0	1	3	5
15:15	2	0	0	3	5
15:30	1	0	0	3	4
15:45	0	0	0	0	0
16:00	3	0	0	1	4
16:15	2	0	2	2	6
16:30	3	0	3	0	6
16:45	4	0	0	0	4
17:00	1	0	1	0	2
17:15	1	0	0	0	1
17:30	2	0	0	0	2
17:45	1	0	1	0	2
18:00	2	0	1	0	3
18:15	1	0	0	1	2
18:30	0	0	0	0	0
18:45	1	0	1	0	2
19:00	1	0	0	0	1
19:15	0	0	0	0	0
19:30	0	0	0	0	0
19:45	0	0	0	0	0
20:00	0	0	0	1	1
20:15	0	0	0	0	0
20:30	0	0	0	0	0
20:45	0	0	0	0	0
21:00	0	0	1	0	1
21:15	0	0	3	0	3
21:30	0	0	0	0	0
21:45	1	0	0	0	1
22:00	0	0	2	0	2
22:15	0	0	0	0	0
22:30	1	0	0	0	1
22:45	0	0	0	0	0
23:00	0	0	0	1	1
23:15	1	0	0	0	1
23:30	1	0	1	0	2
23:45	0	0	0	0	0
	64	**0**	**95**	**70**	**229**

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

City:	Colton
Location:	Rancho Avenue Driveway at Fogg St
Date:	Wednesday, 11/17/2021
Count Type:	Driveway Count

	Entering				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
0:00	0	0	1	0	1
0:15	1	0	0	0	1
0:30	0	0	0	0	0
0:45	1	1	0	0	2
1:00	0	0	0	0	0
1:15	0	0	0	0	0
1:30	0	0	0	0	0
1:45	0	0	0	0	0
2:00	0	0	0	0	0
2:15	0	0	0	0	0
2:30	0	1	0	0	1
2:45	0	0	0	1	1
3:00	0	0	0	0	0
3:15	0	0	0	0	0
3:30	0	0	0	0	0
3:45	0	0	0	0	0
4:00	1	0	0	0	1
4:15	4	0	0	0	4
4:30	4	0	0	0	4
4:45	8	0	0	0	8
5:00	3	0	0	0	3
5:15	2	0	3	0	5
5:30	0	0	2	0	2
5:45	3	0	1	0	4
6:00	0	0	1	1	2
6:15	0	0	0	0	0
6:30	0	0	0	0	0
6:45	0	0	0	0	0
7:00	0	0	0	0	0
7:15	0	0	1	0	1
7:30	0	0	0	4	4
7:45	0	0	0	1	1
8:00	2	1	1	3	7
8:15	0	0	3	1	4
8:30	0	0	1	2	3
8:45	2	0	0	5	7
9:00	0	0	0	19	19
9:15	0	0	2	4	6
9:30	1	0	0	9	10
9:45	1	0	0	6	7
10:00	0	0	0	1	1
10:15	0	0	0	0	0
10:30	0	0	0	5	5
10:45	1	0	2	5	8
11:00	0	0	0	6	6
11:15	1	0	1	14	16
11:30	0	0	2	11	13
11:45	1	0	0	15	16

	Exiting				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
0:00	0	0	0	0	0
0:15	0	0	0	1	1
0:30	0	0	0	0	0
0:45	1	0	0	0	1
1:00	0	0	0	0	0
1:15	0	0	0	0	0
1:30	0	0	0	0	0
1:45	0	0	0	0	0
2:00	0	0	0	0	0
2:15	0	0	0	0	0
2:30	0	0	0	0	0
2:45	1	0	0	0	1
3:00	0	0	0	0	0
3:15	0	2	0	1	3
3:30	0	0	0	0	0
3:45	0	0	0	0	0
4:00	0	0	0	0	0
4:15	0	0	1	0	1
4:30	0	0	0	0	0
4:45	0	0	2	3	5
5:00	0	0	4	1	5
5:15	2	0	7	1	10
5:30	0	0	2	0	2
5:45	1	0	1	0	2
6:00	0	0	2	3	5
6:15	0	0	1	1	2
6:30	0	0	1	0	1
6:45	1	0	0	0	1
7:00	1	0	3	0	4
7:15	0	0	0	0	0
7:30	2	0	3	0	5
7:45	0	0	3	0	3
8:00	0	0	2	0	2
8:15	1	1	3	0	5
8:30	0	0	2	1	3
8:45	0	0	2	1	3
9:00	4	0	8	4	16
9:15	0	0	9	4	13
9:30	0	0	4	2	6
9:45	2	0	8	2	12
10:00	1	0	5	0	6
10:15	0	0	0	0	0
10:30	0	0	0	1	1
10:45	0	0	2	3	5
11:00	1	0	7	3	11
11:15	0	0	4	2	6
11:30	1	0	12	1	14
11:45	3	0	4	3	10

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

City:	Colton
Location:	Rancho Avenue Driveway at Fogg St
Date:	Wednesday, 11/17/2021
Count Type:	Driveway Count

	Entering				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
12:00	0	0	0	6	6
12:15	0	0	1	8	9
12:30	3	0	2	10	15
12:45	0	0	0	6	6
13:00	0	0	0	0	0
13:15	0	0	2	2	4
13:30	0	0	3	0	3
13:45	3	0	5	1	9
14:00	0	0	1	0	1
14:15	0	0	3	0	3
14:30	0	0	5	2	7
14:45	0	0	2	1	3
15:00	2	0	4	0	6
15:15	0	0	3	0	3
15:30	0	0	3	0	3
15:45	0	0	6	0	6
16:00	0	0	7	0	7
16:15	1	0	7	0	8
16:30	0	0	5	0	5
16:45	0	0	2	1	3
17:00	1	0	4	0	5
17:15	0	0	2	2	4
17:30	1	0	0	0	1
17:45	0	0	2	0	2
18:00	0	0	4	0	4
18:15	0	0	0	1	1
18:30	0	0	0	0	0
18:45	1	0	3	0	4
19:00	0	0	0	0	0
19:15	0	0	3	0	3
19:30	0	0	1	0	1
19:45	0	0	1	0	1
20:00	0	0	1	0	1
20:15	0	0	2	0	2
20:30	0	0	0	0	0
20:45	0	0	0	0	0
21:00	0	0	0	0	0
21:15	0	0	1	0	1
21:30	0	0	3	0	3
21:45	1	0	0	0	1
22:00	0	0	2	0	2
22:15	1	0	0	0	1
22:30	0	0	0	0	0
22:45	0	0	0	0	0
23:00	0	0	0	0	0
23:15	0	0	1	0	1
23:30	0	0	1	0	1
23:45	0	0	0	0	0
TOTAL	**50**	**3**	**113**	**153**	**319**

	Exiting				
	Pass Veh	Large 2 Axle	3 Axle	4+ Axle	Total
12:00	1	0	9	2	12
12:15	0	0	6	2	8
12:30	2	0	12	1	15
12:45	0	0	4	0	4
13:00	1	0	2	1	4
13:15	0	0	6	0	6
13:30	0	0	4	0	4
13:45	3	0	1	4	8
14:00	4	0	1	1	6
14:15	2	0	0	1	3
14:30	2	0	2	4	8
14:45	2	0	4	1	7
15:00	1	0	1	1	3
15:15	1	0	1	3	5
15:30	0	0	0	1	1
15:45	1	0	1	2	4
16:00	5	0	2	3	10
16:15	1	0	3	0	4
16:30	2	0	1	3	6
16:45	4	0	2	0	6
17:00	3	0	1	0	4
17:15	0	0	3	0	3
17:30	5	0	2	1	8
17:45	0	0	3	0	3
18:00	1	0	0	0	1
18:15	1	0	2	1	4
18:30	1	0	0	0	1
18:45	0	0	0	0	0
19:00	2	0	1	0	3
19:15	0	0	0	0	0
19:30	0	0	3	0	3
19:45	0	0	2	0	2
20:00	0	0	1	0	1
20:15	0	0	0	0	0
20:30	0	0	1	0	1
20:45	0	0	1	0	1
21:00	0	0	0	0	0
21:15	0	0	0	0	0
21:30	0	0	3	0	3
21:45	1	0	0	0	1
22:00	0	0	1	0	1
22:15	1	0	1	0	2
22:30	0	0	0	0	0
22:45	0	0	0	0	0
23:00	0	0	0	0	0
23:15	1	0	1	0	2
23:30	0	0	0	0	0
23:45	0	0	1	0	1
	70	**3**	**191**	**70**	**334**

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

ATTACHMENT B

CITY OF PERRIS VMT SCOPING FORM

City of Perris

CITY OF PERRIS
VMT SCOPING FORM FOR LAND USE PROJECTS

This Scoping Form acknowledges the City of Perris requirements for the evaluation of transportation impacts under CEQA. The analysis provided in this form should follow the City of Perris TIA Guidelines, dated May 12, 2020.

I. Project Description

Tract/Case No. CUP 23-05107

Project Name: Perris Airport Logistics Center

Project Location: SEC of Goetz Road & Ellis Avenue

Project Description: 323 space truck/trailer storage yard
(Please attach a copy of the project Site Plan)

Current GP Land Use: LI - Light Industrial **Proposed GP Land Use:** LI - Light Industrial

Current Zoning: LI - Light Industrial **Proposed Zoning:** LI - Light Industrial

If a project requires a General Plan Amendment or Zone change, then additional information and analysis should be provided to ensure the project is consistent with RHNA and RTP/SCS Strategies.

II. VMT Screening Criteria

A. Is the Project 100% affordable housing?	**YES**		**NO**	**X**	Attachments:	
B. Is the Project within 1/2 mile of qualifying transit?	**YES**		**NO**	**X**	Attachments:	
C. Is the Project a local serving land use?	**YES**	**X**	**NO**		Attachments:	
D. Is the Project in a low VMT area?	**YES**		**NO**	**X**	Attachments:	
E. Are the Project's Net Daily Trips less than 500 ADT?	**YES**		**NO**	**X**	Attachments:	

Low VMT Area Evaluation:

Citywide VMT Averages[1]		
Citywide Home-Based VMT =	15.05	VMT/Capita
Citywide Employment-Based VMT =	11.62	VMT/Employee

WRCOG VMT MAP

Project TAZ	VMT Rate for Project TAZ[1]		Type of Project	
3812	**17.78**	VMT/Capita	Residential:	
	14.48	VMT/Employee	Non-Residential:	**X**

[1] Base year (2012) projections from RIVTAM.

Trip Generation Evaluation:

Source of Trip Generation: Empirical Data for Truck/Trailer Yard

Project Trip Generation: **682** **Average Daily Trips (ADT)**

Internal Trip Credit:	YES		NO		% Trip Credit:	
Pass-By Trip Credit:	YES		NO		% Trip Credit:	
Affordable Housing Credit:	YES		NO		% Trip Credit:	
Existing Land Use Trip Credit:	YES		NO		Trip Credit:	

Net Project Daily Trips: **682** **Average Daily Trips (ADT)** Attachments:

Does project trip generation warrant an LOS evaluation outside of CEQA? **YES** **X** **NO**

III. VMT Screening Summary

A. Is the Project presumed to have a less than significant impact on VMT?
A Project is presumed to have a less than significant impact on VMT if the Project satisfies at least one (1) of the VMT screening criteria.

Less Than Significant

B. Is mitigation required?
If the Project does not satisfy at least one (1) of the VMT screening criteria, then mitigation is required to reduce the Project's impact on VMT.

No Mitigation Required

C. Is additional VMT modeling required to evaluate Project impacts?

YES		NO	X

If the Project requires a zone change and/or General Plan Amendment AND generates 2,500 or more net daily trips, then additional VMT modeling using RIVTAM/RIVCOM is required. If the project generates less than 2,500 net daily trips, the Project TAZ VMT Rate can be used for mitigation purposes.

IV. MITIGATION

A. Citywide Average VMT Rate (Threshold of Significance) for Mitigation Purposes:	**N/A**	**N/A**
B. Unmitigated Project TAZ VMT Rate:	**N/A**	**N/A**
C. Percentage Reduction Required to Achieve the Citywide Average VMT:	**N/A**	

D. VMT Reduction Mitigation Measures:

Source of VMT Reduction Estimates:	**CAPCOA**
Project Location Setting	**Suburban**

	VMT Reduction Mitigation Measure:	Estimated VMT Reduction (%)
1.		0.00%
2.		0.00%
3.		0.00%
4.		0.00%
5.		0.00%
6.		0.00%
7.		0.00%
8.		0.00%
9.		0.00%
10.		0.00%
Total VMT Reduction (%)		**0.00%**

(Attach additional pages, if necessary, and a copy of all mitigation calculations.)

E. Mitigated Project TAZ VMT Rate:	**N/A**	**N/A**

F. Is the project pressumed to have a less than significant impact with mitigation?

N/A

If the mitigated Project VMT rate is below the Citywide Average Rate, then the Project is presumed to have a less than significant impact with mitigation. If the answer is no, then additional VMT modeling may be required and a potentially significant and unavoidable impact may occur. All mitigation measures identified in Section IV.D. are subject to become Conditions of Approval of the project. Development review and processing fees should be submitted with, or prior to the submittal of this Form. The Planning Department staff will not process the Form prior to fees being paid to the City.

Prepared By		Developer/Applicant	
Company:	Urban Crossroads, Inc.	**Company:**	Cyburn Holdings Realty Partners, LLC
Contact:	Charlene So	**Contact:**	Phil Cyburt
Address:	1133 Camelback St. #8329, Newport Beach, CA	**Address:**	18032 Lemon Drive, Suite #367, Yorba Linda
Phone:	949-861-0177	**Phone:**	949-433-5858
Email:	cso@urbanxroads.com	**Email:**	pcyburt@cyburtholdings.com
Date:	6/2/2023	**Date:**	6/2/2023

Approved by:

Perris Planning Division	**Date**	**Perris City Engineer**	**Date**

City of Perris

CITY OF PERRIS
VMT SCOPING FORM FOR LAND USE PROJECTS

This Scoping Form acknowledges the City of Perris requirements for the evaluation of transportation impacts under CEQA. The analysis provided in this form should follow the City of Perris TIA Guidelines, dated May 12, 2020.

I. Project Description

Tract/Case No. DPR 22-00005

Project Name: Perris Airport Logistics Center

Project Location: SEC of Goetz Road & Ellis Avenue

Project Description: 795,109 SF high-cube fulfillment center warehouse and 71,961 SF warehouse
(Please attach a copy of the project Site Plan)

Current GP Land Use: LI - Light Industrial **Proposed GP Land Use:** LI - Light Industrial

Current Zoning: LI - Light Industrial **Proposed Zoning:** LI - Light Industrial

If a project requires a General Plan Amendment or Zone change, then additional information and analysis should be provided to ensure the project is consistent with RHNA and RTP/SCS Strategies.

II. VMT Screening Criteria

A. Is the Project 100% affordable housing?	**YES**		**NO**	**X**	Attachments:
B. Is the Project within 1/2 mile of qualifying transit?	**YES**		**NO**	**X**	Attachments:
C. Is the Project a local serving land use?	**YES**		**NO**	**X**	Attachments:
D. Is the Project in a low VMT area?	**YES**		**NO**	**X**	Attachments:
E. Are the Project's Net Daily Trips less than 500 ADT?	**YES**		**NO**	**X**	Attachments:

Low VMT Area Evaluation:

Citywide VMT Averages[1]		
Citywide Home-Based VMT =	15.05	VMT/Capita
Citywide Employment-Based VMT =	11.62	VMT/Employee

WRCOG VMT MAP

Project TAZ	VMT Rate for Project TAZ[1]		Type of Project	
3812	**17.78**	VMT/Capita	Residential:	
	14.48	VMT/Employee	Non-Residential:	**X**

[1] Base year (2012) projections from RIVTAM.

Trip Generation Evaluation:

Source of Trip Generation: WSP Rate and ITE 11th Gen Rates

Project Trip Generation: **2,048** **Average Daily Trips (ADT)**

Internal Trip Credit:	YES		NO		% Trip Credit:
Pass-By Trip Credit:	YES		NO		% Trip Credit:
Affordable Housing Credit:	YES		NO		% Trip Credit:
Existing Land Use Trip Credit:	YES		NO		Trip Credit:

Net Project Daily Trips: **2,048** **Average Daily Trips (ADT)** Attachments:

Does project trip generation warrant an LOS evaluation outside of CEQA? **YES** **X** **NO**

III. VMT Screening Summary

A. Is the Project presumed to have a less than significant impact on VMT?
A Project is presumed to have a less than significant impact on VMT if the Project satisfies at least one (1) of the VMT screening criteria.

Potentially Significant

B. Is mitigation required?
If the Project does not satisfy at least one (1) of the VMT screening criteria, then mitigation is required to reduce the Project's impact on VMT.

Mitigation Required

C. Is additional VMT modeling required to evaluate Project impacts?	YES		NO	X

If the Project requires a zone change and/or General Plan Amendment AND generates 2,500 or more net daily trips, then additional VMT modeling using RIVTAM/RIVCOM is required. If the project generates less than 2,500 net daily trips, the Project TAZ VMT Rate can be used for mitigation purposes.

IV. MITIGATION

A. Citywide Average VMT Rate (Threshold of Significance) for Mitigation Purposes:	**11.62**	**VMT/Employee**
B. Unmitigated Project TAZ VMT Rate:	**14.48**	**VMT/Employee**
C. Percentage Reduction Required to Achieve the Citywide Average VMT:	**19.75%**	

D. VMT Reduction Mitigation Measures:

Source of VMT Reduction Estimates:	**CAPCOA**
Project Location Setting	**Suburban**

	VMT Reduction Mitigation Measure:	Estimated VMT Reduction (%)
1.	T-7 Implement Commute Trip Reduction Marketing	4.00%
2.	T-8 Provide a Ridesharing Program	4.00%
3.	T-10 Provide End-Of-Trip (Bicycle) Facilities	0.10%
4.		0.00%
5.		0.00%
6.		0.00%
7.		0.00%
8.		0.00%
9.		0.00%
10.		0.00%
Total VMT Reduction (%)		**8.10%**

(Attach additional pages, if necessary, and a copy of all mitigation calculations.)

E. Mitigated Project TAZ VMT Rate:	**13.31**	**VMT/Employee**

F. Is the project pressumed to have a less than significant impact with mitigation?

Impact Not Mitigated

If the mitigated Project VMT rate is below the Citywide Average Rate, then the Project is presumed to have a less than significant impact with mitigation. If the answer is no, then additional VMT modeling may be required and a potentially significant and unavoidable impact may occur. All mitigation measures identified in Section IV.D. are subject to become Conditions of Approval of the project. Development review and processing fees should be submitted with, or prior to the submittal of this Form. The Planning Department staff will not process the Form prior to fees being paid to the City.

Prepared By		Developer/Applicant	
Company:	Urban Crossroads, Inc.	**Company:**	Cyburn Holdings Realty Partners, LLC
Contact:	Charlene So	**Contact:**	Phil Cyburt
Address:	1133 Camelback St. #8329, Newport Beach, CA	**Address:**	18032 Lemon Drive, Suite #367, Yorba Linda
Phone:	949-861-0177	**Phone:**	949-433-5858
Email:	cso@urbanxroads.com	**Email:**	pcyburt@cyburtholdings.com
Date:	6/2/2023	**Date:**	6/2/2023

Approved by:

Perris Planning Division	**Date**	**Perris City Engineer**	**Date**

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APPENDIX 1.2: SITE ADJACENT QUEUES

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Intersection: 3: Goetz Rd. & Driveway 1

Movement	WB
Directions Served	R
Maximum Queue (ft)	31
Average Queue (ft)	16
95th Queue (ft)	41
Link Distance (ft)	358
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: Goetz Rd. & Mountain Av./Driveway 2

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	L	L	TR
Maximum Queue (ft)	277	31	51	48	23
Average Queue (ft)	114	6	20	19	1
95th Queue (ft)	237	26	44	43	8
Link Distance (ft)	718	662			2210
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			100	110	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: Goetz Rd. & Driveway 3

Movement	WB
Directions Served	R
Maximum Queue (ft)	23
Average Queue (ft)	4
95th Queue (ft)	20
Link Distance (ft)	211
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 11: Driveway 4 & Ellis Av.

Movement	NB
Directions Served	R
Maximum Queue (ft)	30
Average Queue (ft)	4
95th Queue (ft)	19
Link Distance (ft)	641
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 17: Driveway 5 & Case Rd.

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	29	40
Average Queue (ft)	11	17
95th Queue (ft)	32	39
Link Distance (ft)		800
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	200	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection: 3: Goetz Rd. & Driveway 1

Movement	WB
Directions Served	R
Maximum Queue (ft)	65
Average Queue (ft)	36
95th Queue (ft)	55
Link Distance (ft)	358
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: Goetz Rd. & Mountain Av./Driveway 2

Movement	EB	WB	NB	SB	SB
Directions Served	LTR	LTR	L	L	TR
Maximum Queue (ft)	733	31	41	37	4
Average Queue (ft)	694	14	10	8	0
95th Queue (ft)	855	38	33	29	3
Link Distance (ft)	718	662			2210
Upstream Blk Time (%)	80				
Queuing Penalty (veh)	0				
Storage Bay Dist (ft)			100	110	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 7: Goetz Rd. & Driveway 3

Movement	WB
Directions Served	R
Maximum Queue (ft)	33
Average Queue (ft)	14
95th Queue (ft)	38
Link Distance (ft)	211
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 11: Driveway 4 & Ellis Av.

Movement	NB
Directions Served	R
Maximum Queue (ft)	34
Average Queue (ft)	14
95th Queue (ft)	39
Link Distance (ft)	641
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 17: Driveway 5 & Case Rd.

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	38	67
Average Queue (ft)	15	23
95th Queue (ft)	39	50
Link Distance (ft)		800
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	200	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

APPENDIX 1.3: VEHICLE MILES TRAVELED (VMT) SCOPING AGREEMENT AND FORMS

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July 18, 2023

Mr. Nathan Perez
CITY OF PERRIS (Planning Division)
135 North "D" Street
Perris, CA 92570

Subject: Perris Airport Logistics Project (DPR 22-00005 & CUP 23-05107) Scoping Agreement and VMT Analysis Review #7, City of Perris

Dear Mr. Perez,

Introduction

RK ENGINEERING GROUP, INC. (RK) has reviewed the Scoping Agreement and VMT Analysis #7 for the Perris Airport Logistics Project (DPR 22-00005 & CUP 23-05107) in the City of Perris. The proposed project will consist of 795,109 square feet of high-cube fulfillment center warehouse, 71,961 square foot warehouse building (Building 2), and a truck/trailer storage lot with approximately 323 spaces plus 2 auto parking stalls and 20 tractor stalls. For the purposes of the traffic study, the storage yard on Site 2 will be evaluated assuming it is an independent use in an effort to evaluate the most conservative trip generation for the project.

The project is located at the southeast corner of Goetz Road and Ellis Avenue in the City of Perris. Access to the project is proposed via two (2) passenger car driveways along Goetz Road (i.e. Driveways 1 & 3), one truck driveway along Goetz Road which will be aligned as the 4th leg of the Mountain Avenue intersection (i.e. Driveway 2), one truck only driveway along Ellis Avenue (i.e. Driveway 4), and one (1) shared passenger car/truck driveway along Case Road (i.e. Driveway 5).

The Scoping Agreement #7 is dated June 14, 2023 and the VMT Analysis is dated June 2, 2023. Both of these documents were prepared by Urban Crossroads. RK has reviewed the Scoping Agreement and VMT Analysis #7 pursuant to City of Perris requirements. Based upon this review, it is acceptable as currently written.

Comments

1. The Scoping Agreement #7 is acceptable as currently written. **Please include "DPR 22-00005" in addition to "CUP 23-05107" in the final traffic study since the project has two sites (the DPR is for the large industrial**

1401 dove street, ste. 540
newport beach, ca 92660
P (949) 474-0809
W rkengineer.com

building/small warehouse building site and the CUP is for the outdoor truck terminal yard).

Conclusions

RK has reviewed the Scoping Agreement and VMT Analysis #7 for the Perris Airport Logistics Project (DPR 22-00005 & CUP 23-05107) in the City of Perris. Based upon this review, the scoping agreement is acceptable. The traffic engineer can begin on the traffic impact study and submit to the City when completed.

RK appreciates this opportunity to work with the City of Perris on this project and if you have any questions, please contact me at 949-293-9639.

Sincerely,

Robert Kahn
Founding Principal

Justin Tucker, P.E.
Principal Engineer

Registered Civil Engineer 92866

XC: Kenneth Phung, City of Perris
Stuart McKibbin, City of Perris
John Pourkazemi, Tri-Lake Consultants
Patricia Brenes, City of Perris

RK 19219
JN: 2126-2022-16



City of Perris

CITY OF PERRIS
VMT SCOPING FORM FOR LAND USE PROJECTS

This Scoping Form acknowledges the City of Perris requirements for the evaluation of transportation impacts under CEQA. The analysis provided in this form should follow the City of Perris TIA Guidelines, dated May 12, 2020.

I. Project Description

Tract/Case No. CUP 23-05107

Project Name: Perris Airport Logistics Center

Project Location: SEC of Goetz Road & Ellis Avenue

Project Description: 323 space truck/trailer storage yard
(Please attach a copy of the project Site Plan)

Current GP Land Use: LI - Light Industrial **Proposed GP Land Use:** LI - Light Industrial

Current Zoning: LI - Light Industrial **Proposed Zoning:** LI - Light Industrial

If a project requires a General Plan Amendment or Zone change, then additional information and analysis should be provided to ensure the project is consistent with RHNA and RTP/SCS Strategies.

II. VMT Screening Criteria

A. Is the Project 100% affordable housing?	**YES**		**NO**	**X**	Attachments:
B. Is the Project within 1/2 mile of qualifying transit?	**YES**		**NO**	**X**	Attachments:
C. Is the Project a local serving land use?	**YES**	**X**	**NO**		Attachments:
D. Is the Project in a low VMT area?	**YES**		**NO**	**X**	Attachments:
E. Are the Project's Net Daily Trips less than 500 ADT?	**YES**		**NO**	**X**	Attachments:

Low VMT Area Evaluation:

Citywide VMT Averages[1]		
Citywide Home-Based VMT =	15.05	VMT/Capita
Citywide Employment-Based VMT =	11.62	VMT/Employee

WRCOG VMT MAP

Project TAZ	VMT Rate for Project TAZ[1]		Type of Project	
3812	**17.78**	VMT/Capita	Residential:	
	14.48	VMT/Employee	Non-Residential:	**X**

[1] Base year (2012) projections from RIVTAM.

Trip Generation Evaluation:

Source of Trip Generation: Empirical Data for Truck/Trailer Yard

Project Trip Generation: **682** **Average Daily Trips (ADT)**

Internal Trip Credit:	YES		NO		% Trip Credit:
Pass-By Trip Credit:	YES		NO		% Trip Credit:
Affordable Housing Credit:	YES		NO		% Trip Credit:
Existing Land Use Trip Credit:	YES		NO		Trip Credit:

Net Project Daily Trips: **682** **Average Daily Trips (ADT)** Attachments:

Does project trip generation warrant an LOS evaluation outside of CEQA? **YES** **X** **NO**

III. VMT Screening Summary

A. Is the Project presumed to have a less than significant impact on VMT?
A Project is presumed to have a less than significant impact on VMT if the Project satisfies at least one (1) of the VMT screening criteria.

Less Than Significant

B. Is mitigation required?
If the Project does not satisfy at least one (1) of the VMT screening criteria, then mitigation is required to reduce the Project's impact on VMT.

No Mitigation Required

C. Is additional VMT modeling required to evaluate Project impacts?	YES		NO	X

If the Project requires a zone change and/or General Plan Amendment AND generates 2,500 or more net daily trips, then additional VMT modeling using RIVTAM/RIVCOM is required. If the project generates less than 2,500 net daily trips, the Project TAZ VMT Rate can be used for mitigation purposes.

IV. MITIGATION

A. Citywide Average VMT Rate (Threshold of Significance) for Mitigation Purposes:	N/A	N/A
B. Unmitigated Project TAZ VMT Rate:	N/A	N/A
C. Percentage Reduction Required to Achieve the Citywide Average VMT:	N/A	

D. VMT Reduction Mitigation Measures:

Source of VMT Reduction Estimates:	**CAPCOA**
Project Location Setting	**Suburban**

	VMT Reduction Mitigation Measure:	Estimated VMT Reduction (%)
1.		0.00%
2.		0.00%
3.		0.00%
4.		0.00%
5.		0.00%
6.		0.00%
7.		0.00%
8.		0.00%
9.		0.00%
10.		0.00%
Total VMT Reduction (%)		**0.00%**

(Attach additional pages, if necessary, and a copy of all mitigation calculations.)

E. Mitigated Project TAZ VMT Rate:	N/A	N/A

F. Is the project pressumed to have a less than significant impact with mitigation?

N/A

If the mitigated Project VMT rate is below the Citywide Average Rate, then the Project is presumed to have a less than significant impact with mitigation. If the answer is no, then additional VMT modeling may be required and a potentially significant and unavoidable impact may occur. All mitigation measures identified in Section IV.D. are subject to become Conditions of Approval of the project. Development review and processing fees should be submitted with, or prior to the submittal of this Form. The Planning Department staff will not process the Form prior to fees being paid to the City.

Prepared By		Developer/Applicant	
Company:	Urban Crossroads, Inc.	**Company:**	Cyburn Holdings Realty Partners, LLC
Contact:	Charlene So	**Contact:**	Phil Cyburt
Address:	1133 Camelback St. #8329, Newport Beach, CA	**Address:**	18032 Lemon Drive, Suite #367, Yorba Linda
Phone:	949-861-0177	**Phone:**	949-433-5858
Email:	cso@urbanxroads.com	**Email:**	pcyburt@cyburtholdings.com
Date:	6/2/2023	**Date:**	6/2/2023

Approved by:

Perris Planning Division	**Date**	**Perris City Engineer**	**Date**

CITY OF PERRIS
VMT SCOPING FORM FOR LAND USE PROJECTS

This Scoping Form acknowledges the City of Perris requirements for the evaluation of transportation impacts under CEQA. The analysis provided in this form should follow the City of Perris TIA Guidelines, dated May 12, 2020.

I. Project Description

Tract/Case No. DPR 22-00005

Project Name: Perris Airport Logistics Center

Project Location: SEC of Goetz Road & Ellis Avenue

Project Description: 795,109 SF high-cube fulfillment center warehouse and 71,961 SF warehouse
(Please attach a copy of the project Site Plan)

Current GP Land Use: LI - Light Industrial **Proposed GP Land Use:** LI - Light Industrial

Current Zoning: LI - Light Industrial **Proposed Zoning:** LI - Light Industrial

If a project requires a General Plan Amendment or Zone change, then additional information and analysis should be provided to ensure the project is consistent with RHNA and RTP/SCS Strategies.

II. VMT Screening Criteria

A. Is the Project 100% affordable housing?	**YES**		**NO**	**X**	Attachments:
B. Is the Project within 1/2 mile of qualifying transit?	**YES**		**NO**	**X**	Attachments:
C. Is the Project a local serving land use?	**YES**		**NO**	**X**	Attachments:
D. Is the Project in a low VMT area?	**YES**		**NO**	**X**	Attachments:
E. Are the Project's Net Daily Trips less than 500 ADT?	**YES**		**NO**	**X**	Attachments:

Low VMT Area Evaluation:

Citywide VMT Averages[1]		
Citywide Home-Based VMT =	15.05	VMT/Capita
Citywide Employment-Based VMT =	11.62	VMT/Employee

WRCOG VMT MAP

Project TAZ	VMT Rate for Project TAZ[1]		Type of Project	
3812	**17.78**	VMT/Capita	Residential:	
	14.48	VMT/Employee	Non-Residential:	**X**

[1] Base year (2012) projections from RIVTAM.

Trip Generation Evaluation:

Source of Trip Generation: WSP Rate and ITE 11th Gen Rates

Project Trip Generation: **2,048** **Average Daily Trips (ADT)**

Internal Trip Credit:	YES		NO		% Trip Credit:
Pass-By Trip Credit:	YES		NO		% Trip Credit:
Affordable Housing Credit:	YES		NO		% Trip Credit:
Existing Land Use Trip Credit:	YES		NO		Trip Credit:

Net Project Daily Trips: **2,048** **Average Daily Trips (ADT)** Attachments:

Does project trip generation warrant an LOS evaluation outside of CEQA? **YES** **X** **NO**

III. VMT Screening Summary

A. Is the Project presumed to have a less than significant impact on VMT?
A Project is presumed to have a less than significant impact on VMT if the Project satisfies at least one (1) of the VMT screening criteria.

Potentially Significant

B. Is mitigation required?
If the Project does not satisfy at least one (1) of the VMT screening criteria, then mitigation is required to reduce the Project's impact on VMT.

Mitigation Required

C. Is additional VMT modeling required to evaluate Project impacts?	YES		NO	X

If the Project requires a zone change and/or General Plan Amendment AND generates 2,500 or more net daily trips, then additional VMT modeling using RIVTAM/RIVCOM is required. If the project generates less than 2,500 net daily trips, the Project TAZ VMT Rate can be used for mitigation purposes.

IV. MITIGATION

A. Citywide Average VMT Rate (Threshold of Significance) for Mitigation Purposes:	**11.62**	**VMT/Employee**
B. Unmitigated Project TAZ VMT Rate:	**14.48**	**VMT/Employee**
C. Percentage Reduction Required to Achieve the Citywide Average VMT:	**19.75%**	

D. VMT Reduction Mitigation Measures:

Source of VMT Reduction Estimates:	**CAPCOA**
Project Location Setting	**Suburban**

	VMT Reduction Mitigation Measure:	Estimated VMT Reduction (%)
1.	T-7 Implement Commute Trip Reduction Marketing	4.00%
2.	T-8 Provide a Ridesharing Program	4.00%
3.	T-10 Provide End-Of-Trip (Bicycle) Facilities	0.10%
4.		0.00%
5.		0.00%
6.		0.00%
7.		0.00%
8.		0.00%
9.		0.00%
10.		0.00%
Total VMT Reduction (%)		**8.10%**

(Attach additional pages, if necessary, and a copy of all mitigation calculations.)

E. Mitigated Project TAZ VMT Rate:	**13.31**	**VMT/Employee**

F. Is the project pressumed to have a less than significant impact with mitigation?

Impact Not Mitigated

If the mitigated Project VMT rate is below the Citywide Average Rate, then the Project is presumed to have a less than significant impact with mitigation. If the answer is no, then additional VMT modeling may be required and a potentially significant and unavoidable impact may occur. All mitigation measures identified in Section IV.D. are subject to become Conditions of Approval of the project. Development review and processing fees should be submitted with, or prior to the submittal of this Form. The Planning Department staff will not process the Form prior to fees being paid to the City.

Prepared By		Developer/Applicant	
Company:	Urban Crossroads, Inc.	**Company:**	Cyburn Holdings Realty Partners, LLC
Contact:	Charlene So	**Contact:**	Phil Cyburt
Address:	1133 Camelback St. #8329, Newport Beach, CA	**Address:**	18032 Lemon Drive, Suite #367, Yorba Linda
Phone:	949-861-0177	**Phone:**	949-433-5858
Email:	cso@urbanxroads.com	**Email:**	pcyburt@cyburtholdings.com
Date:	6/2/2023	**Date:**	6/2/2023

Approved by:

Perris Planning Division	**Date**	**Perris City Engineer**	**Date**

APPENDIX 3.1: TRAFFIC COUNTS

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INTERSECTION TURNING MOVEMENT COUNTS

T42321

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, May 24, 22	LOCATION:	Perris	PROJECT #: SC3431
	NORTH & SOUTH:	Goetz	LOCATION #: 1
	EAST & WEST:	Case	CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND Goetz			SOUTHBOUND Goetz			EASTBOUND Case			WESTBOUND Case			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 1	WL 1	WT 1	WR X	TOTAL
AM	7:00 AM	52	0	34	0	0	0	0	23	12	30	28	0	179
	7:15 AM	69	0	56	0	0	0	0	24	12	37	33	0	231
	7:30 AM	54	0	57	0	0	0	0	33	26	47	44	0	261
	7:45 AM	73	0	55	0	0	0	0	39	31	73	48	0	319
	8:00 AM	44	0	60	0	0	0	0	51	26	48	38	0	267
	8:15 AM	36	0	35	0	0	0	0	47	16	31	33	0	198
	8:30 AM	30	0	31	0	0	0	0	27	13	35	39	0	175
	8:45 AM	34	0	23	0	0	0	0	24	17	34	34	0	166
	VOLUMES	392	0	351	0	0	0	0	268	153	335	297	0	1,796
	APPROACH %	53%	0%	47%	0%	0%	0%	0%	64%	36%	53%	47%	0%	
	APP/DEPART	743	/	0	0	/	488	421	/	619	632	/	689	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	240	0	228	0	0	0	0	147	95	205	163	0	1,078
	APPROACH %	51%	0%	49%	0%	0%	0%	0%	61%	39%	56%	44%	0%	
	PEAK HR FACTOR		0.914			0.000			0.786			0.760		0.845
	APP/DEPART	468	/	0	0	/	300	242	/	375	368	/	403	0
PM	4:00 PM	37	0	49	0	0	0	0	48	40	48	55	0	277
	4:15 PM	36	0	38	0	0	0	0	44	33	40	43	0	234
	4:30 PM	34	0	42	0	0	0	0	49	32	45	50	0	252
	4:45 PM	29	0	45	0	0	0	0	62	33	53	42	0	264
	5:00 PM	22	0	21	0	0	0	0	51	37	51	48	0	230
	5:15 PM	20	0	33	0	0	0	0	50	30	58	48	0	239
	5:30 PM	22	0	42	0	0	0	0	43	40	52	48	0	247
	5:45 PM	30	0	25	0	0	0	0	50	32	49	47	0	233
	VOLUMES	230	0	295	0	0	0	0	397	277	396	381	0	1,976
	APPROACH %	44%	0%	56%	0%	0%	0%	0%	59%	41%	51%	49%	0%	
	APP/DEPART	525	/	0	0	/	673	674	/	692	777	/	611	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	136	0	174	0	0	0	0	203	138	186	190	0	1,027
	APPROACH %	44%	0%	56%	0%	0%	0%	0%	60%	40%	49%	51%	0%	
	PEAK HR FACTOR		0.901			0.000			0.897			0.913		0.927
	APP/DEPART	310	/	0	0	/	324	341	/	377	376	/	326	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR	SRR	ERR	WRR
11	0	4	0
15	0	3	0
26	0	10	0
20	0	19	0
17	0	8	0
12	0	4	0
13	0	2	0
11	0	6	0
125	0	56	0
78	0	40	0
32	0	9	0
18	0	4	0
23	0	9	0
28	0	3	0
17	0	3	0
21	0	1	0
22	0	3	0
13	0	4	0
174	0	36	0
101	0	25	0

Goetz

NORTH SIDE

Case WEST SIDE EAST SIDE **Case**

SOUTH SIDE

Goetz

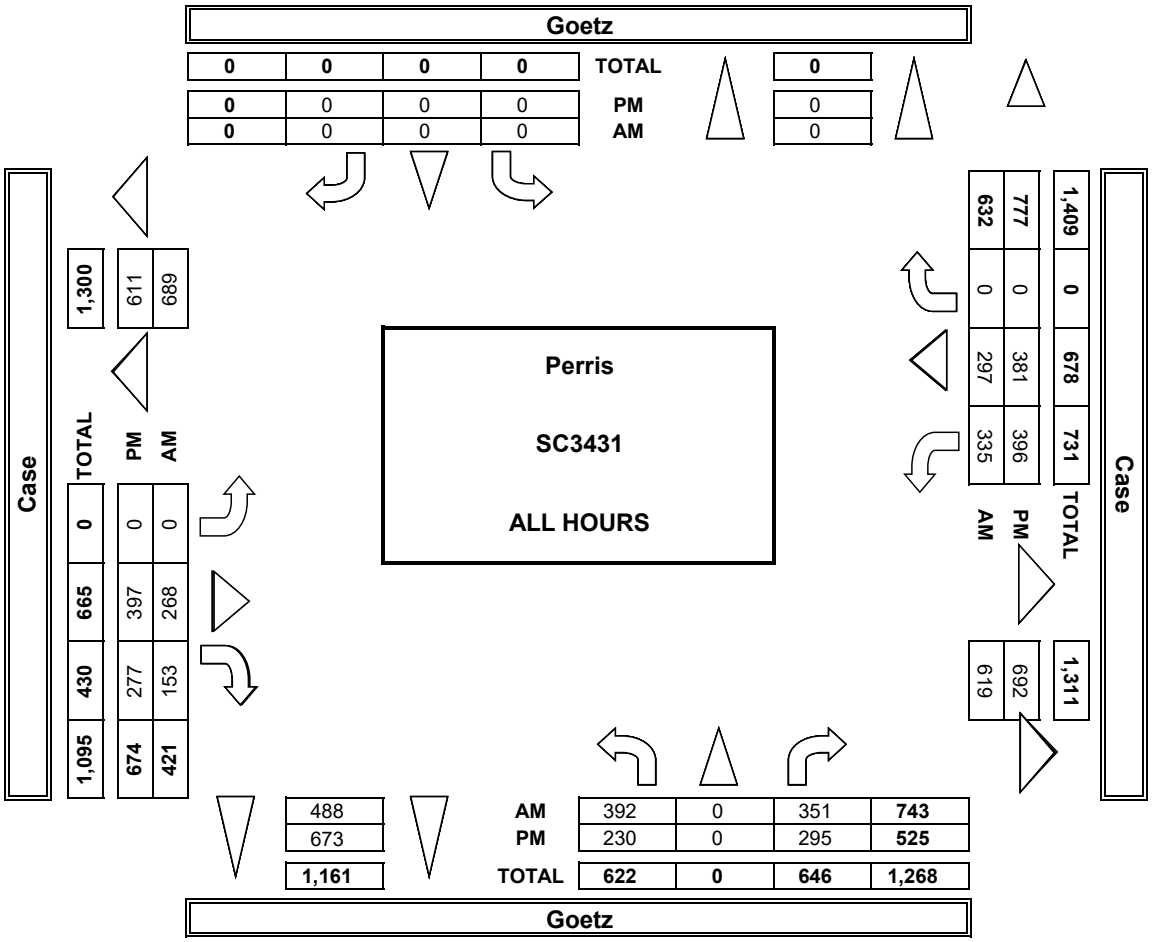
		ALL PED AND BIKE				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	0	0	0	0
	8:30 AM	0	0	0	0	0
	8:45 AM	0	0	0	0	0
	TOTAL	0	0	0	0	0
PM	4:00 PM	0	0	1	0	1
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	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	0	0	2	0	2

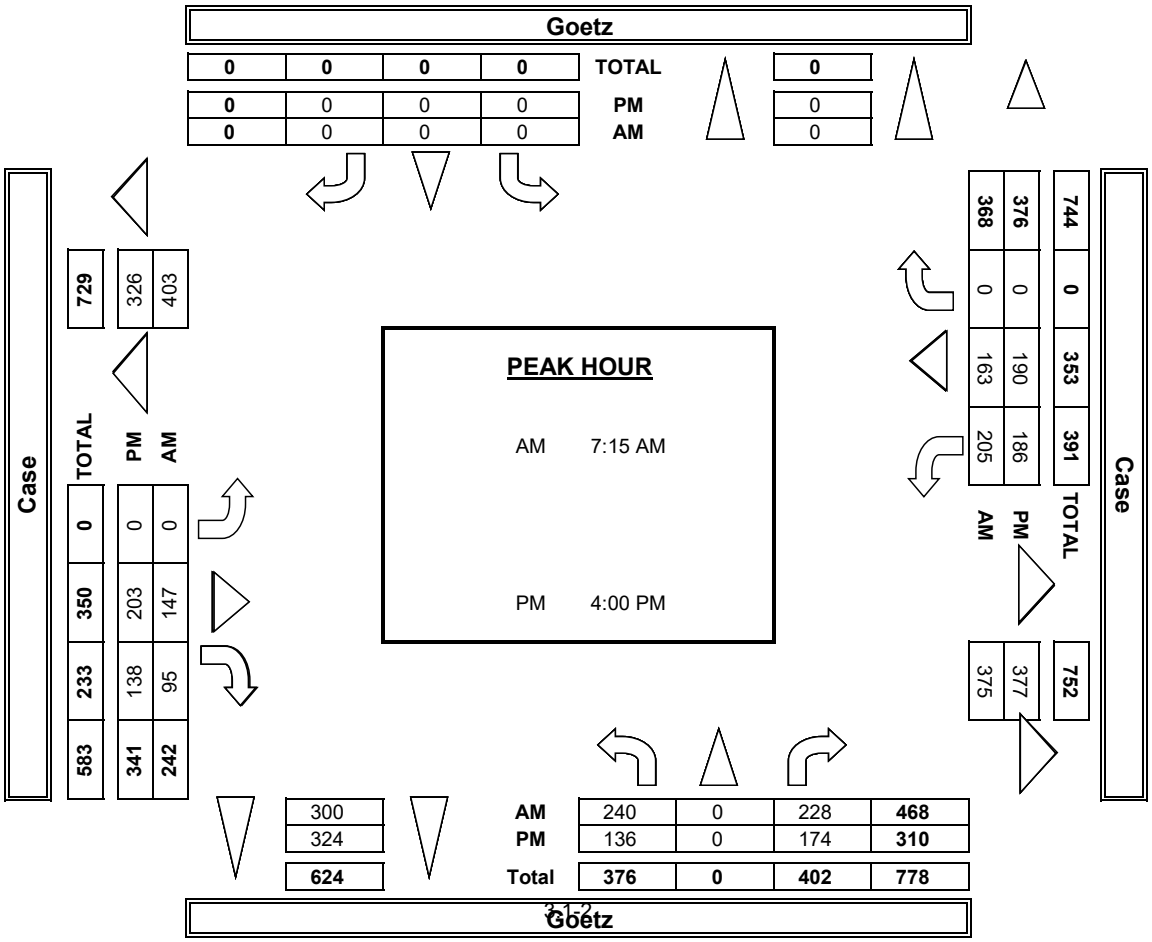
	PEDESTRIAN CROSSINGS				
	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	0	0	0	0	0
4:00 PM	0	0	1	0	1
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	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	0	0	1	0	1

	BICYCLE CROSSINGS				
	ES	WS	SS	NS	TOTAL
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	0	0	0	0	0
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	0	0	1	0	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	1
TUESDAY	EAST & WEST:	Case	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Case)			WESTBOUND (Case)			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 1	WL 1	WT 1	WR X	TOTAL
AM	7:00 AM	48	0	24	0	0	0	0	22	11	25	23	0	153
	7:15 AM	65	0	48	0	0	0	0	22	7	31	31	0	204
	7:30 AM	49	0	51	0	0	0	0	31	24	39	38	0	232
	7:45 AM	70	0	49	0	0	0	0	34	26	64	44	0	287
	8:00 AM	39	0	49	0	0	0	0	43	25	46	33	0	235
	8:15 AM	31	0	29	0	0	0	0	41	11	24	31	0	167
	8:30 AM	27	0	24	0	0	0	0	22	11	26	33	0	143
	8:45 AM	30	0	18	0	0	0	0	22	15	26	29	0	140
	VOLUMES	359	0	292	0	0	0	0	237	130	281	262	0	1,561
	APPROACH %	55%	0%	45%	0%	0%	0%	0%	65%	35%	52%	48%	0%	
	APP/DEPART	651	/	0	0	/	411	367	/	529	543	/	621	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	223	0	197	0	0	0	0	130	82	180	146	0	958
	APPROACH %	53%	0%	47%	0%	0%	0%	0%	61%	39%	55%	45%	0%	
	PEAK HR FACTOR		0.882			0.000			0.779			0.755		0.834
	APP/DEPART	420	/	0	0	/	262	212	/	327	326	/	369	0
PM	4:00 PM	32	0	43	0	0	0	0	45	36	38	50	0	244
	4:15 PM	30	0	34	0	0	0	0	40	30	26	41	0	201
	4:30 PM	32	0	38	0	0	0	0	47	24	35	44	0	220
	4:45 PM	27	0	41	0	0	0	0	55	29	40	38	0	230
	5:00 PM	20	0	20	0	0	0	0	47	33	42	46	0	208
	5:15 PM	16	0	29	0	0	0	0	46	27	56	46	0	220
	5:30 PM	21	0	38	0	0	0	0	40	39	41	44	0	223
	5:45 PM	27	0	22	0	0	0	0	45	30	37	44	0	205
	VOLUMES	205	0	265	0	0	0	0	365	248	315	353	0	1,751
	APPROACH %	44%	0%	56%	0%	0%	0%	0%	60%	40%	47%	53%	0%	
	APP/DEPART	470	/	0	0	/	563	613	/	630	668	/	558	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	121	0	156	0	0	0	0	187	119	139	173	0	895
	APPROACH %	44%	0%	56%	0%	0%	0%	0%	61%	39%	45%	55%	0%	
	PEAK HR FACTOR		0.923			0.000			0.911			0.886		0.917
	APP/DEPART	277	/	0	0	/	258	306	/	343	312	/	294	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR 0	SRR X	ERR 0	WRR X
8	0	3	0
12	0	2	0
24	0	9	0
17	0	16	0
15	0	8	0
10	0	3	0
10	0	2	0
10	0	5	0
106	0	48	0
68	0	35	0
28	0	8	0
16	0	3	0
20	0	6	0
25	0	3	0
17	0	3	0
19	0	1	0
19	0	3	0
13	0	4	0
157	0	31	0
89	0	20	0

Goetz

NORTH SIDE

Case WEST SIDE EAST SIDE Case

SOUTH SIDE

Goetz

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	1
TUESDAY	EAST & WEST:	Case	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

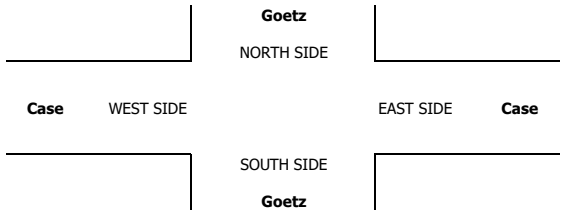
		NORTHBOUND Goetz			SOUTHBOUND Goetz			EASTBOUND Case			WESTBOUND Case			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 1	WL 1	WT 1	WR X	TOTAL
AM	7:00 AM	3	0	3	0	0	0	0	1	0	5	4	0	16
	7:15 AM	2	0	4	0	0	0	0	1	2	1	0	0	10
	7:30 AM	3	0	2	0	0	0	0	2	0	4	3	0	14
	7:45 AM	1	0	0	0	0	0	0	2	2	3	2	0	10
	8:00 AM	3	0	1	0	0	0	0	5	1	0	4	0	14
	8:15 AM	1	0	3	0	0	0	0	3	2	3	1	0	13
	8:30 AM	1	0	3	0	0	0	0	1	1	4	6	0	16
	8:45 AM	3	0	3	0	0	0	0	1	0	3	4	0	14
	VOLUMES	17	0	19	0	0	0	0	16	8	23	24	0	107
	APPROACH %	47%	0%	53%	0%	0%	0%	0%	67%	33%	49%	51%	0%	
	APP/DEPART	36	/	0	0	/	31	24	/	35	47	/	41	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	9	0	7	0	0	0	0	10	5	8	9	0	48
	APPROACH %	56%	0%	44%	0%	0%	0%	0%	67%	33%	47%	53%	0%	
	PEAK HR FACTOR		0.667			0.000			0.625			0.607		0.857
	APP/DEPART	16	/	0	0	/	13	15	/	17	17	/	18	0
PM	4:00 PM	2	0	5	0	0	0	0	2	1	3	4	0	17
	4:15 PM	3	0	2	0	0	0	0	2	1	7	2	0	17
	4:30 PM	1	0	3	0	0	0	0	2	5	1	5	0	17
	4:45 PM	2	0	1	0	0	0	0	7	0	0	3	0	13
	5:00 PM	1	0	0	0	0	0	0	4	2	4	1	0	12
	5:15 PM	4	0	1	0	0	0	0	0	0	1	2	0	8
	5:30 PM	1	0	4	0	0	0	0	3	1	7	4	0	20
	5:45 PM	1	0	2	0	0	0	0	3	1	2	3	0	12
	VOLUMES	15	0	18	0	0	0	0	23	11	25	24	0	116
	APPROACH %	45%	0%	55%	0%	0%	0%	0%	68%	32%	51%	49%	0%	
	APP/DEPART	33	/	0	0	/	36	34	/	41	49	/	39	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	8	0	11	0	0	0	0	13	7	11	14	0	64
	APPROACH %	42%	0%	58%	0%	0%	0%	0%	65%	35%	44%	56%	0%	
	PEAK HR FACTOR		0.679			0.000			0.714			0.694		0.941
	APP/DEPART	19	/	0	0	/	18	20	/	24	25	/	22	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR 0	SRR X	ERR 0	WRR X
1	0	0	0
1	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
1	0	0	0
2	0	0	0
1	0	0	0
6	0	1	0
1	0	1	0
3	0	1	0
1	0	1	0
2	0	2	0
1	0	0	0
0	0	0	0
0	0	0	0
3	0	0	0
0	0	0	0
10	0	4	0
7	0	4	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	1
TUESDAY	EAST & WEST:	Case	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

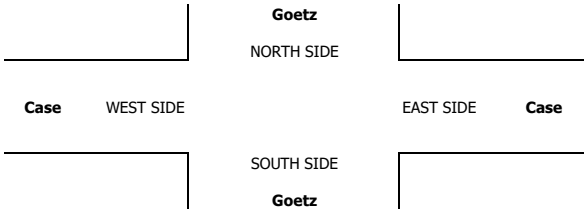
		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Case)			WESTBOUND (Case)			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 1	WL 1	WT 1	WR X	TOTAL
AM	7:00 AM	1	0	4	0	0	0	0	0	1	0	1	0	7
	7:15 AM	0	0	2	0	0	0	0	0	0	3	0	0	5
	7:30 AM	0	0	1	0	0	0	0	0	1	1	2	0	5
	7:45 AM	0	0	3	0	0	0	0	0	1	0	1	0	5
	8:00 AM	0	0	4	0	0	0	0	1	0	0	0	0	5
	8:15 AM	2	0	0	0	0	0	0	0	3	0	0	0	5
	8:30 AM	0	0	0	0	0	0	0	1	0	1	0	0	2
	8:45 AM	1	0	2	0	0	0	0	0	1	2	0	0	6
	VOLUMES	4	0	16	0	0	0	0	2	7	7	4	0	40
	APPROACH %	20%	0%	80%	0%	0%	0%	0%	22%	78%	64%	36%	0%	
	APP/DEPART	20	/	0	0	/	14	9	/	18	11	/	8	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	10	0	0	0	0	1	2	4	3	0	20
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	33%	67%	57%	43%	0%	
	PEAK HR FACTOR		0.625			0.000			0.750			0.583		1.000
	APP/DEPART	10	/	0	0	/	6	3	/	11	7	/	3	0
PM	4:00 PM	2	0	1	0	0	0	0	0	3	2	0	0	8
	4:15 PM	0	0	1	0	0	0	0	0	2	3	0	0	6
	4:30 PM	0	0	0	0	0	0	0	0	2	4	0	0	6
	4:45 PM	0	0	0	0	0	0	0	0	4	6	0	0	10
	5:00 PM	0	0	0	0	0	0	0	0	2	1	1	0	4
	5:15 PM	0	0	3	0	0	0	0	1	2	0	0	0	6
	5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
	5:45 PM	1	0	1	0	0	0	0	1	1	9	0	0	13
	VOLUMES	3	0	6	0	0	0	0	2	16	26	1	0	54
	APPROACH %	33%	0%	67%	0%	0%	0%	0%	11%	89%	96%	4%	0%	
	APP/DEPART	9	/	0	0	/	42	18	/	8	27	/	4	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	2	0	2	0	0	0	0	0	11	15	0	0	30
	APPROACH %	50%	0%	50%	0%	0%	0%	0%	0%	100%	100%	0%	0%	
	PEAK HR FACTOR		0.333			0.000			0.688			0.625		0.750
	APP/DEPART	4	/	0	0	/	26	11	/	2	15	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR 0	SRR X	ERR 0	WRR X
1	0	1	0
2	0	0	0
0	0	0	0
2	0	0	0
2	0	0	0
0	0	1	0
0	0	0	0
0	0	1	0
7	0	3	0
6	0	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	0
0	0	0	0
3	0	0	0
1	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	1
TUESDAY	EAST & WEST:	Case	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Case)			WESTBOUND (Case)			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 1	WL 1	WT 1	WR X	TOTAL
AM	7:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	2
	7:15 AM	2	0	2	0	0	0	0	1	3	1	1	0	10
	7:30 AM	1	0	2	0	0	0	0	0	0	2	0	0	5
	7:45 AM	2	0	3	0	0	0	0	1	2	5	0	0	13
	8:00 AM	1	0	5	0	0	0	0	1	0	2	1	0	10
	8:15 AM	1	0	2	0	0	0	0	1	0	2	1	0	7
	8:30 AM	1	0	3	0	0	0	0	2	0	3	0	0	9
	8:45 AM	0	0	0	0	0	0	0	0	0	3	1	0	4
	VOLUMES	8	0	19	0	0	0	0	6	5	18	4	0	60
	APPROACH %	30%	0%	70%	0%	0%	0%	0%	55%	45%	82%	18%	0%	
	APP/DEPART	27	/	0	0	/	23	11	/	25	22	/	12	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	6	0	12	0	0	0	0	3	5	10	2	0	38
	APPROACH %	33%	0%	67%	0%	0%	0%	0%	38%	63%	83%	17%	0%	
	PEAK HR FACTOR		0.750			0.000			0.500			0.600		0.731
	APP/DEPART	18	/	0	0	/	15	8	/	15	12	/	8	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	5	0	0	5
	4:15 PM	2	0	1	0	0	0	0	1	0	1	0	0	5
	4:30 PM	1	0	1	0	0	0	0	0	1	2	0	0	5
	4:45 PM	0	0	2	0	0	0	0	0	0	3	1	0	6
	5:00 PM	0	0	1	0	0	0	0	0	0	2	0	0	3
	5:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	2
	5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
	VOLUMES	3	0	5	0	0	0	0	2	1	16	1	0	28
	APPROACH %	38%	0%	63%	0%	0%	0%	0%	67%	33%	94%	6%	0%	
	APP/DEPART	8	/	0	0	/	17	3	/	7	17	/	4	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	3	0	4	0	0	0	0	1	1	11	1	0	21
	APPROACH %	43%	0%	57%	0%	0%	0%	0%	50%	50%	92%	8%	0%	
	PEAK HR FACTOR		0.583			0.000			0.500			0.600		0.875
	APP/DEPART	7	/	0	0	/	12	2	/	5	12	/	4	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR 0	SRR X	ERR 0	WRR X
1	0	0	0
0	0	1	0
2	0	0	0
1	0	2	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
5	0	3	0
3	0	3	0
0	0	0	0
1	0	0	0
1	0	1	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
3	0	1	0
3	0	1	0

Goetz

NORTH SIDE

Case WEST SIDE — EAST SIDE **Case**

SOUTH SIDE

Goetz

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	1
TUESDAY	EAST & WEST:	Case	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

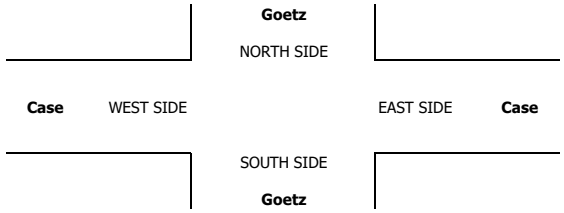
		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Case)			WESTBOUND (Case)			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 1	WL 1	WT 1	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR 0	SRR X	ERR 0	WRR X
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	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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	1
TUESDAY	EAST & WEST:	Case	CONTROL:	SIGNAL

CLASS 6: BUSES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Case)			WESTBOUND (Case)			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 1	WL 1	WT 1	WR X	TOTAL
AM	7:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	1	1	0	2
	7:30 AM	1	0	1	0	0	0	0	0	1	1	1	0	5
	7:45 AM	0	0	0	0	0	0	0	2	0	1	1	0	4
	8:00 AM	1	0	1	0	0	0	0	1	0	0	0	0	3
	8:15 AM	1	0	1	0	0	0	0	2	0	2	0	0	6
	8:30 AM	1	0	1	0	0	0	0	1	1	1	0	0	5
	8:45 AM	0	0	0	0	0	0	0	1	1	0	0	0	2
	VOLUMES	4	0	5	0	0	0	0	7	3	6	3	0	28
	APPROACH %	44%	0%	56%	0%	0%	0%	0%	70%	30%	67%	33%	0%	
	APP/DEPART	9	/	0	0	/	9	10	/	12	9	/	7	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	2	0	2	0	0	0	0	3	1	3	3	0	14
	APPROACH %	50%	0%	50%	0%	0%	0%	0%	75%	25%	50%	50%	0%	
	PEAK HR FACTOR		0.500			0.000			0.500			0.750		0.700
	APP/DEPART	4	/	0	0	/	4	4	/	5	6	/	5	0
PM	4:00 PM	1	0	0	0	0	0	0	1	0	0	1	0	3
	4:15 PM	1	0	0	0	0	0	0	1	0	3	0	0	5
	4:30 PM	0	0	0	0	0	0	0	0	0	3	1	0	4
	4:45 PM	0	0	1	0	0	0	0	0	0	4	0	0	5
	5:00 PM	1	0	0	0	0	0	0	0	0	2	0	0	3
	5:15 PM	0	0	0	0	0	0	0	2	1	0	0	0	3
	5:30 PM	0	0	0	0	0	0	0	0	0	2	0	0	2
	5:45 PM	1	0	0	0	0	0	0	1	0	0	0	0	2
	VOLUMES	4	0	1	0	0	0	0	5	1	14	2	0	27
	APPROACH %	80%	0%	20%	0%	0%	0%	0%	83%	17%	88%	13%	0%	
	APP/DEPART	5	/	0	0	/	15	6	/	6	16	/	6	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	2	0	1	0	0	0	0	2	0	10	2	0	17
	APPROACH %	67%	0%	33%	0%	0%	0%	0%	100%	0%	83%	17%	0%	
	PEAK HR FACTOR		0.750			0.000			0.500			0.750		0.850
	APP/DEPART	3	/	0	0	/	10	2	/	3	12	/	4	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR 0	SRR X	ERR 0	WRR X
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
1	0	0	0
0	0	0	0
1	0	1	0
0	0	1	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	0	0	0
1	0	0	0

Goetz

NORTH SIDE

Case WEST SIDE EAST SIDE **Case**

SOUTH SIDE

Goetz

INTERSECTION TURNING MOVEMENT COUNTS

T42321

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, May 24, 22

LOCATION: Perris
NORTH & SOUTH: Goetz
EAST & WEST: Ellis

PROJECT #: SC3431
LOCATION #: 2
CONTROL: STOP E/W

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Ellis)			WESTBOUND (Ellis)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 0	ER 1	WL 0	WT 0	WR 0	TOTAL
AM	7:00 AM	7	68	0	0	41	0	1	0	4	2	0	0	123
AM	7:15 AM	9	101	0	0	46	2	1	0	6	1	0	0	166
AM	7:30 AM	13	84	3	0	72	2	4	0	20	8	0	1	207
AM	7:45 AM	13	105	0	0	91	2	1	0	13	4	0	0	229
AM	8:00 AM	8	92	4	0	63	1	0	0	13	2	0	0	183
AM	8:15 AM	2	58	1	0	46	2	3	0	11	2	0	0	125
AM	8:30 AM	2	66	0	0	39	4	0	0	10	0	0	0	121
AM	8:45 AM	5	55	1	0	45	1	1	0	6	1	0	0	115
AM	VOLUMES	59	629	9	0	443	14	11	0	83	20	0	1	1,269
AM	APPROACH %	8%	90%	1%	0%	97%	3%	12%	0%	88%	95%	0%	5%	
AM	APP/DEPART	697	/	640	457	/	548	94	/	9	21	/	72	0
AM	BEGIN PEAK HR		7:15 AM											
AM	VOLUMES	43	382	7	0	272	7	6	0	52	15	0	1	785
AM	APPROACH %	10%	88%	2%	0%	97%	3%	10%	0%	90%	94%	0%	6%	
AM	PEAK HR FACTOR		0.915			0.750			0.604			0.444		0.857
AM	APP/DEPART	432	/	388	279	/	339	58	/	7	16	/	51	0
PM	4:00 PM	8	72	0	0	71	3	1	0	12	0	0	0	167
PM	4:15 PM	2	59	0	0	69	0	3	0	11	0	0	0	144
PM	4:30 PM	6	75	0	0	64	3	1	0	20	0	0	0	169
PM	4:45 PM	6	65	1	0	67	4	2	0	11	2	0	0	158
PM	5:00 PM	7	44	1	0	78	0	0	0	10	0	0	0	140
PM	5:15 PM	4	49	1	0	64	4	2	0	18	0	0	0	142
PM	5:30 PM	8	54	2	0	81	2	1	0	9	0	0	0	157
PM	5:45 PM	1	44	0	0	68	3	1	0	17	2	0	0	136
PM	VOLUMES	42	462	5	0	562	19	11	0	108	4	0	0	1,213
PM	APPROACH %	8%	91%	1%	0%	97%	3%	9%	0%	91%	100%	0%	0%	
PM	APP/DEPART	509	/	473	581	/	675	119	/	5	4	/	60	0
PM	BEGIN PEAK HR		4:00 PM											
PM	VOLUMES	22	271	1	0	271	10	7	0	54	2	0	0	638
PM	APPROACH %	7%	92%	0%	0%	96%	4%	11%	0%	89%	100%	0%	0%	
PM	PEAK HR FACTOR		0.907			0.949			0.726			0.250		0.944
PM	APP/DEPART	294	/	278	281	/	328	61	/	1	2	/	31	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
1	0	0	0	1
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
1	0	0	0	1
2	0	1	0	3
0	0	0	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	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1

RTOR

NRR	SRR	ERR	WRR
X	X	X	X
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	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Goetz

NORTH SIDE

Ellis — WEST SIDE — EAST SIDE — Ellis

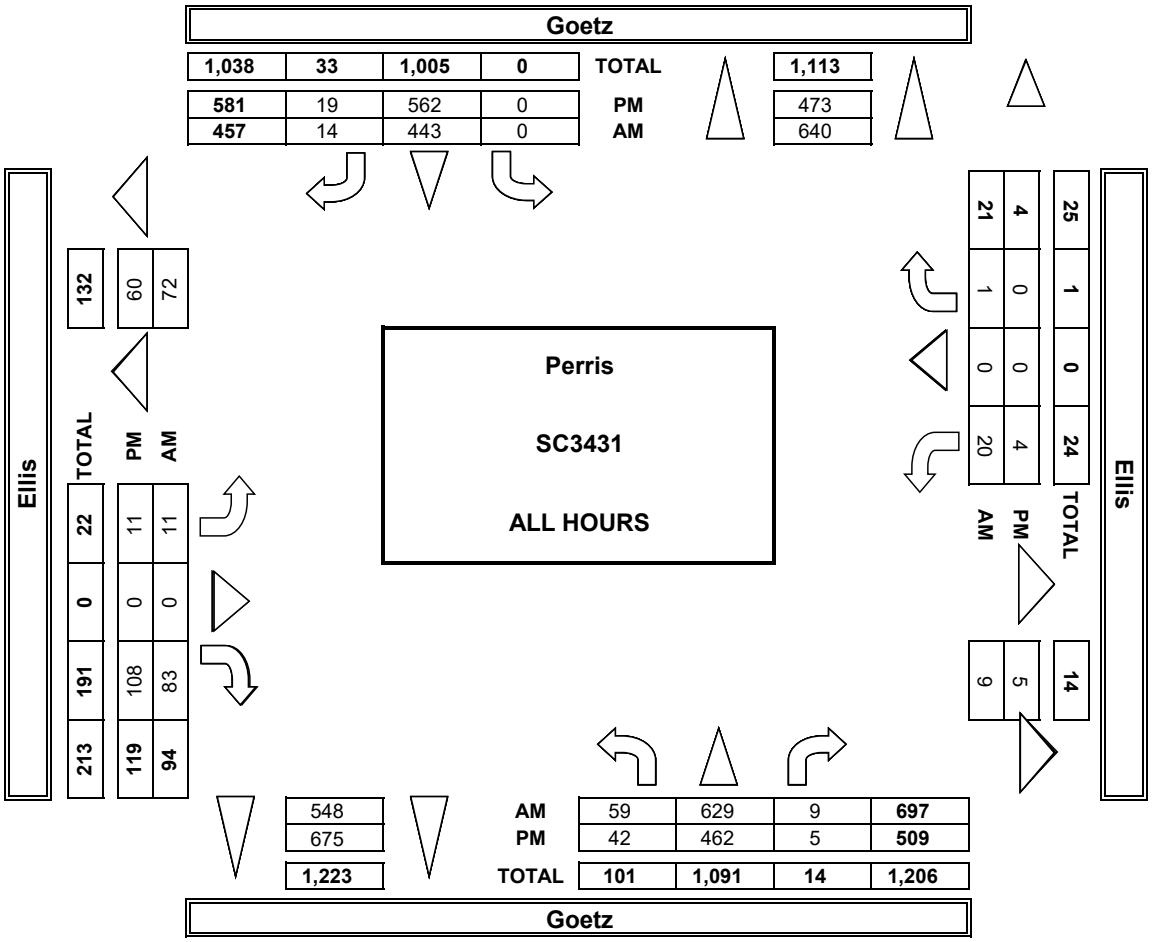
SOUTH SIDE

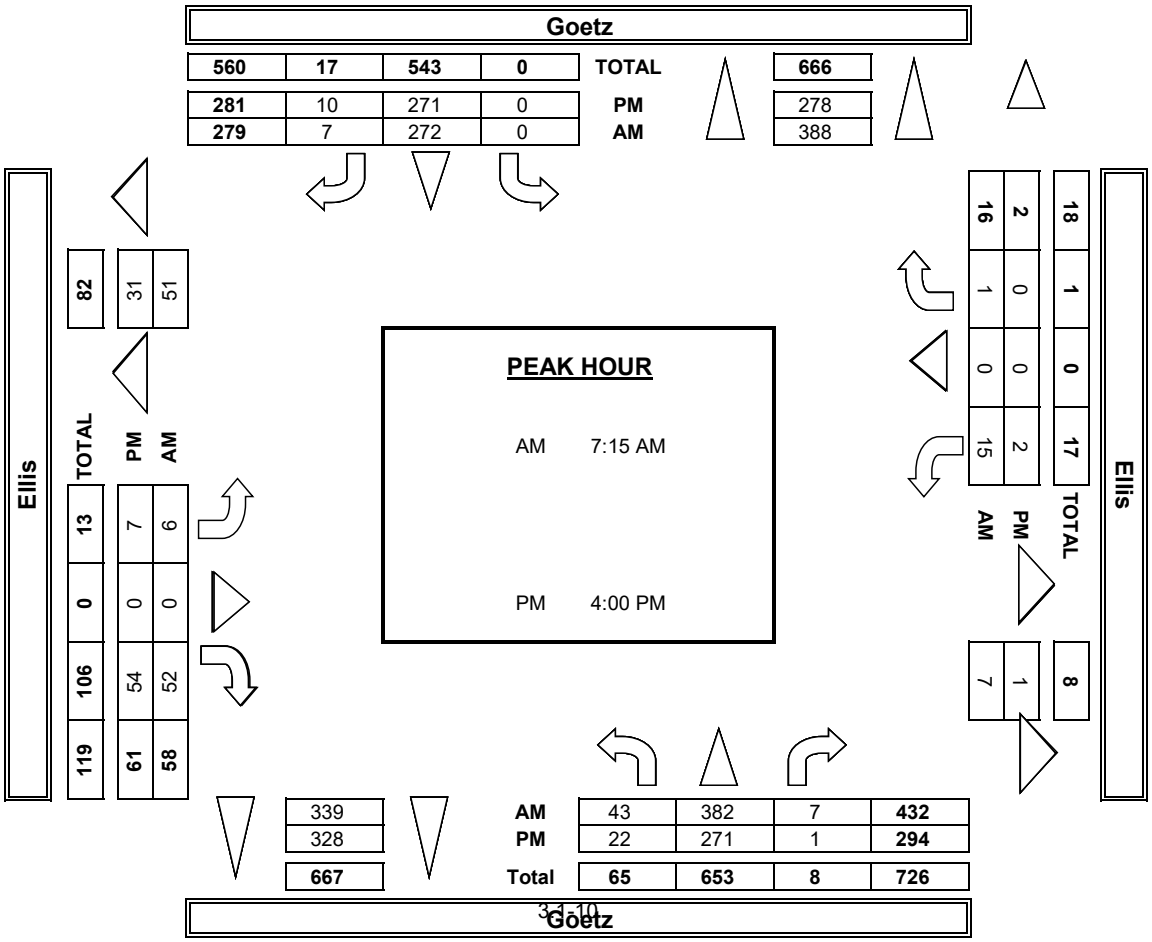
Goetz

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0
AM	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	7:45 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
AM	8:00 AM	0	3	0	0	3	0	3	0	0	3	0	0	0	0	0
AM	8:15 AM	0	3	0	0	3	0	3	0	0	3	0	0	0	0	0
AM	8:30 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
AM	8:45 AM	0	3	1	0	4	0	3	1	0	4	0	0	0	0	0
AM	TOTAL	0	11	1	1	13	0	11	1	1	13	0	0	0	0	0
PM	4:00 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
PM	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
PM	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	2	0	0	2	0	1	0	0	1	0	1	0	0	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	2
TUESDAY	EAST & WEST:	Ellis	CONTROL:	STOP E/W

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Ellis)			WESTBOUND (Ellis)			
LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 0	ER 1	WL 0	WT 0	WR 0	TOTAL
7:00 AM	4	57	0	0	36	0	1	0	3	2	0	0	103
7:15 AM	9	95	0	0	38	1	1	0	6	0	0	0	150
7:30 AM	10	76	2	0	62	1	4	0	17	5	0	1	178
7:45 AM	13	96	0	0	77	2	1	0	10	4	0	0	203
8:00 AM	6	75	3	0	60	1	0	0	13	2	0	0	160
8:15 AM	2	51	1	0	36	1	3	0	9	2	0	0	105
8:30 AM	2	57	0	0	31	3	0	0	8	0	0	0	101
8:45 AM	2	50	0	0	37	1	1	0	5	1	0	0	97
AM VOLUMES	48	557	6	0	377	10	11	0	71	16	0	1	1,097
AM APPROACH %	8%	91%	1%	0%	97%	3%	13%	0%	87%	94%	0%	6%	
AM APP/DEPART	611	/	568	387	/	464	82	/	6	17	/	59	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	38	342	5	0	237	5	5	0	46	11	0	1	691
APPROACH %	10%	89%	1%	0%	98%	2%	10%	0%	88%	92%	0%	8%	
PEAK HR FACTOR		0.883			0.766			0.619			0.500		0.851
APP/DEPART	385	/	348	242	/	294	52	/	5	12	/	44	0
4:00 PM	8	62	0	0	58	3	1	0	11	0	0	0	143
4:15 PM	2	53	0	0	52	0	2	0	10	0	0	0	119
4:30 PM	5	70	0	0	47	3	1	0	16	0	0	0	142
4:45 PM	6	61	1	0	52	2	2	0	11	2	0	0	137
5:00 PM	7	41	1	0	65	0	0	0	8	0	0	0	122
5:15 PM	4	42	1	0	59	4	2	0	17	0	0	0	129
5:30 PM	7	52	2	0	71	2	1	0	7	0	0	0	142
5:45 PM	1	40	0	0	52	3	1	0	15	1	0	0	113
PM VOLUMES	40	421	5	0	456	17	10	0	95	3	0	0	1,047
PM APPROACH %	9%	90%	1%	0%	96%	4%	10%	0%	90%	100%	0%	0%	
PM APP/DEPART	466	/	431	473	/	555	105	/	5	3	/	56	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	20	246	1	0	209	8	6	0	48	2	0	0	541
APPROACH %	7%	92%	0%	0%	96%	4%	11%	0%	89%	100%	0%	0%	
PEAK HR FACTOR		0.893			0.889			0.794			0.250		0.946
PM APP/DEPART	268	/	252	217	/	260	54	/	1	2	/	28	0

U-TURNS

AM NB	AM SB	AM EB	AM WB	AM TTL	PM NB	PM SB	PM EB	PM WB	PM TTL
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	1	0	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	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	1	0	0	0	1

RTOR

AM NRR X	AM SRR X	AM ERR X	AM WRR X	PM NRR X	PM SRR X	PM ERR X	PM WRR X
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	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0

AM PEAK HR	AM PEAK HR	AM PEAK HR	AM PEAK HR	PM PEAK HR	PM PEAK HR	PM PEAK HR	PM PEAK HR
0	0	0	0	0	0	0	0

Goetz

NORTH SIDE

Ellis WEST SIDE EAST SIDE **Ellis**

SOUTH SIDE

Goetz

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	2
TUESDAY	EAST & WEST:	Ellis	CONTROL:	STOP E/W

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

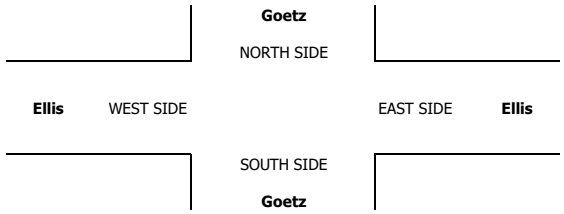
		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Ellis)			WESTBOUND (Ellis)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 0	ER 1	WL 0	WT 0	WR 0	TOTAL
AM	7:00 AM	0	2	0	0	4	0	0	0	0	0	0	0	6
	7:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	7:30 AM	1	1	0	0	5	0	0	0	2	3	0	0	12
	7:45 AM	0	1	0	0	5	0	0	0	2	0	0	0	8
	8:00 AM	0	3	0	0	1	0	0	0	0	0	0	0	4
	8:15 AM	0	3	0	0	4	0	0	0	0	0	0	0	7
	8:30 AM	0	3	0	0	3	0	0	0	2	0	0	0	8
	8:45 AM	1	1	1	0	1	0	0	0	0	0	0	0	4
	VOLUMES	2	15	1	0	24	0	0	0	6	3	0	0	51
	APPROACH %	11%	83%	6%	0%	100%	0%	0%	0%	100%	100%	0%	0%	
	APP/DEPART	18	/	15	24	/	34	6	/	1	3	/	1	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	1	6	0	0	12	0	0	0	4	3	0	0	26
	APPROACH %	14%	86%	0%	0%	100%	0%	0%	0%	100%	100%	0%	0%	
	PEAK HR FACTOR		0.583			0.600			0.500			0.250		0.542
	APP/DEPART	7	/	6	12	/	19	4	/	0	3	/	1	0
PM	4:00 PM	0	5	0	0	4	0	0	0	0	0	0	0	9
	4:15 PM	0	2	0	0	7	0	1	0	0	0	0	0	10
	4:30 PM	0	3	0	0	5	0	0	0	2	0	0	0	10
	4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:00 PM	0	1	0	0	6	0	0	0	1	0	0	0	8
	5:15 PM	0	4	0	0	1	0	0	0	1	0	0	0	6
	5:30 PM	1	2	0	0	6	0	0	0	1	0	0	0	10
	5:45 PM	0	1	0	0	5	0	0	0	1	1	0	0	8
	VOLUMES	1	19	0	0	34	0	1	0	6	1	0	0	62
	APPROACH %	5%	95%	0%	0%	100%	0%	14%	0%	86%	100%	0%	0%	
	APP/DEPART	20	/	20	34	/	41	7	/	0	1	/	1	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	11	0	0	16	0	1	0	2	0	0	0	30
	APPROACH %	0%	100%	0%	0%	100%	0%	33%	0%	67%	0%	0%	0%	
	PEAK HR FACTOR		0.550			0.571			0.375			0.000		0.750
	APP/DEPART	11	/	12	16	/	18	3	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	0	0	1
1	0	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	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

RTOR

NRR	SRR	ERR	WRR
X	X	X	X
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	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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	2
TUESDAY	EAST & WEST:	Ellis	CONTROL:	STOP E/W

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

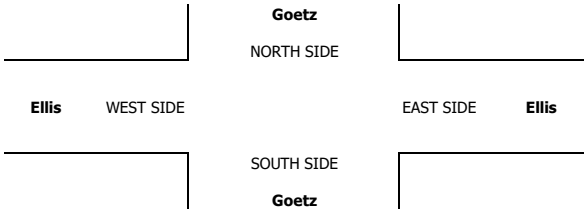
		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Ellis)			WESTBOUND (Ellis)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 0	ER 1	WL 0	WT 0	WR 0	TOTAL
AM	7:00 AM	0	5	0	0	1	0	0	0	0	0	0	0	6
	7:15 AM	0	2	0	0	3	0	0	0	0	0	0	0	5
	7:30 AM	1	2	0	0	2	0	0	0	0	0	0	0	5
	7:45 AM	0	4	0	0	1	0	0	0	0	0	0	0	5
	8:00 AM	1	4	0	0	0	0	0	0	0	0	0	0	5
	8:15 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
	8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:45 AM	1	3	0	0	3	0	0	0	0	0	0	0	7
	VOLUMES	3	21	0	0	14	0	0	0	0	0	0	0	38
	APPROACH %	13%	88%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	24	/	21	14	/	14	0	/	0	0	/	3	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	2	12	0	0	6	0	0	0	0	0	0	0	20
	APPROACH %	14%	86%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.700			0.500			0.000			0.000		1.000
	APP/DEPART	14	/	12	6	/	6	0	/	0	0	/	2	0
PM	4:00 PM	0	3	0	0	4	0	0	0	1	0	0	0	8
	4:15 PM	0	1	0	0	6	0	0	0	0	0	0	0	7
	4:30 PM	0	0	0	0	6	0	0	0	0	0	0	0	6
	4:45 PM	0	0	0	0	10	0	0	0	0	0	0	0	10
	5:00 PM	0	0	0	0	3	0	0	0	0	0	0	0	3
	5:15 PM	0	3	0	0	2	0	0	0	0	0	0	0	5
	5:30 PM	0	0	0	0	1	0	0	0	1	0	0	0	2
	5:45 PM	0	2	0	0	10	0	0	0	1	0	0	0	13
	VOLUMES	0	9	0	0	42	0	0	0	3	0	0	0	54
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	9	/	9	42	/	45	3	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	4	0	0	26	0	0	0	1	0	0	0	31
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.333			0.650			0.250			0.000		0.775
	APP/DEPART	4	/	4	26	/	27	1	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR X	ERR X	WRR X
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	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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	2
TUESDAY	EAST & WEST:	Ellis	CONTROL:	STOP E/W

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

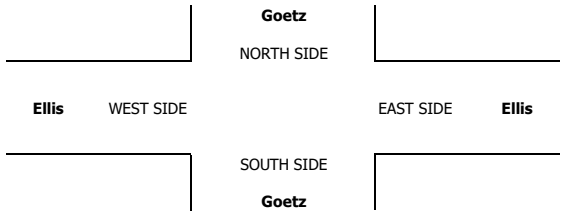
		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Ellis)			WESTBOUND (Ellis)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 0	ER 1	WL 0	WT 0	WR 0	TOTAL
AM	7:00 AM	0	3	0	0	0	0	0	0	1	0	0	0	4
	7:15 AM	0	3	0	0	4	0	0	0	0	1	0	0	8
	7:30 AM	0	3	0	0	2	0	0	0	1	0	0	0	6
	7:45 AM	0	4	0	0	7	0	0	0	1	0	0	0	12
	8:00 AM	0	8	1	0	2	0	0	0	0	0	0	0	11
	8:15 AM	0	1	0	0	2	0	0	0	2	0	0	0	5
	8:30 AM	0	4	0	0	3	0	0	0	0	0	0	0	7
	8:45 AM	1	1	0	0	3	0	0	0	1	0	0	0	6
	VOLUMES	1	27	1	0	23	0	0	0	6	1	0	0	59
	APPROACH %	3%	93%	3%	0%	100%	0%	0%	0%	100%	100%	0%	0%	
	APP/DEPART	29	/	27	23	/	30	6	/	1	1	/	1	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	18	1	0	15	0	0	0	2	1	0	0	37
	APPROACH %	0%	95%	5%	0%	100%	0%	0%	0%	100%	100%	0%	0%	
	PEAK HR FACTOR		0.528			0.536			0.500			0.250		0.771
	APP/DEPART	19	/	18	15	/	18	2	/	1	1	/	0	0
PM	4:00 PM	0	1	0	0	5	0	0	0	0	0	0	0	6
	4:15 PM	0	2	0	0	1	0	0	0	0	0	0	0	3
	4:30 PM	1	2	0	0	3	0	0	0	2	0	0	0	8
	4:45 PM	0	2	0	0	3	0	0	0	0	0	0	0	5
	5:00 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
	5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	VOLUMES	1	8	0	0	17	0	0	0	2	0	0	0	28
	APPROACH %	11%	89%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	9	/	8	17	/	19	2	/	0	0	/	1	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	1	7	0	0	12	0	0	0	2	0	0	0	22
	APPROACH %	13%	88%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.667			0.600			0.250			0.000		0.688
	APP/DEPART	8	/	7	12	/	14	2	/	0	0	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
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	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	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

RTOR

NRR X	SRR X	ERR X	WRR X
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	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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	2
TUESDAY	EAST & WEST:	Ellis	CONTROL:	STOP E/W

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

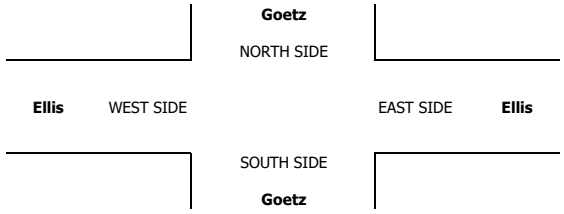
		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Ellis)			WESTBOUND (Ellis)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 0	ER 1	WL 0	WT 0	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR X	ERR X	WRR X
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	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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	2
TUESDAY	EAST & WEST:	Ellis	CONTROL:	STOP E/W

CLASS 6: BUSES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

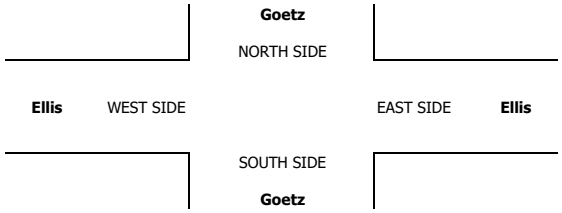
		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Ellis)			WESTBOUND (Ellis)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 0	ER 1	WL 0	WT 0	WR 0	TOTAL
AM	7:00 AM	2	1	0	0	0	0	0	0	0	0	0	0	3
	7:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
	7:30 AM	1	2	1	0	1	1	0	0	0	0	0	0	6
	7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	8:00 AM	1	2	0	0	0	0	0	0	0	0	0	0	3
	8:15 AM	0	2	0	0	1	1	0	0	0	0	0	0	4
	8:30 AM	0	2	0	0	1	1	0	0	0	0	0	0	4
	8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	VOLUMES	4	9	1	0	5	4	0	0	0	0	0	0	23
	APPROACH %	29%	64%	7%	0%	56%	44%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	14	/	9	9	/	5	0	/	1	0	/	8	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	2	4	1	0	2	2	0	0	0	0	0	0	11
	APPROACH %	29%	57%	14%	0%	50%	50%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.438			0.500			0.000			0.000		0.458
	APP/DEPART	7	/	4	4	/	2	0	/	1	0	/	4	0
PM	4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	4:15 PM	0	1	0	0	3	0	0	0	1	0	0	0	5
	4:30 PM	0	0	0	0	3	0	0	0	0	0	0	0	3
	4:45 PM	0	1	0	0	2	2	0	0	0	0	0	0	5
	5:00 PM	0	1	0	0	2	0	0	0	1	0	0	0	4
	5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	5:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	VOLUMES	0	5	0	0	13	2	0	0	2	0	0	0	22
	APPROACH %	0%	100%	0%	0%	87%	13%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	5	/	5	15	/	15	2	/	0	0	/	2	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	3	0	0	8	2	0	0	1	0	0	0	14
	APPROACH %	0%	100%	0%	0%	80%	20%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.625			0.250			0.000		0.700
	APP/DEPART	3	/	3	10	/	9	1	/	0	0	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR X	ERR X	WRR X
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	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



INTERSECTION TURNING MOVEMENT COUNTS

T42321

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, May 24, 22	LOCATION:	Perris	PROJECT #: SC3431
	NORTH & SOUTH:	Goetz	LOCATION #: 3
	EAST & WEST:	Malbert	CONTROL: STOP E

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☐ Add U-Turns to Left Turns

		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Malbert)			WESTBOUND (Malbert)			
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL
AM	7:00 AM	2	77	0	0	43	4	2	0	1	0	0	0	129
	7:15 AM	3	107	0	0	49	5	1	0	1	0	0	0	166
	7:30 AM	3	104	0	0	82	6	1	0	0	0	0	0	196
	7:45 AM	12	119	0	0	114	4	1	0	2	0	0	0	252
	8:00 AM	6	95	0	0	72	5	2	0	2	0	0	0	182
	8:15 AM	4	64	0	0	51	3	1	0	0	0	0	0	123
	8:30 AM	4	65	0	0	53	2	3	0	1	0	0	0	128
	8:45 AM	2	53	0	0	43	6	1	0	2	0	0	0	107
	VOLUMES	36	684	0	0	507	35	12	0	9	0	0	0	1,291
	APPROACH %	5%	94%	0%	0%	93%	6%	57%	0%	43%	0%	0%	0%	
	APP/DEPART	724	/	700	546	/	520	21	/	0	0	/	71	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	24	425	0	0	317	20	5	0	5	0	0	0	800
	APPROACH %	5%	94%	0%	0%	94%	6%	50%	0%	50%	0%	0%	0%	
	PEAK HR FACTOR		0.861			0.718			0.625			0.000		0.794
	APP/DEPART	451	/	432	339	/	324	10	/	0	0	/	44	0
PM	4:00 PM	1	66	0	0	82	2	9	0	4	0	0	0	164
	4:15 PM	0	46	0	0	79	0	3	0	7	0	0	0	135
	4:30 PM	0	65	0	0	76	1	3	0	7	0	0	0	152
	4:45 PM	1	68	0	0	81	0	3	0	1	0	0	0	154
	5:00 PM	1	45	0	0	91	0	2	0	4	0	0	0	143
	5:15 PM	1	52	0	0	79	2	3	0	8	0	0	0	145
	5:30 PM	1	51	0	0	92	1	5	0	1	0	0	0	151
	5:45 PM	0	47	0	0	76	3	1	0	1	0	0	0	128
	VOLUMES	5	440	0	0	656	9	29	0	33	0	0	0	1,180
	APPROACH %	1%	99%	0%	0%	97%	1%	47%	0%	53%	0%	0%	0%	
	APP/DEPART	445	/	477	673	/	689	62	/	0	0	/	14	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	2	245	0	0	318	3	18	0	19	0	0	0	612
	APPROACH %	1%	99%	0%	0%	97%	1%	49%	0%	51%	0%	0%	0%	
	PEAK HR FACTOR		0.895			0.965			0.712			0.000		0.927
	APP/DEPART	247	/	270	328	/	337	37	/	0	0	/	5	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
2	2	0	0	4
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
2	1	0	0	3
0	0	0	0	0
4	4	0	0	8
0	1	0	0	1
0	4	0	0	4
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	8	0	0	8

RTOR

NRR	SRR	ERR	WRR
X	X	X	X
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	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Goetz

NORTH SIDE

Malbert WEST SIDE EAST SIDE **Malbert**

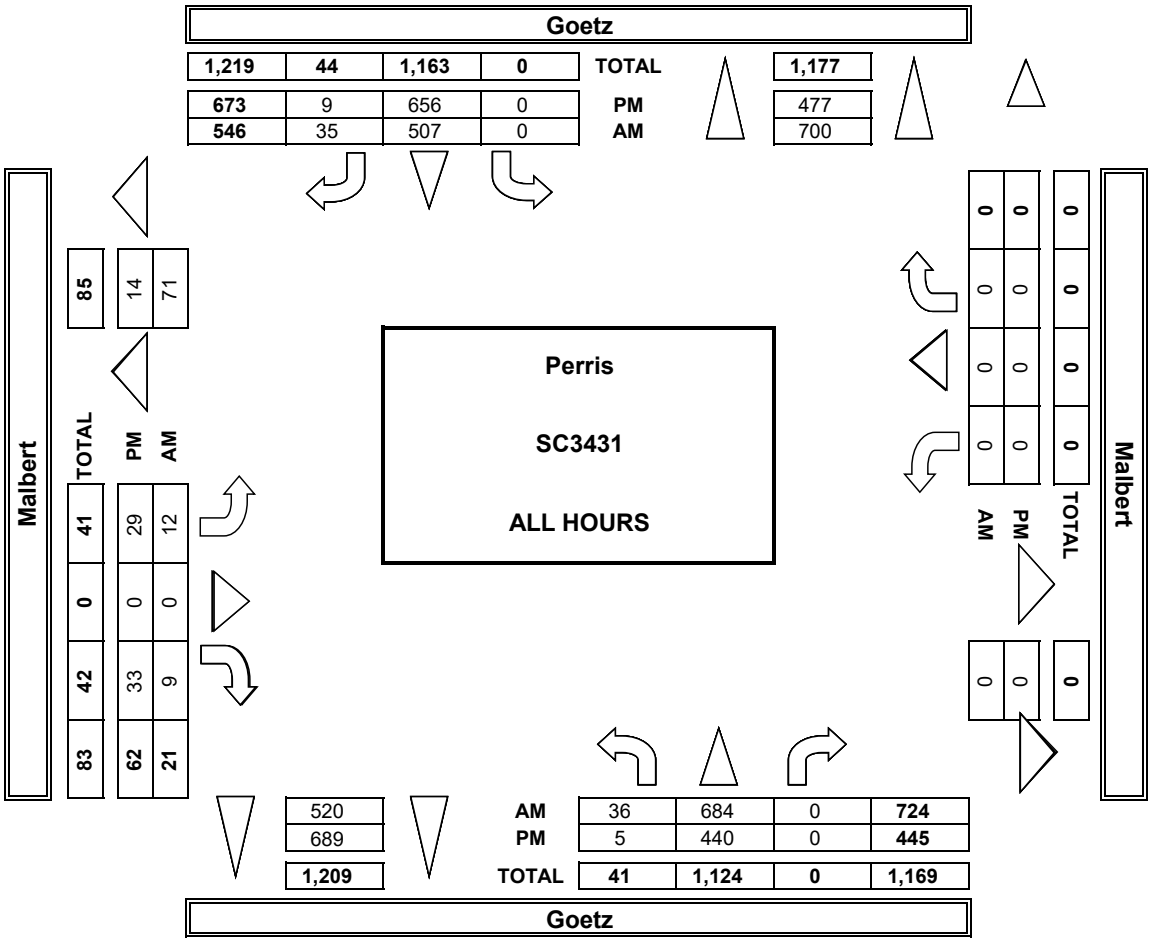
SOUTH SIDE

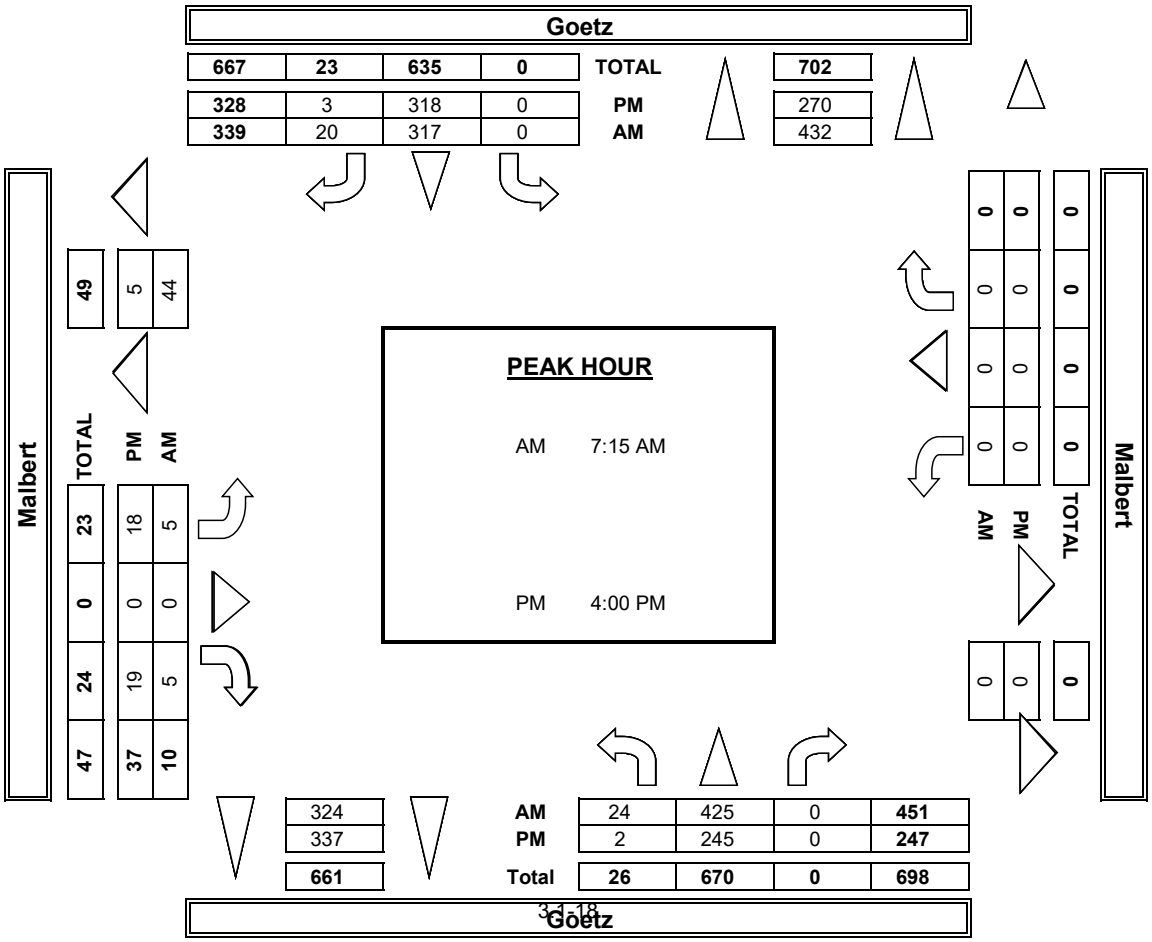
Goetz

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	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
	7:30 AM	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
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	8:30 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	8:45 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	TOTAL	0	4	0	0	4	0	4	0	0	4	0	0	0	0	0
PM	4:00 PM	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
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:00 PM	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
	5:30 PM	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
	TOTAL	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	3
TUESDAY	EAST & WEST:	Malbert	CONTROL:	STOP E

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

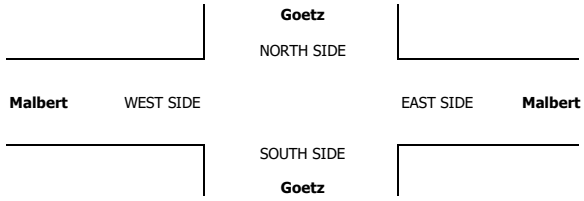
	NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Malbert)			WESTBOUND (Malbert)			
LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL
7:00 AM	2	63	0	0	38	3	0	0	0	0	0	0	106
7:15 AM	2	98	0	0	43	4	1	0	0	0	0	0	148
7:30 AM	3	94	0	0	68	3	0	0	0	0	0	0	168
7:45 AM	10	114	0	0	101	3	0	0	1	0	0	0	229
8:00 AM	5	86	0	0	68	4	1	0	2	0	0	0	166
8:15 AM	4	53	0	0	40	2	1	0	0	0	0	0	100
8:30 AM	2	51	0	0	41	2	1	0	1	0	0	0	98
8:45 AM	1	42	0	0	36	6	1	0	1	0	0	0	87
AM VOLUMES	29	601	0	0	435	27	5	0	5	0	0	0	1,108
AM APPROACH %	5%	95%	0%	0%	94%	6%	50%	0%	50%	0%	0%	0%	
AM APP/DEPART	633	/	609	465	/	443	10	/	0	0	/	56	0
BEGIN PEAK HR		7:15 AM											
AM VOLUMES	20	392	0	0	280	14	2	0	3	0	0	0	713
AM APPROACH %	5%	95%	0%	0%	95%	5%	40%	0%	60%	0%	0%	0%	
PEAK HR FACTOR		0.833			0.709			0.417			0.000		0.778
AM APP/DEPART	413	/	395	295	/	284	5	/	0	0	/	34	0
4:00 PM	1	58	0	0	71	0	8	0	3	0	0	0	141
4:15 PM	0	41	0	0	62	0	2	0	6	0	0	0	111
4:30 PM	0	58	0	0	64	0	3	0	6	0	0	0	131
4:45 PM	1	61	0	0	75	0	2	0	0	0	0	0	139
5:00 PM	1	37	0	0	79	0	1	0	4	0	0	0	122
5:15 PM	1	42	0	0	72	2	1	0	7	0	0	0	125
5:30 PM	0	43	0	0	81	0	4	0	1	0	0	0	129
5:45 PM	0	39	0	0	69	3	1	0	0	0	0	0	112
PM VOLUMES	4	379	0	0	573	5	22	0	27	0	0	0	1,017
PM APPROACH %	1%	99%	0%	0%	98%	1%	45%	0%	55%	0%	0%	0%	
PM APP/DEPART	383	/	408	585	/	600	49	/	0	0	/	9	0
BEGIN PEAK HR		4:00 PM											
PM VOLUMES	2	218	0	0	272	0	15	0	15	0	0	0	528
PM APPROACH %	1%	99%	0%	0%	98%	0%	50%	0%	50%	0%	0%	0%	
PEAK HR FACTOR		0.887			0.927			0.682			0.000		0.930
PM APP/DEPART	220	/	239	278	/	287	30	/	0	0	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
1	1	0	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
2	1	0	0	3
0	0	0	0	0
3	3	0	0	6
0	1	0	0	1
0	4	0	0	4
0	1	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	0	0	1
0	7	0	0	7

RTOR

NRR X	SRR X	ERR X	WRR X
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	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	3
TUESDAY	EAST & WEST:	Malbert	CONTROL:	STOP E

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

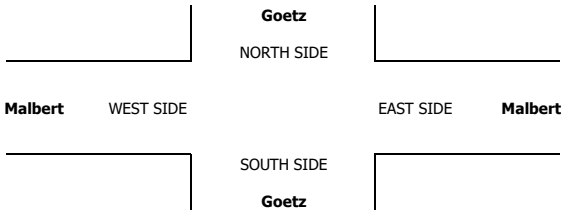
		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Malbert)			WESTBOUND (Malbert)			
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	7	0	0	1	1	1	0	1	0	0	0	11
	7:15 AM	1	4	0	0	0	0	0	0	0	0	0	0	5
	7:30 AM	0	5	0	0	7	2	0	0	0	0	0	0	14
	7:45 AM	1	2	0	0	5	1	0	0	1	0	0	0	10
	8:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
	8:15 AM	0	3	0	0	4	1	0	0	0	0	0	0	8
	8:30 AM	1	2	0	0	3	0	0	0	0	0	0	0	6
	8:45 AM	1	4	0	0	4	0	0	0	1	0	0	0	10
	VOLUMES	4	28	0	0	25	5	1	0	3	0	0	0	66
	APPROACH %	13%	88%	0%	0%	83%	17%	25%	0%	75%	0%	0%	0%	
	APP/DEPART	32	/	29	30	/	28	4	/	0	0	/	9	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	2	12	0	0	13	3	0	0	1	0	0	0	31
	APPROACH %	14%	86%	0%	0%	81%	19%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.700			0.444			0.250			0.000		0.554
	APP/DEPART	14	/	12	16	/	14	1	/	0	0	/	5	0
PM	4:00 PM	0	4	0	0	5	0	0	0	1	0	0	0	10
	4:15 PM	0	1	0	0	6	0	0	0	0	0	0	0	7
	4:30 PM	0	2	0	0	5	1	0	0	0	0	0	0	8
	4:45 PM	0	1	0	0	0	0	0	0	1	0	0	0	2
	5:00 PM	0	1	0	0	5	0	1	0	0	0	0	0	7
	5:15 PM	0	4	0	0	3	0	1	0	1	0	0	0	9
	5:30 PM	1	3	0	0	3	1	1	0	0	0	0	0	9
	5:45 PM	0	2	0	0	3	0	0	0	1	0	0	0	6
	VOLUMES	1	18	0	0	30	2	3	0	4	0	0	0	59
	APPROACH %	5%	95%	0%	0%	91%	6%	43%	0%	57%	0%	0%	0%	
	APP/DEPART	19	/	22	33	/	34	7	/	0	0	/	3	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	8	0	0	16	1	0	0	2	0	0	0	28
	APPROACH %	0%	100%	0%	0%	89%	6%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.643			0.500			0.000		0.700
	APP/DEPART	8	/	9	18	/	18	2	/	0	0	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
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	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	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	1	0	0	1

RTOR

NRR X	SRR X	ERR X	WRR X
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	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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	3
TUESDAY	EAST & WEST:	Malbert	CONTROL:	STOP E

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

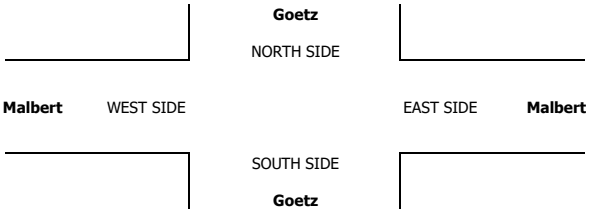
		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Malbert)			WESTBOUND (Malbert)			
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	2	0	0	2	0	0	0	0	0	0	0	4
	7:15 AM	0	3	0	0	2	0	0	0	0	0	0	0	5
	7:30 AM	0	2	0	0	1	0	0	0	0	0	0	0	3
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
	8:15 AM	0	3	0	0	3	0	0	0	0	0	0	0	6
	8:30 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
	8:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
	VOLUMES	0	13	0	0	11	0	1	0	0	0	0	0	25
	APPROACH %	0%	100%	0%	0%	100%	0%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	13	/	14	11	/	11	1	/	0	0	/	0	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	5	0	0	3	0	1	0	0	0	0	0	9
	APPROACH %	0%	100%	0%	0%	100%	0%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.417			0.375			0.250			0.000		0.450
	APP/DEPART	5	/	6	3	/	3	1	/	0	0	/	0	0
PM	4:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	4:15 PM	0	2	0	0	4	0	0	0	0	0	0	0	6
	4:30 PM	0	3	0	0	1	0	0	0	0	0	0	0	4
	4:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	5:15 PM	0	2	0	0	0	0	1	0	0	0	0	0	3
	5:30 PM	0	2	0	0	1	0	0	0	0	0	0	0	3
	5:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	VOLUMES	0	14	0	0	8	0	1	0	0	0	0	0	23
	APPROACH %	0%	100%	0%	0%	100%	0%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	14	/	15	8	/	8	1	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	7	0	0	7	0	0	0	0	0	0	0	14
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.583			0.438			0.000			0.000		0.583
	APP/DEPART	7	/	7	7	/	7	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR X	ERR X	WRR X
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	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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	3
TUESDAY	EAST & WEST:	Malbert	CONTROL:	STOP E

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Malbert)			WESTBOUND (Malbert)			
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	4	0	0	2	0	1	0	0	0	0	0	7
	7:15 AM	0	1	0	0	4	1	0	0	1	0	0	0	7
	7:30 AM	0	1	0	0	5	1	1	0	0	0	0	0	8
	7:45 AM	1	2	0	0	7	0	1	0	0	0	0	0	11
	8:00 AM	1	5	0	0	3	1	0	0	0	0	0	0	10
	8:15 AM	0	2	0	0	3	0	0	0	0	0	0	0	5
	8:30 AM	1	9	0	0	5	0	2	0	0	0	0	0	17
	8:45 AM	0	4	0	0	2	0	0	0	0	0	0	0	6
	VOLUMES	3	28	0	0	31	3	5	0	1	0	0	0	73
	APPROACH %	9%	88%	0%	0%	89%	9%	83%	0%	17%	0%	0%	0%	
	APP/DEPART	32	/	34	35	/	33	6	/	0	0	/	6	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	2	9	0	0	19	3	2	0	1	0	0	0	38
	APPROACH %	17%	75%	0%	0%	83%	13%	67%	0%	33%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.821			0.750			0.000		0.864
	APP/DEPART	12	/	12	23	/	21	3	/	0	0	/	5	0
PM	4:00 PM	0	3	0	0	4	2	1	0	0	0	0	0	10
	4:15 PM	0	1	0	0	3	0	1	0	1	0	0	0	6
	4:30 PM	0	1	0	0	3	0	0	0	1	0	0	0	5
	4:45 PM	0	4	0	0	4	0	1	0	0	0	0	0	9
	5:00 PM	0	5	0	0	4	0	0	0	0	0	0	0	9
	5:15 PM	0	4	0	0	3	0	0	0	0	0	0	0	7
	5:30 PM	0	3	0	0	5	0	0	0	0	0	0	0	8
	5:45 PM	0	3	0	0	4	0	0	0	0	0	0	0	7
	VOLUMES	0	24	0	0	30	2	3	0	2	0	0	0	61
	APPROACH %	0%	100%	0%	0%	94%	6%	60%	0%	40%	0%	0%	0%	
	APP/DEPART	24	/	27	32	/	32	5	/	0	0	/	2	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	9	0	0	14	2	3	0	2	0	0	0	30
	APPROACH %	0%	100%	0%	0%	88%	13%	60%	0%	40%	0%	0%	0%	
	PEAK HR FACTOR		0.563			0.667			0.625			0.000		0.750
	APP/DEPART	9	/	12	16	/	16	5	/	0	0	/	2	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
1	1	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	0	0	0	0
1	1	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	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

RTOR

NRR X	SRR X	ERR X	WRR X
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	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

Goetz

NORTH SIDE

Malbert WEST SIDE EAST SIDE **Malbert**

SOUTH SIDE

Goetz

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	3
TUESDAY	EAST & WEST:	Malbert	CONTROL:	STOP E

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

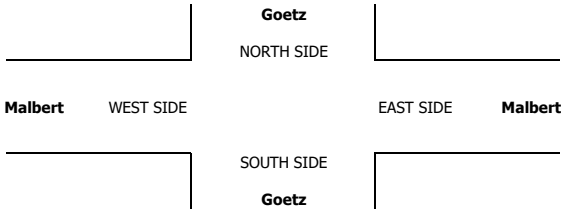
		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Malbert)			WESTBOUND (Malbert)			
	LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
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	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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	3
TUESDAY	EAST & WEST:	Malbert	CONTROL:	STOP E

CLASS 6: BUSES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

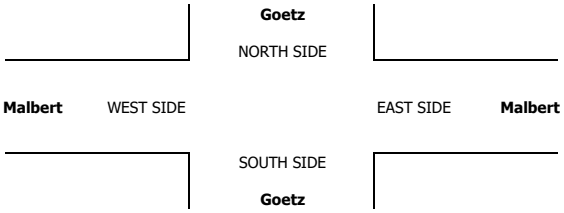
	NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Malbert)			WESTBOUND (Malbert)			
LANES:	NL 1	NT 2	NR X	SL X	ST 2	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL
AM 7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	2	0	0	1	0	0	0	0	0	0	0	3
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
8:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	3	0	0	1	0	0	0	0	0	0	0	4
8:30 AM	0	2	0	0	1	0	0	0	0	0	0	0	3
8:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	2
VOLUMES	0	14	0	0	5	0	0	0	0	0	0	0	19
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	14	/	14	5	/	5	0	/	0	0	/	0	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	0	7	0	0	2	0	0	0	0	0	0	0	9
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.583			0.500			0.000			0.000		0.750
APP/DEPART	7	/	7	2	/	2	0	/	0	0	/	0	0
PM 4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	1	0	0	4	0	0	0	0	0	0	0	5
4:30 PM	0	1	0	0	3	0	0	0	0	0	0	0	4
4:45 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
5:00 PM	0	1	0	0	3	0	0	0	0	0	0	0	4
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
VOLUMES	0	5	0	0	15	0	0	0	0	0	0	0	20
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
APP/DEPART	5	/	5	15	/	15	0	/	0	0	/	0	0
BEGIN PEAK HR		4:00 PM											
VOLUMES	0	3	0	0	9	0	0	0	0	0	0	0	12
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.750			0.563			0.000			0.000		0.600
APP/DEPART	3	/	3	9	/	9	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR X	ERR X	WRR X
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	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



T42321

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, May 24, 22

LOCATION: Perris
NORTH & SOUTH: Goetz
EAST & WEST: Mountain

PROJECT #: SC3431
LOCATION #: 4
CONTROL: STOP E/W

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Mountain)			WESTBOUND (Mountain)			
	LANES:	NL 0	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	2	71	1	0	40	4	5	0	3	0	0	0	126
	7:15 AM	4	110	1	1	50	1	1	0	2	0	0	0	170
	7:30 AM	4	104	0	0	81	1	4	0	2	0	0	0	196
	7:45 AM	4	123	2	0	106	8	6	0	3	0	0	0	252
	8:00 AM	10	95	0	0	68	4	5	0	2	0	0	1	185
	8:15 AM	5	69	0	2	47	3	4	0	4	0	0	0	134
	8:30 AM	1	62	0	1	50	3	6	0	3	0	0	0	126
	8:45 AM	2	52	1	0	41	2	2	0	3	0	0	0	103
	VOLUMES	32	686	5	4	483	26	33	0	22	0	0	1	1,292
	APPROACH %	4%	95%	1%	1%	94%	5%	60%	0%	40%	0%	0%	100%	
	APP/DEPART	723	/ 721		513	/ 505		55	/ 8		1	/ 58		0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	22	432	3	1	305	14	16	0	9	0	0	1	803
	APPROACH %	5%	95%	1%	0%	95%	4%	64%	0%	36%	0%	0%	100%	
	PEAK HR FACTOR		0.886			0.702			0.694			0.250		0.797
	APP/DEPART	457	/ 450		320	/ 314		25	/ 3		1	/ 36		0
PM	4:00 PM	1	64	0	0	85	1	2	0	2	1	0	0	156
	4:15 PM	1	44	0	0	82	4	3	0	2	0	0	0	136
	4:30 PM	1	61	0	0	77	4	4	0	1	2	0	2	152
	4:45 PM	1	61	0	0	81	2	6	0	1	0	0	0	152
	5:00 PM	1	42	0	0	88	4	2	0	5	0	0	0	142
	5:15 PM	1	47	0	0	85	2	5	0	1	0	0	0	141
	5:30 PM	0	52	0	0	88	4	1	0	1	0	0	0	146
	5:45 PM	2	43	0	0	77	0	2	0	2	0	0	0	126
	VOLUMES	8	414	0	0	663	21	25	0	15	3	0	2	1,151
	APPROACH %	2%	98%	0%	0%	97%	3%	63%	0%	38%	60%	0%	40%	
	APP/DEPART	422	/ 441		684	/ 681		40	/ 0		5	/ 29		0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	4	230	0	0	325	11	15	0	6	3	0	2	596
	APPROACH %	2%	98%	0%	0%	97%	3%	71%	0%	29%	60%	0%	40%	
	PEAK HR FACTOR		0.900			0.977			0.750			0.313		0.955
	APP/DEPART	234	/ 247		336	/ 334		21	/ 0		5	/ 15		0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	1	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	0	0	0	0
0	1	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	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
X	X	X	X
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	0	0
0	0	0	0
0	0	0	0

Goetz

NORTH SIDE

Mountain WEST SIDE EAST SIDE **Mountain**

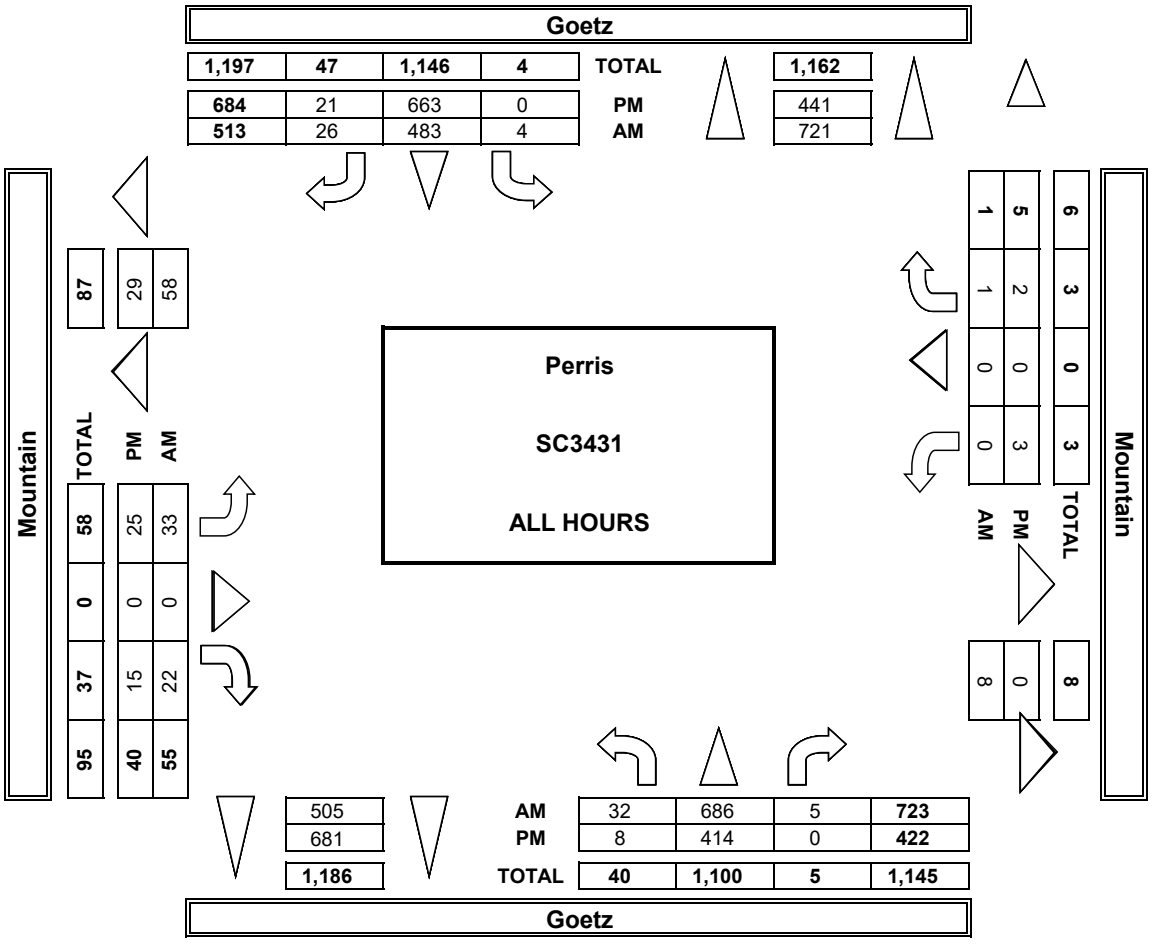
SOUTH SIDE

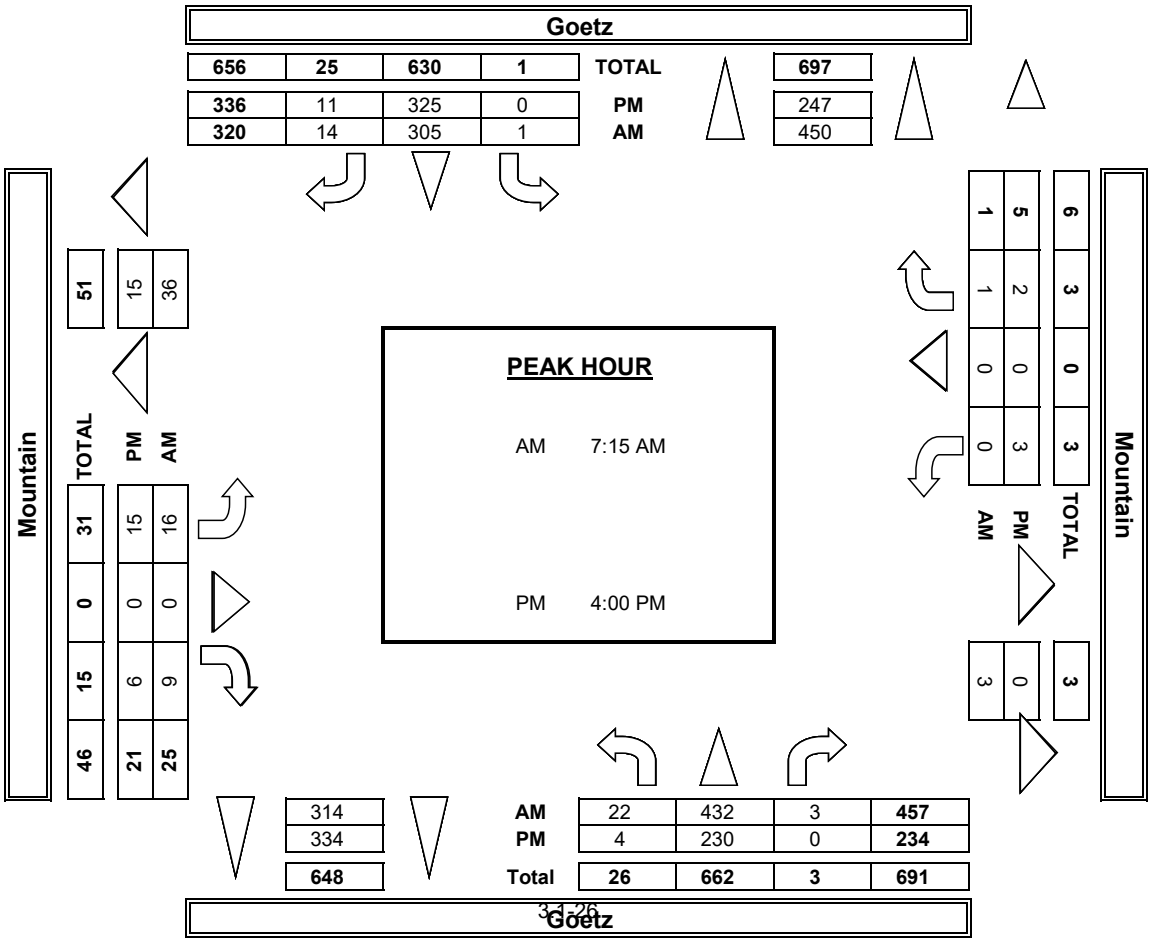
Goetz

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	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
	7:30 AM	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
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	8:30 AM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0
	8:45 AM	1	1	0	0	2	1	1	0	0	2	0	0	0	0	0
	TOTAL	1	4	0	0	5	1	4	0	0	5	0	0	0	0	0
PM	4:00 PM	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
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0
	5:00 PM	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
	5:30 PM	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
	TOTAL	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	4
TUESDAY	EAST & WEST:	Mountain	CONTROL:	STOP E/W

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

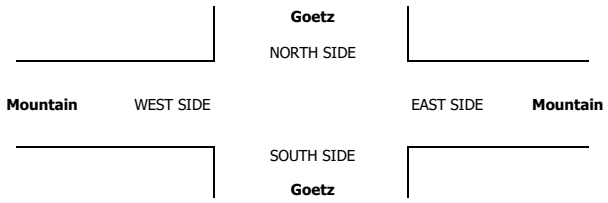
		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Mountain)			WESTBOUND (Mountain)			
	LANES:	NL 0	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	1	63	0	0	33	3	0	0	0	0	0	0	100
	7:15 AM	4	103	1	1	40	1	1	0	0	0	0	0	151
	7:30 AM	1	96	0	0	70	1	2	0	1	0	0	0	171
	7:45 AM	0	118	2	0	92	6	2	0	1	0	0	0	221
	8:00 AM	4	88	0	0	62	4	1	0	0	0	0	0	159
	8:15 AM	2	57	0	1	37	2	3	0	1	0	0	0	103
	8:30 AM	1	47	0	1	38	3	5	0	0	0	0	0	95
	8:45 AM	1	42	0	0	37	1	1	0	1	0	0	0	83
	VOLUMES	14	614	3	3	409	21	15	0	4	0	0	0	1,083
	APPROACH %	2%	97%	0%	1%	94%	5%	79%	0%	21%	0%	0%	0%	
	APP/DEPART	631	/	630	433	/	413	19	/	5	0	/	35	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	9	405	3	0	264	12	6	0	2	0	0	0	702
	APPROACH %	2%	97%	1%	0%	95%	4%	75%	0%	25%	0%	0%	0%	
	PEAK HR FACTOR		0.869			0.707			0.667			0.000		0.794
	APP/DEPART	417	/	412	277	/	266	8	/	3	0	/	21	0
PM	4:00 PM	0	57	0	0	73	1	1	0	2	1	0	0	135
	4:15 PM	1	38	0	0	67	0	3	0	2	0	0	0	111
	4:30 PM	1	57	0	0	67	1	4	0	1	2	0	2	135
	4:45 PM	0	52	0	0	74	0	6	0	1	0	0	0	133
	5:00 PM	0	30	0	0	77	1	1	0	3	0	0	0	112
	5:15 PM	0	40	0	0	79	2	5	0	1	0	0	0	127
	5:30 PM	0	45	0	0	80	1	1	0	1	0	0	0	128
	5:45 PM	2	36	0	0	68	0	1	0	2	0	0	0	109
	VOLUMES	4	355	0	0	585	6	22	0	13	3	0	2	990
	APPROACH %	1%	99%	0%	0%	99%	1%	63%	0%	37%	60%	0%	40%	
	APP/DEPART	359	/	379	591	/	601	35	/	0	5	/	10	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	2	204	0	0	281	2	14	0	6	3	0	2	514
	APPROACH %	1%	99%	0%	0%	99%	1%	70%	0%	30%	60%	0%	40%	
	PEAK HR FACTOR		0.888			0.956			0.714			0.313		0.952
	APP/DEPART	206	/	220	283	/	290	20	/	0	5	/	4	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	1	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	0	0	0	0
0	0	0	0	0
0	1	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	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
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	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	4
TUESDAY	EAST & WEST:	Mountain	CONTROL:	STOP E/W

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

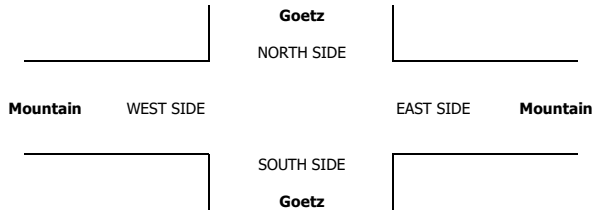
		NORTHBOUND Goetz			SOUTHBOUND Goetz			EASTBOUND Mountain			WESTBOUND Mountain			
	LANES:	NL 0	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	3	0	0	3	1	0	0	0	0	0	0	7
	7:15 AM	0	4	0	0	2	0	0	0	0	0	0	0	6
	7:30 AM	0	3	0	0	7	0	0	0	0	0	0	0	10
	7:45 AM	2	4	0	0	6	0	1	0	0	0	0	0	13
	8:00 AM	0	2	0	0	2	0	0	0	0	0	0	0	4
	8:15 AM	0	4	0	0	1	1	1	0	1	0	0	0	8
	8:30 AM	0	4	0	0	3	0	1	0	0	0	0	0	8
	8:45 AM	0	5	0	0	3	0	0	0	0	0	0	0	8
	VOLUMES	2	29	0	0	27	2	3	0	1	0	0	0	64
	APPROACH %	6%	94%	0%	0%	93%	7%	75%	0%	25%	0%	0%	0%	
	APP/DEPART	31	/	32	29	/	28	4	/	0	0	/	4	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	2	13	0	0	17	0	1	0	0	0	0	0	33
	APPROACH %	13%	87%	0%	0%	100%	0%	100%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.625			0.607			0.250			0.000		0.635
	APP/DEPART	15	/	14	17	/	17	1	/	0	0	/	2	0
PM	4:00 PM	0	3	0	0	6	0	0	0	0	0	0	0	9
	4:15 PM	0	2	0	0	7	0	0	0	0	0	0	0	9
	4:30 PM	0	1	0	0	3	0	0	0	0	0	0	0	4
	4:45 PM	0	2	0	0	1	0	0	0	0	0	0	0	3
	5:00 PM	0	3	0	0	5	0	0	0	1	0	0	0	9
	5:15 PM	0	3	0	0	2	0	0	0	0	0	0	0	5
	5:30 PM	0	3	0	0	4	0	0	0	0	0	0	0	7
	5:45 PM	0	2	0	0	6	0	0	0	0	0	0	0	8
	VOLUMES	0	19	0	0	34	0	0	0	1	0	0	0	54
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	19	/	19	34	/	35	1	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	8	0	0	17	0	0	0	0	0	0	0	25
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.667			0.607			0.000			0.000		0.694
	APP/DEPART	8	/	8	17	/	17	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR X	ERR X	WRR X
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	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	4
TUESDAY	EAST & WEST:	Mountain	CONTROL:	STOP E/W

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

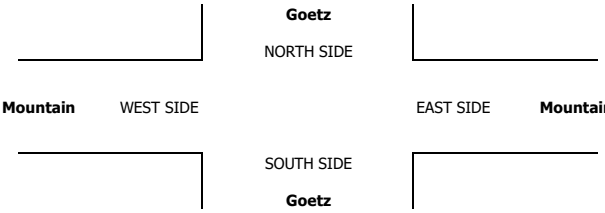
		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Mountain)			WESTBOUND (Mountain)			
	LANES:	NL 0	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	1	2	0	0	4	0	0	0	0	0	0	0	7
	7:15 AM	0	2	0	0	1	0	0	0	0	0	0	0	3
	7:30 AM	2	3	0	0	1	0	0	0	0	0	0	0	6
	7:45 AM	2	0	0	0	1	0	0	0	0	0	0	0	3
	8:00 AM	6	0	0	0	1	0	0	0	0	0	0	0	7
	8:15 AM	2	2	0	0	3	0	0	0	0	0	0	0	7
	8:30 AM	0	3	0	0	3	0	0	0	0	0	0	0	6
	8:45 AM	1	1	1	0	0	0	0	0	0	0	0	0	3
	VOLUMES	14	13	1	0	14	0	0	0	0	0	0	0	42
	APPROACH %	50%	46%	4%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	28	/	13	14	/	14	0	/	1	0	/	14	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	10	5	0	0	4	0	0	0	0	0	0	0	19
	APPROACH %	67%	33%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.625			1.000			0.000			0.000		0.679
	APP/DEPART	15	/	5	4	/	4	0	/	0	0	/	10	0
PM	4:00 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
	4:15 PM	0	2	0	0	3	0	0	0	0	0	0	0	5
	4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	4:45 PM	0	3	0	0	1	0	0	0	0	0	0	0	4
	5:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
	5:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	5:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	5:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	VOLUMES	0	14	0	0	9	0	0	0	0	0	0	0	23
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	14	/	14	9	/	9	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	7	0	0	7	0	0	0	0	0	0	0	14
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.583			0.583			0.000			0.000		0.700
	APP/DEPART	7	/	7	7	/	7	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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
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0	0	0	0	0
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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

RTOR

NRR X	SRR X	ERR X	WRR X
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
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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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	4
TUESDAY	EAST & WEST:	Mountain	CONTROL:	STOP E/W

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Mountain)			WESTBOUND (Mountain)			
	LANES:	NL 0	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	3	1	0	0	0	2	0	2	0	0	0	8
	7:15 AM	0	1	0	0	7	0	0	0	1	0	0	0	9
	7:30 AM	1	0	0	0	2	0	0	0	0	0	0	0	3
	7:45 AM	0	1	0	0	6	2	3	0	2	0	0	0	14
	8:00 AM	0	2	0	0	3	0	4	0	2	0	0	1	12
	8:15 AM	0	4	0	1	5	0	0	0	2	0	0	0	12
	8:30 AM	0	6	0	0	5	0	0	0	3	0	0	0	14
	8:45 AM	0	4	0	0	1	0	1	0	2	0	0	0	8
	VOLUMES	1	21	1	1	29	2	10	0	14	0	0	1	80
	APPROACH %	4%	91%	4%	3%	91%	6%	42%	0%	58%	0%	0%	100%	
	APP/DEPART	23	/	32	32	/	43	24	/	2	1	/	3	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	1	4	0	0	18	2	7	0	5	0	0	1	38
	APPROACH %	20%	80%	0%	0%	90%	10%	58%	0%	42%	0%	0%	100%	
	PEAK HR FACTOR		0.625			0.625			0.500			0.250		0.679
	APP/DEPART	5	/	12	20	/	23	12	/	0	1	/	3	0
PM	4:00 PM	0	3	0	0	4	0	0	0	0	0	0	0	7
	4:15 PM	0	1	0	0	5	0	0	0	0	0	0	0	6
	4:30 PM	0	2	0	0	6	0	0	0	0	0	0	0	8
	4:45 PM	0	3	0	0	5	0	0	0	0	0	0	0	8
	5:00 PM	0	6	0	0	6	0	0	0	0	0	0	0	12
	5:15 PM	0	2	0	0	3	0	0	0	0	0	0	0	5
	5:30 PM	0	4	0	0	2	1	0	0	0	0	0	0	7
	5:45 PM	0	2	0	0	3	0	1	0	0	0	0	0	6
	VOLUMES	0	23	0	0	34	1	1	0	0	0	0	0	59
	APPROACH %	0%	100%	0%	0%	97%	3%	100%	0%	0%	0%	0%	0%	
	APP/DEPART	23	/	24	35	/	34	1	/	0	0	/	1	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	9	0	0	20	0	0	0	0	0	0	0	29
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.833			0.000			0.000		0.906
	APP/DEPART	9	/	9	20	/	20	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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	0	0	0	0
0	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
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	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

Goetz

NORTH SIDE

Mountain WEST SIDE EAST SIDE **Mountain**

SOUTH SIDE

Goetz

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	4
TUESDAY	EAST & WEST:	Mountain	CONTROL:	STOP E/W

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

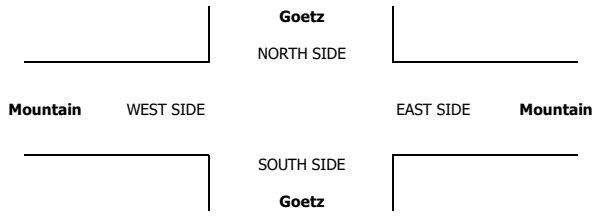
		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Mountain)			WESTBOUND (Mountain)			
	LANES:	NL 0	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
X	X	X	X
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	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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	4
TUESDAY	EAST & WEST:	Mountain	CONTROL:	STOP E/W

CLASS 6: BUSES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

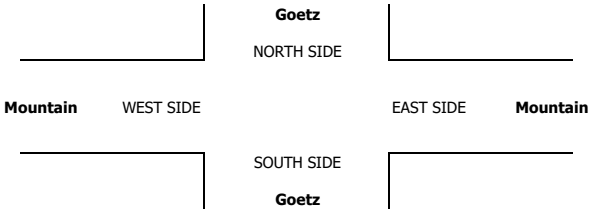
	NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Mountain)			WESTBOUND (Mountain)			
LANES:	NL 0	NT 2	NR 0	SL 1	ST 2	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
7:00 AM	0	0	0	0	0	0	3	0	1	0	0	0	4
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
7:30 AM	0	2	0	0	1	0	2	0	1	0	0	0	6
7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	1	2	0	0	1	0	0	0	0	0	0	0	4
8:30 AM	0	2	0	0	1	0	0	0	0	0	0	0	3
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	1
AM VOLUMES	1	9	0	0	4	1	5	0	3	0	0	0	23
AM APPROACH %	10%	90%	0%	0%	80%	20%	63%	0%	38%	0%	0%	0%	
AM APP/DEPART	10	/	14	5	/	7	8	/	0	0	/	2	0
BEGIN PEAK HR		7:15 AM											
AM PEAK HR VOLUMES	0	5	0	0	2	0	2	0	2	0	0	0	11
AM PEAK HR APPROACH %	0%	100%	0%	0%	100%	0%	50%	0%	50%	0%	0%	0%	
AM PEAK HR FACTOR		0.417			0.500			0.333			0.000		0.458
AM PEAK HR APP/DEPART	5	/	7	2	/	4	4	/	0	0	/	0	0
4:00 PM	1	0	0	0	0	0	1	0	0	0	0	0	2
4:15 PM	0	1	0	0	0	4	0	0	0	0	0	0	5
4:30 PM	0	0	0	0	0	3	0	0	0	0	0	0	3
4:45 PM	1	1	0	0	0	2	0	0	0	0	0	0	4
5:00 PM	1	0	0	0	0	3	1	0	1	0	0	0	6
5:15 PM	1	0	0	0	1	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	2
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
PM VOLUMES	4	3	0	0	1	14	2	0	1	0	0	0	25
PM APPROACH %	57%	43%	0%	0%	7%	93%	67%	0%	33%	0%	0%	0%	
PM APP/DEPART	7	/	5	15	/	2	3	/	0	0	/	18	0
BEGIN PEAK HR		4:00 PM											
PM PEAK HR VOLUMES	2	2	0	0	0	9	1	0	0	0	0	0	14
PM PEAK HR APPROACH %	50%	50%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%	
PM PEAK HR FACTOR		0.500			0.563			0.250			0.000		0.700
PM PEAK HR APP/DEPART	4	/	3	9	/	0	1	/	0	0	/	11	0

U-TURNS

NB	SB	EB	WB	TTL
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	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	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
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	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



T42321

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, May 24, 22	LOCATION:	Perris	PROJECT #: SC3431
	NORTH & SOUTH:	Goetz	LOCATION #: 5
	EAST & WEST:	Mapes	CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Mapes)			WESTBOUND (Mapes)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 1	SR 1	EL 1	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	84	70	1	0	26	11	8	0	33	0	0	2	235
	7:15 AM	74	100	2	1	28	13	14	1	42	1	0	0	276
	7:30 AM	70	86	4	2	34	38	31	1	67	0	0	0	333
	7:45 AM	68	70	6	0	33	75	61	1	59	0	0	0	373
	8:00 AM	46	57	0	1	41	29	43	0	52	0	0	0	269
	8:15 AM	41	48	0	1	32	17	27	0	40	0	0	0	206
	8:30 AM	40	49	1	1	35	13	11	0	32	0	0	0	182
	8:45 AM	31	50	0	1	29	11	8	0	31	1	0	0	162
	VOLUMES	454	530	14	7	258	207	203	3	356	2	0	2	2,036
	APPROACH %	45%	53%	1%	1%	55%	44%	36%	1%	63%	50%	0%	50%	
	APP/DEPART	998	/	740	472	/	617	562	/	19	4	/	660	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	258	313	12	4	136	155	149	3	220	1	0	0	1,251
	APPROACH %	44%	54%	2%	1%	46%	53%	40%	1%	59%	100%	0%	0%	
	PEAK HR FACTOR		0.828			0.683			0.769			0.250		0.838
	APP/DEPART	583	/	464	295	/	357	372	/	17	1	/	413	0
PM	4:00 PM	60	34	0	0	78	15	19	1	63	1	0	0	271
	4:15 PM	54	30	0	0	67	13	13	0	85	5	0	0	267
	4:30 PM	53	48	0	1	72	18	14	0	73	6	1	1	287
	4:45 PM	50	42	1	0	69	14	17	0	63	0	0	0	256
	5:00 PM	35	24	0	2	74	20	13	0	68	0	1	1	238
	5:15 PM	46	40	0	1	78	10	12	0	61	1	0	0	249
	5:30 PM	56	35	0	0	74	16	8	0	61	0	0	0	250
	5:45 PM	41	32	0	1	71	11	16	0	83	0	0	0	255
	VOLUMES	395	285	1	5	583	117	112	1	557	13	2	2	2,073
	APPROACH %	58%	42%	0%	1%	83%	17%	17%	0%	83%	76%	12%	12%	
	APP/DEPART	681	/	403	705	/	1,153	670	/	3	17	/	514	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	217	154	1	1	286	60	63	1	284	12	1	1	1,081
	APPROACH %	58%	41%	0%	0%	82%	17%	18%	0%	82%	86%	7%	7%	
	PEAK HR FACTOR		0.921			0.933			0.888			0.438		0.942
	APP/DEPART	372	/	218	347	/	582	348	/	3	14	/	278	0

U-TURNS

NB 0	SB 0	EB 0	WB 0	TTL
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
1	1	0	0	2
0	1	0	0	1
1	5	0	0	6
0	0	0	0	0
0	1	0	0	1
0	2	0	0	2
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1
0	4	0	0	4

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	3	17	1
0	3	30	0
0	3	42	0
0	12	38	0
0	3	31	0
0	2	28	0
1	0	21	0
0	3	23	0
1	29	230	1
0	21	141	0
0	3	31	0
0	1	52	0
0	2	42	1
0	2	40	0
0	3	46	1
0	0	40	0
0	1	48	0
0	3	46	0
0	15	345	2
0	8	165	1

Goetz

NORTH SIDE

Mapes WEST SIDE — EAST SIDE **Mapes**

SOUTH SIDE

Goetz

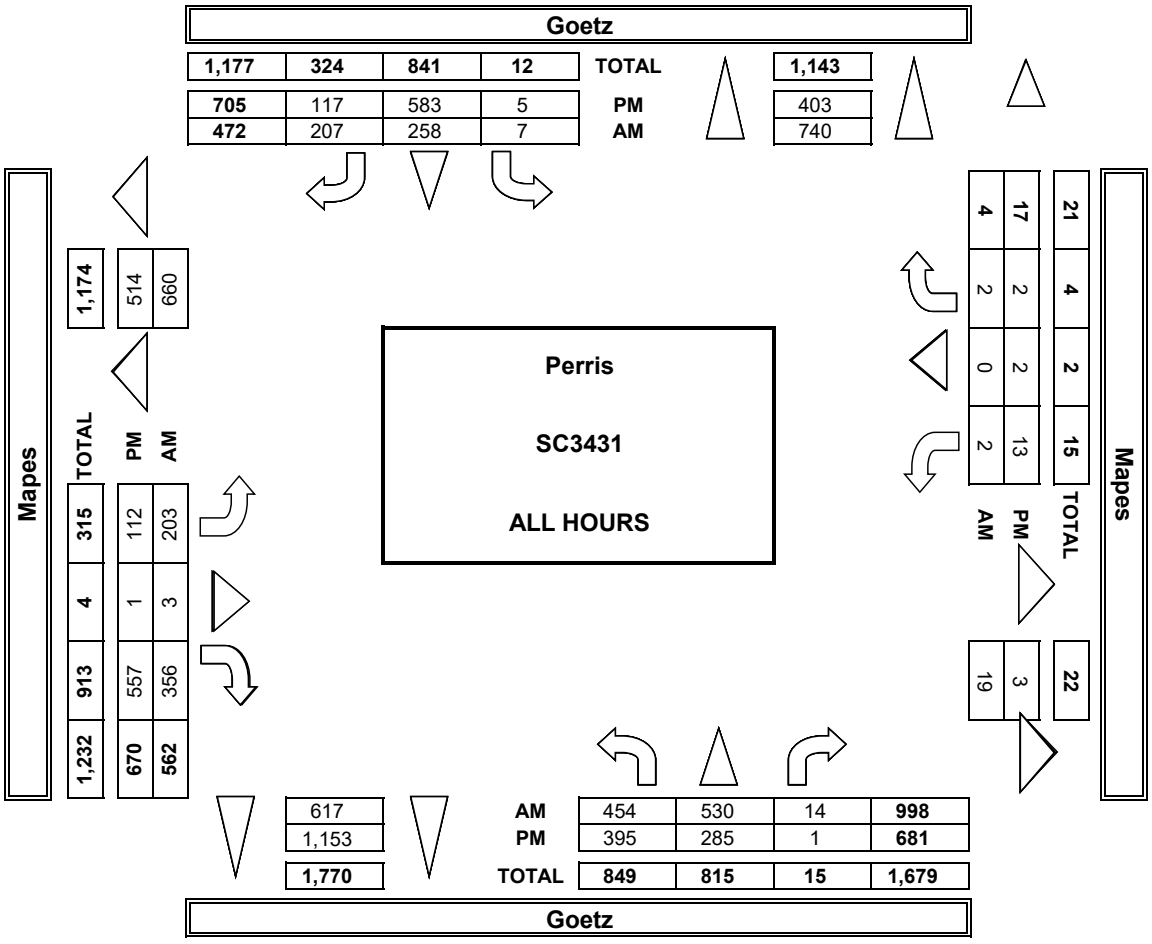
		ALL PED AND BIKE				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	0	0	0
	8:15 AM	0	1	0	0	1
	8:30 AM	0	0	0	1	1
	8:45 AM	1	0	0	0	1
	TOTAL	1	1	0	1	3
PM	4:00 PM	1	0	0	0	1
	4:15 PM	0	0	0	0	0
	4:30 PM	0	0	0	0	0
	4:45 PM	0	0	0	0	0
	5:00 PM	0	1	0	0	1
	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	1	1	0	0	2

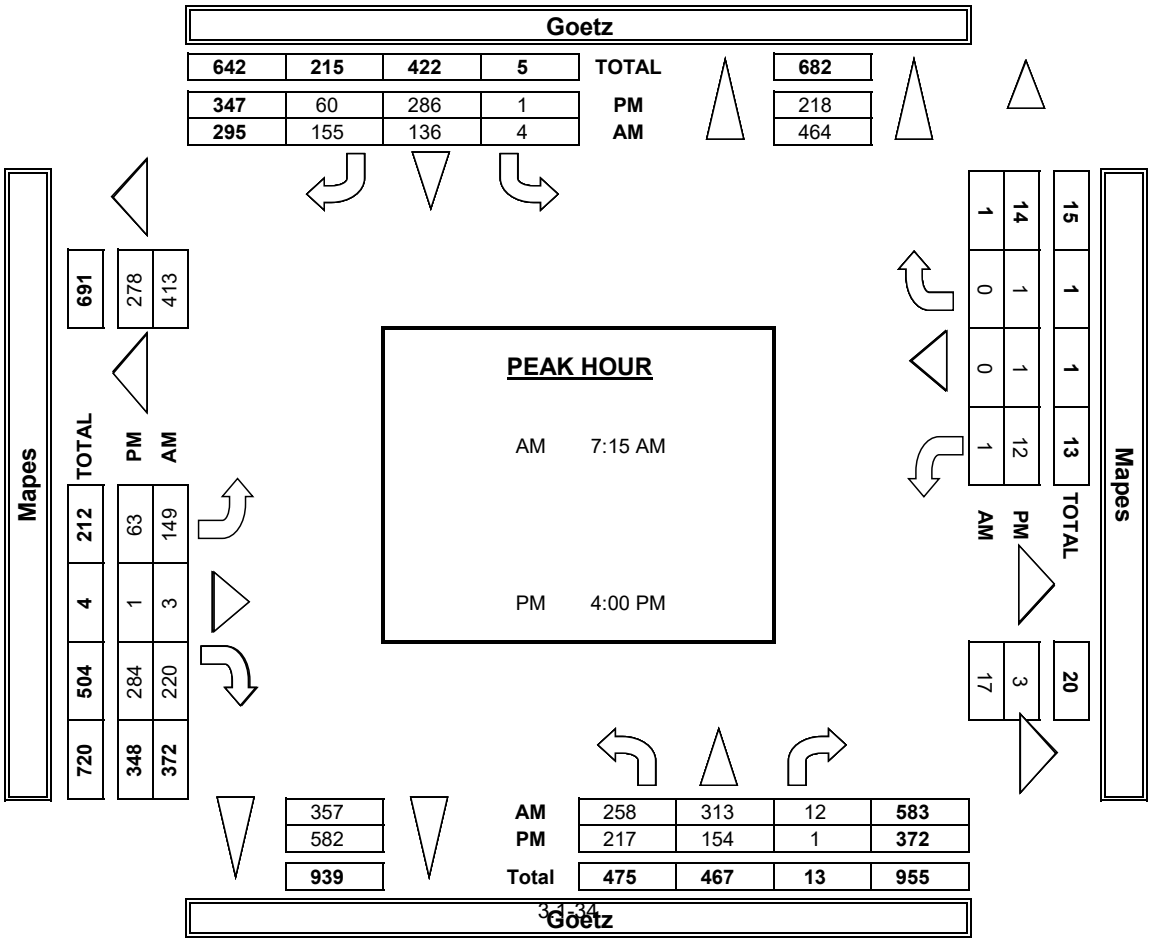
PEDESTRIAN CROSSINGS				
E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	1	1
1	0	0	0	1
1	1	0	1	3
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	1	0	0	2

BICYCLE CROSSINGS				
ES	WS	SS	NS	TOTAL
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	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

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	5
TUESDAY	EAST & WEST:	Mapes	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Mapes)			WESTBOUND (Mapes)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 1	SR 1	EL 1	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	79	63	1	0	18	7	6	0	31	0	0	2	207
	7:15 AM	66	89	2	1	22	9	12	1	36	0	0	0	238
	7:30 AM	65	81	3	1	23	36	26	1	62	0	0	0	298
	7:45 AM	61	63	6	0	25	67	59	1	46	0	0	0	328
	8:00 AM	39	46	0	1	34	26	39	0	47	0	0	0	232
	8:15 AM	38	39	0	1	22	14	23	0	35	0	0	0	172
	8:30 AM	34	42	1	0	25	9	6	0	23	0	0	0	140
	8:45 AM	29	44	0	1	24	10	6	0	25	1	0	0	140
	VOLUMES	411	467	13	5	193	178	177	3	305	1	0	2	1,755
	APPROACH %	46%	52%	1%	1%	51%	47%	36%	1%	63%	33%	0%	67%	
	APP/DEPART	891	/	650	376	/	500	485	/	17	3	/	588	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	231	279	11	1	104	138	136	3	191	0	0	0	1,096
	APPROACH %	44%	54%	2%	0%	42%	56%	41%	1%	58%	0%	0%	0%	
	PEAK HR FACTOR		0.830			0.666			0.778			0.000		0.835
	APP/DEPART	521	/	417	245	/	295	330	/	15	0	/	369	0
PM	4:00 PM	47	30	0	0	73	8	13	1	57	1	0	0	230
	4:15 PM	48	26	0	0	60	10	8	0	78	4	0	0	234
	4:30 PM	48	45	0	0	67	15	12	0	69	6	1	0	263
	4:45 PM	46	36	1	0	63	13	11	0	54	0	0	0	224
	5:00 PM	31	20	0	2	66	17	6	0	63	0	1	1	207
	5:15 PM	44	32	0	1	76	8	5	0	54	1	0	0	221
	5:30 PM	52	32	0	0	70	11	5	0	56	0	0	0	226
	5:45 PM	39	26	0	1	66	8	12	0	78	0	0	0	230
	VOLUMES	355	247	1	4	541	90	72	1	509	12	2	1	1,835
	APPROACH %	59%	41%	0%	1%	85%	14%	12%	0%	87%	80%	13%	7%	
	APP/DEPART	603	/	324	635	/	1,062	582	/	2	15	/	447	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	189	137	1	0	263	46	44	1	258	11	1	0	951
	APPROACH %	58%	42%	0%	0%	85%	15%	15%	0%	85%	92%	8%	0%	
	PEAK HR FACTOR		0.879			0.942			0.881			0.429		0.904
	APP/DEPART	327	/	181	309	/	532	303	/	2	12	/	236	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	1	0	0	1
0	1	0	0	1
1	0	0	0	1
0	1	0	0	1
1	4	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	2	0	0	2
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1
0	4	0	0	4

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	2	16	1
0	3	24	0
0	2	41	0
0	10	29	0
0	3	28	0
0	2	24	0
1	0	15	0
0	2	19	0
1	24	196	1
0	18	122	0
0	0	27	0
0	0	48	0
0	2	38	0
0	2	31	0
0	3	44	1
0	0	35	0
0	1	44	0
0	2	42	0
0	10	309	1
0	4	144	0

Goetz

NORTH SIDE

Mapes WEST SIDE EAST SIDE **Mapes**

SOUTH SIDE

Goetz

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	5
TUESDAY	EAST & WEST:	Mapes	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

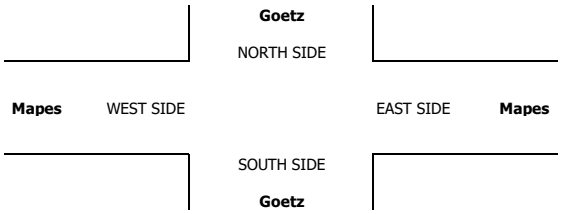
		NORTHBOUND Goetz			SOUTHBOUND Goetz			EASTBOUND Mapes			WESTBOUND Mapes			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 1	SR 1	EL 1	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	3	2	0	0	3	1	1	0	1	0	0	0	11
	7:15 AM	4	4	0	0	1	2	2	0	5	0	0	0	18
	7:30 AM	3	1	1	1	6	1	1	0	3	0	0	0	17
	7:45 AM	6	3	0	0	4	2	2	0	9	0	0	0	26
	8:00 AM	5	0	0	0	2	1	1	0	4	0	0	0	13
	8:15 AM	3	3	0	0	1	0	1	0	4	0	0	0	12
	8:30 AM	3	1	0	1	1	2	0	0	6	0	0	0	14
	8:45 AM	1	3	0	0	3	0	0	0	3	0	0	0	10
	VOLUMES	28	17	1	2	21	9	8	0	35	0	0	0	121
	APPROACH %	61%	37%	2%	6%	66%	28%	19%	0%	81%	0%	0%	0%	
	APP/DEPART	46	/	26	32	/	56	43	/	2	0	/	37	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	18	8	1	1	13	6	6	0	21	0	0	0	74
	APPROACH %	67%	30%	4%	5%	65%	30%	22%	0%	78%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.625			0.614			0.000		0.712
	APP/DEPART	27	/	14	20	/	34	27	/	2	0	/	24	0
PM	4:00 PM	6	2	0	0	4	3	4	0	4	0	0	0	23
	4:15 PM	5	2	0	0	3	0	3	0	5	1	0	0	19
	4:30 PM	4	1	0	0	3	0	1	0	2	0	0	1	12
	4:45 PM	4	1	0	0	2	0	2	0	9	0	0	0	18
	5:00 PM	2	0	0	0	5	1	0	0	4	0	0	0	12
	5:15 PM	2	4	0	0	0	0	1	0	6	0	0	0	13
	5:30 PM	1	3	0	0	3	2	0	0	4	0	0	0	13
	5:45 PM	2	2	0	0	5	1	0	0	2	0	0	0	12
	VOLUMES	26	15	0	0	25	7	11	0	36	1	0	1	122
	APPROACH %	63%	37%	0%	0%	78%	22%	23%	0%	77%	50%	0%	50%	
	APP/DEPART	41	/	27	32	/	62	47	/	0	2	/	33	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	19	6	0	0	12	3	10	0	20	1	0	1	72
	APPROACH %	76%	24%	0%	0%	80%	20%	33%	0%	67%	50%	0%	50%	
	PEAK HR FACTOR		0.781			0.536			0.682			0.500		0.783
	APP/DEPART	25	/	17	15	/	33	30	/	0	2	/	22	0

U-TURNS

NB	SB	EB	WB	TTL
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	0	1
0	0	0	0	0
0	1	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	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

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	0	0	0
0	0	5	0
0	1	1	0
0	1	6	0
0	0	2	0
0	0	3	0
0	0	4	0
0	0	1	0
0	2	22	0
0	2	14	0
0	2	2	0
0	0	3	0
0	0	2	1
0	0	9	0
0	0	1	0
0	0	5	0
0	0	4	0
0	0	1	0
0	2	27	1
0	2	16	1



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	5
TUESDAY	EAST & WEST:	Mapes	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Mapes)			WESTBOUND (Mapes)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 1	SR 1	EL 1	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	3	0	0	1	3	0	0	1	0	0	0	8
	7:15 AM	1	1	0	0	2	0	0	0	1	0	0	0	5
	7:30 AM	2	3	0	0	2	0	2	0	0	0	0	0	9
	7:45 AM	0	3	0	0	1	0	0	0	2	0	0	0	6
	8:00 AM	2	7	0	0	1	0	0	0	0	0	0	0	10
	8:15 AM	0	4	0	0	2	0	0	0	0	0	0	0	6
	8:30 AM	0	3	0	0	1	0	0	0	1	0	0	0	5
	8:45 AM	1	2	0	0	0	0	1	0	0	0	0	0	4
	VOLUMES	6	26	0	0	10	3	3	0	5	0	0	0	53
	APPROACH %	19%	81%	0%	0%	77%	23%	38%	0%	63%	0%	0%	0%	
	APP/DEPART	32	/	29	13	/	15	8	/	0	0	/	9	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	5	14	0	0	6	0	2	0	3	0	0	0	30
	APPROACH %	26%	74%	0%	0%	100%	0%	40%	0%	60%	0%	0%	0%	
	PEAK HR FACTOR		0.528			0.750			0.625			0.000		0.750
	APP/DEPART	19	/	16	6	/	9	5	/	0	0	/	5	0
PM	4:00 PM	4	0	0	0	1	1	0	0	0	0	0	0	6
	4:15 PM	0	1	0	0	2	0	1	0	0	0	0	0	4
	4:30 PM	0	1	0	0	1	0	0	0	1	0	0	0	3
	4:45 PM	0	3	0	0	1	0	1	0	0	0	0	0	5
	5:00 PM	2	3	0	0	1	0	2	0	1	0	0	0	9
	5:15 PM	0	2	0	0	0	0	3	0	0	0	0	0	5
	5:30 PM	1	0	0	0	1	1	0	0	1	0	0	0	4
	5:45 PM	0	3	0	0	0	0	2	0	2	0	0	0	7
	VOLUMES	7	13	0	0	7	2	9	0	5	0	0	0	43
	APPROACH %	35%	65%	0%	0%	78%	22%	64%	0%	36%	0%	0%	0%	
	APP/DEPART	20	/	22	9	/	12	14	/	0	0	/	9	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	4	5	0	0	5	1	2	0	1	0	0	0	18
	APPROACH %	44%	56%	0%	0%	83%	17%	67%	0%	33%	0%	0%	0%	
	PEAK HR FACTOR		0.563			0.750			0.750			0.000		0.750
	APP/DEPART	9	/	7	6	/	6	3	/	0	0	/	5	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
0	1	1	0
0	0	1	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	1	4	0
0	0	2	0
0	1	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	2	0
0	1	4	0
0	1	1	0

Goetz

NORTH SIDE

Mapes WEST SIDE EAST SIDE **Mapes**

SOUTH SIDE

Goetz

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	5
TUESDAY	EAST & WEST:	Mapes	CONTROL:	SIGNAL

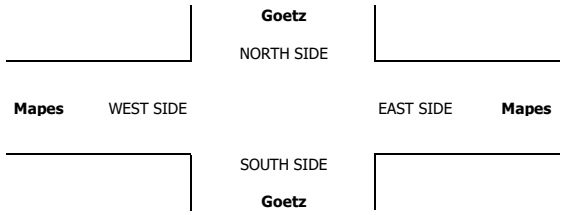
CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Mapes)			WESTBOUND (Mapes)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 1	SR 1	EL 1	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	2	2	0	0	3	0	1	0	0	0	0	0	8
	7:15 AM	2	5	0	0	2	2	0	0	0	1	0	0	12
	7:30 AM	0	1	0	0	3	1	1	0	2	0	0	0	8
	7:45 AM	1	1	0	0	3	3	0	0	1	0	0	0	9
	8:00 AM	0	2	0	0	4	2	2	0	1	0	0	0	11
	8:15 AM	0	0	0	0	6	3	2	0	1	0	0	0	12
	8:30 AM	3	1	0	0	7	2	5	0	2	0	0	0	20
	8:45 AM	0	1	0	0	2	1	1	0	3	0	0	0	8
	VOLUMES	8	13	0	0	30	14	12	0	10	1	0	0	88
	APPROACH %	38%	62%	0%	0%	68%	32%	55%	0%	45%	100%	0%	0%	
	APP/DEPART	21	/	25	44	/	41	22	/	0	1	/	22	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	3	9	0	0	12	8	3	0	4	1	0	0	40
	APPROACH %	25%	75%	0%	0%	60%	40%	43%	0%	57%	100%	0%	0%	
	PEAK HR FACTOR	0.429			0.833			0.583			0.250			0.833
	APP/DEPART	12	/	12	20	/	17	7	/	0	1	/	11	0
PM	4:00 PM	0	1	0	0	0	3	2	0	1	0	0	0	7
	4:15 PM	1	0	0	0	2	3	1	0	1	0	0	0	8
	4:30 PM	1	1	0	1	1	3	1	0	1	0	0	0	9
	4:45 PM	0	0	0	0	3	1	3	0	0	0	0	0	7
	5:00 PM	0	1	0	0	1	2	4	0	0	0	0	0	8
	5:15 PM	0	1	0	0	1	2	3	0	1	0	0	0	8
	5:30 PM	1	0	0	0	0	2	3	0	0	0	0	0	6
	5:45 PM	0	0	0	0	0	2	2	0	1	0	0	0	5
	VOLUMES	3	4	0	1	8	18	19	0	5	0	0	0	58
	APPROACH %	43%	57%	0%	4%	30%	67%	79%	0%	21%	0%	0%	0%	
	APP/DEPART	7	/	23	27	/	13	24	/	1	0	/	21	0
	BEGIN PEAK HR	4:00 PM												
	VOLUMES	2	2	0	1	6	10	7	0	3	0	0	0	31
	APPROACH %	50%	50%	0%	6%	35%	59%	70%	0%	30%	0%	0%	0%	
	PEAK HR FACTOR	0.500			0.850			0.833			0.000			0.861
	APP/DEPART	4	/	9	17	/	9	10	/	1	0	/	12	0

U-TURNS					RTOR			
NB	SB	EB	WB	TTL	NRR	SRR	ERR	WRR
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	1	0
0	0	0	0	0	0	0	1	0
0	0	0	0	0	0	0	1	0
0	0	0	0	0	0	0	1	0
0	0	0	0	0	0	1	3	0
0	0	0	0	0	0	2	7	0
					0	1	2	0
0	0	0	0	0	0	0	1	0
0	0	0	0	0	0	1	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	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	1	1	0
0	0	0	0	0	0	2	3	0
					0	1	2	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	5
TUESDAY	EAST & WEST:	Mapes	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

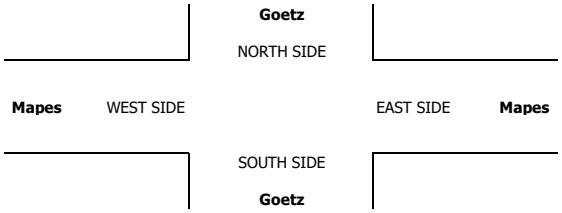
		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Mapes)			WESTBOUND (Mapes)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 1	SR 1	EL 1	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
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	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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	5
TUESDAY	EAST & WEST:	Mapes	CONTROL:	SIGNAL

CLASS 6: BUSES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

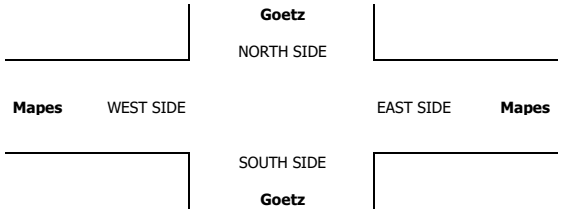
		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Mapes)			WESTBOUND (Mapes)			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 1	SR 1	EL 1	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	7:15 AM	1	1	0	0	1	0	0	0	0	0	0	0	3
	7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
	7:45 AM	0	0	0	0	0	3	0	0	1	0	0	0	4
	8:00 AM	0	2	0	0	0	0	1	0	0	0	0	0	3
	8:15 AM	0	2	0	0	1	0	1	0	0	0	0	0	4
	8:30 AM	0	2	0	0	1	0	0	0	0	0	0	0	3
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	1	7	0	0	4	3	3	0	1	0	0	0	19
	APPROACH %	13%	88%	0%	0%	57%	43%	75%	0%	25%	0%	0%	0%	
	APP/DEPART	8	/	10	7	/	5	4	/	0	0	/	4	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	1	3	0	0	1	3	2	0	1	0	0	0	11
	APPROACH %	25%	75%	0%	0%	25%	75%	67%	0%	33%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.333			0.750			0.000		0.688
	APP/DEPART	4	/	5	4	/	2	3	/	0	0	/	4	0
PM	4:00 PM	3	1	0	0	0	0	0	0	1	0	0	0	5
	4:15 PM	0	1	0	0	0	0	0	0	1	0	0	0	2
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	5:00 PM	0	0	0	0	1	0	1	0	0	0	0	0	2
	5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	2
	5:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	VOLUMES	4	6	0	0	2	0	1	0	2	0	0	0	15
	APPROACH %	40%	60%	0%	0%	100%	0%	33%	0%	67%	0%	0%	0%	
	APP/DEPART	10	/	7	2	/	4	3	/	0	0	/	4	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	3	4	0	0	0	0	0	0	2	0	0	0	9
	APPROACH %	43%	57%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.438			0.000			0.500			0.000		0.450
	APP/DEPART	7	/	4	0	/	2	2	/	0	0	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR	SRR	ERR	WRR
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	0
0	0	1	0
0	0	1	0
0	0	1	0
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	0	0	0
0	0	2	0
0	0	2	0



INTERSECTION TURNING MOVEMENT COUNTS

T42321

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, May 24, 22	LOCATION:	Perris	PROJECT #: SC3431
	NORTH & SOUTH:	Goetz	LOCATION #: 6
	EAST & WEST:	Ethanac	CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

	NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Ethanac)			WESTBOUND (Ethanac)			
LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
7:00 AM	0	66	95	46	24	1	8	33	0	27	3	64	367
7:15 AM	0	76	92	52	15	2	9	36	2	24	6	61	375
7:30 AM	1	72	114	58	39	6	6	23	0	36	9	55	419
7:45 AM	0	71	81	73	28	3	2	23	1	43	21	64	410
8:00 AM	0	48	81	52	27	2	5	16	2	66	22	49	370
8:15 AM	0	32	74	54	36	2	2	11	1	50	14	41	317
8:30 AM	0	31	55	33	22	4	2	11	2	42	14	43	259
8:45 AM	0	31	48	49	16	4	5	7	3	31	6	43	243
AM VOLUMES	1	427	640	417	207	24	39	160	11	319	95	420	2,760
AM APPROACH %	0%	40%	60%	64%	32%	4%	19%	76%	5%	38%	11%	50%	
AM APP/DEPART	1,068	/	886	648	/	537	210	/	1,217	834	/	120	0
BEGIN PEAK HR		7:15 AM											
VOLUMES	1	267	368	235	109	13	22	98	5	169	58	229	1,574
APPROACH %	0%	42%	58%	66%	31%	4%	18%	78%	4%	37%	13%	50%	
PEAK HR FACTOR		0.850			0.858			0.665			0.832		0.939
APP/DEPART	636	/	518	357	/	283	125	/	701	456	/	72	0
4:00 PM	0	27	37	58	57	4	1	6	0	76	21	54	341
4:15 PM	0	29	41	74	56	7	6	10	1	68	12	44	348
4:30 PM	0	36	59	78	58	7	4	10	0	77	22	52	403
4:45 PM	1	25	42	69	52	8	3	18	1	52	14	59	344
5:00 PM	0	16	49	64	61	5	1	12	2	72	25	45	352
5:15 PM	0	25	45	59	62	7	3	12	3	64	19	47	346
5:30 PM	0	28	41	52	51	7	2	6	0	65	19	48	319
5:45 PM	1	31	54	50	59	10	2	14	0	56	19	50	346
PM VOLUMES	2	217	368	504	456	55	22	88	7	530	151	399	2,799
PM APPROACH %	0%	37%	63%	50%	45%	5%	19%	75%	6%	49%	14%	37%	
PM APP/DEPART	587	/	638	1,015	/	992	117	/	961	1,080	/	208	0
BEGIN PEAK HR		4:15 PM											
VOLUMES	1	106	191	285	227	27	14	50	4	269	73	200	1,447
APPROACH %	0%	36%	64%	53%	42%	5%	21%	74%	6%	50%	13%	37%	
PEAK HR FACTOR		0.784			0.942			0.773			0.897		0.898
APP/DEPART	298	/	320	539	/	499	68	/	527	542	/	101	0

U-TURNS

	NB 0	SB 0	EB 0	WB 0	TTL
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
AM TOTAL	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	1	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
PM TOTAL	0	0	0	1	1

RTOR

	NRR 0	SRR 0	ERR 0	WRR 0
7:00 AM	48	1	0	26
7:15 AM	37	1	1	22
7:30 AM	43	2	0	16
7:45 AM	33	1	1	14
8:00 AM	42	0	0	21
8:15 AM	39	2	1	22
8:30 AM	34	2	2	13
8:45 AM	24	0	2	21
AM TOTAL	300	9	7	155
AM PEAK HR VOLUMES	155	4	2	73
4:00 PM	19	2	0	22
4:15 PM	22	4	1	13
4:30 PM	28	3	0	20
4:45 PM	17	3	1	18
5:00 PM	25	2	0	27
5:15 PM	20	3	3	12
5:30 PM	17	4	0	24
5:45 PM	23	5	0	24
PM TOTAL	171	26	5	160
PM PEAK HR VOLUMES	92	12	2	78

Goetz

NORTH SIDE

Ethanac WEST SIDE — EAST SIDE **Ethanac**

SOUTH SIDE

Goetz

ALL PED AND BIKE

	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
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	1	0	1	2
8:15 AM	0	0	0	0	0
8:30 AM	0	1	0	0	1
8:45 AM	0	1	0	0	1
AM TOTAL	0	3	0	1	4
4:00 PM	0	0	0	0	0
4:15 PM	0	1	0	0	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	1	0	0	1
5:15 PM	0	0	0	0	0
5:30 PM	0	2	0	0	2
5:45 PM	0	0	0	0	0
TOTAL	0	4	0	0	4

PEDESTRIAN CROSSINGS

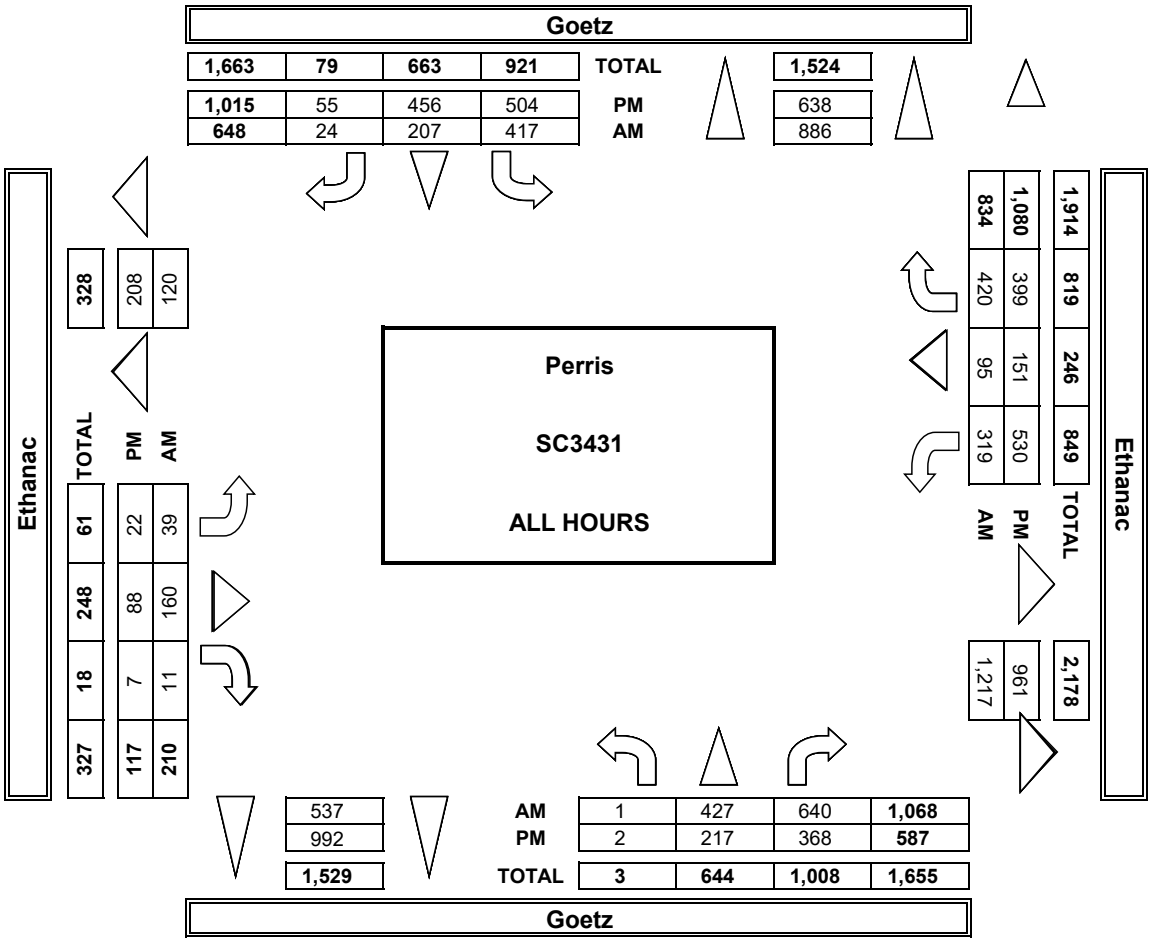
	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	1	0	1	2
8:15 AM	0	0	0	0	0
8:30 AM	0	1	0	0	1
8:45 AM	0	1	0	0	1
AM TOTAL	0	3	0	1	4
4:00 PM	0	0	0	0	0
4:15 PM	0	1	0	0	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	1	0	0	1
5:15 PM	0	0	0	0	0
5:30 PM	0	2	0	0	2
5:45 PM	0	0	0	0	0
TOTAL	0	4	0	0	4

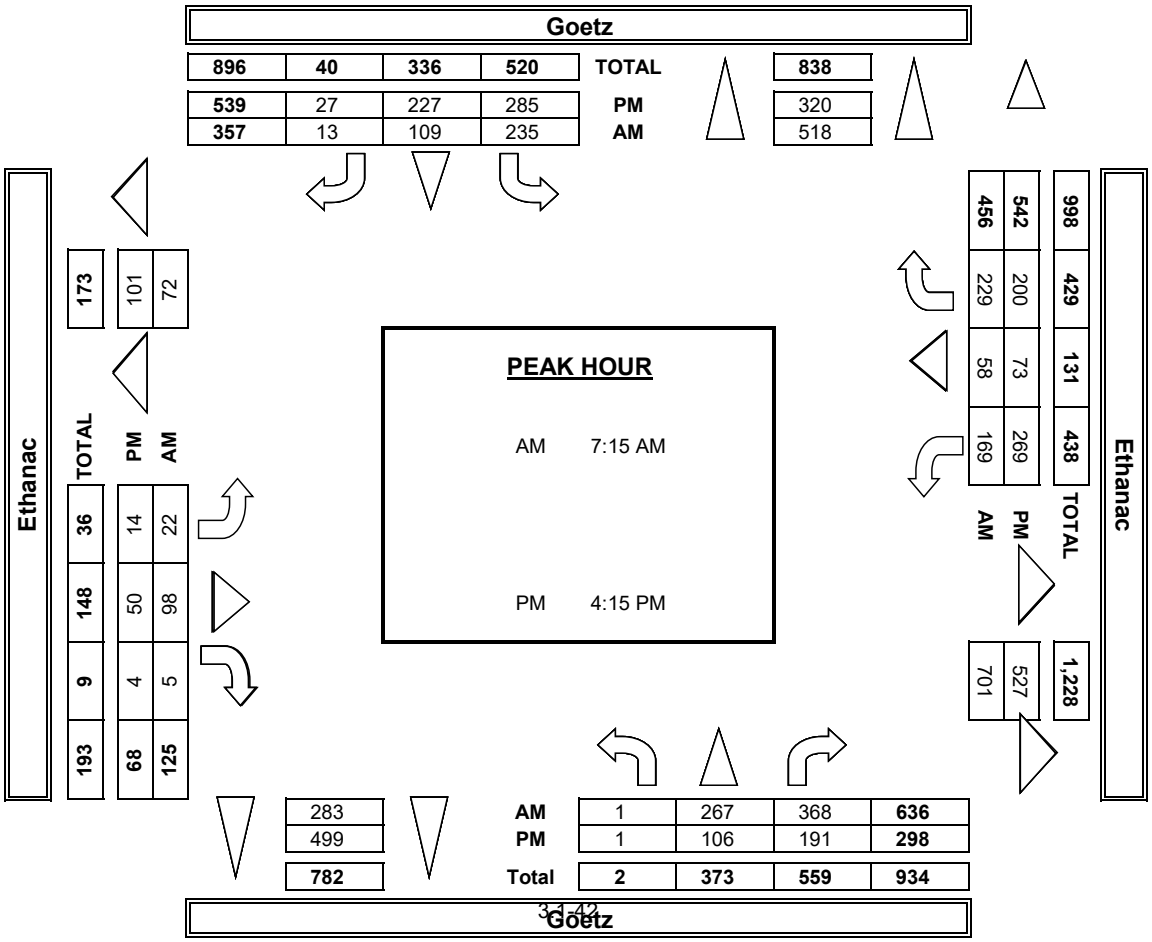
BICYCLE CROSSINGS

	ES	WS	SS	NS	TOTAL
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
AM TOTAL	0	0	0	0	0
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	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	6
TUESDAY	EAST & WEST:	Ethanac	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Ethanac)			WESTBOUND (Ethanac)			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	62	89	39	22	0	8	33	0	25	3	55	336
	7:15 AM	0	71	90	48	13	2	9	36	2	16	6	53	346
	7:30 AM	1	67	105	53	36	4	6	22	0	28	9	46	377
	7:45 AM	0	69	76	63	23	3	2	23	0	39	19	57	374
	8:00 AM	0	41	75	46	25	2	5	15	1	61	21	43	335
	8:15 AM	0	27	69	43	29	2	2	11	1	41	14	35	274
	8:30 AM	0	29	51	29	16	3	1	10	1	38	12	35	225
	8:45 AM	0	28	43	41	12	4	4	7	3	26	6	39	213
	VOLUMES	1	394	598	362	176	20	37	157	8	274	90	363	2,480
	APPROACH %	0%	40%	60%	65%	32%	4%	18%	78%	4%	38%	12%	50%	
	APP/DEPART	993	/	794	558	/	458	202	/	1,117	727	/	111	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	1	248	346	210	97	11	22	96	3	144	55	199	1,432
	APPROACH %	0%	42%	58%	66%	31%	3%	18%	79%	2%	36%	14%	50%	
	PEAK HR FACTOR		0.860			0.855			0.644			0.796		0.950
	APP/DEPART	595	/	469	318	/	244	121	/	652	398	/	67	0
PM	4:00 PM	0	23	32	54	56	4	1	6	0	72	20	41	309
	4:15 PM	0	26	37	68	52	6	4	10	1	65	11	38	318
	4:30 PM	0	33	56	74	54	6	4	8	0	73	21	49	378
	4:45 PM	1	23	37	61	45	8	3	17	1	46	14	55	311
	5:00 PM	0	14	46	60	57	3	1	12	1	69	23	38	324
	5:15 PM	0	23	43	57	59	6	2	12	3	60	19	43	327
	5:30 PM	0	27	40	49	47	7	2	6	0	62	19	43	302
	5:45 PM	1	27	51	48	57	8	2	14	0	52	18	43	321
	VOLUMES	2	196	342	471	427	48	19	85	6	499	145	350	2,590
	APPROACH %	0%	36%	63%	50%	45%	5%	17%	77%	5%	50%	15%	35%	
	APP/DEPART	540	/	565	946	/	932	110	/	898	994	/	195	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	1	96	176	263	208	23	12	47	3	253	69	180	1,331
	APPROACH %	0%	35%	64%	53%	42%	5%	19%	76%	5%	50%	14%	36%	
	PEAK HR FACTOR		0.767			0.922			0.738			0.878		0.880
	APP/DEPART	273	/	288	494	/	464	62	/	486	502	/	93	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
44	0	0	20
37	1	1	21
40	2	0	15
30	1	0	13
39	0	0	20
39	2	1	19
31	2	1	11
22	0	2	20
282	8	5	139
146	4	1	69
15	2	0	17
21	3	1	11
27	2	0	18
16	3	1	18
24	1	0	22
20	2	3	11
17	4	0	23
23	4	0	18
163	21	5	138
88	9	2	69

Goetz

NORTH SIDE

Ethanac WEST SIDE EAST SIDE **Ethanac**

SOUTH SIDE

Goetz

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	6
TUESDAY	EAST & WEST:	Ethanac	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

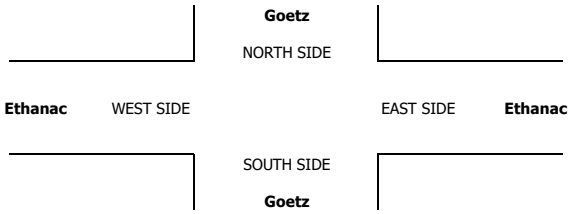
		NORTHBOUND Goetz			SOUTHBOUND Goetz			EASTBOUND Ethanac			WESTBOUND Ethanac			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	4	5	3	2	1	0	0	0	1	0	2	18
	7:15 AM	0	2	1	3	0	0	0	0	0	4	0	3	13
	7:30 AM	0	3	6	2	2	0	0	0	0	5	0	3	21
	7:45 AM	0	1	3	6	4	0	0	0	1	2	2	5	24
	8:00 AM	0	3	4	5	2	0	0	1	1	3	1	1	21
	8:15 AM	0	1	4	5	1	0	0	0	0	5	0	3	19
	8:30 AM	0	1	1	1	1	1	0	0	1	4	2	2	14
	8:45 AM	0	2	4	4	2	0	1	0	0	5	0	2	20
	VOLUMES	0	17	28	29	14	2	1	1	3	29	5	21	150
	APPROACH %	0%	38%	62%	64%	31%	4%	20%	20%	60%	53%	9%	38%	
	APP/DEPART	45	/	39	45	/	46	5	/	58	55	/	7	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	9	14	16	8	0	0	1	2	14	3	12	79
	APPROACH %	0%	39%	61%	67%	33%	0%	0%	33%	67%	48%	10%	41%	
	PEAK HR FACTOR		0.639			0.600			0.375			0.806		0.823
	APP/DEPART	23	/	21	24	/	24	3	/	31	29	/	3	0
PM	4:00 PM	0	3	1	4	1	0	0	0	0	2	1	3	15
	4:15 PM	0	2	2	2	2	1	1	0	0	2	1	4	17
	4:30 PM	0	1	1	3	4	1	0	2	0	1	1	2	16
	4:45 PM	0	1	4	6	4	0	0	1	0	6	0	1	23
	5:00 PM	0	0	0	1	3	1	0	0	1	3	2	2	13
	5:15 PM	0	1	2	2	2	1	0	0	0	4	0	1	13
	5:30 PM	0	1	1	2	2	0	0	0	0	2	0	2	10
	5:45 PM	0	3	3	0	1	2	0	0	0	4	1	4	18
	VOLUMES	0	12	14	20	19	6	1	3	1	24	6	19	125
	APPROACH %	0%	46%	54%	44%	42%	13%	20%	60%	20%	49%	12%	39%	
	APP/DEPART	26	/	32	45	/	44	5	/	37	49	/	12	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	4	7	12	13	3	1	3	1	12	4	9	69
	APPROACH %	0%	36%	64%	43%	46%	11%	20%	60%	20%	48%	16%	36%	
	PEAK HR FACTOR		0.550			0.700			0.625			0.893		0.750
	APP/DEPART	11	/	14	28	/	26	5	/	22	25	/	7	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR 0	SRR 0	ERR 0	WRR 0
4	1	0	1
0	0	0	0
1	0	0	0
1	0	1	1
2	0	0	0
0	0	0	1
1	0	1	0
2	0	0	0
11	1	2	3
4	0	1	1
0	0	0	1
0	1	0	2
1	1	0	2
1	0	0	0
0	1	0	1
0	1	0	0
0	0	0	0
0	1	0	4
2	5	0	10
2	3	0	5



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	6
TUESDAY	EAST & WEST:	Ethanac	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

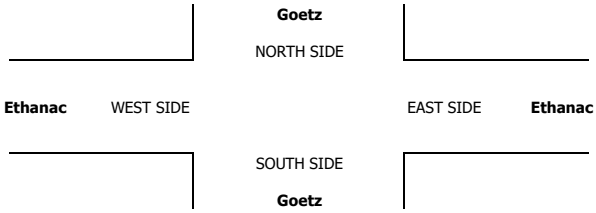
		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Ethanac)			WESTBOUND (Ethanac)			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	2	0	0	0	0	0	0	0	5	7
	7:15 AM	0	2	0	1	1	0	0	0	0	2	0	4	10
	7:30 AM	0	1	2	2	0	1	0	1	0	1	0	5	13
	7:45 AM	0	1	2	3	0	0	0	0	0	1	0	1	8
	8:00 AM	0	3	2	0	0	0	0	0	0	1	0	5	11
	8:15 AM	0	1	0	4	1	0	0	0	0	3	0	3	12
	8:30 AM	0	1	2	2	2	0	0	0	0	0	0	2	9
	8:45 AM	0	1	1	2	0	0	0	0	0	0	0	2	6
	VOLUMES	0	10	9	16	4	1	0	1	0	8	0	27	76
	APPROACH %	0%	53%	47%	76%	19%	5%	0%	100%	0%	23%	0%	77%	
	APP/DEPART	19	/	37	21	/	12	1	/	26	35	/	1	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	7	6	6	1	1	0	1	0	5	0	15	42
	APPROACH %	0%	54%	46%	75%	13%	13%	0%	100%	0%	25%	0%	75%	
	PEAK HR FACTOR		0.650			0.667			0.250			0.833		0.808
	APP/DEPART	13	/	22	8	/	6	1	/	13	20	/	1	0
PM	4:00 PM	0	1	2	0	0	0	0	0	0	0	0	7	10
	4:15 PM	0	0	1	3	1	0	0	0	0	1	0	2	8
	4:30 PM	0	2	2	1	0	0	0	0	0	2	0	1	8
	4:45 PM	0	0	1	1	2	0	0	0	0	0	0	2	6
	5:00 PM	0	1	3	2	1	0	0	0	0	0	0	5	12
	5:15 PM	0	1	0	0	1	0	0	0	0	0	0	2	4
	5:30 PM	0	0	0	1	0	0	0	0	0	1	0	1	3
	5:45 PM	0	0	0	2	1	0	0	0	0	0	0	3	6
	VOLUMES	0	5	9	10	6	0	0	0	0	4	0	23	57
	APPROACH %	0%	36%	64%	63%	38%	0%	0%	0%	0%	15%	0%	85%	
	APP/DEPART	14	/	28	16	/	10	0	/	19	27	/	0	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	3	7	7	4	0	0	0	0	3	0	10	34
	APPROACH %	0%	30%	70%	64%	36%	0%	0%	0%	0%	23%	0%	77%	
	PEAK HR FACTOR		0.625			0.688			0.000			0.650		0.708
	APP/DEPART	10	/	13	11	/	7	0	/	14	13	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR	SRR	ERR	WRR
0	0	0	4
0	0	0	1
1	0	0	1
2	0	0	0
1	0	0	1
0	0	0	2
2	0	0	1
0	0	0	1
6	0	0	11
4	0	0	3
2	0	0	2
1	0	0	0
0	0	0	0
1	0	0	4
0	0	0	1
0	0	0	0
0	0	0	2
4	0	0	9
2	0	0	4



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	6
TUESDAY	EAST & WEST:	Ethanac	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Ethanac)			WESTBOUND (Ethanac)			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	1	1	0	0	0	0	0	0	0	2	4
	7:15 AM	0	0	0	0	1	0	0	0	0	1	0	1	3
	7:30 AM	0	0	0	1	1	0	0	0	0	2	0	1	5
	7:45 AM	0	0	0	1	0	0	0	0	0	1	0	0	2
	8:00 AM	0	0	0	1	0	0	0	0	0	1	0	0	2
	8:15 AM	0	0	0	2	4	0	0	0	0	0	0	0	6
	8:30 AM	0	0	0	1	2	0	0	0	0	0	0	4	7
	8:45 AM	0	0	0	2	2	0	0	0	0	0	0	0	4
	VOLUMES	0	0	1	9	10	0	0	0	0	5	0	8	33
	APPROACH %	0%	0%	100%	47%	53%	0%	0%	0%	0%	38%	0%	62%	
	APP/DEPART	1	/	8	19	/	15	0	/	10	13	/	0	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	3	2	0	0	0	0	5	0	2	12
	APPROACH %	0%	0%	0%	60%	40%	0%	0%	0%	0%	71%	0%	29%	
	PEAK HR FACTOR		0.000			0.625			0.000			0.583		0.600
	APP/DEPART	0	/	2	5	/	7	0	/	3	7	/	0	0
PM	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	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	1	0	1	0	0	0	0	0	0	0	0	2
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
	5:30 PM	0	0	0	0	1	0	0	0	0	0	0	1	2
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	0	3	1	0	0	0	0	0	0	2	7
	APPROACH %	0%	100%	0%	75%	25%	0%	0%	0%	0%	0%	0%	100%	
	APP/DEPART	1	/	3	4	/	1	0	/	3	2	/	0	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	1	0	3	0	0	0	0	0	0	0	0	4
	APPROACH %	0%	100%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.750			0.000			0.000		0.500
	APP/DEPART	1	/	1	3	/	0	0	/	3	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	6
TUESDAY	EAST & WEST:	Ethanac	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

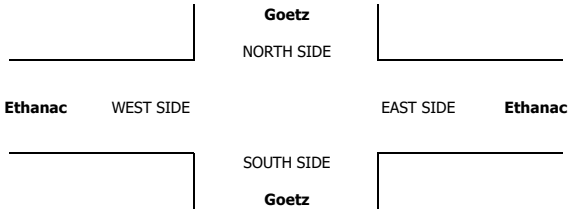
		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Ethanac)			WESTBOUND (Ethanac)			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR 0	ERR 0	WRR 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	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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Goetz	LOCATION #:	6
TUESDAY	EAST & WEST:	Ethanac	CONTROL:	SIGNAL

CLASS 6: BUSES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Goetz)			SOUTHBOUND (Goetz)			EASTBOUND (Ethanac)			WESTBOUND (Ethanac)			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 1	SR 1	EL 1	ET 2	ER 1	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	1	0	0	0	0	0	1	0	0	2
	7:15 AM	0	1	1	0	0	0	0	0	0	1	0	0	3
	7:30 AM	0	1	1	0	0	1	0	0	0	0	0	0	3
	7:45 AM	0	0	0	0	1	0	0	0	0	0	0	1	2
	8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
	8:15 AM	0	3	1	0	1	0	0	0	0	1	0	0	6
	8:30 AM	0	0	1	0	1	0	1	1	0	0	0	0	4
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	6	4	1	3	1	1	1	0	3	0	1	21
	APPROACH %	0%	60%	40%	20%	60%	20%	50%	50%	0%	75%	0%	25%	
	APP/DEPART	10	/	8	5	/	6	2	/	6	4	/	1	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	3	2	0	1	1	0	0	0	1	0	1	9
	APPROACH %	0%	60%	40%	0%	50%	50%	0%	0%	0%	50%	0%	50%	
	PEAK HR FACTOR		0.625			0.500			0.000			0.500		0.750
	APP/DEPART	5	/	4	2	/	2	0	/	2	2	/	1	0
PM	4:00 PM	0	0	2	0	0	0	0	0	0	2	0	3	7
	4:15 PM	0	1	1	0	1	0	1	0	0	0	0	0	4
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	1	0	0	1	0	0	0	0	0	0	1	3
	5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	5:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
	5:30 PM	0	0	0	0	1	0	0	0	0	0	0	1	2
	5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	VOLUMES	0	3	3	0	3	1	2	0	0	2	0	5	19
	APPROACH %	0%	50%	50%	0%	75%	25%	100%	0%	0%	29%	0%	71%	
	APP/DEPART	6	/	10	4	/	5	2	/	3	7	/	1	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	2	1	0	2	1	1	0	0	0	0	1	8
	APPROACH %	0%	67%	33%	0%	67%	33%	100%	0%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.375			0.750			0.250			0.250		0.500
	APP/DEPART	3	/	4	3	/	2	1	/	1	1	/	1	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR	SRR	ERR	WRR
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	0	0	0
0	0	0	0
1	0	0	0
1	0	0	0
2	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	0	0
2	0	0	2
0	0	0	0

Goetz

NORTH SIDE

Ethanac WEST SIDE EAST SIDE **Ethanac**

SOUTH SIDE

Goetz

T42321

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, May 24, 22

LOCATION: Perris
NORTH & SOUTH: Case
EAST & WEST: Ellis

PROJECT #: SC3431
LOCATION #: 7
CONTROL: SIGNAL

NOTES:

AM PM MD OTHER OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

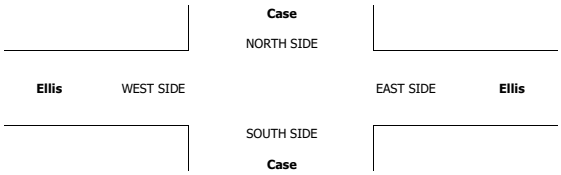
		NORTHBOUND (Case)			SOUTHBOUND (Case)			EASTBOUND (Ellis)			WESTBOUND (Ellis)			
	LANES:	NL 0	NT 1	NR 1	SL 1	ST 1	SR X	EL X	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	47	20	21	33	0	0	0	0	4	2	14	141
	7:15 AM	0	50	26	26	30	0	0	0	0	5	2	21	160
	7:30 AM	0	64	24	35	38	0	0	2	1	7	5	19	195
	7:45 AM	0	62	19	36	41	0	0	0	0	11	4	42	215
	8:00 AM	0	42	16	46	54	0	0	4	0	8	2	26	198
	8:15 AM	0	52	13	22	54	0	0	0	1	8	1	18	169
	8:30 AM	0	54	15	20	30	0	0	0	0	13	0	17	149
	8:45 AM	1	44	11	12	38	0	0	0	1	14	0	19	140
	VOLUMES	1	415	144	218	318	0	0	6	3	70	16	176	1,367
	APPROACH %	0%	74%	26%	41%	59%	0%	0%	67%	33%	27%	6%	67%	
	APP/DEPART	560	/	591	536	/	391	9	/	368	262	/	17	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	220	72	139	187	0	0	6	2	34	12	105	777
	APPROACH %	0%	75%	25%	43%	57%	0%	0%	75%	25%	23%	8%	70%	
	PEAK HR FACTOR		0.830			0.815			0.500			0.662		0.903
	APP/DEPART	292	/	325	326	/	223	8	/	217	151	/	12	0
PM	4:00 PM	0	65	10	25	75	0	0	0	0	19	0	27	221
	4:15 PM	0	76	20	19	51	0	0	0	0	22	0	16	204
	4:30 PM	0	59	11	21	68	0	0	0	0	23	0	21	203
	4:45 PM	0	53	17	28	81	0	0	0	1	15	0	30	225
	5:00 PM	0	56	23	13	71	0	0	1	0	23	0	29	216
	5:15 PM	0	58	13	16	67	0	0	0	0	26	0	32	212
	5:30 PM	0	65	15	18	50	0	0	1	0	17	0	19	185
	5:45 PM	0	61	9	11	65	0	0	1	0	29	1	25	202
	VOLUMES	0	493	118	151	528	0	0	3	1	174	1	199	1,668
	APPROACH %	0%	81%	19%	22%	78%	0%	0%	75%	25%	47%	0%	53%	
	APP/DEPART	611	/	692	679	/	703	4	/	272	374	/	1	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	226	64	78	287	0	0	1	1	87	0	112	856
	APPROACH %	0%	78%	22%	21%	79%	0%	0%	50%	50%	44%	0%	56%	
	PEAK HR FACTOR		0.918			0.837			0.500			0.858		0.951
	APP/DEPART	290	/	338	365	/	375	2	/	143	199	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

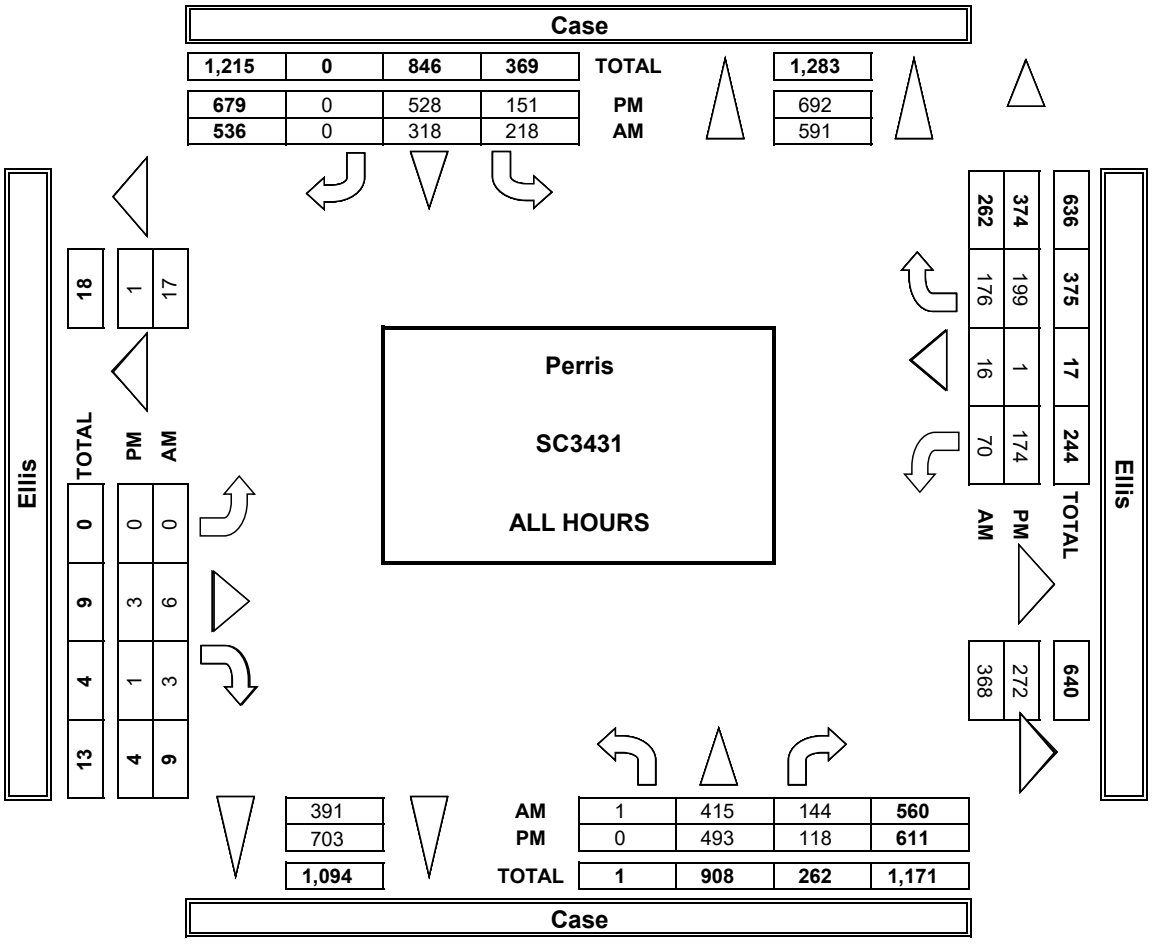
NRR	SRR	ERR	WRR
7	0	0	0
5	0	0	0
5	0	0	0
7	0	0	0
5	0	0	0
3	0	1	0
2	0	0	0
1	0	0	0
35	0	1	0
20	0	1	0
4	0	0	0
6	0	0	0
4	0	0	1
2	0	1	0
7	0	0	0
4	0	0	0
8	0	0	0
3	0	0	0
38	0	1	1
17	0	1	1

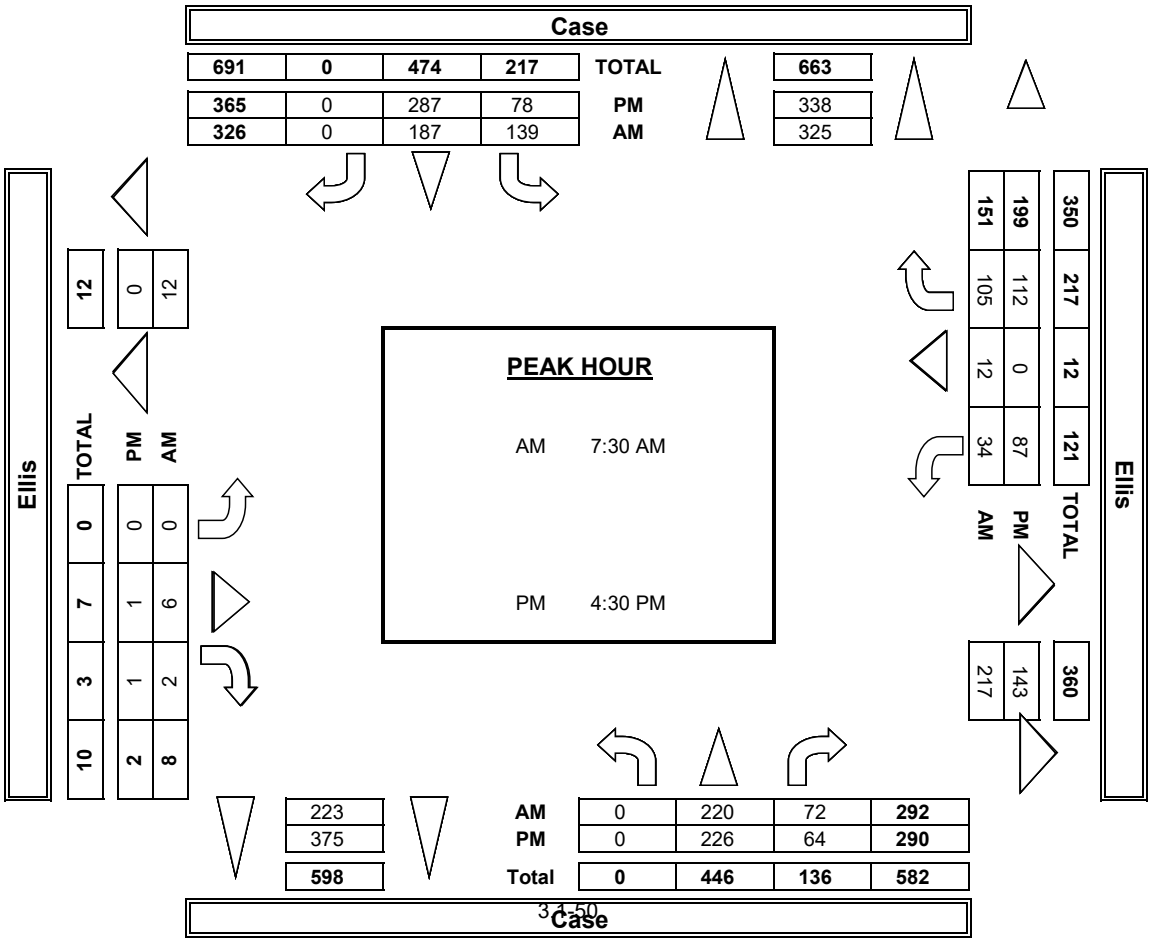


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	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
	8:30 AM	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
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	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
	4:30 PM	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
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1
	5:30 PM	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
	TOTAL	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Case	LOCATION #:	7
TUESDAY	EAST & WEST:	Ellis	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

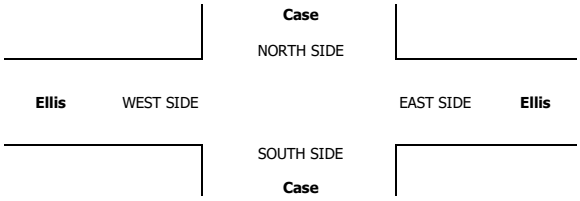
		NORTHBOUND (Case)			SOUTHBOUND (Case)			EASTBOUND (Ellis)			WESTBOUND (Ellis)			
	LANES:	NL 0	NT 1	NR 1	SL 1	ST 1	SR X	EL X	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	40	19	18	25	0	0	0	0	1	2	13	118
	7:15 AM	0	46	24	21	27	0	0	0	0	3	0	18	139
	7:30 AM	0	58	22	33	35	0	0	2	0	7	4	15	176
	7:45 AM	0	55	18	32	33	0	0	0	0	8	4	34	184
	8:00 AM	0	37	14	39	42	0	0	3	0	8	2	25	170
	8:15 AM	0	45	8	21	47	0	0	0	1	7	1	16	146
	8:30 AM	0	42	13	15	23	0	0	0	0	11	0	12	116
	8:45 AM	1	36	11	11	32	0	0	0	0	11	0	14	116
	VOLUMES	1	359	129	190	264	0	0	5	1	56	13	147	1,165
	APPROACH %	0%	73%	26%	42%	58%	0%	0%	83%	17%	26%	6%	68%	
	APP/DEPART	489	/	506	454	/	321	6	/	324	216	/	14	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	195	62	125	157	0	0	5	1	30	11	90	676
	APPROACH %	0%	76%	24%	44%	56%	0%	0%	83%	17%	23%	8%	69%	
	PEAK HR FACTOR		0.803			0.870			0.500			0.712		0.918
	APP/DEPART	257	/	285	282	/	188	6	/	192	131	/	11	0
PM	4:00 PM	0	57	9	19	66	0	0	0	0	19	0	19	189
	4:15 PM	0	60	19	17	47	0	0	0	0	21	0	14	178
	4:30 PM	0	50	10	16	66	0	0	0	0	19	0	17	178
	4:45 PM	0	42	16	27	72	0	0	0	1	13	0	27	198
	5:00 PM	0	46	21	12	68	0	0	0	0	21	0	28	196
	5:15 PM	0	55	12	13	62	0	0	0	0	25	0	30	197
	5:30 PM	0	56	15	17	47	0	0	1	0	16	0	16	168
	5:45 PM	0	51	8	11	59	0	0	1	0	29	0	21	180
	VOLUMES	0	417	110	132	487	0	0	2	1	163	0	172	1,484
	APPROACH %	0%	79%	21%	21%	79%	0%	0%	67%	33%	49%	0%	51%	
	APP/DEPART	527	/	589	619	/	651	3	/	244	335	/	0	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	193	59	68	268	0	0	0	1	78	0	102	769
	APPROACH %	0%	77%	23%	20%	80%	0%	0%	0%	100%	43%	0%	57%	
	PEAK HR FACTOR		0.940			0.848			0.250			0.818		0.971
	APP/DEPART	252	/	295	336	/	347	1	/	127	180	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR 0	SRR X	ERR 0	WRR 0
7	0	0	0
5	0	0	0
4	0	0	0
7	0	0	0
4	0	0	0
3	0	1	0
0	0	0	0
1	0	0	0
31	0	1	0
18	0	1	0
3	0	0	0
6	0	0	0
3	0	0	1
2	0	1	0
7	0	0	0
3	0	0	0
8	0	0	0
3	0	0	0
35	0	1	1
15	0	1	1



INTERSECTION TURNING MOVEMENT COUNTS

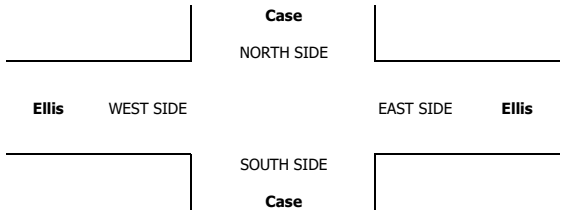
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Case	LOCATION #:	7
TUESDAY	EAST & WEST:	Ellis	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:	AM / PM / MD / OTHER / OTHER	▲ N / ◄ W / E ► / S ▼

		NORTHBOUND (Case)			SOUTHBOUND (Case)			EASTBOUND (Ellis)			WESTBOUND (Ellis)			
	LANES:	NL 0	NT 1	NR 1	SL 1	ST 1	SR X	EL X	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	6	0	0	4	0	0	0	0	1	0	1	12
	7:15 AM	0	0	1	2	1	0	0	0	0	2	2	0	8
	7:30 AM	0	2	2	2	2	0	0	0	0	0	1	0	9
	7:45 AM	0	6	1	0	2	0	0	0	0	3	0	2	14
	8:00 AM	0	3	1	1	5	0	0	0	0	0	0	0	10
	8:15 AM	0	3	3	0	2	0	0	0	0	1	0	1	10
	8:30 AM	0	8	0	3	2	0	0	0	0	1	0	2	16
	8:45 AM	0	4	0	1	1	0	0	0	1	3	0	2	12
	VOLUMES	0	32	8	9	19	0	0	0	1	11	3	8	91
	APPROACH %	0%	80%	20%	32%	68%	0%	0%	0%	100%	50%	14%	36%	
	APP/DEPART	40	/	40	28	/	31	1	/	17	22	/	3	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	14	7	3	11	0	0	0	0	4	1	3	43
	APPROACH %	0%	67%	33%	21%	79%	0%	0%	0%	0%	50%	13%	38%	
	PEAK HR FACTOR		0.750			0.583			0.000			0.400		0.768
	APP/DEPART	21	/	17	14	/	15	0	/	10	8	/	1	0
PM	4:00 PM	0	6	1	5	6	0	0	0	0	0	0	2	20
	4:15 PM	0	8	1	0	2	0	0	0	0	1	0	1	13
	4:30 PM	0	3	0	3	2	0	0	0	0	1	0	1	10
	4:45 PM	0	1	0	0	9	0	0	0	0	2	0	0	12
	5:00 PM	0	3	1	0	3	0	0	1	0	0	0	1	9
	5:15 PM	0	2	1	1	1	0	0	0	0	1	0	1	7
	5:30 PM	0	5	0	1	3	0	0	0	0	1	0	2	12
	5:45 PM	0	3	0	0	3	0	0	0	0	0	1	3	10
	VOLUMES	0	31	4	10	29	0	0	1	0	6	1	11	93
	APPROACH %	0%	89%	11%	26%	74%	0%	0%	100%	0%	33%	6%	61%	
	APP/DEPART	35	/	42	39	/	35	1	/	15	18	/	1	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	9	2	4	15	0	0	1	0	4	0	3	38
	APPROACH %	0%	82%	18%	21%	79%	0%	0%	100%	0%	57%	0%	43%	
	PEAK HR FACTOR		0.688			0.528			0.250			0.875		0.792
	APP/DEPART	11	/	12	19	/	19	1	/	7	7	/	0	0

U-TURNS					RTOR			
NB	SB	EB	WB	TTL	NRR 0	SRR X	ERR 0	WRR 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	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	0	0	0	0
0	0	0	0	0	2	0	0	0
					2	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	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	2	0	0	0
					1	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Case	LOCATION #:	7
TUESDAY	EAST & WEST:	Ellis	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

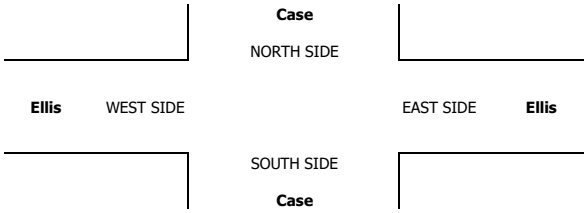
		NORTHBOUND (Case)			SOUTHBOUND (Case)			EASTBOUND (Ellis)			WESTBOUND (Ellis)			
	LANES:	NL 0	NT 1	NR 1	SL 1	ST 1	SR X	EL X	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	1	1	3	0	0	0	0	2	0	0	7
	7:15 AM	0	1	1	1	1	0	0	0	0	0	0	1	5
	7:30 AM	0	3	0	0	1	0	0	0	0	0	0	0	4
	7:45 AM	0	0	0	0	3	0	0	0	0	0	0	0	3
	8:00 AM	0	0	0	1	4	0	0	0	0	0	0	0	5
	8:15 AM	0	1	2	0	0	0	0	0	0	0	0	0	3
	8:30 AM	0	1	0	0	1	0	0	0	0	1	0	0	3
	8:45 AM	0	3	0	0	2	0	0	0	0	0	0	0	5
	VOLUMES	0	9	4	3	15	0	0	0	0	3	0	1	35
	APPROACH %	0%	69%	31%	17%	83%	0%	0%	0%	0%	75%	0%	25%	
	APP/DEPART	13	/	10	18	/	18	0	/	7	4	/	0	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	4	2	1	8	0	0	0	0	0	0	0	15
	APPROACH %	0%	67%	33%	11%	89%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.500			0.450			0.000			0.000		0.750
	APP/DEPART	6	/	4	9	/	8	0	/	3	0	/	0	0
PM	4:00 PM	0	0	0	0	1	0	0	0	0	0	0	2	3
	4:15 PM	0	4	0	2	1	0	0	0	0	0	0	1	8
	4:30 PM	0	2	0	0	0	0	0	0	0	1	0	1	4
	4:45 PM	0	3	0	0	0	0	0	0	0	0	0	3	6
	5:00 PM	0	2	1	0	0	0	0	0	0	1	0	0	4
	5:15 PM	0	0	0	1	1	0	0	0	0	0	0	0	2
	5:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	5:45 PM	0	7	1	0	1	0	0	0	0	0	0	0	9
	VOLUMES	0	20	2	3	4	0	0	0	0	2	0	7	38
	APPROACH %	0%	91%	9%	43%	57%	0%	0%	0%	0%	22%	0%	78%	
	APP/DEPART	22	/	27	7	/	6	0	/	5	9	/	0	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	7	1	1	1	0	0	0	0	2	0	4	16
	APPROACH %	0%	88%	13%	50%	50%	0%	0%	0%	0%	33%	0%	67%	
	PEAK HR FACTOR		0.667			0.250			0.000			0.500		0.667
	APP/DEPART	8	/	11	2	/	3	0	/	2	6	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR 0	SRR X	ERR 0	WRR 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	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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Case	LOCATION #:	7
TUESDAY	EAST & WEST:	Ellis	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

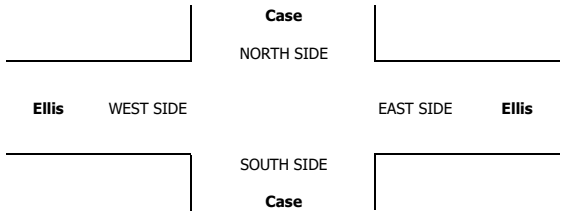
		NORTHBOUND (Case)			SOUTHBOUND (Case)			EASTBOUND (Ellis)			WESTBOUND (Ellis)			
	LANES:	NL 0	NT 1	NR 1	SL 1	ST 1	SR X	EL X	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	1	0	2	0	0	0	0	0	0	0	0	3
	7:15 AM	0	1	0	2	1	0	0	0	0	0	0	2	6
	7:30 AM	0	1	0	0	0	0	0	0	0	0	0	2	3
	7:45 AM	0	0	0	3	2	0	0	0	0	0	0	5	10
	8:00 AM	0	2	1	4	1	0	0	1	0	0	0	1	10
	8:15 AM	0	2	0	1	2	0	0	0	0	0	0	1	6
	8:30 AM	0	1	0	2	3	0	0	0	0	0	0	2	8
	8:45 AM	0	1	0	0	1	0	0	0	0	0	0	3	5
	VOLUMES	0	9	1	14	10	0	0	1	0	0	0	16	51
	APPROACH %	0%	90%	10%	58%	42%	0%	0%	100%	0%	0%	0%	100%	
	APP/DEPART	10	/	25	24	/	10	1	/	16	16	/	0	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	5	1	8	5	0	0	1	0	0	0	9	29
	APPROACH %	0%	83%	17%	62%	38%	0%	0%	100%	0%	0%	0%	100%	
	PEAK HR FACTOR		0.500			0.650			0.250			0.450		0.725
	APP/DEPART	6	/	14	13	/	5	1	/	10	9	/	0	0
PM	4:00 PM	0	1	0	1	0	0	0	0	0	0	0	4	6
	4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
	4:30 PM	0	0	1	2	0	0	0	0	0	2	0	2	7
	4:45 PM	0	3	0	1	0	0	0	0	0	0	0	0	4
	5:00 PM	0	2	0	1	0	0	0	0	0	0	0	0	3
	5:15 PM	0	1	0	1	1	0	0	0	0	0	0	1	4
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
	5:45 PM	0	0	0	0	1	0	0	0	0	0	0	1	2
	VOLUMES	0	8	1	6	2	0	0	0	0	2	0	9	28
	APPROACH %	0%	89%	11%	75%	25%	0%	0%	0%	0%	18%	0%	82%	
	APP/DEPART	9	/	17	8	/	4	0	/	7	11	/	0	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	6	1	5	1	0	0	0	0	2	0	3	18
	APPROACH %	0%	86%	14%	83%	17%	0%	0%	0%	0%	40%	0%	60%	
	PEAK HR FACTOR		0.583			0.750			0.000			0.313		0.643
	APP/DEPART	7	/	9	6	/	3	0	/	6	5	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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	0	0	0	0
0	0	0	0	0
0	0	0	0	0

RTOR

NRR 0	SRR X	ERR 0	WRR 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	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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Case	LOCATION #:	7
TUESDAY	EAST & WEST:	Ellis	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

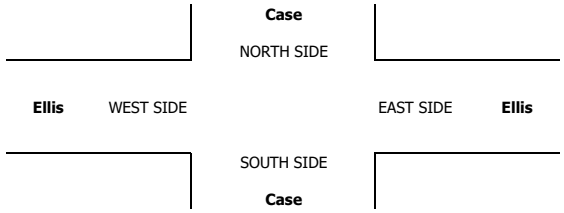
		NORTHBOUND (Case)			SOUTHBOUND (Case)			EASTBOUND (Ellis)			WESTBOUND (Ellis)			
	LANES:	NL 0	NT 1	NR 1	SL 1	ST 1	SR X	EL X	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR 0	SRR X	ERR 0	WRR 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	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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Case	LOCATION #:	7
TUESDAY	EAST & WEST:	Ellis	CONTROL:	SIGNAL

CLASS 6: BUSES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

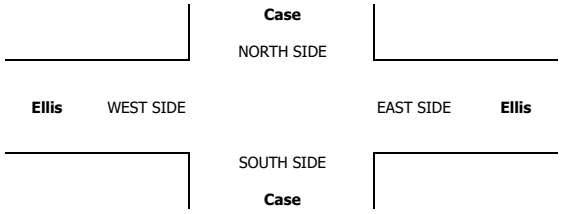
		NORTHBOUND (Case)			SOUTHBOUND (Case)			EASTBOUND (Ellis)			WESTBOUND (Ellis)			
	LANES:	NL 0	NT 1	NR 1	SL 1	ST 1	SR X	EL X	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
	7:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
	7:30 AM	0	0	0	0	0	0	0	0	1	0	0	2	3
	7:45 AM	0	1	0	1	1	0	0	0	0	0	0	1	4
	8:00 AM	0	0	0	1	2	0	0	0	0	0	0	0	3
	8:15 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
	8:30 AM	0	2	2	0	1	0	0	0	0	0	0	1	6
	8:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	VOLUMES	0	6	2	2	10	0	0	0	1	0	0	4	25
	APPROACH %	0%	75%	25%	17%	83%	0%	0%	0%	100%	0%	0%	100%	
	APP/DEPART	8	/	10	12	/	11	1	/	4	4	/	0	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	2	0	2	6	0	0	0	1	0	0	3	14
	APPROACH %	0%	100%	0%	25%	75%	0%	0%	0%	100%	0%	0%	100%	
	PEAK HR FACTOR		0.500			0.667			0.250			0.375		0.875
	APP/DEPART	2	/	5	8	/	7	1	/	2	3	/	0	0
PM	4:00 PM	0	1	0	0	2	0	0	0	0	0	0	0	3
	4:15 PM	0	3	0	0	1	0	0	0	0	0	0	0	4
	4:30 PM	0	4	0	0	0	0	0	0	0	0	0	0	4
	4:45 PM	0	4	1	0	0	0	0	0	0	0	0	0	5
	5:00 PM	0	3	0	0	0	0	0	0	0	1	0	0	4
	5:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	5:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
	5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
	VOLUMES	0	17	1	0	6	0	0	0	0	1	0	0	25
	APPROACH %	0%	94%	6%	0%	100%	0%	0%	0%	0%	100%	0%	0%	
	APP/DEPART	18	/	17	6	/	7	0	/	1	1	/	0	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	11	1	0	2	0	0	0	0	1	0	0	15
	APPROACH %	0%	92%	8%	0%	100%	0%	0%	0%	0%	100%	0%	0%	
	PEAK HR FACTOR		0.600			0.250			0.000			0.250		0.750
	APP/DEPART	12	/	11	2	/	3	0	/	1	1	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR 0	SRR X	ERR 0	WRR 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
2	0	0	0
0	0	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	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



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

City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 1

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

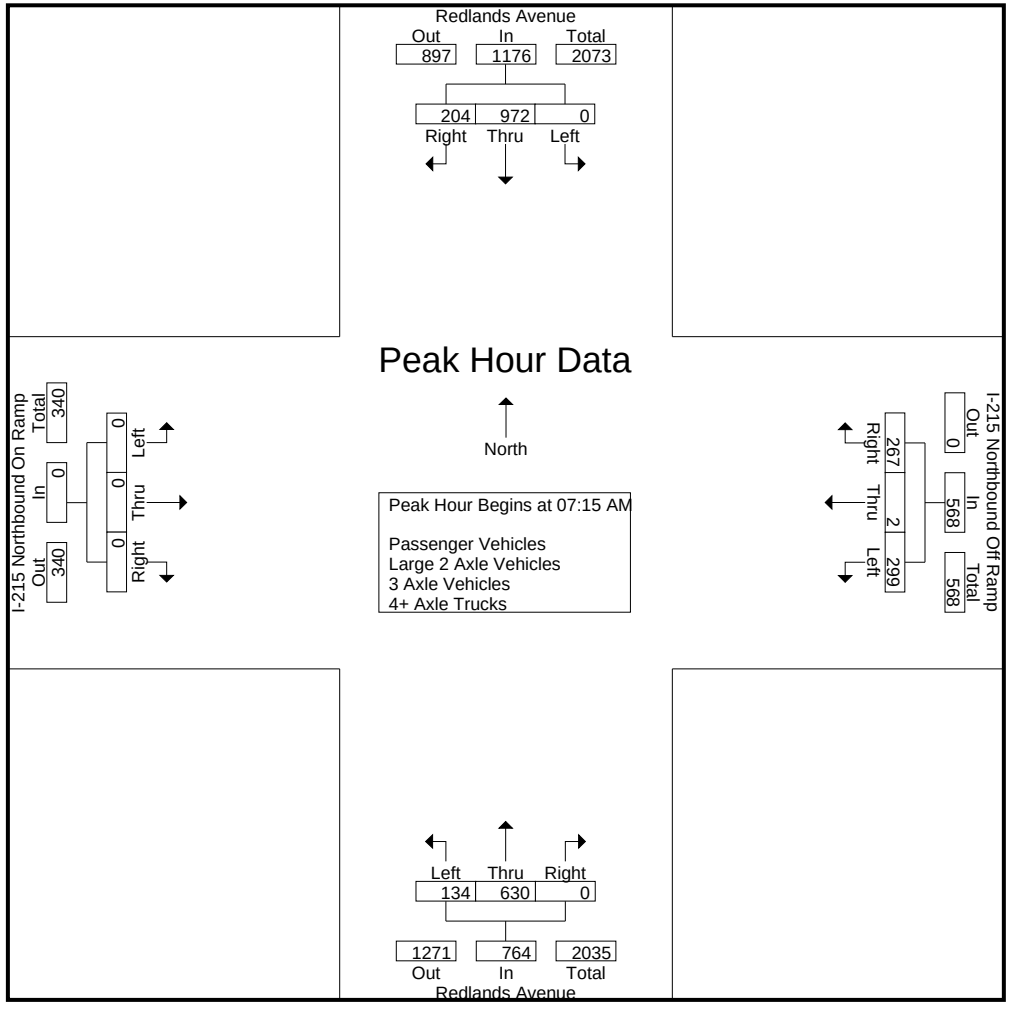
	Redlands Avenue Southbound					I-215 Northbound Off Ramp Westbound					Redlands Avenue Northbound					I-215 Northbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	182	34	15	216	76	2	91	54	169	34	78	0	0	112	0	0	0	0	0	69	497	566
07:15 AM	0	209	42	22	251	76	1	90	51	167	24	133	0	0	157	0	0	0	0	0	73	575	648
07:30 AM	0	287	70	21	357	72	0	74	39	146	34	165	0	0	199	0	0	0	0	0	60	702	762
07:45 AM	0	268	60	16	328	76	0	48	27	124	30	183	0	0	213	0	0	0	0	0	43	665	708
Total	0	946	206	74	1152	300	3	303	171	606	122	559	0	0	681	0	0	0	0	0	245	2439	2684
08:00 AM	0	208	32	22	240	75	1	55	30	131	46	149	0	0	195	0	0	0	0	0	52	566	618
08:15 AM	0	178	30	19	208	47	0	46	25	93	59	149	0	0	208	0	0	0	0	0	44	509	553
08:30 AM	0	173	27	7	200	46	1	37	22	84	32	96	0	0	128	0	0	0	0	0	29	412	441
08:45 AM	0	154	28	14	182	53	0	31	19	84	35	66	0	0	101	0	0	0	0	0	33	367	400
Total	0	713	117	62	830	221	2	169	96	392	172	460	0	0	632	0	0	0	0	0	158	1854	2012
Grand Total	0	1659	323	136	1982	521	5	472	267	998	294	1019	0	0	1313	0	0	0	0	0	403	4293	4696
Apprch %	0	83.7	16.3			52.2	0.5	47.3			22.4	77.6	0			0	0	0					
Total %	0	38.6	7.5		46.2	12.1	0.1	11		23.2	6.8	23.7	0		30.6	0	0	0		0	8.6	91.4	
Passenger Vehicles	0	1614	319		2067	467	4	457		1193	247	978	0		1225	0	0	0		0	0	0	4485
% Passenger Vehicles	0	97.3	98.8	98.5	97.6	89.6	80	96.8	99.3	94.3	84	96	0	0	93.3	0	0	0	0	0	0	0	95.5
Large 2 Axle Vehicles	0	36	2		39	30	0	10		42	21	30	0		51	0	0	0		0	0	0	132
% Large 2 Axle Vehicles	0	2.2	0.6	0.7	1.8	5.8	0	2.1	0.7	3.3	7.1	2.9	0	0	3.9	0	0	0	0	0	0	0	2.8
3 Axle Vehicles	0	4	1		6	14	0	2		16	4	5	0		9	0	0	0		0	0	0	31
% 3 Axle Vehicles	0	0.2	0.3	0.7	0.3	2.7	0	0.4	0	1.3	1.4	0.5	0	0	0.7	0	0	0	0	0	0	0	0.7
4+ Axle Trucks	0	5	1		6	10	1	3		14	22	6	0		28	0	0	0		0	0	0	48
% 4+ Axle Trucks	0	0.3	0.3	0	0.3	1.9	20	0.6	0	1.1	7.5	0.6	0	0	2.1	0	0	0	0	0	0	0	1

	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 07:15 AM																	
07:15 AM	0	209	42	251	**76**	**1**	**90**	**167**	24	133	0	157	0	0	0	0	575
07:30 AM	0	**287**	**70**	**357**	72	0	74	146	34	165	0	199	0	0	0	0	**702**
07:45 AM	0	268	60	328	76	0	48	124	30	**183**	0	**213**	0	0	0	0	665
08:00 AM	0	208	32	240	75	1	55	131	**46**	149	0	195	0	0	0	0	566
Total Volume	0	972	204	1176	299	2	267	568	134	630	0	764	0	0	0	0	2508
% App. Total	0	82.7	17.3		52.6	0.4	47		17.5	82.5	0		0	0	0		
PHF	.000	.847	.729	.824	.984	.500	.742	.850	.728	.861	.000	.897	.000	.000	.000	.000	.893

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PO Box 1178
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(951)268-6268

City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 2



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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N AM
Site Code : 05122096
Start Date : 2/3/2022

	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 Each Approach Begins at:																	
	07:15 AM				07:00 AM				07:30 AM				07:00 AM				
+0 mins.	0	209	42	251	**76**	**2**	**91**	**169**	34	165	0	199	0	0	0	0	
+15 mins.	0	**287**	**70**	**357**	76	1	90	167	30	**183**	0	**213**	0	0	0	0	
+30 mins.	0	268	60	328	72	0	74	146	46	149	0	195	0	0	0	0	
+45 mins.	0	208	32	240	76	0	48	124	**59**	149	0	208	0	0	0	0	
Total Volume	0	972	204	1176	300	3	303	606	169	646	0	815	0	0	0	0	
% App. Total	0	82.7	17.3		49.5	0.5	50		20.7	79.3	0		0	0	0		
PHF	.000	.847	.729	.824	.987	.375	.832	.896	.716	.883	.000	.957	.000	.000	.000	.000	

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 1

Groups Printed- Passenger Vehicles

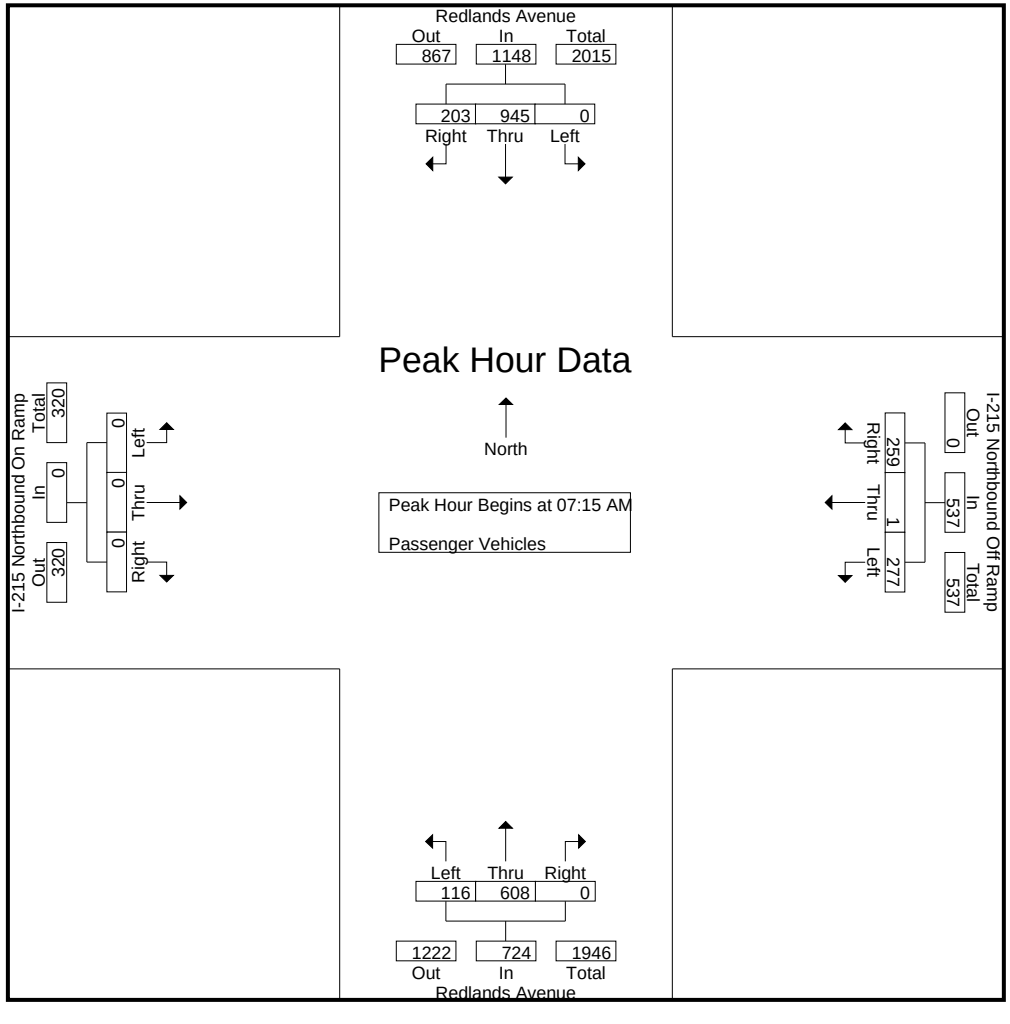
	Redlands Avenue Southbound					I-215 Northbound Off Ramp Westbound					Redlands Avenue Northbound					I-215 Northbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	176	33	14	209	65	2	90	54	157	28	76	0	0	104	0	0	0	0	0	68	470	538
07:15 AM	0	205	42	22	247	69	1	87	51	157	22	126	0	0	148	0	0	0	0	0	73	552	625
07:30 AM	0	278	70	21	348	65	0	71	39	136	28	159	0	0	187	0	0	0	0	0	60	671	731
07:45 AM	0	260	59	16	319	71	0	47	27	118	27	176	0	0	203	0	0	0	0	0	43	640	683
Total	0	919	204	73	1123	270	3	295	171	568	105	537	0	0	642	0	0	0	0	0	244	2333	2577
08:00 AM	0	202	32	22	234	72	0	54	30	126	39	147	0	0	186	0	0	0	0	0	52	546	598
08:15 AM	0	177	29	18	206	41	0	44	24	85	54	142	0	0	196	0	0	0	0	0	42	487	529
08:30 AM	0	168	26	7	194	42	1	34	21	77	22	90	0	0	112	0	0	0	0	0	28	383	411
08:45 AM	0	148	28	14	176	42	0	30	19	72	27	62	0	0	89	0	0	0	0	0	33	337	370
Total	0	695	115	61	810	197	1	162	94	360	142	441	0	0	583	0	0	0	0	0	155	1753	1908
Grand Total	0	1614	319	134	1933	467	4	457	265	928	247	978	0	0	1225	0	0	0	0	0	399	4086	4485
Apprch %	0	83.5	16.5			50.3	0.4	49.2			20.2	79.8	0			0	0	0					
Total %	0	39.5	7.8		47.3	11.4	0.1	11.2		22.7	6	23.9	0		30	0	0	0		0	8.9	91.1	

	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	205	42	247	69	**1**	**87**	**157**	22	126	0	148	0	0	0	0	552
07:30 AM	0	**278**	**70**	**348**	65	0	71	136	28	159	0	187	0	0	0	0	**671**
07:45 AM	0	260	59	319	71	0	47	118	27	**176**	0	**203**	0	0	0	0	640
08:00 AM	0	202	32	234	**72**	0	54	126	**39**	147	0	186	0	0	0	0	546
Total Volume	0	945	203	1148	277	1	259	537	116	608	0	724	0	0	0	0	2409
% App. Total	0	82.3	17.7		51.6	0.2	48.2		16	84	0		0	0	0		
PHF	.000	.850	.725	.825	.962	.250	.744	.855	.744	.864	.000	.892	.000	.000	.000	.000	.898

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 2



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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N AM
Site Code : 05122096
Start Date : 2/3/2022

	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 07:15 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	205	42	247	69	**1**	**87**	**157**	22	126	0	148	0	0	0	0	
+15 mins.	0	**278**	**70**	**348**	65	0	71	136	28	159	0	187	0	0	0	0	
+30 mins.	0	260	59	319	71	0	47	118	27	**176**	0	**203**	0	0	0	0	
+45 mins.	0	202	32	234	**72**	0	54	126	**39**	147	0	186	0	0	0	0	
Total Volume	0	945	203	1148	277	1	259	537	116	608	0	724	0	0	0	0	
% App. Total	0	82.3	17.7		51.6	0.2	48.2		16	84	0		0	0	0		
PHF	.000	.850	.725	.825	.962	.250	.744	.855	.744	.864	.000	.892	.000	.000	.000	.000	

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

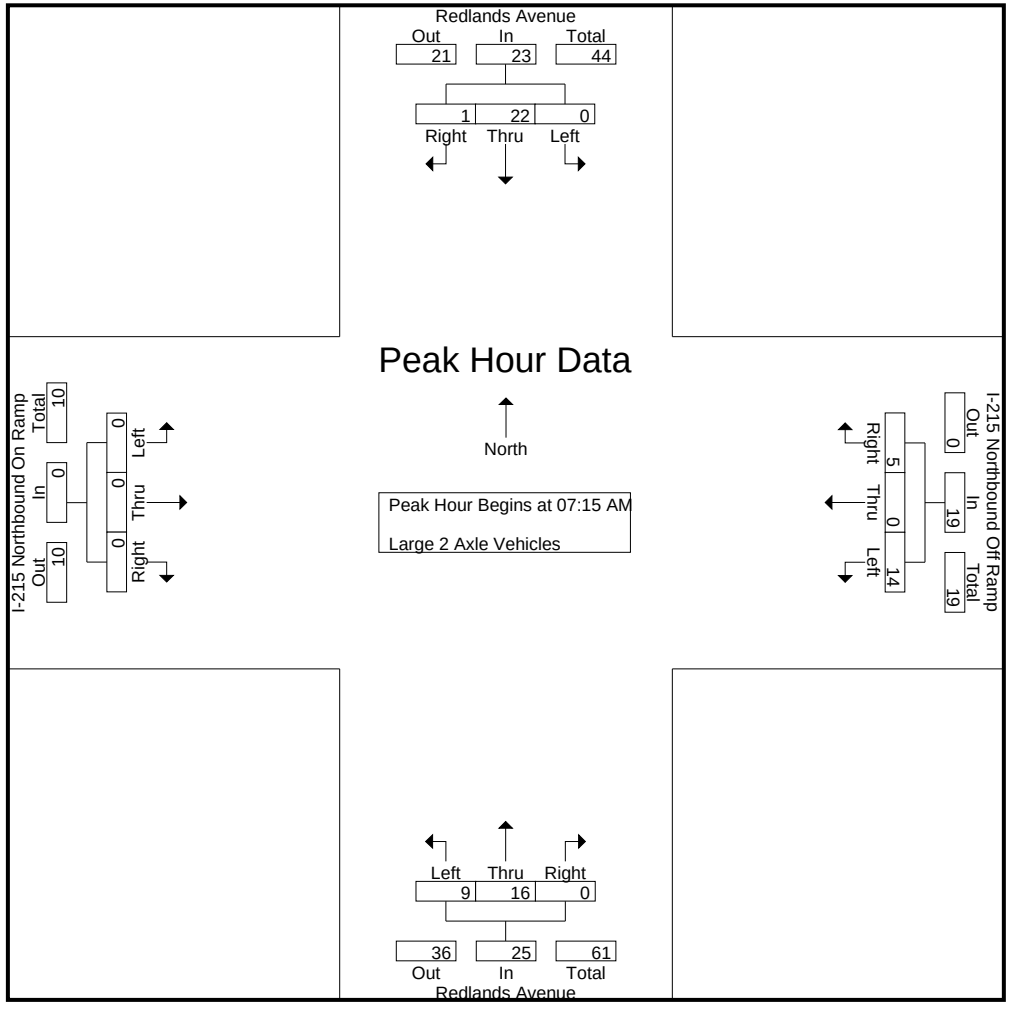
	Redlands Avenue Southbound					I-215 Northbound Off Ramp Westbound					Redlands Avenue Northbound					I-215 Northbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	3	0	0	3	8	0	1	0	9	4	1	0	0	5	0	0	0	0	0	0	17	17
07:15 AM	0	3	0	0	3	5	0	2	0	7	0	4	0	0	4	0	0	0	0	0	0	14	14
07:30 AM	0	6	0	0	6	3	0	3	0	6	2	4	0	0	6	0	0	0	0	0	0	18	18
07:45 AM	0	8	1	0	9	4	0	0	0	4	3	7	0	0	10	0	0	0	0	0	0	23	23
Total	0	20	1	0	21	20	0	6	0	26	9	16	0	0	25	0	0	0	0	0	0	72	72
08:00 AM	0	5	0	0	5	2	0	0	0	2	4	1	0	0	5	0	0	0	0	0	0	12	12
08:15 AM	0	1	1	1	2	2	0	2	1	4	0	4	0	0	4	0	0	0	0	0	2	10	12
08:30 AM	0	5	0	0	5	0	0	2	1	2	4	5	0	0	9	0	0	0	0	0	1	16	17
08:45 AM	0	5	0	0	5	6	0	0	0	6	4	4	0	0	8	0	0	0	0	0	0	19	19
Total	0	16	1	1	17	10	0	4	2	14	12	14	0	0	26	0	0	0	0	0	3	57	60
Grand Total	0	36	2	1	38	30	0	10	2	40	21	30	0	0	51	0	0	0	0	0	3	129	132
Apprch %	0	94.7	5.3			75	0	25			41.2	58.8	0			0	0	0					
Total %	0	27.9	1.6		29.5	23.3	0	7.8		31	16.3	23.3	0		39.5	0	0	0		0	2.3	97.7	

	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	3	0	3	**5**	0	2	**7**	0	4	0	4	0	0	0	0	14
07:30 AM	0	6	0	6	3	0	**3**	6	2	4	0	6	0	0	0	0	18
07:45 AM	0	**8**	**1**	**9**	4	0	0	4	3	**7**	0	**10**	0	0	0	0	**23**
08:00 AM	0	5	0	5	2	0	0	2	**4**	1	0	5	0	0	0	0	12
Total Volume	0	22	1	23	14	0	5	19	9	16	0	25	0	0	0	0	67
% App. Total	0	95.7	4.3		73.7	0	26.3		36	64	0		0	0	0		
PHF	.000	.688	.250	.639	.700	.000	.417	.679	.563	.571	.000	.625	.000	.000	.000	.000	.728

Counts Unlimited, Inc.
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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 2



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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N AM
Site Code : 05122096
Start Date : 2/3/2022

	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 07:15 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	3	0	3	**5**	0	2	**7**	0	4	0	4	0	0	0	0	
+15 mins.	0	6	0	6	3	0	**3**	6	2	4	0	6	0	0	0	0	
+30 mins.	0	**8**	**1**	**9**	4	0	0	4	3	**7**	0	**10**	0	0	0	0	
+45 mins.	0	5	0	5	2	0	0	2	**4**	1	0	5	0	0	0	0	
Total Volume	0	22	1	23	14	0	5	19	9	16	0	25	0	0	0	0	
% App. Total	0	95.7	4.3		73.7	0	26.3		36	64	0		0	0	0		
PHF	.000	.688	.250	.639	.700	.000	.417	.679	.563	.571	.000	.625	.000	.000	.000	.000	

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

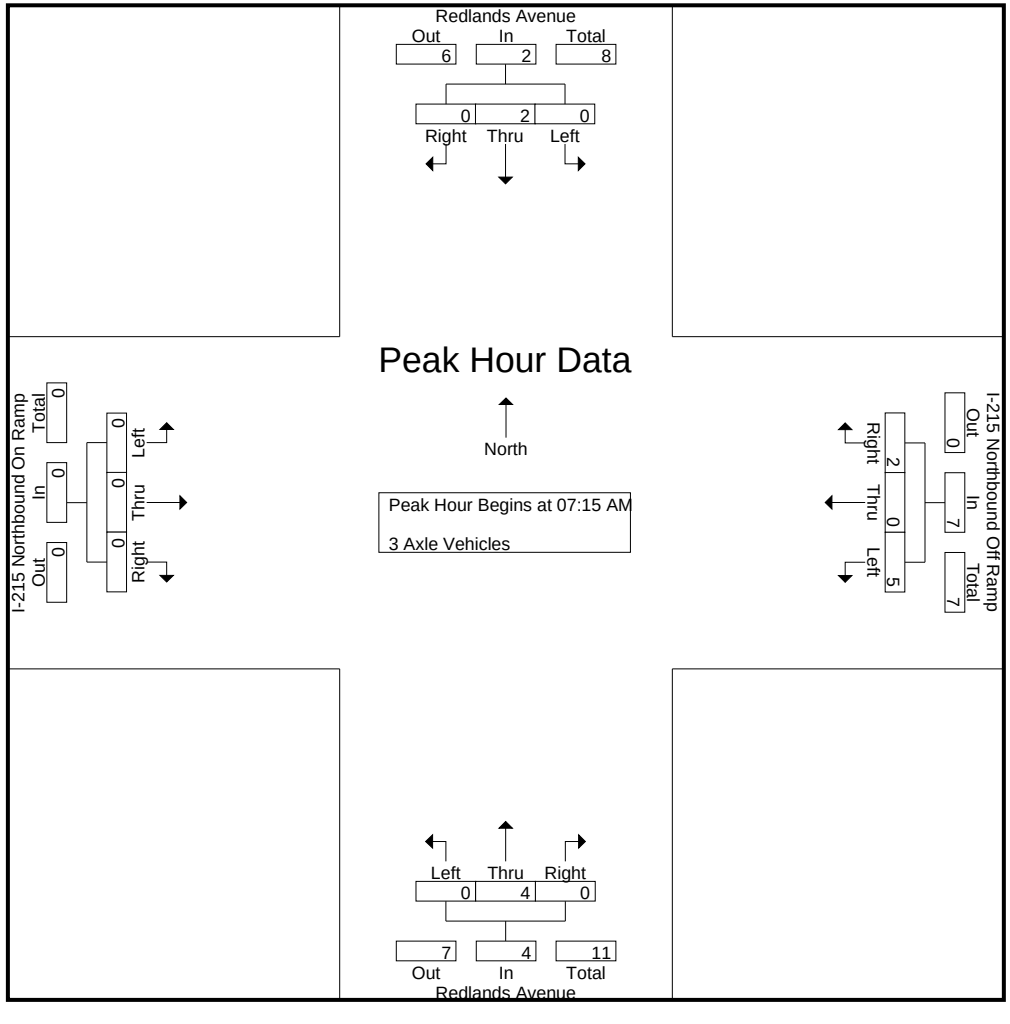
	Redlands Avenue Southbound					I-215 Northbound Off Ramp Westbound					Redlands Avenue Northbound					I-215 Northbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	1	1	1	2	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	3	4
07:15 AM	0	1	0	0	1	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	0	5	5
07:30 AM	0	1	0	0	1	3	0	0	0	3	0	1	0	0	1	0	0	0	0	0	0	5	5
07:45 AM	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	0	3	1	1	4	4	0	2	0	6	1	4	0	0	5	0	0	0	0	0	1	15	16
08:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
08:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
08:30 AM	0	0	0	0	0	3	0	0	0	3	1	1	0	0	2	0	0	0	0	0	0	5	5
08:45 AM	0	1	0	0	1	5	0	0	0	5	2	0	0	0	2	0	0	0	0	0	0	8	8
Total	0	1	0	0	1	10	0	0	0	10	3	1	0	0	4	0	0	0	0	0	0	15	15
Grand Total	0	4	1	1	5	14	0	2	0	16	4	5	0	0	9	0	0	0	0	0	1	30	31
Apprch %	0	80	20			87.5	0	12.5			44.4	55.6	0			0	0	0					
Total %	0	13.3	3.3		16.7	46.7	0	6.7		53.3	13.3	16.7	0		30	0	0	0		0	3.2	96.8	

	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**1**	0	**1**	0	0	**1**	1	0	**3**	0	**3**	0	0	0	0	**5**
07:30 AM	0	1	0	1	**3**	0	0	**3**	0	1	0	1	0	0	0	0	5
07:45 AM	0	0	0	0	1	0	1	2	0	0	0	0	0	0	0	0	2
08:00 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	2	5	0	2	7	0	4	0	4	0	0	0	0	13
% App. Total	0	100	0		71.4	0	28.6		0	100	0		0	0	0		
PHF	.000	.500	.000	.500	.417	.000	.500	.583	.000	.333	.000	.333	.000	.000	.000	.000	.650

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 2



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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N AM
Site Code : 05122096
Start Date : 2/3/2022

	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 07:15 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	**1**	0	**1**	0	0	**1**	1	0	**3**	0	**3**	0	0	0	0	
+15 mins.	0	1	0	1	**3**	0	0	**3**	0	1	0	1	0	0	0	0	
+30 mins.	0	0	0	0	1	0	1	2	0	0	0	0	0	0	0	0	
+45 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	
Total Volume	0	2	0	2	5	0	2	7	0	4	0	4	0	0	0	0	
% App. Total	0	100	0		71.4	0	28.6		0	100	0		0	0	0		
PHF	.000	.500	.000	.500	.417	.000	.500	.583	.000	.333	.000	.333	.000	.000	.000	.000	

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

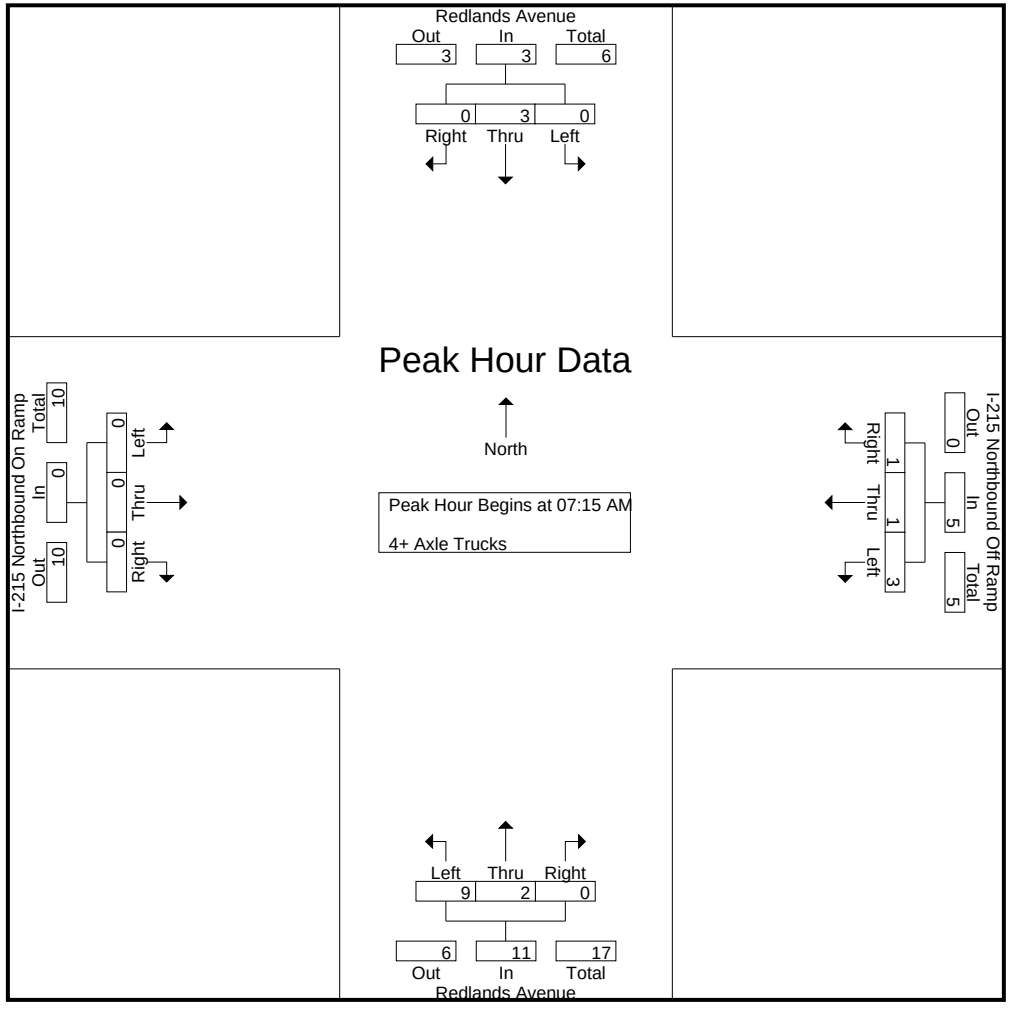
	Redlands Avenue Southbound					I-215 Northbound Off Ramp Westbound					Redlands Avenue Northbound					I-215 Northbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	2	0	0	2	3	0	0	0	3	1	1	0	0	2	0	0	0	0	0	0	7	7
07:15 AM	0	0	0	0	0	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0	0	4	4
07:30 AM	0	2	0	0	2	1	0	0	0	1	4	1	0	0	5	0	0	0	0	0	0	8	8
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	4	0	0	4	6	0	0	0	6	7	2	0	0	9	0	0	0	0	0	0	19	19
08:00 AM	0	1	0	0	1	0	1	1	0	2	3	1	0	0	4	0	0	0	0	0	0	7	7
08:15 AM	0	0	0	0	0	3	0	0	0	3	5	3	0	0	8	0	0	0	0	0	0	11	11
08:30 AM	0	0	1	0	1	1	0	1	0	2	5	0	0	0	5	0	0	0	0	0	0	8	8
08:45 AM	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	0	0	0	0	0	0	3	3
Total	0	1	1	0	2	4	1	3	0	8	15	4	0	0	19	0	0	0	0	0	0	29	29
Grand Total	0	5	1	0	6	10	1	3	0	14	22	6	0	0	28	0	0	0	0	0	0	48	48
Apprch %	0	83.3	16.7			71.4	7.1	21.4			78.6	21.4	0			0	0	0					
Total %	0	10.4	2.1		12.5	20.8	2.1	6.2		29.2	45.8	12.5	0		58.3	0	0	0		0	0	100	

	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 07:15 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	**2**	0	0	**2**	2	0	0	2	0	0	0	0	4
07:30 AM	0	**2**	0	**2**	1	0	0	1	**4**	**1**	0	**5**	0	0	0	0	**8**
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	1	0	1	0	**1**	**1**	2	3	1	0	4	0	0	0	0	7
Total Volume	0	3	0	3	3	1	1	5	9	2	0	11	0	0	0	0	19
% App. Total	0	100	0		60	20	20		81.8	18.2	0		0	0	0		
PHF	.000	.375	.000	.375	.375	.250	.250	.625	.563	.500	.000	.550	.000	.000	.000	.000	.594

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 2



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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N AM
Site Code : 05122096
Start Date : 2/3/2022

	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 07:15 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	**2**	0	0	**2**	2	0	0	2	0	0	0	0	
+15 mins.	0	**2**	0	**2**	1	0	0	1	**4**	**1**	0	**5**	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	1	0	1	0	**1**	**1**	2	3	1	0	4	0	0	0	0	
Total Volume	0	3	0	3	3	1	1	5	9	2	0	11	0	0	0	0	
% App. Total	0	100	0		60	20	20		81.8	18.2	0		0	0	0		
PHF	.000	.375	.000	.375	.375	.250	.250	.625	.563	.500	.000	.550	.000	.000	.000	.000	

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City of Perris
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File Name : 02_PER_Redlands_215N PM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 1

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

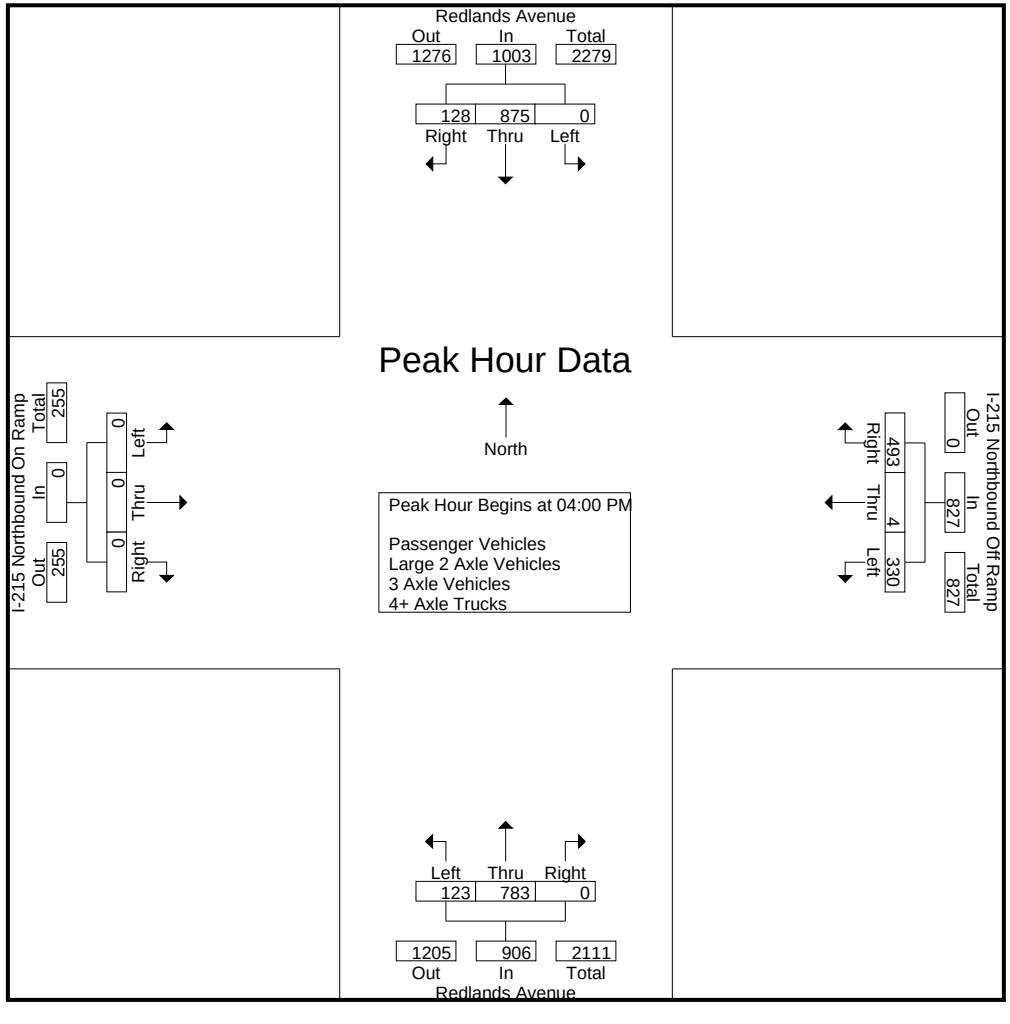
	Redlands Avenue Southbound					I-215 Northbound Off Ramp Westbound					Redlands Avenue Northbound					I-215 Northbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	227	34	17	261	76	0	112	49	188	26	207	0	0	233	0	0	0	0	0	66	682	748
04:15 PM	0	227	31	12	258	89	3	143	42	235	26	174	0	0	200	0	0	0	0	0	54	693	747
04:30 PM	0	208	41	15	249	76	1	119	43	196	42	220	0	0	262	0	0	0	0	0	58	707	765
04:45 PM	0	213	22	7	235	89	0	119	49	208	29	182	0	0	211	0	0	0	0	0	56	654	710
Total	0	875	128	51	1003	330	4	493	183	827	123	783	0	0	906	0	0	0	0	0	234	2736	2970
05:00 PM	0	213	46	21	259	80	1	133	54	214	42	156	0	0	198	0	0	0	0	0	75	671	746
05:15 PM	0	161	35	14	196	94	0	131	56	225	41	189	0	0	230	0	0	0	0	0	70	651	721
05:30 PM	0	181	39	14	220	68	1	125	60	194	34	188	0	0	222	0	0	0	0	0	74	636	710
05:45 PM	0	160	38	13	198	86	0	121	54	207	32	174	0	0	206	0	0	0	0	0	67	611	678
Total	0	715	158	62	873	328	2	510	224	840	149	707	0	0	856	0	0	0	0	0	286	2569	2855
Grand Total	0	1590	286	113	1876	658	6	1003	407	1667	272	1490	0	0	1762	0	0	0	0	0	520	5305	5825
Apprch %	0	84.8	15.2			39.5	0.4	60.2			15.4	84.6	0			0	0	0					
Total %	0	30	5.4		35.4	12.4	0.1	18.9		31.4	5.1	28.1	0		33.2	0	0	0		0	8.9	91.1	
Passenger Vehicles	0	1550	278		1938	621	3	983		2003	243	1466	0		1709	0	0	0		0	0	0	5650
% Passenger Vehicles	0	97.5	97.2	97.3	97.4	94.4	50	98	97.3	96.6	89.3	98.4	0	0	97	0	0	0	0	0	0	0	97
Large 2 Axle Vehicles	0	28	4		33	24	1	16		51	13	20	0		33	0	0	0		0	0	0	117
% Large 2 Axle Vehicles	0	1.8	1.4	0.9	1.7	3.6	16.7	1.6	2.5	2.5	4.8	1.3	0	0	1.9	0	0	0	0	0	0	0	2
3 Axle Vehicles	0	9	2		12	9	2	2		13	3	1	0		4	0	0	0		0	0	0	29
% 3 Axle Vehicles	0	0.6	0.7	0.9	0.6	1.4	33.3	0.2	0	0.6	1.1	0.1	0	0	0.2	0	0	0	0	0	0	0	0.5
4+ Axle Trucks	0	3	2		6	4	0	2		7	13	3	0		16	0	0	0		0	0	0	29
% 4+ Axle Trucks	0	0.2	0.7	0.9	0.3	0.6	0	0.2	0.2	0.3	4.8	0.2	0	0	0.9	0	0	0	0	0	0	0	0.5

	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 04:00 PM																	
04:00 PM	0	**227**	34	**261**	76	0	112	188	26	207	0	233	0	0	0	0	682
04:15 PM	0	227	31	258	**89**	**3**	**143**	**235**	26	174	0	200	0	0	0	0	693
04:30 PM	0	208	**41**	249	76	1	119	196	**42**	**220**	0	**262**	0	0	0	0	**707**
04:45 PM	0	213	22	235	89	0	119	208	29	182	0	211	0	0	0	0	654
Total Volume	0	875	128	1003	330	4	493	827	123	783	0	906	0	0	0	0	2736
% App. Total	0	87.2	12.8		39.9	0.5	59.6		13.6	86.4	0		0	0	0		
PHF	.000	.964	.780	.961	.927	.333	.862	.880	.732	.890	.000	.865	.000	.000	.000	.000	.967

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N PM
Site Code : 05122096
Start Date : 2/3/2022
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City of Perris
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	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 Each Approach Begins at:																	
	04:00 PM				04:15 PM				04:00 PM				04:00 PM				
+0 mins.	0	**227**	34	**261**	**89**	**3**	**143**	**235**	26	207	0	233	0	0	0	0	
+15 mins.	0	227	31	258	76	1	119	196	26	174	0	200	0	0	0	0	
+30 mins.	0	208	**41**	249	89	0	119	208	**42**	**220**	0	**262**	0	0	0	0	
+45 mins.	0	213	22	235	80	1	133	214	29	182	0	211	0	0	0	0	
Total Volume	0	875	128	1003	334	5	514	853	123	783	0	906	0	0	0	0	
% App. Total	0	87.2	12.8		39.2	0.6	60.3		13.6	86.4	0		0	0	0		
PHF	.000	.964	.780	.961	.938	.417	.899	.907	.732	.890	.000	.865	.000	.000	.000	.000	

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File Name : 02_PER_Redlands_215N PM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 1

Groups Printed- Passenger Vehicles

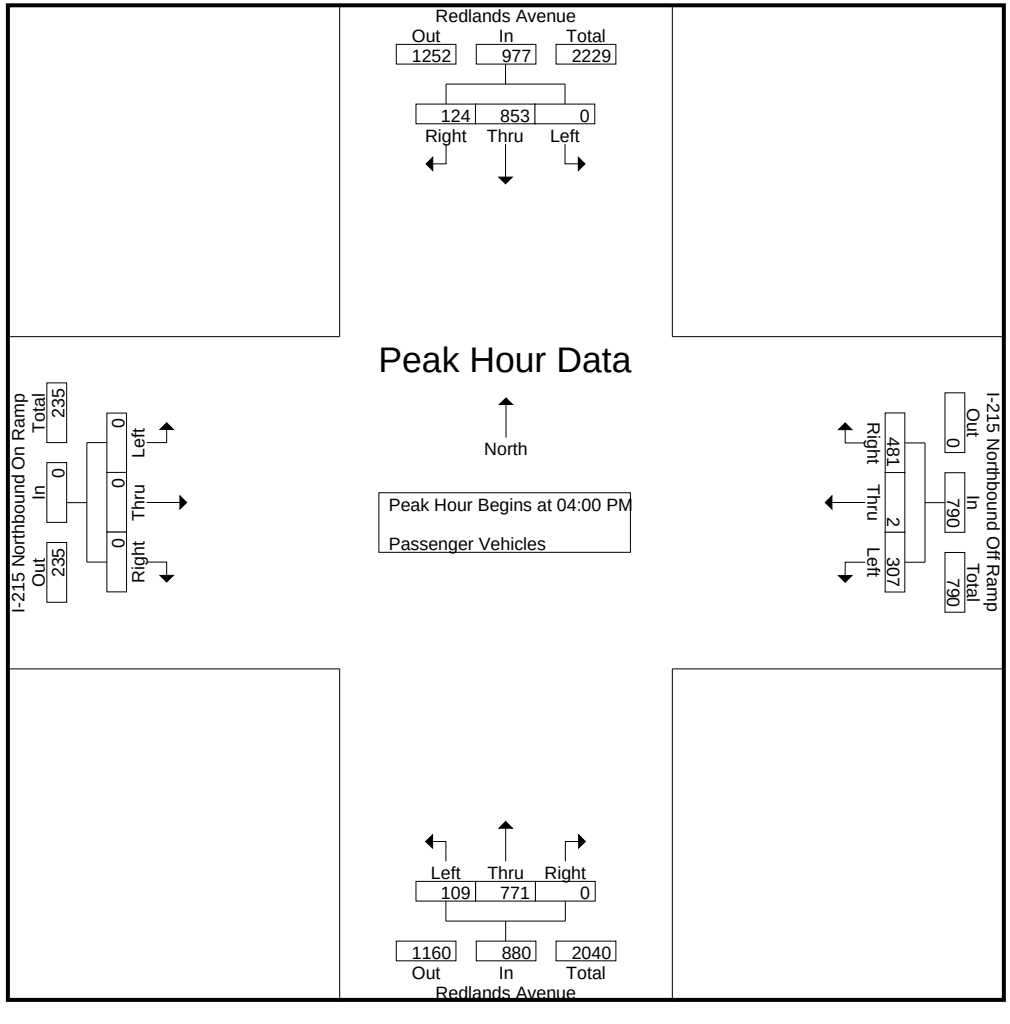
	Redlands Avenue Southbound					I-215 Northbound Off Ramp Westbound					Redlands Avenue Northbound					I-215 Northbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	221	33	16	254	73	0	110	47	183	22	205	0	0	227	0	0	0	0	0	63	664	727
04:15 PM	0	221	30	12	251	79	1	142	42	222	25	171	0	0	196	0	0	0	0	0	54	669	723
04:30 PM	0	204	39	15	243	68	1	115	42	184	38	215	0	0	253	0	0	0	0	0	57	680	737
04:45 PM	0	207	22	7	229	87	0	114	46	201	24	180	0	0	204	0	0	0	0	0	53	634	687
Total	0	853	124	50	977	307	2	481	177	790	109	771	0	0	880	0	0	0	0	0	227	2647	2874
05:00 PM	0	208	43	20	251	74	0	130	51	204	39	151	0	0	190	0	0	0	0	0	71	645	716
05:15 PM	0	160	34	13	194	92	0	129	56	221	35	186	0	0	221	0	0	0	0	0	69	636	705
05:30 PM	0	174	39	14	213	64	1	124	59	189	31	184	0	0	215	0	0	0	0	0	73	617	690
05:45 PM	0	155	38	13	193	84	0	119	53	203	29	174	0	0	203	0	0	0	0	0	66	599	665
Total	0	697	154	60	851	314	1	502	219	817	134	695	0	0	829	0	0	0	0	0	279	2497	2776
Grand Total	0	1550	278	110	1828	621	3	983	396	1607	243	1466	0	0	1709	0	0	0	0	0	506	5144	5650
Apprch %	0	84.8	15.2			38.6	0.2	61.2			14.2	85.8	0			0	0	0					
Total %	0	30.1	5.4		35.5	12.1	0.1	19.1		31.2	4.7	28.5	0		33.2	0	0	0		0	9	91	

	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**221**	33	**254**	73	0	110	183	22	205	0	227	0	0	0	0	664
04:15 PM	0	221	30	251	79	**1**	**142**	**222**	25	171	0	196	0	0	0	0	669
04:30 PM	0	204	**39**	243	68	1	115	184	**38**	**215**	0	**253**	0	0	0	0	**680**
04:45 PM	0	207	22	229	**87**	0	114	201	24	180	0	204	0	0	0	0	634
Total Volume	0	853	124	977	307	2	481	790	109	771	0	880	0	0	0	0	2647
% App. Total	0	87.3	12.7		38.9	0.3	60.9		12.4	87.6	0		0	0	0		
PHF	.000	.965	.795	.962	.882	.500	.847	.890	.717	.897	.000	.870	.000	.000	.000	.000	.973

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N PM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 2



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	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 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	**221**	33	**254**	73	0	110	183	22	205	0	227	0	0	0	0	
+15 mins.	0	221	30	251	79	**1**	**142**	**222**	25	171	0	196	0	0	0	0	
+30 mins.	0	204	**39**	243	68	1	115	184	**38**	**215**	0	**253**	0	0	0	0	
+45 mins.	0	207	22	229	**87**	0	114	201	24	180	0	204	0	0	0	0	
Total Volume	0	853	124	977	307	2	481	790	109	771	0	880	0	0	0	0	
% App. Total	0	87.3	12.7		38.9	0.3	60.9		12.4	87.6	0		0	0	0		
PHF	.000	.965	.795	.962	.882	.500	.847	.890	.717	.897	.000	.870	.000	.000	.000	.000	

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File Name : 02_PER_Redlands_215N PM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

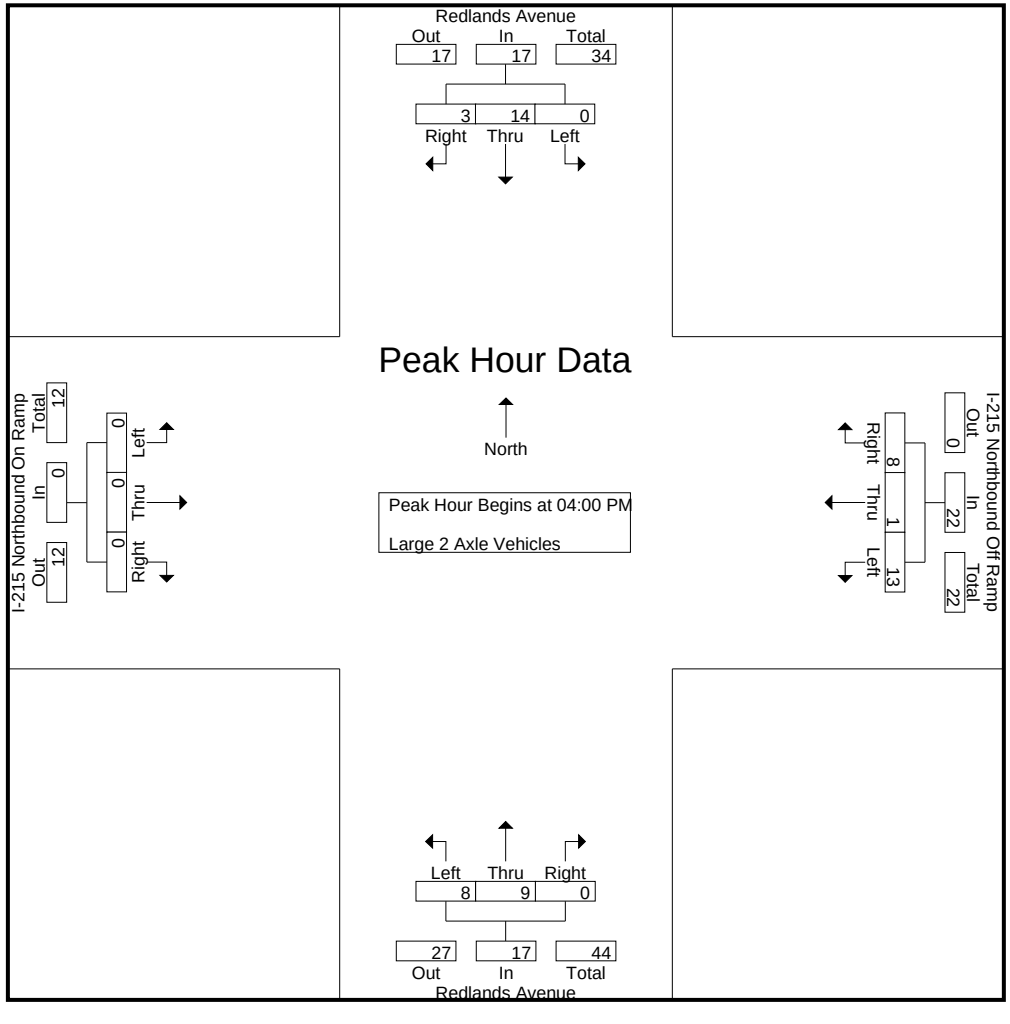
	Redlands Avenue Southbound					I-215 Northbound Off Ramp Westbound					Redlands Avenue Northbound					I-215 Northbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	3	1	1	4	2	0	2	2	4	4	1	0	0	5	0	0	0	0	0	3	13	16
04:15 PM	0	3	0	0	3	6	1	0	0	7	0	3	0	0	3	0	0	0	0	0	0	13	13
04:30 PM	0	4	2	0	6	4	0	3	1	7	1	3	0	0	4	0	0	0	0	0	1	17	18
04:45 PM	0	4	0	0	4	1	0	3	2	4	3	2	0	0	5	0	0	0	0	0	2	13	15
Total	0	14	3	1	17	13	1	8	5	22	8	9	0	0	17	0	0	0	0	0	6	56	62
05:00 PM	0	4	1	0	5	5	0	3	3	8	1	4	0	0	5	0	0	0	0	0	3	18	21
05:15 PM	0	1	0	0	1	1	0	2	0	3	2	3	0	0	5	0	0	0	0	0	0	9	9
05:30 PM	0	4	0	0	4	3	0	1	1	4	1	4	0	0	5	0	0	0	0	0	1	13	14
05:45 PM	0	5	0	0	5	2	0	2	1	4	1	0	0	0	1	0	0	0	0	0	1	10	11
Total	0	14	1	0	15	11	0	8	5	19	5	11	0	0	16	0	0	0	0	0	5	50	55
Grand Total	0	28	4	1	32	24	1	16	10	41	13	20	0	0	33	0	0	0	0	0	11	106	117
Apprch %	0	87.5	12.5			58.5	2.4	39			39.4	60.6	0			0	0	0					
Total %	0	26.4	3.8		30.2	22.6	0.9	15.1		38.7	12.3	18.9	0		31.1	0	0	0		0	9.4	90.6	

	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	3	1	4	2	0	2	4	**4**	1	0	**5**	0	0	0	0	13
04:15 PM	0	3	0	3	**6**	**1**	0	**7**	0	**3**	0	3	0	0	0	0	13
04:30 PM	0	**4**	**2**	**6**	4	0	**3**	7	1	3	0	4	0	0	0	0	**17**
04:45 PM	0	4	0	4	1	0	3	4	3	2	0	5	0	0	0	0	13
Total Volume	0	14	3	17	13	1	8	22	8	9	0	17	0	0	0	0	56
% App. Total	0	82.4	17.6		59.1	4.5	36.4		47.1	52.9	0		0	0	0		
PHF	.000	.875	.375	.708	.542	.250	.667	.786	.500	.750	.000	.850	.000	.000	.000	.000	.824

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N PM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 2



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(951)268-6268

City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N PM
Site Code : 05122096
Start Date : 2/3/2022

	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 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	3	1	4	2	0	2	4	**4**	1	0	**5**	0	0	0	0	
+15 mins.	0	3	0	3	**6**	**1**	0	**7**	0	**3**	0	3	0	0	0	0	
+30 mins.	0	**4**	**2**	**6**	4	0	**3**	7	1	3	0	4	0	0	0	0	
+45 mins.	0	4	0	4	1	0	3	4	3	2	0	5	0	0	0	0	
Total Volume	0	14	3	17	13	1	8	22	8	9	0	17	0	0	0	0	
% App. Total	0	82.4	17.6		59.1	4.5	36.4		47.1	52.9	0		0	0	0		
PHF	.000	.875	.375	.708	.542	.250	.667	.786	.500	.750	.000	.850	.000	.000	.000	.000	

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N PM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

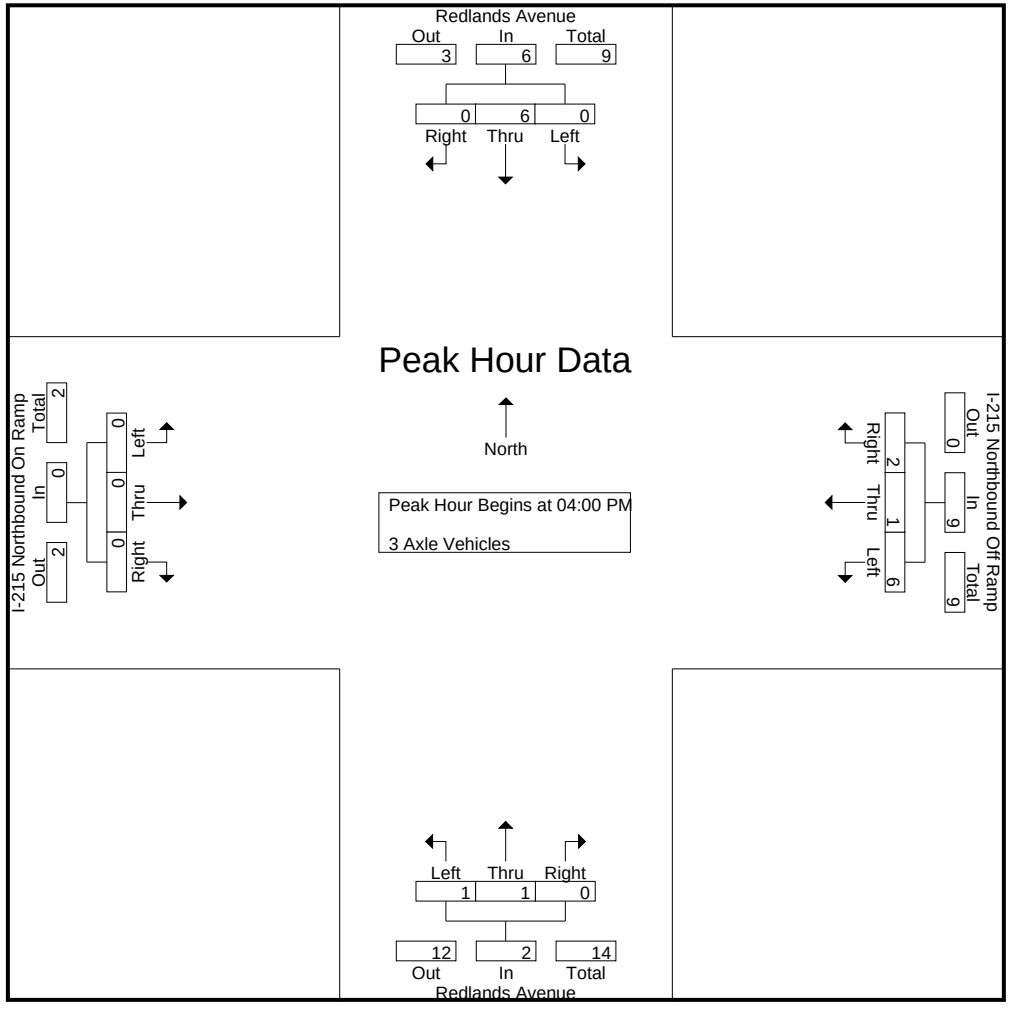
	Redlands Avenue Southbound					I-215 Northbound Off Ramp Westbound					Redlands Avenue Northbound					I-215 Northbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
04:15 PM	0	1	0	0	1	3	1	1	0	5	1	0	0	0	1	0	0	0	0	0	0	7	7
04:30 PM	0	0	0	0	0	3	0	1	0	4	0	1	0	0	1	0	0	0	0	0	0	5	5
04:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	0	6	0	0	6	6	1	2	0	9	1	1	0	0	2	0	0	0	0	0	0	17	17
05:00 PM	0	1	2	1	3	1	1	0	0	2	1	0	0	0	1	0	0	0	0	0	1	6	7
05:15 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	2	2
05:30 PM	0	2	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	3
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	3	2	1	5	3	1	0	0	4	2	0	0	0	2	0	0	0	0	0	1	11	12
Grand Total	0	9	2	1	11	9	2	2	0	13	3	1	0	0	4	0	0	0	0	0	1	28	29
Apprch %	0	81.8	18.2			69.2	15.4	15.4			75	25	0			0	0	0					
Total %	0	32.1	7.1		39.3	32.1	7.1	7.1		46.4	10.7	3.6	0		14.3	0	0	0		0	3.4	96.6	

	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**3**	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	3
04:15 PM	0	1	0	1	**3**	**1**	**1**	**5**	**1**	0	0	**1**	0	0	0	0	**7**
04:30 PM	0	0	0	0	3	0	1	4	0	**1**	0	1	0	0	0	0	5
04:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	6	0	6	6	1	2	9	1	1	0	2	0	0	0	0	17
% App. Total	0	100	0		66.7	11.1	22.2		50	50	0		0	0	0		
PHF	.000	.500	.000	.500	.500	.250	.500	.450	.250	.250	.000	.500	.000	.000	.000	.000	.607

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N PM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 2



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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N PM
Site Code : 05122096
Start Date : 2/3/2022

	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 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	**3**	0	**3**	0	0	0	0	0	0	0	0	0	0	0	0	
+15 mins.	0	1	0	1	**3**	**1**	**1**	**5**	**1**	0	0	**1**	0	0	0	0	
+30 mins.	0	0	0	0	3	0	1	4	0	**1**	0	1	0	0	0	0	
+45 mins.	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	6	0	6	6	1	2	9	1	1	0	2	0	0	0	0	
% App. Total	0	100	0		66.7	11.1	22.2		50	50	0		0	0	0		
PHF	.000	.500	.000	.500	.500	.250	.500	.450	.250	.250	.000	.500	.000	.000	.000	.000	

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N PM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

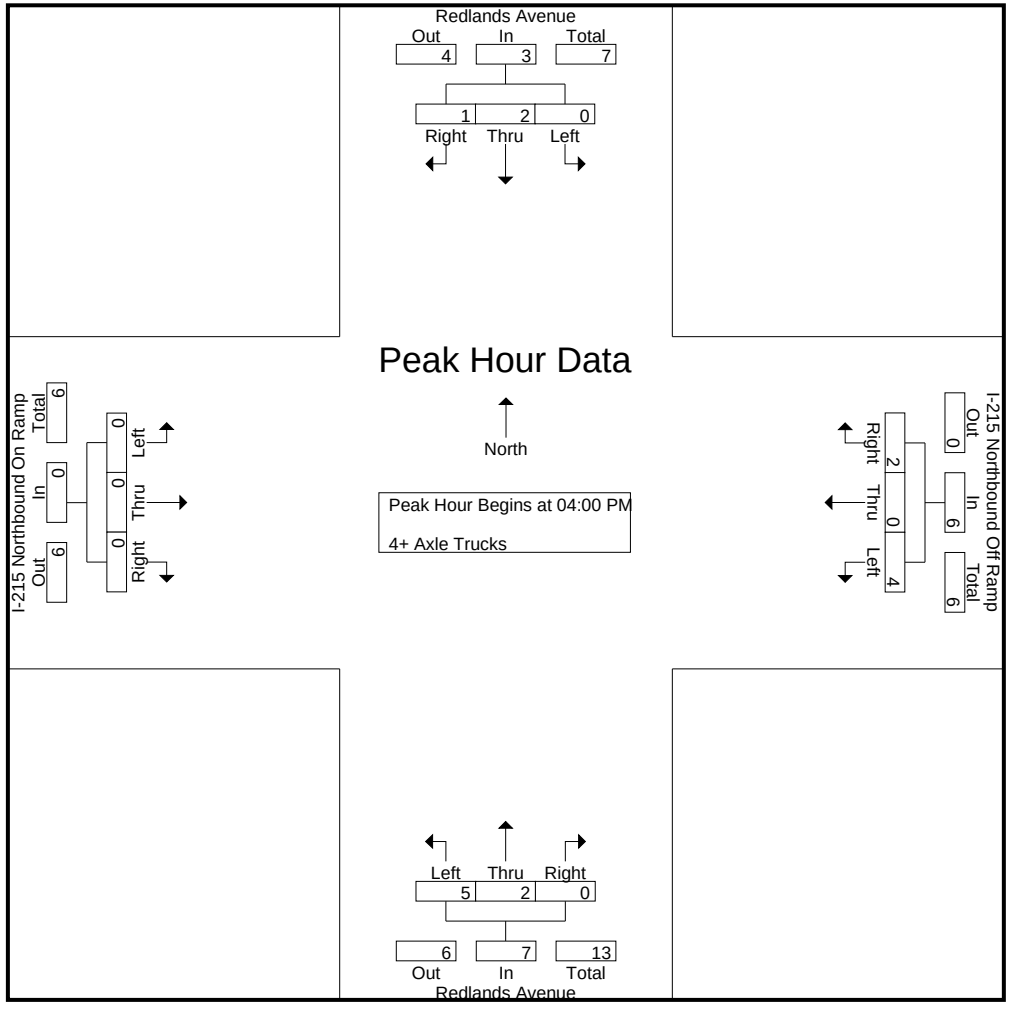
	Redlands Avenue Southbound					I-215 Northbound Off Ramp Westbound					Redlands Avenue Northbound					I-215 Northbound On Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	2	2
04:15 PM	0	2	1	0	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	4
04:30 PM	0	0	0	0	0	1	0	0	0	1	3	1	0	0	4	0	0	0	0	0	0	5	5
04:45 PM	0	0	0	0	0	1	0	2	1	3	2	0	0	0	2	0	0	0	0	0	1	5	6
Total	0	2	1	0	3	4	0	2	1	6	5	2	0	0	7	0	0	0	0	0	1	16	17
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	2	2
05:15 PM	0	0	1	1	1	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	1	4	5
05:30 PM	0	1	0	0	1	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	3	3
05:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	2	2
Total	0	1	1	1	2	0	0	0	0	0	8	1	0	0	9	0	0	0	0	0	1	11	12
Grand Total	0	3	2	1	5	4	0	2	1	6	13	3	0	0	16	0	0	0	0	0	2	27	29
Apprch %	0	60	40			66.7	0	33.3			81.2	18.8	0			0	0	0					
Total %	0	11.1	7.4		18.5	14.8	0	7.4		22.2	48.1	11.1	0		59.3	0	0	0		0	6.9	93.1	

	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 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**	0	0	1	0	**1**	0	1	0	0	0	0	2
04:15 PM	0	**2**	**1**	**3**	1	0	0	1	0	0	0	0	0	0	0	0	4
04:30 PM	0	0	0	0	1	0	0	1	**3**	1	0	**4**	0	0	0	0	**5**
04:45 PM	0	0	0	0	1	0	**2**	**3**	2	0	0	2	0	0	0	0	5
Total Volume	0	2	1	3	4	0	2	6	5	2	0	7	0	0	0	0	16
% App. Total	0	66.7	33.3		66.7	0	33.3		71.4	28.6	0		0	0	0		
PHF	.000	.250	.250	.250	1.00	.000	.250	.500	.417	.500	.000	.438	.000	.000	.000	.000	.800

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N PM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 2



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City of Perris
N/S: Redlands Avenue
E/W: I-215 Northbound Ramps
Weather: Clear

File Name : 02_PER_Redlands_215N PM
Site Code : 05122096
Start Date : 2/3/2022

	Redlands Avenue Southbound				I-215 Northbound Off Ramp Westbound				Redlands Avenue Northbound				I-215 Northbound 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 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	**1**	0	0	1	0	**1**	0	1	0	0	0	0	
+15 mins.	0	**2**	**1**	**3**	1	0	0	1	0	0	0	0	0	0	0	0	
+30 mins.	0	0	0	0	1	0	0	1	**3**	1	0	**4**	0	0	0	0	
+45 mins.	0	0	0	0	1	0	**2**	**3**	2	0	0	2	0	0	0	0	
Total Volume	0	2	1	3	4	0	2	6	5	2	0	7	0	0	0	0	
% App. Total	0	66.7	33.3		66.7	0	33.3		71.4	28.6	0		0	0	0		
PHF	.000	.250	.250	.250	1.000	.000	.250	.500	.417	.500	.000	.438	.000	.000	.000	.000	

Location: Perris
N/S: Redlands Avenue
E/W: I-215 NB Ramps

Date: 2/3/2022
Day: Thursday

PEDESTRIANS

	North Leg Redlands Avenue	East Leg I-215 NB Ramps	South Leg Redlands Avenue	West Leg I-215 NB 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	1	1
TOTAL VOLUMES:	0	0	0	1	1

	North Leg Redlands Avenue	East Leg I-215 NB Ramps	South Leg Redlands Avenue	West Leg I-215 NB Ramps	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	3	3
4:15 PM	0	0	0	2	2
4:30 PM	0	0	0	2	2
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	2	2
5:15 PM	0	0	0	2	2
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	2	2
TOTAL VOLUMES:	0	0	0	13	13

Location: Perris
N/S: Redlands Avenue
E/W: I-215 NB Ramps

Date: 2/3/2022
Day: Thursday

BICYCLES

	Southbound Redlands Avenue			Westbound I-215 NB Ramps			Northbound Redlands Avenue			Eastbound I-215 NB 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 Redlands Avenue			Westbound I-215 NB Ramps			Northbound Redlands Avenue			Eastbound I-215 NB Ramps			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	1	0	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	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
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	0	0	0	0	0	2	0	0	0	0	3

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 1

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

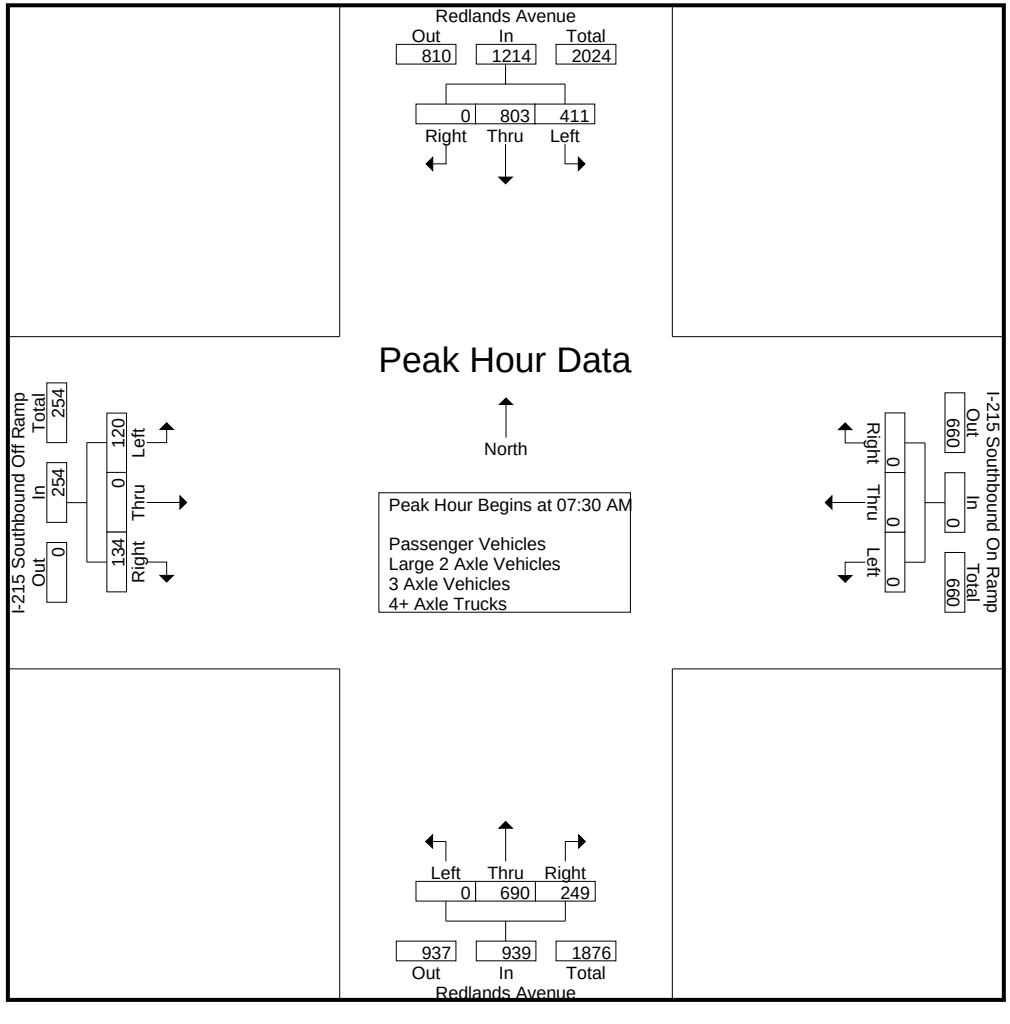
	Redlands Avenue Southbound					I-215 Southbound On Ramp Westbound					Redlands Avenue Northbound					I-215 Southbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	96	153	0	0	249	0	0	0	0	0	0	100	49	2	149	8	1	39	34	48	36	446	482
07:15 AM	94	180	0	0	274	0	0	0	0	0	0	125	36	1	161	35	1	33	21	69	22	504	526
07:30 AM	144	225	0	0	369	0	0	0	0	0	0	164	55	9	219	34	0	35	22	69	31	657	688
07:45 AM	99	243	0	0	342	0	0	0	0	0	0	173	70	7	243	40	0	40	22	80	29	665	694
Total	433	801	0	0	1234	0	0	0	0	0	0	562	210	19	772	117	2	147	99	266	118	2272	2390
08:00 AM	81	199	0	0	280	0	0	0	0	0	0	172	64	13	236	23	0	32	21	55	34	571	605
08:15 AM	87	136	0	0	223	0	0	0	0	0	0	181	60	16	241	23	0	27	16	50	32	514	546
08:30 AM	93	136	0	0	229	0	0	0	0	0	0	107	80	12	187	21	0	27	20	48	32	464	496
08:45 AM	70	134	0	0	204	0	0	0	0	0	0	93	72	3	165	16	0	33	28	49	31	418	449
Total	331	605	0	0	936	0	0	0	0	0	0	553	276	44	829	83	0	119	85	202	129	1967	2096
Grand Total	764	1406	0	0	2170	0	0	0	0	0	0	1115	486	63	1601	200	2	266	184	468	247	4239	4486
Apprch %	35.2	64.8	0			0	0	0			0	69.6	30.4			42.7	0.4	56.8					
Total %	18	33.2	0		51.2	0	0	0		0	0	26.3	11.5		37.8	4.7	0	6.3		11	5.5	94.5	
Passenger Vehicles	749	1341	0		2090	0	0	0		0	0	1059	423		1543	188	2	226		573	0	0	4206
% Passenger Vehicles	98	95.4	0	0	96.3	0	0	0	0	0	0	95	87	96.8	92.7	94	100	85	85.3	87.9	0	0	93.8
Large 2 Axle Vehicles	12	37	0		49	0	0	0		0	0	28	27		57	6	0	19		41	0	0	147
% Large 2 Axle Vehicles	1.6	2.6	0	0	2.3	0	0	0	0	0	0	2.5	5.6	3.2	3.4	3	0	7.1	8.7	6.3	0	0	3.3
3 Axle Vehicles	0	17	0		17	0	0	0		0	0	5	22		27	2	0	4		9	0	0	53
% 3 Axle Vehicles	0	1.2	0	0	0.8	0	0	0	0	0	0	0.4	4.5	0	1.6	1	0	1.5	1.6	1.4	0	0	1.2
4+ Axle Trucks	3	11	0		14	0	0	0		0	0	23	14		37	4	0	17		29	0	0	80
% 4+ Axle Trucks	0.4	0.8	0	0	0.6	0	0	0	0	0	0	2.1	2.9	0	2.2	2	0	6.4	4.3	4.4	0	0	1.8

	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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 07:30 AM																	
07:30 AM	**144**	225	0	**369**	0	0	0	0	0	164	55	219	34	0	35	69	657
07:45 AM	99	**243**	0	342	0	0	0	0	0	173	**70**	**243**	**40**	0	**40**	**80**	**665**
08:00 AM	81	199	0	280	0	0	0	0	0	172	64	236	23	0	32	55	571
08:15 AM	87	136	0	223	0	0	0	0	0	**181**	60	241	23	0	27	50	514
Total Volume	411	803	0	1214	0	0	0	0	0	690	249	939	120	0	134	254	2407
% App. Total	33.9	66.1	0		0	0	0		0	73.5	26.5		47.2	0	52.8		
PHF	.714	.826	.000	.822	.000	.000	.000	.000	.000	.953	.889	.966	.750	.000	.838	.794	.905

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PO Box 1178
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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 2



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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S AM
Site Code : 05122096
Start Date : 2/3/2022

	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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 Each Approach Begins at:																	
	07:15 AM				07:00 AM				07:30 AM				07:15 AM				
+0 mins.	94	180	0	274	0	0	0	0	0	164	55	219	35	**1**	33	69	
+15 mins.	**144**	225	0	**369**	0	0	0	0	0	173	**70**	**243**	34	0	35	69	
+30 mins.	99	**243**	0	342	0	0	0	0	0	172	64	236	**40**	0	**40**	**80**	
+45 mins.	81	199	0	280	0	0	0	0	0	**181**	60	241	23	0	32	55	
Total Volume	418	847	0	1265	0	0	0	0	0	690	249	939	132	1	140	273	
% App. Total	33	67	0		0	0	0		0	73.5	26.5		48.4	0.4	51.3		
PHF	.726	.871	.000	.857	.000	.000	.000	.000	.000	.953	.889	.966	.825	.250	.875	.853	

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 1

Groups Printed- Passenger Vehicles

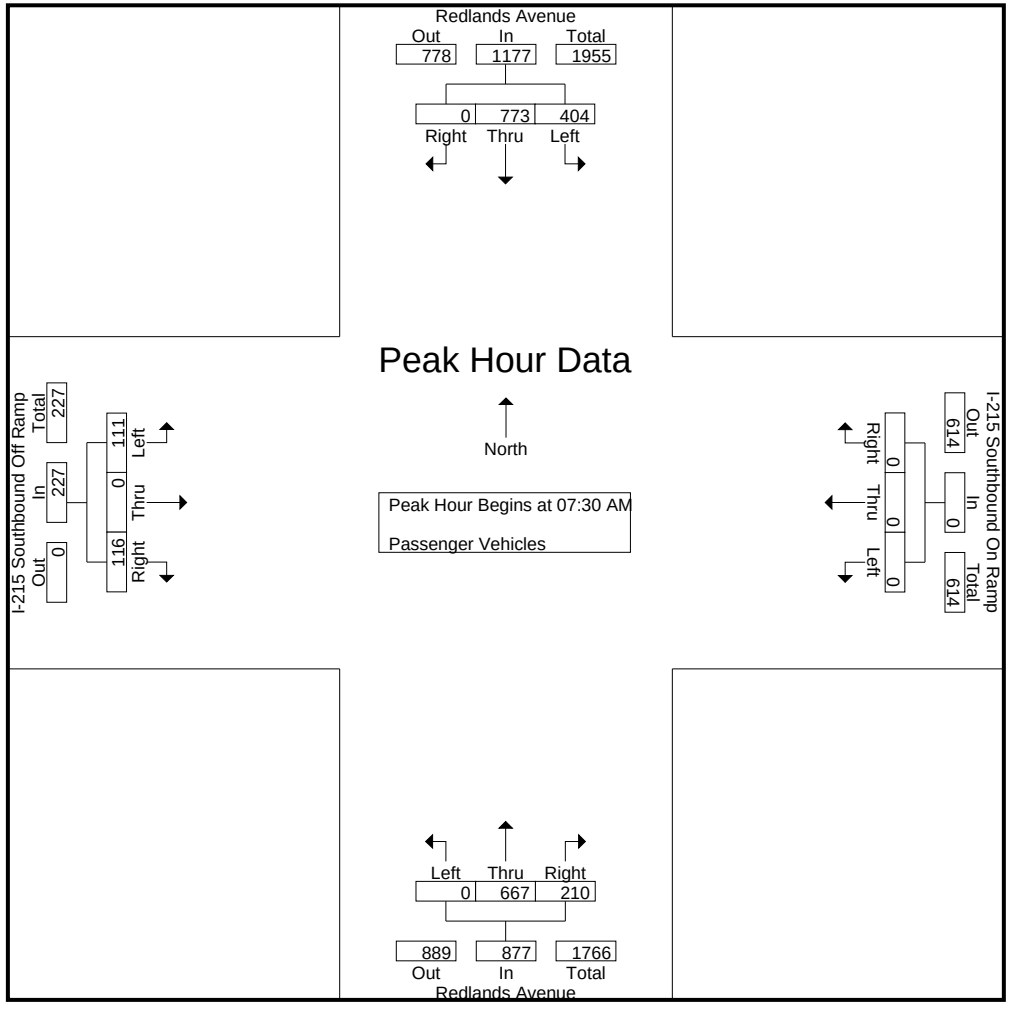
	Redlands Avenue Southbound					I-215 Southbound On Ramp Westbound					Redlands Avenue Northbound					I-215 Southbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	92	145	0	0	237	0	0	0	0	0	0	96	44	2	140	8	1	33	29	42	31	419	450
07:15 AM	93	170	0	0	263	0	0	0	0	0	0	118	32	1	150	33	1	28	18	62	19	475	494
07:30 AM	142	213	0	0	355	0	0	0	0	0	0	158	48	8	206	33	0	31	18	64	26	625	651
07:45 AM	96	236	0	0	332	0	0	0	0	0	0	169	64	7	233	37	0	38	22	75	29	640	669
Total	423	764	0	0	1187	0	0	0	0	0	0	541	188	18	729	111	2	130	87	243	105	2159	2264
08:00 AM	79	195	0	0	274	0	0	0	0	0	0	167	47	12	214	21	0	25	17	46	29	534	563
08:15 AM	87	129	0	0	216	0	0	0	0	0	0	173	51	16	224	20	0	22	14	42	30	482	512
08:30 AM	92	128	0	0	220	0	0	0	0	0	0	96	76	12	172	20	0	20	15	40	27	432	459
08:45 AM	68	125	0	0	193	0	0	0	0	0	0	82	61	3	143	16	0	29	24	45	27	381	408
Total	326	577	0	0	903	0	0	0	0	0	0	518	235	43	753	77	0	96	70	173	113	1829	1942
Grand Total	749	1341	0	0	2090	0	0	0	0	0	0	1059	423	61	1482	188	2	226	157	416	218	3988	4206
Apprch %	35.8	64.2	0			0	0	0			0	71.5	28.5			45.2	0.5	54.3					
Total %	18.8	33.6	0		52.4	0	0	0		0	0	26.6	10.6		37.2	4.7	0.1	5.7		10.4	5.2	94.8	

	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**142**	213	0	**355**	0	0	0	0	0	158	48	206	33	0	31	64	625
07:45 AM	96	**236**	0	332	0	0	0	0	0	169	**64**	**233**	**37**	0	**38**	**75**	**640**
08:00 AM	79	195	0	274	0	0	0	0	0	167	47	214	21	0	25	46	534
08:15 AM	87	129	0	216	0	0	0	0	0	**173**	51	224	20	0	22	42	482
Total Volume	404	773	0	1177	0	0	0	0	0	667	210	877	111	0	116	227	2281
% App. Total	34.3	65.7	0		0	0	0		0	76.1	23.9		48.9	0	51.1		
PHF	.711	.819	.000	.829	.000	.000	.000	.000	.000	.964	.820	.941	.750	.000	.763	.757	.891

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 2



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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S AM
Site Code : 05122096
Start Date : 2/3/2022

	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				07:30 AM				07:30 AM				07:30 AM				
+0 mins.	**142**	213	0	**355**	0	0	0	0	0	158	48	206	33	0	31	64	
+15 mins.	96	**236**	0	332	0	0	0	0	0	169	**64**	**233**	**37**	0	**38**	**75**	
+30 mins.	79	195	0	274	0	0	0	0	0	167	47	214	21	0	25	46	
+45 mins.	87	129	0	216	0	0	0	0	0	**173**	51	224	20	0	22	42	
Total Volume	404	773	0	1177	0	0	0	0	0	667	210	877	111	0	116	227	
% App. Total	34.3	65.7	0		0	0	0		0	76.1	23.9		48.9	0	51.1		
PHF	.711	.819	.000	.829	.000	.000	.000	.000	.000	.964	.820	.941	.750	.000	.763	.757	

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

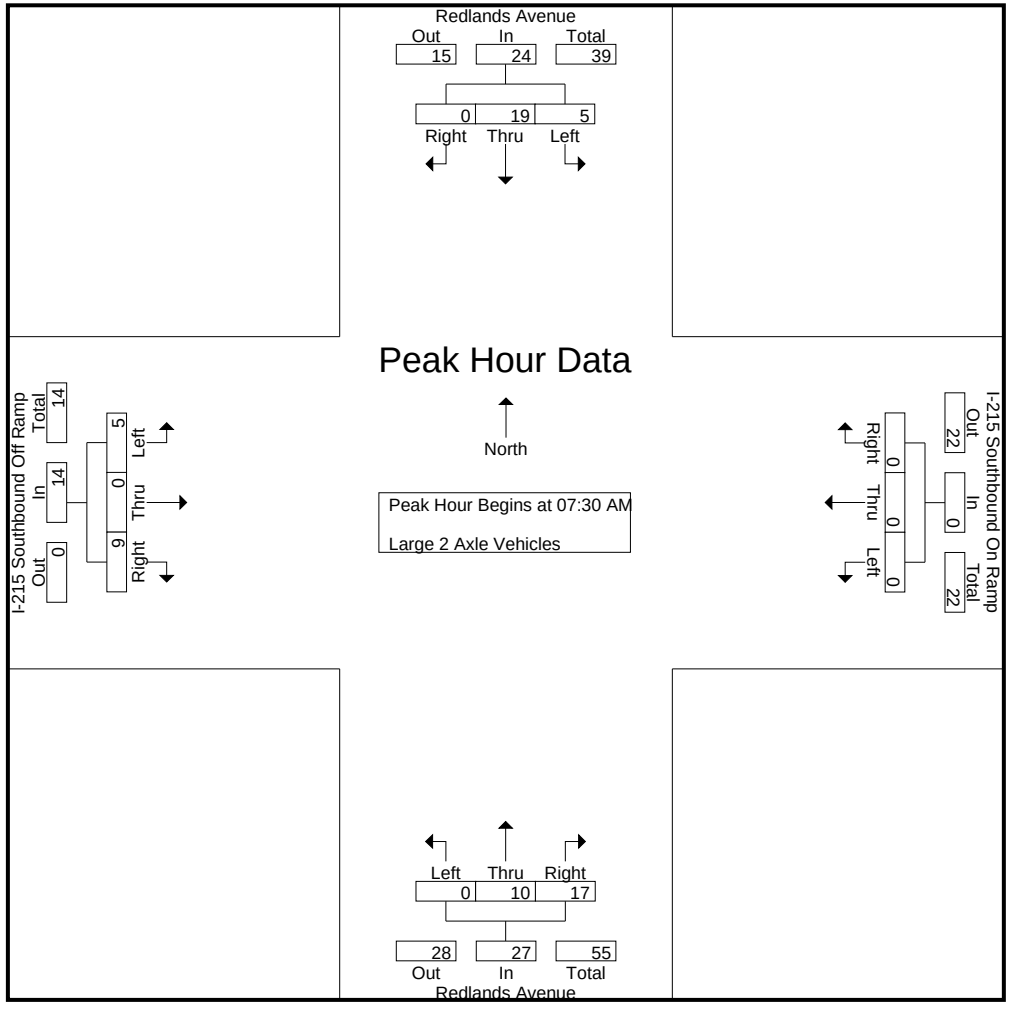
	Redlands Avenue Southbound					I-215 Southbound On Ramp Westbound					Redlands Avenue Northbound					I-215 Southbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	3	4	0	0	7	0	0	0	0	0	0	2	1	0	3	0	0	2	2	2	2	12	14
07:15 AM	1	7	0	0	8	0	0	0	0	0	0	2	3	0	5	1	0	2	1	3	1	16	17
07:30 AM	1	7	0	0	8	0	0	0	0	0	0	2	4	1	6	0	0	3	3	3	4	17	21
07:45 AM	2	6	0	0	8	0	0	0	0	0	0	3	1	0	4	3	0	0	0	3	0	15	15
Total	7	24	0	0	31	0	0	0	0	0	0	9	9	1	18	4	0	7	6	11	7	60	67
08:00 AM	2	3	0	0	5	0	0	0	0	0	0	2	8	1	10	2	0	4	3	6	4	21	25
08:15 AM	0	3	0	0	3	0	0	0	0	0	0	3	4	0	7	0	0	2	1	2	1	12	13
08:30 AM	1	4	0	0	5	0	0	0	0	0	0	6	2	0	8	0	0	2	2	2	2	15	17
08:45 AM	2	3	0	0	5	0	0	0	0	0	0	8	4	0	12	0	0	4	4	4	4	21	25
Total	5	13	0	0	18	0	0	0	0	0	0	19	18	1	37	2	0	12	10	14	11	69	80
Grand Total	12	37	0	0	49	0	0	0	0	0	0	28	27	2	55	6	0	19	16	25	18	129	147
Apprch %	24.5	75.5	0			0	0	0			0	50.9	49.1			24	0	76					
Total %	9.3	28.7	0		38	0	0	0		0	0	21.7	20.9		42.6	4.7	0	14.7		19.4	12.2	87.8	

	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	1	**7**	0	**8**	0	0	0	0	0	2	4	6	0	0	3	3	17
07:45 AM	**2**	6	0	8	0	0	0	0	0	**3**	1	4	**3**	0	0	3	15
08:00 AM	2	3	0	5	0	0	0	0	0	2	**8**	**10**	2	0	**4**	**6**	**21**
08:15 AM	0	3	0	3	0	0	0	0	0	3	4	7	0	0	2	2	12
Total Volume	5	19	0	24	0	0	0	0	0	10	17	27	5	0	9	14	65
% App. Total	20.8	79.2	0		0	0	0		0	37	63		35.7	0	64.3		
PHF	.625	.679	.000	.750	.000	.000	.000	.000	.000	.833	.531	.675	.417	.000	.563	.583	.774

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 2



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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S AM
Site Code : 05122096
Start Date : 2/3/2022

	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				07:30 AM				07:30 AM				07:30 AM				
+0 mins.	1	**7**	0	**8**	0	0	0	0	0	2	4	6	0	0	3	3	
+15 mins.	**2**	6	0	8	0	0	0	0	0	**3**	1	4	**3**	0	0	3	
+30 mins.	2	3	0	5	0	0	0	0	0	2	**8**	**10**	2	0	**4**	**6**	
+45 mins.	0	3	0	3	0	0	0	0	0	3	4	7	0	0	2	2	
Total Volume	5	19	0	24	0	0	0	0	0	10	17	27	5	0	9	14	
% App. Total	20.8	79.2	0		0	0	0		0	37	63		35.7	0	64.3		
PHF	.625	.679	.000	.750	.000	.000	.000	.000	.000	.833	.531	.675	.417	.000	.563	.583	

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S AM
Site Code : 05122096
Start Date : 2/3/2022
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Groups Printed- 3 Axle Vehicles

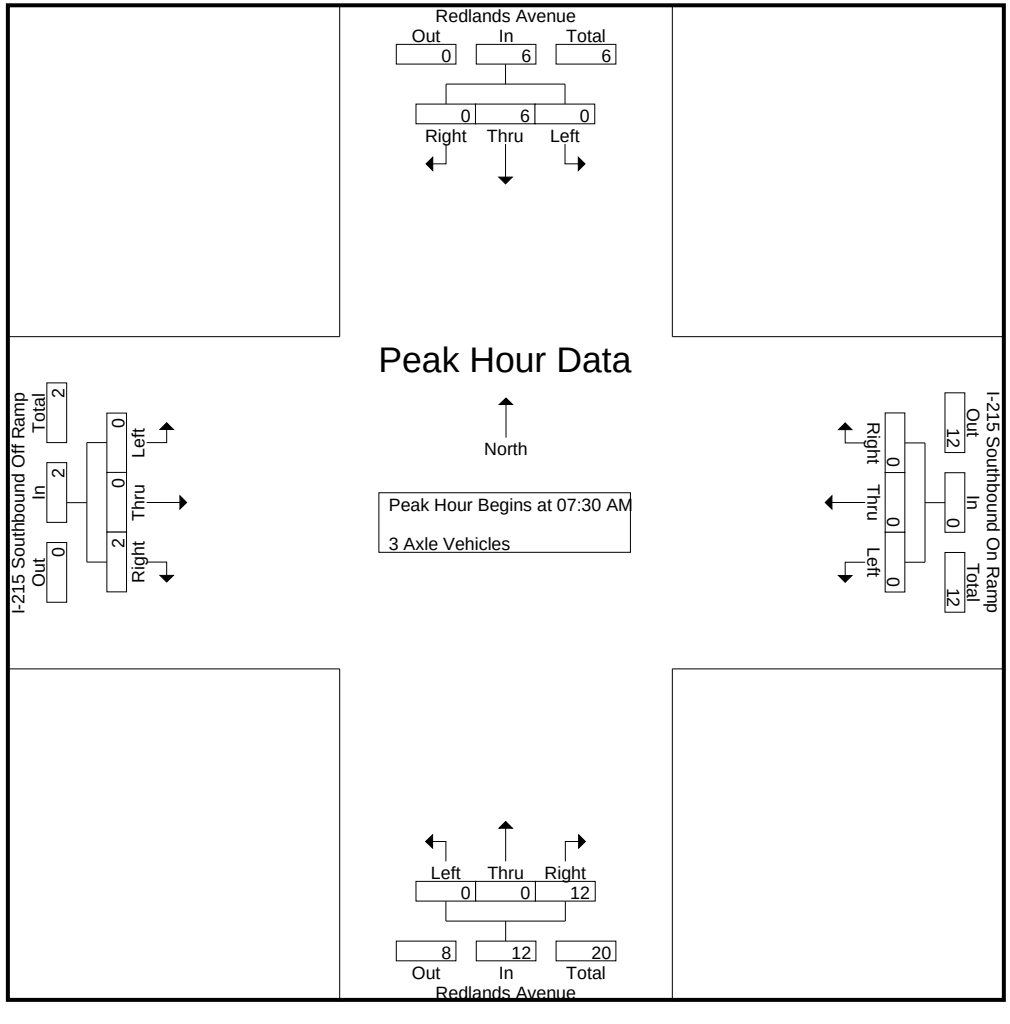
	Redlands Avenue Southbound					I-215 Southbound On Ramp Westbound					Redlands Avenue Northbound					I-215 Southbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	1	0	0	1	0	0	0	0	0	0	1	3	0	4	0	0	1	1	1	1	6	7
07:15 AM	0	1	0	0	1	0	0	0	0	0	0	2	1	0	3	1	0	1	1	2	1	6	7
07:30 AM	0	3	0	0	3	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	5	5
07:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	2
Total	0	6	0	0	6	0	0	0	0	0	0	3	7	0	10	1	0	2	2	3	2	19	21
08:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	7	0	7	0	0	0	0	0	0	8	8
08:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	2	0	2	0	0	2	1	2	1	5	6
08:30 AM	0	3	0	0	3	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	0	6	6
08:45 AM	0	6	0	0	6	0	0	0	0	0	0	2	4	0	6	0	0	0	0	0	0	12	12
Total	0	11	0	0	11	0	0	0	0	0	0	2	15	0	17	1	0	2	1	3	1	31	32
Grand Total	0	17	0	0	17	0	0	0	0	0	0	5	22	0	27	2	0	4	3	6	3	50	53
Apprch %	0	100	0			0	0	0			0	18.5	81.5			33.3	0	66.7					
Total %	0	34	0		34	0	0	0		0	0	10	44		54	4	0	8		12	5.7	94.3	

	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	**3**	0	**3**	0	0	0	0	0	0	2	2	0	0	0	0	5
07:45 AM	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	2
08:00 AM	0	1	0	1	0	0	0	0	0	0	**7**	**7**	0	0	0	0	**8**
08:15 AM	0	1	0	1	0	0	0	0	0	0	2	2	0	0	**2**	**2**	5
Total Volume	0	6	0	6	0	0	0	0	0	0	12	12	0	0	2	2	20
% App. Total	0	100	0		0	0	0		0	0	100		0	0	100		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.429	.429	.000	.000	.250	.250	.625

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 2



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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S AM
Site Code : 05122096
Start Date : 2/3/2022

	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				07:30 AM				07:30 AM				07:30 AM				
+0 mins.	0	**3**	0	**3**	0	0	0	0	0	0	2	2	0	0	0	0	
+15 mins.	0	1	0	1	0	0	0	0	0	0	1	1	0	0	0	0	
+30 mins.	0	1	0	1	0	0	0	0	0	0	**7**	**7**	0	0	0	0	
+45 mins.	0	1	0	1	0	0	0	0	0	0	2	2	0	0	**2**	**2**	
Total Volume	0	6	0	6	0	0	0	0	0	0	12	12	0	0	2	2	
% App. Total	0	100	0		0	0	0		0	0	100		0	0	100		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.429	.429	.000	.000	.250	.250	

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

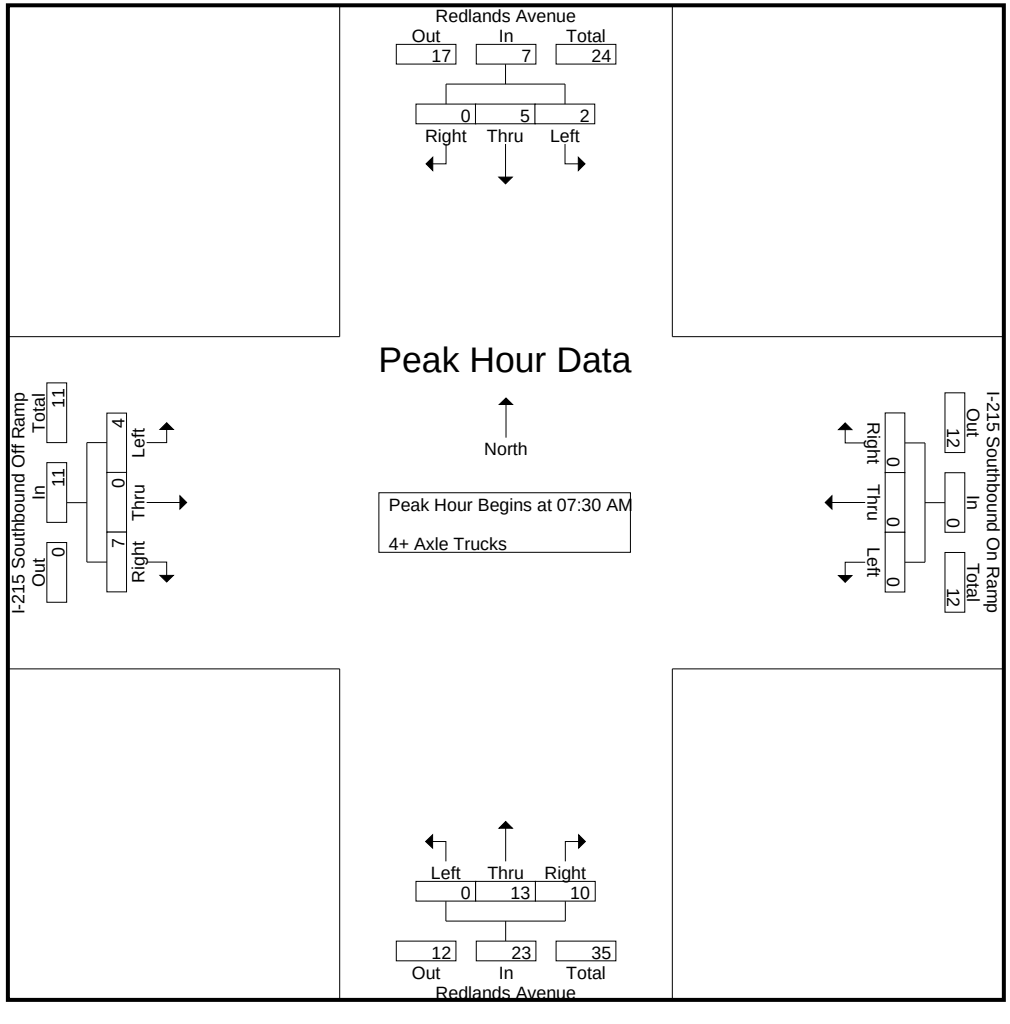
	Redlands Avenue Southbound					I-215 Southbound On Ramp Westbound					Redlands Avenue Northbound					I-215 Southbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	3	0	0	4	0	0	0	0	0	0	1	1	0	2	0	0	3	2	3	2	9	11
07:15 AM	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	2	1	2	1	7	8
07:30 AM	1	2	0	0	3	0	0	0	0	0	0	4	1	0	5	1	0	1	1	2	1	10	11
07:45 AM	1	0	0	0	1	0	0	0	0	0	0	1	4	0	5	0	0	2	0	2	0	8	8
Total	3	7	0	0	10	0	0	0	0	0	0	9	6	0	15	1	0	8	4	9	4	34	38
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	2	0	5	0	0	3	1	3	1	8	9
08:15 AM	0	3	0	0	3	0	0	0	0	0	0	5	3	0	8	3	0	1	0	4	0	15	15
08:30 AM	0	1	0	0	1	0	0	0	0	0	0	5	0	0	5	0	0	5	3	5	3	11	14
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	3	0	4	0	0	0	0	0	0	4	4
Total	0	4	0	0	4	0	0	0	0	0	0	14	8	0	22	3	0	9	4	12	4	38	42
Grand Total	3	11	0	0	14	0	0	0	0	0	0	23	14	0	37	4	0	17	8	21	8	72	80
Apprch %	21.4	78.6	0			0	0	0			0	62.2	37.8			19	0	81					
Total %	4.2	15.3	0		19.4	0	0	0		0	0	31.9	19.4		51.4	5.6	0	23.6		29.2	10	90	

	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**1**	2	0	**3**	0	0	0	0	0	4	1	5	1	0	1	2	10
07:45 AM	1	0	0	1	0	0	0	0	0	1	**4**	5	0	0	2	2	8
08:00 AM	0	0	0	0	0	0	0	0	0	3	2	5	0	0	**3**	3	8
08:15 AM	0	**3**	0	3	0	0	0	0	0	**5**	3	**8**	**3**	0	1	**4**	**15**
Total Volume	2	5	0	7	0	0	0	0	0	13	10	23	4	0	7	11	41
% App. Total	28.6	71.4	0		0	0	0		0	56.5	43.5		36.4	0	63.6		
PHF	.500	.417	.000	.583	.000	.000	.000	.000	.000	.650	.625	.719	.333	.000	.583	.688	.683

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S AM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 2



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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
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File Name : 03_PER_Redlands_215S AM
Site Code : 05122096
Start Date : 2/3/2022

	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
	07:30 AM				07:30 AM				07:30 AM				07:30 AM				
+0 mins.	**1**	2	0	**3**	0	0	0	0	0	4	1	5	1	0	1	2	
+15 mins.	1	0	0	1	0	0	0	0	0	1	**4**	5	0	0	2	2	
+30 mins.	0	0	0	0	0	0	0	0	0	3	2	5	0	0	**3**	3	
+45 mins.	0	**3**	0	3	0	0	0	0	0	**5**	3	**8**	**3**	0	1	**4**	
Total Volume	2	5	0	7	0	0	0	0	0	13	10	23	4	0	7	11	
% App. Total	28.6	71.4	0		0	0	0		0	56.5	43.5		36.4	0	63.6		
PHF	.500	.417	.000	.583	.000	.000	.000	.000	.000	.650	.625	.719	.333	.000	.583	.688	

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City of Perris
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File Name : 03_PER_Redlands_215S PM
Site Code : 05122096
Start Date : 2/3/2022
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

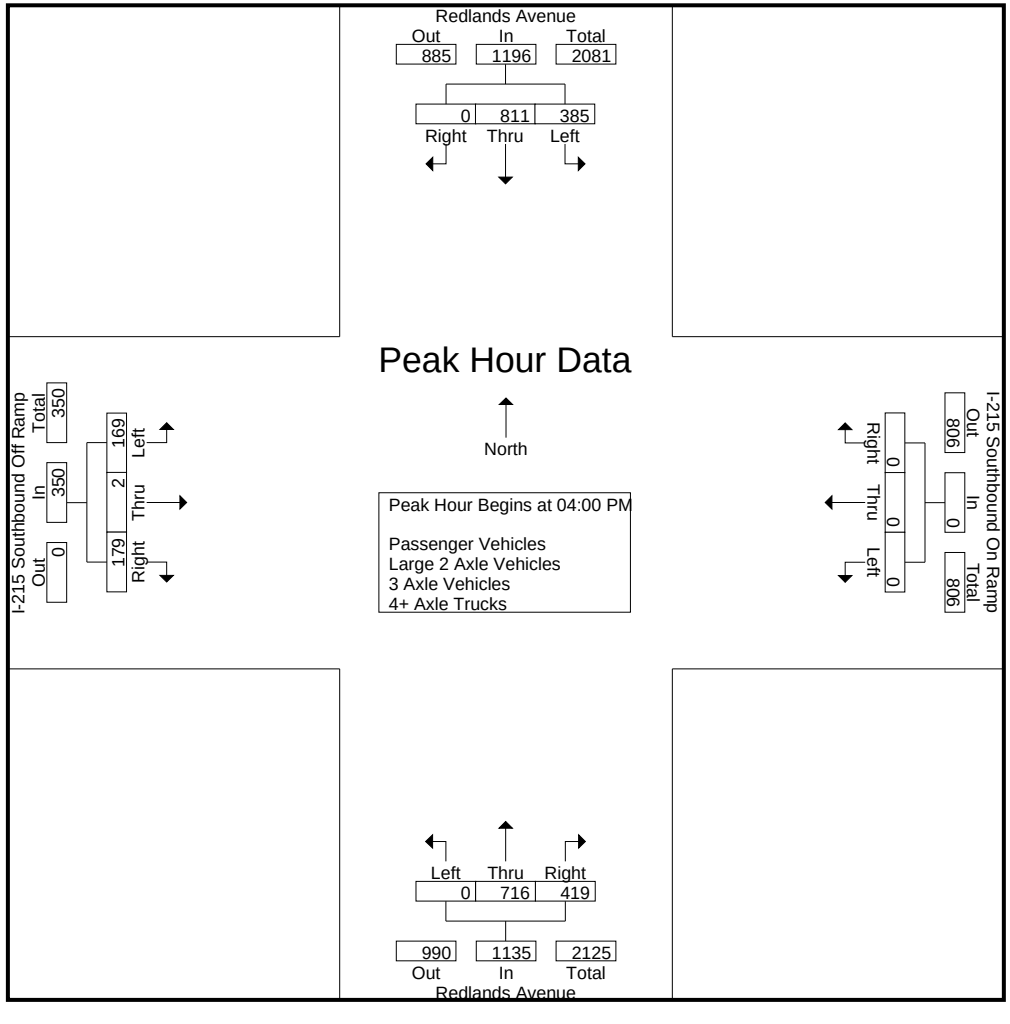
	Redlands Avenue Southbound					I-215 Southbound On Ramp Westbound					Redlands Avenue Northbound					I-215 Southbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	100	200	0	0	300	0	0	0	0	0	0	178	102	51	280	48	1	42	26	91	77	671	748
04:15 PM	90	232	0	0	322	0	0	0	0	0	0	168	106	20	274	37	1	44	29	82	49	678	727
04:30 PM	85	196	0	0	281	0	0	0	0	0	0	207	99	20	306	45	0	44	32	89	52	676	728
04:45 PM	110	183	0	0	293	0	0	0	0	0	0	163	112	24	275	39	0	49	32	88	56	656	712
Total	385	811	0	0	1196	0	0	0	0	0	0	716	419	115	1135	169	2	179	119	350	234	2681	2915
05:00 PM	102	191	0	0	293	0	0	0	0	0	0	180	107	22	287	20	0	53	38	73	60	653	713
05:15 PM	78	177	0	0	255	0	0	0	0	0	0	182	96	14	278	43	1	41	29	85	43	618	661
05:30 PM	82	166	0	0	248	0	0	0	0	0	0	199	77	11	276	30	0	35	26	65	37	589	626
05:45 PM	73	173	0	0	246	0	0	0	0	0	0	162	85	14	247	37	0	41	24	78	38	571	609
Total	335	707	0	0	1042	0	0	0	0	0	0	723	365	61	1088	130	1	170	117	301	178	2431	2609
Grand Total	720	1518	0	0	2238	0	0	0	0	0	0	1439	784	176	2223	299	3	349	236	651	412	5112	5524
Apprch %	32.2	67.8	0			0	0	0			0	64.7	35.3			45.9	0.5	53.6					
Total %	14.1	29.7	0		43.8	0	0	0		0	0	28.1	15.3		43.5	5.8	0.1	6.8		12.7	7.5	92.5	
Passenger Vehicles	711	1467	0		2178	0	0	0		0	0	1401	756		2328	293	3	320		840	0	0	5346
% Passenger Vehicles	98.8	96.6	0	0	97.3	0	0	0	0	0	0	97.4	96.4	97.2	97	98	100	91.7	94.9	94.7	0	0	96.8
Large 2 Axle Vehicles	8	30	0		38	0	0	0		0	0	21	25		49	5	0	10		21	0	0	108
% Large 2 Axle Vehicles	1.1	2	0	0	1.7	0	0	0	0	0	0	1.5	3.2	1.7	2	1.7	0	2.9	2.5	2.4	0	0	2
3 Axle Vehicles	0	18	0		18	0	0	0		0	0	3	2		6	1	0	4		7	0	0	31
% 3 Axle Vehicles	0	1.2	0	0	0.8	0	0	0	0	0	0	0.2	0.3	0.6	0.3	0.3	0	1.1	0.8	0.8	0	0	0.6
4+ Axle Trucks	1	3	0		4	0	0	0		0	0	14	1		16	0	0	15		19	0	0	39
% 4+ Axle Trucks	0.1	0.2	0	0	0.2	0	0	0	0	0	0	1	0.1	0.6	0.7	0	0	4.3	1.7	2.1	0	0	0.7

	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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	100	200	0	300	0	0	0	0	0	178	102	280	**48**	**1**	42	**91**	671
04:15 PM	90	**232**	0	**322**	0	0	0	0	0	168	106	274	37	1	44	82	**678**
04:30 PM	85	196	0	281	0	0	0	0	0	**207**	99	**306**	45	0	44	89	676
04:45 PM	**110**	183	0	293	0	0	0	0	0	163	**112**	275	39	0	**49**	88	656
Total Volume	385	811	0	1196	0	0	0	0	0	716	419	1135	169	2	179	350	2681
% App. Total	32.2	67.8	0		0	0	0		0	63.1	36.9		48.3	0.6	51.1		
PHF	.875	.874	.000	.929	.000	.000	.000	.000	.000	.865	.935	.927	.880	.500	.913	.962	.989

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S PM
Site Code : 05122096
Start Date : 2/3/2022
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File Name : 03_PER_Redlands_215S PM
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	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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 Each Approach Begins at:																	
	04:00 PM				04:00 PM				04:30 PM				04:00 PM				
+0 mins.	100	200	0	300	0	0	0	0	0	**207**	99	**306**	**48**	**1**	42	**91**	
+15 mins.	90	**232**	0	**322**	0	0	0	0	0	163	**112**	275	37	1	44	82	
+30 mins.	85	196	0	281	0	0	0	0	0	180	107	287	45	0	44	89	
+45 mins.	**110**	183	0	293	0	0	0	0	0	182	96	278	39	0	**49**	88	
Total Volume	385	811	0	1196	0	0	0	0	0	732	414	1146	169	2	179	350	
% App. Total	32.2	67.8	0		0	0	0		0	63.9	36.1		48.3	0.6	51.1		
PHF	.875	.874	.000	.929	.000	.000	.000	.000	.000	.884	.924	.936	.880	.500	.913	.962	

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Page No : 1

Groups Printed- Passenger Vehicles

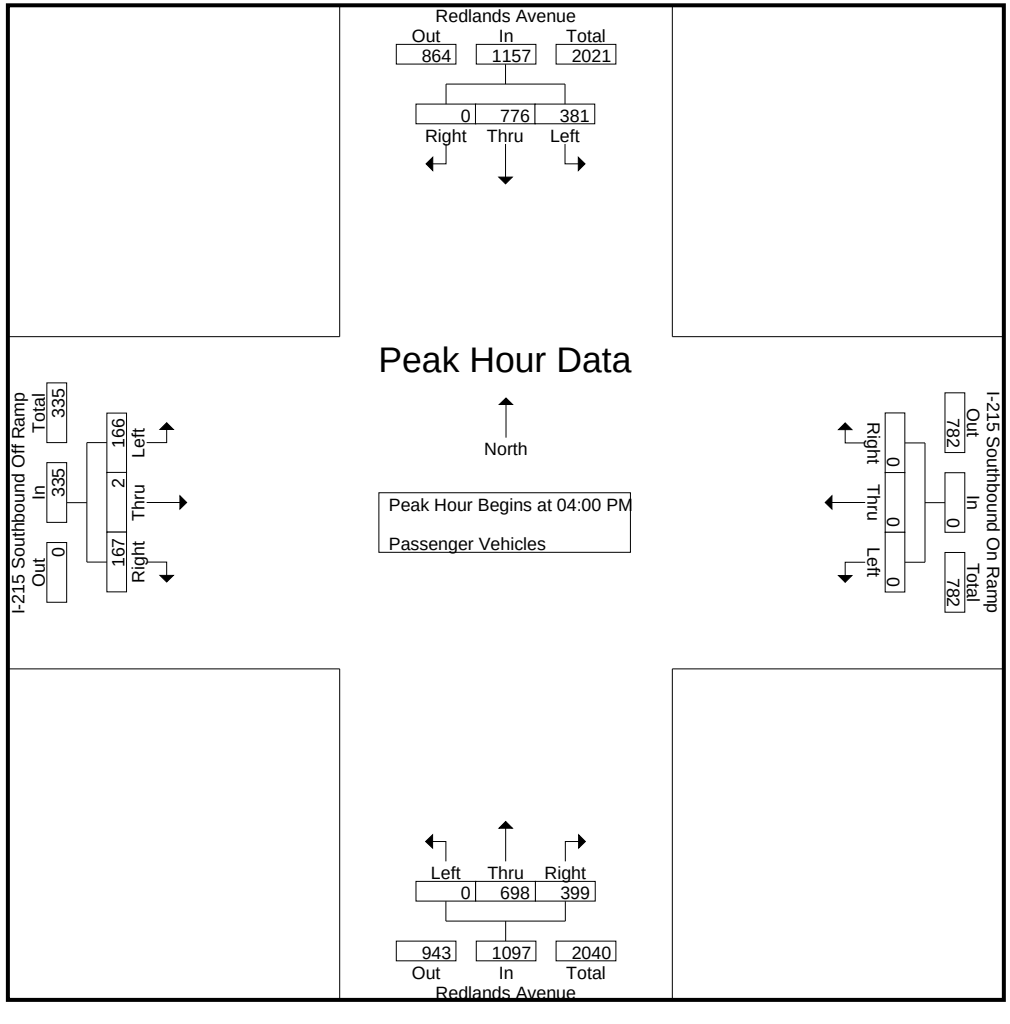
	Redlands Avenue Southbound					I-215 Southbound On Ramp Westbound					Redlands Avenue Northbound					I-215 Southbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	100	193	0	0	293	0	0	0	0	0	0	175	98	49	273	48	1	34	23	83	72	649	721
04:15 PM	88	218	0	0	306	0	0	0	0	0	0	165	100	19	265	36	1	43	29	80	48	651	699
04:30 PM	85	187	0	0	272	0	0	0	0	0	0	201	95	19	296	44	0	42	31	86	50	654	704
04:45 PM	108	178	0	0	286	0	0	0	0	0	0	157	106	23	263	38	0	48	32	86	55	635	690
Total	381	776	0	0	1157	0	0	0	0	0	0	698	399	110	1097	166	2	167	115	335	225	2589	2814
05:00 PM	99	186	0	0	285	0	0	0	0	0	0	175	103	22	278	18	0	50	36	68	58	631	689
05:15 PM	78	175	0	0	253	0	0	0	0	0	0	175	95	14	270	42	1	37	27	80	41	603	644
05:30 PM	81	159	0	0	240	0	0	0	0	0	0	194	74	11	268	30	0	30	23	60	34	568	602
05:45 PM	72	171	0	0	243	0	0	0	0	0	0	159	85	14	244	37	0	36	23	73	37	560	597
Total	330	691	0	0	1021	0	0	0	0	0	0	703	357	61	1060	127	1	153	109	281	170	2362	2532
Grand Total	711	1467	0	0	2178	0	0	0	0	0	0	1401	756	171	2157	293	3	320	224	616	395	4951	5346
Apprch %	32.6	67.4	0			0	0	0			0	65	35			47.6	0.5	51.9					
Total %	14.4	29.6	0		44	0	0	0		0	0	28.3	15.3		43.6	5.9	0.1	6.5		12.4	7.4	92.6	

	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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	100	193	0	293	0	0	0	0	0	175	98	273	**48**	**1**	34	83	649
04:15 PM	88	**218**	0	**306**	0	0	0	0	0	165	100	265	36	1	43	80	651
04:30 PM	85	187	0	272	0	0	0	0	0	**201**	95	**296**	44	0	42	**86**	**654**
04:45 PM	**108**	178	0	286	0	0	0	0	0	157	**106**	263	38	0	**48**	86	635
Total Volume	381	776	0	1157	0	0	0	0	0	698	399	1097	166	2	167	335	2589
% App. Total	32.9	67.1	0		0	0	0		0	63.6	36.4		49.6	0.6	49.9		
PHF	.882	.890	.000	.945	.000	.000	.000	.000	.000	.868	.941	.927	.865	.500	.870	.974	.990

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City of Perris
N/S: Redlands Avenue
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Weather: Clear

File Name : 03_PER_Redlands_215S PM
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Start Date : 2/3/2022
Page No : 2



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	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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 Each Approach Begins at:																	
	04:00 PM				04:00 PM				04:00 PM				04:00 PM				
+0 mins.	100	193	0	293	0	0	0	0	0	175	98	273	**48**	**1**	34	83	
+15 mins.	88	**218**	0	**306**	0	0	0	0	0	165	100	265	36	1	43	80	
+30 mins.	85	187	0	272	0	0	0	0	0	**201**	95	**296**	44	0	42	**86**	
+45 mins.	**108**	178	0	286	0	0	0	0	0	157	**106**	263	38	0	**48**	86	
Total Volume	381	776	0	1157	0	0	0	0	0	698	399	1097	166	2	167	335	
% App. Total	32.9	67.1	0		0	0	0		0	63.6	36.4		49.6	0.6	49.9		
PHF	.882	.890	.000	.945	.000	.000	.000	.000	.000	.868	.941	.927	.865	.500	.870	.974	

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File Name : 03_PER_Redlands_215S PM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 1

Groups Printed- Large 2 Axle Vehicles

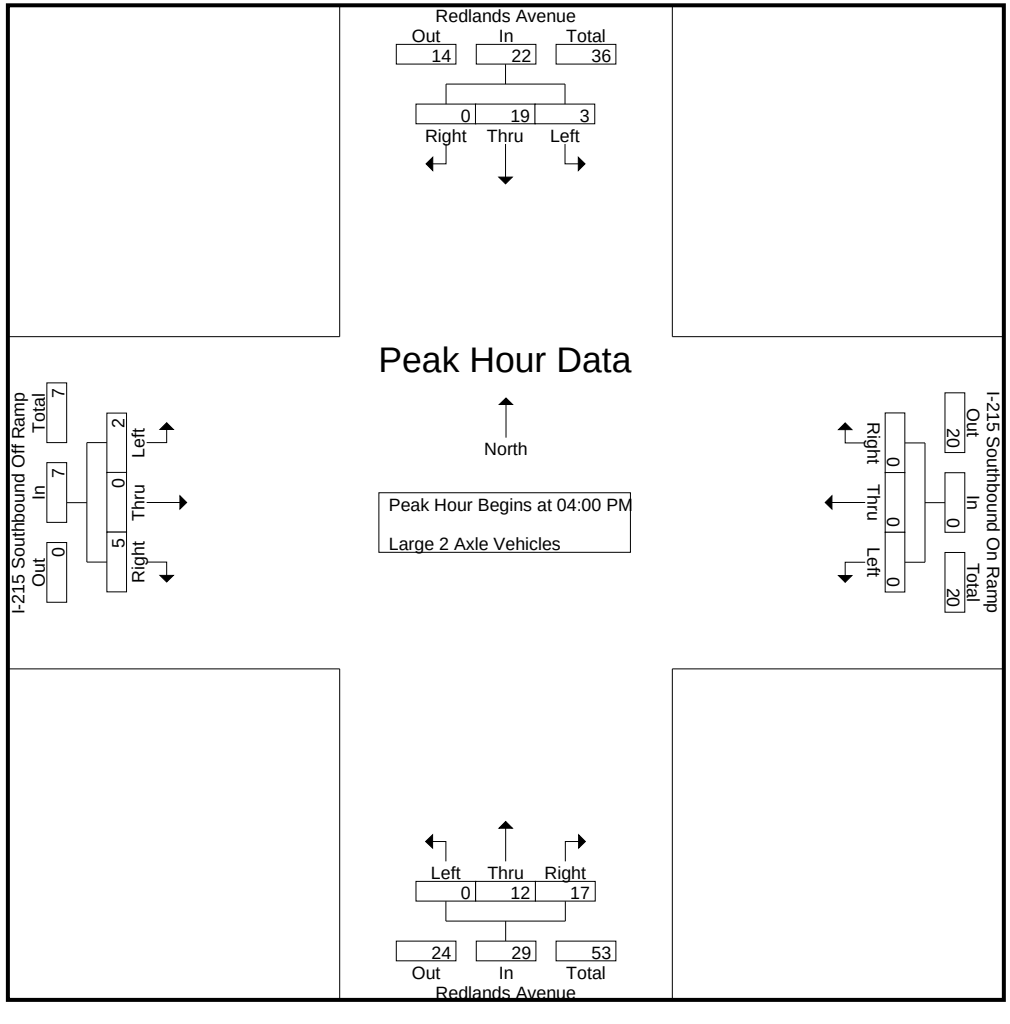
	Redlands Avenue Southbound					I-215 Southbound On Ramp Westbound					Redlands Avenue Northbound					I-215 Southbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	3	0	0	3	0	0	0	0	0	0	3	2	1	5	0	0	3	2	3	3	11	14
04:15 PM	1	8	0	0	9	0	0	0	0	0	0	0	6	1	6	1	0	0	0	1	1	16	17
04:30 PM	0	5	0	0	5	0	0	0	0	0	0	5	3	0	8	0	0	1	1	1	1	14	15
04:45 PM	2	3	0	0	5	0	0	0	0	0	0	4	6	1	10	1	0	1	0	2	1	17	18
Total	3	19	0	0	22	0	0	0	0	0	0	12	17	3	29	2	0	5	3	7	6	58	64
05:00 PM	3	4	0	0	7	0	0	0	0	0	0	2	4	0	6	2	0	2	2	4	2	17	19
05:15 PM	0	1	0	0	1	0	0	0	0	0	0	3	1	0	4	1	0	1	1	2	1	7	8
05:30 PM	1	4	0	0	5	0	0	0	0	0	0	3	3	0	6	0	0	1	0	1	0	12	12
05:45 PM	1	2	0	0	3	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	5	5
Total	5	11	0	0	16	0	0	0	0	0	0	9	8	0	17	3	0	5	3	8	3	41	44
Grand Total	8	30	0	0	38	0	0	0	0	0	0	21	25	3	46	5	0	10	6	15	9	99	108
Apprch %	21.1	78.9	0			0	0	0			0	45.7	54.3			33.3	0	66.7					
Total %	8.1	30.3	0		38.4	0	0	0		0	0	21.2	25.3		46.5	5.1	0	10.1		15.2	8.3	91.7	

	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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	3	0	3	0	0	0	0	0	3	2	5	0	0	**3**	**3**	11
04:15 PM	1	**8**	0	**9**	0	0	0	0	0	0	**6**	6	**1**	0	0	1	16
04:30 PM	0	5	0	5	0	0	0	0	0	**5**	3	8	0	0	1	1	14
04:45 PM	**2**	3	0	5	0	0	0	0	0	4	6	**10**	1	0	1	2	**17**
Total Volume	3	19	0	22	0	0	0	0	0	12	17	29	2	0	5	7	58
% App. Total	13.6	86.4	0		0	0	0		0	41.4	58.6		28.6	0	71.4		
PHF	.375	.594	.000	.611	.000	.000	.000	.000	.000	.600	.708	.725	.500	.000	.417	.583	.853

Counts Unlimited, Inc.
PO Box 1178
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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S PM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 2



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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S PM
Site Code : 05122096
Start Date : 2/3/2022

	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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 Each Approach Begins at:																	
	04:00 PM				04:00 PM				04:00 PM				04:00 PM				
+0 mins.	0	3	0	3	0	0	0	0	0	3	2	5	0	0	**3**	**3**	
+15 mins.	1	**8**	0	**9**	0	0	0	0	0	0	**6**	6	**1**	0	0	1	
+30 mins.	0	5	0	5	0	0	0	0	0	**5**	3	8	0	0	1	1	
+45 mins.	**2**	3	0	5	0	0	0	0	0	4	6	**10**	1	0	1	2	
Total Volume	3	19	0	22	0	0	0	0	0	12	17	29	2	0	5	7	
% App. Total	13.6	86.4	0		0	0	0		0	41.4	58.6		28.6	0	71.4		
PHF	.375	.594	.000	.611	.000	.000	.000	.000	.000	.600	.708	.725	.500	.000	.417	.583	

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S PM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

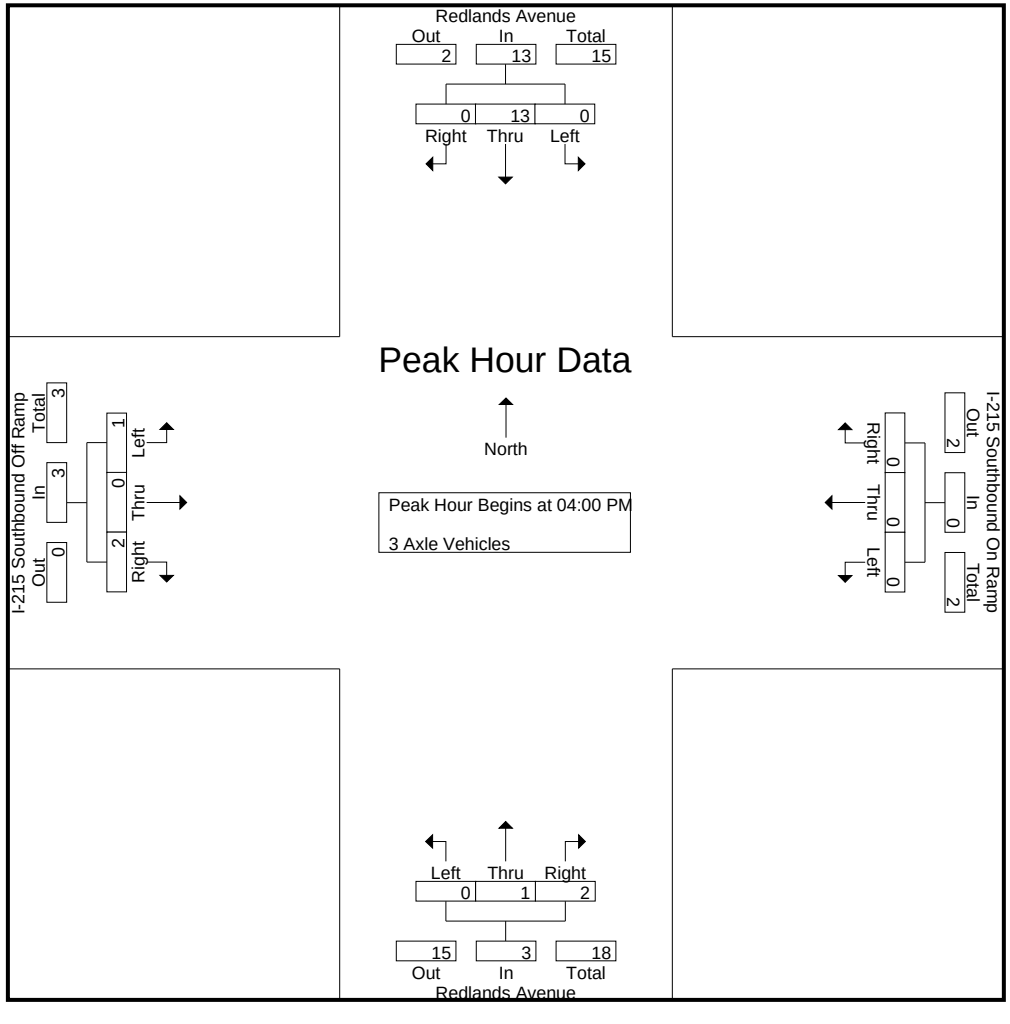
	Redlands Avenue Southbound					I-215 Southbound On Ramp Westbound					Redlands Avenue Northbound					I-215 Southbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	3	0	0	3	0	0	0	0	0	0	0	2	1	2	0	0	2	0	2	1	7	8
04:15 PM	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	6	6
04:30 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	4	4
04:45 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	0	13	0	0	13	0	0	0	0	0	0	1	2	1	3	1	0	2	0	3	1	19	20
05:00 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	2	2
05:15 PM	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	1	1	1	1	3	4
05:30 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	4	5
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	5	0	0	5	0	0	0	0	0	0	2	0	0	2	0	0	2	2	2	2	9	11
Grand Total	0	18	0	0	18	0	0	0	0	0	0	3	2	1	5	1	0	4	2	5	3	28	31
Apprch %	0	100	0			0	0	0			0	60	40			20	0	80					
Total %	0	64.3	0		64.3	0	0	0		0	0	10.7	7.1		17.9	3.6	0	14.3		17.9	9.7	90.3	

	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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	3	0	3	0	0	0	0	0	0	**2**	**2**	0	0	**2**	**2**	**7**
04:15 PM	0	**5**	0	**5**	0	0	0	0	0	**1**	0	1	0	0	0	0	6
04:30 PM	0	3	0	3	0	0	0	0	0	0	0	0	**1**	0	0	1	4
04:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Total Volume	0	13	0	13	0	0	0	0	0	1	2	3	1	0	2	3	19
% App. Total	0	100	0		0	0	0		0	33.3	66.7		33.3	0	66.7		
PHF	.000	.650	.000	.650	.000	.000	.000	.000	.000	.250	.250	.375	.250	.000	.250	.375	.679

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S PM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 2



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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S PM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 3

	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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 Each Approach Begins at:																	
	04:00 PM				04:00 PM				04:00 PM				04:00 PM				
+0 mins.	0	3	0	3	0	0	0	0	0	0	**2**	**2**	0	0	**2**	**2**	
+15 mins.	0	**5**	0	**5**	0	0	0	0	0	**1**	0	1	0	0	0	0	
+30 mins.	0	3	0	3	0	0	0	0	0	0	0	0	**1**	0	0	1	
+45 mins.	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
Total Volume	0	13	0	13	0	0	0	0	0	1	2	3	1	0	2	3	
% App. Total	0	100	0		0	0	0		0	33.3	66.7		33.3	0	66.7		
PHF	.000	.650	.000	.650	.000	.000	.000	.000	.000	.250	.250	.375	.250	.000	.250	.375	

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S PM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 1

Groups Printed- 4+ Axle Trucks

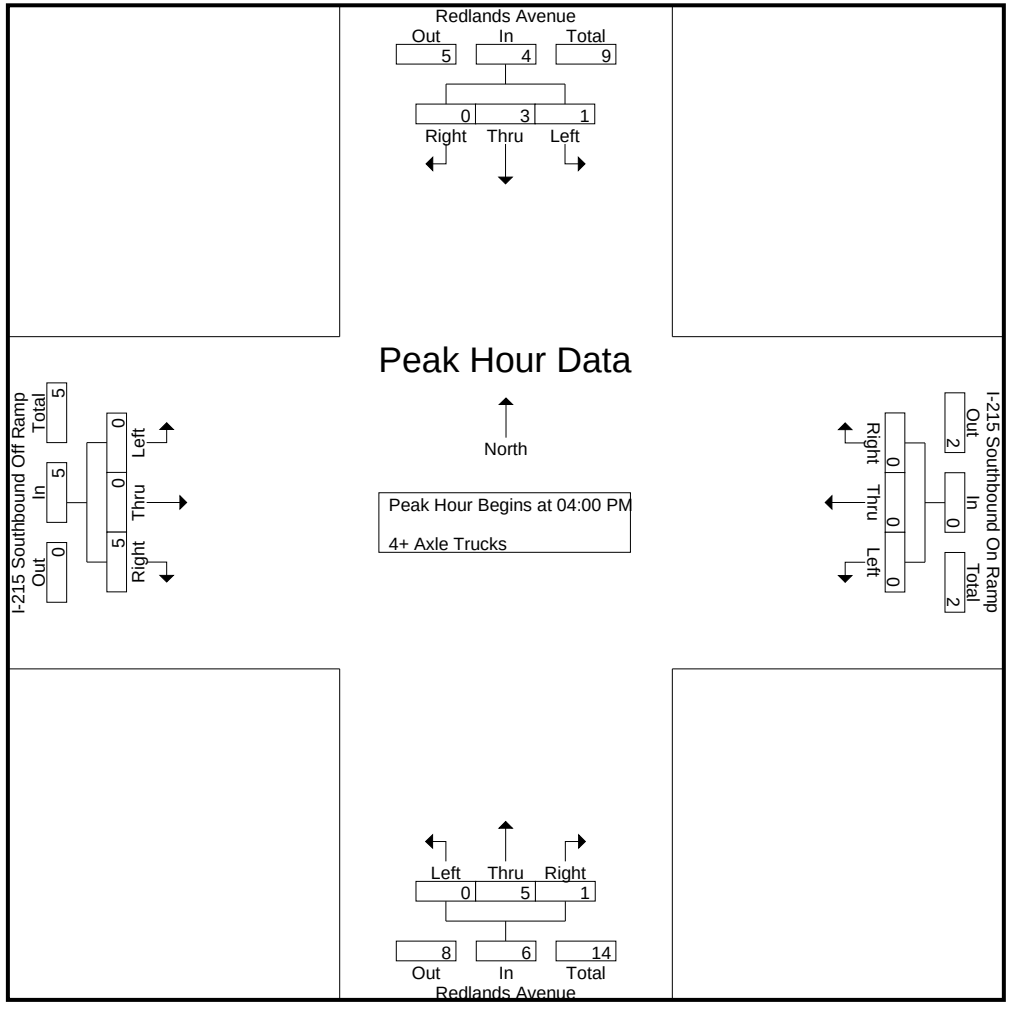
	Redlands Avenue Southbound					I-215 Southbound On Ramp Westbound					Redlands Avenue Northbound					I-215 Southbound Off Ramp Eastbound							
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	1	3	1	4	5
04:15 PM	1	1	0	0	2	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	5	5
04:30 PM	0	1	0	0	1	0	0	0	0	0	0	1	1	1	2	0	0	1	0	1	1	4	5
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	2	2
Total	1	3	0	0	4	0	0	0	0	0	0	5	1	1	6	0	0	5	1	5	2	15	17
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	3	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	2	0	2	0	5	5
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	3	2	3	2	5	7
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	4	1	4	1	6	7
Total	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	0	0	10	3	10	3	19	22
Grand Total	1	3	0	0	4	0	0	0	0	0	0	14	1	1	15	0	0	15	4	15	5	34	39
Apprch %	25	75	0			0	0	0			0	93.3	6.7			0	0	100					
Total %	2.9	8.8	0		11.8	0	0	0		0	0	41.2	2.9		44.1	0	0	44.1		44.1	12.8	87.2	

	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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	**1**	0	1	0	0	0	0	0	0	0	0	0	0	**3**	**3**	4
04:15 PM	**1**	1	0	**2**	0	0	0	0	0	**2**	0	**2**	0	0	1	1	**5**
04:30 PM	0	1	0	1	0	0	0	0	0	1	**1**	2	0	0	1	1	4
04:45 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
Total Volume	1	3	0	4	0	0	0	0	0	5	1	6	0	0	5	5	15
% App. Total	25	75	0		0	0	0		0	83.3	16.7		0	0	100		
PHF	.250	.750	.000	.500	.000	.000	.000	.000	.000	.625	.250	.750	.000	.000	.417	.417	.750

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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S PM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 2



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City of Perris
N/S: Redlands Avenue
E/W: I-215 Southbound Ramps
Weather: Clear

File Name : 03_PER_Redlands_215S PM
Site Code : 05122096
Start Date : 2/3/2022
Page No : 3

	Redlands Avenue Southbound				I-215 Southbound On Ramp Westbound				Redlands Avenue Northbound				I-215 Southbound 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 Each Approach Begins at:																	
	04:00 PM				04:00 PM				04:00 PM				04:00 PM				
+0 mins.	0	**1**	0	1	0	0	0	0	0	0	0	0	0	0	**3**	**3**	
+15 mins.	**1**	1	0	**2**	0	0	0	0	0	**2**	0	**2**	0	0	1	1	
+30 mins.	0	1	0	1	0	0	0	0	0	1	**1**	2	0	0	1	1	
+45 mins.	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	
Total Volume	1	3	0	4	0	0	0	0	0	5	1	6	0	0	5	5	
% App. Total	25	75	0		0	0	0		0	83.3	16.7		0	0	100		
PHF	.250	.750	.000	.500	.000	.000	.000	.000	.000	.625	.250	.750	.000	.000	.417	.417	

Location: Perris
N/S: Redlands Avenue
E/W: I-215 SB Ramps

Date: 2/3/2022
Day: Thursday

PEDESTRIANS

	North Leg Redlands Avenue	East Leg I-215 SB Ramps	South Leg Redlands Avenue	West Leg I-215 SB 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	1	1
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	1	1
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	1	1
TOTAL VOLUMES:	0	0	0	3	3

	North Leg Redlands Avenue	East Leg I-215 SB Ramps	South Leg Redlands Avenue	West Leg I-215 SB Ramps	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	3	3
4:15 PM	0	0	0	4	4
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	2	2
5:15 PM	0	0	0	2	2
5:30 PM	0	0	0	2	2
5:45 PM	0	0	0	1	1
TOTAL VOLUMES:	0	0	0	14	14

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Location: Perris
N/S: Redlands Avenue
E/W: I-215 SB Ramps

Date: 2/3/2022
Day: Thursday

BICYCLES

	Southbound Redlands Avenue			Westbound I-215 SB Ramps			Northbound Redlands Avenue			Eastbound I-215 SB 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 Redlands Avenue			Westbound I-215 SB Ramps			Northbound Redlands Avenue			Eastbound I-215 SB Ramps			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
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	2	0	0	0	0	2
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	3	0	0	0	0	0	2	0	0	0	0	5

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City of Perris
N/S: Redlands Avenue
E/W: 4th Street
Weather: Clear

File Name : 05_PER_Red_4th AM
Site Code : 05723540
Start Date : 5/23/2023
Page No : 1

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

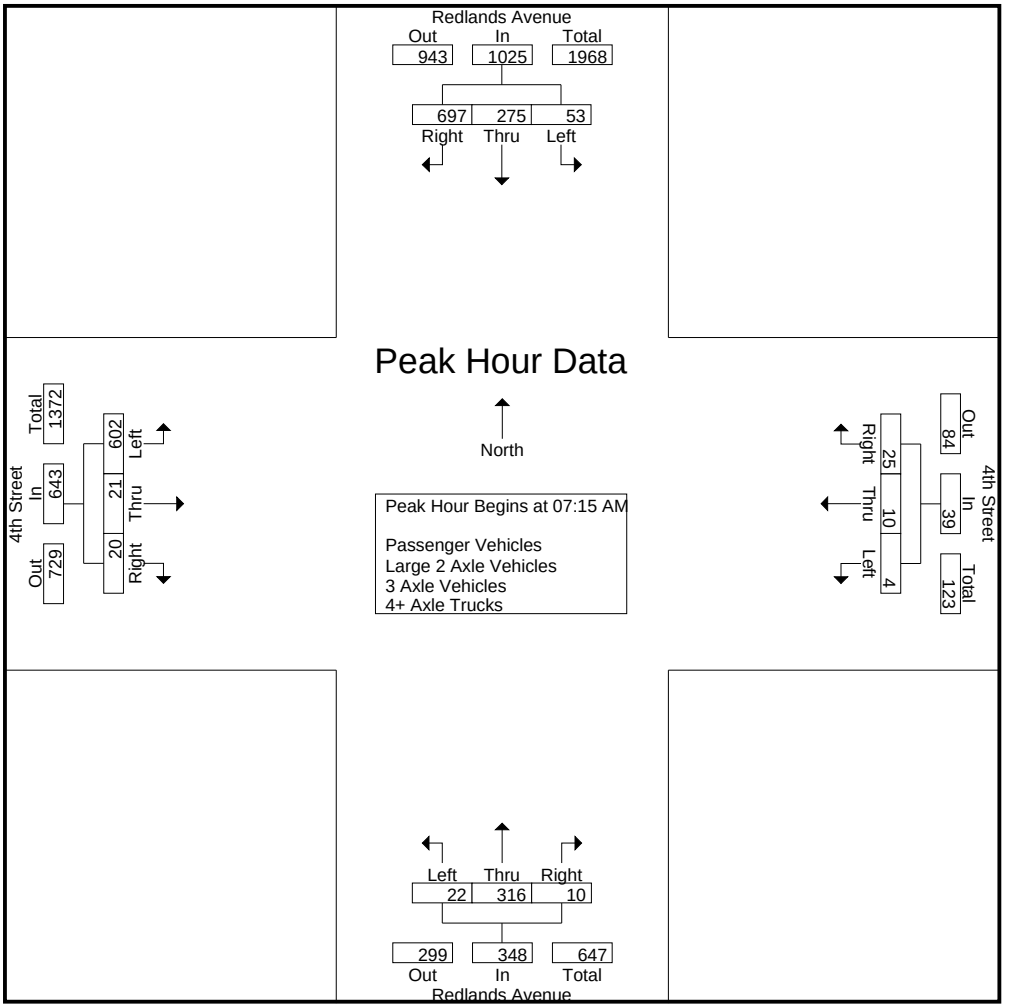
	Redlands Avenue Southbound				4th Street Westbound				Redlands Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	40	141	183	0	4	0	4	2	50	0	52	126	5	6	137	376
07:15 AM	13	58	148	219	0	1	6	7	5	54	2	61	124	7	3	134	421
07:30 AM	9	61	179	249	0	2	8	10	6	77	3	86	170	8	6	184	529
07:45 AM	17	99	185	301	1	4	4	9	7	118	4	129	153	3	7	163	602
Total	41	258	653	952	1	11	18	30	20	299	9	328	573	23	22	618	1928
08:00 AM	14	57	185	256	3	3	7	13	4	67	1	72	155	3	4	162	503
08:15 AM	6	49	139	194	0	1	8	9	8	46	1	55	138	2	2	142	400
08:30 AM	13	54	132	199	0	2	9	11	7	43	4	54	99	5	4	108	372
08:45 AM	18	39	135	192	2	4	9	15	5	34	4	43	110	8	9	127	377
Total	51	199	591	841	5	10	33	48	24	190	10	224	502	18	19	539	1652
Grand Total	92	457	1244	1793	6	21	51	78	44	489	19	552	1075	41	41	1157	3580
Apprch %	5.1	25.5	69.4		7.7	26.9	65.4		8	88.6	3.4		92.9	3.5	3.5		
Total %	2.6	12.8	34.7	50.1	0.2	0.6	1.4	2.2	1.2	13.7	0.5	15.4	30	1.1	1.1	32.3	
Passenger Vehicles	89	414	1164	1667	5	19	50	74	41	450	15	506	974	40	37	1051	3298
% Passenger Vehicles	96.7	90.6	93.6	93	83.3	90.5	98	94.9	93.2	92	78.9	91.7	90.6	97.6	90.2	90.8	92.1
Large 2 Axle Vehicles	2	17	30	49	0	0	1	1	2	15	1	18	52	0	2	54	122
% Large 2 Axle Vehicles	2.2	3.7	2.4	2.7	0	0	2	1.3	4.5	3.1	5.3	3.3	4.8	0	4.9	4.7	3.4
3 Axle Vehicles	0	5	22	27	0	0	0	0	0	4	1	5	4	0	0	4	36
% 3 Axle Vehicles	0	1.1	1.8	1.5	0	0	0	0	0	0.8	5.3	0.9	0.4	0	0	0.3	1
4+ Axle Trucks	1	21	28	50	1	2	0	3	1	20	2	23	45	1	2	48	124
% 4+ Axle Trucks	1.1	4.6	2.3	2.8	16.7	9.5	0	3.8	2.3	4.1	10.5	4.2	4.2	2.4	4.9	4.1	3.5

	Redlands Avenue Southbound				4th Street Westbound				Redlands 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 07:15 AM																	
07:15 AM	13	58	148	219	0	1	6	7	5	54	2	61	124	7	3	134	421
07:30 AM	9	61	179	249	0	2	**8**	10	6	77	3	86	**170**	**8**	6	**184**	529
07:45 AM	**17**	**99**	**185**	**301**	1	**4**	4	9	**7**	**118**	**4**	**129**	153	3	**7**	163	**602**
08:00 AM	14	57	185	256	**3**	3	7	**13**	4	67	1	72	155	3	4	162	503
Total Volume	53	275	697	1025	4	10	25	39	22	316	10	348	602	21	20	643	2055
% App. Total	5.2	26.8	68		10.3	25.6	64.1		6.3	90.8	2.9		93.6	3.3	3.1		
PHF	.779	.694	.942	.851	.333	.625	.781	.750	.786	.669	.625	.674	.885	.656	.714	.874	.853

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City of Perris
N/S: Redlands Avenue
E/W: 4th Street
Weather: Clear

File Name : 05_PER_Red_4th AM
Site Code : 05723540
Start Date : 5/23/2023



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

	07:15 AM				08:00 AM				07:15 AM				07:30 AM			
+0 mins.	13	58	148	219	**3**	3	7	13	5	54	2	61	**170**	**8**	6	**184**
+15 mins.	9	61	179	249	0	1	8	9	6	77	3	86	153	3	**7**	163
+30 mins.	**17**	**99**	**185**	**301**	0	2	**9**	11	**7**	**118**	**4**	**129**	155	3	4	162
+45 mins.	14	57	185	256	2	**4**	9	**15**	4	67	1	72	138	2	2	142
Total Volume	53	275	697	1025	5	10	33	48	22	316	10	348	616	16	19	651
% App. Total	5.2	26.8	68		10.4	20.8	68.8		6.3	90.8	2.9		94.6	2.5	2.9	
PHF	.779	.694	.942	.851	.417	.625	.917	.800	.786	.669	.625	.674	.906	.500	.679	.885

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City of Perris
N/S: Redlands Avenue
E/W: 4th Street
Weather: Clear

File Name : 05_PER_Red_4th AM
Site Code : 05723540
Start Date : 5/23/2023
Page No : 1

Groups Printed- Passenger Vehicles

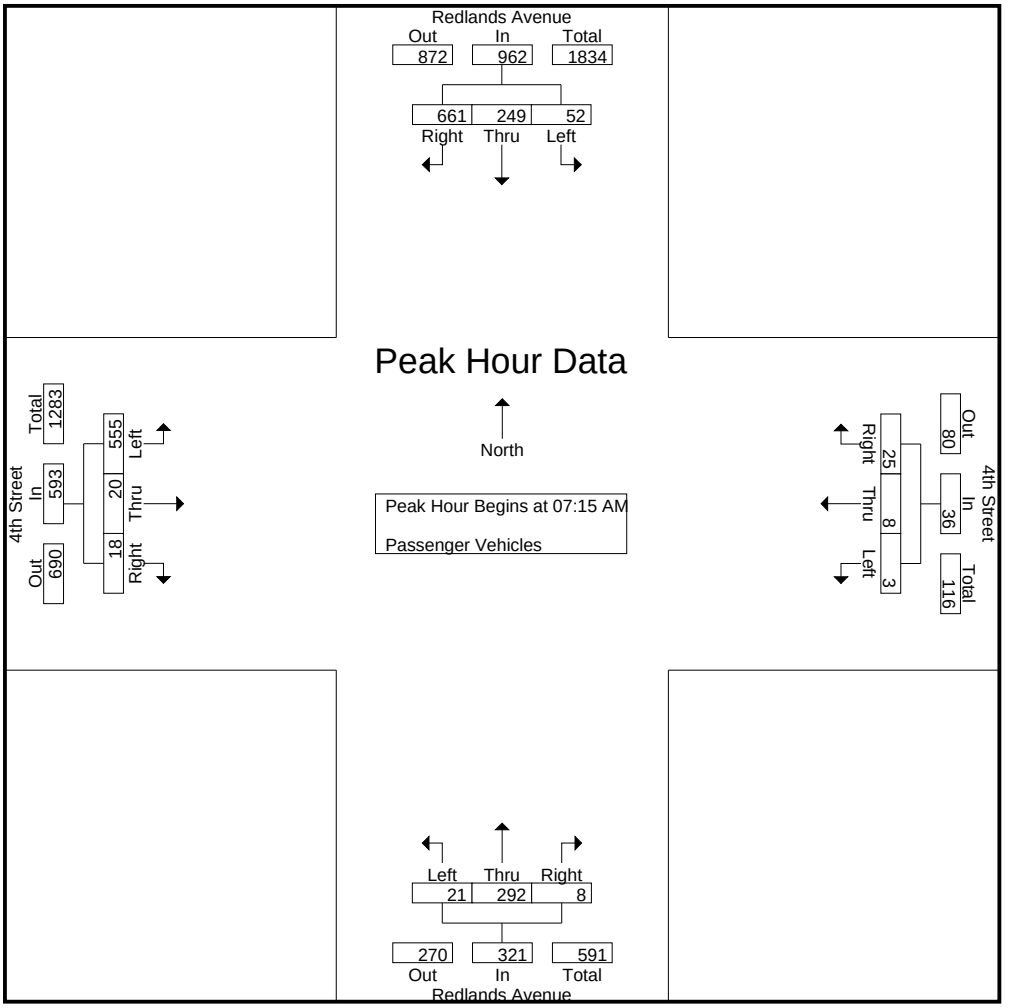
	Redlands Avenue Southbound				4th Street Westbound				Redlands Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	37	133	172	0	4	0	4	2	45	0	47	112	5	5	122	345
07:15 AM	13	50	137	200	0	1	6	7	5	51	1	57	118	7	3	128	392
07:30 AM	9	54	172	235	0	1	8	9	5	73	3	81	158	7	5	170	495
07:45 AM	16	93	179	288	1	3	4	8	7	108	3	118	136	3	7	146	560
Total	40	234	621	895	1	9	18	28	19	277	7	303	524	22	20	566	1792
08:00 AM	14	52	173	239	2	3	7	12	4	60	1	65	143	3	3	149	465
08:15 AM	5	46	125	176	0	1	8	9	7	42	0	49	125	2	2	129	363
08:30 AM	13	45	120	178	0	2	9	11	7	41	4	52	83	5	4	92	333
08:45 AM	17	37	125	179	2	4	8	14	4	30	3	37	99	8	8	115	345
Total	49	180	543	772	4	10	32	46	22	173	8	203	450	18	17	485	1506
Grand Total	89	414	1164	1667	5	19	50	74	41	450	15	506	974	40	37	1051	3298
Apprch %	5.3	24.8	69.8		6.8	25.7	67.6		8.1	88.9	3		92.7	3.8	3.5		
Total %	2.7	12.6	35.3	50.5	0.2	0.6	1.5	2.2	1.2	13.6	0.5	15.3	29.5	1.2	1.1	31.9	

	Redlands Avenue Southbound				4th Street Westbound				Redlands 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 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	13	50	137	200	0	1	6	7	5	51	1	57	118	**7**	3	128	392
07:30 AM	9	54	172	235	0	1	**8**	9	5	73	**3**	81	**158**	7	5	**170**	495
07:45 AM	**16**	**93**	**179**	**288**	1	**3**	4	8	**7**	**108**	3	**118**	136	3	**7**	146	**560**
08:00 AM	14	52	173	239	**2**	3	7	**12**	4	60	1	65	143	3	3	149	465
Total Volume	52	249	661	962	3	8	25	36	21	292	8	321	555	20	18	593	1912
% App. Total	5.4	25.9	68.7		8.3	22.2	69.4		6.5	91	2.5		93.6	3.4	3		
PHF	.813	.669	.923	.835	.375	.667	.781	.750	.750	.676	.667	.680	.878	.714	.643	.872	.854

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City of Perris
N/S: Redlands Avenue
E/W: 4th Street
Weather: Clear

File Name : 05_PER_Red_4th AM
Site Code : 05723540
Start Date : 5/23/2023
Page No : 2



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.	13	50	137	200	0	1	6	7	5	51	1	57	118	**7**	3	128
+15 mins.	9	54	172	235	0	1	**8**	9	5	73	**3**	81	**158**	7	5	**170**
+30 mins.	**16**	**93**	**179**	**288**	1	**3**	4	8	**7**	**108**	3	**118**	136	3	**7**	146
+45 mins.	14	52	173	239	**2**	3	7	**12**	4	60	1	65	143	3	3	149
Total Volume	52	249	661	962	3	8	25	36	21	292	8	321	555	20	18	593
% App. Total	5.4	25.9	68.7		8.3	22.2	69.4		6.5	91	2.5		93.6	3.4	3	
PHF	.813	.669	.923	.835	.375	.667	.781	.750	.750	.676	.667	.680	.878	.714	.643	.872

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City of Perris
N/S: Redlands Avenue
E/W: 4th Street
Weather: Clear

File Name : 05_PER_Red_4th AM
Site Code : 05723540
Start Date : 5/23/2023
Page No : 1

Groups Printed- Large 2 Axle Vehicles

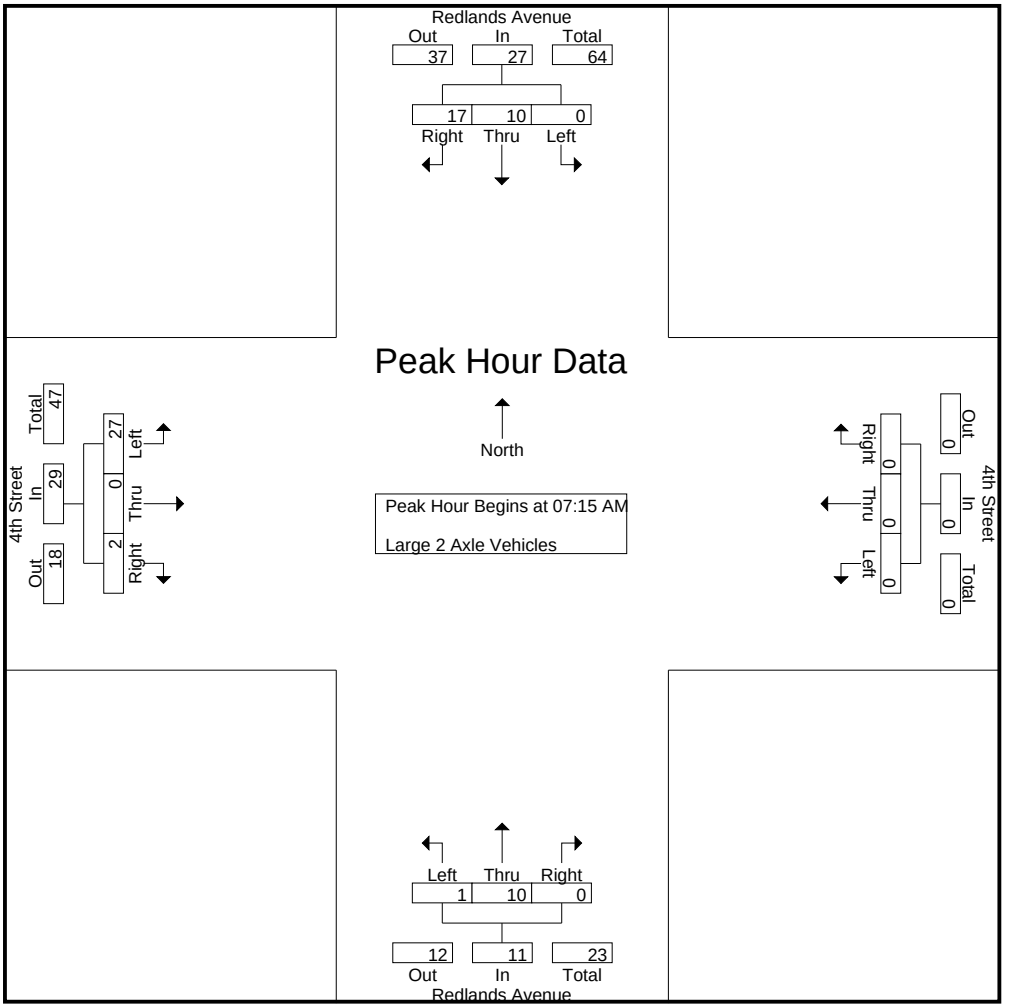
	Redlands Avenue Southbound				4th Street Westbound				Redlands Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	5	5	0	0	0	0	0	1	0	1	5	0	0	5	11
07:15 AM	0	5	6	11	0	0	0	0	0	0	0	0	3	0	0	3	14
07:30 AM	0	0	4	4	0	0	0	0	1	3	0	4	6	0	1	7	15
07:45 AM	0	3	3	6	0	0	0	0	0	5	0	5	11	0	0	11	22
Total	0	8	18	26	0	0	0	0	1	9	0	10	25	0	1	26	62
08:00 AM	0	2	4	6	0	0	0	0	0	2	0	2	7	0	1	8	16
08:15 AM	1	2	2	5	0	0	0	0	0	3	1	4	8	0	0	8	17
08:30 AM	0	4	2	6	0	0	0	0	0	0	0	0	9	0	0	9	15
08:45 AM	1	1	4	6	0	0	1	1	1	1	0	2	3	0	0	3	12
Total	2	9	12	23	0	0	1	1	1	6	1	8	27	0	1	28	60
Grand Total	2	17	30	49	0	0	1	1	2	15	1	18	52	0	2	54	122
Apprch %	4.1	34.7	61.2		0	0	100		11.1	83.3	5.6		96.3	0	3.7		
Total %	1.6	13.9	24.6	40.2	0	0	0.8	0.8	1.6	12.3	0.8	14.8	42.6	0	1.6	44.3	

	Redlands Avenue Southbound				4th Street Westbound				Redlands 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 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**5**	**6**	**11**	0	0	0	0	0	0	0	0	3	0	0	3	14
07:30 AM	0	0	4	4	0	0	0	0	**1**	3	0	4	6	0	**1**	7	15
07:45 AM	0	3	3	6	0	0	0	0	0	**5**	0	**5**	**11**	0	0	**11**	**22**
08:00 AM	0	2	4	6	0	0	0	0	0	2	0	2	7	0	1	8	16
Total Volume	0	10	17	27	0	0	0	0	1	10	0	11	27	0	2	29	67
% App. Total	0	37	63		0	0	0		9.1	90.9	0		93.1	0	6.9		
PHF	.000	.500	.708	.614	.000	.000	.000	.000	.250	.500	.000	.550	.614	.000	.500	.659	.761

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City of Perris
N/S: Redlands Avenue
E/W: 4th Street
Weather: Clear

File Name : 05_PER_Red_4th AM
Site Code : 05723540
Start Date : 5/23/2023
Page No : 2



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	**5**	**6**	**11**	0	0	0	0	0	0	0	0	3	0	0	3
+15 mins.	0	0	4	4	0	0	0	0	**1**	3	0	4	6	0	**1**	7
+30 mins.	0	3	3	6	0	0	0	0	0	**5**	0	**5**	**11**	0	0	**11**
+45 mins.	0	2	4	6	0	0	0	0	0	2	0	2	7	0	1	8
Total Volume	0	10	17	27	0	0	0	0	1	10	0	11	27	0	2	29
% App. Total	0	37	63		0	0	0		9.1	90.9	0		93.1	0	6.9	
PHF	.000	.500	.708	.614	.000	.000	.000	.000	.250	.500	.000	.550	.614	.000	.500	.659

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City of Perris
N/S: Redlands Avenue
E/W: 4th Street
Weather: Clear

File Name : 05_PER_Red_4th AM
Site Code : 05723540
Start Date : 5/23/2023
Page No : 1

Groups Printed- 3 Axle Vehicles

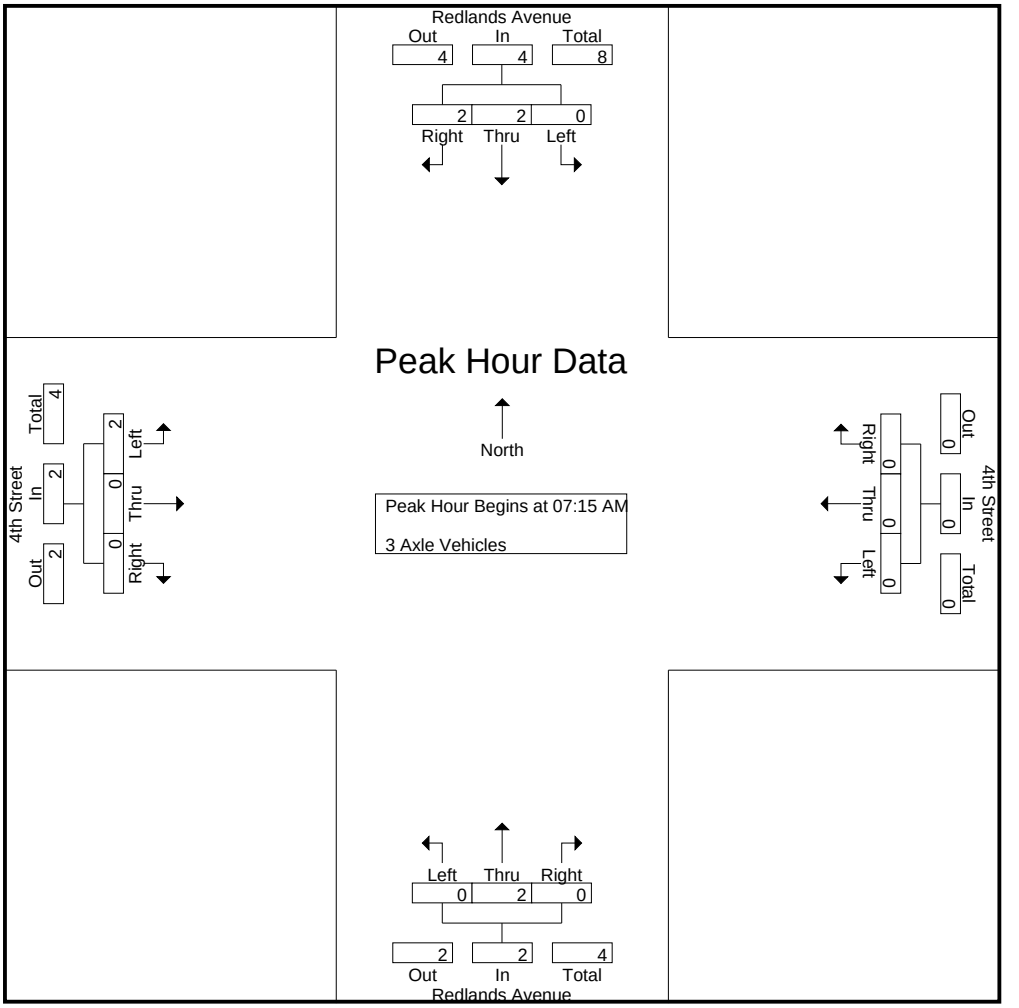
	Redlands Avenue Southbound				4th Street Westbound				Redlands Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	0	0	0	0	0	1	0	1	2	0	0	2	4
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	1	1	2	0	0	0	0	0	1	0	1	1	0	0	1	4
07:45 AM	0	1	0	1	0	0	0	0	0	1	0	1	1	0	0	1	3
Total	0	3	1	4	0	0	0	0	0	3	0	3	4	0	0	4	11
08:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	9	9	0	0	0	0	0	0	0	0	0	0	0	0	9
08:30 AM	0	1	5	6	0	0	0	0	0	1	0	1	0	0	0	0	7
08:45 AM	0	1	6	7	0	0	0	0	0	0	1	1	0	0	0	0	8
Total	0	2	21	23	0	0	0	0	0	1	1	2	0	0	0	0	25
Grand Total	0	5	22	27	0	0	0	0	0	4	1	5	4	0	0	4	36
Apprch %	0	18.5	81.5		0	0	0		0	80	20		100	0	0		
Total %	0	13.9	61.1	75	0	0	0	0	0	11.1	2.8	13.9	11.1	0	0	11.1	

	Redlands Avenue Southbound				4th Street Westbound				Redlands 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 07:15 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	0	0	0	0	0	0	0
07:30 AM	0	**1**	**1**	**2**	0	0	0	0	0	**1**	0	**1**	**1**	0	0	**1**	**4**
07:45 AM	0	1	0	1	0	0	0	0	0	1	0	1	1	0	0	1	3
08:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	2	4	0	0	0	0	0	2	0	2	2	0	0	2	8
% App. Total	0	50	50		0	0	0		0	100	0		100	0	0		
PHF	.000	.500	.500	.500	.000	.000	.000	.000	.000	.500	.000	.500	.500	.000	.000	.500	.500

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City of Perris
N/S: Redlands Avenue
E/W: 4th Street
Weather: Clear

File Name : 05_PER_Red_4th AM
Site Code : 05723540
Start Date : 5/23/2023
Page No : 2



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	0	0	0	0	0	0	0
+15 mins.	0	**1**	**1**	**2**	0	0	0	0	0	**1**	0	**1**	**1**	0	0	**1**
+30 mins.	0	1	0	1	0	0	0	0	0	1	0	1	1	0	0	1
+45 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	2	4	0	0	0	0	0	2	0	2	2	0	0	2
% App. Total	0	50	50		0	0	0		0	100	0		100	0	0	
PHF	.000	.500	.500	.500	.000	.000	.000	.000	.000	.500	.000	.500	.500	.000	.000	.500

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City of Perris
N/S: Redlands Avenue
E/W: 4th Street
Weather: Clear

File Name : 05_PER_Red_4th AM
Site Code : 05723540
Start Date : 5/23/2023
Page No : 1

Groups Printed- 4+ Axle Trucks

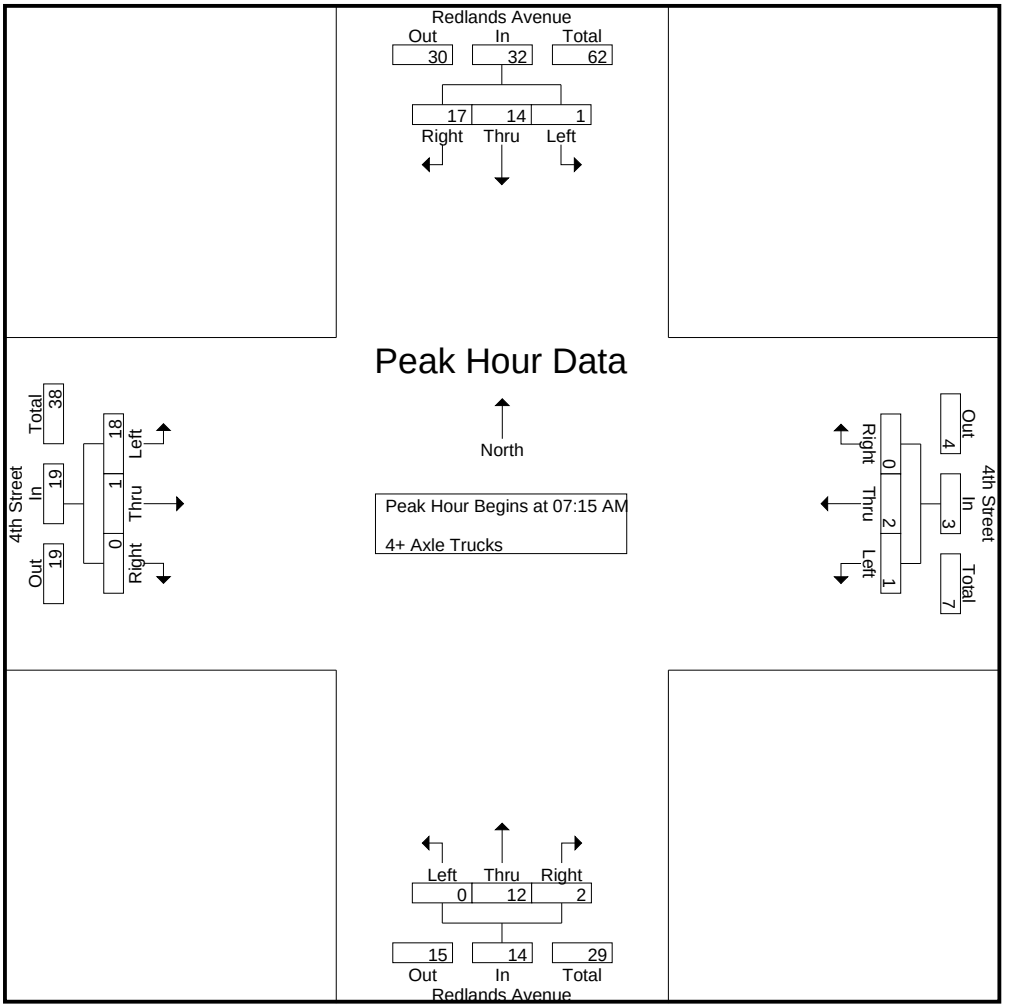
	Redlands Avenue Southbound				4th Street Westbound				Redlands Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	2	3	5	0	0	0	0	0	3	0	3	7	0	1	8	16
07:15 AM	0	3	5	8	0	0	0	0	0	3	1	4	3	0	0	3	15
07:30 AM	0	6	2	8	0	1	0	1	0	0	0	0	5	1	0	6	15
07:45 AM	1	2	3	6	0	1	0	1	0	4	1	5	5	0	0	5	17
Total	1	13	13	27	0	2	0	2	0	10	2	12	20	1	1	22	63
08:00 AM	0	3	7	10	1	0	0	1	0	5	0	5	5	0	0	5	21
08:15 AM	0	1	3	4	0	0	0	0	1	1	0	2	5	0	0	5	11
08:30 AM	0	4	5	9	0	0	0	0	0	1	0	1	7	0	0	7	17
08:45 AM	0	0	0	0	0	0	0	0	0	3	0	3	8	0	1	9	12
Total	0	8	15	23	1	0	0	1	1	10	0	11	25	0	1	26	61
Grand Total	1	21	28	50	1	2	0	3	1	20	2	23	45	1	2	48	124
Apprch %	2	42	56		33.3	66.7	0		4.3	87	8.7		93.8	2.1	4.2		
Total %	0.8	16.9	22.6	40.3	0.8	1.6	0	2.4	0.8	16.1	1.6	18.5	36.3	0.8	1.6	38.7	

	Redlands Avenue Southbound				4th Street Westbound				Redlands 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 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	3	5	8	0	0	0	0	0	3	**1**	4	3	0	0	3	15
07:30 AM	0	**6**	2	8	0	**1**	0	**1**	0	0	0	0	**5**	**1**	0	**6**	15
07:45 AM	**1**	2	3	6	0	1	0	1	0	4	1	**5**	5	0	0	5	17
08:00 AM	0	3	**7**	**10**	**1**	0	0	1	0	**5**	0	5	5	0	0	5	**21**
Total Volume	1	14	17	32	1	2	0	3	0	12	2	14	18	1	0	19	68
% App. Total	3.1	43.8	53.1		33.3	66.7	0		0	85.7	14.3		94.7	5.3	0		
PHF	.250	.583	.607	.800	.250	.500	.000	.750	.000	.600	.500	.700	.900	.250	.000	.792	.810

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City of Perris
N/S: Redlands Avenue
E/W: 4th Street
Weather: Clear

File Name : 05_PER_Red_4th AM
Site Code : 05723540
Start Date : 5/23/2023
Page No : 2



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	3	5	8	0	0	0	0	0	3	**1**	4	3	0	0	3
+15 mins.	0	**6**	2	8	0	**1**	0	**1**	0	0	0	0	**5**	**1**	0	**6**
+30 mins.	**1**	2	3	6	0	1	0	1	0	4	1	**5**	5	0	0	5
+45 mins.	0	3	**7**	**10**	**1**	0	0	1	0	**5**	0	5	5	0	0	5
Total Volume	1	14	17	32	1	2	0	3	0	12	2	14	18	1	0	19
% App. Total	3.1	43.8	53.1		33.3	66.7	0		0	85.7	14.3		94.7	5.3	0	
PHF	.250	.583	.607	.800	.250	.500	.000	.750	.000	.600	.500	.700	.900	.250	.000	.792

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City of Perris
N/S: Redlands Avenue
E/W: 4th Street
Weather: Clear

File Name : 05_PER_Red_4th PM
Site Code : 05723540
Start Date : 5/23/2023
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Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

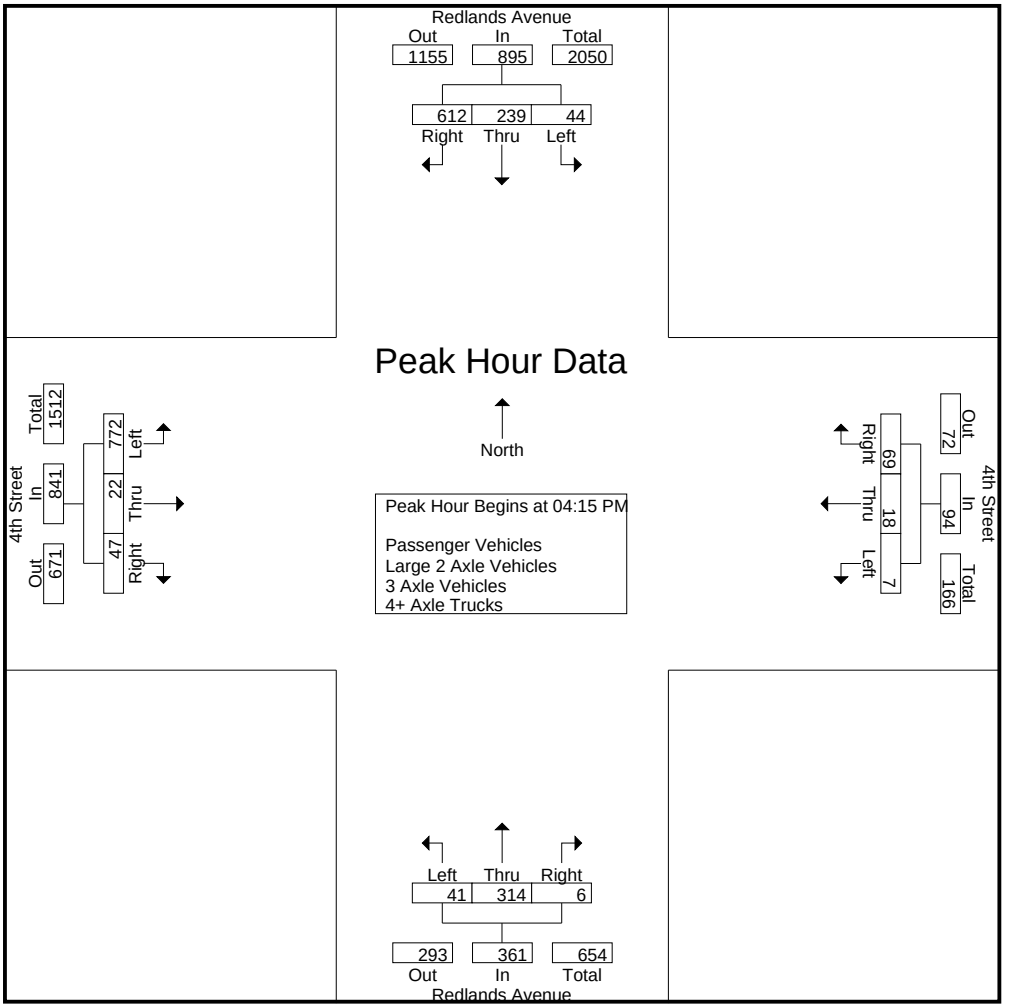
	Redlands Avenue Southbound				4th Street Westbound				Redlands Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	13	64	153	230	2	6	15	23	9	88	2	99	182	4	14	200	552
04:15 PM	13	55	158	226	4	3	16	23	11	61	3	75	177	6	10	193	517
04:30 PM	9	72	153	234	0	5	17	22	14	92	0	106	196	7	15	218	580
04:45 PM	16	57	145	218	2	3	14	19	12	68	0	80	195	5	10	210	527
Total	51	248	609	908	8	17	62	87	46	309	5	360	750	22	49	821	2176
05:00 PM	6	55	156	217	1	7	22	30	4	93	3	100	204	4	12	220	567
05:15 PM	8	48	148	204	2	3	17	22	4	42	0	46	166	3	5	174	446
05:30 PM	1	40	140	181	1	5	14	20	12	67	1	80	202	4	8	214	495
05:45 PM	4	50	153	207	4	5	6	15	4	61	1	66	188	2	13	203	491
Total	19	193	597	809	8	20	59	87	24	263	5	292	760	13	38	811	1999
Grand Total	70	441	1206	1717	16	37	121	174	70	572	10	652	1510	35	87	1632	4175
Apprch %	4.1	25.7	70.2		9.2	21.3	69.5		10.7	87.7	1.5		92.5	2.1	5.3		
Total %	1.7	10.6	28.9	41.1	0.4	0.9	2.9	4.2	1.7	13.7	0.2	15.6	36.2	0.8	2.1	39.1	
Passenger Vehicles	69	413	1160	1642	15	36	117	168	68	548	9	625	1464	33	84	1581	4016
% Passenger Vehicles	98.6	93.7	96.2	95.6	93.8	97.3	96.7	96.6	97.1	95.8	90	95.9	97	94.3	96.6	96.9	96.2
Large 2 Axle Vehicles	1	7	29	37	1	1	4	6	1	7	1	9	36	2	1	39	91
% Large 2 Axle Vehicles	1.4	1.6	2.4	2.2	6.2	2.7	3.3	3.4	1.4	1.2	10	1.4	2.4	5.7	1.1	2.4	2.2
3 Axle Vehicles	0	13	8	21	0	0	0	0	1	11	0	12	6	0	0	6	39
% 3 Axle Vehicles	0	2.9	0.7	1.2	0	0	0	0	1.4	1.9	0	1.8	0.4	0	0	0.4	0.9
4+ Axle Trucks	0	8	9	17	0	0	0	0	0	6	0	6	4	0	2	6	29
% 4+ Axle Trucks	0	1.8	0.7	1	0	0	0	0	0	1	0	0.9	0.3	0	2.3	0.4	0.7

	Redlands Avenue Southbound				4th Street Westbound				Redlands 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 04:15 PM																	
04:15 PM	13	55	**158**	226	**4**	3	16	23	11	61	**3**	75	177	6	10	193	517
04:30 PM	9	**72**	153	**234**	0	5	17	22	**14**	92	0	**106**	196	**7**	**15**	218	**580**
04:45 PM	**16**	57	145	218	2	3	14	19	12	68	0	80	195	5	10	210	527
05:00 PM	6	55	156	217	1	**7**	**22**	**30**	4	**93**	3	100	**204**	4	12	**220**	567
Total Volume	44	239	612	895	7	18	69	94	41	314	6	361	772	22	47	841	2191
% App. Total	4.9	26.7	68.4		7.4	19.1	73.4		11.4	87	1.7		91.8	2.6	5.6		
PHF	.688	.830	.968	.956	.438	.643	.784	.783	.732	.844	.500	.851	.946	.786	.783	.956	.944

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File Name : 05_PER_Red_4th PM
Site Code : 05723540
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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				04:15 PM				04:15 PM			
+0 mins.	13	64	153	230	**4**	3	16	23	11	61	**3**	75	177	6	10	193
+15 mins.	13	55	**158**	226	0	5	17	22	**14**	92	0	**106**	196	**7**	**15**	218
+30 mins.	9	**72**	153	**234**	2	3	14	19	12	68	0	80	195	5	10	210
+45 mins.	**16**	57	145	218	1	**7**	**22**	**30**	4	**93**	3	100	**204**	4	12	**220**
Total Volume	51	248	609	908	7	18	69	94	41	314	6	361	772	22	47	841
% App. Total	5.6	27.3	67.1		7.4	19.1	73.4		11.4	87	1.7		91.8	2.6	5.6	
PHF	.797	.861	.964	.970	.438	.643	.784	.783	.732	.844	.500	.851	.946	.786	.783	.956

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City of Perris
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File Name : 05_PER_Red_4th PM
Site Code : 05723540
Start Date : 5/23/2023
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Groups Printed- Passenger Vehicles

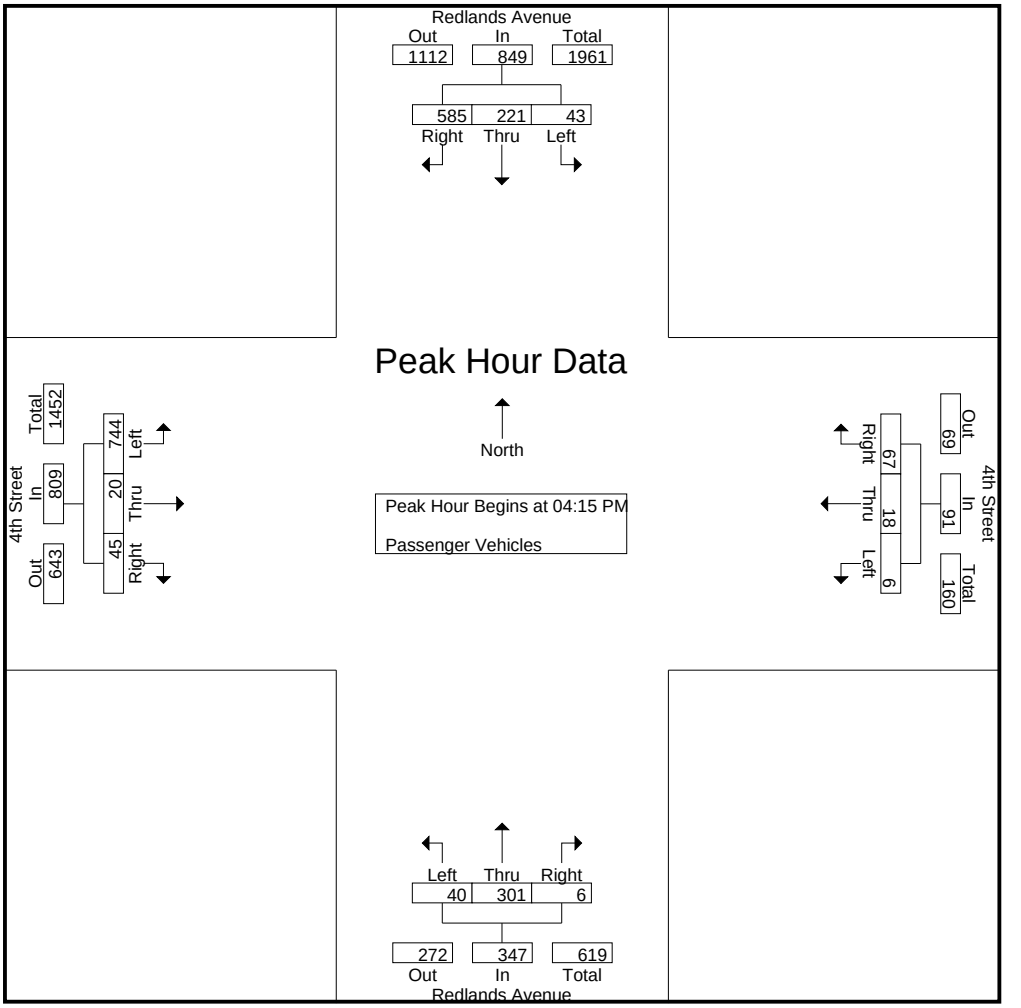
	Redlands Avenue Southbound				4th Street Westbound				Redlands Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	13	58	142	213	2	6	14	22	9	82	2	93	173	4	14	191	519
04:15 PM	13	50	151	214	4	3	15	22	11	58	3	72	170	6	10	186	494
04:30 PM	8	68	144	220	0	5	17	22	14	87	0	101	188	6	15	209	552
04:45 PM	16	53	140	209	1	3	14	18	11	66	0	77	186	5	9	200	504
Total	50	229	577	856	7	17	60	84	45	293	5	343	717	21	48	786	2069
05:00 PM	6	50	150	206	1	7	21	29	4	90	3	97	200	3	11	214	546
05:15 PM	8	48	145	201	2	3	16	21	3	40	0	43	166	3	4	173	438
05:30 PM	1	36	137	174	1	5	14	20	12	65	0	77	195	4	8	207	478
05:45 PM	4	50	151	205	4	4	6	14	4	60	1	65	186	2	13	201	485
Total	19	184	583	786	8	19	57	84	23	255	4	282	747	12	36	795	1947
Grand Total	69	413	1160	1642	15	36	117	168	68	548	9	625	1464	33	84	1581	4016
Apprch %	4.2	25.2	70.6		8.9	21.4	69.6		10.9	87.7	1.4		92.6	2.1	5.3		
Total %	1.7	10.3	28.9	40.9	0.4	0.9	2.9	4.2	1.7	13.6	0.2	15.6	36.5	0.8	2.1	39.4	

	Redlands Avenue Southbound				4th Street Westbound				Redlands 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	13	50	**151**	214	**4**	3	15	22	11	58	**3**	72	170	**6**	10	186	494
04:30 PM	8	**68**	144	**220**	0	5	17	22	**14**	87	0	**101**	188	6	**15**	209	**552**
04:45 PM	**16**	53	140	209	1	3	14	18	11	66	0	77	186	5	9	200	504
05:00 PM	6	50	150	206	1	**7**	**21**	**29**	4	**90**	3	97	**200**	3	11	**214**	546
Total Volume	43	221	585	849	6	18	67	91	40	301	6	347	744	20	45	809	2096
% App. Total	5.1	26	68.9		6.6	19.8	73.6		11.5	86.7	1.7		92	2.5	5.6		
PHF	.672	.813	.969	.965	.375	.643	.798	.784	.714	.836	.500	.859	.930	.833	.750	.945	.949

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File Name : 05_PER_Red_4th PM
Site Code : 05723540
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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				04:15 PM			
+0 mins.	13	50	**151**	214	**4**	3	15	22	11	58	**3**	72	170	**6**	10	186
+15 mins.	8	**68**	144	**220**	0	5	17	22	**14**	87	0	**101**	188	6	**15**	209
+30 mins.	**16**	53	140	209	1	3	14	18	11	66	0	77	186	5	9	200
+45 mins.	6	50	150	206	1	**7**	**21**	**29**	4	**90**	3	97	**200**	3	11	**214**
Total Volume	43	221	585	849	6	18	67	91	40	301	6	347	744	20	45	809
% App. Total	5.1	26	68.9		6.6	19.8	73.6		11.5	86.7	1.7		92	2.5	5.6	
PHF	.672	.813	.969	.965	.375	.643	.798	.784	.714	.836	.500	.859	.930	.833	.750	.945

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City of Perris
N/S: Redlands Avenue
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File Name : 05_PER_Red_4th PM
Site Code : 05723540
Start Date : 5/23/2023
Page No : 1

Groups Printed- Large 2 Axle Vehicles

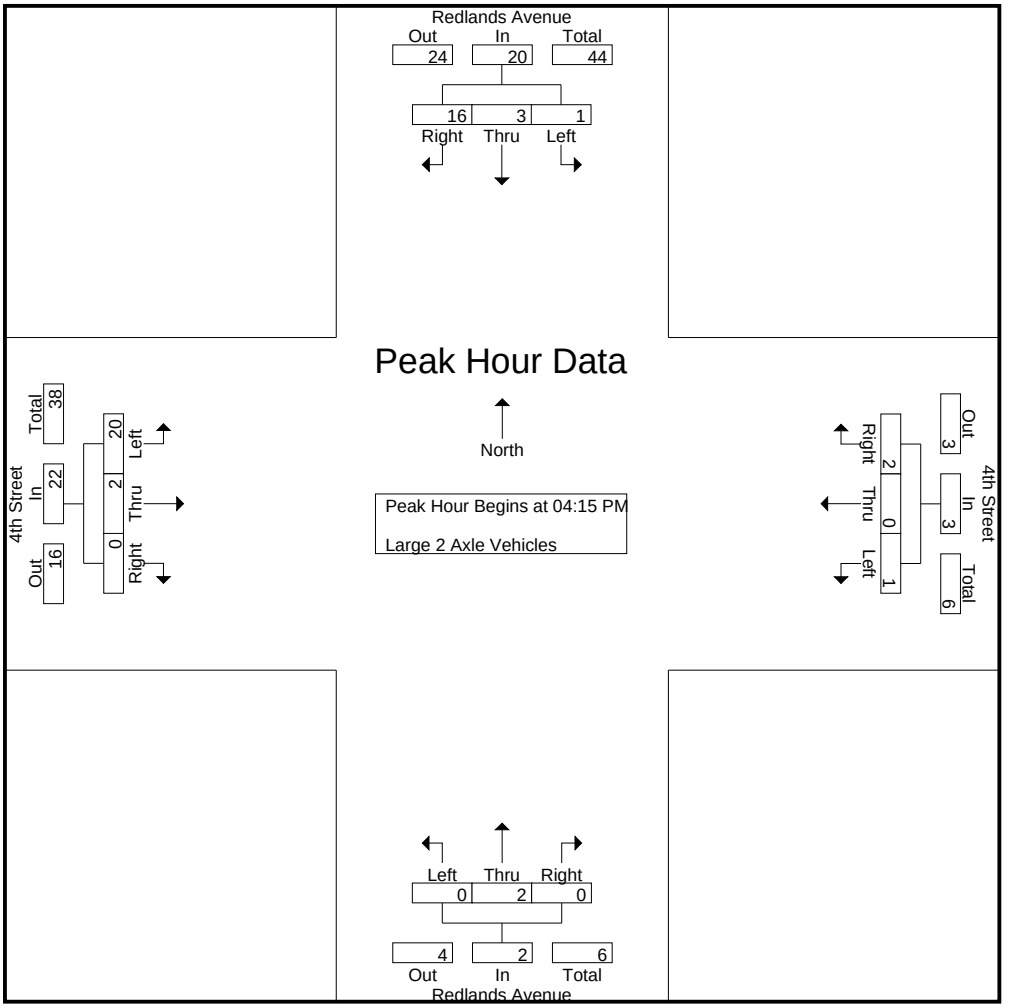
	Redlands Avenue Southbound				4th Street Westbound				Redlands Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	3	9	12	0	0	1	1	0	3	0	3	8	0	0	8	24
04:15 PM	0	1	4	5	0	0	1	1	0	1	0	1	3	0	0	3	10
04:30 PM	1	0	7	8	0	0	0	0	0	0	0	0	6	1	0	7	15
04:45 PM	0	2	1	3	1	0	0	1	0	0	0	0	7	0	0	7	11
Total	1	6	21	28	1	0	2	3	0	4	0	4	24	1	0	25	60
05:00 PM	0	0	4	4	0	0	1	1	0	1	0	1	4	1	0	5	11
05:15 PM	0	0	2	2	0	0	1	1	1	1	0	2	0	0	1	1	6
05:30 PM	0	1	2	3	0	0	0	0	0	1	1	2	6	0	0	6	11
05:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	2	0	0	2	3
Total	0	1	8	9	0	1	2	3	1	3	1	5	12	1	1	14	31
Grand Total	1	7	29	37	1	1	4	6	1	7	1	9	36	2	1	39	91
Apprch %	2.7	18.9	78.4		16.7	16.7	66.7		11.1	77.8	11.1		92.3	5.1	2.6		
Total %	1.1	7.7	31.9	40.7	1.1	1.1	4.4	6.6	1.1	7.7	1.1	9.9	39.6	2.2	1.1	42.9	

	Redlands Avenue Southbound				4th Street Westbound				Redlands 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	1	4	5	0	0	**1**	**1**	0	**1**	0	**1**	3	0	0	3	10
04:30 PM	**1**	0	**7**	**8**	0	0	0	0	0	0	0	0	6	**1**	0	**7**	**15**
04:45 PM	0	**2**	1	3	**1**	0	0	1	0	0	0	0	**7**	0	0	7	11
05:00 PM	0	0	4	4	0	0	1	1	0	1	0	1	4	1	0	5	11
Total Volume	1	3	16	20	1	0	2	3	0	2	0	2	20	2	0	22	47
% App. Total	5	15	80		33.3	0	66.7		0	100	0		90.9	9.1	0		
PHF	.250	.375	.571	.625	.250	.000	.500	.750	.000	.500	.000	.500	.714	.500	.000	.786	.783

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City of Perris
N/S: Redlands Avenue
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File Name : 05_PER_Red_4th PM
Site Code : 05723540
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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				04:15 PM			
+0 mins.	0	1	4	5	0	0	**1**	**1**	0	**1**	0	**1**	3	0	0	3
+15 mins.	**1**	0	**7**	**8**	0	0	0	0	0	0	0	0	6	**1**	0	**7**
+30 mins.	0	**2**	1	3	**1**	0	0	1	0	0	0	0	**7**	0	0	7
+45 mins.	0	0	4	4	0	0	1	1	0	1	0	1	4	1	0	5
Total Volume	1	3	16	20	1	0	2	3	0	2	0	2	20	2	0	22
% App. Total	5	15	80		33.3	0	66.7		0	100	0		90.9	9.1	0	
PHF	.250	.375	.571	.625	.250	.000	.500	.750	.000	.500	.000	.500	.714	.500	.000	.786

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File Name : 05_PER_Red_4th PM
Site Code : 05723540
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Groups Printed- 3 Axle Vehicles

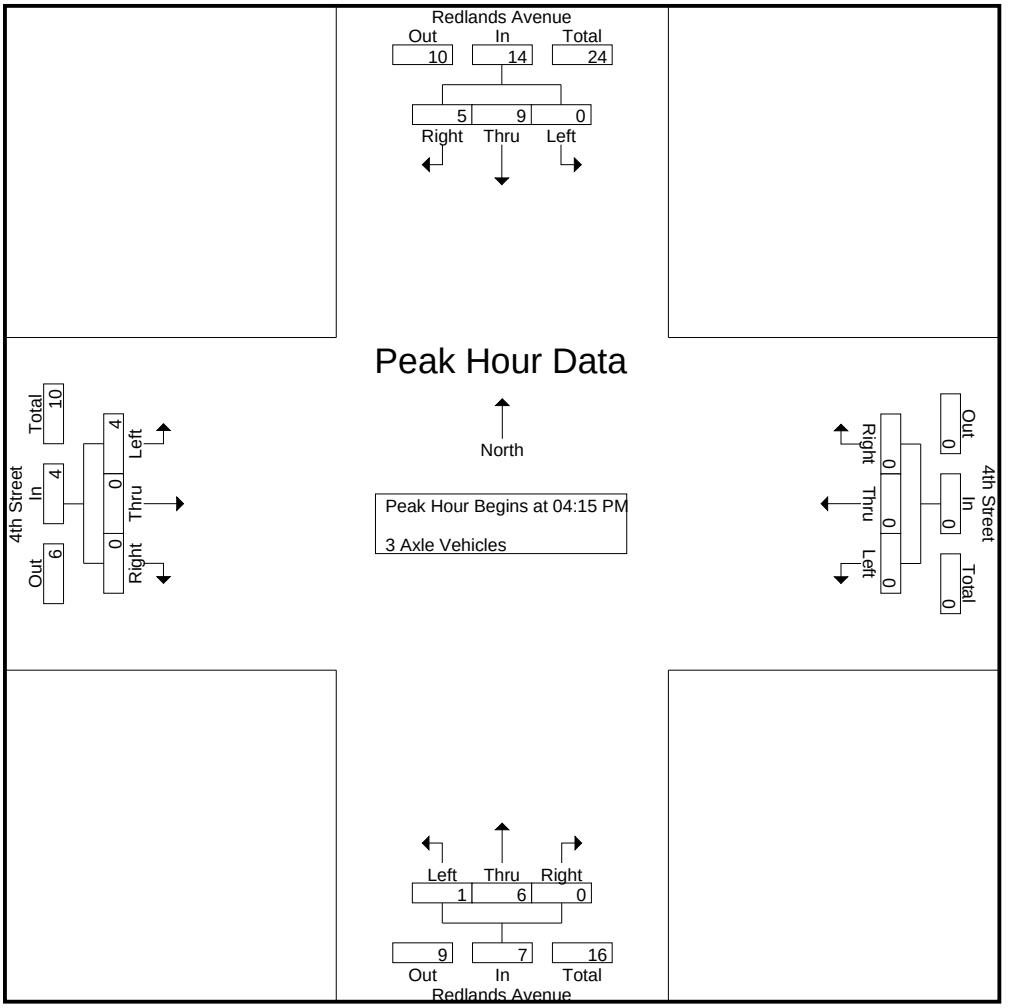
	Redlands Avenue Southbound				4th Street Westbound				Redlands Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	2	1	3	0	0	0	0	0	3	0	3	1	0	0	1	7
04:15 PM	0	2	2	4	0	0	0	0	0	1	0	1	3	0	0	3	8
04:30 PM	0	2	1	3	0	0	0	0	0	3	0	3	1	0	0	1	7
04:45 PM	0	1	1	2	0	0	0	0	1	1	0	2	0	0	0	0	4
Total	0	7	5	12	0	0	0	0	1	8	0	9	5	0	0	5	26
05:00 PM	0	4	1	5	0	0	0	0	0	1	0	1	0	0	0	0	6
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:30 PM	0	2	1	3	0	0	0	0	0	1	0	1	1	0	0	1	5
05:45 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	6	3	9	0	0	0	0	0	3	0	3	1	0	0	1	13
Grand Total	0	13	8	21	0	0	0	0	1	11	0	12	6	0	0	6	39
Apprch %	0	61.9	38.1		0	0	0		8.3	91.7	0		100	0	0		
Total %	0	33.3	20.5	53.8	0	0	0	0	2.6	28.2	0	30.8	15.4	0	0	15.4	

	Redlands Avenue Southbound				4th Street Westbound				Redlands 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	2	**2**	4	0	0	0	0	0	1	0	1	**3**	0	0	**3**	**8**
04:30 PM	0	2	1	3	0	0	0	0	0	**3**	0	**3**	1	0	0	1	7
04:45 PM	0	1	1	2	0	0	0	0	**1**	1	0	2	0	0	0	0	4
05:00 PM	0	**4**	1	**5**	0	0	0	0	0	1	0	1	0	0	0	0	6
Total Volume	0	9	5	14	0	0	0	0	1	6	0	7	4	0	0	4	25
% App. Total	0	64.3	35.7		0	0	0		14.3	85.7	0		100	0	0		
PHF	.000	.563	.625	.700	.000	.000	.000	.000	.250	.500	.000	.583	.333	.000	.000	.333	.781

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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				04:15 PM			
+0 mins.	0	2	**2**	4	0	0	0	0	0	1	0	1	**3**	0	0	**3**
+15 mins.	0	2	1	3	0	0	0	0	0	**3**	0	**3**	1	0	0	1
+30 mins.	0	1	1	2	0	0	0	0	**1**	1	0	2	0	0	0	0
+45 mins.	0	**4**	1	**5**	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	9	5	14	0	0	0	0	1	6	0	7	4	0	0	4
% App. Total	0	64.3	35.7		0	0	0		14.3	85.7	0		100	0	0	
PHF	.000	.563	.625	.700	.000	.000	.000	.000	.250	.500	.000	.583	.333	.000	.000	.333

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Page No : 1

Groups Printed- 4+ Axle Trucks

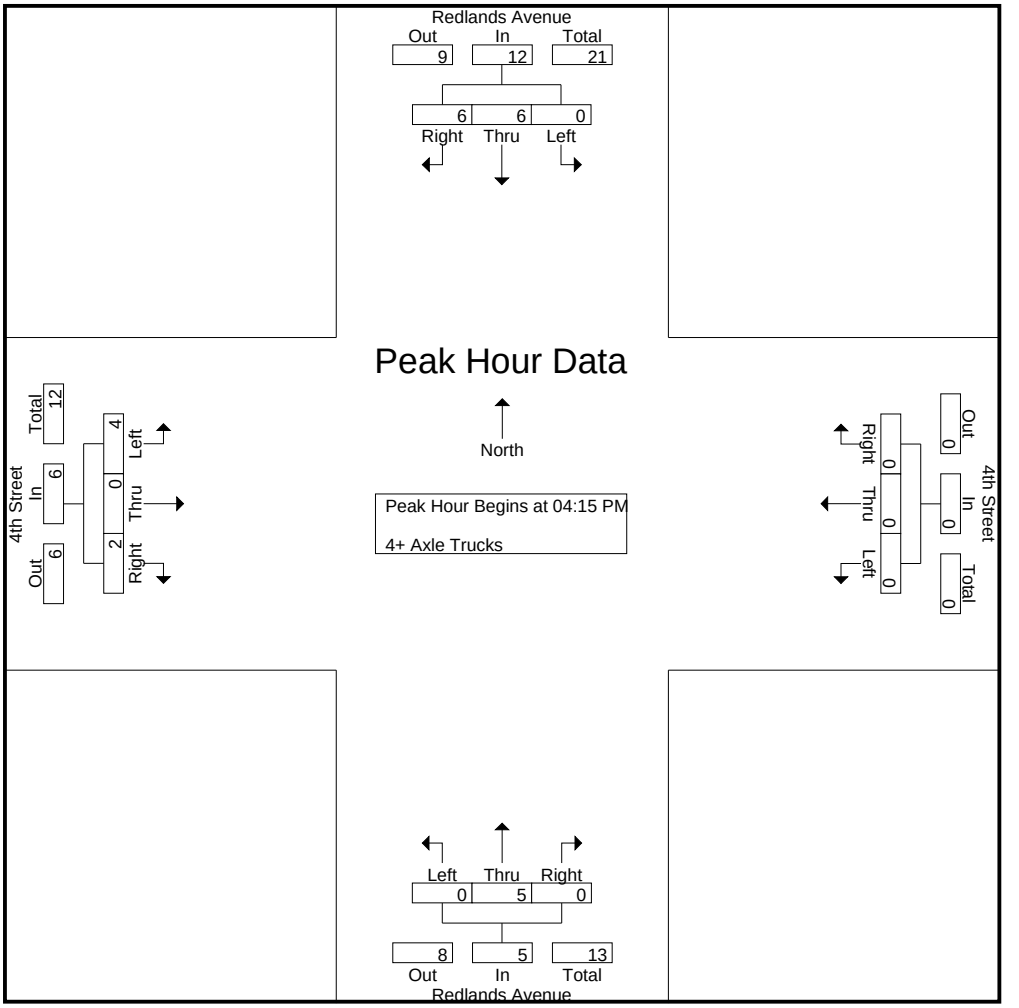
	Redlands Avenue Southbound				4th Street Westbound				Redlands Avenue Northbound				4th Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	2
04:15 PM	0	2	1	3	0	0	0	0	0	1	0	1	1	0	0	1	5
04:30 PM	0	2	1	3	0	0	0	0	0	2	0	2	1	0	0	1	6
04:45 PM	0	1	3	4	0	0	0	0	0	1	0	1	2	0	1	3	8
Total	0	6	6	12	0	0	0	0	0	4	0	4	4	0	1	5	21
05:00 PM	0	1	1	2	0	0	0	0	0	1	0	1	0	0	1	1	4
05:15 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	0	2	3	5	0	0	0	0	0	2	0	2	0	0	1	1	8
Grand Total	0	8	9	17	0	0	0	0	0	6	0	6	4	0	2	6	29
Apprch %	0	47.1	52.9		0	0	0		0	100	0		66.7	0	33.3		
Total %	0	27.6	31	58.6	0	0	0	0	0	20.7	0	20.7	13.8	0	6.9	20.7	

	Redlands Avenue Southbound				4th Street Westbound				Redlands 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 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	**2**	1	3	0	0	0	0	0	1	0	1	1	0	0	1	5
04:30 PM	0	2	1	3	0	0	0	0	0	**2**	0	**2**	1	0	0	1	6
04:45 PM	0	1	**3**	**4**	0	0	0	0	0	1	0	1	**2**	0	**1**	**3**	**8**
05:00 PM	0	1	1	2	0	0	0	0	0	1	0	1	0	0	1	1	4
Total Volume	0	6	6	12	0	0	0	0	0	5	0	5	4	0	2	6	23
% App. Total	0	50	50		0	0	0		0	100	0		66.7	0	33.3		
PHF	.000	.750	.500	.750	.000	.000	.000	.000	.000	.625	.000	.625	.500	.000	.500	.500	.719

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

City of Perris
N/S: Redlands Avenue
E/W: 4th Street
Weather: Clear

File Name : 05_PER_Red_4th PM
Site Code : 05723540
Start Date : 5/23/2023
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				04:15 PM			
+0 mins.	0	**2**	1	3	0	0	0	0	0	1	0	1	1	0	0	1
+15 mins.	0	2	1	3	0	0	0	0	0	**2**	0	**2**	1	0	0	1
+30 mins.	0	1	**3**	**4**	0	0	0	0	0	1	0	1	**2**	0	**1**	**3**
+45 mins.	0	1	1	2	0	0	0	0	0	1	0	1	0	0	1	1
Total Volume	0	6	6	12	0	0	0	0	0	5	0	5	4	0	2	6
% App. Total	0	50	50		0	0	0		0	100	0		66.7	0	33.3	
PHF	.000	.750	.500	.750	.000	.000	.000	.000	.000	.625	.000	.625	.500	.000	.500	.500

INTERSECTION TURNING MOVEMENT COUNTS

T42321

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC4061
Tue, May 30, 23	NORTH & SOUTH:	Redlands	LOCATION #:	1
	EAST & WEST:	Ellis	CONTROL:	STOP S

NOTES:

Construction all day, pedestrians are all constuction workers

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

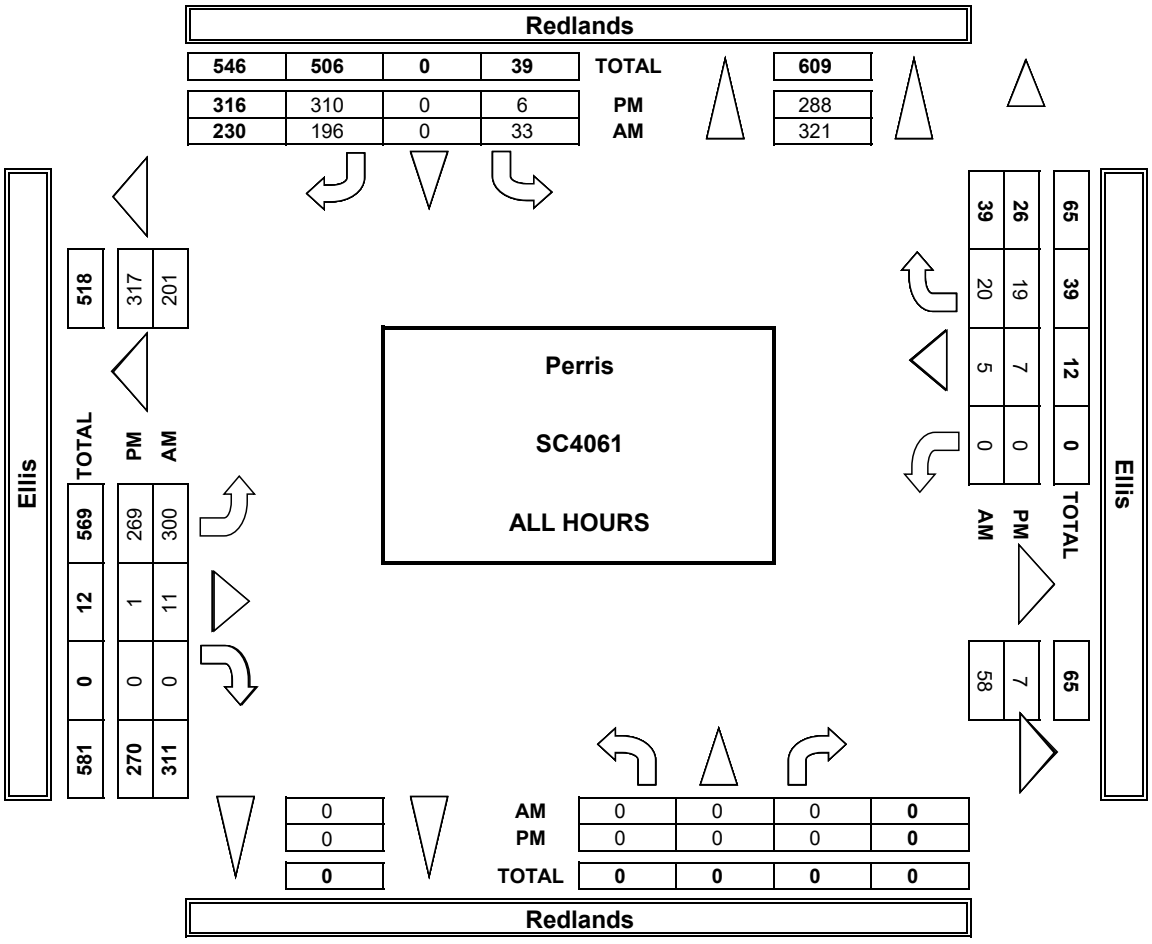
		NORTHBOUND (Redlands)			SOUTHBOUND (Redlands)			EASTBOUND (Ellis)			WESTBOUND (Ellis)				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	0	0	6	0	17	26	1	0	0	0	0	50	0	0	0	2	2
	7:15 AM	0	0	0	3	0	28	37	2	0	0	0	3	73	0	0	0	1	1
	7:30 AM	0	0	0	3	0	29	60	1	0	0	0	3	96	0	0	0	0	0
	7:45 AM	0	0	0	5	0	33	57	1	0	0	0	3	99	0	0	0	2	2
	8:00 AM	0	0	0	3	0	24	46	5	0	0	2	3	83	0	0	0	1	1
	8:15 AM	0	0	0	6	0	19	29	0	0	0	1	3	58	0	0	0	2	2
	8:30 AM	0	0	0	3	0	21	25	0	0	0	1	1	51	0	0	0	3	3
	8:45 AM	0	0	0	4	0	25	20	1	0	0	1	4	55	0	1	0	3	4
	VOLUMES	0	0	0	33	0	196	300	11	0	0	5	20	580	0	1	0	14	15
	APPROACH %	0%	0%	0%	14%	0%	85%	96%	4%	0%	0%	13%	51%						
	APP/DEPART	0	/	321	230	/	0	311	/	58	39	/	201	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	0	0	14	0	114	200	9	0	0	2	12	355					
	APPROACH %	0%	0%	0%	11%	0%	89%	96%	4%	0%	0%	11%	67%						
	PEAK HR FACTOR		0.000			0.842			0.857			0.750		0.879					
	APP/DEPART	0	/	212	128	/	0	209	/	27	18	/	116	0					
PM	4:00 PM	0	0	0	0	0	49	39	0	0	0	3	6	97	0	0	0	0	0
	4:15 PM	0	0	0	1	0	43	29	0	0	0	1	3	77	0	0	0	0	0
	4:30 PM	0	0	0	1	0	45	41	1	0	0	1	3	92	0	0	0	0	0
	4:45 PM	0	0	0	1	0	40	41	0	0	0	0	1	83	0	0	0	0	0
	5:00 PM	0	0	0	0	0	30	39	0	0	0	0	1	70	0	0	0	0	0
	5:15 PM	0	0	0	2	0	36	29	0	0	0	1	4	72	0	0	0	0	0
	5:30 PM	0	0	0	0	0	31	29	0	0	0	0	0	60	0	0	0	0	0
	5:45 PM	0	0	0	1	0	36	22	0	0	0	1	1	61	0	0	0	0	0
	VOLUMES	0	0	0	6	0	310	269	1	0	0	7	19	612	0	0	0	0	0
	APPROACH %	0%	0%	0%	2%	0%	98%	100%	0%	0%	0%	27%	73%						
	APP/DEPART	0	/	288	316	/	0	270	/	7	26	/	317	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	0	3	0	177	150	1	0	0	5	13	349					
	APPROACH %	0%	0%	0%	2%	0%	98%	99%	1%	0%	0%	28%	72%						
	PEAK HR FACTOR		0.000			0.918			0.899			0.500		0.899					
	APP/DEPART	0	/	163	180	/	0	151	/	4	18	/	182	0					

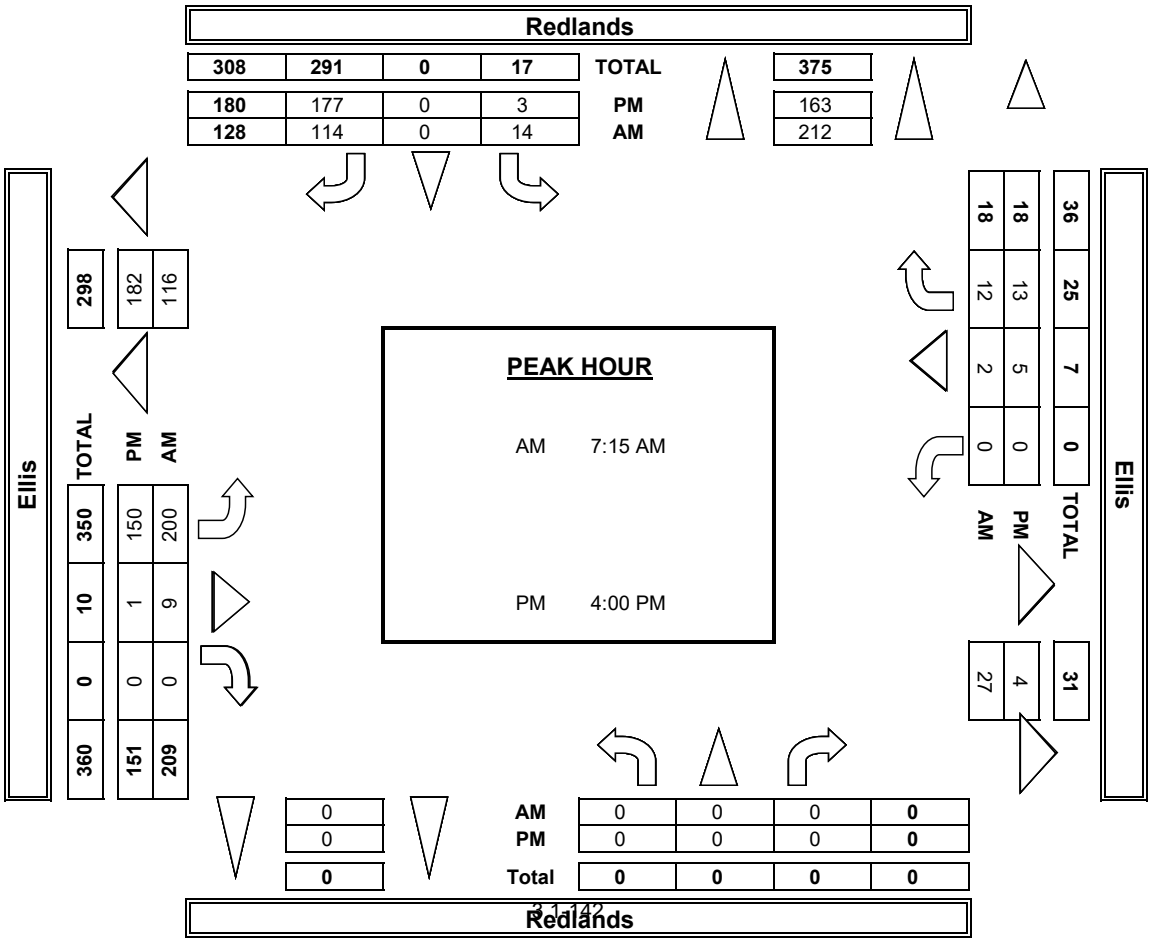


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	5	0	5	0	0	5	0	5	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	3	1	4	0	0	3	1	4	0	0	0	0	0
	8:15 AM	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
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	8	1	9	0	0	8	1	9	0	0	0	0	0
PM	4:00 PM	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
	4:30 PM	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
	5:00 PM	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
	5:30 PM	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
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TUR

PREPARED BY: AimTD LL

DATE:	LOCATION:	Perris
5/30/23	NORTH & SOUTH:	Redlands
TUESDAY	EAST & WEST:	Ellis

	NOTES:				
PCE Adjusted	Class	1	2	3	4
	Factor	1	1.5	2	3

		NORTHBOUND Redlands			SOUTHBOUNI Redlands	
	LANES:	NL X	NT X	NR X	SL 0	ST X
AM	7:00 AM	0	0	0	10	0
	7:15 AM	0	0	0	4	0
	7:30 AM	0	0	0	6	0
	7:45 AM	0	0	0	7	0
	8:00 AM	0	0	0	4	0
	8:15 AM	0	0	0	11	0
	8:30 AM	0	0	0	5	0
	8:45 AM	0	0	0	6	0
	VOLUMES	0	0	0	51	0
	APPROACH %	0%	0%	0%	17%	0%
	APP/DEPART	0	/	394	301	/
	BEGIN PEAK HR		7:15 AM			
	VOLUMES	0	0	0	20	0
	APPROACH %	0%	0%	0%	12%	0%
	PEAK HR FACTOR		0.000			0.847
	APP/DEPART	0	/	255	161	/
PM	4:00 PM	0	0	0	0	0
	4:15 PM	0	0	0	1	0
	4:30 PM	0	0	0	1	0
	4:45 PM	0	0	0	1	0
	5:00 PM	0	0	0	0	0
	5:15 PM	0	0	0	2	0
	5:30 PM	0	0	0	0	0
	5:45 PM	0	0	0	2	0
	VOLUMES	0	0	0	7	0
	APPROACH %	0%	0%	0%	2%	0%
	APP/DEPART	0	/	323	345	/

BEGIN PEAK HR		4:00 PM			
VOLUMES	0	0	0	3	0
APPROACH %	0%	0%	0%	1%	0%
PEAK HR FACTOR		0.000			0.910
APP/DEPART	0	/	185	202	/

Ellis WEST SIDE

NING MOVEMENT COUNTS

.C. tel: 714 253 7888 cs@aimtd.com

PROJECT #: SC4061
LOCATION #: 1
CONTROL: STOP S

				AM		▲ N	
5	6			PM			
2	2			MD	◄ W		E ►
				OTHER		S	
				OTHER		▼	

D	EASTBOUND Ellis			WESTBOUND Ellis			
SR	EL	ET	ER	WL	WT	WR	TOTAL
0	0	1	X	X	1	0	
22	28	3	0	0	0	0	62
44	40	3	0	0	0	4	94
33	75	1	0	0	0	5	118
35	69	1	0	0	0	6	118
31	52	7	0	0	3	6	101
25	38	0	0	0	1	5	79
33	35	0	0	0	2	1	74
30	26	1	0	0	2	8	72
250	361	16	0	0	7	34	717
83%	96%	4%	0%	0%	17%	83%	
0	376	/	66	41	/	257	0
142	235	12	0	0	3	20	430
88%	95%	5%	0%	0%	11%	89%	
		0.816			0.703		0.911
0	247	/	31	23	/	144	0
56	45	0	0	0	4	7	111
46	33	0	0	0	1	4	84
51	48	1	0	0	1	4	105
47	45	0	0	0	0	1	94
32	42	0	0	0	0	1	75
38	30	0	0	0	1	6	77
32	31	0	0	0	0	0	63
38	27	0	0	0	1	1	69
338	300	1	0	0	8	23	676
98%	100%	0%	0%	0%	25%	75%	
0	301	/	8	30	/	346	0

199 99%	170 99%	1 1% 0.881	0 0%	0 0%	6 28% 0.500	15 73%	393 0.889
0	171	/	4	20	/	205	0

Redlands

NORTH SIDE

EAST SIDE **Ellis**

SOUTH SIDE

Redlands

U-TURNS				
NB	SB	EB	WB	TTL
				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

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

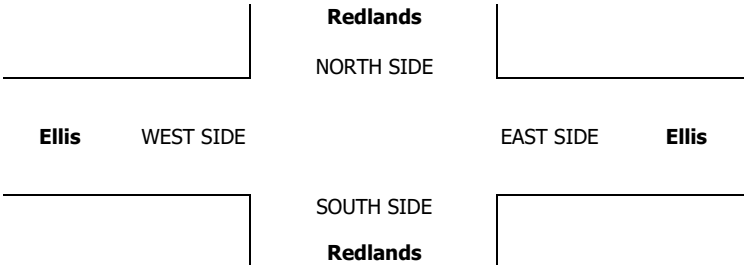
DATE:	LOCATION:	Perris	PROJECT #:	SC4061
5/30/23	NORTH & SOUTH:	Redlands	LOCATION #:	1
TUESDAY	EAST & WEST:	Ellis	CONTROL:	STOP S

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Redlands			SOUTHBOUND Redlands			EASTBOUND Ellis			WESTBOUND Ellis				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	1	0	14	24	0	0	0	0	0	39	0	0	0	0	0
	7:15 AM	0	0	0	1	0	19	34	1	0	0	0	1	56	0	0	0	0	0
	7:30 AM	0	0	0	1	0	25	48	1	0	0	0	0	75	0	0	0	0	0
	7:45 AM	0	0	0	2	0	30	47	1	0	0	0	0	80	0	0	0	0	0
	8:00 AM	0	0	0	2	0	20	39	2	0	0	1	1	65	0	0	0	0	0
	8:15 AM	0	0	0	3	0	14	21	0	0	0	1	1	40	0	0	0	0	0
	8:30 AM	0	0	0	1	0	12	19	0	0	0	0	1	33	0	0	0	0	0
	8:45 AM	0	0	0	1	0	20	16	1	0	0	0	1	39	0	1	0	0	1
	VOLUMES	0	0	0	12	0	154	248	6	0	0	2	5	428	0	1	0	0	1
	APPROACH %	0%	0%	0%	7%	0%	92%	98%	2%	0%	0%	29%	71%						
	APP/DEPART	0	/	254	167	/	0	254	/	18	7	/	156	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	0	0	6	0	94	168	5	0	0	1	2	276					
	APPROACH %	0%	0%	0%	6%	0%	94%	97%	3%	0%	0%	33%	67%						
	PEAK HR FACTOR		0.000			0.781			0.883			0.375		0.863					
	APP/DEPART	0	/	170	100	/	0	173	/	11	3	/	95	0					
PM	4:00 PM	0	0	0	0	0	43	34	0	0	0	2	5	84	0	0	0	0	0
	4:15 PM	0	0	0	1	0	40	25	0	0	0	1	2	69	0	0	0	0	0
	4:30 PM	0	0	0	1	0	39	34	1	0	0	1	2	78	0	0	0	0	0
	4:45 PM	0	0	0	1	0	35	37	0	0	0	0	1	74	0	0	0	0	0
	5:00 PM	0	0	0	0	0	27	36	0	0	0	0	1	64	0	0	0	0	0
	5:15 PM	0	0	0	2	0	33	28	0	0	0	1	0	64	0	0	0	0	0
	5:30 PM	0	0	0	0	0	29	26	0	0	0	0	0	55	0	0	0	0	0
	5:45 PM	0	0	0	0	0	34	17	0	0	0	1	1	53	0	0	0	0	0
	VOLUMES	0	0	0	5	0	280	237	1	0	0	6	12	541	0	0	0	0	0
	APPROACH %	0%	0%	0%	2%	0%	98%	100%	0%	0%	0%	33%	67%						
	APP/DEPART	0	/	249	285	/	0	238	/	6	18	/	286	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	0	3	0	157	130	1	0	0	4	10	305					
	APPROACH %	0%	0%	0%	2%	0%	98%	99%	1%	0%	0%	29%	71%						
	PEAK HR FACTOR		0.000			0.930			0.885			0.500		0.908					
	APP/DEPART	0	/	140	160	/	0	131	/	4	14	/	161	0					



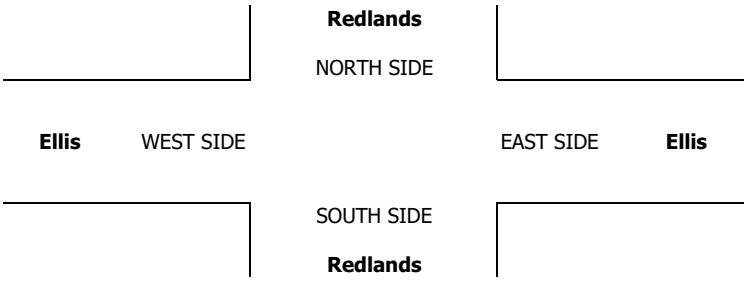
INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/30/23	LOCATION:	Perris	PROJECT #:	SC4061
TUESDAY	NORTH & SOUTH:	Redlands	LOCATION #:	1
	EAST & WEST:	Ellis	CONTROL:	STOP S

CLASS 2:	NOTES:	AM	▲ N	
2-AXLE		PM		
WORK		MD	◄ W	E ►
VEHICLES/		OTHER	S	
TRUCKS		OTHER	▼	

		NORTHBOUND Redlands			SOUTHBOUND Redlands			EASTBOUND Ellis			WESTBOUND Ellis				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	4	0	1	1	0	0	0	0	0	6	0	0	0	2	2
	7:15 AM	0	0	0	2	0	1	2	1	0	0	0	2	8	0	0	0	1	1
	7:30 AM	0	0	0	1	0	3	5	0	0	0	0	3	12	0	0	0	0	0
	7:45 AM	0	0	0	3	0	2	4	0	0	0	0	2	11	0	0	0	2	2
	8:00 AM	0	0	0	1	0	1	3	2	0	0	1	1	9	0	0	0	1	1
	8:15 AM	0	0	0	1	0	2	4	0	0	0	0	1	8	0	0	0	2	2
	8:30 AM	0	0	0	1	0	3	1	0	0	0	1	0	6	0	0	0	2	2
	8:45 AM	0	0	0	2	0	3	1	0	0	0	0	0	6	0	0	0	3	3
	VOLUMES	0	0	0	15	0	16	21	3	0	0	2	9	79	0	0	0	13	13
	APPROACH %	0%	0%	0%	48%	0%	52%	88%	13%	0%	0%	8%	38%						
	APP/DEPART	0	/	30	31	/	0	24	/	31	24	/	18	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	0	0	7	0	7	14	3	0	0	1	8	44					
	APPROACH %	0%	0%	0%	50%	0%	50%	82%	18%	0%	0%	8%	62%						
	PEAK HR FACTOR		0.000			0.700			0.850			0.813		0.846					
	APP/DEPART	0	/	22	14	/	0	17	/	14	13	/	8	0					
PM	4:00 PM	0	0	0	0	0	3	2	0	0	0	1	1	7	0	0	0	0	0
	4:15 PM	0	0	0	0	0	1	3	0	0	0	0	1	5	0	0	0	0	0
	4:30 PM	0	0	0	0	0	2	5	0	0	0	0	1	8	0	0	0	0	0
	4:45 PM	0	0	0	0	0	2	2	0	0	0	0	0	4	0	0	0	0	0
	5:00 PM	0	0	0	0	0	2	2	0	0	0	0	0	4	0	0	0	0	0
	5:15 PM	0	0	0	0	0	3	0	0	0	0	0	4	7	0	0	0	0	0
	5:30 PM	0	0	0	0	0	2	2	0	0	0	0	0	4	0	0	0	0	0
	5:45 PM	0	0	0	0	0	1	2	0	0	0	0	0	3	0	0	0	0	0
	VOLUMES	0	0	0	0	0	16	18	0	0	0	1	7	42	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	13%	88%						
	APP/DEPART	0	/	25	16	/	0	18	/	0	8	/	17	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	0	0	0	8	12	0	0	0	1	3	24					
	APPROACH %	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	25%	75%						
	PEAK HR FACTOR		0.000			0.667			0.600			0.500		0.750					
	APP/DEPART	0	/	15	8	/	0	12	/	0	4	/	9	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC4061
5/30/23	NORTH & SOUTH:	Redlands	LOCATION #:	1
TUESDAY	EAST & WEST:	Ellis	CONTROL:	STOP S

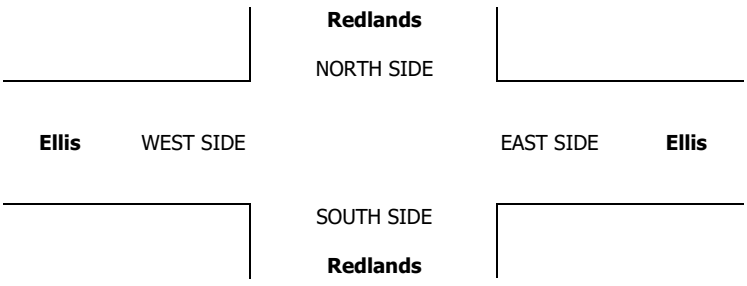
CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Redlands			SOUTHBOUND Redlands			EASTBOUND Ellis			WESTBOUND Ellis				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	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
	7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	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
	8:00 AM	0	0	0	0	0	0	3	1	0	0	0	0	4	0	0	0	0	0
	8:15 AM	0	0	0	0	0	1	1	0	0	0	0	1	3	0	0	0	0	0
	8:30 AM	0	0	0	1	0	1	1	0	0	0	0	0	3	0	0	0	1	1
	8:45 AM	0	0	0	1	0	1	0	0	0	0	1	2	5	0	0	0	0	0
	VOLUMES	0	0	0	2	0	3	7	1	0	0	1	3	18	0	0	0	1	1
	APPROACH %	0%	0%	0%	40%	0%	60%	88%	13%	0%	0%	20%	60%						
	APP/DEPART	0	/	10	5	/	0	8	/	4	5	/	4	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	0	0	0	0	0	4	1	0	0	0	0	5					
	APPROACH %	0%	0%	0%	0%	0%	0%	80%	20%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.313			0.000		0.313					
	APP/DEPART	0	/	4	0	/	0	5	/	1	0	/	0	0					
PM	4:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
	4:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0
	4:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
	5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
	5:45 PM	0	0	0	1	0	1	1	0	0	0	0	0	3	0	0	0	0	0
	VOLUMES	0	0	0	1	0	6	5	0	0	0	0	0	12	0	0	0	0	0
	APPROACH %	0%	0%	0%	14%	0%	86%	100%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	5	7	/	0	5	/	1	0	/	6	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	0	0	0	4	2	0	0	0	0	0	6					
	APPROACH %	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.500			0.500			0.000		0.750					
	APP/DEPART	0	/	2	4	/	0	2	/	0	0	/	4	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/30/23	LOCATION:	Perris	PROJECT #:	SC4061
TUESDAY	NORTH & SOUTH:	Redlands	LOCATION #:	1
	EAST & WEST:	Ellis	CONTROL:	STOP S

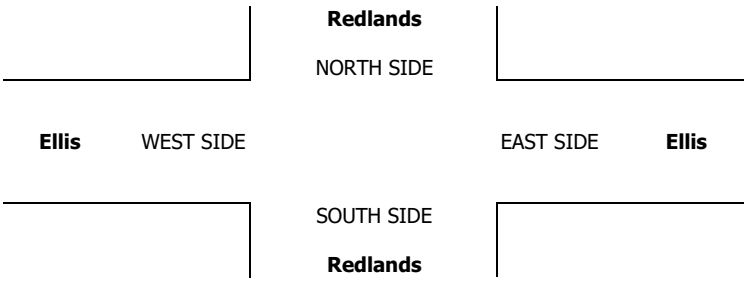
CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

	NORTHBOUND Redlands			SOUTHBOUND Redlands			EASTBOUND Ellis			WESTBOUND Ellis				U-TURNS				
LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM																		
7:00 AM	0	0	0	1	0	2	0	1	0	0	0	0	4	0	0	0	0	0
7:15 AM	0	0	0	0	0	7	1	0	0	0	0	0	8	0	0	0	0	0
7:30 AM	0	0	0	1	0	1	5	0	0	0	0	0	7	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	4	0	0	0	0	1	5	0	0	0	0	0
8:00 AM	0	0	0	0	0	3	0	0	0	0	0	1	4	0	0	0	0	0
8:15 AM	0	0	0	2	0	2	3	0	0	0	0	0	7	0	0	0	0	0
8:30 AM	0	0	0	0	0	4	4	0	0	0	0	0	8	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	2	0	0	0	0	1	4	0	0	0	0	0
VOLUMES	0	0	0	4	0	20	19	1	0	0	0	3	47	0	0	0	0	0
APPROACH %	0%	0%	0%	17%	0%	83%	95%	5%	0%	0%	0%	100%						
APP/DEPART	0	/	22	24	/	0	20	/	5	3	/	20	0					
BEGIN PEAK HR		7:15 AM																
VOLUMES	0	0	0	1	0	11	10	0	0	0	0	2	24					
APPROACH %	0%	0%	0%	8%	0%	92%	100%	0%	0%	0%	0%	100%						
PEAK HR FACTOR		0.000			0.429			0.500			0.500		0.750					
APP/DEPART	0	/	12	12	/	0	10	/	1	2	/	11	0					
PM																		
4:00 PM	0	0	0	0	0	2	2	0	0	0	0	0	4	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
4:30 PM	0	0	0	0	0	1	2	0	0	0	0	0	3	0	0	0	0	0
4:45 PM	0	0	0	0	0	3	1	0	0	0	0	0	4	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	1	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
5:30 PM	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	1	0	0	0	0	0	1	0	0	0	0	0
VOLUMES	0	0	0	0	0	6	8	0	0	0	0	0	14	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%						
APP/DEPART	0	/	8	6	/	0	8	/	0	0	/	6	0					
BEGIN PEAK HR		4:00 PM																
VOLUMES	0	0	0	0	0	6	6	0	0	0	0	0	12					
APPROACH %	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%						
PEAK HR FACTOR		0.000			0.500			0.750			0.000		0.750					
APP/DEPART	0	/	6	6	/	0	6	/	0	0	/	6	0					



INTERSECTION TURNING MOVEMENT COUNTS

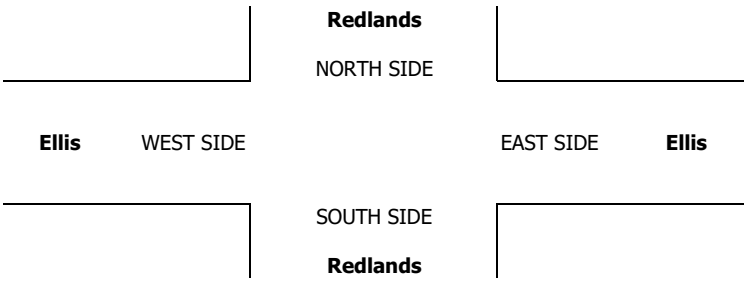
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC4061
5/30/23	NORTH & SOUTH:	Redlands	LOCATION #:	1
TUESDAY	EAST & WEST:	Ellis	CONTROL:	STOP S

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Redlands			SOUTHBOUND Redlands			EASTBOUND Ellis			WESTBOUND Ellis				U-TURNS				
LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM 7:00 AM	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
7:30 AM	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
8:00 AM	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
8:30 AM	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
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
BEGIN PEAK HR		7:15 AM																
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0					
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
PM 4:00 PM	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
4:30 PM	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
5:00 PM	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
5:30 PM	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
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
BEGIN PEAK HR		4:00 PM																
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0					
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					



INTERSECTION TURNING MOVEMENT COUNTS

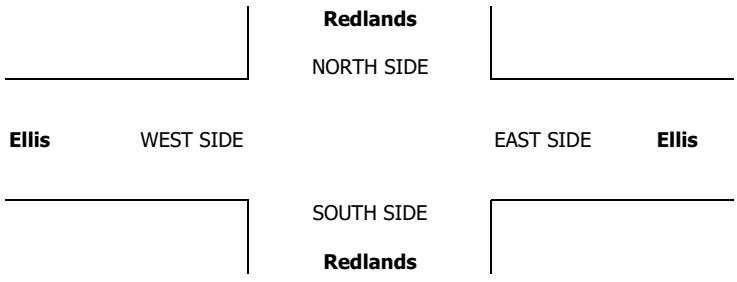
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC4061
5/30/23	NORTH & SOUTH:	Redlands	LOCATION #:	1
TUESDAY	EAST & WEST:	Ellis	CONTROL:	STOP S

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Redlands			SOUTHBOUND Redlands			EASTBOUND Ellis			WESTBOUND Ellis				U-TURNS				
LANES:	NL X	NT X	NR X	SL 0	ST X	SR 0	EL 0	ET 1	ER X	WL X	WT 1	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM 7:00 AM	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	1	0	0	0	0	0	0	1	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
7:45 AM	0	0	0	0	0	1	2	0	0	0	0	0	3	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	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
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
VOLUMES	0	0	0	0	0	3	5	0	0	0	0	0	8	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%						
APP/DEPART	0	/	5	3	/	0	5	/	0	0	/	3	0					
BEGIN PEAK HR		7:15 AM																
VOLUMES	0	0	0	0	0	2	4	0	0	0	0	0	6					
APPROACH %	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%						
PEAK HR FACTOR		0.000			0.500			0.500			0.000		0.500					
APP/DEPART	0	/	4	2	/	0	4	/	0	0	/	2	0					
PM 4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	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
4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	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
5:00 PM	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
5:30 PM	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	1	0	0	0	0	0	1	0	0	0	0	0
VOLUMES	0	0	0	0	0	2	1	0	0	0	0	0	3	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	100%	100%	0%	0%	0%	0%	0%						
APP/DEPART	0	/	1	2	/	0	1	/	0	0	/	2	0					
BEGIN PEAK HR		4:00 PM																
VOLUMES	0	0	0	0	0	2	0	0	0	0	0	0	2					
APPROACH %	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%						
PEAK HR FACTOR		0.000			0.500			0.000			0.000		0.500					
APP/DEPART	0	/	0	2	/	0	0	/	0	0	/	2	0					



INTERSECTION TURNING MOVEMENT COUNTS

T42321

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, May 24, 22	LOCATION:	Perris	PROJECT #: SC3431
	NORTH & SOUTH:	Murrieta	LOCATION #: 8
	EAST & WEST:	Case	CONTROL: STOP ALL

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☐ Add U-Turns to Left Turns

	NORTHBOUND (Murrieta)			SOUTHBOUND (Murrieta)			EASTBOUND (Case)			WESTBOUND (Case)			
LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 1	WL 1	WT 1	WR X	TOTAL
AM 7:00 AM	32	0	4	0	0	0	0	32	2	2	36	0	108
AM 7:15 AM	42	0	7	0	0	0	0	35	7	2	31	0	124
AM 7:30 AM	36	0	2	0	0	0	0	42	4	6	49	0	139
AM 7:45 AM	24	0	2	0	0	0	0	31	12	5	56	0	130
AM 8:00 AM	25	0	2	0	0	0	0	58	10	6	42	0	143
AM 8:15 AM	17	0	2	0	0	0	0	43	17	4	40	0	123
AM 8:30 AM	18	0	4	0	0	0	0	29	17	2	48	0	118
AM 8:45 AM	15	0	1	0	0	0	0	42	12	2	39	0	111
AM VOLUMES	209	0	24	0	0	0	0	312	81	29	341	0	997
AM APPROACH %	90%	0%	10%	0%	0%	0%	0%	79%	21%	8%	92%	0%	
AM APP/DEPART	233	/	0	0	/	110	394	/	336	370	/	551	0
AM BEGIN PEAK HR		7:15 AM											
AM VOLUMES	102	0	8	0	0	0	0	174	43	21	187	0	536
AM APPROACH %	93%	0%	7%	0%	0%	0%	0%	80%	20%	10%	90%	0%	
AM PEAK HR FACTOR		0.561			0.000			0.801			0.852		0.937
AM APP/DEPART	110	/	0	0	/	64	218	/	182	208	/	290	0
PM 4:00 PM	18	0	3	0	0	0	0	48	22	4	62	0	157
PM 4:15 PM	23	0	4	0	0	0	0	60	29	4	65	0	185
PM 4:30 PM	22	0	3	0	0	0	0	56	28	3	47	0	159
PM 4:45 PM	16	0	0	0	0	0	0	63	24	2	51	0	156
PM 5:00 PM	26	0	2	0	0	0	0	82	24	7	53	0	194
PM 5:15 PM	19	0	2	0	0	0	0	56	38	3	47	0	165
PM 5:30 PM	18	0	5	0	0	0	0	52	18	4	66	0	163
PM 5:45 PM	16	0	5	0	0	0	0	76	25	8	53	0	183
PM VOLUMES	158	0	24	0	0	0	0	493	208	35	444	0	1,362
PM APPROACH %	87%	0%	13%	0%	0%	0%	0%	70%	30%	7%	93%	0%	
PM APP/DEPART	182	/	0	0	/	243	701	/	517	479	/	602	0
PM BEGIN PEAK HR		5:00 PM											
PM VOLUMES	79	0	14	0	0	0	0	266	105	22	219	0	705
PM APPROACH %	85%	0%	15%	0%	0%	0%	0%	72%	28%	9%	91%	0%	
PM PEAK HR FACTOR		0.830			0.000			0.875			0.861		0.909
PM APP/DEPART	93	/	0	0	/	127	371	/	280	241	/	298	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR X	ERR X	WRR X
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	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

Murrieta (NORTH SIDE)

Case WEST SIDE — EAST SIDE **Case**

SOUTH SIDE

Murrieta

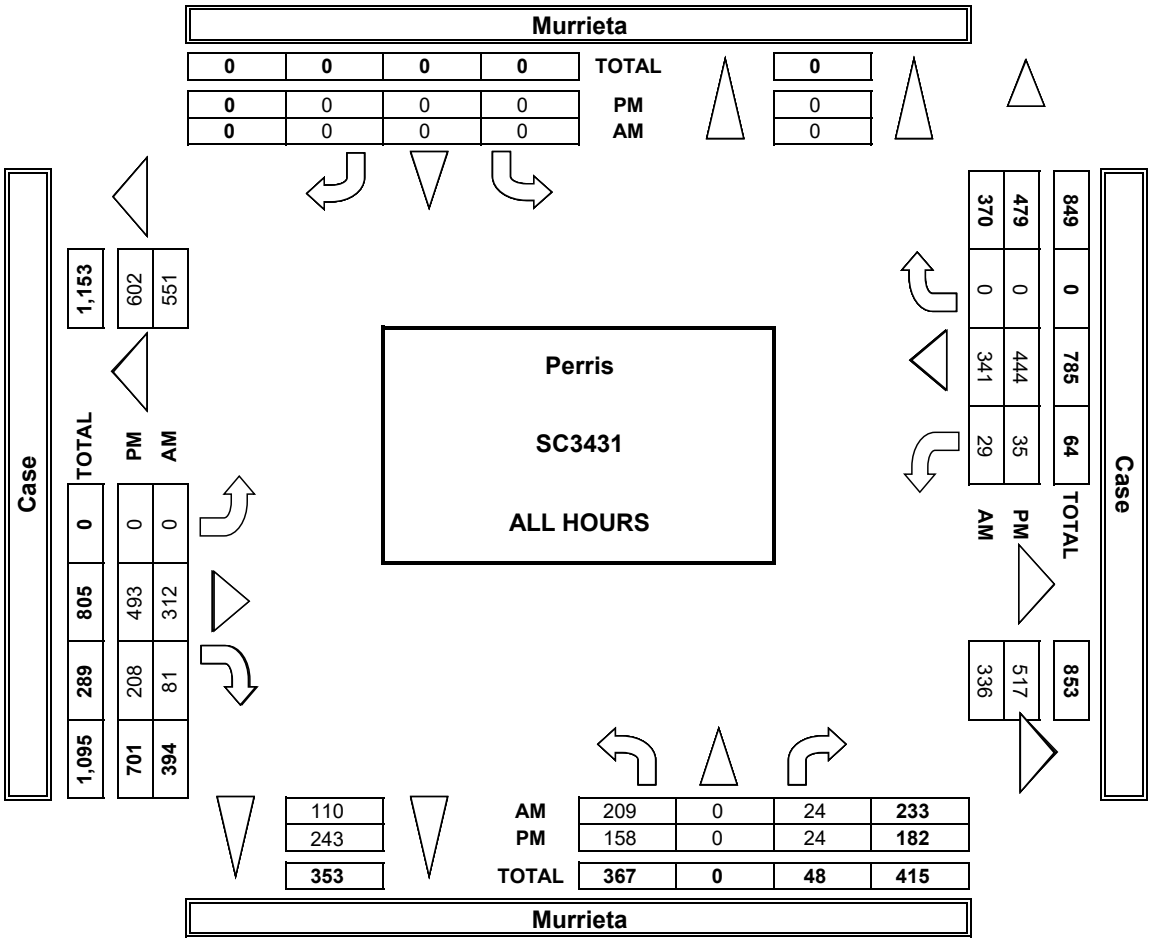
	ALL PED AND BIKE				
	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM 7:00 AM	0	0	0	0	0
AM 7:15 AM	0	0	0	0	0
AM 7:30 AM	0	0	0	0	0
AM 7:45 AM	0	0	0	0	0
AM 8:00 AM	0	0	0	0	0
AM 8:15 AM	0	0	0	0	0
AM 8:30 AM	0	0	0	0	0
AM 8:45 AM	0	0	0	0	0
AM TOTAL	0	0	0	0	0
PM 4:00 PM	0	0	0	0	0
PM 4:15 PM	0	0	0	0	0
PM 4:30 PM	0	0	0	0	0
PM 4:45 PM	0	0	0	0	0
PM 5:00 PM	0	0	0	0	0
PM 5:15 PM	0	0	1	0	1
PM 5:30 PM	0	0	0	0	0
PM 5:45 PM	0	0	0	0	0
TOTAL	0	0	1	0	1

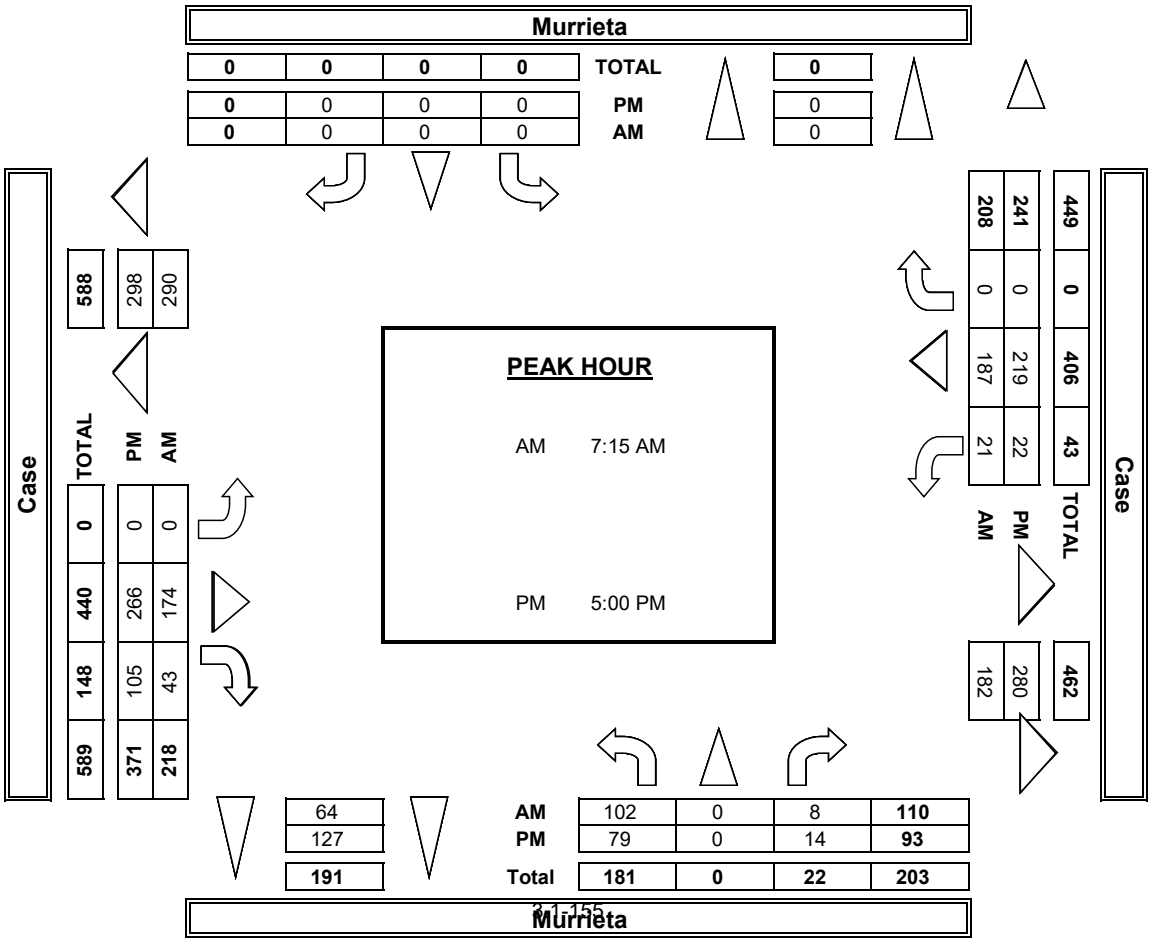
	PEDESTRIAN CROSSINGS				
	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL
AM 7:00 AM	0	0	0	0	0
AM 7:15 AM	0	0	0	0	0
AM 7:30 AM	0	0	0	0	0
AM 7:45 AM	0	0	0	0	0
AM 8:00 AM	0	0	0	0	0
AM 8:15 AM	0	0	0	0	0
AM 8:30 AM	0	0	0	0	0
AM 8:45 AM	0	0	0	0	0
AM TOTAL	0	0	0	0	0
PM 4:00 PM	0	0	0	0	0
PM 4:15 PM	0	0	0	0	0
PM 4:30 PM	0	0	0	0	0
PM 4:45 PM	0	0	0	0	0
PM 5:00 PM	0	0	0	0	0
PM 5:15 PM	0	0	1	0	1
PM 5:30 PM	0	0	0	0	0
PM 5:45 PM	0	0	0	0	0
TOTAL	0	0	1	0	1

	BICYCLE CROSSINGS				
	ES	WS	SS	NS	TOTAL
AM 7:00 AM	0	0	0	0	0
AM 7:15 AM	0	0	0	0	0
AM 7:30 AM	0	0	0	0	0
AM 7:45 AM	0	0	0	0	0
AM 8:00 AM	0	0	0	0	0
AM 8:15 AM	0	0	0	0	0
AM 8:30 AM	0	0	0	0	0
AM 8:45 AM	0	0	0	0	0
AM TOTAL	0	0	0	0	0
PM 4:00 PM	0	0	0	0	0
PM 4:15 PM	0	0	0	0	0
PM 4:30 PM	0	0	0	0	0
PM 4:45 PM	0	0	0	0	0
PM 5:00 PM	0	0	0	0	0
PM 5:15 PM	0	0	0	0	0
PM 5:30 PM	0	0	0	0	0
PM 5:45 PM	0	0	0	0	0
TOTAL	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Murrieta	LOCATION #:	8
TUESDAY	EAST & WEST:	Case	CONTROL:	STOP ALL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

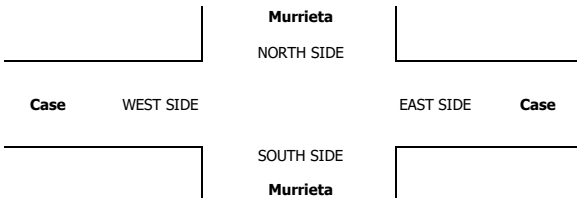
		NORTHBOUND (Murrieta)			SOUTHBOUND (Murrieta)			EASTBOUND (Case)			WESTBOUND (Case)			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 1	WL 1	WT 1	WR X	TOTAL
AM	7:00 AM	29	0	1	0	0	0	0	24	0	1	30	0	85
	7:15 AM	39	0	6	0	0	0	0	28	6	1	27	0	107
	7:30 AM	35	0	2	0	0	0	0	35	3	4	44	0	123
	7:45 AM	21	0	2	0	0	0	0	25	11	5	51	0	115
	8:00 AM	21	0	2	0	0	0	0	47	10	3	38	0	121
	8:15 AM	13	0	2	0	0	0	0	35	15	4	32	0	101
	8:30 AM	15	0	4	0	0	0	0	25	12	2	37	0	95
	8:45 AM	14	0	1	0	0	0	0	36	11	2	33	0	97
	VOLUMES	187	0	20	0	0	0	0	255	68	22	292	0	845
	APPROACH %	90%	0%	10%	0%	0%	0%	0%	79%	21%	7%	93%	0%	
	APP/DEPART	207	/	0	0	/	90	324	/	275	314	/	480	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	116	0	12	0	0	0	0	135	30	13	160	0	466
	APPROACH %	91%	0%	9%	0%	0%	0%	0%	82%	18%	8%	92%	0%	
	PEAK HR FACTOR		0.711			0.000			0.724			0.772		0.947
	APP/DEPART	128	/	0	0	/	43	165	/	147	173	/	276	0
PM	4:00 PM	15	0	3	0	0	0	0	44	21	4	58	0	145
	4:15 PM	22	0	3	0	0	0	0	56	28	3	50	0	162
	4:30 PM	18	0	2	0	0	0	0	54	23	3	41	0	141
	4:45 PM	14	0	0	0	0	0	0	59	22	2	40	0	137
	5:00 PM	23	0	2	0	0	0	0	74	23	7	46	0	175
	5:15 PM	16	0	2	0	0	0	0	54	34	3	42	0	151
	5:30 PM	17	0	5	0	0	0	0	47	16	4	56	0	145
	5:45 PM	16	0	5	0	0	0	0	69	25	7	44	0	166
	VOLUMES	141	0	22	0	0	0	0	457	192	33	377	0	1,222
	APPROACH %	87%	0%	13%	0%	0%	0%	0%	70%	30%	8%	92%	0%	
	APP/DEPART	163	/	0	0	/	225	649	/	479	410	/	518	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	72	0	14	0	0	0	0	244	98	21	188	0	637
	APPROACH %	84%	0%	16%	0%	0%	0%	0%	71%	29%	10%	90%	0%	
	PEAK HR FACTOR		0.860			0.000			0.881			0.871		0.910
	APP/DEPART	86	/	0	0	/	119	342	/	258	209	/	260	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR X	ERR X	WRR X
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	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

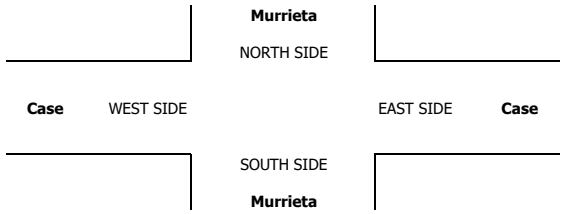
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Murrieta	LOCATION #:	8
TUESDAY	EAST & WEST:	Case	CONTROL:	STOP ALL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:	AM / PM / MD / OTHER / OTHER	▲ N / ◄ W / E ► / S ▼

		NORTHBOUND (Murrieta)			SOUTHBOUND (Murrieta)			EASTBOUND (Case)			WESTBOUND (Case)			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 1	WL 1	WT 1	WR X	TOTAL
AM	7:00 AM	2	0	3	0	0	0	0	4	2	0	4	0	15
	7:15 AM	1	0	1	0	0	0	0	4	1	1	2	0	10
	7:30 AM	1	0	0	0	0	0	0	3	0	2	2	0	8
	7:45 AM	3	0	0	0	0	0	0	2	1	0	3	0	9
	8:00 AM	3	0	0	0	0	0	0	3	0	3	2	0	11
	8:15 AM	2	0	0	0	0	0	0	2	1	0	4	0	9
	8:30 AM	2	0	0	0	0	0	0	1	3	0	6	0	12
	8:45 AM	0	0	0	0	0	0	0	3	1	0	3	0	7
	VOLUMES	14	0	4	0	0	0	0	22	9	6	26	0	81
	APPROACH %	78%	0%	22%	0%	0%	0%	0%	71%	29%	19%	81%	0%	
	APP/DEPART	18	/	0	0	/	15	31	/	26	32	/	40	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	8	0	1	0	0	0	0	12	2	6	9	0	38
	APPROACH %	89%	0%	11%	0%	0%	0%	0%	86%	14%	40%	60%	0%	
	PEAK HR FACTOR		0.750			0.000			0.700			0.750		0.864
	APP/DEPART	9	/	0	0	/	8	14	/	13	15	/	17	0
PM	4:00 PM	2	0	0	0	0	0	0	2	0	0	4	0	8
	4:15 PM	1	0	1	0	0	0	0	2	0	1	6	0	11
	4:30 PM	2	0	0	0	0	0	0	2	4	0	1	0	9
	4:45 PM	1	0	0	0	0	0	0	4	2	0	2	0	9
	5:00 PM	1	0	0	0	0	0	0	6	1	0	2	0	10
	5:15 PM	2	0	0	0	0	0	0	1	3	0	3	0	9
	5:30 PM	1	0	0	0	0	0	0	2	1	0	4	0	8
	5:45 PM	0	0	0	0	0	0	0	5	0	1	3	0	9
	VOLUMES	10	0	1	0	0	0	0	24	11	2	25	0	73
	APPROACH %	91%	0%	9%	0%	0%	0%	0%	69%	31%	7%	93%	0%	
	APP/DEPART	11	/	0	0	/	13	35	/	25	27	/	35	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	4	0	0	0	0	0	0	14	5	1	12	0	36
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	74%	26%	8%	92%	0%	
	PEAK HR FACTOR		0.500			0.000			0.679			0.813		0.900
	APP/DEPART	4	/	0	0	/	6	19	/	14	13	/	16	0

U-TURNS					RTOR			
NB	SB	EB	WB	TTL	NRR X	SRR X	ERR X	WRR X
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	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	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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Murrieta	LOCATION #:	8
TUESDAY	EAST & WEST:	Case	CONTROL:	STOP ALL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

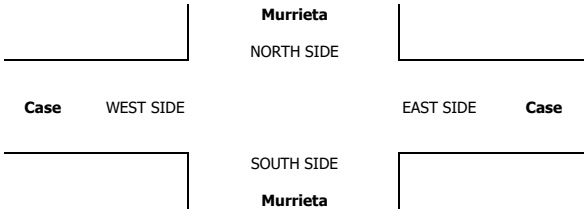
		NORTHBOUND (Murrieta)			SOUTHBOUND (Murrieta)			EASTBOUND (Case)			WESTBOUND (Case)			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 1	WL 1	WT 1	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	2	0	0	2	0	4
	7:15 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
	7:30 AM	0	0	0	0	0	0	0	3	1	0	3	0	7
	7:45 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
	8:00 AM	0	0	0	0	0	0	0	3	0	0	0	0	3
	8:15 AM	1	0	0	0	0	0	0	3	0	0	2	0	6
	8:30 AM	0	0	0	0	0	0	0	1	1	0	1	0	3
	8:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	2
	VOLUMES	1	0	0	0	0	0	0	16	2	0	12	0	31
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	89%	11%	0%	100%	0%	
	APP/DEPART	1	/	0	0	/	2	18	/	16	12	/	13	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	10	1	0	5	0	16
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	91%	9%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.688			0.417		0.571
	APP/DEPART	0	/	0	0	/	1	11	/	10	5	/	5	0
PM	4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	4:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	3
	4:30 PM	0	0	0	0	0	0	0	0	1	0	2	0	3
	4:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	3
	5:00 PM	1	0	0	0	0	0	0	1	0	0	2	0	4
	5:15 PM	1	0	0	0	0	0	0	1	0	0	2	0	4
	5:30 PM	0	0	0	0	0	0	0	0	1	0	3	0	4
	5:45 PM	0	0	0	0	0	0	0	1	0	0	5	0	6
	VOLUMES	2	0	0	0	0	0	0	4	2	0	20	0	28
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	67%	33%	0%	100%	0%	
	APP/DEPART	2	/	0	0	/	2	6	/	4	20	/	22	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	2	0	0	0	0	0	0	3	1	0	12	0	18
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	75%	25%	0%	100%	0%	
	PEAK HR FACTOR		0.500			0.000			1.000			0.600		0.750
	APP/DEPART	2	/	0	0	/	1	4	/	3	12	/	14	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR X	ERR X	WRR X
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	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Murrieta	LOCATION #:	8
TUESDAY	EAST & WEST:	Case	CONTROL:	STOP ALL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Murrieta)			SOUTHBOUND (Murrieta)			EASTBOUND (Case)			WESTBOUND (Case)			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 1	WL 1	WT 1	WR X	TOTAL
AM	7:00 AM	1	0	0	0	0	0	0	2	0	1	0	0	4
	7:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	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	1	0	0	0	0	1
	8:00 AM	1	0	0	0	0	0	0	3	0	0	2	0	6
	8:15 AM	1	0	0	0	0	0	0	1	0	0	1	0	3
	8:30 AM	0	0	0	0	0	0	0	1	1	0	1	0	3
	8:45 AM	1	0	0	0	0	0	0	1	0	0	1	0	3
	VOLUMES	5	0	0	0	0	0	0	9	1	1	5	0	21
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	90%	10%	17%	83%	0%	
	APP/DEPART	5	/	0	0	/	2	10	/	9	6	/	10	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	2	0	0	0	0	0	0	4	0	0	2	0	8
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.500			0.000			0.333			0.250		0.333
	APP/DEPART	2	/	0	0	/	0	4	/	4	2	/	4	0
PM	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	1	0	3	0	4
	4:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	1
	4:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
	5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	5:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	5:30 PM	0	0	0	0	0	0	0	2	0	0	1	0	3
	5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
	VOLUMES	1	0	0	0	0	0	0	2	2	0	8	0	13
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	50%	50%	0%	100%	0%	
	APP/DEPART	1	/	0	0	/	2	4	/	2	8	/	9	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	0	0	0	0	0	0	2	1	0	3	0	6
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	67%	33%	0%	100%	0%	
	PEAK HR FACTOR		0.000			0.000			0.375			0.750		0.500
	APP/DEPART	0	/	0	0	/	1	3	/	2	3	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR X	ERR X	WRR X
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	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

Murrieta

NORTH SIDE

Case WEST SIDE EAST SIDE **Case**

SOUTH SIDE

Murrieta

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Murrieta	LOCATION #:	8
TUESDAY	EAST & WEST:	Case	CONTROL:	STOP ALL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Murrieta)			SOUTHBOUND (Murrieta)			EASTBOUND (Case)			WESTBOUND (Case)			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 1	WL 1	WT 1	WR X	TOTAL
AM	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR X	ERR X	WRR X
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	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

Murrieta

NORTH SIDE

Case WEST SIDE EAST SIDE **Case**

SOUTH SIDE

Murrieta

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Murrieta	LOCATION #:	8
TUESDAY	EAST & WEST:	Case	CONTROL:	STOP ALL

CLASS 6: BUSES

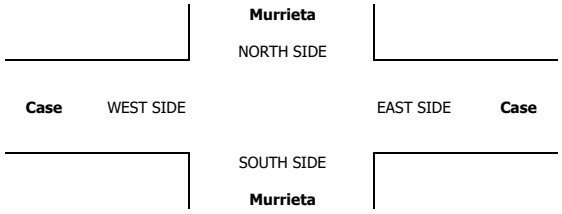
NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Murrieta			SOUTHBOUND Murrieta			EASTBOUND Case			WESTBOUND Case			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 1	ER 1	WL 1	WT 1	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	1	0	0	0	0	0	0	1	0	0	1	0	3
	7:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
	7:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
	8:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	8:15 AM	0	0	0	0	0	0	0	2	1	0	1	0	4
	8:30 AM	1	0	0	0	0	0	0	1	0	0	3	0	5
	8:45 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
	VOLUMES	2	0	0	0	0	0	0	10	1	0	6	0	19
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	91%	9%	0%	100%	0%	
	APP/DEPART	2	/	0	0	/	1	11	/	10	6	/	8	0
	BEGIN PEAK HR	7:15 AM												
	VOLUMES	1	0	0	0	0	0	0	5	0	0	2	0	8
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.250			0.000			0.625			0.500			0.667
	APP/DEPART	1	/	0	0	/	0	5	/	5	2	/	3	0
PM	4:00 PM	1	0	0	0	0	0	0	1	1	0	0	0	3
	4:15 PM	0	0	0	0	0	0	0	2	0	0	3	0	5
	4:30 PM	1	0	1	0	0	0	0	0	0	0	3	0	5
	4:45 PM	1	0	0	0	0	0	0	0	0	0	4	0	5
	5:00 PM	1	0	0	0	0	0	0	1	0	0	2	0	4
	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	1	0	0	2	0	3
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	VOLUMES	4	0	1	0	0	0	0	6	1	0	14	0	26
	APPROACH %	80%	0%	20%	0%	0%	0%	0%	86%	14%	0%	100%	0%	
	APP/DEPART	5	/	0	0	/	1	7	/	7	14	/	18	0
	BEGIN PEAK HR	5:00 PM												
	VOLUMES	1	0	0	0	0	0	0	3	0	0	4	0	8
	APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.250			0.000			0.750			0.500			0.500
	APP/DEPART	1	/	0	0	/	0	3	/	3	4	/	5	0

U-TURNS					
NB	SB	EB	WB	TTL	
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	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	

RTOR			
NRR X	SRR X	ERR X	WRR X
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	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0



T42321

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, May 24, 22

LOCATION: Perris
NORTH & SOUTH: Mapes
EAST & WEST: Case

PROJECT #: SC3431
LOCATION #: 9
CONTROL: STOP ALL

NOTES: No peds and bikes

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND (Mapes)			SOUTHBOUND (Mapes)			EASTBOUND (Case)			WESTBOUND (Case)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	1	0	10	0	36	29	12	0	1	5	5	99
	7:15 AM	0	0	0	9	1	33	30	6	0	0	9	4	92
	7:30 AM	0	0	0	7	2	45	29	12	0	0	7	5	107
	7:45 AM	0	0	0	19	0	40	26	14	0	0	21	5	125
	8:00 AM	0	0	0	17	0	36	32	23	0	0	12	8	128
	8:15 AM	0	1	0	13	0	28	24	19	0	0	12	15	112
	8:30 AM	0	0	0	11	1	33	19	16	0	0	18	11	109
	8:45 AM	0	0	0	15	0	28	22	15	0	0	14	12	106
	VOLUMES	0	2	0	101	4	279	211	117	0	1	98	65	878
	APPROACH %	0%	100%	0%	26%	1%	73%	64%	36%	0%	1%	60%	40%	
	APP/DEPART	2	/	278	384	/	5	328	/	218	164	/	377	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	1	0	60	1	137	101	72	0	0	63	39	474
	APPROACH %	0%	100%	0%	30%	1%	69%	58%	42%	0%	0%	62%	38%	
	PEAK HR FACTOR		0.250			0.839			0.786			0.879		0.926
	APP/DEPART	1	/	141	198	/	1	173	/	132	102	/	200	0
PM	4:00 PM	0	0	0	13	0	42	41	16	0	0	27	20	159
	4:15 PM	1	0	0	14	0	40	36	20	0	0	18	13	142
	4:30 PM	0	3	0	10	0	30	43	16	0	0	19	18	139
	4:45 PM	0	0	0	17	0	35	46	18	0	0	17	18	151
	5:00 PM	1	0	0	15	0	43	57	20	0	0	16	17	169
	5:15 PM	0	0	0	13	0	33	45	21	0	0	21	16	149
	5:30 PM	0	0	0	14	0	42	40	19	0	0	22	16	153
	5:45 PM	0	1	0	23	0	42	56	22	0	0	21	16	181
	VOLUMES	2	4	0	119	0	307	364	152	0	0	161	134	1,243
	APPROACH %	33%	67%	0%	28%	0%	72%	71%	29%	0%	0%	55%	45%	
	APP/DEPART	6	/	501	426	/	0	516	/	271	295	/	471	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	1	1	0	65	0	160	198	82	0	0	80	65	652
	APPROACH %	50%	50%	0%	29%	0%	71%	71%	29%	0%	0%	55%	45%	
	PEAK HR FACTOR		0.500			0.865			0.897			0.954		0.901
	APP/DEPART	2	/	264	225	/	0	280	/	147	145	/	241	0

U-TURNS

NB	SB	EB	WB	TTL
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	1	0	1

RTOR

NRR X	SRR X	ERR X	WRR X
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	0	0
0	0	0	0
0	0	0	0

Mapes — NORTH SIDE

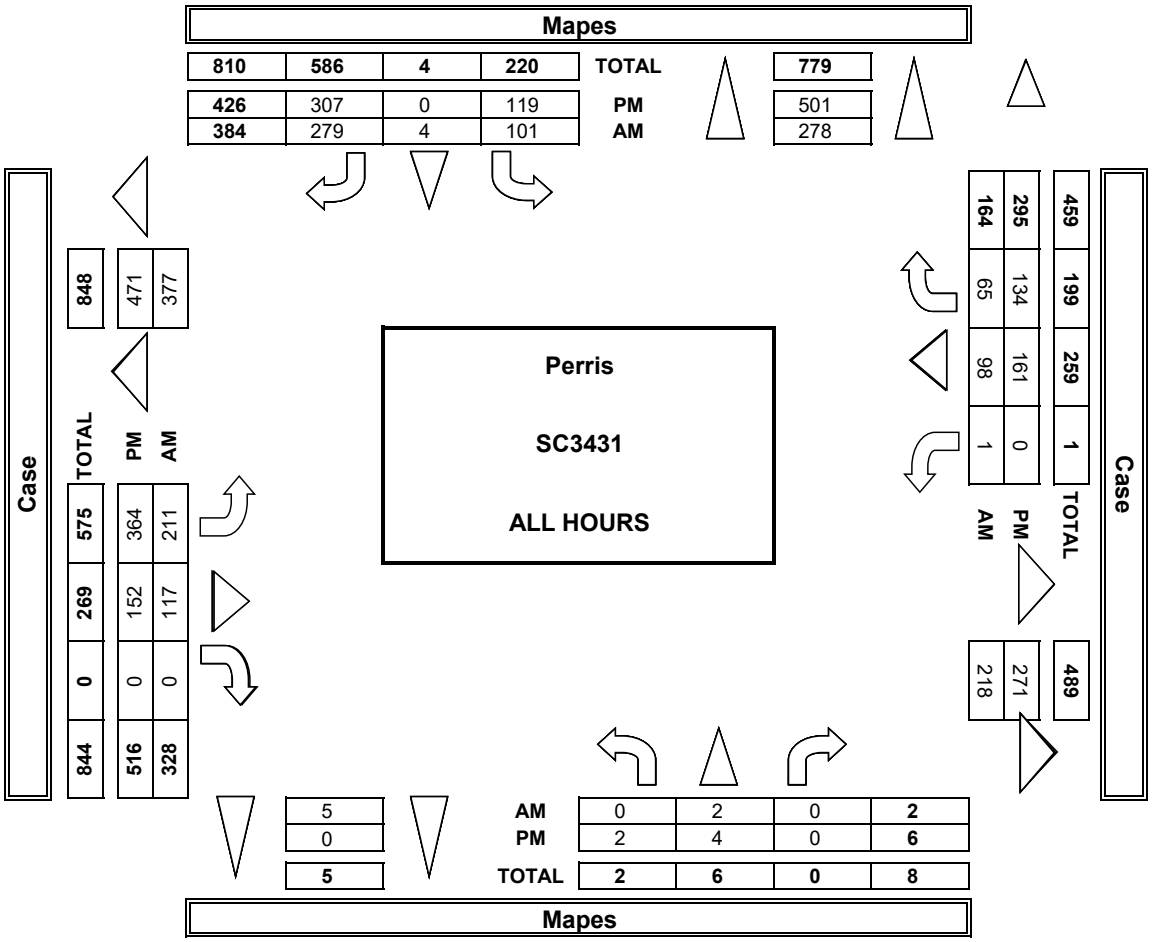
Case — WEST SIDE — EAST SIDE — Case

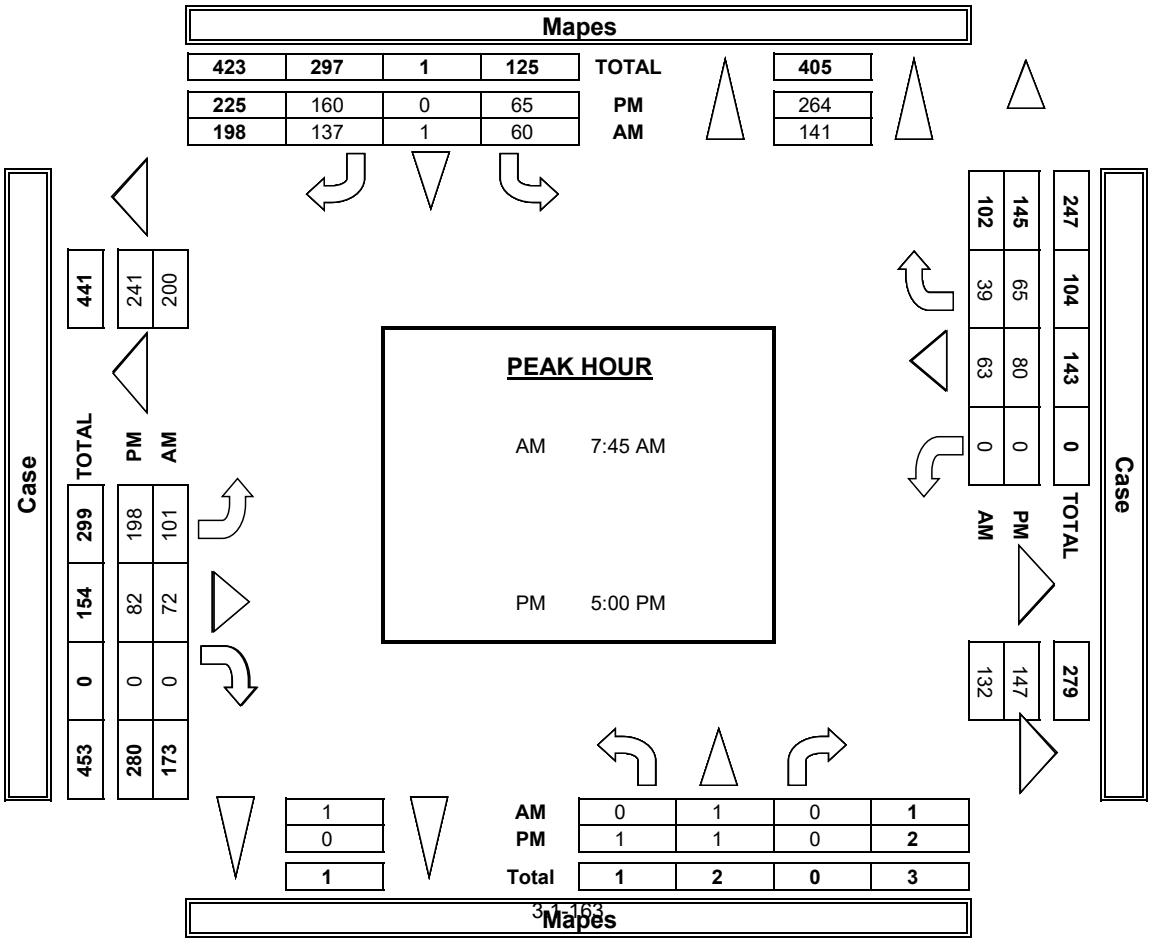
SOUTH SIDE — Mapes

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	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
	7:30 AM	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
	8:00 AM	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
	8:30 AM	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
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	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
	4:30 PM	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
	5:00 PM	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
	5:30 PM	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
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Mapes	LOCATION #:	9
TUESDAY	EAST & WEST:	Case	CONTROL:	STOP ALL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Mapes)			SOUTHBOUND (Mapes)			EASTBOUND (Case)			WESTBOUND (Case)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	9	0	31	22	8	0	1	5	4	80
	7:15 AM	0	0	0	8	0	30	26	2	0	0	6	4	76
	7:30 AM	0	0	0	4	0	39	25	11	0	0	6	4	89
	7:45 AM	0	0	0	17	0	37	22	11	0	0	17	3	107
	8:00 AM	0	0	0	14	0	31	27	16	0	0	9	8	105
	8:15 AM	0	0	0	9	0	23	21	16	0	0	11	12	92
	8:30 AM	0	0	0	9	0	27	18	12	0	0	13	9	88
	8:45 AM	0	0	0	11	0	24	16	14	0	0	12	9	86
	VOLUMES	0	0	0	81	0	242	177	90	0	1	79	53	723
	APPROACH %	0%	0%	0%	25%	0%	75%	66%	34%	0%	1%	59%	40%	
	APP/DEPART	0	/	230	323	/	1	267	/	171	133	/	321	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	0	0	49	0	118	88	55	0	0	50	32	392
	APPROACH %	0%	0%	0%	29%	0%	71%	62%	38%	0%	0%	61%	39%	
	PEAK HR FACTOR		0.000			0.773			0.831			0.891		0.916
	APP/DEPART	0	/	120	167	/	0	143	/	104	82	/	168	0
PM	4:00 PM	0	0	0	13	0	35	38	15	0	0	25	18	144
	4:15 PM	1	0	0	14	0	31	34	18	0	0	17	13	128
	4:30 PM	0	3	0	10	0	25	40	13	0	0	17	16	124
	4:45 PM	0	0	0	16	0	28	44	16	0	0	13	17	134
	5:00 PM	1	0	0	15	0	39	55	19	0	0	14	14	157
	5:15 PM	0	0	0	12	0	30	43	19	0	0	20	14	138
	5:30 PM	0	0	0	14	0	33	37	15	0	0	18	15	132
	5:45 PM	0	1	0	23	0	36	51	21	0	0	18	16	166
	VOLUMES	2	4	0	117	0	257	342	136	0	0	142	123	1,123
	APPROACH %	33%	67%	0%	31%	0%	69%	72%	28%	0%	0%	54%	46%	
	APP/DEPART	6	/	468	374	/	0	478	/	253	265	/	402	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	1	1	0	64	0	138	186	74	0	0	70	59	593
	APPROACH %	50%	50%	0%	32%	0%	68%	72%	28%	0%	0%	54%	46%	
	PEAK HR FACTOR		0.500			0.856			0.878			0.949		0.893
	APP/DEPART	2	/	246	202	/	0	260	/	138	129	/	209	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Mapes	LOCATION #:	9
TUESDAY	EAST & WEST:	Case	CONTROL:	STOP ALL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Mapes)			SOUTHBOUND (Mapes)			EASTBOUND (Case)			WESTBOUND (Case)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	1	0	1	0	3	4	3	0	0	0	1	13
	7:15 AM	0	0	0	1	1	2	1	4	0	0	2	0	11
	7:30 AM	0	0	0	3	1	3	1	0	0	0	1	0	9
	7:45 AM	0	0	0	1	0	2	1	3	0	0	2	2	11
	8:00 AM	0	0	0	1	0	2	0	4	0	0	2	0	9
	8:15 AM	0	0	0	1	0	2	1	1	0	0	1	1	7
	8:30 AM	0	0	0	1	1	3	0	1	0	0	4	1	11
	8:45 AM	0	0	0	2	0	2	1	1	0	0	1	2	9
	VOLUMES	0	1	0	11	3	19	9	17	0	0	13	7	80
	APPROACH %	0%	100%	0%	33%	9%	58%	35%	65%	0%	0%	65%	35%	
	APP/DEPART	1	/	17	33	/	3	26	/	28	20	/	32	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	0	0	4	1	9	2	9	0	0	9	4	38
	APPROACH %	0%	0%	0%	29%	7%	64%	18%	82%	0%	0%	69%	31%	
	PEAK HR FACTOR		0.000			0.700			0.688			0.650		0.864
	APP/DEPART	0	/	6	14	/	1	11	/	13	13	/	18	0
PM	4:00 PM	0	0	0	0	0	4	2	0	0	0	2	2	10
	4:15 PM	0	0	0	0	0	3	1	1	0	0	1	0	6
	4:30 PM	0	0	0	0	0	1	1	2	0	0	1	2	7
	4:45 PM	0	0	0	0	0	1	2	2	0	0	1	1	7
	5:00 PM	0	0	0	0	0	1	2	0	0	0	1	1	5
	5:15 PM	0	0	0	0	0	1	1	2	0	0	1	1	6
	5:30 PM	0	0	0	0	0	0	3	2	0	0	4	0	9
	5:45 PM	0	0	0	0	0	4	4	0	0	0	1	0	9
	VOLUMES	0	0	0	0	0	15	16	9	0	0	12	7	59
	APPROACH %	0%	0%	0%	0%	0%	100%	64%	36%	0%	0%	63%	37%	
	APP/DEPART	0	/	23	15	/	0	25	/	9	19	/	27	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	0	0	0	0	6	10	4	0	0	7	2	29
	APPROACH %	0%	0%	0%	0%	0%	100%	71%	29%	0%	0%	78%	22%	
	PEAK HR FACTOR		0.000			0.375			0.700			0.563		0.806
	APP/DEPART	0	/	12	6	/	0	14	/	4	9	/	13	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR X	ERR X	WRR X
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	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

Mapes

NORTH SIDE

Case WEST SIDE — EAST SIDE **Case**

SOUTH SIDE

Mapes

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Mapes	LOCATION #:	9
TUESDAY	EAST & WEST:	Case	CONTROL:	STOP ALL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

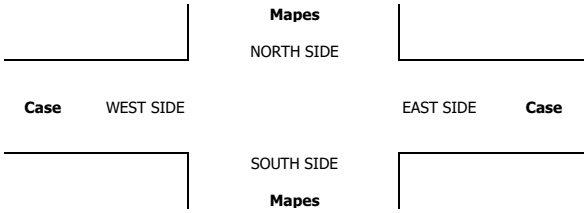
		NORTHBOUND (Mapes)			SOUTHBOUND (Mapes)			EASTBOUND (Case)			WESTBOUND (Case)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	2	2	1	0	0	0	0	5
	7:15 AM	0	0	0	0	0	1	2	0	0	0	0	0	3
	7:30 AM	0	0	0	0	1	1	1	0	0	0	0	1	4
	7:45 AM	0	0	0	1	0	0	2	0	0	0	1	0	4
	8:00 AM	0	0	0	2	0	2	2	1	0	0	0	0	7
	8:15 AM	0	1	0	3	0	1	0	1	0	0	0	2	8
	8:30 AM	0	0	0	1	0	1	1	1	0	0	0	1	5
	8:45 AM	0	0	0	1	0	2	2	0	0	0	1	1	7
	VOLUMES	0	1	0	8	1	10	12	4	0	0	2	5	43
	APPROACH %	0%	100%	0%	42%	5%	53%	75%	25%	0%	0%	29%	71%	
	APP/DEPART	1	/	18	19	/	1	16	/	12	7	/	12	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	1	0	7	0	4	5	3	0	0	1	3	24
	APPROACH %	0%	100%	0%	64%	0%	36%	63%	38%	0%	0%	25%	75%	
	PEAK HR FACTOR		0.250			0.688			0.667			0.500		0.750
	APP/DEPART	1	/	9	11	/	0	8	/	10	4	/	5	0
PM	4:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	2
	4:15 PM	0	0	0	0	0	3	0	0	0	0	0	0	3
	4:30 PM	0	0	0	0	0	0	1	1	0	0	1	0	3
	4:45 PM	0	0	0	0	0	3	0	0	0	0	0	0	3
	5:00 PM	0	0	0	0	0	2	0	0	0	0	1	2	5
	5:15 PM	0	0	0	1	0	0	0	0	0	0	0	1	2
	5:30 PM	0	0	0	0	0	6	0	0	0	0	0	1	7
	5:45 PM	0	0	0	0	0	2	0	1	0	0	1	0	4
	VOLUMES	0	0	0	1	0	17	1	3	0	0	3	4	29
	APPROACH %	0%	0%	0%	6%	0%	94%	25%	75%	0%	0%	43%	57%	
	APP/DEPART	0	/	5	18	/	0	4	/	4	7	/	20	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	0	0	1	0	10	0	1	0	0	2	4	18
	APPROACH %	0%	0%	0%	9%	0%	91%	0%	100%	0%	0%	33%	67%	
	PEAK HR FACTOR		0.000			0.458			0.250			0.500		0.643
	APP/DEPART	0	/	4	11	/	0	1	/	2	6	/	12	0

U-TURNS

NB	SB	EB	WB	TTL
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	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	0	0	0	0

RTOR

NRR X	SRR X	ERR X	WRR X
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	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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Mapes	LOCATION #:	9
TUESDAY	EAST & WEST:	Case	CONTROL:	STOP ALL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Mapes)			SOUTHBOUND (Mapes)			EASTBOUND (Case)			WESTBOUND (Case)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	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	1	0	0	0	0	0	1
	7:30 AM	0	0	0	0	0	1	1	1	0	0	0	0	3
	7:45 AM	0	0	0	0	0	1	0	0	0	0	1	0	2
	8:00 AM	0	0	0	0	0	1	2	1	0	0	0	0	4
	8:15 AM	0	0	0	0	0	1	0	1	0	0	0	0	2
	8:30 AM	0	0	0	0	0	1	0	1	0	0	0	0	2
	8:45 AM	0	0	0	1	0	0	1	0	0	0	0	0	2
	VOLUMES	0	0	0	1	0	5	5	4	0	0	1	0	16
	APPROACH %	0%	0%	0%	17%	0%	83%	56%	44%	0%	0%	100%	0%	
	APP/DEPART	0	/	5	6	/	0	9	/	5	1	/	6	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	0	0	0	0	4	2	3	0	0	1	0	10
	APPROACH %	0%	0%	0%	0%	0%	100%	40%	60%	0%	0%	100%	0%	
	PEAK HR FACTOR		0.000			1.000			0.417			0.250		0.625
	APP/DEPART	0	/	2	4	/	0	5	/	3	1	/	5	0
PM	4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	4:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	4:45 PM	0	0	0	1	0	0	0	0	0	0	2	0	3
	5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
	5:15 PM	0	0	0	0	0	2	1	0	0	0	0	0	3
	5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	1	0	6	1	1	0	0	2	0	11
	APPROACH %	0%	0%	0%	14%	0%	86%	50%	50%	0%	0%	100%	0%	
	APP/DEPART	0	/	1	7	/	0	2	/	2	2	/	8	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	0	0	0	0	3	1	1	0	0	0	0	5
	APPROACH %	0%	0%	0%	0%	0%	100%	50%	50%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.375			0.500			0.000		0.417
	APP/DEPART	0	/	1	3	/	0	2	/	1	0	/	3	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Mapes	LOCATION #:	9
TUESDAY	EAST & WEST:	Case	CONTROL:	STOP ALL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

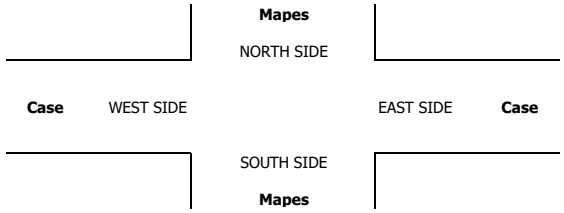
		NORTHBOUND (Mapes)			SOUTHBOUND (Mapes)			EASTBOUND (Case)			WESTBOUND (Case)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:45 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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	0	0	0	0
0	0	0	0	0

RTOR

NRR	SRR	ERR	WRR
X	X	X	X
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	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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	Mapes	LOCATION #:	9
TUESDAY	EAST & WEST:	Case	CONTROL:	STOP ALL

CLASS 6: BUSES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Mapes)			SOUTHBOUND (Mapes)			EASTBOUND (Case)			WESTBOUND (Case)			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
	7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
	7:30 AM	0	0	0	0	0	1	1	0	0	0	0	0	2
	7:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
	8:00 AM	0	0	0	0	0	0	1	1	0	0	1	0	3
	8:15 AM	0	0	0	0	0	1	2	0	0	0	0	0	3
	8:30 AM	0	0	0	0	0	1	0	1	0	0	1	0	3
	8:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	2
	VOLUMES	0	0	0	0	0	3	8	2	0	0	3	0	16
	APPROACH %	0%	0%	0%	0%	0%	100%	80%	20%	0%	0%	100%	0%	
	APP/DEPART	0	/	8	3	/	0	10	/	2	3	/	6	0
	BEGIN PEAK HR	7:45 AM												
	VOLUMES	0	0	0	0	0	2	4	2	0	0	2	0	10
	APPROACH %	0%	0%	0%	0%	0%	100%	67%	33%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.000			0.500			0.750			0.500			0.833
	APP/DEPART	0	/	4	2	/	0	6	/	2	2	/	4	0
PM	4:00 PM	0	0	0	0	0	1	1	0	0	0	0	0	2
	4:15 PM	0	0	0	0	0	2	1	1	0	0	0	0	4
	4:30 PM	0	0	0	0	0	3	1	0	0	0	0	0	4
	4:45 PM	0	0	0	0	0	3	0	0	0	0	1	0	4
	5:00 PM	0	0	0	0	0	1	0	0	0	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	2	0	2	0	0	0	0	4
	5:45 PM	0	0	0	0	0	0	1	0	0	0	1	0	2
	VOLUMES	0	0	0	0	0	12	4	3	0	0	2	0	21
	APPROACH %	0%	0%	0%	0%	0%	100%	57%	43%	0%	0%	100%	0%	
	APP/DEPART	0	/	4	12	/	0	7	/	3	2	/	14	0
	BEGIN PEAK HR	5:00 PM												
	VOLUMES	0	0	0	0	0	3	1	2	0	0	1	0	7
	APPROACH %	0%	0%	0%	0%	0%	100%	33%	67%	0%	0%	100%	0%	
	PEAK HR FACTOR	0.000			0.375			0.375			0.250			0.438
	APP/DEPART	0	/	1	3	/	0	3	/	2	1	/	4	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR X	ERR X	WRR X
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	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

Mapes

NORTH SIDE

Case WEST SIDE — EAST SIDE **Case**

SOUTH SIDE

Mapes

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

City of Perris
N/S: Mapes Road
E/W: S Perris Metrolink Stn Rd/Bonnie Dr
Weather: Clear

File Name : 03_PER_Mapes_Bonnie AM
Site Code : 221041
Start Date : 11/15/2022
Page No : 1

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

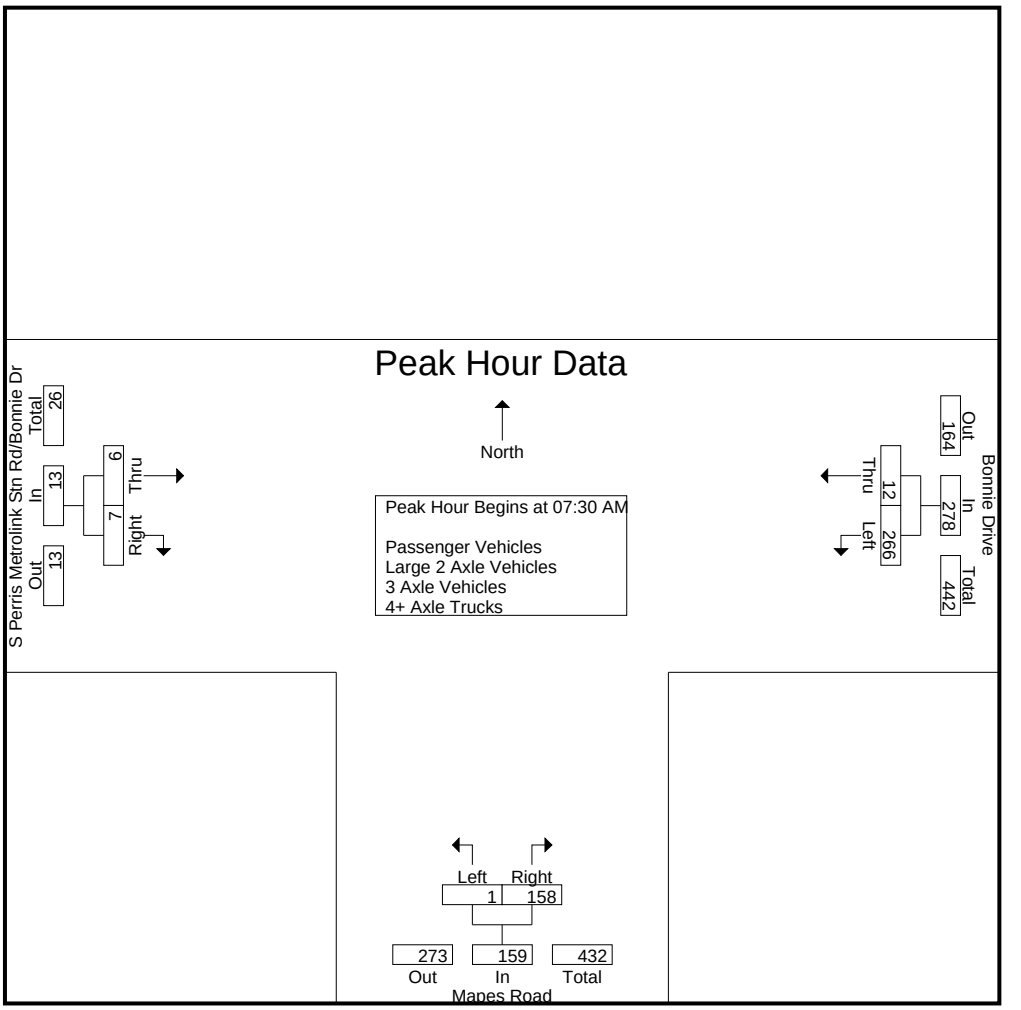
	Bonnie Drive Westbound			Mapes Road Northbound				S Perris Metrolink Stn Rd/Bonnie Dr Eastbound						
Start Time	Left	Thru	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	54	2	56	1	36	0	37	3	1	0	4	0	97	97
07:15 AM	47	1	48	1	31	0	32	4	1	0	5	0	85	85
07:30 AM	72	3	75	0	41	0	41	2	2	0	4	0	120	120
07:45 AM	58	0	58	0	30	0	30	1	1	0	2	0	90	90
Total	231	6	237	2	138	0	140	10	5	0	15	0	392	392
08:00 AM	77	6	83	1	50	0	51	0	2	1	2	1	136	137
08:15 AM	59	3	62	0	37	0	37	3	2	1	5	1	104	105
08:30 AM	52	0	52	0	39	0	39	2	0	0	2	0	93	93
08:45 AM	49	2	51	0	27	0	27	0	2	1	2	1	80	81
Total	237	11	248	1	153	0	154	5	6	3	11	3	413	416
Grand Total	468	17	485	3	291	0	294	15	11	3	26	3	805	808
Apprch %	96.5	3.5		1	99			57.7	42.3					
Total %	58.1	2.1	60.2	0.4	36.1		36.5	1.9	1.4		3.2	0.4	99.6	
Passenger Vehicles	427	6	433	3	269		272	3	10		16	0	0	721
% Passenger Vehicles	91.2	35.3	89.3	100	92.4	0	92.5	20	90.9	100	55.2	0	0	89.2
Large 2 Axle Vehicles	29	1	30	0	11		11	1	0		1	0	0	42
% Large 2 Axle Vehicles	6.2	5.9	6.2	0	3.8	0	3.7	6.7	0	0	3.4	0	0	5.2
3 Axle Vehicles	9	3	12	0	9		9	4	1		5	0	0	26
% 3 Axle Vehicles	1.9	17.6	2.5	0	3.1	0	3.1	26.7	9.1	0	17.2	0	0	3.2
4+ Axle Trucks	3	7	10	0	2		2	7	0		7	0	0	19
% 4+ Axle Trucks	0.6	41.2	2.1	0	0.7	0	0.7	46.7	0	0	24.1	0	0	2.4

	Bonnie Drive Westbound			Mapes Road Northbound			S Perris Metrolink Stn Rd/Bonnie Dr 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 07:30 AM										
07:30 AM	72	3	75	0	41	41	2	**2**	4	120
07:45 AM	58	0	58	0	30	30	1	1	2	90
08:00 AM	**77**	**6**	**83**	**1**	**50**	**51**	0	2	2	**136**
08:15 AM	59	3	62	0	37	37	**3**	2	**5**	104
Total Volume	266	12	278	1	158	159	6	7	13	450
% App. Total	95.7	4.3		0.6	99.4		46.2	53.8		
PHF	.864	.500	.837	.250	.790	.779	.500	.875	.650	.827

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Corona, CA 92878
(951)268-6268

City of Perris
N/S: Mapes Road
E/W: S Perris Metrolink Stn Rd/Bonnie Dr
Weather: Clear

File Name : 03_PER_Mapes_Bonnie AM
Site Code : 221041
Start Date : 11/15/2022
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:

	07:30 AM			07:30 AM			07:00 AM		
+0 mins.	72	3	75	0	41	41	3	1	4
+15 mins.	58	0	58	0	30	30	**4**	1	**5**
+30 mins.	**77**	**6**	**83**	**1**	**50**	**51**	2	**2**	4
+45 mins.	59	3	62	0	37	37	1	1	2
Total Volume	266	12	278	1	158	159	10	5	15
% App. Total	95.7	4.3		0.6	99.4		66.7	33.3	
PHF	.864	.500	.837	.250	.790	.779	.625	.625	.750

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City of Perris
N/S: Mapes Road
E/W: S Perris Metrolink Stn Rd/Bonnie Dr
Weather: Clear

File Name : 03_PER_Mapes_Bonnie AM
Site Code : 221041
Start Date : 11/15/2022

Groups Printed- Passenger Vehicles

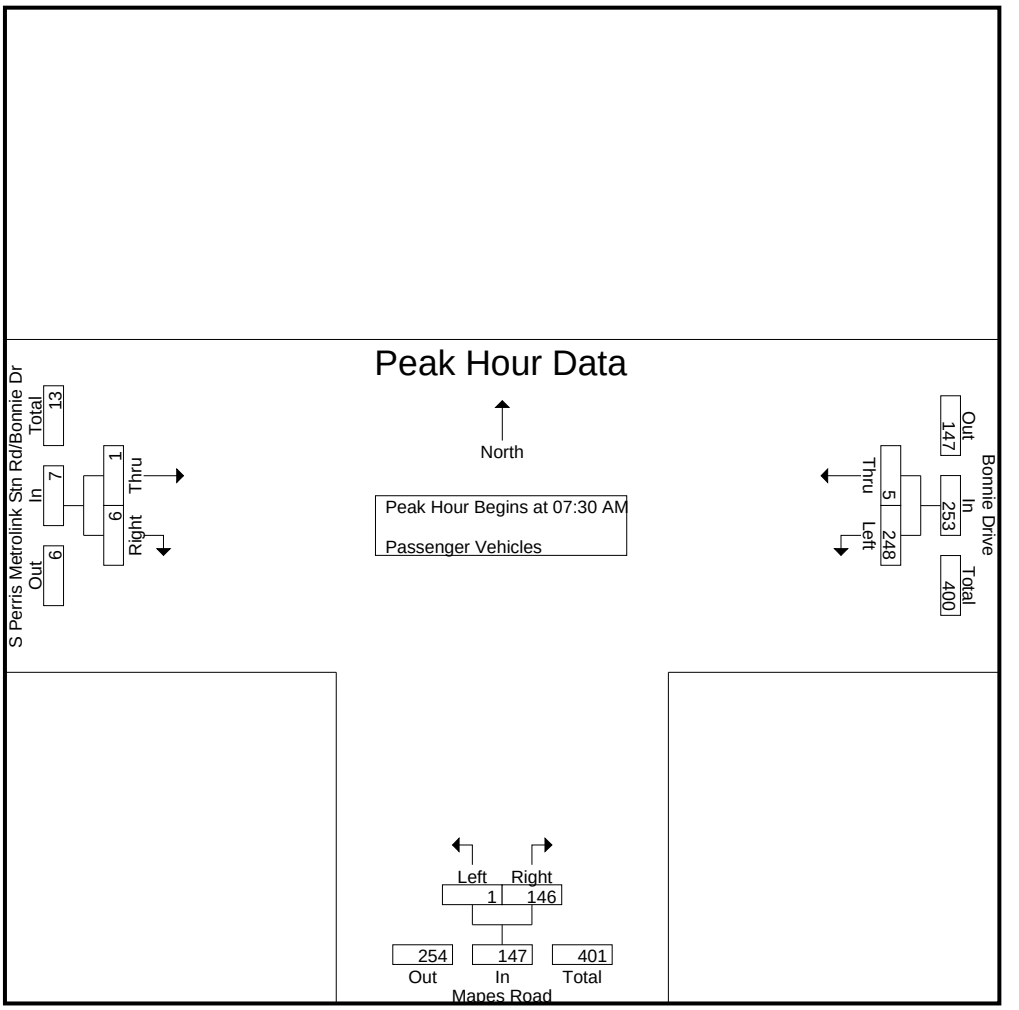
	Bonnie Drive Westbound			Mapes Road Northbound				S Perris Metrolink Stn Rd/Bonnie Dr Eastbound						
Start Time	Left	Thru	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	47	0	47	1	35	0	36	1	1	0	2	0	85	85
07:15 AM	40	0	40	1	27	0	28	1	1	0	2	0	70	70
07:30 AM	69	2	71	0	38	0	38	1	2	0	3	0	112	112
07:45 AM	52	0	52	0	28	0	28	0	1	0	1	0	81	81
Total	208	2	210	2	128	0	130	3	5	0	8	0	348	348
08:00 AM	73	3	76	1	46	0	47	0	2	1	2	1	125	126
08:15 AM	54	0	54	0	34	0	34	0	1	1	1	1	89	90
08:30 AM	48	0	48	0	35	0	35	0	0	0	0	0	83	83
08:45 AM	44	1	45	0	26	0	26	0	2	1	2	1	73	74
Total	219	4	223	1	141	0	142	0	5	3	5	3	370	373
Grand Total	427	6	433	3	269	0	272	3	10	3	13	3	718	721
Apprch %	98.6	1.4		1.1	98.9			23.1	76.9					
Total %	59.5	0.8	60.3	0.4	37.5		37.9	0.4	1.4		1.8	0.4	99.6	

	Bonnie Drive Westbound			Mapes Road Northbound			S Perris Metrolink Stn Rd/Bonnie Dr Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	69	2	71	0	38	38	**1**	**2**	**3**	112
07:45 AM	52	0	52	0	28	28	0	1	1	81
08:00 AM	**73**	**3**	**76**	**1**	**46**	**47**	0	2	2	**125**
08:15 AM	54	0	54	0	34	34	0	1	1	89
Total Volume	248	5	253	1	146	147	1	6	7	407
% App. Total	98	2		0.7	99.3		14.3	85.7		
PHF	.849	.417	.832	.250	.793	.782	.250	.750	.583	.814

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City of Perris
N/S: Mapes Road
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Weather: Clear

File Name : 03_PER_Mapes_Bonnie AM
Site Code : 221041
Start Date : 11/15/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	69	2	71	0	38	38	**1**	**2**	**3**
+15 mins.	52	0	52	0	28	28	0	1	1
+30 mins.	**73**	**3**	**76**	**1**	**46**	**47**	0	2	2
+45 mins.	54	0	54	0	34	34	0	1	1
Total Volume	248	5	253	1	146	147	1	6	7
% App. Total	98	2		0.7	99.3		14.3	85.7	
PHF	.849	.417	.832	.250	.793	.782	.250	.750	.583

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City of Perris
N/S: Mapes Road
E/W: S Perris Metrolink Stn Rd/Bonnie Dr
Weather: Clear

File Name : 03_PER_Mapes_Bonnie AM
Site Code : 221041
Start Date : 11/15/2022

Groups Printed- Large 2 Axle Vehicles

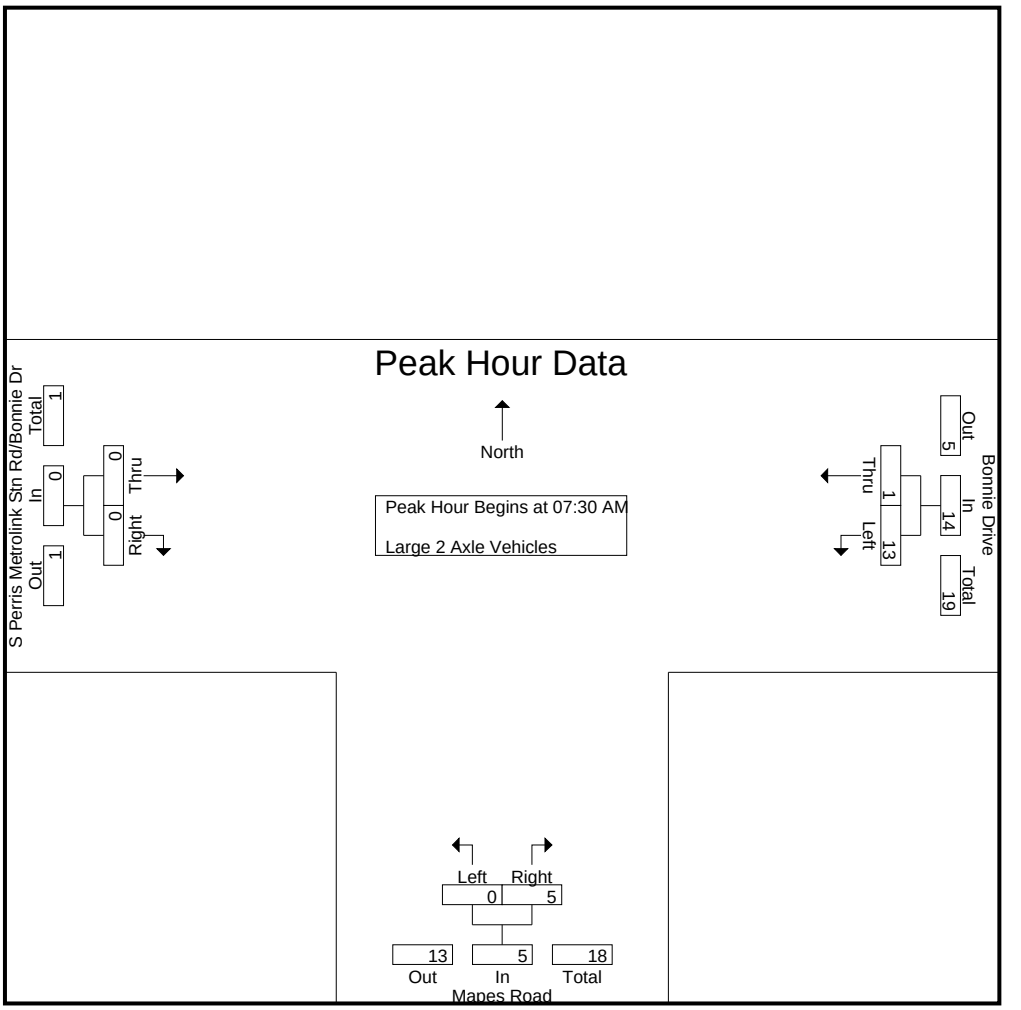
	Bonnie Drive Westbound			Mapes Road Northbound				S Perris Metrolink Stn Rd/Bonnie Dr Eastbound						
Start Time	Left	Thru	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	5	0	5	0	1	0	1	0	0	0	0	0	6	6
07:15 AM	5	0	5	0	3	0	3	1	0	0	1	0	9	9
07:30 AM	2	0	2	0	1	0	1	0	0	0	0	0	3	3
07:45 AM	6	0	6	0	0	0	0	0	0	0	0	0	6	6
Total	18	0	18	0	5	0	5	1	0	0	1	0	24	24
08:00 AM	1	1	2	0	1	0	1	0	0	0	0	0	3	3
08:15 AM	4	0	4	0	3	0	3	0	0	0	0	0	7	7
08:30 AM	3	0	3	0	2	0	2	0	0	0	0	0	5	5
08:45 AM	3	0	3	0	0	0	0	0	0	0	0	0	3	3
Total	11	1	12	0	6	0	6	0	0	0	0	0	18	18
Grand Total	29	1	30	0	11	0	11	1	0	0	1	0	42	42
Apprch %	96.7	3.3		0	100			100	0					
Total %	69	2.4	71.4	0	26.2		26.2	2.4	0		2.4	0	100	

	Bonnie Drive Westbound			Mapes Road Northbound			S Perris Metrolink Stn Rd/Bonnie Dr Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	2	0	2	0	1	1	0	0	0	3
07:45 AM	**6**	0	**6**	0	0	0	0	0	0	6
08:00 AM	1	**1**	2	0	1	1	0	0	0	3
08:15 AM	4	0	4	0	**3**	**3**	0	0	0	**7**
Total Volume	13	1	14	0	5	5	0	0	0	19
% App. Total	92.9	7.1		0	100		0	0		
PHF	.542	.250	.583	.000	.417	.417	.000	.000	.000	.679

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City of Perris
N/S: Mapes Road
E/W: S Perris Metrolink Stn Rd/Bonnie Dr
Weather: Clear

File Name : 03_PER_Mapes_Bonnie AM
Site Code : 221041
Start Date : 11/15/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	2	0	2	0	1	1	0	0	0
+15 mins.	**6**	0	**6**	0	0	0	0	0	0
+30 mins.	1	**1**	2	0	1	1	0	0	0
+45 mins.	4	0	4	0	**3**	**3**	0	0	0
Total Volume	13	1	14	0	5	5	0	0	0
% App. Total	92.9	7.1		0	100		0	0	
PHF	.542	.250	.583	.000	.417	.417	.000	.000	.000

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City of Perris
N/S: Mapes Road
E/W: S Perris Metrolink Stn Rd/Bonnie Dr
Weather: Clear

File Name : 03_PER_Mapes_Bonnie AM
Site Code : 221041
Start Date : 11/15/2022

Groups Printed- 3 Axle Vehicles

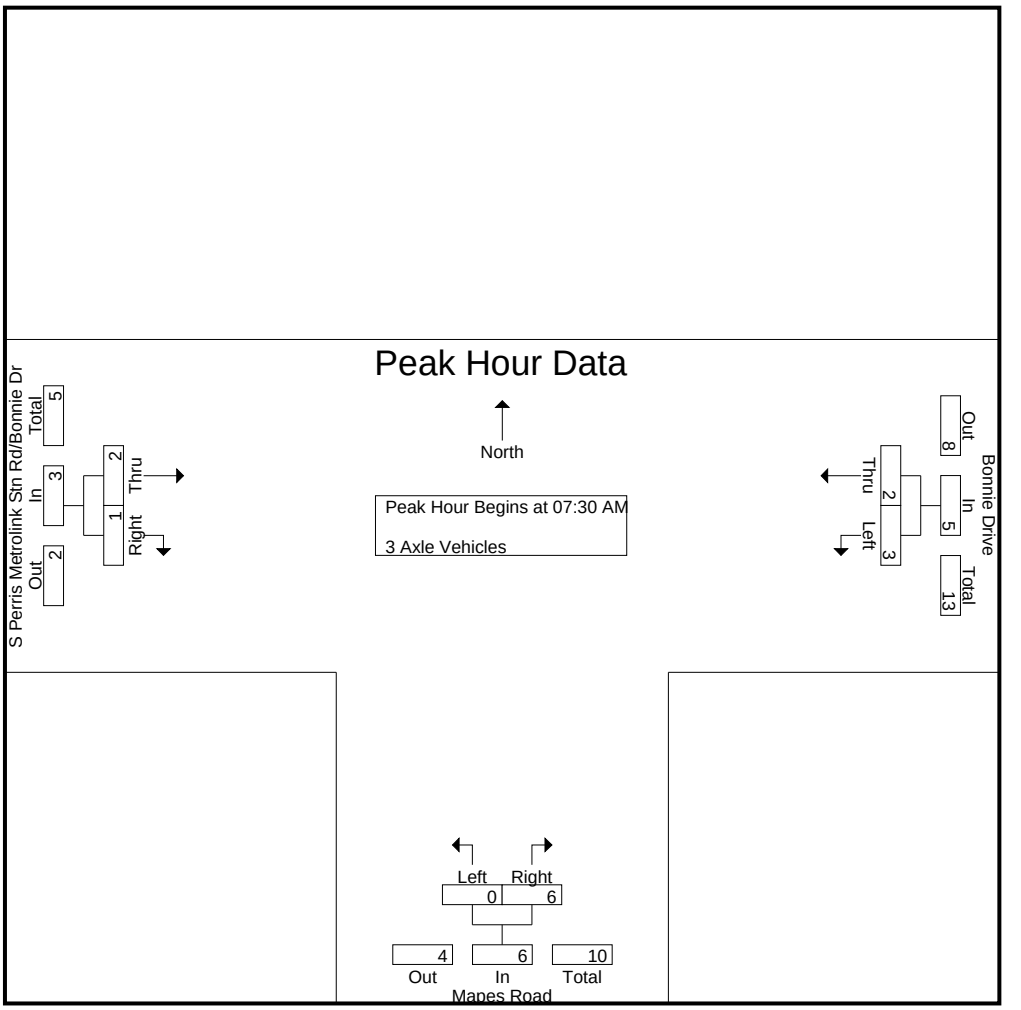
	Bonnie Drive Westbound			Mapes Road Northbound				S Perris Metrolink Stn Rd/Bonnie Dr Eastbound						
Start Time	Left	Thru	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	2	1	3	0	0	0	0	1	0	0	1	0	4	4
07:15 AM	2	0	2	0	1	0	1	1	0	0	1	0	4	4
07:30 AM	0	0	0	0	2	0	2	0	0	0	0	0	2	2
07:45 AM	0	0	0	0	1	0	1	0	0	0	0	0	1	1
Total	4	1	5	0	4	0	4	2	0	0	2	0	11	11
08:00 AM	3	1	4	0	3	0	3	0	0	0	0	0	7	7
08:15 AM	0	1	1	0	0	0	0	2	1	0	3	0	4	4
08:30 AM	1	0	1	0	1	0	1	0	0	0	0	0	2	2
08:45 AM	1	0	1	0	1	0	1	0	0	0	0	0	2	2
Total	5	2	7	0	5	0	5	2	1	0	3	0	15	15
Grand Total	9	3	12	0	9	0	9	4	1	0	5	0	26	26
Apprch %	75	25		0	100			80	20					
Total %	34.6	11.5	46.2	0	34.6		34.6	15.4	3.8		19.2	0	100	

	Bonnie Drive Westbound			Mapes Road Northbound			S Perris Metrolink Stn Rd/Bonnie Dr Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	0	0	0	0	2	2	0	0	0	2
07:45 AM	0	0	0	0	1	1	0	0	0	1
08:00 AM	**3**	**1**	**4**	0	**3**	**3**	0	0	0	**7**
08:15 AM	0	1	1	0	0	0	**2**	**1**	**3**	4
Total Volume	3	2	5	0	6	6	2	1	3	14
% App. Total	60	40		0	100		66.7	33.3		
PHF	.250	.500	.313	.000	.500	.500	.250	.250	.250	.500

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Weather: Clear

File Name : 03_PER_Mapes_Bonnie AM
Site Code : 221041
Start Date : 11/15/2022
Page No : 2



Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	0	0	0	0	2	2	0	0	0
+15 mins.	0	0	0	0	1	1	0	0	0
+30 mins.	**3**	**1**	**4**	0	**3**	**3**	0	0	0
+45 mins.	0	1	1	0	0	0	**2**	**1**	**3**
Total Volume	3	2	5	0	6	6	2	1	3
% App. Total	60	40		0	100		66.7	33.3	
PHF	.250	.500	.313	.000	.500	.500	.250	.250	.250

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City of Perris
N/S: Mapes Road
E/W: S Perris Metrolink Stn Rd/Bonnie Dr
Weather: Clear

File Name : 03_PER_Mapes_Bonnie AM
Site Code : 221041
Start Date : 11/15/2022

Groups Printed- 4+ Axle Trucks

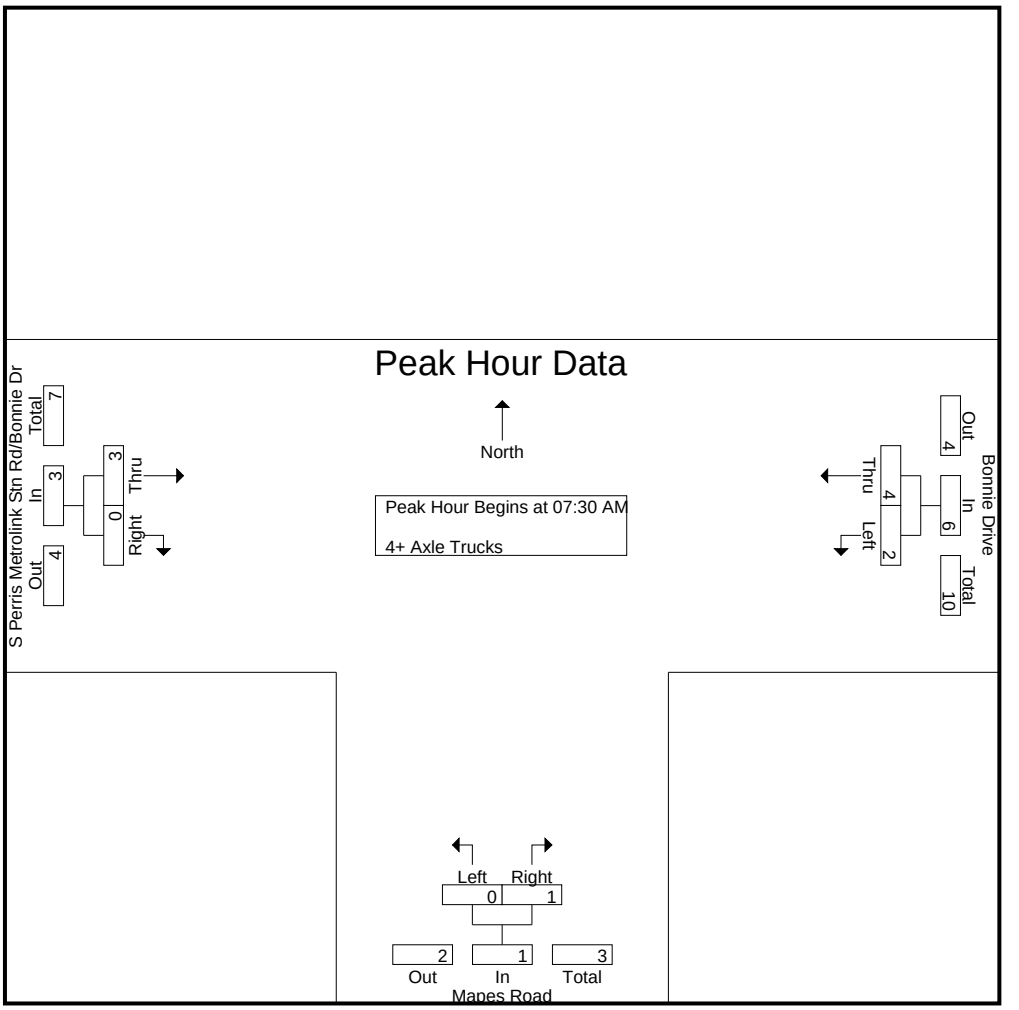
	Bonnie Drive Westbound			Mapes Road Northbound				S Perris Metrolink Stn Rd/Bonnie Dr Eastbound						
Start Time	Left	Thru	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	1	1	0	0	0	0	1	0	0	1	0	2	2
07:15 AM	0	1	1	0	0	0	0	1	0	0	1	0	2	2
07:30 AM	1	1	2	0	0	0	0	1	0	0	1	0	3	3
07:45 AM	0	0	0	0	1	0	1	1	0	0	1	0	2	2
Total	1	3	4	0	1	0	1	4	0	0	4	0	9	9
08:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	1	1
08:15 AM	1	2	3	0	0	0	0	1	0	0	1	0	4	4
08:30 AM	0	0	0	0	1	0	1	2	0	0	2	0	3	3
08:45 AM	1	1	2	0	0	0	0	0	0	0	0	0	2	2
Total	2	4	6	0	1	0	1	3	0	0	3	0	10	10
Grand Total	3	7	10	0	2	0	2	7	0	0	7	0	19	19
Apprch %	30	70		0	100			100	0					
Total %	15.8	36.8	52.6	0	10.5		10.5	36.8	0		36.8	0	100	

	Bonnie Drive Westbound			Mapes Road Northbound			S Perris Metrolink Stn Rd/Bonnie Dr Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	**1**	1	2	0	0	0	**1**	0	**1**	3
07:45 AM	0	0	0	0	**1**	**1**	1	0	1	2
08:00 AM	0	1	1	0	0	0	0	0	0	1
08:15 AM	1	**2**	**3**	0	0	0	1	0	1	**4**
Total Volume	2	4	6	0	1	1	3	0	3	10
% App. Total	33.3	66.7		0	100		100	0		
PHF	.500	.500	.500	.000	.250	.250	.750	.000	.750	.625

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City of Perris
N/S: Mapes Road
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Weather: Clear

File Name : 03_PER_Mapes_Bonnie AM
Site Code : 221041
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	**1**	1	2	0	0	0	**1**	0	**1**
+15 mins.	0	0	0	0	**1**	**1**	1	0	1
+30 mins.	0	1	1	0	0	0	0	0	0
+45 mins.	1	**2**	**3**	0	0	0	1	0	1
Total Volume	2	4	6	0	1	1	3	0	3
% App. Total	33.3	66.7		0	100		100	0	
PHF	.500	.500	.500	.000	.250	.250	.750	.000	.750

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City of Perris
N/S: Mapes Road
E/W: S Perris Metrolink Stn Rd/Bonnie Dr
Weather: Clear

File Name : 03_PER_Mapes_Bonnie PM
Site Code : 221041
Start Date : 11/15/2022
Page No : 1

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

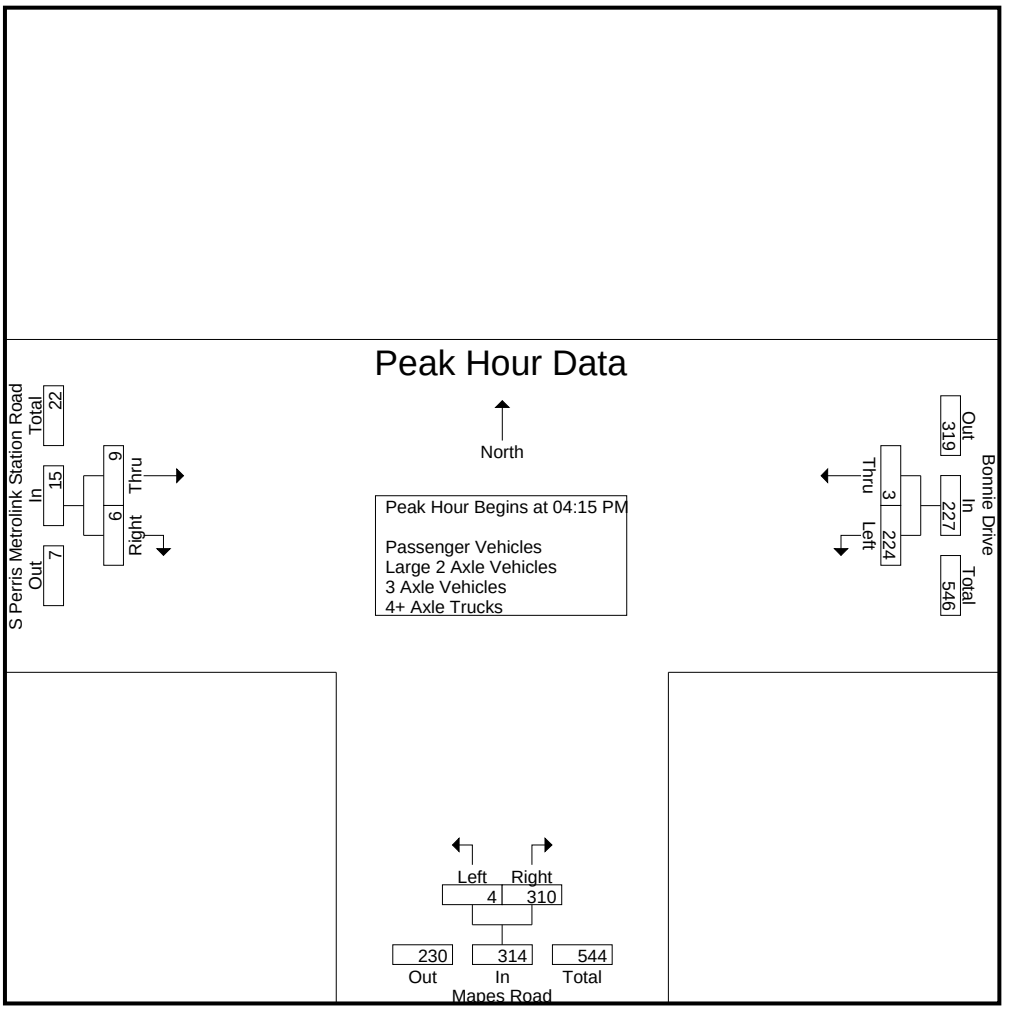
	Bonnie Drive Westbound			Mapes Road Northbound				S Perris Metrolink Station Road Eastbound						
Start Time	Left	Thru	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	85	2	87	0	67	0	67	0	0	0	0	0	154	154
04:15 PM	52	1	53	2	76	0	78	0	1	1	1	1	132	133
04:30 PM	53	1	54	2	72	0	74	2	0	0	2	0	130	130
04:45 PM	58	1	59	0	72	0	72	5	3	2	8	2	139	141
Total	248	5	253	4	287	0	291	7	4	3	11	3	555	558
05:00 PM	61	0	61	0	90	0	90	2	2	0	4	0	155	155
05:15 PM	55	1	56	1	69	0	70	0	0	0	0	0	126	126
05:30 PM	52	1	53	2	58	0	60	1	0	0	1	0	114	114
05:45 PM	39	11	50	0	61	0	61	16	7	5	23	5	134	139
Total	207	13	220	3	278	0	281	19	9	5	28	5	529	534
Grand Total	455	18	473	7	565	0	572	26	13	8	39	8	1084	1092
Apprch %	96.2	3.8		1.2	98.8			66.7	33.3					
Total %	42	1.7	43.6	0.6	52.1		52.8	2.4	1.2		3.6	0.7	99.3	
Passenger Vehicles	424	17	441	7	554		561	26	13		47	0	0	1049
% Passenger Vehicles	93.2	94.4	93.2	100	98.1	0	98.1	100	100	100	100	0	0	96.1
Large 2 Axle Vehicles	12	1	13	0	8		8	0	0		0	0	0	21
% Large 2 Axle Vehicles	2.6	5.6	2.7	0	1.4	0	1.4	0	0	0	0	0	0	1.9
3 Axle Vehicles	17	0	17	0	1		1	0	0		0	0	0	18
% 3 Axle Vehicles	3.7	0	3.6	0	0.2	0	0.2	0	0	0	0	0	0	1.6
4+ Axle Trucks	2	0	2	0	2		2	0	0		0	0	0	4
% 4+ Axle Trucks	0.4	0	0.4	0	0.4	0	0.3	0	0	0	0	0	0	0.4

	Bonnie Drive Westbound			Mapes Road Northbound			S Perris Metrolink Station Road 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	52	**1**	53	**2**	76	78	0	1	1	132
04:30 PM	53	1	54	2	72	74	2	0	2	130
04:45 PM	58	1	59	0	72	72	**5**	**3**	**8**	139
05:00 PM	**61**	0	**61**	0	**90**	**90**	2	2	4	**155**
Total Volume	224	3	227	4	310	314	9	6	15	556
% App. Total	98.7	1.3		1.3	98.7		60	40		
PHF	.918	.750	.930	.500	.861	.872	.450	.500	.469	.897

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City of Perris
N/S: Mapes Road
E/W: S Perris Metrolink Stn Rd/Bonnie Dr
Weather: Clear

File Name : 03_PER_Mapes_Bonnie PM
Site Code : 221041
Start Date : 11/15/2022
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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			05:00 PM		
+0 mins.	**85**	**2**	**87**	**2**	76	78	2	2	4
+15 mins.	52	1	53	2	72	74	0	0	0
+30 mins.	53	1	54	0	72	72	1	0	1
+45 mins.	58	1	59	0	**90**	**90**	**16**	**7**	**23**
Total Volume	248	5	253	4	310	314	19	9	28
% App. Total	98	2		1.3	98.7		67.9	32.1	
PHF	.729	.625	.727	.500	.861	.872	.297	.321	.304

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City of Perris
N/S: Mapes Road
E/W: S Perris Metrolink Stn Rd/Bonnie Dr
Weather: Clear

File Name : 03_PER_Mapes_Bonnie PM
Site Code : 221041
Start Date : 11/15/2022

Groups Printed- Passenger Vehicles

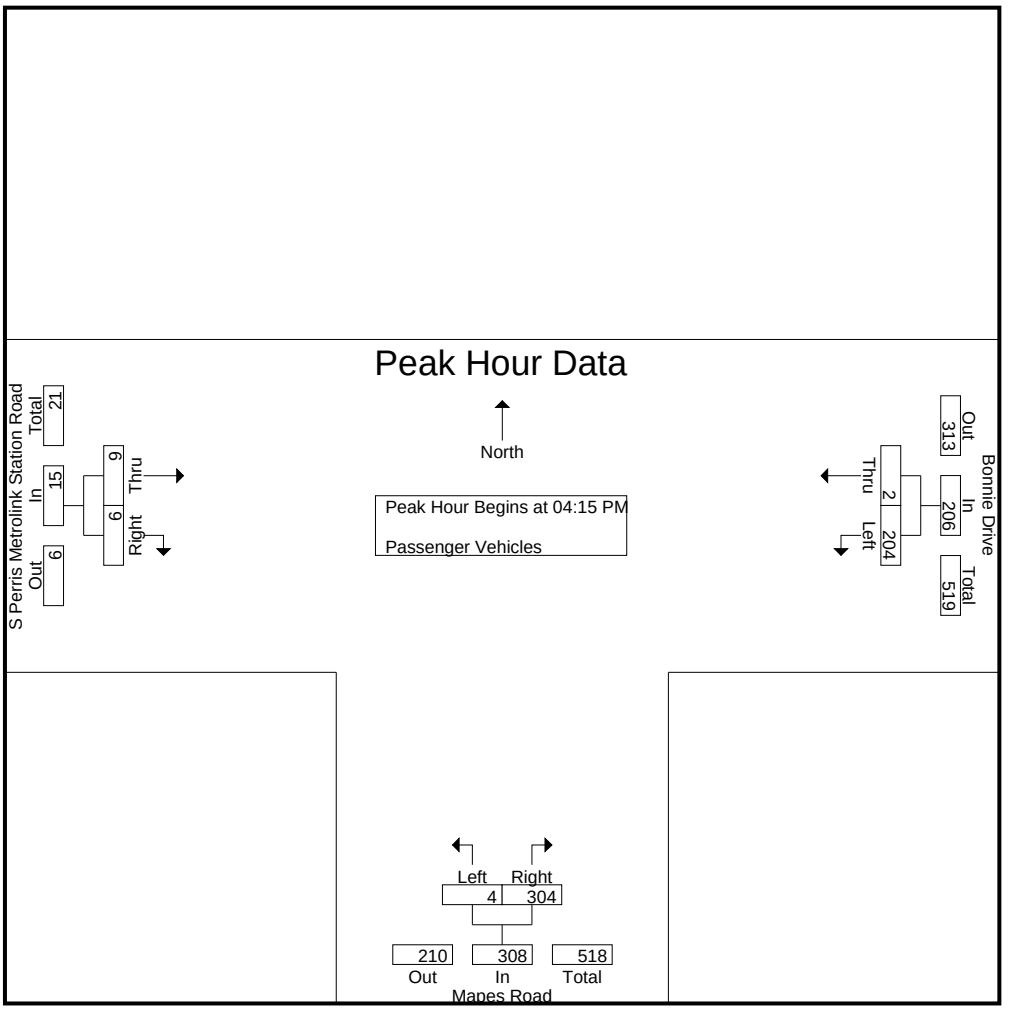
	Bonnie Drive Westbound			Mapes Road Northbound				S Perris Metrolink Station Road Eastbound						
Start Time	Left	Thru	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	84	2	86	0	66	0	66	0	0	0	0	0	152	152
04:15 PM	46	1	47	2	76	0	78	0	1	1	1	1	126	127
04:30 PM	49	0	49	2	70	0	72	2	0	0	2	0	123	123
04:45 PM	53	1	54	0	68	0	68	5	3	2	8	2	130	132
Total	232	4	236	4	280	0	284	7	4	3	11	3	531	534
05:00 PM	56	0	56	0	90	0	90	2	2	0	4	0	150	150
05:15 PM	52	1	53	1	66	0	67	0	0	0	0	0	120	120
05:30 PM	48	1	49	2	58	0	60	1	0	0	1	0	110	110
05:45 PM	36	11	47	0	60	0	60	16	7	5	23	5	130	135
Total	192	13	205	3	274	0	277	19	9	5	28	5	510	515
Grand Total	424	17	441	7	554	0	561	26	13	8	39	8	1041	1049
Apprch %	96.1	3.9		1.2	98.8			66.7	33.3					
Total %	40.7	1.6	42.4	0.7	53.2		53.9	2.5	1.2		3.7	0.8	99.2	

	Bonnie Drive Westbound			Mapes Road Northbound			S Perris Metrolink Station Road 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	46	**1**	47	**2**	76	78	0	1	1	126
04:30 PM	49	0	49	2	70	72	2	0	2	123
04:45 PM	53	1	54	0	68	68	**5**	**3**	**8**	130
05:00 PM	**56**	0	**56**	0	**90**	**90**	2	2	4	**150**
Total Volume	204	2	206	4	304	308	9	6	15	529
% App. Total	99	1		1.3	98.7		60	40		
PHF	.911	.500	.920	.500	.844	.856	.450	.500	.469	.882

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City of Perris
N/S: Mapes Road
E/W: S Perris Metrolink Stn Rd/Bonnie Dr
Weather: Clear

File Name : 03_PER_Mapes_Bonnie PM
Site Code : 221041
Start Date : 11/15/2022
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.	46	**1**	47	**2**	76	78	0	1	1
+15 mins.	49	0	49	2	70	72	2	0	2
+30 mins.	53	1	54	0	68	68	**5**	**3**	**8**
+45 mins.	**56**	0	**56**	0	**90**	**90**	2	2	4
Total Volume	204	2	206	4	304	308	9	6	15
% App. Total	99	1		1.3	98.7		60	40	
PHF	.911	.500	.920	.500	.844	.856	.450	.500	.469

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City of Perris
N/S: Mapes Road
E/W: S Perris Metrolink Stn Rd/Bonnie Dr
Weather: Clear

File Name : 03_PER_Mapes_Bonnie PM
Site Code : 221041
Start Date : 11/15/2022

Groups Printed- Large 2 Axle Vehicles

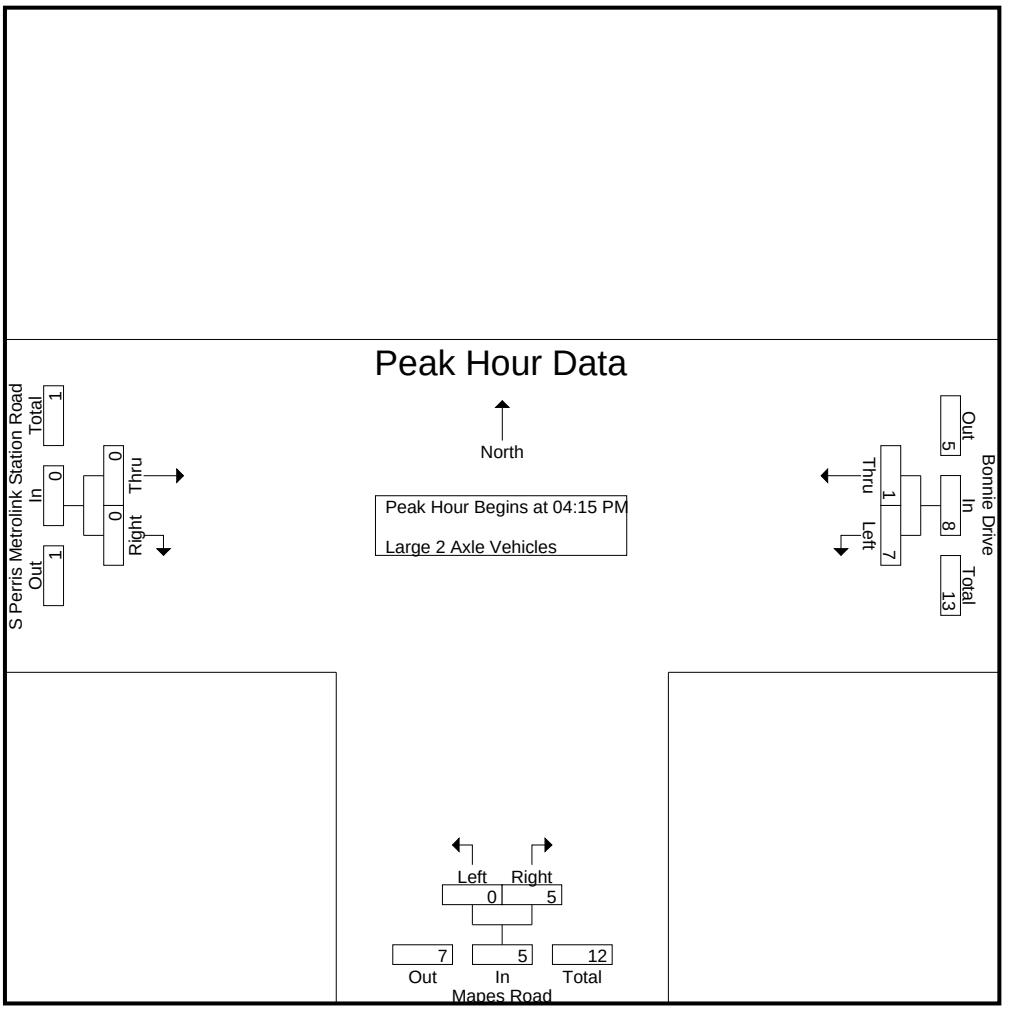
	Bonnie Drive Westbound			Mapes Road Northbound				S Perris Metrolink Station Road Eastbound						
Start Time	Left	Thru	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	0	1	0	0	0	0	0	0	0	0	0	1	1
04:15 PM	3	0	3	0	0	0	0	0	0	0	0	0	3	3
04:30 PM	2	1	3	0	2	0	2	0	0	0	0	0	5	5
04:45 PM	1	0	1	0	3	0	3	0	0	0	0	0	4	4
Total	7	1	8	0	5	0	5	0	0	0	0	0	13	13
05:00 PM	1	0	1	0	0	0	0	0	0	0	0	0	1	1
05:15 PM	2	0	2	0	2	0	2	0	0	0	0	0	4	4
05:30 PM	2	0	2	0	0	0	0	0	0	0	0	0	2	2
05:45 PM	0	0	0	0	1	0	1	0	0	0	0	0	1	1
Total	5	0	5	0	3	0	3	0	0	0	0	0	8	8
Grand Total	12	1	13	0	8	0	8	0	0	0	0	0	21	21
Apprch %	92.3	7.7		0	100			0	0					
Total %	57.1	4.8	61.9	0	38.1		38.1	0	0		0	0	100	

	Bonnie Drive Westbound			Mapes Road Northbound			S Perris Metrolink Station Road 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	**3**	0	**3**	0	0	0	0	0	0	3
04:30 PM	2	**1**	3	0	2	2	0	0	0	**5**
04:45 PM	1	0	1	0	**3**	**3**	0	0	0	4
05:00 PM	1	0	1	0	0	0	0	0	0	1
Total Volume	7	1	8	0	5	5	0	0	0	13
% App. Total	87.5	12.5		0	100		0	0		
PHF	.583	.250	.667	.000	.417	.417	.000	.000	.000	.650

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City of Perris
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Weather: Clear

File Name : 03_PER_Mapes_Bonnie PM
Site Code : 221041
Start Date : 11/15/2022
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.	**3**	0	**3**	0	0	0	0	0	0
+15 mins.	2	**1**	3	0	2	2	0	0	0
+30 mins.	1	0	1	0	**3**	**3**	0	0	0
+45 mins.	1	0	1	0	0	0	0	0	0
Total Volume	7	1	8	0	5	5	0	0	0
% App. Total	87.5	12.5		0	100		0	0	
PHF	.583	.250	.667	.000	.417	.417	.000	.000	.000

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City of Perris
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Weather: Clear

File Name : 03_PER_Mapes_Bonnie PM
Site Code : 221041
Start Date : 11/15/2022
Page No : 1

Groups Printed- 3 Axle Vehicles

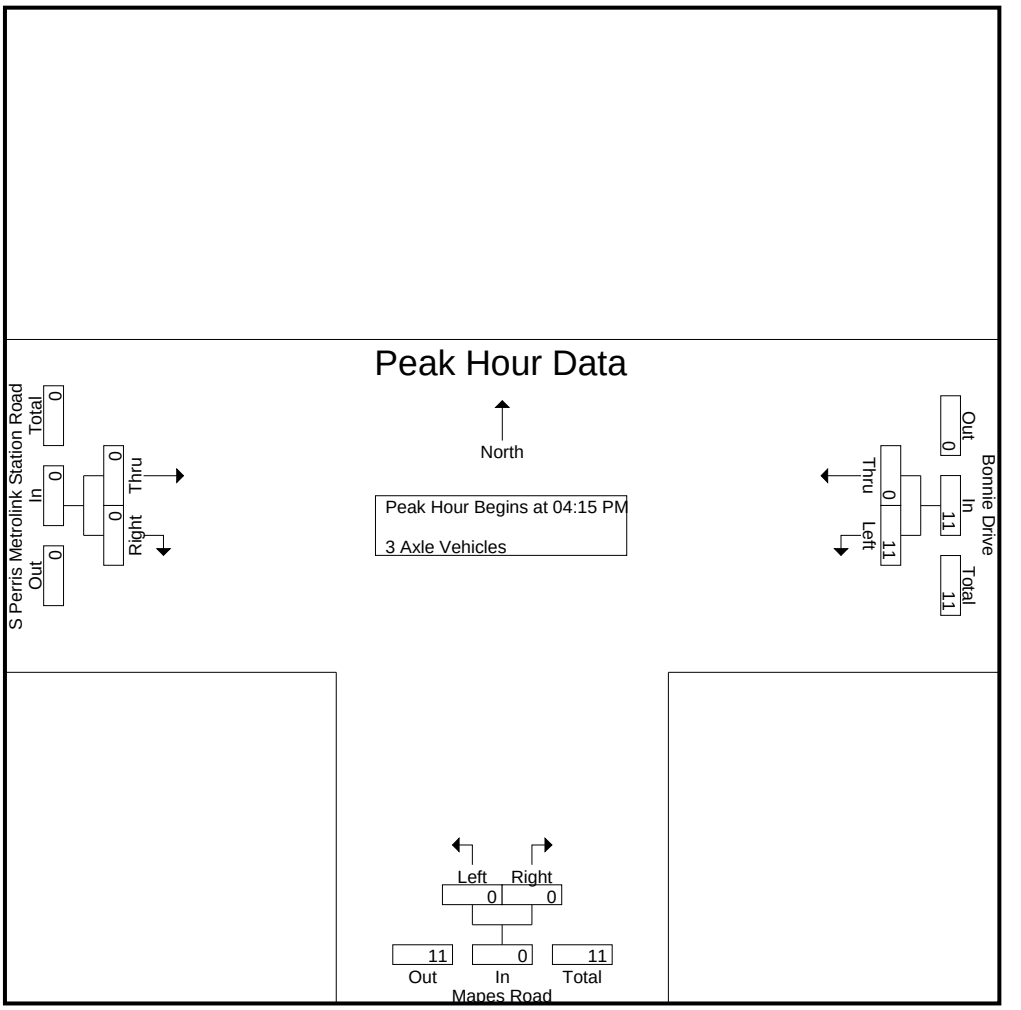
	Bonnie Drive Westbound			Mapes Road Northbound				S Perris Metrolink Station Road Eastbound						
Start Time	Left	Thru	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	1	0	1	0	0	0	0	0	1	1
04:15 PM	3	0	3	0	0	0	0	0	0	0	0	0	3	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	4	0	4	0	0	0	0	0	0	0	0	0	4	4
Total	7	0	7	0	1	0	1	0	0	0	0	0	8	8
05:00 PM	4	0	4	0	0	0	0	0	0	0	0	0	4	4
05:15 PM	1	0	1	0	0	0	0	0	0	0	0	0	1	1
05:30 PM	2	0	2	0	0	0	0	0	0	0	0	0	2	2
05:45 PM	3	0	3	0	0	0	0	0	0	0	0	0	3	3
Total	10	0	10	0	0	0	0	0	0	0	0	0	10	10
Grand Total	17	0	17	0	1	0	1	0	0	0	0	0	18	18
Apprch %	100	0		0	100			0	0					
Total %	94.4	0	94.4	0	5.6		5.6	0	0		0	0	100	

	Bonnie Drive Westbound			Mapes Road Northbound			S Perris Metrolink Station Road 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	3	0	3	0	0	0	0	0	0	3
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	**4**	0	**4**	0	0	0	0	0	0	**4**
05:00 PM	4	0	4	0	0	0	0	0	0	4
Total Volume	11	0	11	0	0	0	0	0	0	11
% App. Total	100	0		0	0		0	0		
PHF	.688	.000	.688	.000	.000	.000	.000	.000	.000	.688

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City of Perris
N/S: Mapes Road
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Weather: Clear

File Name : 03_PER_Mapes_Bonnie PM
Site Code : 221041
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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.	3	0	3	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	**4**	0	**4**	0	0	0	0	0	0
+45 mins.	4	0	4	0	0	0	0	0	0
Total Volume	11	0	11	0	0	0	0	0	0
% App. Total	100	0		0	0		0	0	
PHF	.688	.000	.688	.000	.000	.000	.000	.000	.000

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City of Perris
N/S: Mapes Road
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Weather: Clear

File Name : 03_PER_Mapes_Bonnie PM
Site Code : 221041
Start Date : 11/15/2022

Groups Printed- 4+ Axle Trucks

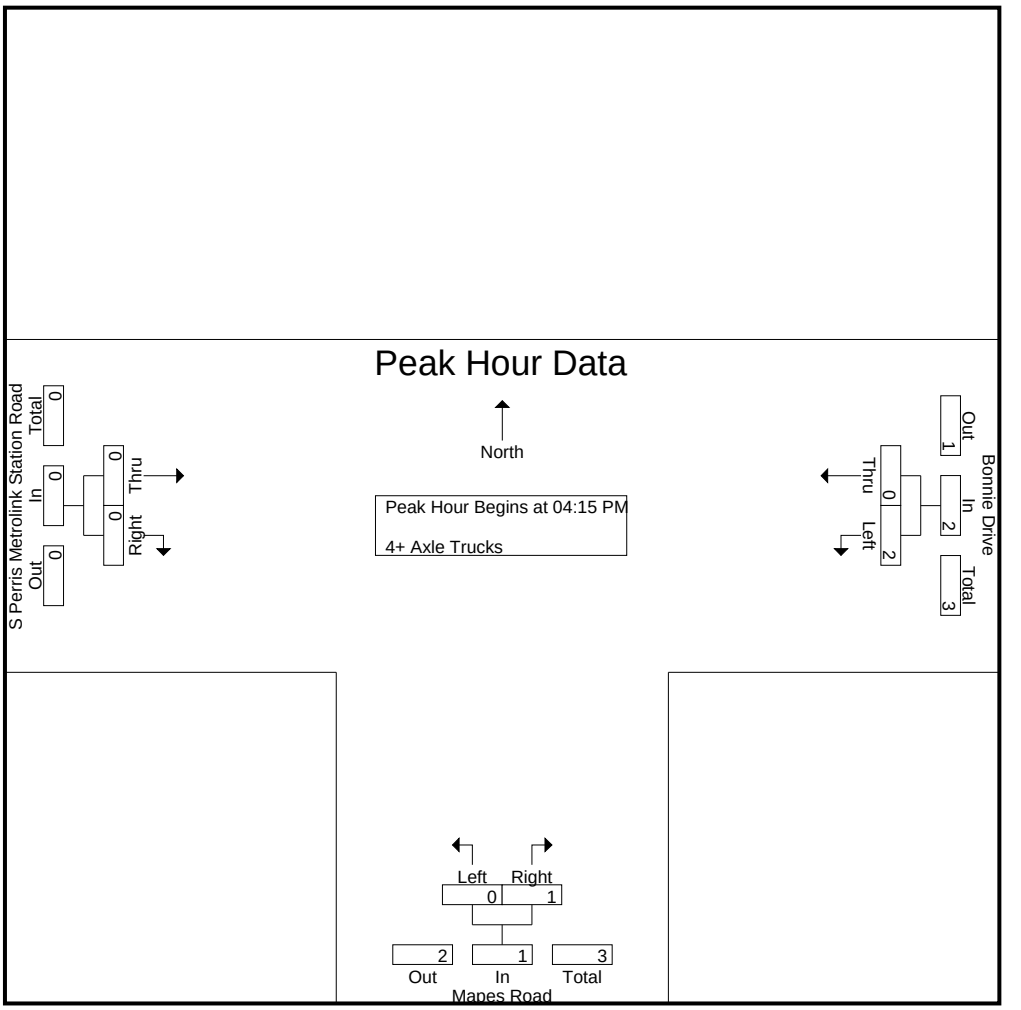
	Bonnie Drive Westbound			Mapes Road Northbound				S Perris Metrolink Station Road Eastbound						
Start Time	Left	Thru	App. Total	Left	Right	RTOR	App. Total	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	2	0	2	0	0	0	0	0	0	0	0	0	2	2
04:45 PM	0	0	0	0	1	0	1	0	0	0	0	0	1	1
Total	2	0	2	0	1	0	1	0	0	0	0	0	3	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	1	0	1	0	0	0	0	0	1	1
05:30 PM	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
Total	0	0	0	0	1	0	1	0	0	0	0	0	1	1
Grand Total	2	0	2	0	2	0	2	0	0	0	0	0	4	4
Apprch %	100	0		0	100			0	0					
Total %	50	0	50	0	50		50	0	0		0	0	100	

	Bonnie Drive Westbound			Mapes Road Northbound			S Perris Metrolink Station Road 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	**2**	0	**2**	0	0	0	0	0	0	**2**
04:45 PM	0	0	0	0	**1**	**1**	0	0	0	1
05:00 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	2	0	2	0	1	1	0	0	0	3
% App. Total	100	0		0	100		0	0		
PHF	.250	.000	.250	.000	.250	.250	.000	.000	.000	.375

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

City of Perris
N/S: Mapes Road
E/W: S Perris Metrolink Stn Rd/Bonnie Dr
Weather: Clear

File Name : 03_PER_Mapes_Bonnie PM
Site Code : 221041
Start Date : 11/15/2022
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.	**2**	0	**2**	0	0	0	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	2	0	2	0	1	1	0	0	0
% App. Total	100	0		0	100		0	0	
PHF	.250	.000	.250	.000	.250	.250	.000	.000	.000

Location: Perris
N/S: Mapes Road
E/W: S Perris Metrolink Stn Rd/Bonnie Dr

Date: 11/15/2022
Day: Tuesday

PEDESTRIANS

	North Leg Dead End	East Leg Bonnie Drive	South Leg Mapes Road	West Leg S Perris Metro Stn Road	
	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 Bonnie Drive	South Leg Mapes Road	West Leg S Perris Metro Stn Road	
	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

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Location: Perris
N/S: Mapes Road
E/W: S Perris Metrolink Stn Rd/Bonnie Dr

Date: 11/15/2022
Day: Tuesday

BICYCLES

	Southbound Dead End			Westbound Bonnie Drive			Northbound Mapes Road			Eastbound S Perris Metro Stn Road			
	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 Bonnie Drive			Northbound Mapes Road			Eastbound S Perris Metro Stn Road			
	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	1	0	0	0	0	0	0	0	0	1
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	0	0	0	0	1

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268

INTERSECTION TURNING MOVEMENT COUNTS

T42321

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, May 24, 22	LOCATION:	Perris	PROJECT #: SC3431
	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #: 10
	EAST & WEST:	Bonnie	CONTROL: SIGNAL

NOTES:

No peds and bikes. Fog AM

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

		NORTHBOUND (I-215 SB Ramps)			SOUTHBOUND (I-215 SB Ramps)			EASTBOUND (Bonnie)			WESTBOUND (Bonnie)				U-TURNS					RTOR			
	LANES:	NL 1	NT 1	NR X	SL X	ST 1	SR 1	EL 1	ET X	ER 1	WL X	WT X	WR X	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL	NRR X	SRR 0	ERR 0	WRR X
AM	7:00 AM	39	92	0	0	139	6	0	0	32	0	0	0	308	0	0	0	0	0	0	1	30	0
	7:15 AM	38	78	0	0	140	7	9	0	31	0	0	0	303	0	0	0	0	0	0	2	22	0
	7:30 AM	51	111	0	0	114	2	7	0	27	0	0	0	312	0	0	0	0	0	0	0	25	0
	7:45 AM	51	102	0	0	116	9	6	0	22	0	0	0	306	1	0	0	0	1	0	2	20	0
	8:00 AM	37	73	0	0	101	4	2	0	27	0	0	0	244	0	0	0	0	0	0	1	23	0
	8:15 AM	40	77	0	0	129	3	7	0	40	0	0	0	296	0	0	0	0	0	0	0	31	0
	8:30 AM	45	70	0	0	126	4	2	0	20	0	0	0	267	0	0	0	0	0	0	0	12	0
	8:45 AM	38	67	0	0	130	10	6	0	32	0	0	0	283	0	0	0	0	0	0	3	22	0
	VOLUMES	339	670	0	0	995	45	39	0	231	0	0	0	2,319	1	0	0	0	1	0	9	185	0
	APPROACH %	34%	66%	0%	0%	96%	4%	14%	0%	86%	0%	0%	0%										
	APP/DEPART	1,009	/	709	1,040	/	1,227	270	/	0	0	/	383	0									
	BEGIN PEAK HR		7:00 AM																				
	VOLUMES	179	383	0	0	509	24	22	0	112	0	0	0	1,229						0	5	97	0
	APPROACH %	32%	68%	0%	0%	95%	5%	16%	0%	84%	0%	0%	0%										
	PEAK HR FACTOR		0.867			0.906			0.838			0.000		0.985									
	APP/DEPART	562	/	405	533	/	622	134	/	0	0	/	202	0									
PM	4:00 PM	53	83	0	0	199	2	3	0	55	0	0	0	395	1	0	0	0	1	0	1	44	0
	4:15 PM	51	73	0	0	214	4	4	0	54	0	0	0	400	1	0	0	0	1	0	1	43	0
	4:30 PM	39	91	0	0	185	4	9	0	59	0	0	0	387	0	0	0	0	0	0	1	40	0
	4:45 PM	46	57	0	0	198	5	6	0	63	0	0	0	375	0	0	0	0	0	0	1	57	0
	5:00 PM	56	87	0	0	202	5	6	0	70	0	0	0	426	0	0	0	0	0	0	0	54	0
	5:15 PM	45	60	0	0	192	7	4	0	53	0	0	0	361	1	0	0	0	1	0	2	39	0
	5:30 PM	55	68	0	0	179	6	1	0	49	0	0	0	358	1	0	0	0	1	0	2	40	0
	5:45 PM	51	51	0	0	190	3	19	0	73	0	0	0	387	0	0	0	0	0	0	2	52	0
	VOLUMES	396	570	0	0	1,559	36	52	0	476	0	0	0	3,089	4	0	0	0	4	0	10	369	0
	APPROACH %	41%	59%	0%	0%	98%	2%	10%	0%	90%	0%	0%	0%										
	APP/DEPART	966	/	622	1,595	/	2,039	528	/	0	0	/	428	0									
	BEGIN PEAK HR		4:15 PM																				
	VOLUMES	192	308	0	0	799	18	25	0	246	0	0	0	1,588						0	3	194	0
	APPROACH %	38%	62%	0%	0%	98%	2%	9%	0%	91%	0%	0%	0%										
	PEAK HR FACTOR		0.874			0.937			0.891			0.000		0.932									
	APP/DEPART	500	/	333	817	/	1,046	271	/	0	0	/	209	0									

I-215 SB Ramps

NORTH SIDE

Bonnie WEST SIDE EAST SIDE **Bonnie**

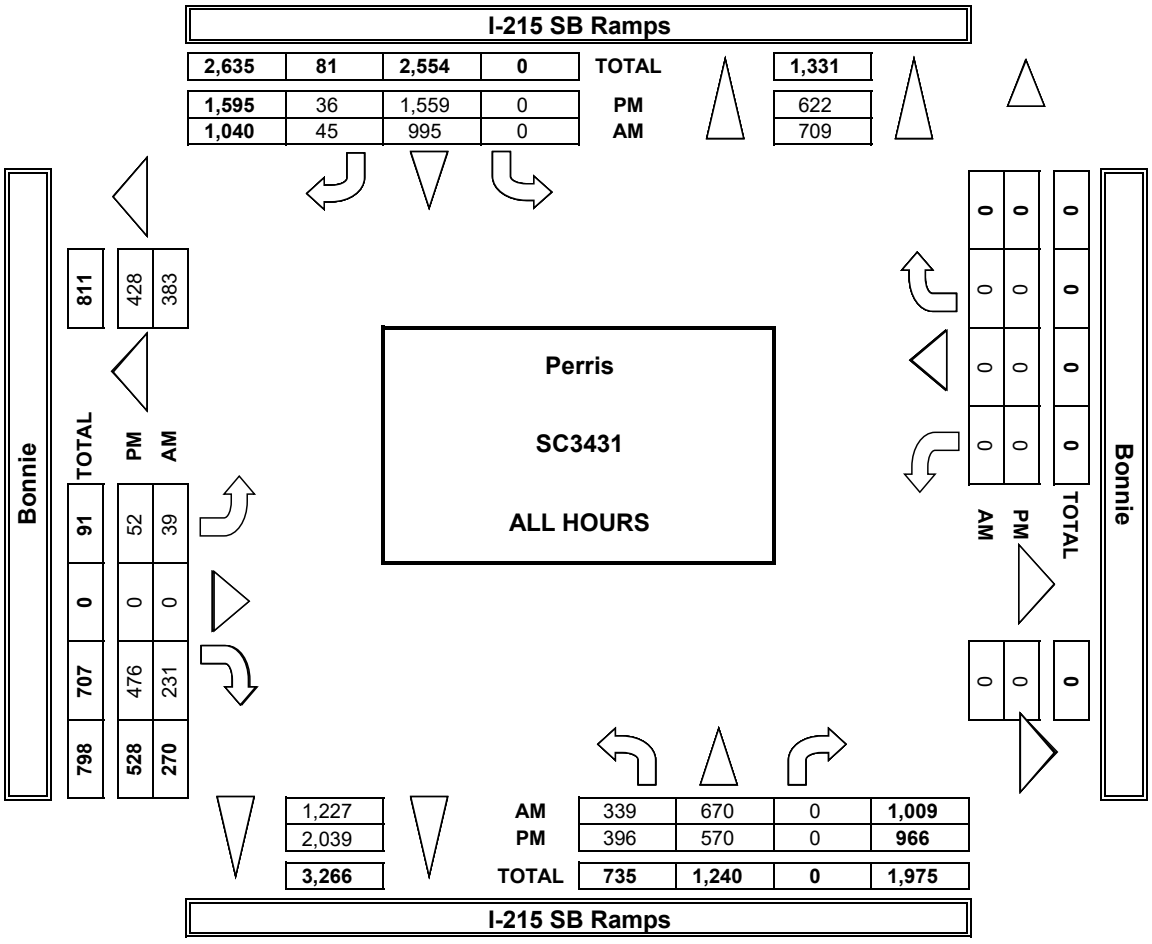
SOUTH SIDE

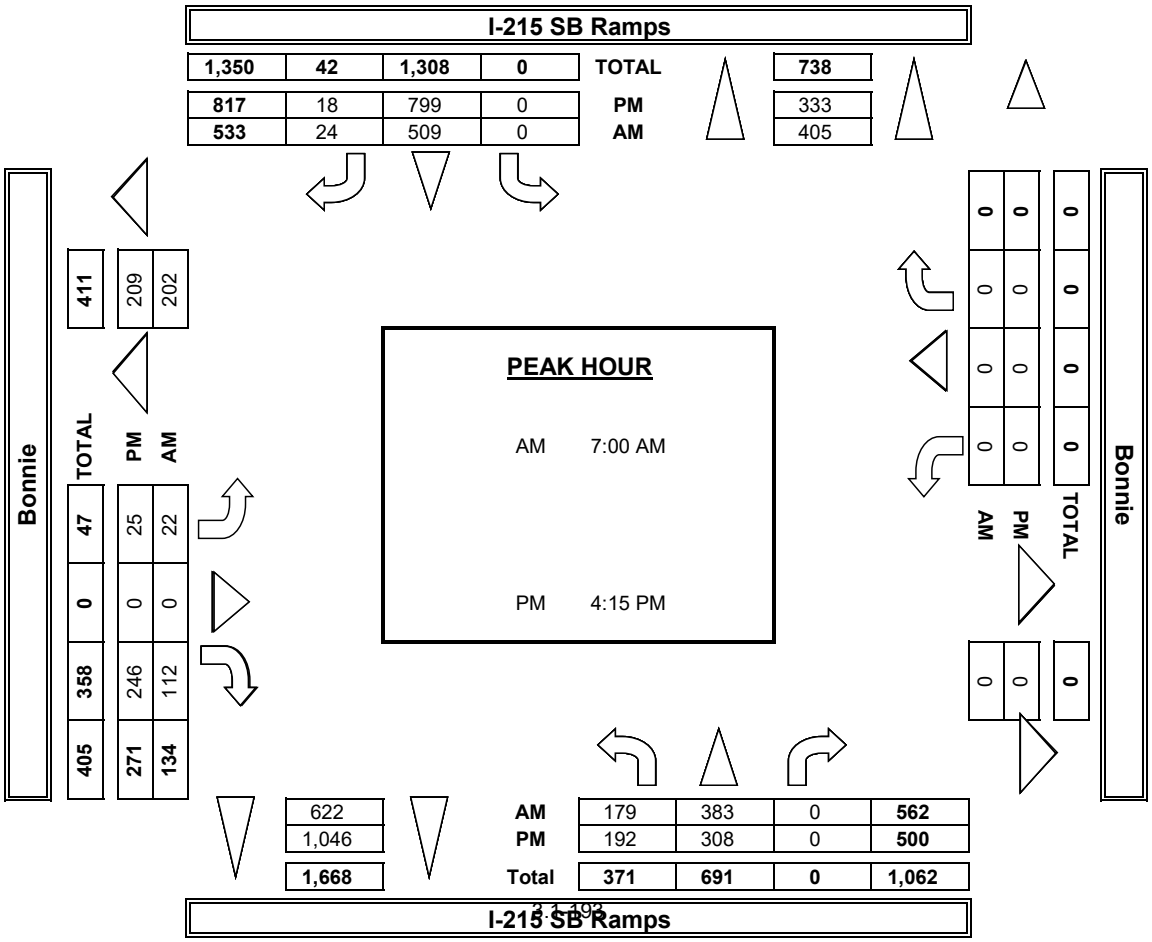
I-215 SB Ramps

		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	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
	7:30 AM	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
	8:00 AM	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
	8:30 AM	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
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	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
	4:30 PM	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
	5:00 PM	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
	5:30 PM	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
	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	10
TUESDAY	EAST & WEST:	Bonnie	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

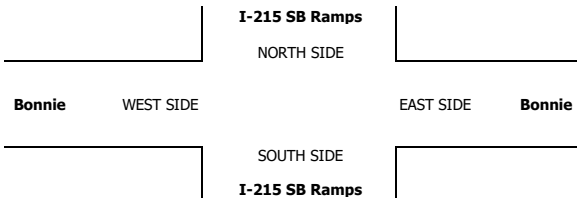
		NORTHBOUND (I-215 SB Ramps)			SOUTHBOUND (I-215 SB Ramps)			EASTBOUND (Bonnie)			WESTBOUND (Bonnie)			
	LANES:	NL 1	NT 1	NR X	SL X	ST 1	SR 1	EL 1	ET X	ER 1	WL X	WT X	WR X	TOTAL
AM	7:00 AM	34	69	0	0	102	6	0	0	24	0	0	0	235
	7:15 AM	33	68	0	0	111	4	9	0	27	0	0	0	252
	7:30 AM	38	101	0	0	96	2	7	0	21	0	0	0	265
	7:45 AM	48	86	0	0	93	6	5	0	17	0	0	0	255
	8:00 AM	33	69	0	0	83	3	2	0	21	0	0	0	211
	8:15 AM	32	67	0	0	98	2	6	0	33	0	0	0	238
	8:30 AM	37	61	0	0	101	3	2	0	16	0	0	0	220
	8:45 AM	33	52	0	0	92	5	4	0	24	0	0	0	210
	VOLUMES	288	573	0	0	776	31	35	0	183	0	0	0	1,886
	APPROACH %	33%	67%	0%	0%	96%	4%	16%	0%	84%	0%	0%	0%	
	APP/DEPART	861	/	608	807	/	960	218	/	0	0	/	318	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	152	324	0	0	402	18	21	0	89	0	0	0	1,007
	APPROACH %	32%	68%	0%	0%	96%	4%	19%	0%	81%	0%	0%	0%	
	PEAK HR FACTOR		0.858			0.913			0.764			0.000		0.950
	APP/DEPART	477	/	345	420	/	492	110	/	0	0	/	170	0
PM	4:00 PM	45	80	0	0	175	2	2	0	52	0	0	0	356
	4:15 PM	40	68	0	0	193	4	4	0	50	0	0	0	359
	4:30 PM	34	85	0	0	168	4	9	0	53	0	0	0	353
	4:45 PM	36	53	0	0	180	3	6	0	58	0	0	0	336
	5:00 PM	48	81	0	0	183	4	6	0	64	0	0	0	386
	5:15 PM	40	57	0	0	177	7	4	0	47	0	0	0	332
	5:30 PM	44	66	0	0	163	5	1	0	45	0	0	0	324
	5:45 PM	43	49	0	0	176	3	19	0	67	0	0	0	357
	VOLUMES	330	539	0	0	1,415	32	51	0	436	0	0	0	2,803
	APPROACH %	38%	62%	0%	0%	98%	2%	10%	0%	90%	0%	0%	0%	
	APP/DEPART	869	/	590	1,447	/	1,854	487	/	0	0	/	359	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	157	287	0	0	724	15	25	0	225	0	0	0	1,434
	APPROACH %	35%	64%	0%	0%	98%	2%	10%	0%	90%	0%	0%	0%	
	PEAK HR FACTOR		0.862			0.938			0.893			0.000		0.929
	APP/DEPART	445	/	312	739	/	950	250	/	0	0	/	172	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	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	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1
1	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	0	0	0	1
0	0	0	0	0
3	0	0	0	3

RTOR

NRR X	SRR 0	ERR 0	WRR X
0	1	23	0
0	2	19	0
0	0	19	0
0	1	16	0
0	1	18	0
0	0	26	0
0	0	8	0
0	2	16	0
0	7	145	0
0	4	77	0
0	1	41	0
0	1	40	0
0	1	34	0
0	0	52	0
0	0	49	0
0	2	35	0
0	1	37	0
0	2	47	0
0	8	335	0
0	2	175	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	10
TUESDAY	EAST & WEST:	Bonnie	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-215 SB Ramps			SOUTHBOUND I-215 SB Ramps			EASTBOUND Bonnie			WESTBOUND Bonnie			
	LANES:	NL 1	NT 1	NR X	SL X	ST 1	SR 1	EL 1	ET X	ER 1	WL X	WT X	WR X	TOTAL
AM	7:00 AM	3	17	0	0	20	0	0	0	5	0	0	0	45
	7:15 AM	2	6	0	0	21	1	0	0	1	0	0	0	31
	7:30 AM	7	9	0	0	9	0	0	0	1	0	0	0	26
	7:45 AM	2	10	0	0	10	2	0	0	3	0	0	0	27
	8:00 AM	1	2	0	0	4	0	0	0	2	0	0	0	9
	8:15 AM	4	5	0	0	9	0	0	0	2	0	0	0	20
	8:30 AM	5	3	0	0	13	0	0	0	1	0	0	0	22
	8:45 AM	3	10	0	0	19	2	0	0	3	0	0	0	37
	VOLUMES	27	62	0	0	105	5	0	0	18	0	0	0	217
	APPROACH %	30%	70%	0%	0%	95%	5%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	89	/	62	110	/	123	18	/	0	0	/	32	0
	BEGIN PEAK HR	7:00 AM												
	VOLUMES	14	42	0	0	60	3	0	0	10	0	0	0	129
	APPROACH %	25%	75%	0%	0%	95%	5%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.700			0.716			0.500			0.000		0.717
	APP/DEPART	56	/	42	63	/	70	10	/	0	0	/	17	0
PM	4:00 PM	5	3	0	0	17	0	0	0	3	0	0	0	28
	4:15 PM	4	5	0	0	14	0	0	0	3	0	0	0	26
	4:30 PM	1	3	0	0	14	0	0	0	4	0	0	0	22
	4:45 PM	2	3	0	0	14	1	0	0	5	0	0	0	25
	5:00 PM	4	4	0	0	12	1	0	0	3	0	0	0	24
	5:15 PM	4	3	0	0	14	0	0	0	2	0	0	0	23
	5:30 PM	1	1	0	0	13	1	0	0	1	0	0	0	17
	5:45 PM	4	1	0	0	14	0	0	0	5	0	0	0	24
	VOLUMES	25	23	0	0	112	3	0	0	26	0	0	0	189
	APPROACH %	52%	48%	0%	0%	97%	3%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	48	/	23	115	/	139	26	/	0	0	/	27	0
	BEGIN PEAK HR	4:15 PM												
	VOLUMES	11	15	0	0	54	2	0	0	15	0	0	0	97
	APPROACH %	42%	58%	0%	0%	96%	4%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.722			0.933			0.750			0.000		0.933
	APP/DEPART	26	/	15	56	/	69	15	/	0	0	/	13	0

U-TURNS

NB	SB	EB	WB	TTL
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	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	0	0	1
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	2	24	0	

RTOR

NRR X	SRR 0	ERR 0	WRR X
0	0	5	0
0	0	1	0
0	0	1	0
0	1	2	0
0	0	2	0
0	0	2	0
0	0	1	0
0	1	2	0
0	2	16	0
0	1	9	0
0	0	3	0
0	0	2	0
0	0	4	0
0	1	5	0
0	0	3	0
0	0	2	0
0	1	1	0
0	0	4	0
0	2	24	0
0	1	14	0

I-215 SB Ramps

NORTH SIDE

Bonnie WEST SIDE EAST SIDE **Bonnie**

SOUTH SIDE

I-215 SB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	10
TUESDAY	EAST & WEST:	Bonnie	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

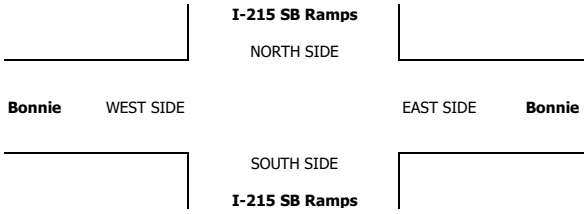
		NORTHBOUND (I-215 SB Ramps)			SOUTHBOUND (I-215 SB Ramps)			EASTBOUND (Bonnie)			WESTBOUND (Bonnie)			
	LANES:	NL 1	NT 1	NR X	SL X	ST 1	SR 1	EL 1	ET X	ER 1	WL X	WT X	WR X	TOTAL
AM	7:00 AM	1	2	0	0	4	0	0	0	3	0	0	0	10
	7:15 AM	2	0	0	0	1	0	0	0	1	0	0	0	4
	7:30 AM	2	0	0	0	1	0	0	0	2	0	0	0	5
	7:45 AM	1	0	0	0	2	0	1	0	0	0	0	0	4
	8:00 AM	0	0	0	0	2	0	0	0	3	0	0	0	5
	8:15 AM	2	1	0	0	6	0	0	0	1	0	0	0	10
	8:30 AM	0	2	0	0	1	1	0	0	0	0	0	0	4
	8:45 AM	2	0	0	0	3	0	1	0	1	0	0	0	7
	VOLUMES	10	5	0	0	20	1	2	0	11	0	0	0	49
	APPROACH %	67%	33%	0%	0%	95%	5%	15%	0%	85%	0%	0%	0%	
	APP/DEPART	15	/	7	21	/	31	13	/	0	0	/	11	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	6	2	0	0	8	0	1	0	6	0	0	0	23
	APPROACH %	75%	25%	0%	0%	100%	0%	14%	0%	86%	0%	0%	0%	
	PEAK HR FACTOR		0.667			0.500			0.583			0.000		0.575
	APP/DEPART	8	/	3	8	/	14	7	/	0	0	/	6	0
PM	4:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	2
	4:15 PM	5	0	0	0	2	0	0	0	0	0	0	0	7
	4:30 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	4:45 PM	2	0	0	0	3	0	0	0	0	0	0	0	5
	5:00 PM	1	0	0	0	3	0	0	0	1	0	0	0	5
	5:15 PM	1	0	0	0	1	0	0	0	1	0	0	0	3
	5:30 PM	8	0	0	0	1	0	0	0	2	0	0	0	11
	5:45 PM	2	0	0	0	0	0	0	0	0	0	0	0	2
	VOLUMES	20	0	0	0	13	0	0	0	4	0	0	0	37
	APPROACH %	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	20	/	0	13	/	17	4	/	0	0	/	20	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	8	0	0	0	10	0	0	0	1	0	0	0	19
	APPROACH %	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.400			0.833			0.250			0.000		0.679
	APP/DEPART	8	/	0	10	/	11	1	/	0	0	/	8	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR 0	ERR 0	WRR X
0	0	2	0
0	0	1	0
0	0	2	0
0	0	0	0
0	0	3	0
0	0	1	0
0	0	0	0
0	0	1	0
0	0	10	0
0	0	5	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	1	0
0	0	2	0
0	0	0	0
0	0	4	0
0	0	1	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	10
TUESDAY	EAST & WEST:	Bonnie	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

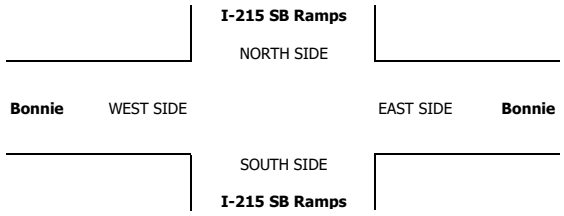
		NORTHBOUND I-215 SB Ramps			SOUTHBOUND I-215 SB Ramps			EASTBOUND Bonnie			WESTBOUND Bonnie			
	LANES:	NL 1	NT 1	NR X	SL X	ST 1	SR 1	EL 1	ET X	ER 1	WL X	WT X	WR X	TOTAL
AM	7:00 AM	1	4	0	0	13	0	0	0	0	0	0	0	18
	7:15 AM	1	4	0	0	6	2	0	0	1	0	0	0	14
	7:30 AM	3	0	0	0	7	0	0	0	2	0	0	0	12
	7:45 AM	0	6	0	0	11	1	0	0	1	0	0	0	19
	8:00 AM	3	2	0	0	10	1	0	0	1	0	0	0	17
	8:15 AM	1	4	0	0	15	1	1	0	2	0	0	0	24
	8:30 AM	2	4	0	0	11	0	0	0	3	0	0	0	20
	8:45 AM	0	5	0	0	13	3	1	0	2	0	0	0	24
	VOLUMES	11	29	0	0	86	8	2	0	12	0	0	0	148
	APPROACH %	28%	73%	0%	0%	91%	9%	14%	0%	86%	0%	0%	0%	
	APP/DEPART	40	/	31	94	/	98	14	/	0	0	/	19	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	5	14	0	0	37	3	0	0	4	0	0	0	63
	APPROACH %	26%	74%	0%	0%	93%	8%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.792			0.769			0.500			0.000		0.829
	APP/DEPART	19	/	14	40	/	41	4	/	0	0	/	8	0
PM	4:00 PM	1	0	0	0	4	0	1	0	0	0	0	0	6
	4:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
	4:30 PM	1	3	0	0	1	0	0	0	1	0	0	0	6
	4:45 PM	3	1	0	0	0	1	0	0	0	0	0	0	5
	5:00 PM	2	2	0	0	3	0	0	0	1	0	0	0	8
	5:15 PM	0	0	0	0	0	0	0	0	3	0	0	0	3
	5:30 PM	0	1	0	0	1	0	0	0	1	0	0	0	3
	5:45 PM	2	1	0	0	0	0	0	0	0	0	0	0	3
	VOLUMES	9	8	0	0	11	1	1	0	6	0	0	0	36
	APPROACH %	53%	47%	0%	0%	92%	8%	14%	0%	86%	0%	0%	0%	
	APP/DEPART	17	/	9	12	/	17	7	/	0	0	/	10	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	6	6	0	0	6	1	0	0	2	0	0	0	21
	APPROACH %	50%	50%	0%	0%	86%	14%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.583			0.500			0.000		0.656
	APP/DEPART	12	/	6	7	/	8	2	/	0	0	/	7	0

U-TURNS

NB	SB	EB	WB	TTL
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	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	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	0
0	0	0	0	0

RTOR

NRR X	SRR 0	ERR 0	WRR X
0	0	0	0
0	0	1	0
0	0	2	0
0	0	1	0
0	0	0	0
0	0	1	0
0	0	3	0
0	0	2	0
0	0	10	0
0	0	4	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	0	0
0	0	3	0
0	0	2	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	10
TUESDAY	EAST & WEST:	Bonnie	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-215 SB Ramps			SOUTHBOUND I-215 SB Ramps			EASTBOUND Bonnie			WESTBOUND Bonnie			
	LANES:	NL 1	NT 1	NR X	SL X	ST 1	SR 1	EL 1	ET X	ER 1	WL X	WT X	WR X	TOTAL
AM	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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	0	0	0	0

RTOR

NRR X	SRR 0	ERR 0	WRR X
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	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

I-215 SB Ramps

NORTH SIDE

Bonnie WEST SIDE EAST SIDE **Bonnie**

SOUTH SIDE

I-215 SB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	I-215 SB Ramps	LOCATION #:	10
TUESDAY	EAST & WEST:	Bonnie	CONTROL:	SIGNAL

CLASS 6: BUSES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

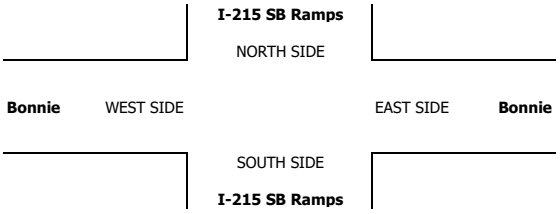
		NORTHBOUND I-215 SB Ramps			SOUTHBOUND I-215 SB Ramps			EASTBOUND Bonnie			WESTBOUND Bonnie			
	LANES:	NL 1	NT 1	NR X	SL X	ST 1	SR 1	EL 1	ET X	ER 1	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	1	0	0	0	1	0	0	0	2
	7:30 AM	1	1	0	0	1	0	0	0	1	0	0	0	4
	7:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
	8:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
	8:15 AM	1	0	0	0	1	0	0	0	2	0	0	0	4
	8:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
	8:45 AM	0	0	0	0	3	0	0	0	2	0	0	0	5
	VOLUMES	3	1	0	0	8	0	0	0	7	0	0	0	19
	APPROACH %	75%	25%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	4	/	1	8	/	15	7	/	0	0	/	3	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	1	1	0	0	2	0	0	0	3	0	0	0	7
	APPROACH %	50%	50%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.250			0.500			0.750			0.000		0.438
	APP/DEPART	2	/	1	2	/	5	3	/	0	0	/	1	0
PM	4:00 PM	1	0	0	0	2	0	0	0	0	0	0	0	3
	4:15 PM	2	0	0	0	3	0	0	0	1	0	0	0	6
	4:30 PM	3	0	0	0	0	0	0	0	1	0	0	0	4
	4:45 PM	3	0	0	0	1	0	0	0	0	0	0	0	4
	5:00 PM	1	0	0	0	1	0	0	0	1	0	0	0	3
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	2	0	0	0	1	0	0	0	0	0	0	0	3
	5:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
	VOLUMES	12	0	0	0	8	0	0	0	4	0	0	0	24
	APPROACH %	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	12	/	0	8	/	12	4	/	0	0	/	12	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	9	0	0	0	5	0	0	0	3	0	0	0	17
	APPROACH %	100%	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	PEAK HR FACTOR		0.750			0.417			0.750			0.000		0.708
	APP/DEPART	9	/	0	5	/	8	3	/	0	0	/	9	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR 0	ERR 0	WRR X
0	0	0	0
0	0	0	0
0	0	1	0
0	0	1	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	1	0
0	0	4	0
0	0	2	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	0
0	0	0	0
0	0	1	0
0	0	3	0
0	0	2	0



T42321

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Tue, May 24, 22

LOCATION: Perris
NORTH & SOUTH: I-215 NB Ramps
EAST & WEST: SR-74

PROJECT #: SC3431
LOCATION #: 11
CONTROL: SIGNAL

NOTES: Fog AM

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

☑ Add U-Turns to Left Turns

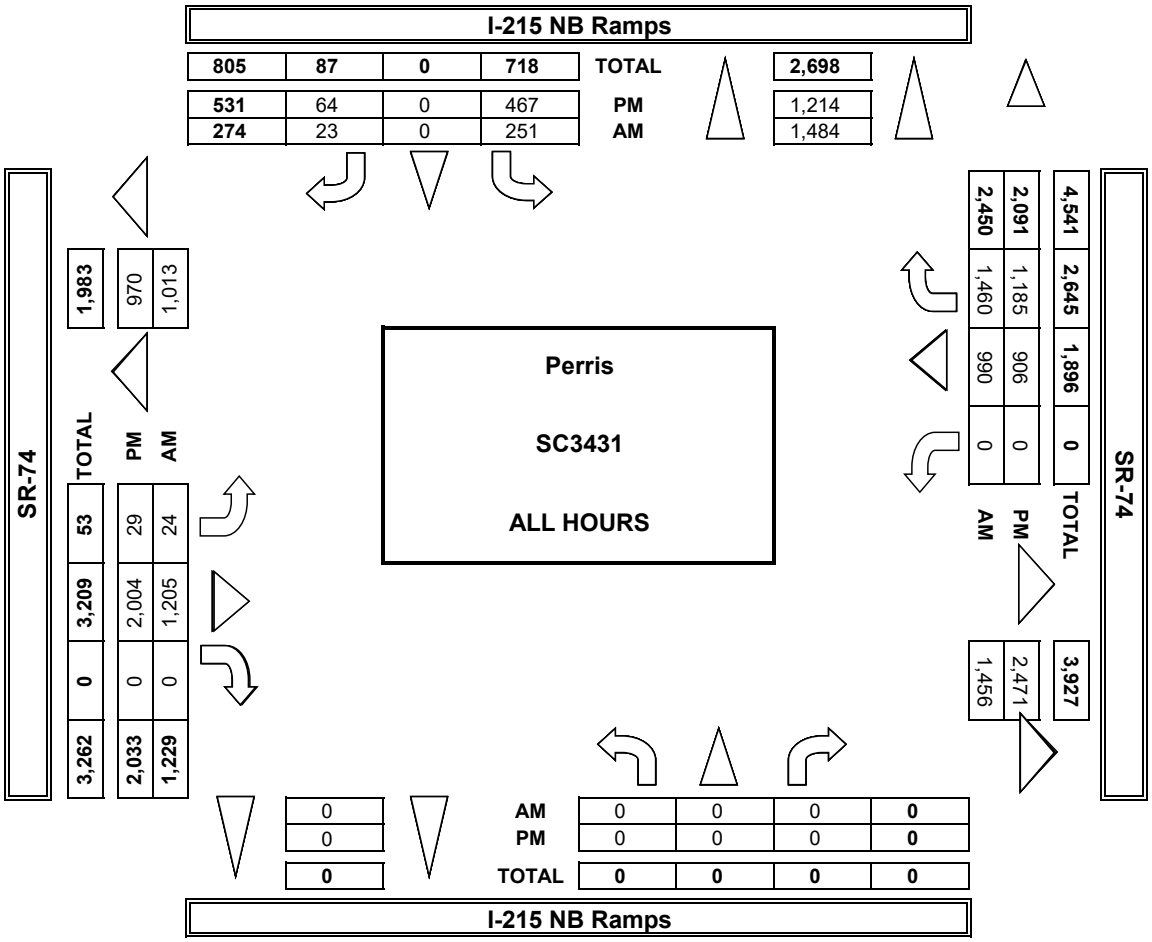
		NORTHBOUND (I-215 NB Ramps)			SOUTHBOUND (I-215 NB Ramps)			EASTBOUND (SR-74)			WESTBOUND (SR-74)				U-TURNS					RTOR			
	LANES:	NL X	NT X	NR X	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL	NRR X	SRR 0	ERR X	WRR 0
AM	7:00 AM	0	0	0	38	0	1	2	168	0	0	123	202	534	0	0	0	0	0	0	0	0	43
AM	7:15 AM	0	0	0	49	0	1	2	174	0	0	120	177	523	0	0	0	0	0	0	1	0	46
AM	7:30 AM	0	0	0	43	0	4	3	136	0	0	156	206	548	0	0	0	0	0	0	1	0	49
AM	7:45 AM	0	0	0	29	0	4	3	134	0	0	153	223	546	0	0	0	0	0	0	3	0	29
AM	8:00 AM	0	0	0	20	0	3	4	147	0	0	142	187	503	0	0	0	0	0	0	2	0	24
AM	8:15 AM	0	0	0	22	0	2	4	156	0	0	100	167	451	0	0	0	0	0	0	2	0	24
AM	8:30 AM	0	0	0	21	0	3	3	137	0	0	104	149	417	0	0	0	0	0	0	3	0	31
AM	8:45 AM	0	0	0	29	0	5	3	153	0	0	92	149	431	0	0	0	0	0	0	3	0	10
AM	VOLUMES	0	0	0	251	0	23	24	1,205	0	0	990	1,460	3,953	0	0	0	0	0	0	15	0	256
AM	APPROACH %	0%	0%	0%	92%	0%	8%	2%	98%	0%	0%	40%	60%										
AM	APP/DEPART	0	/	1,484	274	/	0	1,229	/	1,456	2,450	/	1,013	0									
AM	BEGIN PEAK HR		7:00 AM																				
AM	VOLUMES	0	0	0	159	0	10	10	612	0	0	552	808	2,151						0	5	0	167
AM	APPROACH %	0%	0%	0%	94%	0%	6%	2%	98%	0%	0%	41%	59%										
AM	PEAK HR FACTOR		0.000			0.845			0.884			0.904		0.981									
AM	APP/DEPART	0	/	818	169	/	0	622	/	771	1,360	/	562	0									
PM	4:00 PM	0	0	0	47	0	7	4	241	0	0	129	142	570	0	0	0	0	0	0	6	0	29
PM	4:15 PM	0	0	0	55	0	9	5	267	0	0	121	149	606	0	0	0	0	0	0	5	0	48
PM	4:30 PM	0	0	0	60	0	9	7	246	0	0	119	147	588	0	0	0	0	0	0	5	0	48
PM	4:45 PM	0	0	0	59	0	2	2	235	0	0	103	158	559	0	0	0	0	0	0	0	0	52
PM	5:00 PM	0	0	0	62	0	8	3	280	0	0	130	130	613	0	0	0	0	0	0	5	0	18
PM	5:15 PM	0	0	0	68	0	12	5	248	0	0	93	163	589	0	0	0	0	0	0	9	0	49
PM	5:30 PM	0	0	0	52	0	9	1	237	0	0	119	178	596	0	0	0	0	0	0	2	0	32
PM	5:45 PM	0	0	0	64	0	8	2	250	0	0	92	118	534	0	0	0	0	0	0	4	0	42
PM	VOLUMES	0	0	0	467	0	64	29	2,004	0	0	906	1,185	4,655	0	0	0	0	0	0	36	0	318
PM	APPROACH %	0%	0%	0%	88%	0%	12%	1%	99%	0%	0%	43%	57%										
PM	APP/DEPART	0	/	1,214	531	/	0	2,033	/	2,471	2,091	/	970	0									
PM	BEGIN PEAK HR		4:15 PM																				
PM	VOLUMES	0	0	0	236	0	28	17	1,028	0	0	473	584	2,366						0	15	0	166
PM	APPROACH %	0%	0%	0%	89%	0%	11%	2%	98%	0%	0%	45%	55%										
PM	PEAK HR FACTOR		0.000			0.943			0.923			0.979		0.965									
PM	APP/DEPART	0	/	601	264	/	0	1,045	/	1,264	1,057	/	501	0									

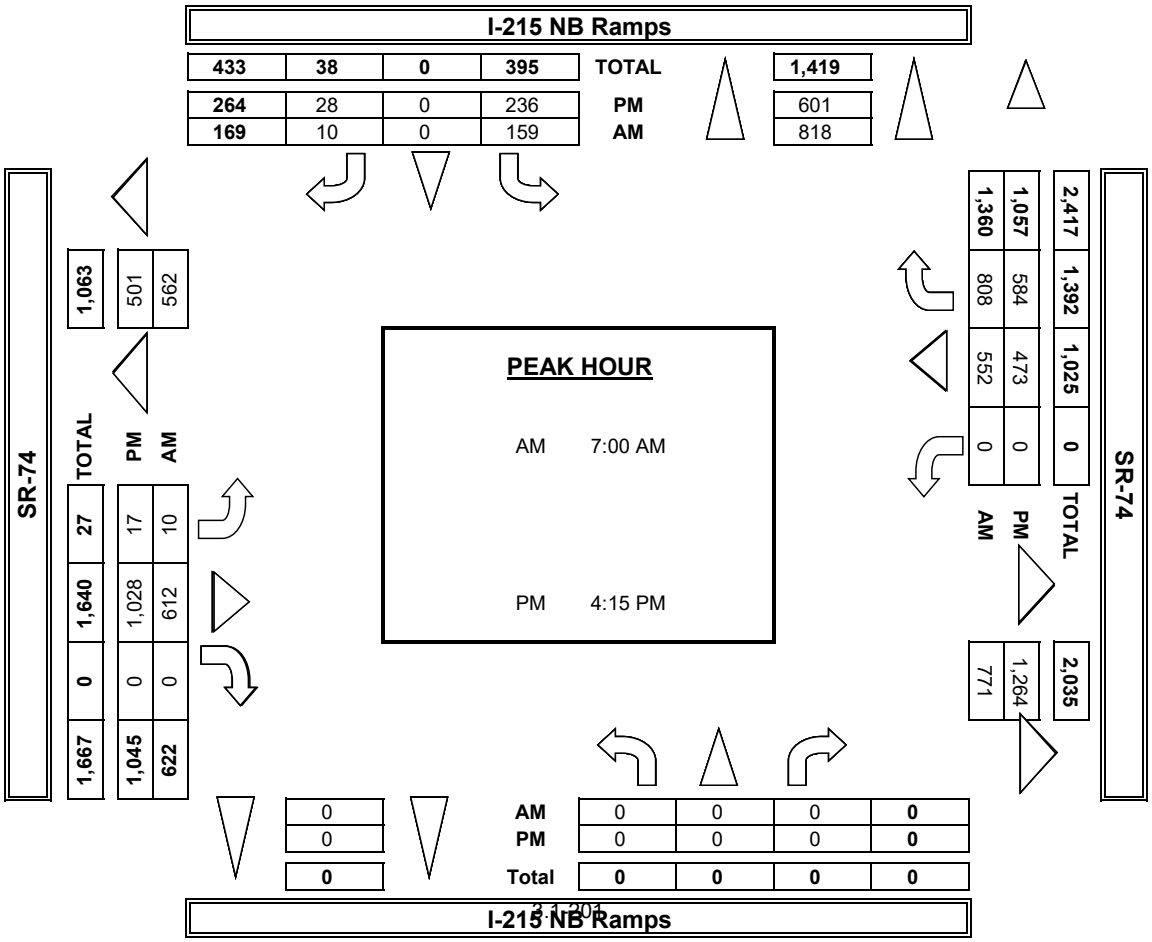


		ALL PED AND BIKE					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
		E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	E SIDE	W SIDE	S SIDE	N SIDE	TOTAL	ES	WS	SS	NS	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AM	TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:15 PM	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1
PM	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	0	0	1	0	1	0	0	0	0	0	0	0	1	0	1

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	11
TUESDAY	EAST & WEST:	SR-74	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

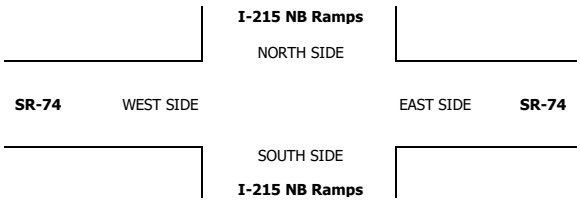
	NORTHBOUND (I-215 NB Ramps)			SOUTHBOUND (I-215 NB Ramps)			EASTBOUND (SR-74)			WESTBOUND (SR-74)			
LANES:	NL X	NT X	NR X	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 1	TOTAL
7:00 AM	0	0	0	28	0	1	2	127	0	0	99	173	430
7:15 AM	0	0	0	47	0	1	2	136	0	0	102	157	445
7:30 AM	0	0	0	40	0	2	1	116	0	0	133	188	480
7:45 AM	0	0	0	25	0	4	3	105	0	0	135	207	479
8:00 AM	0	0	0	16	0	3	1	118	0	0	127	159	424
8:15 AM	0	0	0	18	0	2	4	120	0	0	83	139	366
8:30 AM	0	0	0	16	0	3	2	109	0	0	90	127	347
8:45 AM	0	0	0	23	0	4	0	116	0	0	76	121	340
AM VOLUMES	0	0	0	213	0	20	15	947	0	0	845	1,271	3,311
AM APPROACH %	0%	0%	0%	91%	0%	9%	2%	98%	0%	0%	40%	60%	
AM APP/DEPART	0	/	1,286	233	/	0	962	/	1,160	2,116	/	865	0
BEGIN PEAK HR		7:00 AM											
AM PEAK HR VOLUMES	0	0	0	140	0	8	8	484	0	0	469	725	1,834
AM PEAK HR APPROACH %	0%	0%	0%	95%	0%	5%	2%	98%	0%	0%	39%	61%	
AM PEAK HR FACTOR		0.000			0.771			0.891			0.873		0.955
AM APP/DEPART	0	/	733	148	/	0	492	/	624	1,194	/	477	0
4:00 PM	0	0	0	36	0	6	4	218	0	0	119	120	503
4:15 PM	0	0	0	40	0	7	5	243	0	0	105	134	534
4:30 PM	0	0	0	51	0	9	7	222	0	0	107	124	520
4:45 PM	0	0	0	52	0	2	2	212	0	0	88	136	492
5:00 PM	0	0	0	55	0	8	3	255	0	0	120	117	558
5:15 PM	0	0	0	57	0	11	3	227	0	0	84	149	531
5:30 PM	0	0	0	44	0	9	1	218	0	0	106	156	534
5:45 PM	0	0	0	54	0	8	2	226	0	0	84	103	477
PM VOLUMES	0	0	0	389	0	60	27	1,821	0	0	813	1,039	4,149
PM APPROACH %	0%	0%	0%	87%	0%	13%	1%	99%	0%	0%	44%	56%	
PM APP/DEPART	0	/	1,066	449	/	0	1,848	/	2,210	1,852	/	873	0
BEGIN PEAK HR		4:15 PM											
PM PEAK HR VOLUMES	0	0	0	198	0	26	17	932	0	0	420	511	2,104
PM PEAK HR APPROACH %	0%	0%	0%	88%	0%	12%	2%	98%	0%	0%	45%	55%	
PM PEAK HR FACTOR		0.000			0.889			0.920			0.974		0.943
PM APP/DEPART	0	/	528	224	/	0	949	/	1,130	931	/	446	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR 0	ERR X	WRR 0
0	0	0	37
0	1	0	42
0	0	0	46
0	3	0	25
0	2	0	22
0	2	0	22
0	3	0	27
0	2	0	9
0	13	0	230
0	4	0	150
0	5	0	24
0	5	0	39
0	5	0	44
0	0	0	43
0	5	0	18
0	8	0	47
0	2	0	28
0	4	0	36
0	34	0	279
0	15	0	144



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	11
TUESDAY	EAST & WEST:	SR-74	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS	NOTES:	AM PM MD OTHER OTHER	▲ N ◄ W E ► S ▼

		NORTHBOUND I-215 NB Ramps			SOUTHBOUND I-215 NB Ramps			EASTBOUND SR-74			WESTBOUND SR-74			
	LANES:	NL X	NT X	NR X	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 1	TOTAL
AM	7:00 AM	0	0	0	6	0	0	0	22	0	0	17	13	58
	7:15 AM	0	0	0	2	0	0	0	23	0	0	12	12	49
	7:30 AM	0	0	0	1	0	1	0	9	0	0	15	9	35
	7:45 AM	0	0	0	4	0	0	0	16	0	0	11	6	37
	8:00 AM	0	0	0	3	0	0	1	8	0	0	7	16	35
	8:15 AM	0	0	0	2	0	0	0	10	0	0	9	12	33
	8:30 AM	0	0	0	3	0	0	1	13	0	0	6	9	32
	8:45 AM	0	0	0	6	0	1	1	19	0	0	10	14	51
	VOLUMES	0	0	0	27	0	2	3	120	0	0	87	91	330
	APPROACH %	0%	0%	0%	93%	0%	7%	2%	98%	0%	0%	49%	51%	
	APP/DEPART	0	/	94	29	/	0	123	/	147	178	/	89	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	13	0	1	0	70	0	0	55	40	179
	APPROACH %	0%	0%	0%	93%	0%	7%	0%	100%	0%	0%	58%	42%	
	PEAK HR FACTOR		0.000			0.583			0.761			0.792		0.772
	APP/DEPART	0	/	40	14	/	0	70	/	83	95	/	56	0
PM	4:00 PM	0	0	0	9	0	1	0	18	0	0	7	10	45
	4:15 PM	0	0	0	9	0	1	0	16	0	0	8	10	44
	4:30 PM	0	0	0	7	0	0	0	19	0	0	5	16	47
	4:45 PM	0	0	0	5	0	0	0	19	0	0	5	13	42
	5:00 PM	0	0	0	5	0	0	0	15	0	0	7	9	36
	5:15 PM	0	0	0	10	0	1	0	18	0	0	6	10	45
	5:30 PM	0	0	0	8	0	0	0	14	0	0	3	13	38
	5:45 PM	0	0	0	5	0	0	0	20	0	0	4	10	39
	VOLUMES	0	0	0	58	0	3	0	139	0	0	45	91	336
	APPROACH %	0%	0%	0%	95%	0%	5%	0%	100%	0%	0%	33%	67%	
	APP/DEPART	0	/	91	61	/	0	139	/	197	136	/	48	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	0	0	26	0	1	0	69	0	0	25	48	169
	APPROACH %	0%	0%	0%	96%	0%	4%	0%	100%	0%	0%	34%	66%	
	PEAK HR FACTOR		0.000			0.675			0.908			0.869		0.899
	APP/DEPART	0	/	48	27	/	0	69	/	95	73	/	26	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR 0	ERR X	WRR 0
0	0	0	2
0	0	0	2
0	0	0	2
0	0	0	3
0	0	0	1
0	0	0	0
0	0	0	2
0	1	0	0
0	1	0	12
0	0	0	9
0	1	0	2
0	0	0	7
0	0	0	3
0	0	0	5
0	0	0	0
0	1	0	0
0	0	0	3
0	0	0	4
0	2	0	24
0	0	0	15

I-215 NB Ramps

NORTH SIDE

SR-74 WEST SIDE EAST SIDE **SR-74**

SOUTH SIDE

I-215 NB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	11
TUESDAY	EAST & WEST:	SR-74	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-215 NB Ramps			SOUTHBOUND I-215 NB Ramps			EASTBOUND SR-74			WESTBOUND SR-74			
	LANES:	NL X	NT X	NR X	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	5	0	0	3	3	11
	7:15 AM	0	0	0	0	0	0	0	3	0	0	1	1	5
	7:30 AM	0	0	0	0	0	0	0	3	0	0	2	3	8
	7:45 AM	0	0	0	0	0	0	0	3	0	0	2	1	6
	8:00 AM	0	0	0	0	0	0	0	6	0	0	2	7	15
	8:15 AM	0	0	0	1	0	0	0	6	0	0	2	6	15
	8:30 AM	0	0	0	0	0	0	0	2	0	0	1	8	11
	8:45 AM	0	0	0	0	0	0	0	3	0	0	2	6	11
	VOLUMES	0	0	0	1	0	0	0	31	0	0	15	35	82
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	30%	70%	
	APP/DEPART	0	/	35	1	/	0	31	/	32	50	/	15	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	14	0	0	8	8	30
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	50%	50%	
	PEAK HR FACTOR		0.000			0.000			0.700			0.667		0.682
	APP/DEPART	0	/	8	0	/	0	14	/	14	16	/	8	0
PM	4:00 PM	0	0	0	0	0	0	0	1	0	0	1	6	8
	4:15 PM	0	0	0	1	0	1	0	2	0	0	3	2	9
	4:30 PM	0	0	0	0	0	0	0	2	0	0	2	2	6
	4:45 PM	0	0	0	1	0	0	0	3	0	0	2	3	9
	5:00 PM	0	0	0	0	0	0	0	4	0	0	0	0	4
	5:15 PM	0	0	0	0	0	0	1	1	0	0	3	3	8
	5:30 PM	0	0	0	0	0	0	0	2	0	0	5	3	10
	5:45 PM	0	0	0	1	0	0	0	1	0	0	3	3	8
	VOLUMES	0	0	0	3	0	1	1	16	0	0	19	22	62
	APPROACH %	0%	0%	0%	75%	0%	25%	6%	94%	0%	0%	46%	54%	
	APP/DEPART	0	/	23	4	/	0	17	/	19	41	/	20	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	0	0	2	0	1	0	11	0	0	7	7	28
	APPROACH %	0%	0%	0%	67%	0%	33%	0%	100%	0%	0%	50%	50%	
	PEAK HR FACTOR		0.000			0.375			0.688			0.700		0.778
	APP/DEPART	0	/	7	3	/	0	11	/	13	14	/	8	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR 0	ERR X	WRR 0
0	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	0	0
0	0	0	2
0	0	0	2
0	0	0	2
0	0	0	0
0	0	0	1
0	0	0	2
0	0	0	0
0	0	0	2
0	0	0	1
0	0	0	2
0	0	0	10
0	0	0	3

I-215 NB Ramps

NORTH SIDE

SR-74 WEST SIDE EAST SIDE **SR-74**

SOUTH SIDE

I-215 NB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	11
TUESDAY	EAST & WEST:	SR-74	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-215 NB Ramps			SOUTHBOUND I-215 NB Ramps			EASTBOUND SR-74			WESTBOUND SR-74			
	LANES:	NL X	NT X	NR X	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 1	TOTAL
AM	7:00 AM	0	0	0	3	0	0	0	13	0	0	4	11	31
	7:15 AM	0	0	0	0	0	0	0	10	0	0	5	5	20
	7:30 AM	0	0	0	2	0	1	2	6	0	0	4	5	20
	7:45 AM	0	0	0	0	0	0	0	10	0	0	5	7	22
	8:00 AM	0	0	0	1	0	0	2	11	0	0	6	4	24
	8:15 AM	0	0	0	1	0	0	0	17	0	0	5	8	31
	8:30 AM	0	0	0	1	0	0	0	13	0	0	6	4	24
	8:45 AM	0	0	0	0	0	0	2	12	0	0	4	7	25
	VOLUMES	0	0	0	8	0	1	6	92	0	0	39	51	197
	APPROACH %	0%	0%	0%	89%	0%	11%	6%	94%	0%	0%	43%	57%	
	APP/DEPART	0	/	57	9	/	0	98	/	100	90	/	40	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	5	0	1	2	39	0	0	18	28	93
	APPROACH %	0%	0%	0%	83%	0%	17%	5%	95%	0%	0%	39%	61%	
	PEAK HR FACTOR		0.000			0.500			0.788			0.767		0.750
	APP/DEPART	0	/	30	6	/	0	41	/	44	46	/	19	0
PM	4:00 PM	0	0	0	2	0	0	0	3	0	0	1	6	12
	4:15 PM	0	0	0	5	0	0	0	2	0	0	1	2	10
	4:30 PM	0	0	0	1	0	0	0	2	0	0	3	5	11
	4:45 PM	0	0	0	1	0	0	0	0	0	0	5	5	11
	5:00 PM	0	0	0	2	0	0	0	4	0	0	3	3	12
	5:15 PM	0	0	0	1	0	0	1	2	0	0	0	1	5
	5:30 PM	0	0	0	0	0	0	0	1	0	0	3	5	9
	5:45 PM	0	0	0	4	0	0	0	2	0	0	1	1	8
	VOLUMES	0	0	0	16	0	0	1	16	0	0	17	28	78
	APPROACH %	0%	0%	0%	100%	0%	0%	6%	94%	0%	0%	38%	62%	
	APP/DEPART	0	/	29	16	/	0	17	/	32	45	/	17	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	0	0	9	0	0	0	8	0	0	12	15	44
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	44%	56%	
	PEAK HR FACTOR		0.000			0.450			0.500			0.675		0.917
	APP/DEPART	0	/	15	9	/	0	8	/	17	27	/	12	0

U-TURNS

NB	SB	EB	WB	TTL
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	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

RTOR

NRR X	SRR 0	ERR X	WRR 0
0	0	0	1
0	0	0	1
0	1	0	1
0	0	0	1
0	0	0	1
0	0	0	1
0	0	0	2
0	0	0	1
0	1	0	9
0	1	0	4
0	0	0	1
0	0	0	1
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	3
0	0	0	2

I-215 NB Ramps

NORTH SIDE

SR-74 WEST SIDE EAST SIDE **SR-74**

SOUTH SIDE

I-215 NB Ramps

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	11
TUESDAY	EAST & WEST:	SR-74	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

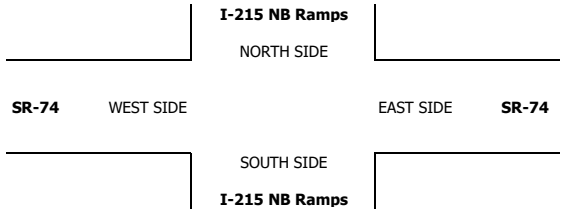
		NORTHBOUND I-215 NB Ramps			SOUTHBOUND I-215 NB Ramps			EASTBOUND SR-74			WESTBOUND SR-74			
	LANES:	NL X	NT X	NR X	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 1	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
PM	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
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0

U-TURNS

NB	SB	EB	WB	TTL
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	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	0	0	0	0

RTOR

NRR X	SRR 0	ERR X	WRR 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	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



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Perris	PROJECT #:	SC3431
5/24/22	NORTH & SOUTH:	I-215 NB Ramps	LOCATION #:	11
TUESDAY	EAST & WEST:	SR-74	CONTROL:	SIGNAL

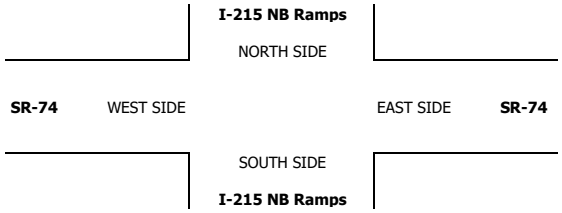
CLASS 6: BUSES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-215 NB Ramps			SOUTHBOUND I-215 NB Ramps			EASTBOUND SR-74			WESTBOUND SR-74			
	LANES:	NL X	NT X	NR X	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 1	TOTAL
AM	7:00 AM	0	0	0	1	0	0	0	1	0	0	0	2	4
	7:15 AM	0	0	0	0	0	0	0	2	0	0	0	2	4
	7:30 AM	0	0	0	0	0	0	0	2	0	0	2	1	5
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	2
	8:00 AM	0	0	0	0	0	0	0	4	0	0	0	1	5
	8:15 AM	0	0	0	0	0	0	0	3	0	0	1	2	6
	8:30 AM	0	0	0	1	0	0	0	0	0	0	1	1	3
	8:45 AM	0	0	0	0	0	0	0	3	0	0	0	1	4
	VOLUMES	0	0	0	2	0	0	0	15	0	0	4	12	33
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	25%	75%	
	APP/DEPART	0	/	12	2	/	0	15	/	17	16	/	4	0
	BEGIN PEAK HR		7:00 AM											
	VOLUMES	0	0	0	1	0	0	0	5	0	0	2	7	15
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	22%	78%	
	PEAK HR FACTOR		0.000			0.250			0.625			0.750		0.750
	APP/DEPART	0	/	7	1	/	0	5	/	6	9	/	2	0
PM	4:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
	4:15 PM	0	0	0	0	0	0	0	4	0	0	4	1	9
	4:30 PM	0	0	0	1	0	0	0	1	0	0	2	0	4
	4:45 PM	0	0	0	0	0	0	0	1	0	0	3	1	5
	5:00 PM	0	0	0	0	0	0	0	2	0	0	0	1	3
	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	2	0	0	2	1	5
	5:45 PM	0	0	0	0	0	0	0	1	0	0	0	1	2
	VOLUMES	0	0	0	1	0	0	0	12	0	0	12	5	30
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	71%	29%	
	APP/DEPART	0	/	5	1	/	0	12	/	13	17	/	12	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	0	0	0	1	0	0	0	8	0	0	9	3	21
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	75%	25%	
	PEAK HR FACTOR		0.000			0.250			0.500			0.600		0.583
	APP/DEPART	0	/	3	1	/	0	8	/	9	12	/	9	0

U-TURNS					RTOR			
NB	SB	EB	WB	TTL	NRR X	SRR 0	ERR X	WRR 0
0	0	0	0	0	0	0	0	1
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	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	0	0	0	0	0	0	3
					0	0	0	2
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	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	2
					0	0	0	2



A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, May 24, 2022 **CITY:** Perris

JOB #: SC3431 **LOCATION:** Goettz south of Ellis

AM TIME	1	2	3	4	TOTAL	PM Time	1	2	3	4	TOTAL
0:00	5	0	0	0	5	12:00	45	5	4	4	58
0:15	6	0	0	0	6	12:15	57	7	1	6	71
0:30	6	0	0	0	6	12:30	54	10	7	4	75
0:45	4	0	0	0	4	12:45	41	5	6	4	56
1:00	2	1	0	0	3	13:00	63	7	5	3	78
1:15	7	0	0	0	7	13:15	79	3	7	2	91
1:30	4	1	0	0	5	13:30	68	5	7	5	85
1:45	2	0	0	0	2	13:45	57	2	6	6	71
2:00	2	0	0	0	2	14:00	50	7	6	4	67
2:15	5	0	0	0	5	14:15	50	1	2	3	56
2:30	9	0	0	0	9	14:30	79	7	3	3	92
2:45	8	0	0	0	8	14:45	73	5	5	4	87
3:00	5	1	0	0	6	15:00	60	6	3	8	77
3:15	10	1	0	3	14	15:15	71	6	5	5	87
3:30	14	1	0	0	15	15:30	87	7	4	4	102
3:45	12	1	1	0	14	15:45	50	4	1	2	57
4:00	17	0	2	4	23	16:00	70	6	3	1	80
4:15	12	2	0	2	16	16:15	55	3	1	2	61
4:30	27	4	1	5	37	16:30	75	3	0	3	81
4:45	19	4	4	2	29	16:45	68	2	0	2	72
5:00	26	4	0	4	34	17:00	49	2	0	1	52
5:15	28	7	8	5	48	17:15	47	4	3	0	54
5:30	46	3	17	3	69	17:30	61	3	0	0	64
5:45	33	3	6	3	45	17:45	41	2	2	0	45
6:00	42	3	3	4	52	18:00	39	1	0	1	41
6:15	55	8	8	2	73	18:15	52	1	2	1	56
6:30	59	3	12	3	77	18:30	46	0	0	2	48
6:45	59	8	6	3	76	18:45	49	4	0	1	54
7:00	62	5	5	3	75	19:00	42	1	1	0	44
7:15	104	1	2	3	110	19:15	37	1	0	1	39
7:30	88	6	3	3	100	19:30	38	1	0	4	43
7:45	109	1	4	4	118	19:45	39	0	1	1	41
8:00	84	6	5	9	104	20:00	39	2	0	0	41
8:15	54	5	1	1	61	20:15	42	0	1	0	43
8:30	59	5	0	4	68	20:30	29	2	0	0	31
8:45	52	3	4	2	61	20:45	32	4	0	0	36
9:00	24	1	5	7	37	21:00	21	0	0	0	21
9:15	33	2	2	1	38	21:15	23	2	0	1	26
9:30	45	7	1	3	56	21:30	29	1	0	0	30
9:45	38	5	1	4	48	21:45	11	1	0	1	13
10:00	39	4	3	4	50	22:00	8	1	0	0	9
10:15	35	4	2	2	43	22:15	9	0	0	0	9
10:30	32	3	3	4	42	22:30	12	0	0	0	12
10:45	38	1	2	5	46	22:45	8	0	0	1	9
11:00	65	9	4	7	85	23:00	9	1	0	0	10
11:15	54	3	8	4	69	23:15	6	0	0	0	6
11:30	27	4	0	2	33	23:30	4	0	0	0	4
11:45	70	6	4	3	83	23:45	10	0	0	0	10
TOTAL	1,636	136	127	118	2,017	TOTAL	2,084	135	86	90	2,395
				AM PEAK	7:15 AM					AM PEAK	2:45 PM
				AM PEAK	432					AM PEAK	353

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	3,720	271	213	208	4,412
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	84.3%	6.1%	4.8%	4.7%	100.0%
CLASS 3	3-AXLE TRUCKS						
CLASS 4	4 OR MORE AXLE TRUCKS	**TOTAL: ALL**	7,551	609	435	431	9,026
		% OF TOTAL	83.7%	6.7%	4.8%	4.8%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, May 24, 2022 **CITY:** Perris

JOB #: SC3431 **LOCATION:** Goettz south of Ellis

AM TIME	1	2	3	4	TOTAL	PM Time	1	2	3	4	TOTAL
0:00	7	0	0	0	7	12:00	60	8	6	1	75
0:15	6	1	1	0	8	12:15	41	9	6	6	62
0:30	5	0	0	0	5	12:30	60	7	3	8	78
0:45	3	0	0	0	3	12:45	68	0	4	6	78
1:00	4	0	0	0	4	13:00	64	6	2	5	77
1:15	7	1	0	0	8	13:15	54	6	4	4	68
1:30	9	1	0	0	10	13:30	72	2	4	4	82
1:45	5	0	0	0	5	13:45	39	5	5	3	52
2:00	3	0	0	0	3	14:00	42	1	6	6	55
2:15	2	0	0	0	2	14:15	57	12	2	7	78
2:30	5	0	0	0	5	14:30	65	5	3	1	74
2:45	9	0	0	0	9	14:45	61	4	4	4	73
3:00	3	1	0	3	7	15:00	72	5	5	3	85
3:15	7	0	0	1	8	15:15	66	7	2	3	78
3:30	6	0	1	1	8	15:30	90	4	3	6	103
3:45	14	0	0	2	16	15:45	93	6	9	11	119
4:00	11	0	1	1	13	16:00	69	4	5	5	83
4:15	12	3	0	0	15	16:15	62	11	6	1	80
4:30	25	3	2	2	32	16:30	64	10	6	5	85
4:45	57	0	1	2	60	16:45	65	2	10	3	80
5:00	39	2	0	2	43	17:00	73	10	3	2	88
5:15	29	3	1	2	35	17:15	76	3	2	1	82
5:30	38	2	0	1	41	17:30	78	9	2	1	90
5:45	50	5	1	2	58	17:45	68	7	11	1	87
6:00	43	6	3	2	54	18:00	51	5	5	2	63
6:15	38	5	2	1	46	18:15	68	5	5	1	79
6:30	37	2	2	2	43	18:30	60	2	4	3	69
6:45	63	1	4	5	73	18:45	37	4	5	0	46
7:00	42	4	1	1	48	19:00	47	1	5	1	54
7:15	44	1	3	5	53	19:15	42	6	7	0	55
7:30	84	11	2	3	100	19:30	31	3	4	1	39
7:45	91	8	1	8	108	19:45	32	5	0	1	38
8:00	75	1	0	2	78	20:00	39	2	0	0	41
8:15	47	5	3	4	59	20:15	35	4	0	1	40
8:30	39	6	1	3	49	20:30	46	3	0	1	50
8:45	43	3	3	4	53	20:45	32	2	0	0	34
9:00	31	6	0	2	39	21:00	29	2	0	1	32
9:15	52	9	2	4	67	21:15	32	4	0	0	36
9:30	67	3	4	4	78	21:30	28	1	0	1	30
9:45	52	4	1	3	60	21:45	18	1	0	0	19
10:00	31	3	4	1	39	22:00	22	2	0	0	24
10:15	24	3	1	3	31	22:15	17	1	0	0	18
10:30	18	3	5	12	38	22:30	11	0	0	0	11
10:45	46	7	1	5	59	22:45	22	1	0	0	23
11:00	59	6	7	6	78	23:00	18	1	0	0	19
11:15	37	5	8	5	55	23:15	22	2	0	1	25
11:30	38	6	3	3	50	23:30	11	1	1	1	14
11:45	49	6	4	4	63	23:45	16	1	0	0	17
TOTAL	1,506	136	73	111	1,826	TOTAL	2,325	202	149	112	2,788
				AM PEAK H	7:30 AM					AM PEAK	3:30 PM
				AM PEAK V	345					AM PEAK	385

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	3,831	338	222	223	4,614
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	83.0%	7.3%	4.8%	4.8%	100.0%
CLASS 3	3-AXLE TRUCKS						
CLASS 4	4 OR MORE AXLE TRUCKS						

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, May 24, 2022 **CITY:** Perris

JOB #: SC3431 **LOCATION:** Ellis east of Goetz

AM TIME	1	2	3	4	TOTAL	PM Time	1	2	3	4	TOTAL
0:00	0	0	0	0	0	12:00	1	0	0	0	1
0:15	0	0	0	0	0	12:15	0	0	0	0	0
0:30	0	0	0	0	0	12:30	0	0	0	0	0
0:45	0	0	0	0	0	12:45	1	0	0	0	1
1:00	0	0	0	0	0	13:00	0	0	0	0	0
1:15	0	0	0	0	0	13:15	0	0	0	0	0
1:30	0	0	0	0	0	13:30	1	0	0	0	1
1:45	0	0	0	0	0	13:45	1	1	0	0	2
2:00	0	0	0	0	0	14:00	1	0	1	0	2
2:15	0	0	0	0	0	14:15	1	0	0	0	1
2:30	0	0	0	0	0	14:30	1	0	0	0	1
2:45	0	0	0	0	0	14:45	0	0	0	0	0
3:00	0	0	0	0	0	15:00	1	0	0	0	1
3:15	0	0	0	0	0	15:15	0	0	0	1	1
3:30	0	0	0	0	0	15:30	2	0	0	0	2
3:45	0	0	0	0	0	15:45	1	0	0	0	1
4:00	0	0	0	0	0	16:00	0	0	0	0	0
4:15	0	0	0	0	0	16:15	0	0	0	0	0
4:30	0	0	0	0	0	16:30	0	0	0	0	0
4:45	0	0	0	0	0	16:45	1	0	0	0	1
5:00	0	0	0	0	0	17:00	1	0	0	0	1
5:15	1	0	1	0	2	17:15	1	0	0	0	1
5:30	0	0	0	0	0	17:30	2	0	0	0	2
5:45	0	0	0	0	0	17:45	0	0	0	0	0
6:00	0	0	0	0	0	18:00	5	0	0	0	5
6:15	1	0	0	1	2	18:15	1	0	0	0	1
6:30	0	0	0	1	1	18:30	1	0	0	0	1
6:45	0	0	0	0	0	18:45	1	0	0	0	1
7:00	0	0	0	0	0	19:00	0	0	0	0	0
7:15	0	0	0	0	0	19:15	0	0	0	0	0
7:30	2	1	0	0	3	19:30	0	0	0	0	0
7:45	0	0	0	0	0	19:45	0	0	0	0	0
8:00	3	0	0	1	4	20:00	0	0	0	0	0
8:15	1	0	0	0	1	20:15	0	0	0	0	0
8:30	0	0	0	0	0	20:30	0	0	0	0	0
8:45	0	1	0	0	1	20:45	0	0	0	0	0
9:00	0	0	0	0	0	21:00	0	0	0	0	0
9:15	0	0	0	1	1	21:15	0	0	0	0	0
9:30	0	0	0	0	0	21:30	0	0	0	0	0
9:45	0	0	0	0	0	21:45	0	0	0	0	0
10:00	0	0	2	0	2	22:00	0	0	0	0	0
10:15	0	0	0	0	0	22:15	0	0	0	0	0
10:30	0	0	0	0	0	22:30	1	0	0	0	1
10:45	0	0	0	0	0	22:45	0	0	0	0	0
11:00	0	0	0	0	0	23:00	0	0	0	0	0
11:15	0	1	0	0	1	23:15	0	0	0	0	0
11:30	0	1	0	0	1	23:30	0	0	0	0	0
11:45	3	0	0	0	3	23:45	0	0	0	0	0
TOTAL	11	4	3	4	22	TOTAL	25	1	1	1	28
				AM PEAK	7:30 AM					AM PEAK	6:00 PM
				AM PEAK '	8					AM PEAK '	8

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	36	5	4	5	50
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	72.0%	10.0%	8.0%	10.0%	100.0%
CLASS 3	3-AXLE TRUCKS						
CLASS 4	4 OR MORE AXLE TRUCKS	**TOTAL: ALL**	132	21	7	11	171
		% OF TOTAL	77.2%	12.3%	4.1%	6.4%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, May 24, 2022 **CITY:** Perris
JOB #: SC3431 **LOCATION:** Ellis east of Goetz

AM TIME	1	2	3	4	TOTAL	PM Time	1	2	3	4	TOTAL
0:00	0	0	0	0	0	12:00	0	0	0	0	0
0:15	2	0	0	0	2	12:15	2	0	0	0	2
0:30	0	0	0	0	0	12:30	2	1	0	0	3
0:45	0	0	0	0	0	12:45	3	0	0	0	3
1:00	0	0	0	0	0	13:00	1	0	0	0	1
1:15	0	0	0	0	0	13:15	1	0	0	0	1
1:30	1	0	0	0	1	13:30	1	1	0	0	2
1:45	1	0	0	0	1	13:45	1	0	0	0	1
2:00	0	0	0	0	0	14:00	2	0	0	1	3
2:15	0	0	0	0	0	14:15	3	1	0	0	4
2:30	0	0	0	0	0	14:30	2	0	0	0	2
2:45	0	0	0	0	0	14:45	2	0	0	0	2
3:00	0	0	0	0	0	15:00	0	0	0	0	0
3:15	0	0	0	0	0	15:15	1	0	0	0	1
3:30	0	0	0	0	0	15:30	1	0	0	0	1
3:45	0	0	0	0	0	15:45	3	0	0	2	5
4:00	0	0	0	0	0	16:00	0	0	0	0	0
4:15	1	0	0	0	1	16:15	0	0	0	0	0
4:30	0	0	0	1	1	16:30	0	0	0	0	0
4:45	0	0	0	0	0	16:45	2	0	0	0	2
5:00	1	0	0	0	1	17:00	0	0	0	0	0
5:15	1	0	1	0	2	17:15	0	0	0	0	0
5:30	0	0	0	0	0	17:30	0	0	0	0	0
5:45	1	0	0	0	1	17:45	1	1	0	0	2
6:00	3	0	0	0	3	18:00	3	1	0	0	4
6:15	1	0	0	0	1	18:15	0	0	0	0	0
6:30	0	0	0	0	0	18:30	0	0	0	0	0
6:45	2	0	2	0	4	18:45	2	0	0	0	2
7:00	2	0	0	0	2	19:00	4	0	0	0	4
7:15	0	0	0	1	1	19:15	0	0	0	0	0
7:30	6	3	0	0	9	19:30	2	0	0	0	2
7:45	4	0	0	0	4	19:45	1	0	0	0	1
8:00	2	0	0	0	2	20:00	2	1	0	0	3
8:15	2	0	0	0	2	20:15	1	0	0	0	1
8:30	0	0	0	0	0	20:30	1	0	0	0	1
8:45	1	0	0	0	1	20:45	1	0	0	0	1
9:00	1	2	0	0	3	21:00	0	0	0	0	0
9:15	1	0	0	0	1	21:15	0	0	0	0	0
9:30	0	0	0	0	0	21:30	1	0	0	0	1
9:45	1	0	0	0	1	21:45	0	0	0	0	0
10:00	2	0	0	0	2	22:00	0	0	0	0	0
10:15	2	0	0	0	2	22:15	0	0	0	0	0
10:30	1	1	0	0	2	22:30	0	0	0	0	0
10:45	2	0	0	0	2	22:45	0	0	0	0	0
11:00	2	0	0	1	3	23:00	1	0	0	0	1
11:15	2	0	0	0	2	23:15	0	0	0	0	0
11:30	1	2	0	0	3	23:30	0	0	0	0	0
11:45	3	2	0	0	5	23:45	0	0	0	0	0
TOTAL	49	10	3	3	65	TOTAL	47	6	0	3	56
				AM PEAK H	7:30 AM					AM PEAK	2:00 PM
				AM PEAK V	17					AM PEAK	11

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	96	16	3	6	121
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	79.3%	13.2%	2.5%	5.0%	100.0%
CLASS 3	3-AXLE TRUCKS						
CLASS 4	4 OR MORE AXLE TRUCKS						

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, May 24, 2022 **CITY:** Perris

JOB #: SC3431 **LOCATION:** Case south of Ellis

AM TIME	1	2	3	4	TOTAL	PM Time	1	2	3	4	TOTAL
0:00	7	0	0	0	7	12:00	58	10	3	1	72
0:15	3	0	0	0	3	12:15	51	8	2	1	62
0:30	4	0	0	0	4	12:30	65	9	2	5	81
0:45	7	0	0	0	7	12:45	59	6	6	1	72
1:00	3	0	0	0	3	13:00	65	4	1	2	72
1:15	4	0	1	0	5	13:15	61	7	1	2	71
1:30	3	0	0	0	3	13:30	65	10	2	1	78
1:45	2	0	0	0	2	13:45	56	7	4	2	69
2:00	0	0	0	0	0	14:00	82	10	4	0	96
2:15	6	0	0	0	6	14:15	72	10	1	4	87
2:30	5	0	0	0	5	14:30	65	5	0	1	71
2:45	4	1	0	0	5	14:45	64	4	2	2	72
3:00	3	2	0	0	5	15:00	68	3	3	1	75
3:15	8	0	0	0	8	15:15	84	8	3	1	96
3:30	4	0	1	0	5	15:30	78	10	2	2	92
3:45	7	0	0	0	7	15:45	63	9	5	5	82
4:00	10	0	0	0	10	16:00	66	8	0	1	75
4:15	16	0	0	0	16	16:15	79	12	4	1	96
4:30	17	2	0	0	19	16:30	60	7	2	1	70
4:45	30	0	0	0	30	16:45	58	6	3	3	70
5:00	26	3	0	0	29	17:00	67	7	3	2	79
5:15	20	1	0	0	21	17:15	67	3	0	1	71
5:30	37	2	2	0	41	17:30	71	7	2	0	80
5:45	41	1	0	1	43	17:45	59	3	8	0	70
6:00	35	6	0	0	41	18:00	59	5	4	1	69
6:15	40	2	2	1	45	18:15	58	4	2	1	65
6:30	48	2	2	0	52	18:30	48	4	4	0	56
6:45	55	5	0	0	60	18:45	49	4	1	0	54
7:00	59	6	1	1	67	19:00	40	3	4	0	47
7:15	70	3	2	1	76	19:15	37	4	4	0	45
7:30	80	4	3	1	88	19:30	47	2	3	0	52
7:45	73	8	0	0	81	19:45	46	6	3	0	55
8:00	51	4	0	3	58	20:00	39	4	1	1	45
8:15	53	7	3	2	65	20:15	26	4	0	0	30
8:30	55	12	1	1	69	20:30	40	3	0	0	43
8:45	48	4	3	1	56	20:45	40	1	0	0	41
9:00	32	5	0	3	40	21:00	22	3	0	0	25
9:15	49	7	1	1	58	21:15	22	3	0	0	25
9:30	50	5	3	2	60	21:30	17	2	0	1	20
9:45	61	5	0	4	70	21:45	21	1	0	0	22
10:00	46	8	0	0	54	22:00	16	2	0	0	18
10:15	44	3	2	0	49	22:15	20	1	0	0	21
10:30	53	7	2	2	64	22:30	15	0	0	0	15
10:45	43	5	0	0	48	22:45	17	0	0	0	17
11:00	49	3	2	2	56	23:00	14	0	0	0	14
11:15	51	4	5	5	65	23:15	9	2	0	0	11
11:30	42	6	2	1	51	23:30	10	0	1	0	11
11:45	55	6	3	1	65	23:45	14	0	0	0	14
TOTAL	1,509	139	41	33	1,722	TOTAL	2,309	231	90	44	2,674
				AM PEAK	7:00 AM					AM PEAK	3:30 PM
				AM PEAK	312					AM PEAK	345

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	3,818	370	131	77	4,396
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	86.9%	8.4%	3.0%	1.8%	100.0%
CLASS 3	3-AXLE TRUCKS						
CLASS 4	4 OR MORE AXLE TRUCKS	**TOTAL: ALL**	7,298	679	246	139	8,362
		% OF TOTAL	87.3%	8.1%	2.9%	1.7%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, May 24, 2022 **CITY:** Perris

JOB #: SC3431 **LOCATION:** Case south of Ellis

AM TIME	1	2	3	4	TOTAL	PM Time	1	2	3	4	TOTAL
0:00	7	1	0	0	8	12:00	57	7	0	2	66
0:15	6	0	0	0	6	12:15	48	7	1	2	58
0:30	2	0	0	0	2	12:30	52	2	1	0	55
0:45	2	0	0	0	2	12:45	45	4	2	0	51
1:00	4	0	0	0	4	13:00	51	4	3	2	60
1:15	4	0	0	0	4	13:15	61	5	5	2	73
1:30	5	0	0	0	5	13:30	82	7	5	0	94
1:45	1	0	0	0	1	13:45	58	12	2	2	74
2:00	5	0	0	0	5	14:00	48	7	1	2	58
2:15	2	0	1	0	3	14:15	72	9	1	0	82
2:30	4	0	0	0	4	14:30	55	4	3	0	62
2:45	2	0	0	0	2	14:45	75	5	4	0	84
3:00	1	1	0	0	2	15:00	79	8	4	2	93
3:15	3	0	0	0	3	15:15	75	8	0	1	84
3:30	5	0	0	0	5	15:30	90	5	1	1	97
3:45	5	1	0	0	6	15:45	82	5	0	1	88
4:00	8	1	0	0	9	16:00	85	8	1	0	94
4:15	3	2	0	0	5	16:15	68	4	1	0	73
4:30	3	1	0	0	4	16:30	85	3	1	2	91
4:45	8	5	2	0	15	16:45	86	11	0	0	97
5:00	20	0	1	0	21	17:00	89	4	1	0	94
5:15	15	5	2	1	23	17:15	87	4	1	1	93
5:30	32	3	8	2	45	17:30	63	4	0	0	67
5:45	16	1	4	0	21	17:45	88	4	1	1	94
6:00	24	3	4	0	31	18:00	54	4	1	0	59
6:15	26	8	8	3	45	18:15	56	1	0	0	57
6:30	36	4	9	4	53	18:30	58	2	0	0	60
6:45	29	8	0	0	37	18:45	63	4	0	0	67
7:00	26	6	5	0	37	19:00	49	0	0	0	49
7:15	30	3	1	1	35	19:15	53	0	1	1	55
7:30	42	3	1	0	46	19:30	39	0	0	1	40
7:45	41	6	3	2	52	19:45	31	2	1	0	34
8:00	50	7	4	1	62	20:00	39	0	0	0	39
8:15	55	6	0	2	63	20:15	48	3	0	0	51
8:30	34	4	2	3	43	20:30	39	0	0	0	39
8:45	43	7	2	1	53	20:45	23	2	0	0	25
9:00	37	3	1	1	42	21:00	33	0	0	0	33
9:15	52	9	2	4	67	21:15	22	1	1	0	24
9:30	39	2	2	4	47	21:30	21	1	0	0	22
9:45	33	9	0	2	44	21:45	12	0	0	1	13
10:00	46	4	1	1	52	22:00	6	0	0	0	6
10:15	40	4	2	1	47	22:15	17	1	0	0	18
10:30	27	5	0	0	32	22:30	8	0	0	0	8
10:45	36	7	0	1	44	22:45	8	0	0	0	8
11:00	34	2	1	1	38	23:00	8	1	0	0	9
11:15	44	4	2	1	51	23:15	13	0	0	0	13
11:30	51	5	2	2	60	23:30	4	1	0	0	5
11:45	51	5	2	0	58	23:45	6	0	0	0	6
TOTAL	1,089	145	72	38	1,344	TOTAL	2,391	164	43	24	2,622
				AM PEAK H	7:30 AM					AM PEAK	4:30 PM
				AM PEAK V	223					AM PEAK	375

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	3,480	309	115	62	3,966
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	87.7%	7.8%	2.9%	1.6%	100.0%
CLASS 3	3-AXLE TRUCKS						
CLASS 4	4 OR MORE AXLE TRUCKS						

A816

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, May 24, 2022 **CITY:** Perris

JOB #: SC3431 **LOCATION:** Bonnie west of I-215 SB Ramps

AM TIME	1	2	3	4	TOTAL	PM Time	1	2	3	4	TOTAL
0:00	7	0	0	0	7	12:00	32	7	0	3	42
0:15	4	0	0	0	4	12:15	29	8	1	4	42
0:30	1	0	0	0	1	12:30	41	3	2	0	46
0:45	4	0	0	0	4	12:45	38	5	2	0	45
1:00	3	0	0	0	3	13:00	43	3	1	3	50
1:15	3	0	0	0	3	13:15	42	6	5	1	54
1:30	2	0	0	0	2	13:30	55	5	4	3	67
1:45	0	0	0	0	0	13:45	40	6	1	3	50
2:00	1	0	0	0	1	14:00	35	7	2	1	45
2:15	4	0	0	0	4	14:15	38	6	1	2	47
2:30	2	0	1	0	3	14:30	45	4	1	1	51
2:45	2	0	0	1	3	14:45	56	6	5	0	67
3:00	3	1	0	0	4	15:00	51	6	1	3	61
3:15	2	0	0	0	2	15:15	58	7	1	1	67
3:30	4	0	0	0	4	15:30	71	5	0	1	77
3:45	2	1	0	0	3	15:45	58	4	4	2	68
4:00	5	0	0	0	5	16:00	54	3	0	1	58
4:15	3	1	0	0	4	16:15	54	4	0	0	58
4:30	3	1	0	0	4	16:30	62	5	0	1	68
4:45	0	5	3	0	8	16:45	64	5	0	0	69
5:00	10	1	0	0	11	17:00	70	4	1	1	76
5:15	6	4	2	1	13	17:15	51	2	1	3	57
5:30	22	4	7	1	34	17:30	46	1	2	1	50
5:45	11	4	5	1	21	17:45	86	6	0	0	92
6:00	11	3	3	1	18	18:00	35	5	2	0	42
6:15	18	7	3	2	30	18:15	59	5	0	0	64
6:30	28	4	8	2	42	18:30	39	1	0	1	41
6:45	23	5	6	0	34	18:45	57	2	0	0	59
7:00	24	5	3	0	32	19:00	26	0	0	0	26
7:15	36	2	1	1	40	19:15	42	2	0	1	45
7:30	28	2	2	2	34	19:30	29	0	0	0	29
7:45	22	4	1	1	28	19:45	39	2	0	1	42
8:00	23	2	3	1	29	20:00	36	1	0	0	37
8:15	39	4	1	3	47	20:15	41	5	0	0	46
8:30	18	1	0	3	22	20:30	35	0	0	0	35
8:45	28	5	2	3	38	20:45	20	2	0	0	22
9:00	24	4	2	1	31	21:00	20	0	0	0	20
9:15	30	7	2	4	43	21:15	13	2	0	1	16
9:30	28	4	3	2	37	21:30	17	0	0	0	17
9:45	21	10	1	5	37	21:45	11	1	0	0	12
10:00	25	2	0	1	28	22:00	9	0	0	1	10
10:15	33	4	3	4	44	22:15	13	0	0	0	13
10:30	26	2	2	0	30	22:30	8	0	0	0	8
10:45	27	3	1	2	33	22:45	4	0	0	0	4
11:00	31	2	2	1	36	23:00	6	1	0	0	7
11:15	40	4	1	2	47	23:15	7	1	0	0	8
11:30	28	5	0	5	38	23:30	4	0	0	0	4
11:45	31	3	2	0	36	23:45	2	0	0	0	2
TOTAL	746	116	70	50	982	TOTAL	1,791	148	37	40	2,016
				AM PEAK	11:00 AM					AM PEAK	5:00 PM
				AM PEAK	157					AM PEAK	275

CLASS 1	PASSENGER VEHICLES	TOTAL: AM+PM	2,537	264	107	90	2,998
CLASS 2	2-AXLE TRUCKS	% OF TOTAL	84.6%	8.8%	3.6%	3.0%	100.0%
CLASS 3	3-AXLE TRUCKS						
CLASS 4	4 OR MORE AXLE TRUCKS	TOTAL: ALL	5,223	582	216	206	6,227
		% OF TOTAL	83.9%	9.3%	3.5%	3.3%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, May 24, 2022 **CITY:** Perris

JOB #: SC3431 **LOCATION:** Bonnie west of I-215 SB Ramps

AM TIME	1	2	3	4	TOTAL	PM Time	1	2	3	4	TOTAL
0:00	3	0	0	0	3	12:00	41	4	2	1	48
0:15	5	0	0	0	5	12:15	37	4	0	3	44
0:30	6	0	0	0	6	12:30	37	5	0	2	44
0:45	4	0	0	0	4	12:45	45	6	4	2	57
1:00	3	1	0	0	4	13:00	38	6	0	4	48
1:15	4	0	1	0	5	13:15	46	8	2	2	58
1:30	1	0	0	0	1	13:30	31	7	2	0	40
1:45	1	0	0	0	1	13:45	35	8	5	3	51
2:00	0	0	0	0	0	14:00	38	5	3	3	49
2:15	1	0	0	0	1	14:15	38	13	2	3	56
2:30	2	0	0	0	2	14:30	44	4	1	2	51
2:45	2	0	0	0	2	14:45	58	6	1	4	69
3:00	5	0	1	0	6	15:00	48	5	2	1	56
3:15	9	0	0	0	9	15:15	57	9	1	6	73
3:30	4	0	1	0	5	15:30	52	9	3	1	65
3:45	9	0	0	0	9	15:45	56	6	1	6	69
4:00	16	0	0	0	16	16:00	46	6	1	1	54
4:15	12	0	0	0	12	16:15	43	6	5	0	54
4:30	17	2	0	0	19	16:30	38	4	0	1	43
4:45	35	1	0	1	37	16:45	39	6	2	4	51
5:00	28	4	0	0	32	17:00	52	6	1	2	61
5:15	18	1	0	0	19	17:15	47	3	1	0	51
5:30	32	3	0	1	36	17:30	48	4	8	0	60
5:45	35	2	0	1	38	17:45	46	4	2	2	54
6:00	26	7	1	0	34	18:00	43	3	4	2	52
6:15	38	1	1	3	43	18:15	39	1	0	1	41
6:30	29	3	2	0	34	18:30	31	5	5	0	41
6:45	37	4	1	2	44	18:45	35	3	2	0	40
7:00	40	3	1	1	45	19:00	32	2	2	0	36
7:15	37	3	2	3	45	19:15	27	4	3	2	36
7:30	40	8	2	3	53	19:30	32	2	1	1	36
7:45	53	4	1	1	59	19:45	28	3	0	0	31
8:00	36	1	0	4	41	20:00	21	4	1	0	26
8:15	34	5	2	2	43	20:15	31	3	0	0	34
8:30	40	6	1	2	49	20:30	30	2	0	0	32
8:45	38	5	2	3	48	20:45	24	1	0	0	25
9:00	32	6	3	3	44	21:00	10	4	0	0	14
9:15	38	7	1	0	46	21:15	19	3	0	0	22
9:30	31	2	2	3	38	21:30	8	2	0	0	10
9:45	42	5	0	3	50	21:45	9	2	0	0	11
10:00	42	6	3	1	52	22:00	15	0	0	0	15
10:15	21	6	3	1	31	22:15	13	1	0	0	14
10:30	35	5	1	3	44	22:30	15	0	0	0	15
10:45	29	5	0	2	36	22:45	7	1	0	0	8
11:00	41	3	3	3	50	23:00	7	1	0	0	8
11:15	37	6	2	4	49	23:15	5	1	0	0	6
11:30	30	5	1	2	38	23:30	7	0	1	0	8
11:45	55	6	3	5	69	23:45	5	0	0	0	5
TOTAL	1,133	126	41	57	1,357	TOTAL	1,553	192	68	59	1,872
				AM PEAK H	11:00 AM					AM PEAK	3:00 PM
				AM PEAK V	206					AM PEAK	263

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	2,686	318	109	116	3,229
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	83.2%	9.8%	3.4%	3.6%	100.0%
CLASS 3	3-AXLE TRUCKS						
CLASS 4	4 OR MORE AXLE TRUCKS						

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APPENDIX 3.2: EXISTING (2023) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Volume Development - AM Peak Hour

1: Goetz Rd. & Case Rd.

PHF: 0.845 7:15am Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**269**	**0**	**285**	**0**	**0**	**0**	**0**	**169**	**121**	**250**	**186**	**0**	**1,280**

2: Goetz Rd. & Ellis Av.

PHF: 0.857 7:15am Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**48**	**542**	**10**	**0**	**362**	**9**	**11**	**0**	**62**	**21**	**0**	**1**	**1,066**

3: Goetz Rd. & Driveway 1

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**600**	**0**	**0**	**444**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,044**

4: Goetz Rd. & Cai Ct.

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**544**	**0**	**0**	**393**	**0**	**57**	**0**	**57**	**0**	**0**	**0**	**1,051**

5: Goetz Rd. & Malbert St.

PHF: 0.794 7:15am Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**31**	**590**	**0**	**0**	**414**	**30**	**11**	**0**	**8**	**0**	**0**	**0**	**1,084**

6: Goetz Rd. & Mountain Av./Driveway 2

PHF: 0.797 7:15am Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**42**	**586**	**3**	**1**	**403**	**19**	**32**	**0**	**20**	**0**	**0**	**3**	**1,108**

7: Goetz Rd. & Driveway 3

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**631**	**0**	**0**	**422**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,053**

8: Goetz Rd. & Mapes Rd.

PHF: 0.838 7:15am Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**324**	**411**	**13**	**5**	**187**	**182**	**169**	**3**	**261**	**3**	**0**	**0**	**1,560**

9: Goetz Rd. & Fieldstone Dr.

PHF: 0.909 7:00am Count Date: 11/15/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**19**	**640**	**5**	**9**	**428**	**14**	**77**	**1**	**39**	**4**	**0**	**32**	**1,268**

10: Goetz Rd. & Ethanac Rd.

PHF: 0.939 7:15am Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**1**	**331**	**403**	**310**	**147**	**15**	**23**	**104**	**7**	**207**	**63**	**310**	**1,918**

11: Driveway 4 & Ellis Av.

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**0**	**0**	**22**	**0**	**32**

Volume Development - AM Peak Hour

12: Case Rd. & Ellis Av.

	PHF:	0.903		7:30am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**297**	**98**	**164**	**231**	**0**	**0**	**8**	**2**	**39**	**22**	**130**	**991**

13: Redlands Av. & I-215 NB Ramps

	PHF:	0.893		7:15 AM					Count Date:	2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**184**	**717**	**0**	**0**	**1038**	**212**	**0**	**0**	**0**	**336**	**4**	**285**	**2,777**

14: Redlands Av. & I-215 SB Ramps

	PHF:	0.905		7:30 AM					Count Date:	2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**761**	**313**	**456**	**918**	**0**	**140**	**0**	**165**	**0**	**0**	**0**	**2,754**

15: Redlands Av. & 4th St.

	PHF:	0.853		7:15 AM					Count Date:	5/23/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**23**	**353**	**14**	**55**	**316**	**751**	**668**	**23**	**22**	**6**	**14**	**25**	**2,270**

16: Redlands Av. & Ellis Av.

	PHF:	0.879		7:15 AM					Count Date:	5/30/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**0**	**0**	**23**	**0**	**143**	**240**	**14**	**0**	**0**	**3**	**24**	**447**

17: Case Rd. & Driveway 5

	PHF:								Count Date:			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**272**	**0**	**0**	**394**	**0**	**667**

18: Murrieta Rd. & Case Rd.

	PHF:	0.937		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**123**	**0**	**9**	**0**	**0**	**0**	**0**	**222**	**50**	**36**	**272**	**0**	**712**

19: Case Rd. & Mapes Rd.

	PHF:	0.926		7:45am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**3**	**0**	**92**	**2**	**230**	**134**	**98**	**0**	**0**	**78**	**57**	**694**

20: Bonnie Dr. & Mapes Rd.

	PHF:	0.827							Count Date:	11/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**316**	**27**	**0**	**0**	**15**	**9**	**1**	**0**	**193**	**0**	**0**	**0**	**560**

21: I-215 SB Ramps/SR-74 & Bonnie Dr.

	PHF:	0.985		7:00am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**301**	**470**	**0**	**0**	**676**	**41**	**29**	**0**	**179**	**0**	**0**	**0**	**1,696**

22: I-215 NB Ramps & SR-74

	PHF:	0.981		7:00am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**0**	**0**	**187**	**0**	**13**	**14**	**840**	**0**	**0**	**758**	**943**	**2,756**

Volume Development - PM Peak Hour

1: Goetz Rd. & Case Rd.

PHF: 0.927 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**166**	**0**	**206**	**0**	**0**	**0**	**0**	**225**	**168**	**261**	**212**	**0**	**1,239**

2: Goetz Rd. & Ellis Av.

PHF: 0.944 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**25**	**362**	**3**	**0**	**415**	**14**	**10**	**0**	**63**	**2**	**0**	**0**	**895**

3: Goetz Rd. & Driveway 1

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**390**	**0**	**0**	**480**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**870**

4: Goetz Rd. & Cai Ct.

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**338**	**0**	**0**	**424**	**0**	**57**	**0**	**57**	**0**	**0**	**0**	**875**

5: Goetz Rd. & Malbert St.

PHF: 0.927 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**2**	**365**	**0**	**0**	**472**	**8**	**25**	**0**	**26**	**0**	**0**	**0**	**898**

6: Goetz Rd. & Mountain Av./Driveway 2

PHF: 0.955 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**4**	**350**	**0**	**0**	**487**	**11**	**15**	**0**	**6**	**3**	**0**	**2**	**879**

7: Goetz Rd. & Driveway 3

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**354**	**0**	**0**	**496**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**850**

8: Goetz Rd. & Mapes Rd.

PHF: 0.942 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**277**	**190**	**1**	**3**	**369**	**87**	**93**	**1**	**355**	**13**	**1**	**2**	**1,392**

9: Goetz Rd. & Fieldstone Dr.

PHF: 0.958 4:15pm Count Date: 11/15/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**41**	**422**	**8**	**34**	**628**	**75**	**36**	**5**	**34**	**2**	**5**	**10**	**1,301**

10: Goetz Rd. & Ethanac Rd.

PHF: 0.898 4:15pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**1**	**159**	**215**	**361**	**272**	**31**	**15**	**55**	**5**	**294**	**79**	**297**	**1,784**

11: Driveway 4 & Ellis Av.

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**2**	**0**	**5**

Volume Development - PM Peak Hour

12: Case Rd. & Ellis Av.

	PHF:	0.951		4:30pm					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**295**	**75**	**96**	**347**	**0**	**0**	**2**	**1**	**108**	**2**	**131**	**1,056**

13: Redlands Av. & I-215 NB Ramps

	PHF:	0.967		4:00 PM					Count Date:	2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**147**	**822**	**0**	**0**	**933**	**137**	**0**	**0**	**0**	**371**	**7**	**523**	**2,940**

14: Redlands Av. & I-215 SB Ramps

	PHF:	0.989		4:00 PM					Count Date:	2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**786**	**454**	**407**	**897**	**0**	**183**	**2**	**203**	**0**	**0**	**0**	**2,932**

15: Redlands Av. & 4th St.

	PHF:	0.944		4:15 PM					Count Date:	5/23/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**43**	**335**	**6**	**45**	**268**	**648**	**806**	**24**	**51**	**8**	**18**	**71**	**2,322**

16: Redlands Av. & Ellis Av.

	PHF:	0.899		4:00 PM					Count Date:	5/30/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**0**	**0**	**3**	**0**	**203**	**177**	**1**	**0**	**0**	**6**	**16**	**406**

17: Case Rd. & Driveway 5

	PHF:								Count Date:			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**455**	**0**	**0**	**370**	**0**	**825**

18: Murrieta Rd. & Case Rd.

	PHF:	0.909		5:00pm					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**89**	**0**	**20**	**0**	**0**	**0**	**0**	**338**	**117**	**24**	**281**	**0**	**868**

19: Case Rd. & Mapes Rd.

	PHF:	0.901		5:00pm					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**1**	**1**	**0**	**68**	**0**	**211**	**263**	**95**	**0**	**0**	**93**	**85**	**818**

20: Bonnie Dr. & Mapes Rd.

	PHF:	0.897							Count Date:	11/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**273**	**5**	**0**	**0**	**9**	**6**	**4**	**0**	**345**	**0**	**0**	**0**	**643**

21: I-215 SB Ramps/SR-74 & Bonnie Dr.

	PHF:	0.932		4:15pm					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**254**	**346**	**0**	**0**	**906**	**25**	**31**	**0**	**323**	**0**	**0**	**0**	**1,885**

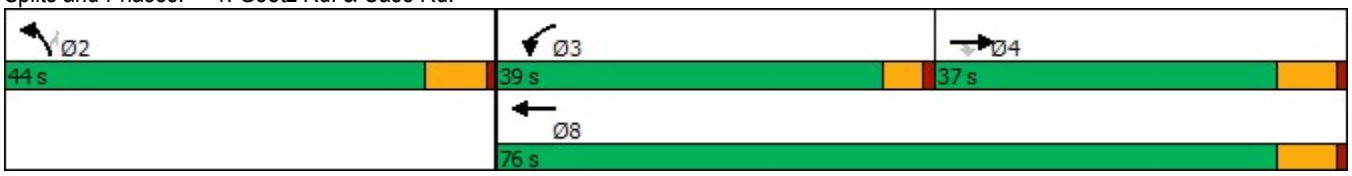
22: I-215 NB Ramps & SR-74

	PHF:	0.965		4:15pm					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
2023 PCE:	**0**	**0**	**0**	**291**	**0**	**32**	**22**	**1208**	**0**	**0**	**568**	**693**	**2,814**

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	169	121	250	186	269	285
Future Volume (vph)	169	121	250	186	269	285
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)	34.5	34.5	9.6	16.5	16.5	16.5
Total Split (s)	37.0	37.0	39.0	76.0	44.0	44.0
Total Split (%)	30.8%	30.8%	32.5%	63.3%	36.7%	36.7%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None
Act Effct Green (s)	15.2	15.2	17.3	37.5	19.1	19.1
Actuated g/C Ratio	0.22	0.22	0.25	0.53	0.27	0.27
v/c Ratio	0.49	0.31	0.68	0.22	0.66	0.50
Control Delay	31.4	7.5	34.5	9.9	31.7	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.4	7.5	34.5	9.9	31.7	5.9
LOS	C	A	C	A	C	A
Approach Delay	21.4			24.0	18.4	
Approach LOS	C			C	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 70.6	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 21.0	Intersection LOS: C
Intersection Capacity Utilization 52.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: Goetz Rd. & Case Rd.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	169	121	250	186	269	285
Future Volume (veh/h)	169	121	250	186	269	285
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	201	96	298	221	320	246
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	385	327	365	946	431	384
Arrive On Green	0.20	0.20	0.20	0.50	0.24	0.24
Sat Flow, veh/h	1900	1610	1810	1900	1810	1610
Grp Volume(v), veh/h	201	96	298	221	320	246
Grp Sat Flow(s),veh/h/ln	1900	1610	1810	1900	1810	1610
Q Serve(g_s), s	4.6	2.5	7.8	3.3	8.1	6.8
Cycle Q Clear(g_c), s	4.6	2.5	7.8	3.3	8.1	6.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	385	327	365	946	431	384
V/C Ratio(X)	0.52	0.29	0.82	0.23	0.74	0.64
Avail Cap(c_a), veh/h	1175	996	1263	2679	1376	1225
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	17.5	16.7	18.8	7.0	17.4	16.9
Incr Delay (d2), s/veh	1.1	0.5	1.7	0.1	2.5	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.7	2.6	0.8	2.8	2.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.6	17.2	20.5	7.2	19.9	18.7
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	297			519	566	
Approach Delay, s/veh	18.1			14.8	19.4	
Approach LOS	B			B	B	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	18.3	14.5	16.5	31.0
Change Period (Y+Rc), s	6.5	4.6	6.5	6.5
Max Green Setting (Gmax), s	37.5	34.4	30.5	69.5
Max Q Clear Time (g_c+I1), s	10.1	9.8	6.6	5.3
Green Ext Time (p_c), s	1.7	0.4	1.2	1.1

Intersection Summary	
HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	0	62	21	0	1	48	542	10	0	362	9
Future Vol, veh/h	11	0	62	21	0	1	48	542	10	0	362	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	180	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	0	72	24	0	1	56	630	12	0	421	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	859	1186	222	959	1185	321	437	0	0	642	0	0
Stage 1	432	432	-	748	748	-	-	-	-	-	-	-
Stage 2	427	754	-	211	437	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	253	190	788	214	191	681	1134	-	-	952	-	-
Stage 1	577	586	-	375	423	-	-	-	-	-	-	-
Stage 2	581	420	-	777	583	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	242	179	783	187	180	681	1128	-	-	952	-	-
Mov Cap-2 Maneuver	361	293	-	284	287	-	-	-	-	-	-	-
Stage 1	545	582	-	356	402	-	-	-	-	-	-	-
Stage 2	551	399	-	705	580	-	-	-	-	-	-	-

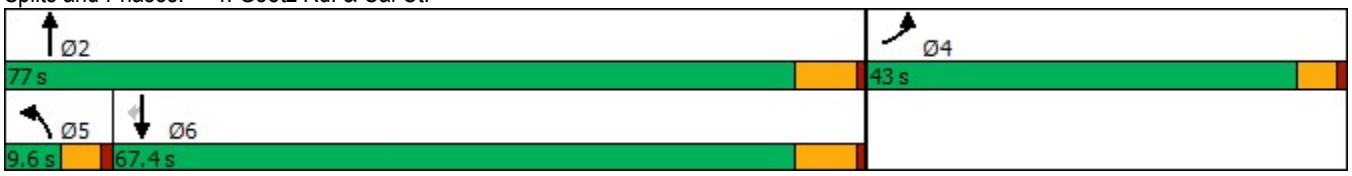
Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	18.5	0.7	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1128	-	-	361	783	292	952	-	-
HCM Lane V/C Ratio	0.049	-	-	0.035	0.092	0.088	-	-	-
HCM Control Delay (s)	8.4	-	-	15.3	10.1	18.5	0	-	-
HCM Lane LOS	A	-	-	C	B	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0.3	0.3	0	-	-

Lane Group	EBL	NBT	SBT	Ø5
Lane Configurations				
Traffic Volume (vph)	57	544	387	
Future Volume (vph)	57	544	387	
Turn Type	Prot	NA	NA	
Protected Phases	4	2	6	5
Permitted Phases				
Detector Phase	4	2	6	
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	5.0
Minimum Split (s)	14.6	16.5	27.5	9.6
Total Split (s)	43.0	77.0	67.4	9.6
Total Split (%)	35.8%	64.2%	56.2%	8%
Yellow Time (s)	3.6	5.5	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	4.6	6.5	6.5	
Lead/Lag			Lag	Lead
Lead-Lag Optimize?			Yes	Yes
Recall Mode	None	Min	Min	None
Act Effct Green (s)	10.1	20.9	20.9	
Actuated g/C Ratio	0.27	0.56	0.56	
v/c Ratio	0.25	0.29	0.21	
Control Delay	9.7	6.8	6.4	
Queue Delay	0.0	0.0	0.0	
Total Delay	9.7	6.8	6.4	
LOS	A	A	A	
Approach Delay	9.7	6.8	6.4	
Approach LOS	A	A	A	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 37.3			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.29			
Intersection Signal Delay: 7.0		Intersection LOS: A	
Intersection Capacity Utilization 32.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Goetz Rd. & Cai Ct.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	57	57	0	544	387	0
Future Volume (veh/h)	57	57	0	544	387	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	62	62	0	591	421	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	190	190	7	1327	1327	592
Arrive On Green	0.22	0.22	0.00	0.37	0.37	0.00
Sat Flow, veh/h	846	846	1810	3705	3705	1610
Grp Volume(v), veh/h	125	0	0	591	421	0
Grp Sat Flow(s),veh/h/ln	1705	0	1810	1805	1805	1610
Q Serve(g_s), s	1.7	0.0	0.0	3.4	2.3	0.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0	3.4	2.3	0.0
Prop In Lane	0.50	0.50	1.00			1.00
Lane Grp Cap(c), veh/h	383	0	7	1327	1327	592
V/C Ratio(X)	0.33	0.00	0.00	0.45	0.32	0.00
Avail Cap(c_a), veh/h	2407	0	332	9352	8079	3603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.8	0.0	0.0	6.5	6.2	0.0
Incr Delay (d2), s/veh	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
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	0.3	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.3	0.0	0.0	6.7	6.3	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	125			591	421	
Approach Delay, s/veh	9.3			6.7	6.3	
Approach LOS	A			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		16.5		10.7	0.0	16.5
Change Period (Y+Rc), s		6.5		4.6	4.6	6.5
Max Green Setting (Gmax), s		70.5		38.4	5.0	60.9
Max Q Clear Time (g_c+I1), s		5.4		3.7	0.0	4.3
Green Ext Time (p_c), s		3.7		0.4	0.0	2.5

Intersection Summary	
HCM 6th Ctrl Delay	6.9
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	11	8	31	590	0	414	30
Future Vol, veh/h	11	8	31	590	0	414	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	115	-	100	-	-
Veh in Median Storage, #	1	-	-	0	-	0	-
Grade, %	0	-	-	0	-	0	-
Peak Hour Factor	79	79	79	79	92	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	14	10	39	747	0	524	38

Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	995	281	562	0	747	-	0
Stage 1	543	-	-	-	-	-	-
Stage 2	452	-	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	6.4	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	2.5	-	-
Pot Cap-1 Maneuver	245	722	1019	-	489	-	-
Stage 1	552	-	-	-	-	-	-
Stage 2	614	-	-	-	-	-	-
Platoon blocked, %				-		-	-
Mov Cap-1 Maneuver	236	722	1019	-	489	-	-
Mov Cap-2 Maneuver	367	-	-	-	-	-	-
Stage 1	531	-	-	-	-	-	-
Stage 2	614	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.2	0.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	1019	-	463	489	-	-
HCM Lane V/C Ratio	0.039	-	0.052	-	-	-
HCM Control Delay (s)	8.7	-	13.2	0	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	0	20	0	0	3	42	586	3	1	403	19
Future Vol, veh/h	32	0	20	0	0	3	42	586	3	1	403	19
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	-	-	110	-	-
Veh in Median Storage, #	-	1	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	40	0	25	0	0	4	53	733	4	1	504	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	991	1361	264	1095	1371	369	528	0	0	737	0	0
Stage 1	518	518	-	841	841	-	-	-	-	-	-	-
Stage 2	473	843	-	254	530	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	203	150	741	171	147	634	1049	-	-	878	-	-
Stage 1	514	536	-	330	383	-	-	-	-	-	-	-
Stage 2	546	382	-	734	530	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	194	142	741	159	139	634	1049	-	-	878	-	-
Mov Cap-2 Maneuver	317	258	-	287	300	-	-	-	-	-	-	-
Stage 1	488	535	-	313	363	-	-	-	-	-	-	-
Stage 2	515	363	-	708	529	-	-	-	-	-	-	-

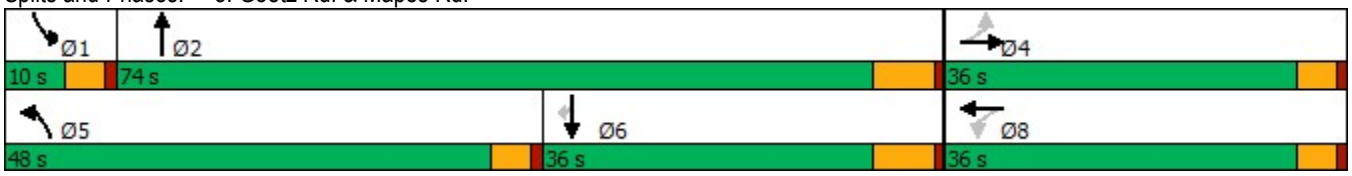
Approach	EB	WB	NB	SB
HCM Control Delay, s	15.6	10.7	0.6	0
HCM LOS	C	B		

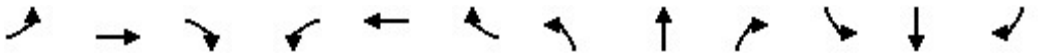
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1049	-	-	406	634	878	-	-
HCM Lane V/C Ratio	0.05	-	-	0.16	0.006	0.001	-	-
HCM Control Delay (s)	8.6	-	-	15.6	10.7	9.1	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.6	0	0	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	169	3	3	0	324	411	5	187	182
Future Volume (vph)	169	3	3	0	324	411	5	187	182
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA	Perm
Protected Phases		4		8	5	2	1	6	
Permitted Phases	4		8						6
Detector Phase	4	4	8	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.6	14.6	26.6	26.6	9.6	16.5	9.6	16.5	16.5
Total Split (s)	36.0	36.0	36.0	36.0	48.0	74.0	10.0	36.0	36.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	40.0%	61.7%	8.3%	30.0%	30.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.5	3.6	5.5	5.5
All-Red Time (s)	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
Total Lost Time (s)	4.6	4.6		4.6	4.6	6.5	4.6	6.5	6.5
Lead/Lag					Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	17.5	17.5		17.5	20.9	39.9	5.5	15.4	15.4
Actuated g/C Ratio	0.25	0.25		0.25	0.30	0.56	0.08	0.22	0.22
v/c Ratio	0.57	0.50		0.03	0.72	0.25	0.04	0.54	0.42
Control Delay	32.6	6.6		25.0	32.5	9.2	41.8	33.2	7.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.6	6.6		25.0	32.5	9.2	41.8	33.2	7.4
LOS	C	A		C	C	A	D	C	A
Approach Delay		16.7		25.0		19.3		20.8	
Approach LOS		B		C		B		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 70.8	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 19.0	Intersection LOS: B
Intersection Capacity Utilization 57.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 8: Goetz Rd. & Mapes Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	3	261	3	0	0	324	411	13	5	187	182
Future Volume (veh/h)	169	3	261	3	0	0	324	411	13	5	187	182
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	201	4	143	4	0	0	386	489	15	6	223	192
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	480	9	326	312	0	0	460	1630	50	14	398	337
Arrive On Green	0.21	0.21	0.21	0.21	0.00	0.00	0.25	0.46	0.46	0.01	0.21	0.21
Sat Flow, veh/h	1440	44	1573	779	0	0	1810	3576	110	1810	1900	1610
Grp Volume(v), veh/h	201	0	147	4	0	0	386	247	257	6	223	192
Grp Sat Flow(s),veh/h/ln	1440	0	1617	779	0	0	1810	1805	1880	1810	1900	1610
Q Serve(g_s), s	1.1	0.0	3.8	0.1	0.0	0.0	9.7	4.1	4.1	0.2	5.0	5.1
Cycle Q Clear(g_c), s	5.0	0.0	3.8	3.9	0.0	0.0	9.7	4.1	4.1	0.2	5.0	5.1
Prop In Lane	1.00		0.97	1.00		0.00	1.00		0.06	1.00		1.00
Lane Grp Cap(c), veh/h	480	0	335	312	0	0	460	823	857	14	398	337
V/C Ratio(X)	0.42	0.00	0.44	0.01	0.00	0.00	0.84	0.30	0.30	0.41	0.56	0.57
Avail Cap(c_a), veh/h	1128	0	1063	880	0	0	1645	2552	2658	205	1174	995
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.9	0.0	16.5	18.2	0.0	0.0	16.9	8.2	8.2	23.6	16.9	16.9
Incr Delay (d2), s/veh	0.6	0.0	0.9	0.0	0.0	0.0	1.6	0.2	0.2	6.9	1.2	1.5
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	1.9	0.0	1.4	0.0	0.0	0.0	3.1	1.0	1.0	0.1	1.8	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.5	0.0	17.4	18.2	0.0	0.0	18.5	8.4	8.4	30.4	18.1	18.5
LnGrp LOS	B	A	B	B	A	A	B	A	A	C	B	B
Approach Vol, veh/h		348			4			890			421	
Approach Delay, s/veh		17.4			18.2			12.8			18.5	
Approach LOS		B			B			B			B	

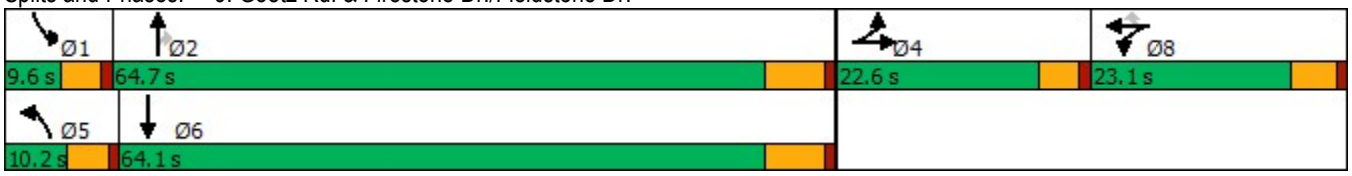
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	28.3		14.5	16.7	16.5		14.5				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		4.6				
Max Green Setting (Gmax), s	5.4	67.5		31.4	43.4	29.5		31.4				
Max Q Clear Time (g_c+I1), s	2.2	6.1		7.0	11.7	7.1		5.9				
Green Ext Time (p_c), s	0.0	2.7		1.5	0.5	1.6		0.0				

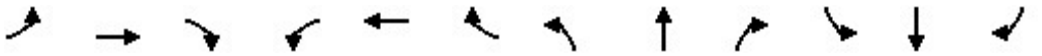
Intersection Summary			
HCM 6th Ctrl Delay		15.2	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	77	1	4	32	19	640	5	9	428
Future Volume (vph)	77	1	4	32	19	640	5	9	428
Turn Type	Split	NA	Split	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	8		5	2		1	6
Permitted Phases				8			2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.6	22.6	23.1	23.1	9.6	24.5	24.5	9.6	24.5
Total Split (s)	22.6	22.6	23.1	23.1	10.2	64.7	64.7	9.6	64.1
Total Split (%)	18.8%	18.8%	19.3%	19.3%	8.5%	53.9%	53.9%	8.0%	53.4%
Yellow Time (s)	3.6	3.6	4.1	4.1	3.6	5.5	5.5	3.6	5.5
All-Red Time (s)	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	5.1	5.1	4.6	6.5	6.5	4.6	6.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min
Act Effct Green (s)	13.2	13.2	13.1	13.1	6.3	40.0	40.0	6.1	38.1
Actuated g/C Ratio	0.20	0.20	0.19	0.19	0.09	0.59	0.59	0.09	0.57
v/c Ratio	0.24	0.13	0.01	0.06	0.12	0.62	0.00	0.06	0.17
Control Delay	34.8	13.9	35.8	0.2	43.9	18.9	0.0	44.0	12.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.8	13.9	35.8	0.2	43.9	18.9	0.0	44.0	12.6
LOS	C	B	D	A	D	B	A	D	B
Approach Delay		27.6				19.5			13.3
Approach LOS		C				B			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 67.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay: 17.6	Intersection LOS: B
Intersection Capacity Utilization 64.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Goetz Rd. & Firestone Dr./Fieldstone Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	1	39	4	0	32	19	640	5	9	428	14
Future Volume (veh/h)	77	1	39	4	0	32	19	640	5	9	428	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		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	85	1	18	4	0	16	21	703	5	10	470	10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	267	12	224	90	94	79	45	835	708	23	2236	47
Arrive On Green	0.15	0.15	0.15	0.05	0.00	0.05	0.02	0.44	0.44	0.01	0.43	0.43
Sat Flow, veh/h	1810	84	1519	1810	1900	1605	1810	1900	1610	1810	5227	111
Grp Volume(v), veh/h	85	0	19	4	0	16	21	703	5	10	310	170
Grp Sat Flow(s),veh/h/ln	1810	0	1604	1810	1900	1605	1810	1900	1610	1810	1729	1880
Q Serve(g_s), s	2.5	0.0	0.6	0.1	0.0	0.6	0.7	19.5	0.1	0.3	3.3	3.4
Cycle Q Clear(g_c), s	2.5	0.0	0.6	0.1	0.0	0.6	0.7	19.5	0.1	0.3	3.3	3.4
Prop In Lane	1.00		0.95	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	267	0	237	90	94	79	45	835	708	23	1480	804
V/C Ratio(X)	0.32	0.00	0.08	0.04	0.00	0.20	0.47	0.84	0.01	0.43	0.21	0.21
Avail Cap(c_a), veh/h	549	0	486	549	576	487	171	1863	1579	152	3356	1824
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	22.6	0.0	21.8	26.9	0.0	27.1	28.6	14.8	9.3	29.1	10.7	10.7
Incr Delay (d2), s/veh	0.7	0.0	0.1	0.2	0.0	1.2	2.8	2.4	0.0	4.6	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.2	0.1	0.0	0.2	0.3	6.4	0.0	0.2	0.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.3	0.0	22.0	27.1	0.0	28.3	31.4	17.2	9.3	33.7	10.7	10.8
LnGrp LOS	C	A	C	C	A	C	C	B	A	C	B	B
Approach Vol, veh/h		104			20			729			490	
Approach Delay, s/veh		23.1			28.1			17.5			11.2	
Approach LOS		C			C			B			B	

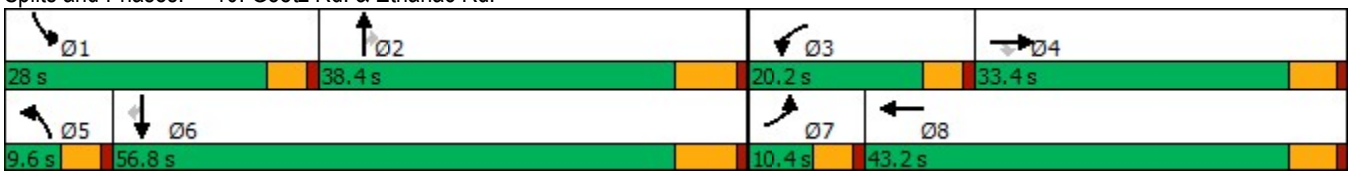
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	32.6		13.4	6.1	31.9		8.0				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		5.1				
Max Green Setting (Gmax), s	5.0	58.2		18.0	5.6	57.6		18.0				
Max Q Clear Time (g_c+I1), s	2.3	21.5		4.5	2.7	5.4		2.6				
Green Ext Time (p_c), s	0.0	4.6		0.2	0.0	2.7		0.0				

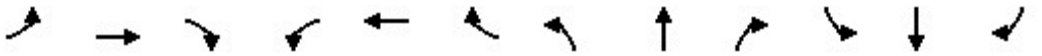
Intersection Summary			
HCM 6th Ctrl Delay		15.8	
HCM 6th LOS		B	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	23	104	7	207	63	1	331	403	310	147	15
Future Volume (vph)	23	104	7	207	63	1	331	403	310	147	15
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.4	33.4	9.6	30.4	9.6	37.5	37.5	9.6	39.5	39.5
Total Split (s)	10.4	33.4	33.4	20.2	43.2	9.6	38.4	38.4	28.0	56.8	56.8
Total Split (%)	8.7%	27.8%	27.8%	16.8%	36.0%	8.0%	32.0%	32.0%	23.3%	47.3%	47.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	5.5	5.5	3.6	5.5	5.5
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	5.4	5.4	4.6	5.4	4.6	6.5	6.5	4.6	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None	None
Act Effct Green (s)	5.5	13.1	13.1	15.3	29.4	5.1	23.0	23.0	22.1	48.3	48.3
Actuated g/C Ratio	0.06	0.14	0.14	0.16	0.31	0.05	0.24	0.24	0.23	0.51	0.51
v/c Ratio	0.23	0.22	0.02	0.76	0.25	0.01	0.77	0.74	0.79	0.09	0.02
Control Delay	53.7	38.9	0.1	58.4	6.4	51.0	46.3	22.6	51.0	13.8	0.1
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	53.7	38.9	0.1	58.4	6.4	51.0	46.3	22.6	51.0	13.8	0.1
LOS	D	D	A	E	A	D	D	C	D	B	A
Approach Delay		39.5			25.0		33.3			37.8	
Approach LOS		D			C		C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 95.1	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 32.3	Intersection LOS: C
Intersection Capacity Utilization 67.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: Goetz Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	104	7	207	63	310	1	331	403	310	147	15
Future Volume (veh/h)	23	104	7	207	63	310	1	331	403	310	147	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	24	111	5	220	67	252	1	352	264	330	156	12
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	47	486	217	262	877	408	2	445	377	375	1588	708
Arrive On Green	0.03	0.13	0.13	0.15	0.25	0.25	0.00	0.23	0.23	0.21	0.44	0.44
Sat Flow, veh/h	1810	3610	1610	1810	3458	1608	1810	1900	1610	1810	3610	1609
Grp Volume(v), veh/h	24	111	5	220	67	252	1	352	264	330	156	12
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1608	1810	1900	1610	1810	1805	1609
Q Serve(g_s), s	1.0	2.1	0.2	9.0	1.1	10.5	0.0	13.2	11.4	13.4	1.9	0.3
Cycle Q Clear(g_c), s	1.0	2.1	0.2	9.0	1.1	10.5	0.0	13.2	11.4	13.4	1.9	0.3
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	47	486	217	262	877	408	2	445	377	375	1588	708
V/C Ratio(X)	0.51	0.23	0.02	0.84	0.08	0.62	0.40	0.79	0.70	0.88	0.10	0.02
Avail Cap(c_a), veh/h	139	1336	596	373	1728	804	120	801	679	560	2400	1070
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	1.00
Uniform Delay (d), s/veh	36.4	29.2	28.4	31.5	21.5	25.0	37.7	27.2	26.5	29.1	12.4	12.0
Incr Delay (d2), s/veh	3.1	0.2	0.0	7.9	0.0	1.5	34.6	3.2	2.4	7.6	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.9	0.1	4.2	0.4	3.9	0.0	5.6	4.3	5.9	0.6	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.4	29.5	28.5	39.3	21.5	26.5	72.3	30.4	28.9	36.7	12.4	12.0
LnGrp LOS	D	C	C	D	C	C	E	C	C	D	B	B
Approach Vol, veh/h		140			539			617			498	
Approach Delay, s/veh		31.1			31.1			29.8			28.5	
Approach LOS		C			C			C			C	

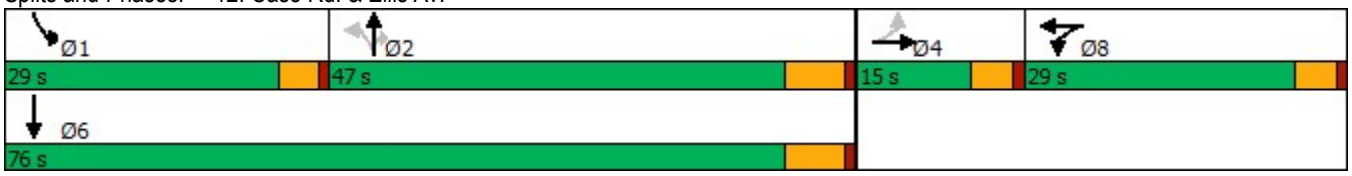
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.3	24.2	15.6	15.6	4.7	39.8	6.6	24.6
Change Period (Y+Rc), s	4.6	6.5	4.6	5.4	4.6	6.5	4.6	5.4
Max Green Setting (Gmax), s	23.4	31.9	15.6	28.0	5.0	50.3	5.8	37.8
Max Q Clear Time (g_c+I1), s	15.4	15.2	11.0	4.1	2.0	3.9	3.0	12.5
Green Ext Time (p_c), s	0.3	2.4	0.1	0.6	0.0	0.9	0.0	1.9

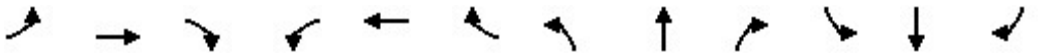
Intersection Summary	
HCM 6th Ctrl Delay	30.0
HCM 6th LOS	C

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	8	22	297	98	164	231
Future Volume (vph)	8	22	297	98	164	231
Turn Type	NA	NA	NA	Perm	Prot	NA
Protected Phases	4	8	2		1	6
Permitted Phases				2		
Detector Phase	4	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	16.4	16.4	9.6	16.4
Total Split (s)	15.0	29.0	47.0	47.0	29.0	76.0
Total Split (%)	12.5%	24.2%	39.2%	39.2%	24.2%	63.3%
Yellow Time (s)	3.8	3.8	5.4	5.4	3.6	5.4
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)	4.8	4.8	6.4	6.4	4.6	6.4
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	Min	Min	None	Min
Act Effct Green (s)	11.0	12.8	17.3	17.3	11.7	34.0
Actuated g/C Ratio	0.18	0.21	0.28	0.28	0.19	0.56
v/c Ratio	0.03	0.50	0.61	0.20	0.53	0.24
Control Delay	29.2	21.0	26.2	6.6	31.5	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.2	21.0	26.2	6.6	31.5	8.3
LOS	C	C	C	A	C	A
Approach Delay	29.2	21.0	21.4			17.9
Approach LOS	C	C	C			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 60.9	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 20.0	Intersection LOS: B
Intersection Capacity Utilization 60.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Case Rd. & Ellis Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	8	2	39	22	130	0	297	98	164	231	0
Future Volume (veh/h)	0	8	2	39	22	130	0	297	98	164	231	0
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	0	9	1	43	24	144	0	330	0	182	257	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	44	5	65	37	219	0	447		235	871	0
Arrive On Green	0.00	0.03	0.03	0.19	0.19	0.19	0.00	0.24	0.00	0.13	0.46	0.00
Sat Flow, veh/h	0	1680	187	342	191	1144	0	1900	1610	1810	1900	0
Grp Volume(v), veh/h	0	0	10	211	0	0	0	330	0	182	257	0
Grp Sat Flow(s),veh/h/ln	0	0	1866	1677	0	0	0	1900	1610	1810	1900	0
Q Serve(g_s), s	0.0	0.0	0.3	5.7	0.0	0.0	0.0	7.9	0.0	4.8	4.2	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.3	5.7	0.0	0.0	0.0	7.9	0.0	4.8	4.2	0.0
Prop In Lane	0.00		0.10	0.20		0.68	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	48	321	0	0	0	447		235	871	0
V/C Ratio(X)	0.00	0.00	0.21	0.66	0.00	0.00	0.00	0.74		0.77	0.30	0.00
Avail Cap(c_a), veh/h	0	0	386	822	0	0	0	1563		895	2680	0
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)	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	23.5	18.5	0.0	0.0	0.0	17.5	0.0	20.8	8.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	2.1	2.3	0.0	0.0	0.0	2.4	0.0	2.1	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	0.0	0.0	0.1	2.1	0.0	0.0	0.0	2.9	0.0	1.7	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	25.6	20.7	0.0	0.0	0.0	19.9	0.0	22.8	8.6	0.0
LnGrp LOS	A	A	C	C	A	A	A	B		C	A	A
Approach Vol, veh/h		10			211			330	A		439	
Approach Delay, s/veh		25.6			20.7			19.9			14.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.0	18.0		6.1		29.0		14.2				
Change Period (Y+Rc), s	4.6	6.4		* 4.8		6.4		4.8				
Max Green Setting (Gmax), s	24.4	40.6		* 10		69.6		24.2				
Max Q Clear Time (g_c+I1), s	6.8	9.9		2.3		6.2		7.7				
Green Ext Time (p_c), s	0.2	1.7		0.0		1.3		1.1				

Intersection Summary		
HCM 6th Ctrl Delay		17.7
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

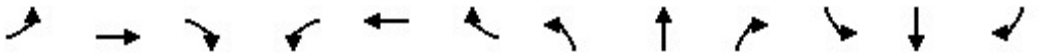
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	336	4	285	184	717	1038	212
Future Volume (vph)	336	4	285	184	717	1038	212
Turn Type	Split	NA	Prot	Prot	NA	NA	Perm
Protected Phases	8	8	8	5	2	6	
Permitted Phases							6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	9.5	11.0	31.0	31.0
Total Split (s)	47.0	47.0	47.0	24.0	73.0	49.0	49.0
Total Split (%)	39.2%	39.2%	39.2%	20.0%	60.8%	40.8%	40.8%
Yellow Time (s)	5.0	5.0	5.0	3.5	5.0	5.0	5.0
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)	6.0	6.0	6.0	4.5	6.0	6.0	6.0
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	Min	Min
Act Effct Green (s)	17.3	17.3	17.3	10.2	40.1	25.2	25.2
Actuated g/C Ratio	0.25	0.25	0.25	0.15	0.57	0.36	0.36
v/c Ratio	0.57	0.58	0.44	0.41	0.39	0.50	0.32
Control Delay	30.5	27.4	10.8	32.9	9.3	18.7	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.5	27.4	10.8	32.9	9.3	18.7	4.0
LOS	C	C	B	C	A	B	A
Approach Delay		23.2			14.1	16.2	
Approach LOS		C			B	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 70.1	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 17.1	Intersection LOS: B
Intersection Capacity Utilization 46.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 13: Redlands Av & I-215 NB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	336	4	285	184	717	0	0	1038	212
Future Volume (veh/h)	0	0	0	336	4	285	184	717	0	0	1038	212
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	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				428	0	105	207	806	0	0	1166	147
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				671	0	299	355	2082	0	0	2525	622
Arrive On Green				0.19	0.00	0.19	0.10	0.58	0.00	0.00	0.39	0.39
Sat Flow, veh/h				3619	0	1610	3510	3705	0	0	6802	1610
Grp Volume(v), veh/h				428	0	105	207	806	0	0	1166	147
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1805	0	0	1634	1610
Q Serve(g_s), s				5.5	0.0	2.9	2.8	6.1	0.0	0.0	6.7	3.1
Cycle Q Clear(g_c), s				5.5	0.0	2.9	2.8	6.1	0.0	0.0	6.7	3.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				671	0	299	355	2082	0	0	2525	622
V/C Ratio(X)				0.64	0.00	0.35	0.58	0.39	0.00	0.00	0.46	0.24
Avail Cap(c_a), veh/h				2942	0	1309	1357	4795	0	0	5572	1373
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	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				19.0	0.0	17.9	21.7	5.8	0.0	0.0	11.6	10.5
Incr Delay (d2), s/veh				1.0	0.0	0.7	1.5	0.1	0.0	0.0	0.1	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				2.0	0.0	0.9	1.1	1.5	0.0	0.0	2.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.0	0.0	18.6	23.2	5.9	0.0	0.0	11.7	10.6
LnGrp LOS				B	A	B	C	A	A	A	B	B
Approach Vol, veh/h					533			1013			1313	
Approach Delay, s/veh					19.7			9.5			11.6	
Approach LOS					B			A			B	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		35.1			9.6	25.5		15.4				
Change Period (Y+Rc), s		6.0			4.5	6.0		6.0				
Max Green Setting (Gmax), s		67.0			19.5	43.0		41.0				
Max Q Clear Time (g_c+I1), s		8.1			4.8	8.7		7.5				
Green Ext Time (p_c), s		6.6			0.6	10.8		1.8				

Intersection Summary		
HCM 6th Ctrl Delay	12.3	
HCM 6th LOS	B	

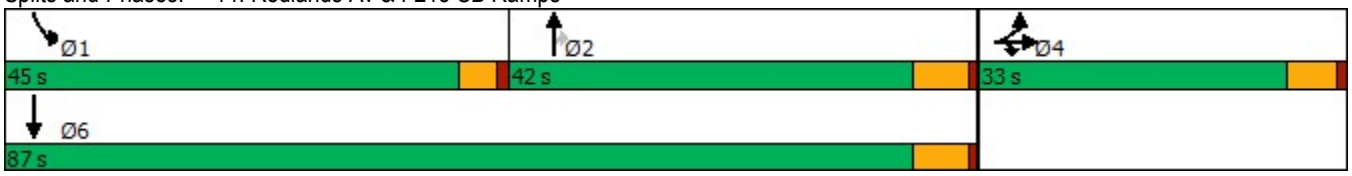
Notes

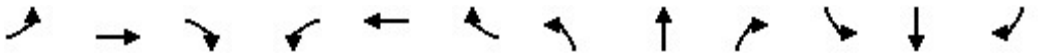
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	140	0	165	761	313	456	918
Future Volume (vph)	140	0	165	761	313	456	918
Turn Type	Split	NA	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	4	2		1	6
Permitted Phases					2		
Detector Phase	4	4	4	2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	10.5	10.5	11.0	11.0	9.5	33.0
Total Split (s)	33.0	33.0	33.0	42.0	42.0	45.0	87.0
Total Split (%)	27.5%	27.5%	27.5%	35.0%	35.0%	37.5%	72.5%
Yellow Time (s)	4.5	4.5	4.5	5.0	5.0	3.5	5.0
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)	5.5	5.5	5.5	6.0	6.0	4.5	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None	None	Min	Min	None	Min
Act Effct Green (s)	10.3	10.3	10.3	18.7	18.7	14.9	38.3
Actuated g/C Ratio	0.17	0.17	0.17	0.31	0.31	0.25	0.63
v/c Ratio	0.40	0.34	0.31	0.41	0.31	0.58	0.44
Control Delay	29.2	14.6	8.8	17.7	3.2	24.1	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.2	14.6	8.8	17.7	3.2	24.1	6.5
LOS	C	B	A	B	A	C	A
Approach Delay		17.9		13.5			12.3
Approach LOS		B		B			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 60.5	
Natural Cycle: 45	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 13.4	Intersection LOS: B
Intersection Capacity Utilization 46.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Redlands Av & I-215 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	0	165	0	0	0	0	761	313	456	918	0
Future Volume (veh/h)	140	0	165	0	0	0	0	761	313	456	918	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	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	183	0	61				0	836	295	501	1009	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	385	0	171				0	2094	908	758	2299	0
Arrive On Green	0.11	0.00	0.11				0.00	0.32	0.32	0.22	0.64	0.00
Sat Flow, veh/h	3619	0	1610				0	6802	2834	3510	3705	0
Grp Volume(v), veh/h	183	0	61				0	836	295	501	1009	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1417	1755	1805	0
Q Serve(g_s), s	2.1	0.0	1.6				0.0	4.5	3.5	5.8	6.3	0.0
Cycle Q Clear(g_c), s	2.1	0.0	1.6				0.0	4.5	3.5	5.8	6.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	385	0	171				0	2094	908	758	2299	0
V/C Ratio(X)	0.48	0.00	0.36				0.00	0.40	0.32	0.66	0.44	0.00
Avail Cap(c_a), veh/h	2222	0	989				0	5254	2278	3175	6529	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)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.8	0.0	18.6				0.0	11.9	11.5	16.1	4.1	0.0
Incr Delay (d2), s/veh	0.9	0.0	1.3				0.0	0.1	0.2	1.0	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	0.8	0.0	0.5				0.0	1.3	0.9	2.0	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.8	0.0	19.8				0.0	12.0	11.7	17.0	4.2	0.0
LnGrp LOS	B	A	B				A	B	B	B	A	A
Approach Vol, veh/h		244						1131			1510	
Approach Delay, s/veh		19.8						11.9			8.5	
Approach LOS		B						B			A	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.2	20.3		10.3		34.5						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	40.5	36.0		27.5		81.0						
Max Q Clear Time (g_c+I1), s	7.8	6.5		4.1		8.3						
Green Ext Time (p_c), s	1.9	7.9		0.7		9.2						

Intersection Summary			
HCM 6th Ctrl Delay			10.8
HCM 6th LOS			B

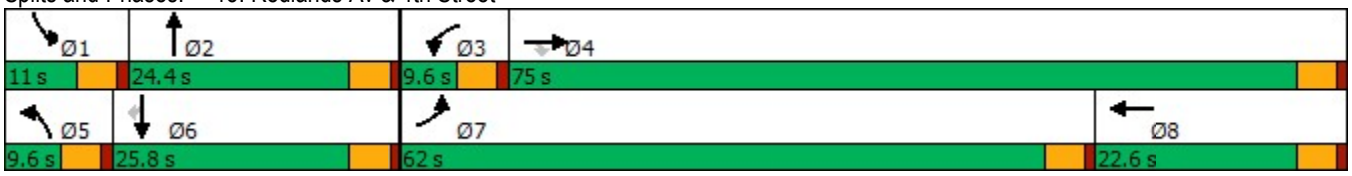
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	668	23	22	6	14	23	353	55	316	751
Future Volume (vph)	668	23	22	6	14	23	353	55	316	751
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	22.6	22.6	9.6	22.6	9.6	22.6	9.6	22.6	22.6
Total Split (s)	62.0	75.0	75.0	9.6	22.6	9.6	24.4	11.0	25.8	25.8
Total Split (%)	51.7%	62.5%	62.5%	8.0%	18.8%	8.0%	20.3%	9.2%	21.5%	21.5%
Yellow Time (s)	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
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	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min
Act Effct Green (s)	48.2	56.1	56.1	5.6	8.4	5.6	18.4	7.1	21.4	21.4
Actuated g/C Ratio	0.51	0.59	0.59	0.06	0.09	0.06	0.20	0.08	0.23	0.23
v/c Ratio	0.87	0.01	0.03	0.07	0.14	0.26	0.63	0.49	0.46	0.67
Control Delay	34.6	8.8	0.0	54.2	24.5	58.3	43.8	63.8	38.6	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	34.6	8.8	0.0	54.2	24.5	58.3	43.8	63.8	38.6	5.8
LOS	C	A	A	D	C	E	D	E	D	A
Approach Delay		32.7			28.5		44.6		17.9	
Approach LOS		C			C		D		B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 94.3	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 27.3	Intersection LOS: C
Intersection Capacity Utilization 69.5%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 15: Redlands Av & 4th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	668	23	22	6	14	25	23	353	14	55	316	751
Future Volume (veh/h)	668	23	22	6	14	25	23	353	14	55	316	751
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	786	27	20	7	16	23	27	415	12	65	372	660
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	841	1826	815	16	91	81	49	780	23	84	856	672
Arrive On Green	0.47	0.51	0.51	0.01	0.05	0.05	0.03	0.22	0.22	0.05	0.24	0.24
Sat Flow, veh/h	1781	3554	1585	1781	1777	1585	1781	3527	102	1781	3554	2790
Grp Volume(v), veh/h	786	27	20	7	16	23	27	209	218	65	372	660
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1852	1781	1777	1395
Q Serve(g_s), s	36.7	0.3	0.5	0.3	0.8	1.2	1.3	9.1	9.2	3.2	7.8	20.7
Cycle Q Clear(g_c), s	36.7	0.3	0.5	0.3	0.8	1.2	1.3	9.1	9.2	3.2	7.8	20.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	841	1826	815	16	91	81	49	393	410	84	856	672
V/C Ratio(X)	0.94	0.01	0.02	0.44	0.18	0.28	0.55	0.53	0.53	0.78	0.43	0.98
Avail Cap(c_a), veh/h	1161	2841	1267	101	363	324	101	400	416	129	856	672
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	1.00
Uniform Delay (d), s/veh	22.0	10.5	10.5	43.4	40.0	40.2	42.3	30.3	30.3	41.5	28.3	33.2
Incr Delay (d2), s/veh	11.0	0.0	0.0	17.9	0.9	1.9	9.4	1.3	1.3	14.4	0.3	30.3
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	16.4	0.1	0.2	0.2	0.3	0.5	0.7	3.9	4.0	1.7	3.3	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	10.5	10.5	61.3	40.9	42.1	51.7	31.5	31.5	56.0	28.7	63.5
LnGrp LOS	C	B	B	E	D	D	D	C	C	E	C	E
Approach Vol, veh/h		833			46			454			1097	
Approach Delay, s/veh		31.7			44.6			32.7			51.3	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	24.1	5.4	49.9	7.0	25.8	46.2	9.1
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	6.4	19.8	5.0	70.4	5.0	21.2	57.4	18.0
Max Q Clear Time (g_c+I1), s	5.2	11.2	2.3	2.5	3.3	22.7	38.7	3.2
Green Ext Time (p_c), s	0.0	1.5	0.0	0.2	0.0	0.0	2.8	0.1

Intersection Summary	
HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	9.3
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	240	14	3	24	23	143
Future Vol, veh/h	240	14	3	24	23	143
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	273	16	3	27	26	163
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	10.1	7.3	8.3
HCM LOS	B	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	94%	0%	14%
Vol Thru, %	6%	11%	0%
Vol Right, %	0%	89%	86%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	254	27	166
LT Vol	240	0	23
Through Vol	14	3	0
RT Vol	0	24	143
Lane Flow Rate	289	31	189
Geometry Grp	1	1	1
Degree of Util (X)	0.365	0.035	0.218
Departure Headway (Hd)	4.552	4.099	4.16
Convergence, Y/N	Yes	Yes	Yes
Cap	794	872	864
Service Time	2.552	2.13	2.18
HCM Lane V/C Ratio	0.364	0.036	0.219
HCM Control Delay	10.1	7.3	8.3
HCM Lane LOS	B	A	A
HCM 95th-tile Q	1.7	0.1	0.8

Intersection	
Intersection Delay, s/veh	10.9
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	222	50	36	272	123	9
Future Vol, veh/h	222	50	36	272	123	9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	236	53	38	289	131	10
Number of Lanes	1	1	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	10.2	11.5	11
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	100%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	123	9	222	50	36	272
LT Vol	123	0	0	0	36	0
Through Vol	0	0	222	0	0	272
RT Vol	0	9	0	50	0	0
Lane Flow Rate	131	10	236	53	38	289
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.234	0.014	0.346	0.067	0.061	0.42
Departure Headway (Hd)	6.451	5.241	5.271	4.565	5.727	5.223
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	552	676	678	779	623	686
Service Time	4.239	3.029	3.032	2.326	3.488	2.984
HCM Lane V/C Ratio	0.237	0.015	0.348	0.068	0.061	0.421
HCM Control Delay	11.2	8.1	10.8	7.7	8.9	11.8
HCM Lane LOS	B	A	B	A	A	B
HCM 95th-tile Q	0.9	0	1.5	0.2	0.2	2.1

Intersection	
Intersection Delay, s/veh	10.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	134	98	0	0	78	57	0	3	0	92	2	230
Future Vol, veh/h	134	98	0	0	78	57	0	3	0	92	2	230
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	144	105	0	0	84	61	0	3	0	99	2	247
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

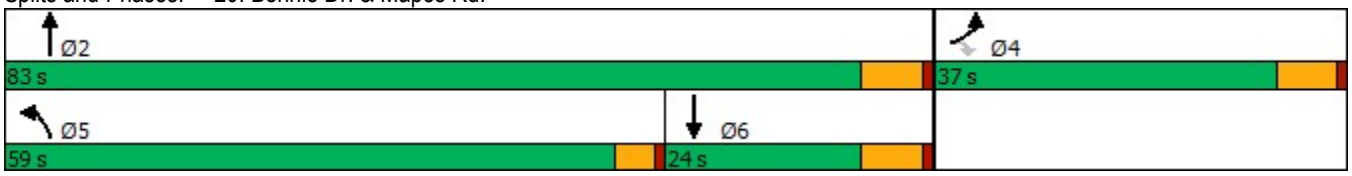
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	10.7	9	8.4	11
HCM LOS	B	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	58%	0%	28%
Vol Thru, %	100%	42%	58%	1%
Vol Right, %	0%	0%	42%	71%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	232	135	324
LT Vol	0	134	0	92
Through Vol	3	98	78	2
RT Vol	0	0	57	230
Lane Flow Rate	3	249	145	348
Geometry Grp	1	1	1	1
Degree of Util (X)	0.005	0.347	0.193	0.434
Departure Headway (Hd)	5.308	5.001	4.78	4.489
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	666	713	743	798
Service Time	3.404	3.074	2.859	2.545
HCM Lane V/C Ratio	0.005	0.349	0.195	0.436
HCM Control Delay	8.4	10.7	9	11
HCM Lane LOS	A	B	A	B
HCM 95th-tile Q	0	1.6	0.7	2.2

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	1	193	316	27	15
Future Volume (vph)	1	193	316	27	15
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)	16.5	16.5	9.6	16.5	16.5
Total Split (s)	37.0	37.0	59.0	83.0	24.0
Total Split (%)	30.8%	30.8%	49.2%	69.2%	20.0%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Min	Min
Act Effct Green (s)	10.2	10.2	15.5	30.2	10.1
Actuated g/C Ratio	0.19	0.19	0.29	0.57	0.19
v/c Ratio	0.00	0.47	0.73	0.03	0.08
Control Delay	20.0	7.3	25.8	5.0	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.0	7.3	25.8	5.0	16.1
LOS	B	A	C	A	B
Approach Delay	7.3			24.2	16.1
Approach LOS	A			C	B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 53.4	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 18.0	Intersection LOS: B
Intersection Capacity Utilization 43.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 20: Bonnie Dr. & Mapes Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	193	316	27	15	9
Future Volume (veh/h)	1	193	316	27	15	9
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	1	0	381	33	18	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	5		469	1234	508	0
Arrive On Green	0.00	0.00	0.26	0.65	0.27	0.00
Sat Flow, veh/h	1810	1610	1810	1900	1900	0
Grp Volume(v), veh/h	1	0	381	33	18	0
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	0
Q Serve(g_s), s	0.0	0.0	7.4	0.2	0.3	0.0
Cycle Q Clear(g_c), s	0.0	0.0	7.4	0.2	0.3	0.0
Prop In Lane	1.00	1.00	1.00			0.00
Lane Grp Cap(c), veh/h	5		469	1234	508	0
V/C Ratio(X)	0.20		0.81	0.03	0.04	0.00
Avail Cap(c_a), veh/h	1476		2633	3888	889	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.6	0.0	13.0	2.3	10.1	0.0
Incr Delay (d2), s/veh	18.5	0.0	1.3	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	0.0	0.0	1.9	0.0	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	37.1	0.0	14.3	2.3	10.2	0.0
LnGrp LOS	D		B	A	B	A
Approach Vol, veh/h	1	A		414	18	
Approach Delay, s/veh	37.1			13.4	10.2	
Approach LOS	D			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		30.8		6.6	14.3	16.5
Change Period (Y+Rc), s		6.5		6.5	4.6	6.5
Max Green Setting (Gmax), s		76.5		30.5	54.4	17.5
Max Q Clear Time (g_c+I1), s		2.2		2.0	9.4	2.3
Green Ext Time (p_c), s		0.1		0.0	0.5	0.0

Intersection Summary	
HCM 6th Ctrl Delay	13.3
HCM 6th LOS	B

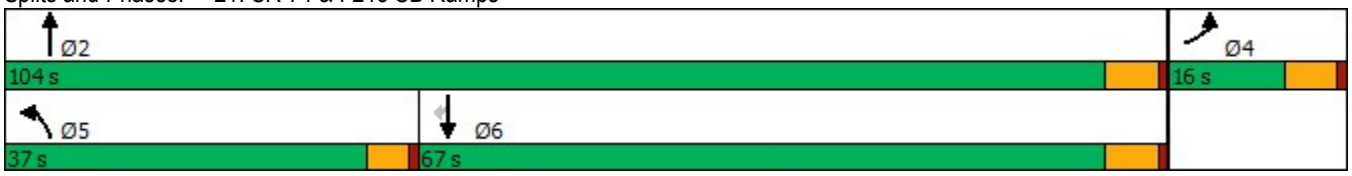
Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	29	179	301	470	676	41
Future Volume (vph)	29	179	301	470	676	41
Turn Type	Prot	Free	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		Free				6
Detector Phase	4		5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0		5.0	10.0	10.0	10.0
Minimum Split (s)	15.8		9.6	15.8	15.8	15.8
Total Split (s)	16.0		37.0	104.0	67.0	67.0
Total Split (%)	13.3%		30.8%	86.7%	55.8%	55.8%
Yellow Time (s)	4.8		3.6	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)	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	Min	Min	Min
Act Effct Green (s)	12.2	71.7	19.3	65.8	35.4	35.4
Actuated g/C Ratio	0.17	1.00	0.27	0.92	0.49	0.49
v/c Ratio	0.10	0.11	0.63	0.28	0.74	0.05
Control Delay	41.8	0.1	34.3	2.1	21.9	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.8	0.1	34.3	2.1	21.9	10.3
LOS	D	A	C	A	C	B
Approach Delay	6.0			14.6	21.2	
Approach LOS	A			B	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 71.7	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 16.4	Intersection LOS: B
Intersection Capacity Utilization 74.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 21: SR-74 & I-215 SB Ramps





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	29	179	301	470	676	41
Future Volume (veh/h)	29	179	301	470	676	41
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	30	0	307	480	690	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	120		368	1381	838	
Arrive On Green	0.07	0.00	0.20	0.73	0.44	0.00
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	30	0	307	480	690	0
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	0.9	0.0	9.1	5.2	17.9	0.0
Cycle Q Clear(g_c), s	0.9	0.0	9.1	5.2	17.9	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	120		368	1381	838	
V/C Ratio(X)	0.25		0.83	0.35	0.82	
Avail Cap(c_a), veh/h	329		1045	3325	2072	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	24.9	0.0	21.4	2.8	13.8	0.0
Incr Delay (d2), s/veh	0.4	0.0	1.9	0.2	2.1	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	0.0	3.5	0.5	6.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	25.3	0.0	23.3	3.0	15.9	0.0
LnGrp LOS	C		C	A	B	
Approach Vol, veh/h	30	A		787	690	A
Approach Delay, s/veh	25.3			10.9	15.9	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		46.6		9.5	16.0	30.6
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		98.2		10.2	32.4	61.2
Max Q Clear Time (g_c+I1), s		7.2		2.9	11.1	19.9
Green Ext Time (p_c), s		3.0		0.0	0.4	4.9

Intersection Summary		
HCM 6th Ctrl Delay		13.5
HCM 6th LOS		B

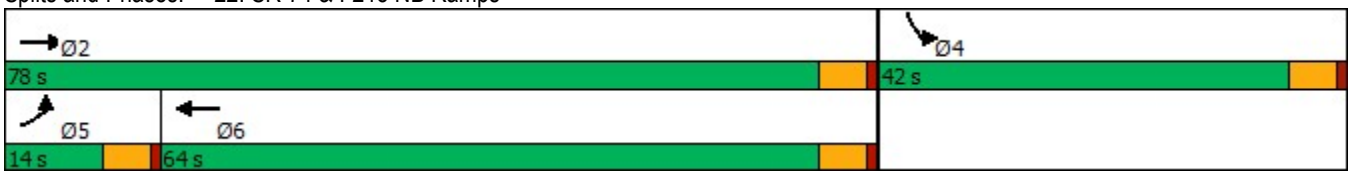
Notes

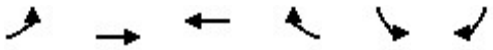
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Configurations					
Traffic Volume (vph)	14	840	758	943	187
Future Volume (vph)	14	840	758	943	187
Turn Type	Prot	NA	NA	Free	Prot
Protected Phases	5	2	6		4
Permitted Phases				Free	
Detector Phase	5	2	6		4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0		5.0
Minimum Split (s)	10.3	10.3	10.3		10.3
Total Split (s)	14.0	78.0	64.0		42.0
Total Split (%)	11.7%	65.0%	53.3%		35.0%
Yellow Time (s)	4.3	4.3	4.3		4.3
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)	5.3	5.3	5.3		5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	Min	Min		None
Act Effct Green (s)	5.4	21.1	19.5	42.4	10.3
Actuated g/C Ratio	0.13	0.50	0.46	1.00	0.24
v/c Ratio	0.06	0.48	0.47	0.60	0.47
Control Delay	20.8	8.2	10.4	1.6	18.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.8	8.2	10.4	1.6	18.0
LOS	C	A	B	A	B
Approach Delay		8.4	5.5		18.0
Approach LOS		A	A		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 42.4	
Natural Cycle: 45	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 7.3	Intersection LOS: A
Intersection Capacity Utilization 43.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 22: SR-74 & I-215 NB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	14	840	758	943	187	13
Future Volume (veh/h)	14	840	758	943	187	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	14	857	773	0	191	7
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	33	1901	1244		253	9
Arrive On Green	0.02	0.53	0.34	0.00	0.15	0.15
Sat Flow, veh/h	1810	3705	3705	1610	1730	63
Grp Volume(v), veh/h	14	857	773	0	199	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1610	1802	0
Q Serve(g_s), s	0.2	4.8	5.8	0.0	3.4	0.0
Cycle Q Clear(g_c), s	0.2	4.8	5.8	0.0	3.4	0.0
Prop In Lane	1.00			1.00	0.96	0.04
Lane Grp Cap(c), veh/h	33	1901	1244		263	0
V/C Ratio(X)	0.42	0.45	0.62		0.76	0.00
Avail Cap(c_a), veh/h	486	8105	6545		2043	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	0.00	1.00	0.00
Uniform Delay (d), s/veh	15.7	4.8	8.9	0.0	13.3	0.0
Incr Delay (d2), s/veh	3.2	0.1	0.2	0.0	1.7	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	0.1	0.4	1.2	0.0	1.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.9	4.8	9.0	0.0	14.9	0.0
LnGrp LOS	B	A	A		B	A
Approach Vol, veh/h		871	773	A	199	
Approach Delay, s/veh		5.0	9.0		14.9	
Approach LOS		A	A		B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		22.3		10.0	5.9	16.5
Change Period (Y+Rc), s		5.3		5.3	5.3	5.3
Max Green Setting (Gmax), s		72.7		36.7	8.7	58.7
Max Q Clear Time (g_c+I1), s		6.8		5.4	2.2	7.8
Green Ext Time (p_c), s		3.8		0.2	0.0	3.4

Intersection Summary	
HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

Notes

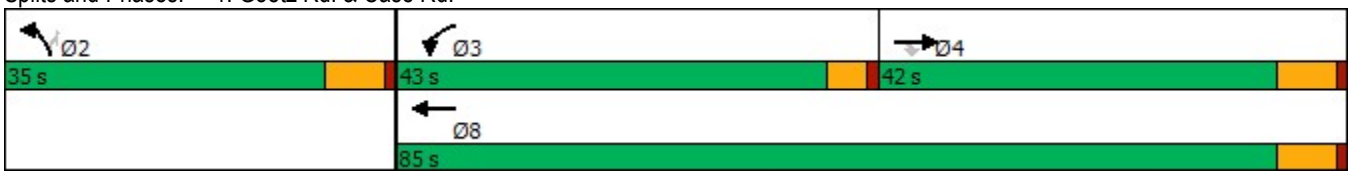
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	225	168	261	212	166	206
Future Volume (vph)	225	168	261	212	166	206
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)	34.5	34.5	9.6	16.5	16.5	16.5
Total Split (s)	42.0	42.0	43.0	85.0	35.0	35.0
Total Split (%)	35.0%	35.0%	35.8%	70.8%	29.2%	29.2%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None
Act Effct Green (s)	15.3	15.3	15.0	35.1	13.0	13.0
Actuated g/C Ratio	0.25	0.25	0.24	0.57	0.21	0.21
v/c Ratio	0.51	0.34	0.64	0.21	0.47	0.43
Control Delay	25.4	5.8	30.0	6.9	28.8	7.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.4	5.8	30.0	6.9	28.8	7.3
LOS	C	A	C	A	C	A
Approach Delay	17.0			19.6	16.9	
Approach LOS	B			B	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 61.8	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 18.0	Intersection LOS: B
Intersection Capacity Utilization 50.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: Goetz Rd. & Case Rd.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	225	168	261	212	166	206
Future Volume (veh/h)	225	168	261	212	166	206
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	242	154	281	228	178	113
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	414	350	350	969	380	338
Arrive On Green	0.22	0.22	0.19	0.51	0.21	0.21
Sat Flow, veh/h	1900	1606	1810	1900	1810	1610
Grp Volume(v), veh/h	242	154	281	228	178	113
Grp Sat Flow(s),veh/h/ln	1900	1606	1810	1900	1810	1610
Q Serve(g_s), s	5.3	3.9	6.9	3.1	4.0	2.8
Cycle Q Clear(g_c), s	5.3	3.9	6.9	3.1	4.0	2.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	414	350	350	969	380	338
V/C Ratio(X)	0.58	0.44	0.80	0.24	0.47	0.33
Avail Cap(c_a), veh/h	1451	1227	1495	3209	1110	987
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	16.3	15.7	17.9	6.3	16.1	15.6
Incr Delay (d2), s/veh	1.3	0.9	1.7	0.1	0.9	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	1.8	1.1	2.3	0.6	1.3	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.6	16.6	19.5	6.5	17.0	16.2
LnGrp LOS	B	B	B	A	B	B
Approach Vol, veh/h	396			509	291	
Approach Delay, s/veh	17.2			13.7	16.7	
Approach LOS	B			B	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		16.3	13.6	16.6		30.2
Change Period (Y+Rc), s		6.5	4.6	6.5		6.5
Max Green Setting (Gmax), s		28.5	38.4	35.5		78.5
Max Q Clear Time (g_c+I1), s		6.0	8.9	7.3		5.1
Green Ext Time (p_c), s		0.8	0.3	1.6		1.2

Intersection Summary	
HCM 6th Ctrl Delay	15.6
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	0	63	2	0	0	25	362	3	0	415	14
Future Vol, veh/h	10	0	63	2	0	0	25	362	3	0	415	14
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	-	-	0	-	-	-	180	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	0	67	2	0	0	27	385	3	0	441	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	696	891	228	662	897	194	456	0	0	388	0	0
Stage 1	449	449	-	441	441	-	-	-	-	-	-	-
Stage 2	247	442	-	221	456	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	332	284	781	351	281	821	1115	-	-	1182	-	-
Stage 1	564	576	-	570	580	-	-	-	-	-	-	-
Stage 2	741	580	-	767	572	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	326	277	781	315	274	821	1115	-	-	1182	-	-
Mov Cap-2 Maneuver	428	387	-	419	378	-	-	-	-	-	-	-
Stage 1	550	576	-	556	566	-	-	-	-	-	-	-
Stage 2	723	566	-	701	572	-	-	-	-	-	-	-

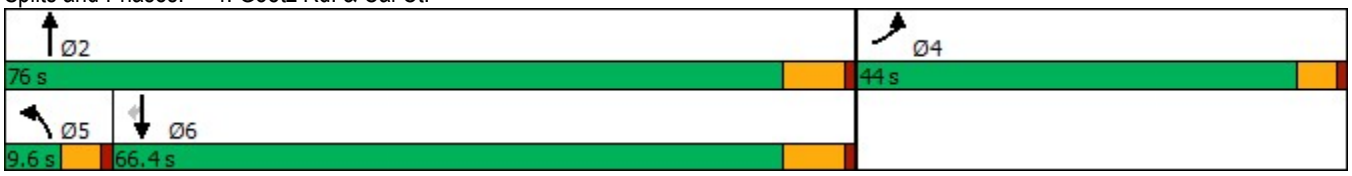
Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	13.6	0.5	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1115	-	-	428	781	419	1182	-	-
HCM Lane V/C Ratio	0.024	-	-	0.025	0.086	0.005	-	-	-
HCM Control Delay (s)	8.3	-	-	13.6	10	13.6	0	-	-
HCM Lane LOS	A	-	-	B	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.3	0	0	-	-

Lane Group	EBL	NBT	SBT	Ø5
Lane Configurations				
Traffic Volume (vph)	57	333	424	
Future Volume (vph)	57	333	424	
Turn Type	Prot	NA	NA	
Protected Phases	4	2	6	5
Permitted Phases				
Detector Phase	4	2	6	
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	5.0
Minimum Split (s)	14.6	16.5	27.5	9.6
Total Split (s)	44.0	76.0	66.4	9.6
Total Split (%)	36.7%	63.3%	55.3%	8%
Yellow Time (s)	3.6	5.5	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	4.6	6.5	6.5	
Lead/Lag			Lag	Lead
Lead-Lag Optimize?			Yes	Yes
Recall Mode	None	Min	Min	None
Act Effct Green (s)	10.2	20.4	20.4	
Actuated g/C Ratio	0.28	0.55	0.55	
v/c Ratio	0.24	0.18	0.23	
Control Delay	9.3	6.5	6.7	
Queue Delay	0.0	0.0	0.0	
Total Delay	9.3	6.5	6.7	
LOS	A	A	A	
Approach Delay	9.3	6.5	6.7	
Approach LOS	A	A	A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 36.9	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.24	
Intersection Signal Delay: 6.9	Intersection LOS: A
Intersection Capacity Utilization 29.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Goetz Rd. & Cai Ct.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	57	57	0	333	424	0
Future Volume (veh/h)	57	57	0	333	424	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	62	62	0	362	461	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	190	190	7	1327	1327	592
Arrive On Green	0.22	0.22	0.00	0.37	0.37	0.00
Sat Flow, veh/h	846	846	1810	3705	3705	1610
Grp Volume(v), veh/h	125	0	0	362	461	0
Grp Sat Flow(s),veh/h/ln	1705	0	1810	1805	1805	1610
Q Serve(g_s), s	1.7	0.0	0.0	1.9	2.5	0.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0	1.9	2.5	0.0
Prop In Lane	0.50	0.50	1.00			1.00
Lane Grp Cap(c), veh/h	383	0	7	1327	1327	592
V/C Ratio(X)	0.33	0.00	0.00	0.27	0.35	0.00
Avail Cap(c_a), veh/h	2469	0	332	9220	7946	3544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.8	0.0	0.0	6.1	6.2	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.2	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	0.5	0.0	0.0	0.2	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.3	0.0	0.0	6.2	6.4	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	125			362	461	
Approach Delay, s/veh	9.3			6.2	6.4	
Approach LOS	A			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		16.5		10.7	0.0	16.5
Change Period (Y+Rc), s		6.5		4.6	4.6	6.5
Max Green Setting (Gmax), s		69.5		39.4	5.0	59.9
Max Q Clear Time (g_c+I1), s		3.9		3.7	0.0	4.5
Green Ext Time (p_c), s		2.1		0.4	0.0	2.8

Intersection Summary	
HCM 6th Ctrl Delay	6.7
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	25	26	2	365	0	472	8
Future Vol, veh/h	25	26	2	365	0	472	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	115	-	100	-	-
Veh in Median Storage, #	1	-	-	0	-	0	-
Grade, %	0	-	-	0	-	0	-
Peak Hour Factor	93	93	93	93	92	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	27	28	2	392	0	508	9

Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	713	259	517	0	392	-	0
Stage 1	513	-	-	-	-	-	-
Stage 2	200	-	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	6.4	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	2.5	-	-
Pot Cap-1 Maneuver	371	746	1059	-	819	-	-
Stage 1	572	-	-	-	-	-	-
Stage 2	820	-	-	-	-	-	-
Platoon blocked, %				-		-	-
Mov Cap-1 Maneuver	370	746	1059	-	819	-	-
Mov Cap-2 Maneuver	465	-	-	-	-	-	-
Stage 1	571	-	-	-	-	-	-
Stage 2	820	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	1059	-	576	819	-	-
HCM Lane V/C Ratio	0.002	-	0.095	-	-	-
HCM Control Delay (s)	8.4	-	11.9	0	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	0	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	0	6	3	0	2	4	350	0	0	487	11
Future Vol, veh/h	15	0	6	3	0	2	4	350	0	0	487	11
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	-	-	110	-	-
Veh in Median Storage, #	-	1	-	-	2	-	-	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	16	0	6	3	0	2	4	368	0	0	513	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	711	895	263	633	901	184	525	0	0	368	0	0
Stage 1	519	519	-	376	376	-	-	-	-	-	-	-
Stage 2	192	376	-	257	525	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	324	282	742	368	280	833	1052	-	-	1202	-	-
Stage 1	513	536	-	623	620	-	-	-	-	-	-	-
Stage 2	797	620	-	731	533	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	322	281	742	364	279	833	1052	-	-	1202	-	-
Mov Cap-2 Maneuver	417	389	-	533	446	-	-	-	-	-	-	-
Stage 1	511	536	-	621	618	-	-	-	-	-	-	-
Stage 2	792	618	-	725	533	-	-	-	-	-	-	-

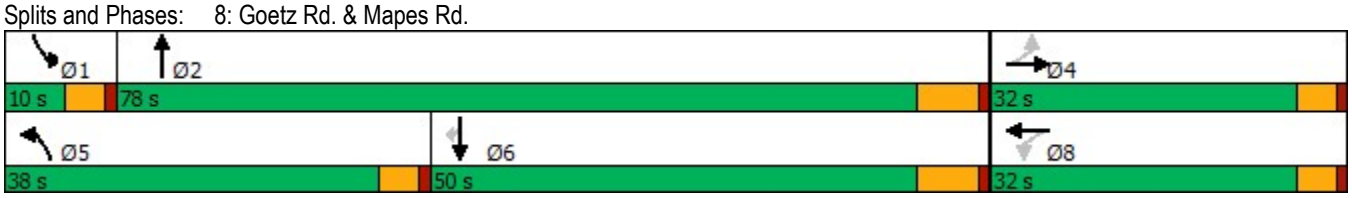
Approach	EB	WB	NB	SB
HCM Control Delay, s	12.9	10.8	0.1	0
HCM LOS	B	B		

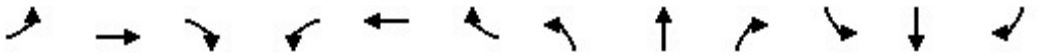
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1052	-	-	477	623	1202	-	-
HCM Lane V/C Ratio	0.004	-	-	0.046	0.008	-	-	-
HCM Control Delay (s)	8.4	-	-	12.9	10.8	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	93	1	13	1	277	190	3	369	87
Future Volume (vph)	93	1	13	1	277	190	3	369	87
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA	Perm
Protected Phases		4		8	5	2	1	6	
Permitted Phases	4		8						6
Detector Phase	4	4	8	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.6	14.6	26.6	26.6	9.6	16.5	9.6	16.5	16.5
Total Split (s)	32.0	32.0	32.0	32.0	38.0	78.0	10.0	50.0	50.0
Total Split (%)	26.7%	26.7%	26.7%	26.7%	31.7%	65.0%	8.3%	41.7%	41.7%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.5	3.6	5.5	5.5
All-Red Time (s)	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
Total Lost Time (s)	4.6	4.6		4.6	4.6	6.5	4.6	6.5	6.5
Lead/Lag					Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	13.3	13.3		13.3	16.5	40.6	5.4	20.5	20.5
Actuated g/C Ratio	0.20	0.20		0.20	0.25	0.61	0.08	0.31	0.31
v/c Ratio	0.35	0.61		0.10	0.67	0.09	0.02	0.68	0.17
Control Delay	31.1	8.3		27.4	32.7	6.4	39.0	28.1	5.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.1	8.3		27.4	32.7	6.4	39.0	28.1	5.3
LOS	C	A		C	C	A	D	C	A
Approach Delay		13.0		27.4		21.9		23.9	
Approach LOS		B		C		C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 67.1	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 19.8	Intersection LOS: B
Intersection Capacity Utilization 69.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: Goetz Rd. & Mapes Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	1	355	13	1	2	277	190	1	3	369	87
Future Volume (veh/h)	93	1	355	13	1	2	277	190	1	3	369	87
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	99	1	202	14	1	1	295	202	1	3	393	84
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	469	2	322	231	17	7	368	1753	9	7	526	446
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.48	0.48	0.00	0.28	0.28
Sat Flow, veh/h	1437	8	1603	465	84	37	1810	3683	18	1810	1900	1610
Grp Volume(v), veh/h	99	0	203	16	0	0	295	99	104	3	393	84
Grp Sat Flow(s),veh/h/ln	1437	0	1611	586	0	0	1810	1805	1897	1810	1900	1610
Q Serve(g_s), s	0.0	0.0	5.7	0.1	0.0	0.0	7.6	1.5	1.5	0.1	9.3	2.0
Cycle Q Clear(g_c), s	2.4	0.0	5.7	5.8	0.0	0.0	7.6	1.5	1.5	0.1	9.3	2.0
Prop In Lane	1.00		1.00	0.87		0.06	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	469	0	323	255	0	0	368	859	903	7	526	446
V/C Ratio(X)	0.21	0.00	0.63	0.06	0.00	0.00	0.80	0.12	0.12	0.41	0.75	0.19
Avail Cap(c_a), veh/h	981	0	898	699	0	0	1229	2625	2758	199	1681	1425
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.7	0.0	18.0	16.8	0.0	0.0	18.7	7.1	7.1	24.4	16.2	13.6
Incr Delay (d2), s/veh	0.2	0.0	2.0	0.1	0.0	0.0	1.6	0.1	0.1	12.8	2.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	2.1	0.1	0.0	0.0	2.6	0.3	0.4	0.1	3.2	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.9	0.0	20.0	16.9	0.0	0.0	20.2	7.2	7.2	37.2	18.4	13.8
LnGrp LOS	B	A	B	B	A	A	C	A	A	D	B	B
Approach Vol, veh/h		302			16			498			480	
Approach Delay, s/veh		19.0			16.9			14.9			17.7	
Approach LOS		B			B			B			B	

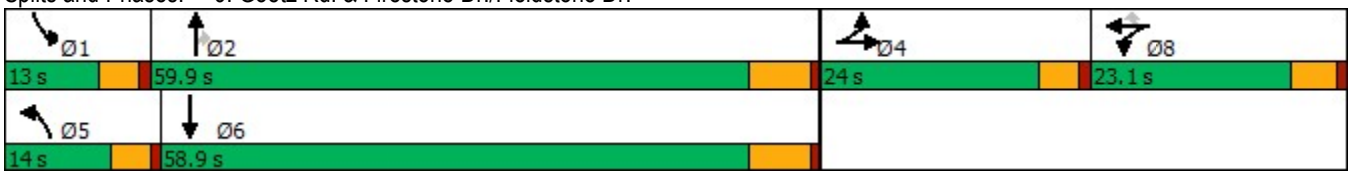
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	29.9		14.5	14.6	20.1		14.5				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		4.6				
Max Green Setting (Gmax), s	5.4	71.5		27.4	33.4	43.5		27.4				
Max Q Clear Time (g_c+I1), s	2.1	3.5		7.7	9.6	11.3		7.8				
Green Ext Time (p_c), s	0.0	1.0		1.5	0.4	2.3		0.0				

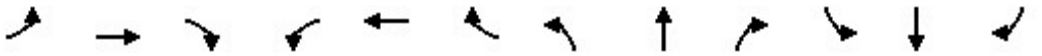
Intersection Summary			
HCM 6th Ctrl Delay		16.9	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	36	5	2	5	10	41	422	8	34	628
Future Volume (vph)	36	5	2	5	10	41	422	8	34	628
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	8	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.6	22.6	23.1	23.1	23.1	9.6	24.5	24.5	9.6	24.5
Total Split (s)	24.0	24.0	23.1	23.1	23.1	14.0	59.9	59.9	13.0	58.9
Total Split (%)	20.0%	20.0%	19.3%	19.3%	19.3%	11.7%	49.9%	49.9%	10.8%	49.1%
Yellow Time (s)	3.6	3.6	4.1	4.1	4.1	3.6	5.5	5.5	3.6	5.5
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	4.6	5.1	5.1	5.1	4.6	6.5	6.5	4.6	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min
Act Effct Green (s)	13.2	13.2	13.2	13.2	13.2	7.2	34.7	34.7	6.9	34.5
Actuated g/C Ratio	0.24	0.24	0.24	0.24	0.24	0.13	0.63	0.63	0.12	0.62
v/c Ratio	0.09	0.10	0.00	0.01	0.02	0.18	0.37	0.01	0.15	0.23
Control Delay	27.6	14.0	30.0	29.2	0.1	33.9	16.7	0.0	34.5	12.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.6	14.0	30.0	29.2	0.1	33.9	16.7	0.0	34.5	12.8
LOS	C	B	C	C	A	C	B	A	C	B
Approach Delay		20.6		12.2			17.9			13.8
Approach LOS		C		B			B			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 55.2	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.37	
Intersection Signal Delay: 15.7	Intersection LOS: B
Intersection Capacity Utilization 52.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Goetz Rd. & Firestone Dr./Fieldstone Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	5	34	2	5	10	41	422	8	34	628	75
Future Volume (veh/h)	36	5	34	2	5	10	41	422	8	34	628	75
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		0.97
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	38	5	12	2	5	2	43	440	6	35	654	61
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	214	58	140	47	50	42	85	610	517	72	1514	140
Arrive On Green	0.12	0.12	0.12	0.03	0.03	0.03	0.05	0.32	0.32	0.04	0.31	0.31
Sat Flow, veh/h	1810	494	1187	1810	1900	1607	1810	1900	1610	1810	4819	445
Grp Volume(v), veh/h	38	0	17	2	5	2	43	440	6	35	468	247
Grp Sat Flow(s),veh/h/ln	1810	0	1681	1810	1900	1607	1810	1900	1610	1810	1729	1806
Q Serve(g_s), s	0.8	0.0	0.4	0.0	0.1	0.1	1.0	8.6	0.1	0.8	4.5	4.6
Cycle Q Clear(g_c), s	0.8	0.0	0.4	0.0	0.1	0.1	1.0	8.6	0.1	0.8	4.5	4.6
Prop In Lane	1.00		0.71	1.00		1.00	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	214	0	199	47	50	42	85	610	517	72	1086	567
V/C Ratio(X)	0.18	0.00	0.09	0.04	0.10	0.05	0.51	0.72	0.01	0.48	0.43	0.44
Avail Cap(c_a), veh/h	835	0	775	774	813	688	404	2412	2044	361	4308	2250
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.7	0.0	16.5	20.0	20.0	20.0	19.6	12.6	9.7	19.8	11.4	11.5
Incr Delay (d2), s/veh	0.4	0.0	0.2	0.4	0.9	0.5	1.7	1.6	0.0	1.9	0.3	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	0.3	0.0	0.1	0.0	0.1	0.0	0.4	2.5	0.0	0.3	1.1	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.1	0.0	16.7	20.3	20.9	20.4	21.3	14.2	9.7	21.6	11.7	12.0
LnGrp LOS	B	A	B	C	C	C	C	B	A	C	B	B
Approach Vol, veh/h		55			9			489			750	
Approach Delay, s/veh		17.0			20.7			14.8			12.3	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	20.0		9.6	6.6	19.7		6.2				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		5.1				
Max Green Setting (Gmax), s	8.4	53.4		19.4	9.4	52.4		18.0				
Max Q Clear Time (g_c+I1), s	2.8	10.6		2.8	3.0	6.6		2.1				
Green Ext Time (p_c), s	0.0	2.5		0.1	0.0	4.3		0.0				

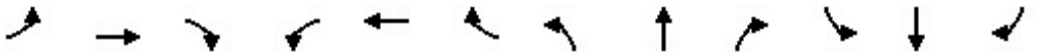
Intersection Summary			
HCM 6th Ctrl Delay		13.5	
HCM 6th LOS		B	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	15	55	5	294	79	1	159	215	361	272	31
Future Volume (vph)	15	55	5	294	79	1	159	215	361	272	31
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.4	33.4	9.6	30.4	9.6	37.5	37.5	9.6	39.5	39.5
Total Split (s)	9.9	33.4	33.4	22.0	45.5	9.6	38.6	38.6	26.0	55.0	55.0
Total Split (%)	8.3%	27.8%	27.8%	18.3%	37.9%	8.0%	32.2%	32.2%	21.7%	45.8%	45.8%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	5.5	5.5	3.6	5.5	5.5
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	5.4	5.4	4.6	5.4	4.6	6.5	6.5	4.6	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None	None
Act Effct Green (s)	5.3	12.9	12.9	17.8	34.0	5.1	15.3	15.3	21.9	40.4	40.4
Actuated g/C Ratio	0.06	0.14	0.14	0.20	0.38	0.06	0.17	0.17	0.24	0.45	0.45
v/c Ratio	0.16	0.12	0.01	0.91	0.22	0.01	0.55	0.50	0.91	0.19	0.04
Control Delay	49.2	34.5	0.0	67.6	5.5	48.0	40.6	8.5	60.9	16.3	0.1
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	49.2	34.5	0.0	67.6	5.5	48.0	40.6	8.5	60.9	16.3	0.1
LOS	D	C	A	E	A	D	D	A	E	B	A
Approach Delay		35.0			32.7		22.2			39.8	
Approach LOS		D			C		C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 89.5	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 33.3	Intersection LOS: C
Intersection Capacity Utilization 65.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: Goetz Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	55	5	294	79	297	1	159	215	361	272	31
Future Volume (veh/h)	15	55	5	294	79	297	1	159	215	361	272	31
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	61	4	327	88	243	1	177	137	401	302	21
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	36	480	214	369	1095	510	2	264	223	442	1378	614
Arrive On Green	0.02	0.13	0.13	0.20	0.32	0.32	0.00	0.14	0.14	0.24	0.38	0.38
Sat Flow, veh/h	1810	3610	1610	1810	3458	1610	1810	1900	1610	1810	3610	1608
Grp Volume(v), veh/h	17	61	4	327	88	243	1	177	137	401	302	21
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1610	1810	1900	1610	1810	1805	1608
Q Serve(g_s), s	0.7	1.1	0.2	13.2	1.3	9.1	0.0	6.7	6.0	16.2	4.2	0.6
Cycle Q Clear(g_c), s	0.7	1.1	0.2	13.2	1.3	9.1	0.0	6.7	6.0	16.2	4.2	0.6
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	36	480	214	369	1095	510	2	264	223	442	1378	614
V/C Ratio(X)	0.47	0.13	0.02	0.89	0.08	0.48	0.40	0.67	0.61	0.91	0.22	0.03
Avail Cap(c_a), veh/h	127	1343	599	418	1842	858	120	810	687	514	2326	1036
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	1.00
Uniform Delay (d), s/veh	36.5	28.8	28.4	29.1	18.0	20.7	37.6	30.8	30.5	27.6	15.7	14.6
Incr Delay (d2), s/veh	3.5	0.1	0.0	17.2	0.0	0.7	34.6	3.0	2.7	16.8	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(50%),veh/ln	0.3	0.5	0.1	7.1	0.5	3.2	0.0	2.9	2.4	8.1	1.5	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	28.9	28.4	46.3	18.1	21.4	72.2	33.7	33.2	44.4	15.8	14.6
LnGrp LOS	D	C	C	D	B	C	E	C	C	D	B	B
Approach Vol, veh/h		82			658			315			724	
Approach Delay, s/veh		31.2			33.3			33.6			31.6	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.0	16.9	19.9	15.4	4.7	35.2	6.1	29.2
Change Period (Y+Rc), s	4.6	6.5	4.6	5.4	4.6	6.5	4.6	5.4
Max Green Setting (Gmax), s	21.4	32.1	17.4	28.0	5.0	48.5	5.3	40.1
Max Q Clear Time (g_c+I1), s	18.2	8.7	15.2	3.1	2.0	6.2	2.7	11.1
Green Ext Time (p_c), s	0.2	1.2	0.1	0.3	0.0	1.8	0.0	2.1

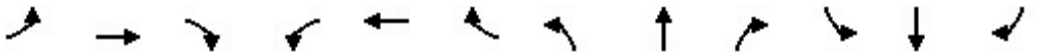
Intersection Summary	
HCM 6th Ctrl Delay	32.6
HCM 6th LOS	C

Lane Group	EBT	WBT	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	2	2	295	75	96	347
Future Volume (vph)	2	2	295	75	96	347
Turn Type	NA	NA	NA	Perm	Prot	NA
Protected Phases	4	8	2		1	6
Permitted Phases				2		
Detector Phase	4	8	2	2	1	6
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	16.4	16.4	9.6	16.4
Total Split (s)	15.0	37.0	47.0	47.0	21.0	68.0
Total Split (%)	12.5%	30.8%	39.2%	39.2%	17.5%	56.7%
Yellow Time (s)	3.8	3.8	5.4	5.4	3.6	5.4
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)	4.8	4.8	6.4	6.4	4.6	6.4
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	None	None	Min	Min	None	Min
Act Effct Green (s)	11.4	14.7	16.6	16.6	8.7	27.0
Actuated g/C Ratio	0.20	0.26	0.30	0.30	0.15	0.48
v/c Ratio	0.01	0.52	0.56	0.14	0.36	0.40
Control Delay	28.0	22.1	24.1	4.2	30.9	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.0	22.1	24.1	4.2	30.9	11.6
LOS	C	C	C	A	C	B
Approach Delay	28.0	22.1	20.1			15.8
Approach LOS	C	C	C			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 56.2	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.56	
Intersection Signal Delay: 18.8	Intersection LOS: B
Intersection Capacity Utilization 69.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Case Rd. & Ellis Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	2	1	108	2	131	0	295	75	96	347	0
Future Volume (veh/h)	0	2	1	108	2	131	0	295	75	96	347	0
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	0	2	0	114	2	137	0	311	0	101	365	0
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	0	10	0	165	3	199	0	439		146	790	0
Arrive On Green	0.00	0.01	0.00	0.22	0.22	0.22	0.00	0.23	0.00	0.08	0.42	0.00
Sat Flow, veh/h	0	1900	0	764	13	919	0	1900	1610	1810	1900	0
Grp Volume(v), veh/h	0	2	0	253	0	0	0	311	0	101	365	0
Grp Sat Flow(s),veh/h/ln	0	1900	0	1696	0	0	0	1900	1610	1810	1900	0
Q Serve(g_s), s	0.0	0.0	0.0	6.1	0.0	0.0	0.0	6.6	0.0	2.4	6.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	6.1	0.0	0.0	0.0	6.6	0.0	2.4	6.1	0.0
Prop In Lane	0.00		0.00	0.45		0.54	0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	10	0	367	0	0	0	439		146	790	0
V/C Ratio(X)	0.00	0.19	0.00	0.69	0.00	0.00	0.00	0.71		0.69	0.46	0.00
Avail Cap(c_a), veh/h	0	439	0	1237	0	0	0	1747		672	2650	0
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)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	21.9	0.0	15.9	0.0	0.0	0.0	15.6	0.0	19.8	9.3	0.0
Incr Delay (d2), s/veh	0.0	8.6	0.0	2.3	0.0	0.0	0.0	2.1	0.0	2.2	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	0.0	0.0	0.0	2.2	0.0	0.0	0.0	2.3	0.0	0.9	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.5	0.0	18.3	0.0	0.0	0.0	17.7	0.0	22.0	9.7	0.0
LnGrp LOS	A	C	A	B	A	A	A	B		C	A	A
Approach Vol, veh/h		2			253			311	A		466	
Approach Delay, s/veh		30.5			18.3			17.7			12.4	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.2	16.6		5.0		24.8		14.4				
Change Period (Y+Rc), s	4.6	6.4		* 4.8		6.4		4.8				
Max Green Setting (Gmax), s	16.4	40.6		* 10		61.6		32.2				
Max Q Clear Time (g_c+I1), s	4.4	8.6		2.0		8.1		8.1				
Green Ext Time (p_c), s	0.1	1.6		0.0		2.0		1.5				

Intersection Summary		
HCM 6th Ctrl Delay		15.5
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	371	7	523	147	822	933	137
Future Volume (vph)	371	7	523	147	822	933	137
Turn Type	Split	NA	Prot	Prot	NA	NA	Perm
Protected Phases	8	8	8	5	2	6	
Permitted Phases							6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	9.5	11.0	31.0	31.0
Total Split (s)	57.0	57.0	57.0	20.0	63.0	43.0	43.0
Total Split (%)	47.5%	47.5%	47.5%	16.7%	52.5%	35.8%	35.8%
Yellow Time (s)	5.0	5.0	5.0	3.5	5.0	5.0	5.0
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)	6.0	6.0	6.0	4.5	6.0	6.0	6.0
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	Min	Min
Act Effct Green (s)	21.7	21.7	21.7	9.0	34.0	20.3	20.3
Actuated g/C Ratio	0.32	0.32	0.32	0.13	0.50	0.30	0.30
v/c Ratio	0.60	0.56	0.55	0.34	0.48	0.50	0.25
Control Delay	25.6	17.5	17.1	32.6	13.1	21.5	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.6	17.5	17.1	32.6	13.1	21.5	5.5
LOS	C	B	B	C	B	C	A
Approach Delay		20.2			16.1	19.5	
Approach LOS		C			B	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 68.2	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 18.6	Intersection LOS: B
Intersection Capacity Utilization 54.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 13: Redlands Av & I-215 NB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	371	7	523	147	822	0	0	933	137
Future Volume (veh/h)	0	0	0	371	7	523	147	822	0	0	933	137
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	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				494	0	236	152	847	0	0	962	88
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				827	0	368	316	1827	0	0	2108	519
Arrive On Green				0.23	0.00	0.23	0.09	0.51	0.00	0.00	0.33	0.33
Sat Flow, veh/h				3563	0	1585	3456	3647	0	0	6696	1585
Grp Volume(v), veh/h				494	0	236	152	847	0	0	962	88
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1609	1585
Q Serve(g_s), s				5.8	0.0	6.4	2.0	7.2	0.0	0.0	5.6	1.9
Cycle Q Clear(g_c), s				5.8	0.0	6.4	2.0	7.2	0.0	0.0	5.6	1.9
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				827	0	368	316	1827	0	0	2108	519
V/C Ratio(X)				0.60	0.00	0.64	0.48	0.46	0.00	0.00	0.46	0.17
Avail Cap(c_a), veh/h				3841	0	1709	1132	4282	0	0	5032	1240
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	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				16.2	0.0	16.4	20.4	7.3	0.0	0.0	12.6	11.3
Incr Delay (d2), s/veh				0.7	0.0	1.9	1.1	0.2	0.0	0.0	0.2	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				1.9	0.0	2.0	0.8	1.9	0.0	0.0	1.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				16.9	0.0	18.2	21.6	7.5	0.0	0.0	12.7	11.5
LnGrp LOS				B	A	B	C	A	A	A	B	B
Approach Vol, veh/h					730			999			1050	
Approach Delay, s/veh					17.3			9.7			12.6	
Approach LOS					B			A			B	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	30.3		8.8	21.5		17.0						
Change Period (Y+Rc), s	6.0		4.5	6.0		6.0						
Max Green Setting (Gmax), s	57.0		15.5	37.0		51.0						
Max Q Clear Time (g_c+I1), s	9.2		4.0	7.6		8.4						
Green Ext Time (p_c), s	7.0		0.3	7.9		2.6						

Intersection Summary		
HCM 6th Ctrl Delay	12.8	
HCM 6th LOS	B	

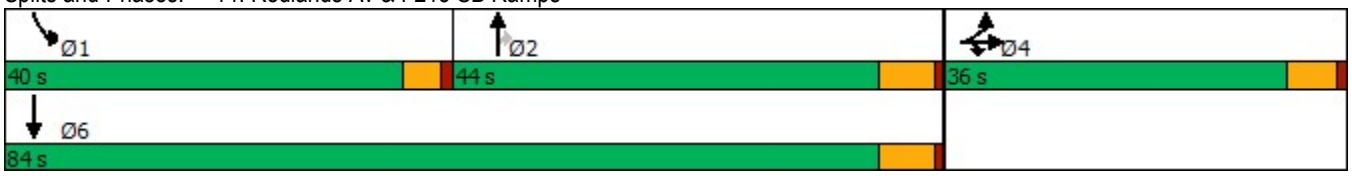
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	183	2	203	786	454	407	897
Future Volume (vph)	183	2	203	786	454	407	897
Turn Type	Split	NA	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	4	2		1	6
Permitted Phases					2		
Detector Phase	4	4	4	2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	10.5	10.5	11.0	11.0	9.5	33.0
Total Split (s)	36.0	36.0	36.0	44.0	44.0	40.0	84.0
Total Split (%)	30.0%	30.0%	30.0%	36.7%	36.7%	33.3%	70.0%
Yellow Time (s)	4.5	4.5	4.5	5.0	5.0	3.5	5.0
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)	5.5	5.5	5.5	6.0	6.0	4.5	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None	None	Min	Min	None	Min
Act Effct Green (s)	11.1	11.1	11.1	19.0	19.0	13.4	37.1
Actuated g/C Ratio	0.18	0.18	0.18	0.32	0.32	0.22	0.62
v/c Ratio	0.44	0.39	0.33	0.39	0.38	0.54	0.42
Control Delay	28.8	17.7	8.2	17.1	3.0	24.9	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.8	17.7	8.2	17.1	3.0	24.9	6.7
LOS	C	B	A	B	A	C	A
Approach Delay		18.6		12.0			12.4
Approach LOS		B		B			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 60.2	
Natural Cycle: 45	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 54.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Redlands Av & I-215 SB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	2	203	0	0	0	0	786	454	407	897	0
Future Volume (veh/h)	183	2	203	0	0	0	0	786	454	407	897	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	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	212	0	57				0	794	343	411	906	0
Peak Hour Factor	0.99	0.99	0.99				0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	417	0	186				0	2088	905	651	2193	0
Arrive On Green	0.12	0.00	0.12				0.00	0.32	0.32	0.19	0.62	0.00
Sat Flow, veh/h	3563	0	1585				0	6696	2790	3456	3647	0
Grp Volume(v), veh/h	212	0	57				0	794	343	411	906	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1609	1395	1728	1777	0
Q Serve(g_s), s	2.4	0.0	1.4				0.0	4.1	4.1	4.7	5.7	0.0
Cycle Q Clear(g_c), s	2.4	0.0	1.4				0.0	4.1	4.1	4.7	5.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	417	0	186				0	2088	905	651	2193	0
V/C Ratio(X)	0.51	0.00	0.31				0.00	0.38	0.38	0.63	0.41	0.00
Avail Cap(c_a), veh/h	2512	0	1118				0	5653	2451	2837	6409	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)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	17.9	0.0	17.5				0.0	11.3	11.3	16.2	4.3	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.9				0.0	0.1	0.3	1.0	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	0.8	0.0	0.5				0.0	1.2	1.0	1.6	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.9	0.0	18.4				0.0	11.4	11.5	17.2	4.4	0.0
LnGrp LOS	B	A	B				A	B	B	B	A	A
Approach Vol, veh/h		269						1137			1317	
Approach Delay, s/veh		18.8						11.4			8.4	
Approach LOS		B						B			A	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	12.7	20.0		10.6		32.7						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	35.5	38.0		30.5		78.0						
Max Q Clear Time (g_c+I1), s	6.7	6.1		4.4		7.7						
Green Ext Time (p_c), s	1.5	7.9		0.9		7.8						

Intersection Summary			
HCM 6th Ctrl Delay			10.7
HCM 6th LOS			B

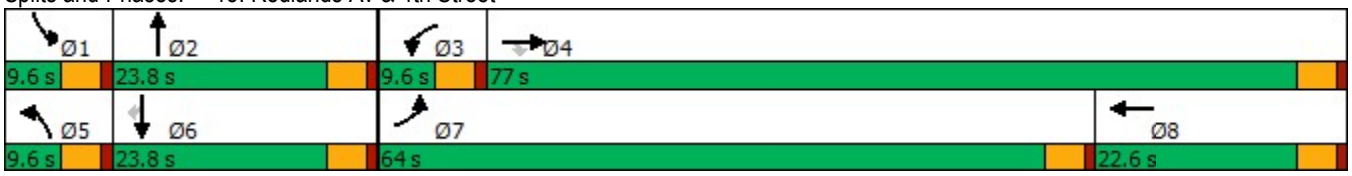
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	806	24	51	8	18	43	335	45	268	648
Future Volume (vph)	806	24	51	8	18	43	335	45	268	648
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	22.6	22.6	9.6	22.6	9.6	22.6	9.6	22.6	22.6
Total Split (s)	64.0	77.0	77.0	9.6	22.6	9.6	23.8	9.6	23.8	23.8
Total Split (%)	53.3%	64.2%	64.2%	8.0%	18.8%	8.0%	19.8%	8.0%	19.8%	19.8%
Yellow Time (s)	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
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	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min
Act Effct Green (s)	56.0	64.3	64.3	5.3	8.3	5.3	16.5	5.3	16.5	16.5
Actuated g/C Ratio	0.57	0.65	0.65	0.05	0.08	0.05	0.17	0.05	0.17	0.17
v/c Ratio	0.86	0.01	0.05	0.09	0.29	0.48	0.62	0.51	0.49	0.66
Control Delay	31.7	7.8	0.4	55.0	18.1	70.0	46.2	71.4	43.7	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.7	7.8	0.4	55.0	18.1	70.0	46.2	71.4	43.7	6.8
LOS	C	A	A	D	B	E	D	E	D	A
Approach Delay		29.2			21.3		48.9		20.1	
Approach LOS		C			C		D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 99.1	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 28.4	Intersection LOS: C
Intersection Capacity Utilization 76.4%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 15: Redlands Av & 4th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	806	24	51	8	18	71	43	335	6	45	268	648
Future Volume (veh/h)	806	24	51	8	18	71	43	335	6	45	268	648
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	857	26	38	9	19	60	46	356	5	48	285	513
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	905	1978	882	20	106	94	66	720	10	67	716	562
Arrive On Green	0.51	0.56	0.56	0.01	0.06	0.06	0.04	0.20	0.20	0.04	0.20	0.20
Sat Flow, veh/h	1781	3554	1585	1781	1777	1585	1781	3588	50	1781	3554	2790
Grp Volume(v), veh/h	857	26	38	9	19	60	46	176	185	48	285	513
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1861	1781	1777	1395
Q Serve(g_s), s	43.3	0.3	1.0	0.5	1.0	3.5	2.4	8.4	8.4	2.5	6.6	17.1
Cycle Q Clear(g_c), s	43.3	0.3	1.0	0.5	1.0	3.5	2.4	8.4	8.4	2.5	6.6	17.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	905	1978	882	20	106	94	66	357	374	67	716	562
V/C Ratio(X)	0.95	0.01	0.04	0.45	0.18	0.64	0.70	0.49	0.49	0.71	0.40	0.91
Avail Cap(c_a), veh/h	1114	2709	1208	94	337	300	94	359	376	94	718	564
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	1.00
Uniform Delay (d), s/veh	22.1	9.4	9.6	46.7	42.5	43.7	45.2	33.7	33.7	45.2	32.9	37.1
Incr Delay (d2), s/veh	14.2	0.0	0.0	15.4	0.8	6.9	12.5	1.1	1.0	14.0	0.4	19.2
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	19.9	0.1	0.3	0.3	0.4	1.5	1.3	3.6	3.7	1.4	2.8	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	9.4	9.6	62.0	43.3	50.6	57.7	34.7	34.7	59.2	33.3	56.3
LnGrp LOS	D	A	A	E	D	D	E	C	C	E	C	E
Approach Vol, veh/h		921			88			407			846	
Approach Delay, s/veh		34.4			50.2			37.3			48.7	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	23.7	5.7	57.5	8.1	23.7	52.9	10.2
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	5.0	19.2	5.0	72.4	5.0	19.2	59.4	18.0
Max Q Clear Time (g_c+I1), s	4.5	10.4	2.5	3.0	4.4	19.1	45.3	5.5
Green Ext Time (p_c), s	0.0	1.2	0.0	0.3	0.0	0.1	3.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	40.9
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	177	1	6	16	3	203
Future Vol, veh/h	177	1	6	16	3	203
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	197	1	7	18	3	226
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	9.1	7.3	8.1
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	99%	0%	1%
Vol Thru, %	1%	27%	0%
Vol Right, %	0%	73%	99%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	178	22	206
LT Vol	177	0	3
Through Vol	1	6	0
RT Vol	0	16	203
Lane Flow Rate	198	24	229
Geometry Grp	1	1	1
Degree of Util (X)	0.248	0.028	0.244
Departure Headway (Hd)	4.52	4.155	3.842
Convergence, Y/N	Yes	Yes	Yes
Cap	785	863	941
Service Time	2.607	2.174	1.843
HCM Lane V/C Ratio	0.252	0.028	0.243
HCM Control Delay	9.1	7.3	8.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1	0.1	1

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	338	117	24	281	89	20
Future Vol, veh/h	338	117	24	281	89	20
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	371	129	26	309	98	22
Number of Lanes	1	1	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	12.5	12.4	10.8
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	100%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	89	20	338	117	24	281
LT Vol	89	0	0	0	24	0
Through Vol	0	0	338	0	0	281
RT Vol	0	20	0	117	0	0
Lane Flow Rate	98	22	371	129	26	309
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.19	0.035	0.538	0.161	0.043	0.459
Departure Headway (Hd)	6.976	5.761	5.212	4.507	5.861	5.357
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	517	625	687	788	606	667
Service Time	4.676	3.461	2.986	2.281	3.646	3.142
HCM Lane V/C Ratio	0.19	0.035	0.54	0.164	0.043	0.463
HCM Control Delay	11.3	8.7	14	8.2	8.9	12.7
HCM Lane LOS	B	A	B	A	A	B
HCM 95th-tile Q	0.7	0.1	3.2	0.6	0.1	2.4

Intersection	
Intersection Delay, s/veh	12.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	263	95	0	0	93	85	1	1	0	68	0	211
Future Vol, veh/h	263	95	0	0	93	85	1	1	0	68	0	211
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	292	106	0	0	103	94	1	1	0	76	0	234
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

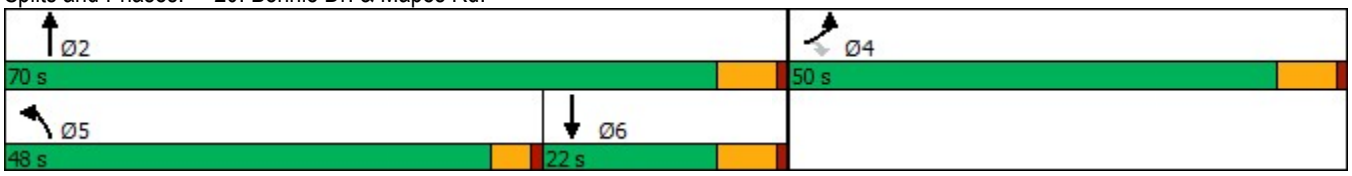
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	14.8	10	9.2	11.9
HCM LOS	B	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	50%	73%	0%	24%
Vol Thru, %	50%	27%	52%	0%
Vol Right, %	0%	0%	48%	76%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	358	178	279
LT Vol	1	263	0	68
Through Vol	1	95	93	0
RT Vol	0	0	85	211
Lane Flow Rate	2	398	198	310
Geometry Grp	1	1	1	1
Degree of Util (X)	0.004	0.57	0.276	0.434
Departure Headway (Hd)	6.088	5.161	5.018	5.044
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	586	700	716	719
Service Time	4.139	3.189	3.051	3.044
HCM Lane V/C Ratio	0.003	0.569	0.277	0.431
HCM Control Delay	9.2	14.8	10	11.9
HCM Lane LOS	A	B	A	B
HCM 95th-tile Q	0	3.6	1.1	2.2

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	4	345	273	5	9
Future Volume (vph)	4	345	273	5	9
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)	16.5	16.5	9.6	16.5	16.5
Total Split (s)	50.0	50.0	48.0	70.0	22.0
Total Split (%)	41.7%	41.7%	40.0%	58.3%	18.3%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Min	Min
Act Effct Green (s)	10.6	10.6	12.8	27.5	10.1
Actuated g/C Ratio	0.21	0.21	0.25	0.54	0.20
v/c Ratio	0.01	0.60	0.67	0.01	0.05
Control Delay	17.8	7.2	25.2	5.6	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	17.8	7.2	25.2	5.6	15.7
LOS	B	A	C	A	B
Approach Delay	7.3			24.8	15.7
Approach LOS	A			C	B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 51.2	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.67	
Intersection Signal Delay: 15.1	Intersection LOS: B
Intersection Capacity Utilization 41.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 20: Bonnie Dr. & Mapes Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	345	273	5	9	6
Future Volume (veh/h)	4	345	273	5	9	6
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	4	0	303	6	10	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	20		387	1185	292	205
Arrive On Green	0.01	0.00	0.21	0.62	0.28	0.28
Sat Flow, veh/h	1810	1610	1810	1900	1041	728
Grp Volume(v), veh/h	4	0	303	6	0	17
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	0	1769
Q Serve(g_s), s	0.1	0.0	5.6	0.0	0.0	0.2
Cycle Q Clear(g_c), s	0.1	0.0	5.6	0.0	0.0	0.2
Prop In Lane	1.00	1.00	1.00			0.41
Lane Grp Cap(c), veh/h	20		387	1185	0	497
V/C Ratio(X)	0.20		0.78	0.01	0.00	0.03
Avail Cap(c_a), veh/h	2212		2207	3390	0	770
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	17.4	0.0	13.2	2.5	0.0	9.3
Incr Delay (d2), s/veh	5.0	0.0	1.3	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	0.1	0.0	1.5	0.0	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	22.4	0.0	14.6	2.5	0.0	9.3
LnGrp LOS	C		B	A	A	A
Approach Vol, veh/h	4	A		309	17	
Approach Delay, s/veh	22.4			14.3	9.3	
Approach LOS	C			B	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		28.7		6.9	12.2	16.5
Change Period (Y+Rc), s		6.5		6.5	4.6	6.5
Max Green Setting (Gmax), s		63.5		43.5	43.4	15.5
Max Q Clear Time (g_c+I1), s		2.0		2.1	7.6	2.2
Green Ext Time (p_c), s		0.0		0.0	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	14.2
HCM 6th LOS	B

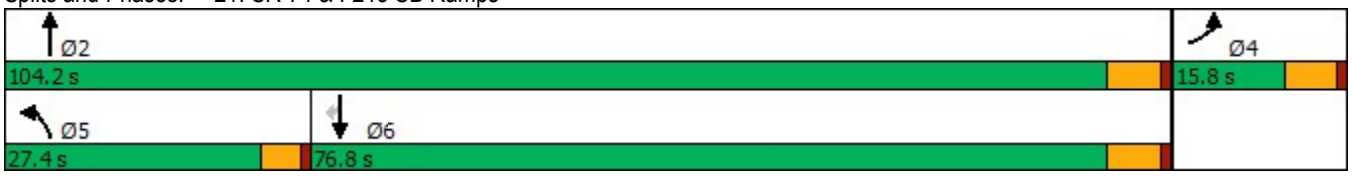
Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	31	323	254	346	906	25
Future Volume (vph)	31	323	254	346	906	25
Turn Type	Prot	Free	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		Free				6
Detector Phase	4		5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0		5.0	10.0	10.0	10.0
Minimum Split (s)	15.8		9.6	15.8	15.8	15.8
Total Split (s)	15.8		27.4	104.2	76.8	76.8
Total Split (%)	13.2%		22.8%	86.8%	64.0%	64.0%
Yellow Time (s)	4.8		3.6	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)	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	Min	Min	Min
Act Effct Green (s)	11.5	93.1	19.1	82.8	54.5	54.5
Actuated g/C Ratio	0.12	1.00	0.21	0.89	0.59	0.59
v/c Ratio	0.15	0.21	0.74	0.22	0.88	0.03
Control Delay	51.0	0.3	53.2	2.2	28.4	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	0.3	53.2	2.2	28.4	8.6
LOS	D	A	D	A	C	A
Approach Delay	4.7			23.8	27.9	
Approach LOS	A			C	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 93.1	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 22.2	Intersection LOS: C
Intersection Capacity Utilization 83.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 21: SR-74 & I-215 SB Ramps





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	31	323	254	346	906	25
Future Volume (veh/h)	31	323	254	346	906	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	33	0	273	372	974	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	115		313	1519	1087	
Arrive On Green	0.06	0.00	0.17	0.80	0.57	0.00
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	33	0	273	372	974	0
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	1.5	0.0	12.4	4.1	38.2	0.0
Cycle Q Clear(g_c), s	1.5	0.0	12.4	4.1	38.2	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	115		313	1519	1087	
V/C Ratio(X)	0.29		0.87	0.24	0.90	
Avail Cap(c_a), veh/h	214		487	2207	1592	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.8	0.0	34.1	2.1	15.9	0.0
Incr Delay (d2), s/veh	0.5	0.0	6.7	0.1	5.1	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	0.6	0.0	5.7	0.6	14.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.3	0.0	40.8	2.2	21.0	0.0
LnGrp LOS	D		D	A	C	
Approach Vol, veh/h	33	A		645	974	A
Approach Delay, s/veh	38.3			18.5	21.0	
Approach LOS	D			B	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		73.5		11.2	19.3	54.3
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		98.4		10.0	22.8	71.0
Max Q Clear Time (g_c+I1), s		6.1		3.5	14.4	40.2
Green Ext Time (p_c), s		2.2		0.0	0.2	8.3

Intersection Summary		
HCM 6th Ctrl Delay		20.4
HCM 6th LOS		C

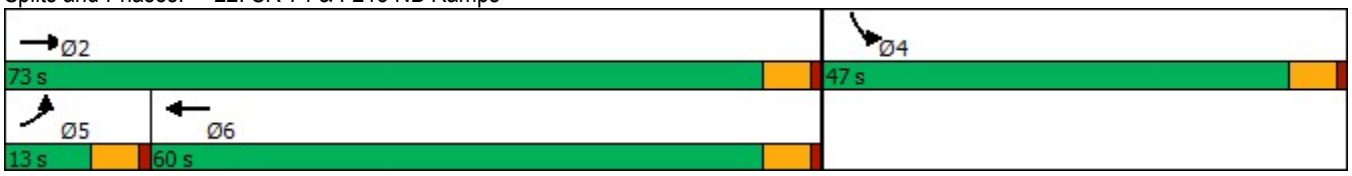
Notes

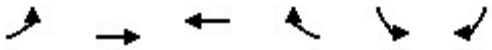
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Configurations					
Traffic Volume (vph)	22	1208	568	693	291
Future Volume (vph)	22	1208	568	693	291
Turn Type	Prot	NA	NA	Free	Prot
Protected Phases	5	2	6		4
Permitted Phases				Free	
Detector Phase	5	2	6		4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0		5.0
Minimum Split (s)	10.3	10.3	10.3		10.3
Total Split (s)	13.0	73.0	60.0		47.0
Total Split (%)	10.8%	60.8%	50.0%		39.2%
Yellow Time (s)	4.3	4.3	4.3		4.3
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)	5.3	5.3	5.3		5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	Min	Min		None
Act Effct Green (s)	5.8	27.6	23.8	55.1	16.3
Actuated g/C Ratio	0.11	0.50	0.43	1.00	0.30
v/c Ratio	0.12	0.70	0.38	0.45	0.63
Control Delay	29.7	13.3	13.7	0.9	23.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.7	13.3	13.7	0.9	23.7
LOS	C	B	B	A	C
Approach Delay		13.6	6.7		23.7
Approach LOS		B	A		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 55.1	
Natural Cycle: 45	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 11.6	Intersection LOS: B
Intersection Capacity Utilization 60.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 22: SR-74 & I-215 NB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	22	1208	568	693	291	32
Future Volume (veh/h)	22	1208	568	693	291	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	23	1258	592	0	303	17
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	51	1792	1185		381	21
Arrive On Green	0.03	0.50	0.33	0.00	0.22	0.22
Sat Flow, veh/h	1810	3705	3705	1610	1697	95
Grp Volume(v), veh/h	23	1258	592	0	321	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1610	1798	0
Q Serve(g_s), s	0.5	10.2	5.0	0.0	6.4	0.0
Cycle Q Clear(g_c), s	0.5	10.2	5.0	0.0	6.4	0.0
Prop In Lane	1.00			1.00	0.94	0.05
Lane Grp Cap(c), veh/h	51	1792	1185		404	0
V/C Ratio(X)	0.45	0.70	0.50		0.80	0.00
Avail Cap(c_a), veh/h	367	6437	5201		1975	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	0.00	1.00	0.00
Uniform Delay (d), s/veh	18.2	7.4	10.2	0.0	13.9	0.0
Incr Delay (d2), s/veh	2.3	0.2	0.1	0.0	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	0.2	1.8	1.3	0.0	2.0	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	20.4	7.6	10.4	0.0	15.3	0.0
LnGrp LOS	C	A	B		B	A
Approach Vol, veh/h		1281	592	A	321	
Approach Delay, s/veh		7.8	10.4		15.3	
Approach LOS		A	B		B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		24.1		13.8	6.4	17.8
Change Period (Y+Rc), s		5.3		5.3	5.3	5.3
Max Green Setting (Gmax), s		67.7		41.7	7.7	54.7
Max Q Clear Time (g_c+I1), s		12.2		8.4	2.5	7.0
Green Ext Time (p_c), s		6.6		0.4	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 3.3: EXISTING (2023) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

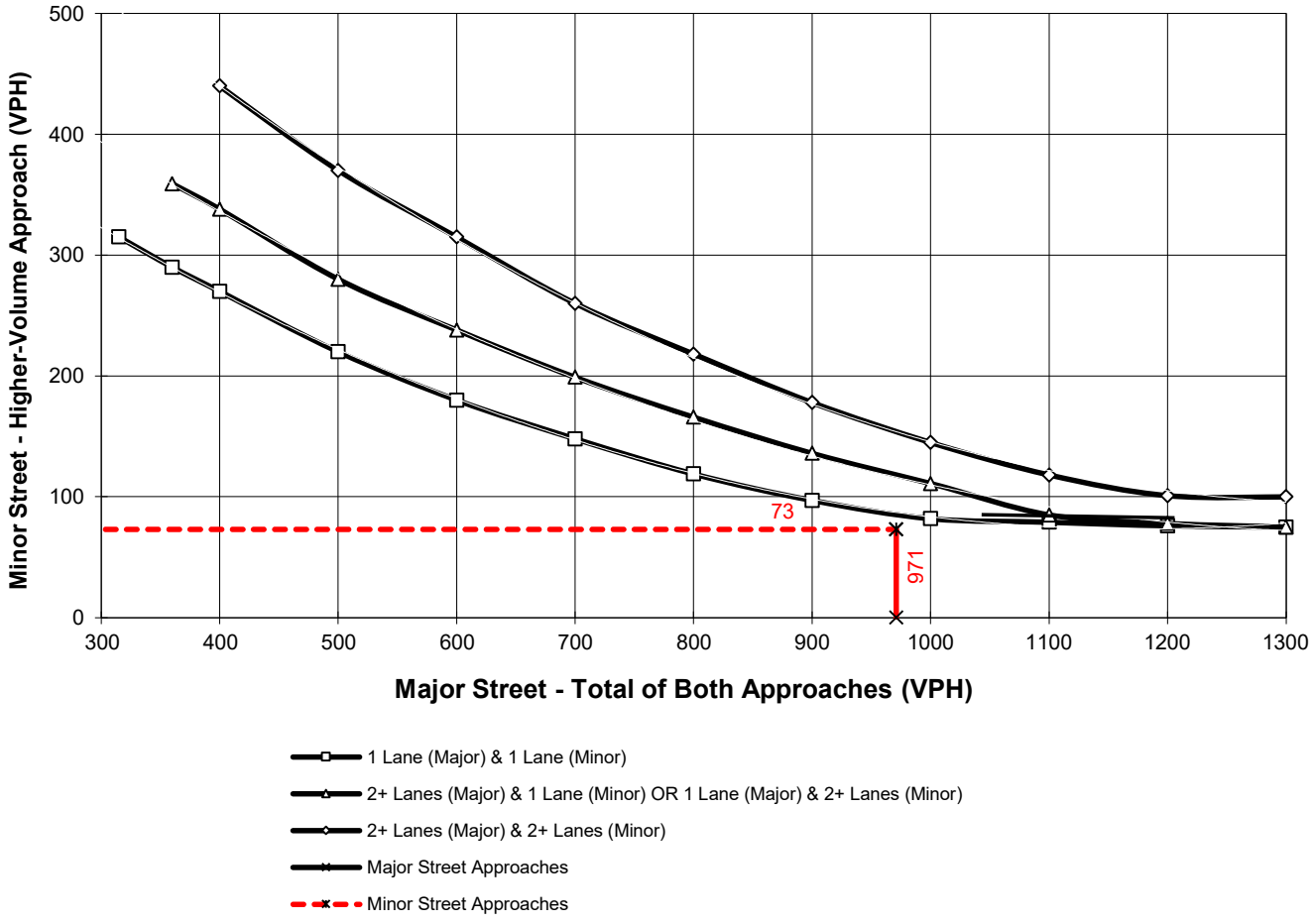
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2023) Conditions - Weekday AM Peak Hour**

Major Street Name = **Goetz Rd.**
Total of Both Approaches (VPH) = **971**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Ellis Av.**
High Volume Approach (VPH) = **73**
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)

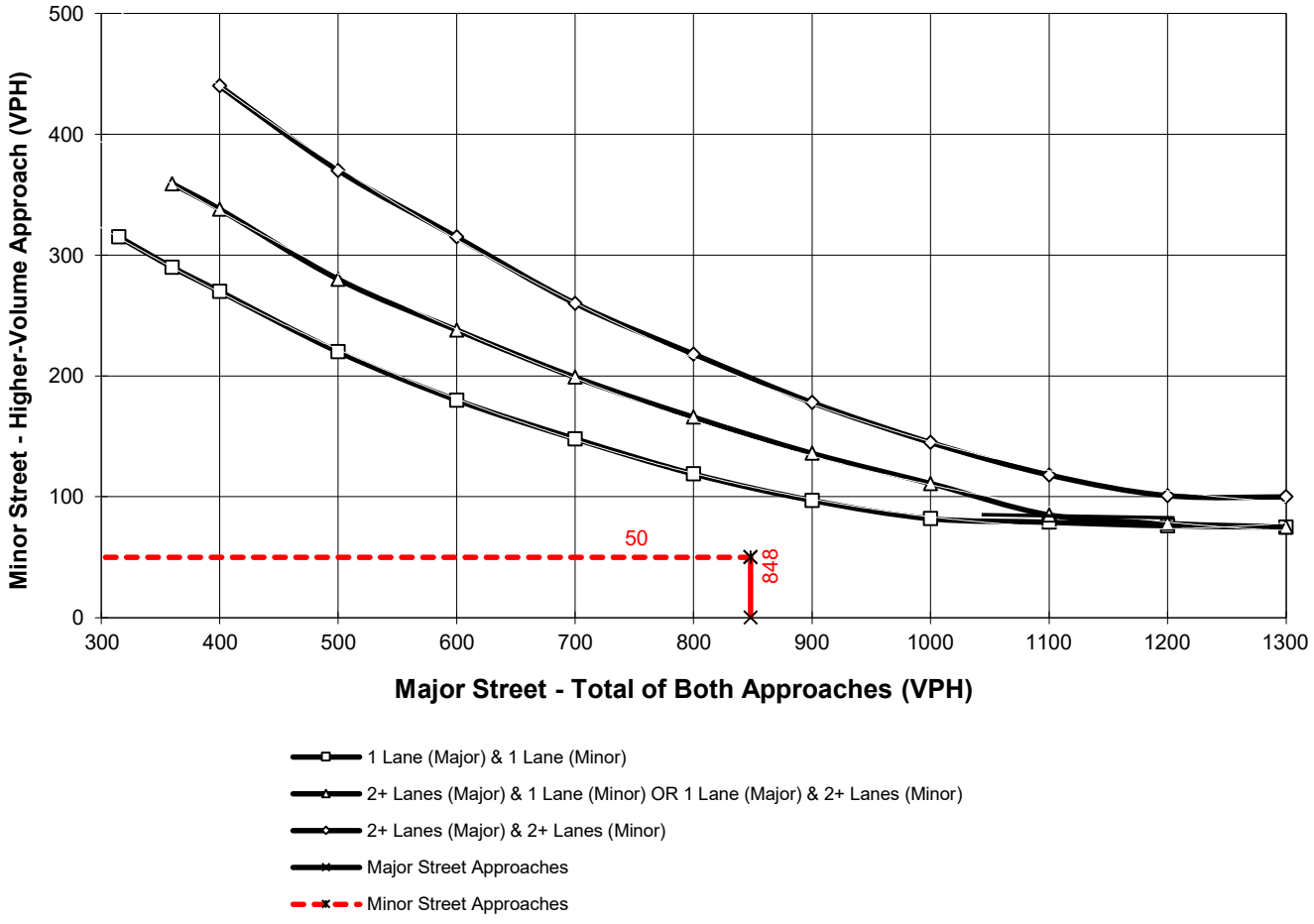
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2023) Conditions - Weekday PM Peak Hour**

Major Street Name = **Goetz Rd.**
Total of Both Approaches (VPH) = **848**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Malbert St.**
High Volume Approach (VPH) = **50**
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)

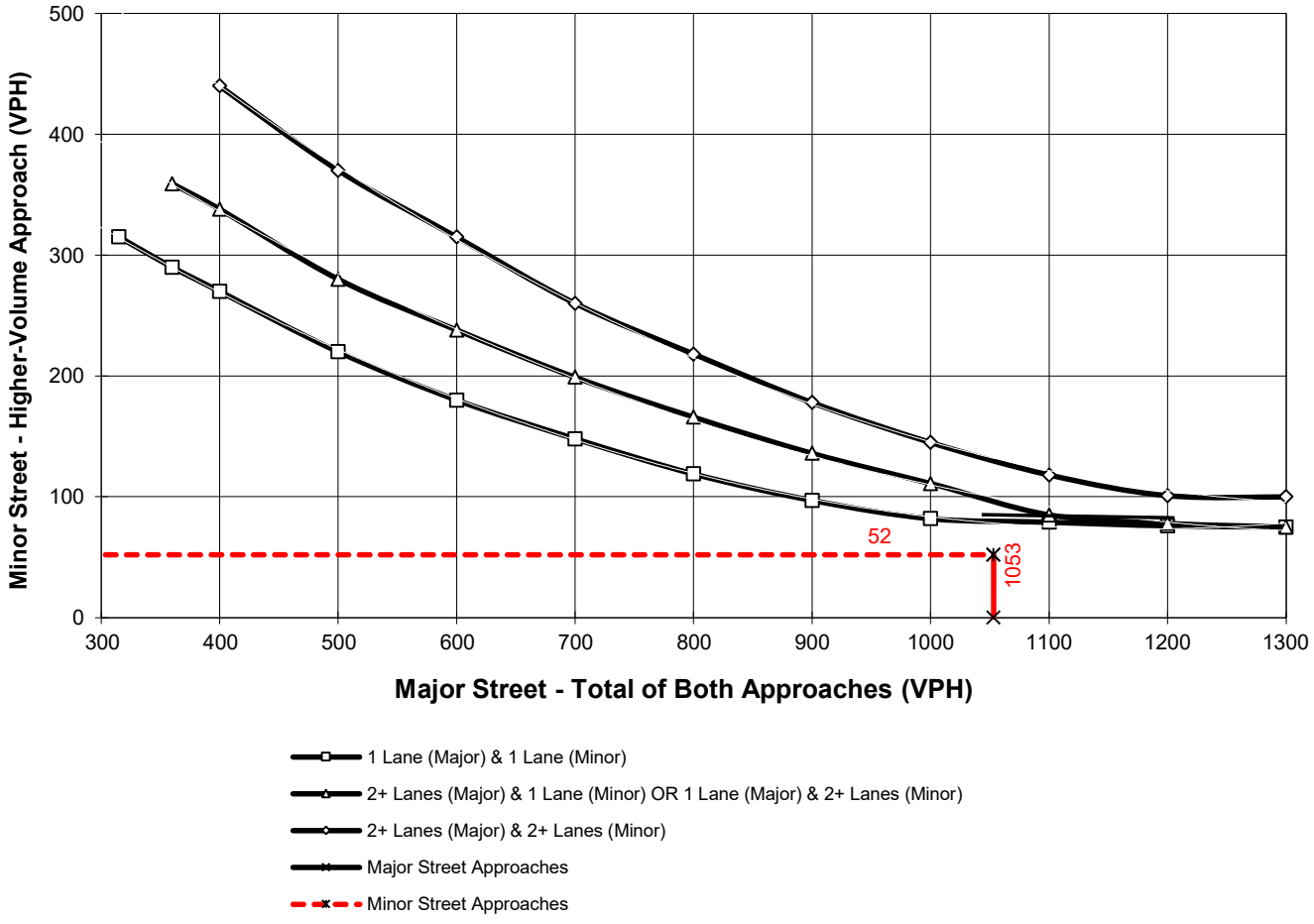
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2023) Conditions - Weekday AM Peak Hour**

Major Street Name = **Goetz Rd.**
Total of Both Approaches (VPH) = **1053**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Mountain Av.**
High Volume Approach (VPH) = **52**
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

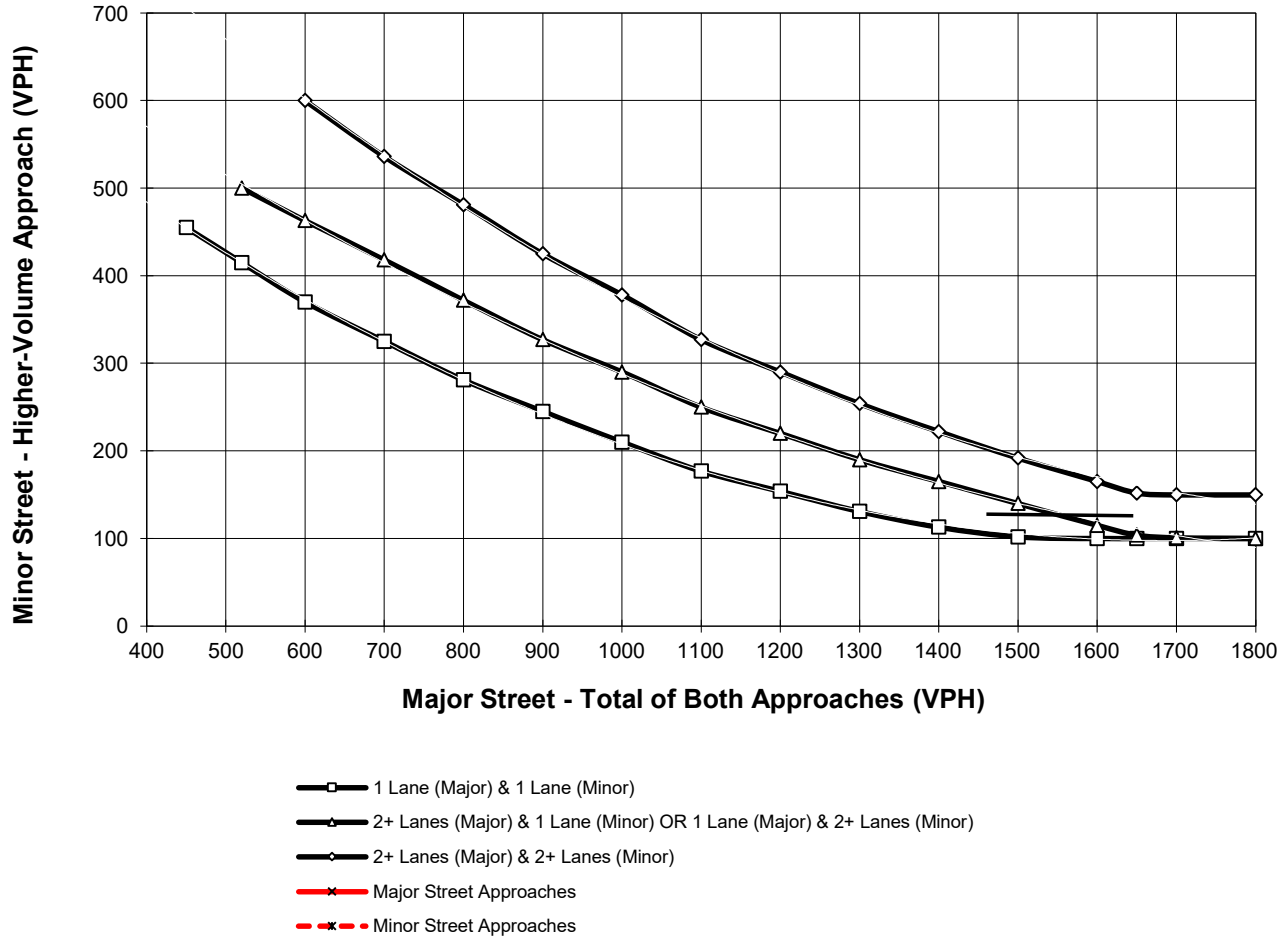
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2023) Conditions - Weekday PM Peak Hour**

Major Street Name = **Redlands Av.**
Total of Both Approaches (VPH) = **206**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Ellis Av.**
High Volume Approach (VPH) = **178**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

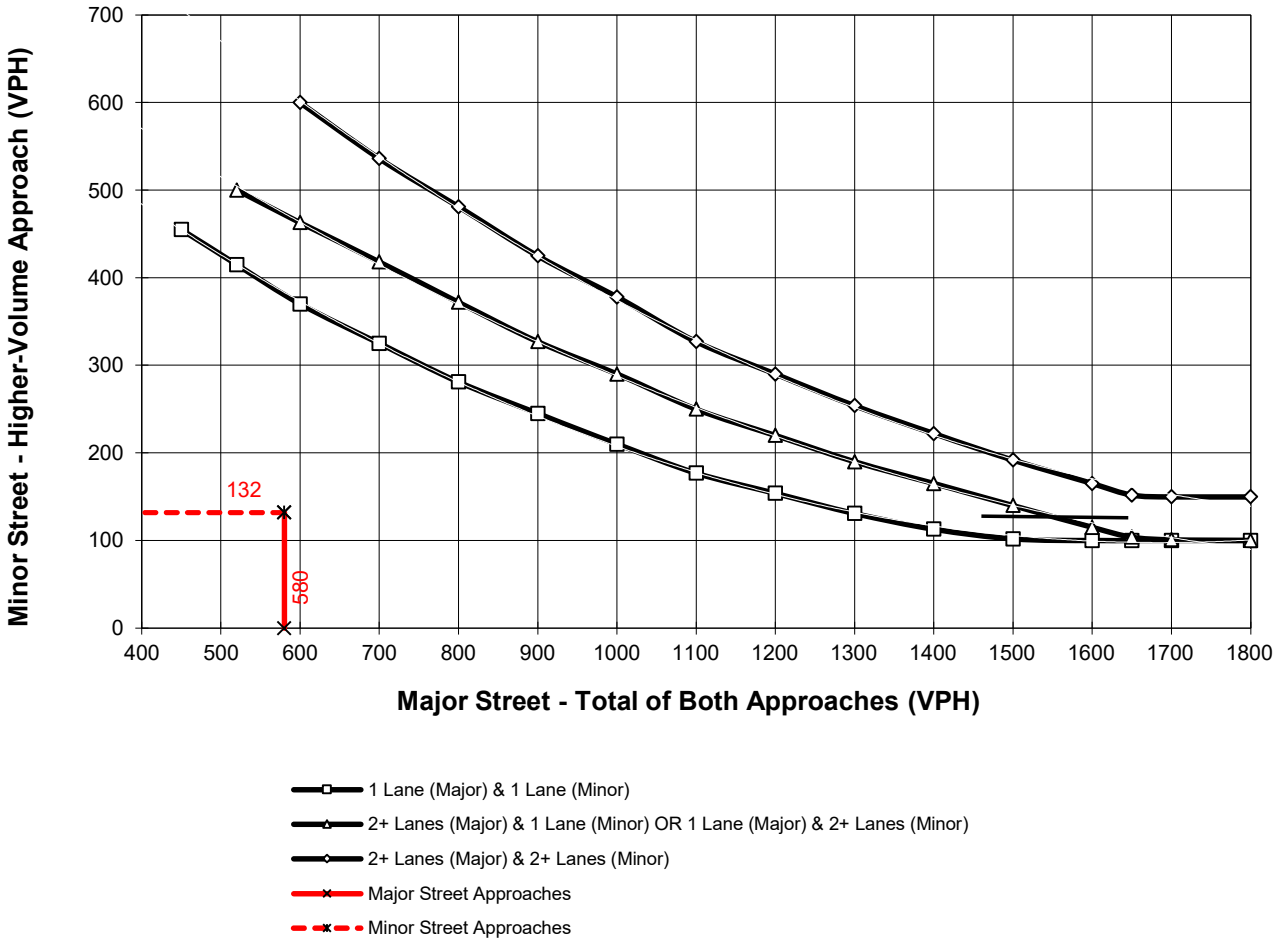
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2023) Conditions - Weekday AM Peak Hour**

Major Street Name = **Case Rd.**
Total of Both Approaches (VPH) = **580**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Murrieta Rd.**
High Volume Approach (VPH) = **132**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

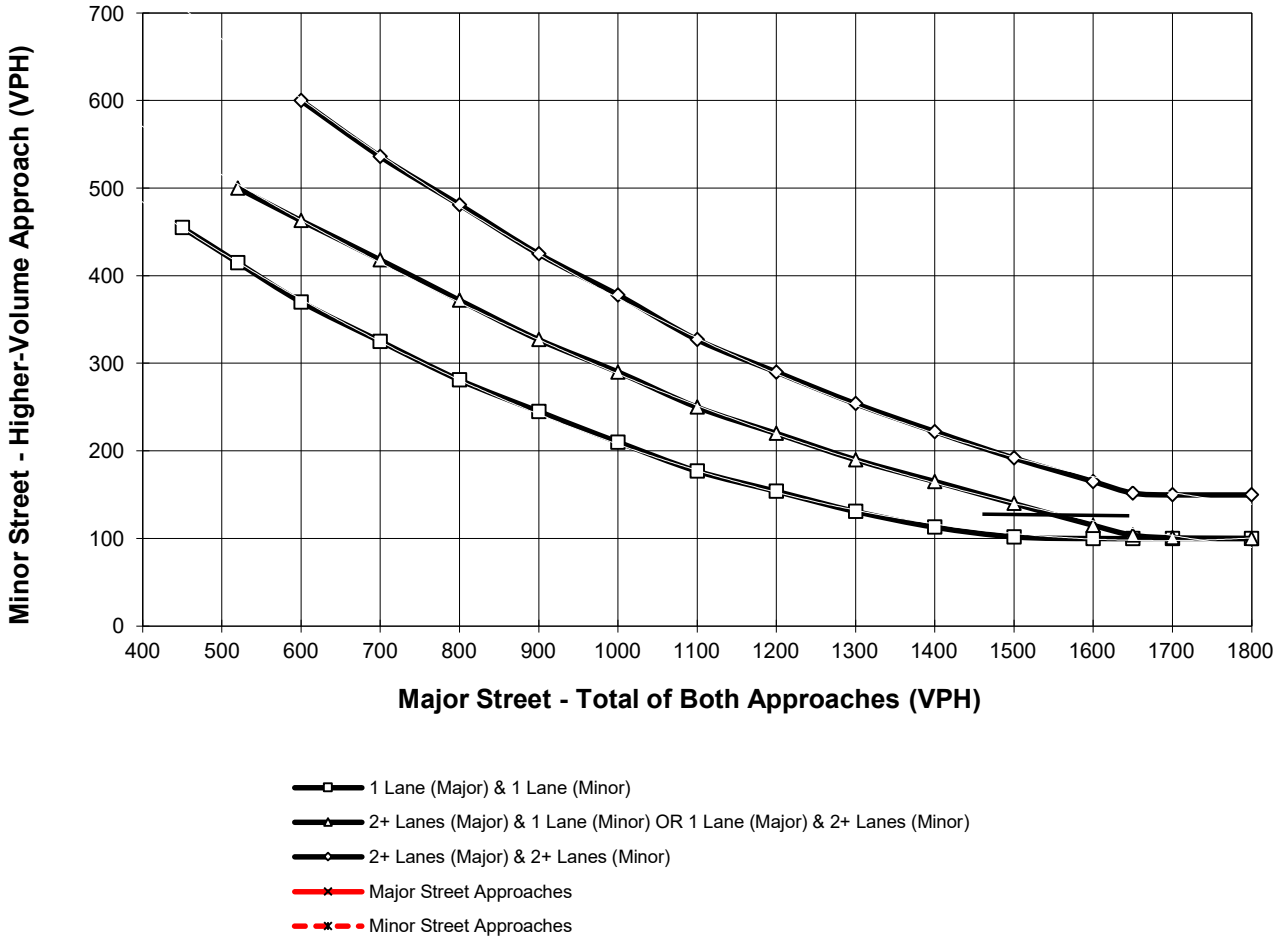
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing (2023) Conditions - Weekday AM Peak Hour**

Major Street Name = **Case Rd.**
Total of Both Approaches (VPH) = **367**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Mapes Rd.**
High Volume Approach (VPH) = **324**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 3.4: EXISTING (2023) CONDITIONS QUEUING ANALYSIS WORKSHEETS

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Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	242	239	221	207	806	1166	238
v/c Ratio	0.57	0.58	0.44	0.41	0.39	0.50	0.32
Control Delay	30.5	27.4	10.8	32.9	9.3	18.7	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.5	27.4	10.8	32.9	9.3	18.7	4.0
Queue Length 50th (ft)	92	81	18	40	85	105	0
Queue Length 95th (ft)	204	194	87	93	165	180	44
Internal Link Dist (ft)		1295			320	683	
Turn Bay Length (ft)	800		400				
Base Capacity (vph)	1056	982	1007	1025	3284	4221	1127
Starvation Cap Reductn	0	0	0	0	704	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	0.23	0.24	0.22	0.20	0.31	0.28	0.21

Intersection Summary



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	117	111	107	836	344	501	1009
v/c Ratio	0.40	0.34	0.31	0.41	0.31	0.58	0.44
Control Delay	29.2	14.6	8.8	17.7	3.2	24.1	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.2	14.6	8.8	17.7	3.2	24.1	6.5
Queue Length 50th (ft)	38	12	0	66	0	78	78
Queue Length 95th (ft)	103	63	42	118	29	157	145
Internal Link Dist (ft)		1169		429			320
Turn Bay Length (ft)	740		140		200		
Base Capacity (vph)	809	761	780	4035	1886	2432	3610
Starvation Cap Reductn	0	0	0	0	0	0	665
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.15	0.14	0.21	0.18	0.21	0.34

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	30	183	307	480	690	42
v/c Ratio	0.10	0.11	0.63	0.28	0.74	0.05
Control Delay	41.8	0.1	34.3	2.1	21.9	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.8	0.1	34.3	2.1	21.9	10.3
Queue Length 50th (ft)	10	0	104	0	175	5
Queue Length 95th (ft)	54	0	306	98	544	31
Internal Link Dist (ft)	1304			1430	1438	
Turn Bay Length (ft)		50	110			50
Base Capacity (vph)	313	1615	996	1833	1558	1326
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	0.10	0.11	0.31	0.26	0.44	0.03

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	14	857	773	962	204
v/c Ratio	0.06	0.48	0.47	0.60	0.47
Control Delay	20.8	8.2	10.4	1.6	18.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	20.8	8.2	10.4	1.6	18.0
Queue Length 50th (ft)	2	56	49	0	32
Queue Length 95th (ft)	19	116	161	0	114
Internal Link Dist (ft)		1430	701		1371
Turn Bay Length (ft)	240			100	
Base Capacity (vph)	384	3610	3594	1615	1587
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	0.04	0.24	0.22	0.60	0.13

Intersection Summary



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	321	305	302	152	847	962	141
v/c Ratio	0.60	0.56	0.55	0.34	0.48	0.50	0.25
Control Delay	25.6	17.5	17.1	32.6	13.1	21.5	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.6	17.5	17.1	32.6	13.1	21.5	5.5
Queue Length 50th (ft)	113	70	66	29	111	93	0
Queue Length 95th (ft)	234	179	168	71	213	160	40
Internal Link Dist (ft)		1295			320	683	
Turn Bay Length (ft)	800		400				
Base Capacity (vph)	1298	1168	1185	817	2973	3642	960
Starvation Cap Reductn	0	0	0	0	428	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	0.25	0.26	0.25	0.19	0.33	0.26	0.15

Intersection Summary



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	137	130	125	794	459	411	906
v/c Ratio	0.44	0.39	0.33	0.39	0.38	0.54	0.42
Control Delay	28.8	17.7	8.2	17.1	3.0	24.9	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.8	17.7	8.2	17.1	3.0	24.9	6.7
Queue Length 50th (ft)	45	21	0	61	0	65	72
Queue Length 95th (ft)	114	81	43	110	32	135	135
Internal Link Dist (ft)		1169		429			320
Turn Bay Length (ft)	740		140		200		
Base Capacity (vph)	885	826	851	4204	1986	2104	3522
Starvation Cap Reductn	0	0	0	0	0	0	611
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.16	0.15	0.19	0.23	0.20	0.31

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	33	347	273	372	974	27
v/c Ratio	0.15	0.21	0.74	0.22	0.88	0.03
Control Delay	51.0	0.3	53.2	2.2	28.4	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	0.3	53.2	2.2	28.4	8.6
Queue Length 50th (ft)	23	0	190	50	586	6
Queue Length 95th (ft)	58	0	#336	72	#845	19
Internal Link Dist (ft)	1304			1430	1438	
Turn Bay Length (ft)		50	110			50
Base Capacity (vph)	222	1615	506	1714	1448	1232
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	0.15	0.21	0.54	0.22	0.67	0.02

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	23	1258	592	722	336
v/c Ratio	0.12	0.70	0.38	0.45	0.63
Control Delay	29.7	13.3	13.7	0.9	23.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	29.7	13.3	13.7	0.9	23.7
Queue Length 50th (ft)	7	144	53	0	88
Queue Length 95th (ft)	32	279	154	0	211
Internal Link Dist (ft)		1430	701		1371
Turn Bay Length (ft)	240			100	
Base Capacity (vph)	266	3521	3324	1615	1412
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	0.09	0.36	0.18	0.45	0.24

Intersection Summary

APPENDIX 5.1: E+P (WITH PROJECT IMPROVEMENTS) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Volume Development - AM Peak Hour

1: Goetz Rd. & Case Rd.

	PHF:	0.845		7:15am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	272	0	285	0	0	0	0	170	132	250	187	0	1,296

2: Goetz Rd. & Ellis Av.

	PHF:	0.857		7:15am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	49	545	35	0	373	9	11	0	62	107	0	1	1,192

3: Goetz Rd. & Driveway 1

	PHF:								Count Date:				
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	607	93	0	542	0	0	0	0	0	0	21	1,263

4: Goetz Rd. & Cai Ct.

	PHF:								Count Date:				
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	644	0	0	491	0	57	0	57	0	0	0	1,249

5: Goetz Rd. & Malbert St.

	PHF:	0.794		7:15am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	31	652	0	38	474	30	11	0	8	0	0	0	1,244

6: Goetz Rd. & Mountain Av./Driveway 2

	PHF:	0.797		7:15am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	43	617	3	59	405	19	32	0	20	0	0	7	1,204

7: Goetz Rd. & Driveway 3

	PHF:								Count Date:				
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	659	16	0	425	0	0	0	0	0	0	4	1,104

8: Goetz Rd. & Mapes Rd.

	PHF:	0.838		7:15am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	324	456	13	5	190	182	169	3	261	3	0	0	1,608

9: Goetz Rd. & Fieldstone Dr.

	PHF:	0.909		7:00am					Count Date:		11/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	19	685	5	9	431	14	77	1	39	4	0	32	1,316

10: Goetz Rd. & Ethanac Rd.

	PHF:	0.939		7:15am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	1	349	403	310	150	15	23	104	7	208	63	337	1,967

11: Driveway 4 & Ellis Av.

	PHF:								Count Date:				
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	0	5	0	0	0	0	35	0	0	108	0	148

Volume Development - AM Peak Hour

12: Case Rd. & Ellis Av.

	PHF:	0.903		7:30am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	48	298	100	164	232	0	0	17	23	42	60	130	1,114

13: Redlands Av. & I-215 NB Ramps

	PHF:	0.893		7:15 AM					Count Date:		2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	195	717	0	0	1,038	212	0	0	0	336	4	285	2,788

14: Redlands Av. & I-215 SB Ramps

	PHF:	0.905		7:30 AM					Count Date:		2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	772	313	456	918	0	140	0	206	0	0	0	2,806

15: Redlands Av. & 4th St.

	PHF:	0.853		7:15 AM					Count Date:		5/23/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	23	364	14	55	357	751	668	23	22	6	14	25	2,322

16: Redlands Av. & Ellis Av.

	PHF:	0.879		7:15 AM					Count Date:		5/30/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	0	0	23	0	184	251	14	0	0	3	24	499

17: Case Rd. & Driveway 5

	PHF:								Count Date:				
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	3	0	36	0	0	0	0	292	5	44	441	0	822

18: Murrieta Rd. & Case Rd.

	PHF:	0.937		7:15am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	123	0	9	0	0	0	0	278	50	36	364	0	860

19: Case Rd. & Mapes Rd.

	PHF:	0.926		7:45am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	3	0	92	2	322	190	98	0	0	78	57	842

20: Bonnie Dr. & Mapes Rd.

	PHF:	0.827							Count Date:		11/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	408	27	0	0	15	9	1	0	249	0	0	0	708

21: I-215 SB Ramps/SR-74 & Bonnie Dr.

	PHF:	0.985		7:00am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	349	470	0	0	676	84	59	0	205	0	0	0	1,843

22: I-215 NB Ramps & SR-74

	PHF:	0.981		7:00am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	0	0	187	0	61	40	840	0	0	758	943	2,830

Volume Development - PM Peak Hour

1: Goetz Rd. & Case Rd.

PHF: 0.927 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	178	0	206	0	0	0	0	226	172	261	214	0	1,258

2: Goetz Rd. & Ellis Av.

PHF: 0.944 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	31	374	114	0	419	14	10	0	63	36	0	0	1,062

3: Goetz Rd. & Driveway 1

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	416	32	0	524	0	0	0	0	0	0	104	1,076

4: Goetz Rd. & Cai Ct.

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	396	0	0	468	0	57	0	57	0	0	0	977

5: Goetz Rd. & Malbert St.

PHF: 0.927 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	2	410	0	13	503	8	25	0	26	0	0	0	987

6: Goetz Rd. & Mountain Av./Driveway 2

PHF: 0.955 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	10	373	0	23	495	11	15	0	6	3	0	14	951

7: Goetz Rd. & Driveway 3

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	365	6	0	511	0	0	0	0	0	0	18	900

8: Goetz Rd. & Mapes Rd.

PHF: 0.942 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	277	206	1	3	384	87	93	1	355	13	1	2	1,423

9: Goetz Rd. & Fieldstone Dr.

PHF: 0.958 4:15pm Count Date: 11/15/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	41	438	8	34	643	75	36	5	34	2	5	10	1,332

10: Goetz Rd. & Ethanac Rd.

PHF: 0.898 4:15pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	1	166	215	361	287	31	15	55	5	300	79	307	1,822

11: Driveway 4 & Ellis Av.

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	0	19	0	0	0	0	114	0	0	36	0	169

Volume Development - PM Peak Hour

12: Case Rd. & Ellis Av.

	PHF:	0.951		4:30pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	21	297	81	96	348	0	0	45	88	110	15	131	1,231

13: Redlands Av. & I-215 NB Ramps

	PHF:	0.967		4:00 PM					Count Date:		2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	195	822	0	0	933	137	0	0	0	371	7	523	2,988

14: Redlands Av. & I-215 SB Ramps

	PHF:	0.989		4:00 PM					Count Date:		2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	834	454	407	897	0	183	2	219	0	0	0	2,996

15: Redlands Av. & 4th St.

	PHF:	0.944		4:15 PM					Count Date:		5/23/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	43	383	6	45	284	648	806	24	51	8	18	71	2,386

16: Redlands Av. & Ellis Av.

	PHF:	0.899		4:00 PM					Count Date:		5/30/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	0	0	3	0	219	225	1	0	0	6	16	470

17: Case Rd. & Driveway 5

	PHF:								Count Date:				
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	10	0	35	0	0	0	0	541	4	39	389	0	1,018

18: Murrieta Rd. & Case Rd.

	PHF:	0.909		5:00pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	89	0	20	0	0	0	0	458	118	24	338	0	1,046

19: Case Rd. & Mapes Rd.

	PHF:	0.901		5:00pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	1	1	0	68	0	268	383	95	0	0	93	85	995

20: Bonnie Dr. & Mapes Rd.

	PHF:	0.897							Count Date:		11/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	330	5	0	0	9	6	4	0	465	0	0	0	820

21: I-215 SB Ramps/SR-74 & Bonnie Dr.

	PHF:	0.932		4:15pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	282	346	0	0	906	54	115	0	359	0	0	0	2,062

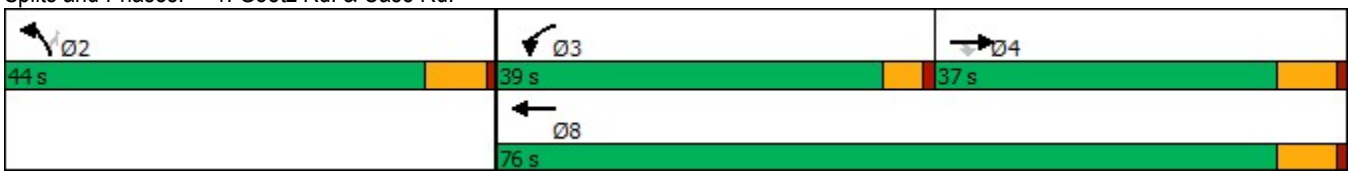
22: I-215 NB Ramps & SR-74

	PHF:	0.965		4:15pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	0	0	291	0	60	58	1,208	0	0	568	693	2,878

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	170	132	250	187	272	285
Future Volume (vph)	170	132	250	187	272	285
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)	34.5	34.5	9.6	16.5	16.5	16.5
Total Split (s)	37.0	37.0	39.0	76.0	44.0	44.0
Total Split (%)	30.8%	30.8%	32.5%	63.3%	36.7%	36.7%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None
Act Effct Green (s)	15.2	15.2	17.3	37.5	19.4	19.4
Actuated g/C Ratio	0.21	0.21	0.24	0.53	0.27	0.27
v/c Ratio	0.50	0.33	0.68	0.22	0.66	0.49
Control Delay	31.6	7.4	34.8	10.0	31.7	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.6	7.4	34.8	10.0	31.7	5.8
LOS	C	A	C	B	C	A
Approach Delay	21.0			24.2	18.5	
Approach LOS	C			C	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 70.9	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 21.0	Intersection LOS: C
Intersection Capacity Utilization 52.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: Goetz Rd. & Case Rd.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	170	132	250	187	272	285
Future Volume (veh/h)	170	132	250	187	272	285
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	202	109	298	223	324	246
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	384	325	365	944	435	387
Arrive On Green	0.20	0.20	0.20	0.50	0.24	0.24
Sat Flow, veh/h	1900	1610	1810	1900	1810	1610
Grp Volume(v), veh/h	202	109	298	223	324	246
Grp Sat Flow(s),veh/h/ln	1900	1610	1810	1900	1810	1610
Q Serve(g_s), s	4.7	2.9	7.8	3.3	8.2	6.8
Cycle Q Clear(g_c), s	4.7	2.9	7.8	3.3	8.2	6.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	384	325	365	944	435	387
V/C Ratio(X)	0.53	0.33	0.82	0.24	0.74	0.64
Avail Cap(c_a), veh/h	1171	993	1258	2669	1372	1221
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	17.6	16.9	18.9	7.1	17.4	16.8
Incr Delay (d2), s/veh	1.1	0.6	1.7	0.1	2.6	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.9	2.7	0.8	2.8	2.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.7	17.5	20.6	7.2	19.9	18.6
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	311			521	570	
Approach Delay, s/veh	18.3			14.9	19.4	
Approach LOS	B			B	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		18.4	14.6	16.5		31.1
Change Period (Y+Rc), s		6.5	4.6	6.5		6.5
Max Green Setting (Gmax), s		37.5	34.4	30.5		69.5
Max Q Clear Time (g_c+I1), s		10.2	9.8	6.7		5.3
Green Ext Time (p_c), s		1.7	0.4	1.2		1.1

Intersection Summary	
HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

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	11	0	62	107	0	1	49	545	35	0	373	9
Future Vol, veh/h	11	0	62	107	0	1	49	545	35	0	373	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	150	-	-	180	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	0	72	124	0	1	57	634	41	0	434	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	876	1234	228	986	1219	338	450	0	0	675	0	0
Stage 1	445	445	-	769	769	-	-	-	-	-	-	-
Stage 2	431	789	-	217	450	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	246	178	781	205	182	664	1121	-	-	926	-	-
Stage 1	567	578	-	364	413	-	-	-	-	-	-	-
Stage 2	578	405	-	771	575	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	235	168	777	179	172	664	1115	-	-	926	-	-
Mov Cap-2 Maneuver	354	282	-	275	279	-	-	-	-	-	-	-
Stage 1	535	575	-	345	392	-	-	-	-	-	-	-
Stage 2	547	384	-	699	572	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	28.3	0.7	0
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1115	-	-	354	777	275	-	664	926	-	-
HCM Lane V/C Ratio	0.051	-	-	0.036	0.093	0.452	-	0.002	-	-	-
HCM Control Delay (s)	8.4	-	-	15.6	10.1	28.5	0	10.4	0	-	-
HCM Lane LOS	A	-	-	C	B	D	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0.3	2.2	-	0	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	21	607	93	0	542
Future Vol, veh/h	0	21	607	93	0	542
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	-	-	-	-
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	0	23	660	101	0	589

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	381	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	623	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	623	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	0
HCM LOS	B		

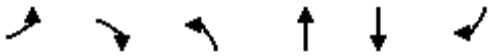
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	623	-
HCM Lane V/C Ratio	-	-	0.037	-
HCM Control Delay (s)	-	-	11	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	EBL	NBT	SBT	Ø5
Lane Configurations				
Traffic Volume (vph)	57	644	485	
Future Volume (vph)	57	644	485	
Turn Type	Prot	NA	NA	
Protected Phases	4	2	6	5
Permitted Phases				
Detector Phase	4	2	6	
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	5.0
Minimum Split (s)	14.6	16.5	27.5	9.6
Total Split (s)	43.0	77.0	67.4	9.6
Total Split (%)	35.8%	64.2%	56.2%	8%
Yellow Time (s)	3.6	5.5	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	4.6	6.5	6.5	
Lead/Lag			Lag	Lead
Lead-Lag Optimize?			Yes	Yes
Recall Mode	None	Min	Min	None
Act Effct Green (s)	10.2	22.0	22.0	
Actuated g/C Ratio	0.27	0.57	0.57	
v/c Ratio	0.25	0.34	0.25	
Control Delay	10.0	6.9	6.5	
Queue Delay	0.0	0.0	0.0	
Total Delay	10.0	6.9	6.5	
LOS	A	A	A	
Approach Delay	10.0	6.9	6.5	
Approach LOS	A	A	A	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 38.3		
Natural Cycle: 55		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.34		
Intersection Signal Delay: 7.0	Intersection LOS: A	
Intersection Capacity Utilization 35.4%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 4: Goetz Rd. & Cai Ct.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	57	57	0	644	485	0
Future Volume (veh/h)	57	57	0	644	485	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	62	62	0	700	527	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	188	188	6	1384	1384	617
Arrive On Green	0.22	0.22	0.00	0.38	0.38	0.00
Sat Flow, veh/h	846	846	1810	3705	3705	1610
Grp Volume(v), veh/h	125	0	0	700	527	0
Grp Sat Flow(s),veh/h/ln	1705	0	1810	1805	1805	1610
Q Serve(g_s), s	1.7	0.0	0.0	4.2	3.0	0.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0	4.2	3.0	0.0
Prop In Lane	0.50	0.50	1.00			1.00
Lane Grp Cap(c), veh/h	378	0	6	1384	1384	617
V/C Ratio(X)	0.33	0.00	0.00	0.51	0.38	0.00
Avail Cap(c_a), veh/h	2330	0	322	9055	7822	3489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.2	0.0	0.0	6.6	6.3	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.3	0.2	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	0.5	0.0	0.0	0.4	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.7	0.0	0.0	6.9	6.4	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	125			700	527	
Approach Delay, s/veh	9.7			6.9	6.4	
Approach LOS	A			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		17.3		10.8	0.0	17.3
Change Period (Y+Rc), s		6.5		4.6	4.6	6.5
Max Green Setting (Gmax), s		70.5		38.4	5.0	60.9
Max Q Clear Time (g_c+I1), s		6.2		3.7	0.0	5.0
Green Ext Time (p_c), s		4.6		0.4	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	7.0
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	11	8	31	652	38	474	30
Future Vol, veh/h	11	8	31	652	38	474	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	115	-	100	-	-
Veh in Median Storage, #	1	-	-	0	-	0	-
Grade, %	0	-	-	0	-	0	-
Peak Hour Factor	79	79	79	79	92	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	14	10	39	825	41	600	38

Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	1192	319	638	0	825	-	0
Stage 1	701	-	-	-	-	-	-
Stage 2	491	-	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	6.4	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	2.5	-	-
Pot Cap-1 Maneuver	183	683	956	-	436	-	-
Stage 1	459	-	-	-	-	-	-
Stage 2	586	-	-	-	-	-	-
Platoon blocked, %				-		-	-
Mov Cap-1 Maneuver	159	683	956	-	436	-	-
Mov Cap-2 Maneuver	284	-	-	-	-	-	-
Stage 1	440	-	-	-	-	-	-
Stage 2	531	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.2	0.4	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	956	-	377	436	-	-
HCM Lane V/C Ratio	0.041	-	0.064	0.095	-	-
HCM Control Delay (s)	8.9	-	15.2	14.1	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.3	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	0	20	0	0	7	43	617	3	59	405	19
Future Vol, veh/h	32	0	20	0	0	7	43	617	3	59	405	19
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	-	-	110	-	-
Veh in Median Storage, #	-	1	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	40	0	25	0	0	9	54	771	4	74	506	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1082	1549	265	1282	1559	388	530	0	0	775	0	0
Stage 1	666	666	-	881	881	-	-	-	-	-	-	-
Stage 2	416	883	-	401	678	-	-	-	-	-	-	-
Critical Hdwy	6.95	6.5	6.9	6.95	6.5	7.1	4.1	-	-	5.3	-	-
Critical Hdwy Stg 1	6.5	5.5	-	7.3	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.7	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.65	4	3.3	3.65	4	3.9	2.2	-	-	3.1	-	-
Pot Cap-1 Maneuver	201	115	739	148	113	526	1048	-	-	509	-	-
Stage 1	408	460	-	250	367	-	-	-	-	-	-	-
Stage 2	557	367	-	582	455	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	169	93	739	122	92	526	1048	-	-	509	-	-
Mov Cap-2 Maneuver	266	188	-	215	245	-	-	-	-	-	-	-
Stage 1	387	393	-	237	348	-	-	-	-	-	-	-
Stage 2	520	348	-	481	389	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.5	12	0.6	1.6
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1048	-	-	353	526	509	-	-
HCM Lane V/C Ratio	0.051	-	-	0.184	0.017	0.145	-	-
HCM Control Delay (s)	8.6	-	-	17.5	12	13.3	-	-
HCM Lane LOS	A	-	-	C	B	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.7	0.1	0.5	-	-

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	659	16	0	425
Future Vol, veh/h	0	4	659	16	0	425
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	-	-	-	-
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	0	4	716	17	0	462

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	367	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	636	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	636	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

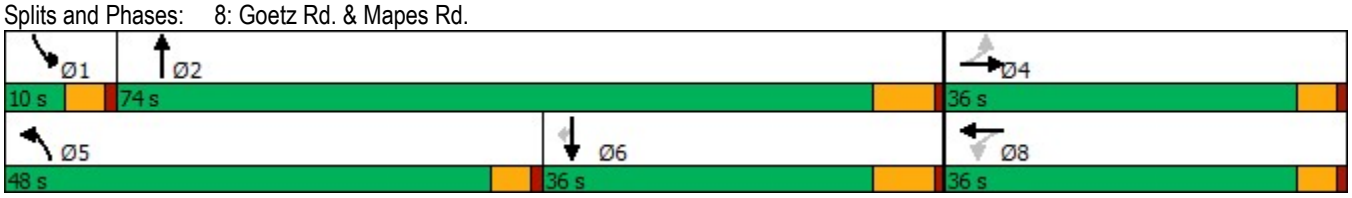
Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0
HCM LOS	B		

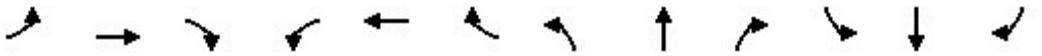
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	636	-
HCM Lane V/C Ratio	-	-	0.007	-
HCM Control Delay (s)	-	-	10.7	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	169	3	3	0	324	456	5	190	182
Future Volume (vph)	169	3	3	0	324	456	5	190	182
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA	Perm
Protected Phases		4		8	5	2	1	6	
Permitted Phases	4		8						6
Detector Phase	4	4	8	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.6	14.6	26.6	26.6	9.6	16.5	9.6	16.5	16.5
Total Split (s)	36.0	36.0	36.0	36.0	48.0	74.0	10.0	36.0	36.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	40.0%	61.7%	8.3%	30.0%	30.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.5	3.6	5.5	5.5
All-Red Time (s)	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
Total Lost Time (s)	4.6	4.6		4.6	4.6	6.5	4.6	6.5	6.5
Lead/Lag					Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	17.6	17.6		17.6	21.0	40.1	5.5	15.5	15.5
Actuated g/C Ratio	0.25	0.25		0.25	0.30	0.56	0.08	0.22	0.22
v/c Ratio	0.57	0.50		0.03	0.73	0.27	0.04	0.55	0.42
Control Delay	32.8	6.6		25.3	32.6	9.4	42.0	33.3	7.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	6.6		25.3	32.6	9.4	42.0	33.3	7.4
LOS	C	A		C	C	A	D	C	A
Approach Delay		16.8		25.3		18.9		20.9	
Approach LOS		B		C		B		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 71	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 18.8	Intersection LOS: B
Intersection Capacity Utilization 57.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 8: Goetz Rd. & Mapes Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	3	261	3	0	0	324	456	13	5	190	182
Future Volume (veh/h)	169	3	261	3	0	0	324	456	13	5	190	182
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	201	4	143	4	0	0	386	543	15	6	226	192
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	480	9	326	312	0	0	460	1635	45	14	398	337
Arrive On Green	0.21	0.21	0.21	0.21	0.00	0.00	0.25	0.46	0.46	0.01	0.21	0.21
Sat Flow, veh/h	1440	44	1573	779	0	0	1810	3588	99	1810	1900	1610
Grp Volume(v), veh/h	201	0	147	4	0	0	386	273	285	6	226	192
Grp Sat Flow(s),veh/h/ln	1440	0	1617	779	0	0	1810	1805	1882	1810	1900	1610
Q Serve(g_s), s	1.1	0.0	3.8	0.1	0.0	0.0	9.7	4.6	4.6	0.2	5.1	5.1
Cycle Q Clear(g_c), s	5.0	0.0	3.8	3.9	0.0	0.0	9.7	4.6	4.6	0.2	5.1	5.1
Prop In Lane	1.00		0.97	1.00		0.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	480	0	335	312	0	0	460	823	858	14	398	337
V/C Ratio(X)	0.42	0.00	0.44	0.01	0.00	0.00	0.84	0.33	0.33	0.41	0.57	0.57
Avail Cap(c_a), veh/h	1128	0	1063	880	0	0	1645	2552	2661	205	1174	995
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.9	0.0	16.5	18.2	0.0	0.0	16.9	8.3	8.3	23.6	16.9	16.9
Incr Delay (d2), s/veh	0.6	0.0	0.9	0.0	0.0	0.0	1.6	0.2	0.2	6.9	1.3	1.5
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	1.9	0.0	1.4	0.0	0.0	0.0	3.1	1.1	1.1	0.1	1.8	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.5	0.0	17.4	18.2	0.0	0.0	18.5	8.6	8.6	30.4	18.2	18.5
LnGrp LOS	B	A	B	B	A	A	B	A	A	C	B	B
Approach Vol, veh/h		348			4			944			424	
Approach Delay, s/veh		17.4			18.2			12.6			18.5	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	28.3		14.5	16.7	16.5		14.5				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		4.6				
Max Green Setting (Gmax), s	5.4	67.5		31.4	43.4	29.5		31.4				
Max Q Clear Time (g_c+I1), s	2.2	6.6		7.0	11.7	7.1		5.9				
Green Ext Time (p_c), s	0.0	3.0		1.5	0.5	1.6		0.0				

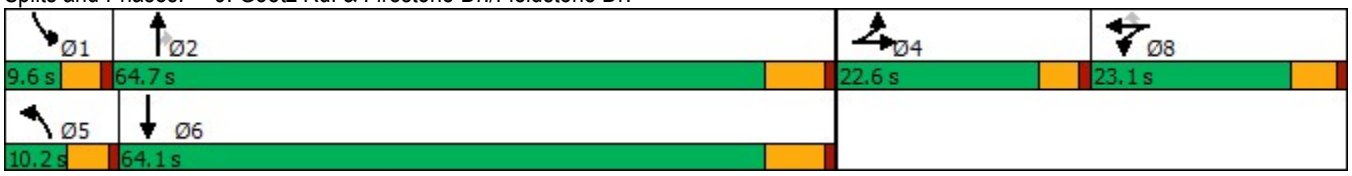
Intersection Summary		
HCM 6th Ctrl Delay		15.1
HCM 6th LOS		B

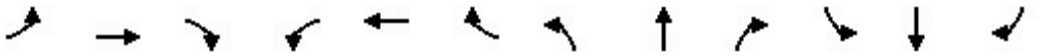
9: Goetz Rd. & Firestone Dr./Fieldstone Dr.

Lane Group	EBL	EBT	WBL	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	77	1	4	32	19	685	5	9	431
Future Volume (vph)	77	1	4	32	19	685	5	9	431
Turn Type	Split	NA	Split	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	8		5	2		1	6
Permitted Phases				8			2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.6	22.6	23.1	23.1	9.6	24.5	24.5	9.6	24.5
Total Split (s)	22.6	22.6	23.1	23.1	10.2	64.7	64.7	9.6	64.1
Total Split (%)	18.8%	18.8%	19.3%	19.3%	8.5%	53.9%	53.9%	8.0%	53.4%
Yellow Time (s)	3.6	3.6	4.1	4.1	3.6	5.5	5.5	3.6	5.5
All-Red Time (s)	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	5.1	5.1	4.6	6.5	6.5	4.6	6.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min
Act Effct Green (s)	13.3	13.3	13.1	13.1	6.3	42.4	42.4	6.1	40.5
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.09	0.61	0.61	0.09	0.58
v/c Ratio	0.25	0.13	0.01	0.07	0.13	0.65	0.00	0.06	0.16
Control Delay	36.0	14.1	37.0	0.2	45.4	19.5	0.0	45.4	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.0	14.1	37.0	0.2	45.4	19.5	0.0	45.4	12.2
LOS	D	B	D	A	D	B	A	D	B
Approach Delay		28.6				20.0			12.9
Approach LOS		C				C			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 69.5	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 17.9	Intersection LOS: B
Intersection Capacity Utilization 66.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Goetz Rd. & Firestone Dr./Fieldstone Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	1	39	4	0	32	19	685	5	9	431	14
Future Volume (veh/h)	77	1	39	4	0	32	19	685	5	9	431	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		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	85	1	18	4	0	16	21	753	5	10	474	10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	258	12	217	89	93	79	44	882	747	23	2365	50
Arrive On Green	0.14	0.14	0.14	0.05	0.00	0.05	0.02	0.46	0.46	0.01	0.45	0.45
Sat Flow, veh/h	1810	84	1518	1810	1900	1605	1810	1900	1610	1810	5228	110
Grp Volume(v), veh/h	85	0	19	4	0	16	21	753	5	10	313	171
Grp Sat Flow(s),veh/h/ln	1810	0	1603	1810	1900	1605	1810	1900	1610	1810	1729	1880
Q Serve(g_s), s	2.7	0.0	0.6	0.1	0.0	0.6	0.7	22.1	0.1	0.3	3.4	3.4
Cycle Q Clear(g_c), s	2.7	0.0	0.6	0.1	0.0	0.6	0.7	22.1	0.1	0.3	3.4	3.4
Prop In Lane	1.00		0.95	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	258	0	229	89	93	79	44	882	747	23	1564	850
V/C Ratio(X)	0.33	0.00	0.08	0.05	0.00	0.20	0.48	0.85	0.01	0.43	0.20	0.20
Avail Cap(c_a), veh/h	519	0	460	519	545	461	162	1763	1494	144	3175	1726
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	24.2	0.0	23.3	28.4	0.0	28.7	30.2	14.9	9.0	30.7	10.3	10.3
Incr Delay (d2), s/veh	0.7	0.0	0.2	0.2	0.0	1.3	2.9	2.5	0.0	4.7	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.2	0.1	0.0	0.2	0.3	7.3	0.0	0.2	1.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.9	0.0	23.5	28.6	0.0	29.9	33.1	17.4	9.0	35.4	10.4	10.5
LnGrp LOS	C	A	C	C	A	C	C	B	A	D	B	B
Approach Vol, veh/h		104			20			779			494	
Approach Delay, s/veh		24.7			29.7			17.8			10.9	
Approach LOS		C			C			B			B	

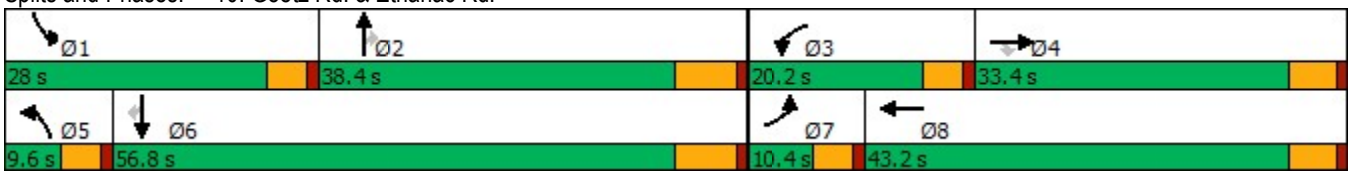
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	35.6		13.5	6.1	34.9		8.2				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		5.1				
Max Green Setting (Gmax), s	5.0	58.2		18.0	5.6	57.6		18.0				
Max Q Clear Time (g_c+I1), s	2.3	24.1		4.7	2.7	5.4		2.6				
Green Ext Time (p_c), s	0.0	5.0		0.2	0.0	2.7		0.0				

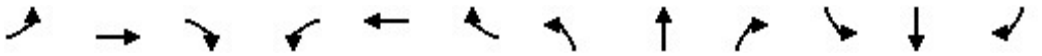
Intersection Summary			
HCM 6th Ctrl Delay		16.0	
HCM 6th LOS		B	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	23	104	7	208	63	1	349	403	310	150	15
Future Volume (vph)	23	104	7	208	63	1	349	403	310	150	15
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.4	33.4	9.6	30.4	9.6	37.5	37.5	9.6	39.5	39.5
Total Split (s)	10.4	33.4	33.4	20.2	43.2	9.6	38.4	38.4	28.0	56.8	56.8
Total Split (%)	8.7%	27.8%	27.8%	16.8%	36.0%	8.0%	32.0%	32.0%	23.3%	47.3%	47.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	5.5	5.5	3.6	5.5	5.5
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	5.4	5.4	4.6	5.4	4.6	6.5	6.5	4.6	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None	None
Act Effct Green (s)	5.5	13.1	13.1	15.4	29.5	5.1	23.9	23.9	22.2	49.2	49.2
Actuated g/C Ratio	0.06	0.14	0.14	0.16	0.31	0.05	0.25	0.25	0.23	0.51	0.51
v/c Ratio	0.23	0.23	0.02	0.77	0.26	0.01	0.79	0.74	0.79	0.09	0.02
Control Delay	54.2	39.3	0.1	59.6	6.2	51.0	47.3	23.6	51.9	13.7	0.1
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	54.2	39.3	0.1	59.6	6.2	51.0	47.3	23.6	51.9	13.7	0.1
LOS	D	D	A	E	A	D	D	C	D	B	A
Approach Delay		39.9			24.4		34.6			38.2	
Approach LOS		D			C		C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 96.1	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 32.7	Intersection LOS: C
Intersection Capacity Utilization 68.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: Goetz Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	104	7	208	63	337	1	349	403	310	150	15
Future Volume (veh/h)	23	104	7	208	63	337	1	349	403	310	150	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	24	111	5	221	67	281	1	371	264	330	160	12
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	47	477	213	263	868	404	2	462	392	374	1618	721
Arrive On Green	0.03	0.13	0.13	0.15	0.25	0.25	0.00	0.24	0.24	0.21	0.45	0.45
Sat Flow, veh/h	1810	3610	1610	1810	3458	1608	1810	1900	1610	1810	3610	1609
Grp Volume(v), veh/h	24	111	5	221	67	281	1	371	264	330	160	12
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1608	1810	1900	1610	1810	1805	1609
Q Serve(g_s), s	1.0	2.1	0.2	9.2	1.1	12.2	0.0	14.2	11.5	13.7	2.0	0.3
Cycle Q Clear(g_c), s	1.0	2.1	0.2	9.2	1.1	12.2	0.0	14.2	11.5	13.7	2.0	0.3
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	47	477	213	263	868	404	2	462	392	374	1618	721
V/C Ratio(X)	0.51	0.23	0.02	0.84	0.08	0.70	0.40	0.80	0.67	0.88	0.10	0.02
Avail Cap(c_a), veh/h	136	1309	584	365	1692	787	117	785	665	548	2351	1048
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	1.00
Uniform Delay (d), s/veh	37.1	30.0	29.2	32.1	22.1	26.2	38.5	27.5	26.5	29.7	12.3	11.8
Incr Delay (d2), s/veh	3.1	0.2	0.0	8.8	0.0	2.2	34.6	3.3	2.0	8.4	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	0.5	0.9	0.1	4.4	0.4	4.6	0.0	6.1	4.3	6.1	0.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	30.3	29.2	41.0	22.1	28.4	73.2	30.8	28.5	38.2	12.3	11.9
LnGrp LOS	D	C	C	D	C	C	E	C	C	D	B	B
Approach Vol, veh/h		140			569			636			502	
Approach Delay, s/veh		31.9			32.6			29.9			29.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.5	25.3	15.8	15.6	4.7	41.1	6.6	24.8
Change Period (Y+Rc), s	4.6	6.5	4.6	5.4	4.6	6.5	4.6	5.4
Max Green Setting (Gmax), s	23.4	31.9	15.6	28.0	5.0	50.3	5.8	37.8
Max Q Clear Time (g_c+I1), s	15.7	16.2	11.2	4.1	2.0	4.0	3.0	14.2
Green Ext Time (p_c), s	0.3	2.5	0.1	0.6	0.0	0.9	0.0	2.1

Intersection Summary	
HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	35	0	0	108	0	5
Future Vol, veh/h	35	0	0	108	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	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	38	0	0	117	0	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	19
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	1061
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

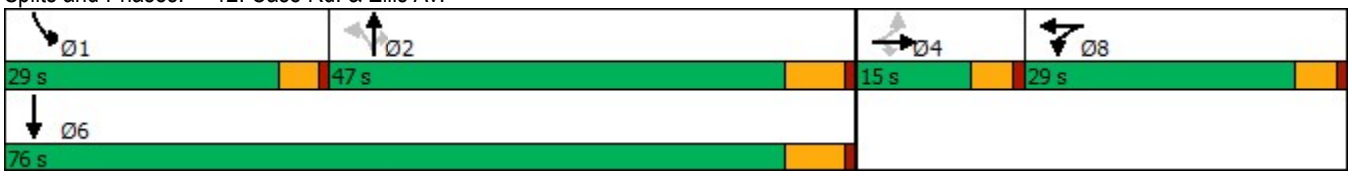
Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.4
HCM LOS			A

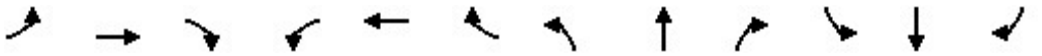
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	1061	-	-	-
HCM Lane V/C Ratio	0.005	-	-	-
HCM Control Delay (s)	8.4	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	17	23	60	48	298	100	164	232
Future Volume (vph)	17	23	60	48	298	100	164	232
Turn Type	NA	Perm	NA	Perm	NA	Perm	Prot	NA
Protected Phases	4		8		2		1	6
Permitted Phases		4		2		2		
Detector Phase	4	4	8	2	2	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	14.8	16.4	16.4	16.4	9.6	16.4
Total Split (s)	15.0	15.0	29.0	47.0	47.0	47.0	29.0	76.0
Total Split (%)	12.5%	12.5%	24.2%	39.2%	39.2%	39.2%	24.2%	63.3%
Yellow Time (s)	3.8	3.8	3.8	5.4	5.4	5.4	3.6	5.4
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
Total Lost Time (s)	4.8	4.8	4.8		6.4	6.4	4.6	6.4
Lead/Lag				Lag	Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	Min	Min	Min	None	Min
Act Effct Green (s)	11.4	11.4	16.7		24.3	24.3	13.6	43.2
Actuated g/C Ratio	0.14	0.14	0.21		0.30	0.30	0.17	0.54
v/c Ratio	0.07	0.08	0.64		0.73	0.20	0.59	0.25
Control Delay	44.6	0.5	36.1		36.3	7.6	44.4	11.9
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	44.6	0.5	36.1		36.3	7.6	44.4	11.9
LOS	D	A	D		D	A	D	B
Approach Delay	19.1		36.1		29.9			25.3
Approach LOS	B		D		C			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 79.9	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 29.2	Intersection LOS: C
Intersection Capacity Utilization 65.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Case Rd. & Ellis Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	17	23	42	60	130	48	298	100	164	232	0
Future Volume (veh/h)	0	17	23	42	60	130	48	298	100	164	232	0
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	0	19	25	47	67	144	53	331	0	182	258	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	155	163	138	60	86	184	109	429		230	883	0
Arrive On Green	0.00	0.09	0.09	0.19	0.19	0.19	0.26	0.26	0.00	0.13	0.46	0.00
Sat Flow, veh/h	1810	1900	1610	312	445	956	164	1626	1610	1810	1900	0
Grp Volume(v), veh/h	0	19	25	258	0	0	384	0	0	182	258	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1712	0	0	1790	0	1610	1810	1900	0
Q Serve(g_s), s	0.0	0.6	0.9	8.9	0.0	0.0	7.2	0.0	0.0	6.1	5.2	0.0
Cycle Q Clear(g_c), s	0.0	0.6	0.9	8.9	0.0	0.0	12.4	0.0	0.0	6.1	5.2	0.0
Prop In Lane	1.00		1.00	0.18		0.56	0.14		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	155	163	138	329	0	0	538	0		230	883	0
V/C Ratio(X)	0.00	0.12	0.18	0.78	0.00	0.00	0.71	0.00		0.79	0.29	0.00
Avail Cap(c_a), veh/h	297	312	264	666	0	0	1215	0		710	2126	0
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)	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	26.3	26.4	23.9	0.0	0.0	21.3	0.0	0.0	26.3	10.3	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.6	4.1	0.0	0.0	1.8	0.0	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	0.0	0.3	0.3	3.7	0.0	0.0	4.5	0.0	0.0	2.4	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	26.6	27.0	28.0	0.0	0.0	23.1	0.0	0.0	28.7	10.5	0.0
LnGrp LOS	A	C	C	C	A	A	C	A		C	B	A
Approach Vol, veh/h		44			258			384	A		440	
Approach Delay, s/veh		26.8			28.0			23.1			18.0	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.5	22.8		10.1		35.3		16.8				
Change Period (Y+Rc), s	4.6	6.4		* 4.8		6.4		4.8				
Max Green Setting (Gmax), s	24.4	40.6		* 10		69.6		24.2				
Max Q Clear Time (g_c+I1), s	8.1	14.4		2.9		7.2		10.9				
Green Ext Time (p_c), s	0.2	2.0		0.0		1.3		1.2				

Intersection Summary			
HCM 6th Ctrl Delay		22.4	
HCM 6th LOS		C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

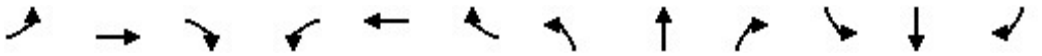
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	336	4	285	195	717	1038	212
Future Volume (vph)	336	4	285	195	717	1038	212
Turn Type	Split	NA	Prot	Prot	NA	NA	Perm
Protected Phases	8	8	8	5	2	6	
Permitted Phases							6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	9.5	11.0	31.0	31.0
Total Split (s)	47.0	47.0	47.0	24.0	73.0	49.0	49.0
Total Split (%)	39.2%	39.2%	39.2%	20.0%	60.8%	40.8%	40.8%
Yellow Time (s)	5.0	5.0	5.0	3.5	5.0	5.0	5.0
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)	6.0	6.0	6.0	4.5	6.0	6.0	6.0
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	Min	Min
Act Effct Green (s)	17.4	17.4	17.4	10.5	40.6	25.3	25.3
Actuated g/C Ratio	0.25	0.25	0.25	0.15	0.58	0.36	0.36
v/c Ratio	0.57	0.58	0.44	0.42	0.39	0.50	0.33
Control Delay	30.7	27.7	10.9	32.9	9.2	18.9	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.7	27.7	10.9	32.9	9.3	18.9	4.1
LOS	C	C	B	C	A	B	A
Approach Delay		23.5			14.3	16.4	
Approach LOS		C			B	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 70.6	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 17.3	Intersection LOS: B
Intersection Capacity Utilization 46.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 13: Redlands Av & I-215 NB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	336	4	285	195	717	0	0	1038	212
Future Volume (veh/h)	0	0	0	336	4	285	195	717	0	0	1038	212
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	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				428	0	105	219	806	0	0	1166	147
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				669	0	298	370	2089	0	0	2514	619
Arrive On Green				0.18	0.00	0.18	0.11	0.58	0.00	0.00	0.38	0.38
Sat Flow, veh/h				3619	0	1610	3510	3705	0	0	6802	1610
Grp Volume(v), veh/h				428	0	105	219	806	0	0	1166	147
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1805	0	0	1634	1610
Q Serve(g_s), s				5.6	0.0	2.9	3.0	6.2	0.0	0.0	6.8	3.1
Cycle Q Clear(g_c), s				5.6	0.0	2.9	3.0	6.2	0.0	0.0	6.8	3.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				669	0	298	370	2089	0	0	2514	619
V/C Ratio(X)				0.64	0.00	0.35	0.59	0.39	0.00	0.00	0.46	0.24
Avail Cap(c_a), veh/h				2921	0	1300	1347	4761	0	0	5532	1363
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	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				19.1	0.0	18.0	21.7	5.8	0.0	0.0	11.7	10.6
Incr Delay (d2), s/veh				1.0	0.0	0.7	1.5	0.1	0.0	0.0	0.1	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				2.0	0.0	1.0	1.2	1.5	0.0	0.0	2.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.2	0.0	18.8	23.2	5.9	0.0	0.0	11.8	10.8
LnGrp LOS				C	A	B	C	A	A	A	B	B
Approach Vol, veh/h					533			1025			1313	
Approach Delay, s/veh					19.9			9.6			11.7	
Approach LOS					B			A			B	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	35.4		9.9	25.5		15.4						
Change Period (Y+Rc), s	6.0		4.5	6.0		6.0						
Max Green Setting (Gmax), s	67.0		19.5	43.0		41.0						
Max Q Clear Time (g_c+I1), s	8.2		5.0	8.8		7.6						
Green Ext Time (p_c), s	6.6		0.6	10.8		1.8						

Intersection Summary		
HCM 6th Ctrl Delay	12.5	
HCM 6th LOS	B	

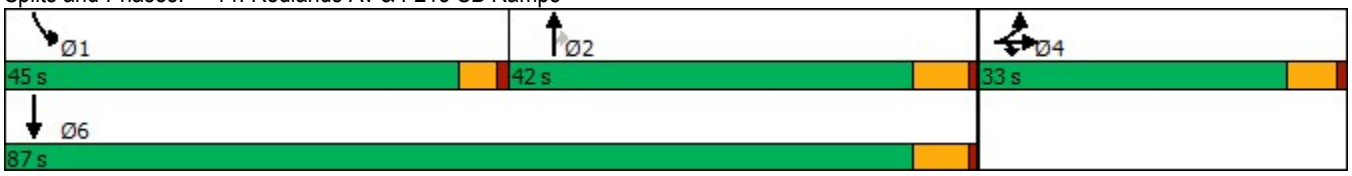
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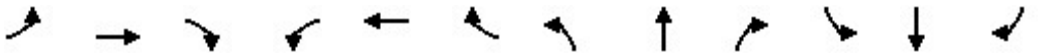
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	140	0	206	772	313	456	918
Future Volume (vph)	140	0	206	772	313	456	918
Turn Type	Split	NA	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	4	2		1	6
Permitted Phases					2		
Detector Phase	4	4	4	2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	10.5	10.5	11.0	11.0	9.5	33.0
Total Split (s)	33.0	33.0	33.0	42.0	42.0	45.0	87.0
Total Split (%)	27.5%	27.5%	27.5%	35.0%	35.0%	37.5%	72.5%
Yellow Time (s)	4.5	4.5	4.5	5.0	5.0	3.5	5.0
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)	5.5	5.5	5.5	6.0	6.0	4.5	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None	None	Min	Min	None	Min
Act Effct Green (s)	11.0	11.0	11.0	19.1	19.1	15.2	39.0
Actuated g/C Ratio	0.18	0.18	0.18	0.31	0.31	0.25	0.63
v/c Ratio	0.43	0.36	0.33	0.42	0.31	0.58	0.44
Control Delay	29.9	11.7	8.5	18.2	3.2	24.8	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.9	11.7	8.5	18.2	3.2	24.8	6.7
LOS	C	B	A	B	A	C	A
Approach Delay		17.0		13.9			12.7
Approach LOS		B		B			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 61.9	
Natural Cycle: 45	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 13.7	Intersection LOS: B
Intersection Capacity Utilization 46.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Redlands Av & I-215 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	0	206	0	0	0	0	772	313	456	918	0
Future Volume (veh/h)	140	0	206	0	0	0	0	772	313	456	918	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	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	197	0	91				0	848	295	501	1009	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	411	0	183				0	2095	908	754	2289	0
Arrive On Green	0.11	0.00	0.11				0.00	0.32	0.32	0.21	0.63	0.00
Sat Flow, veh/h	3619	0	1610				0	6802	2834	3510	3705	0
Grp Volume(v), veh/h	197	0	91				0	848	295	501	1009	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1417	1755	1805	0
Q Serve(g_s), s	2.3	0.0	2.4				0.0	4.6	3.6	6.0	6.5	0.0
Cycle Q Clear(g_c), s	2.3	0.0	2.4				0.0	4.6	3.6	6.0	6.5	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	411	0	183				0	2095	908	754	2289	0
V/C Ratio(X)	0.48	0.00	0.50				0.00	0.40	0.32	0.66	0.44	0.00
Avail Cap(c_a), veh/h	2184	0	972				0	5163	2239	3120	6417	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)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.9	0.0	19.0				0.0	12.1	11.7	16.4	4.2	0.0
Incr Delay (d2), s/veh	0.9	0.0	2.1				0.0	0.1	0.2	1.0	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	0.8	0.0	0.8				0.0	1.4	0.9	2.1	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.8	0.0	21.1				0.0	12.2	11.9	17.4	4.4	0.0
LnGrp LOS	B	A	C				A	B	B	B	A	A
Approach Vol, veh/h		288						1143			1510	
Approach Delay, s/veh		20.2						12.1			8.7	
Approach LOS		C						B			A	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.3	20.6		10.7		34.9						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	40.5	36.0		27.5		81.0						
Max Q Clear Time (g_c+I1), s	8.0	6.6		4.4		8.5						
Green Ext Time (p_c), s	1.9	8.0		0.9		9.2						

Intersection Summary												
HCM 6th Ctrl Delay			11.2									
HCM 6th LOS			B									

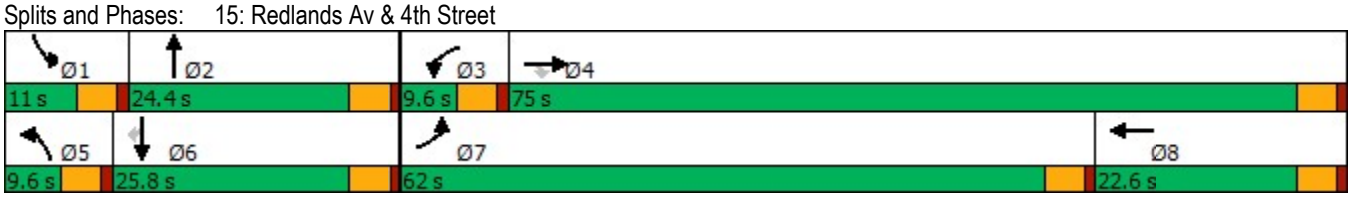
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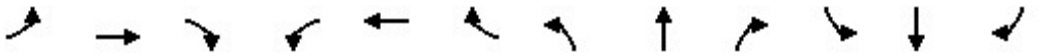
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	668	23	22	6	14	23	364	55	357	751
Future Volume (vph)	668	23	22	6	14	23	364	55	357	751
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	22.6	22.6	9.6	22.6	9.6	22.6	9.6	22.6	22.6
Total Split (s)	62.0	75.0	75.0	9.6	22.6	9.6	24.4	11.0	25.8	25.8
Total Split (%)	51.7%	62.5%	62.5%	8.0%	18.8%	8.0%	20.3%	9.2%	21.5%	21.5%
Yellow Time (s)	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
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	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min
Act Effct Green (s)	48.3	56.3	56.3	5.6	8.4	5.6	18.7	7.1	21.7	21.7
Actuated g/C Ratio	0.51	0.59	0.59	0.06	0.09	0.06	0.20	0.07	0.23	0.23
v/c Ratio	0.87	0.01	0.03	0.07	0.15	0.26	0.64	0.49	0.52	0.67
Control Delay	34.7	8.8	0.0	54.2	24.5	58.4	44.0	64.3	39.4	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	34.7	8.8	0.0	54.2	24.5	58.4	44.0	64.3	39.4	5.7
LOS	C	A	A	D	C	E	D	E	D	A
Approach Delay		32.8			28.5		44.8		18.8	
Approach LOS		C			C		D		B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 94.7	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 27.8	Intersection LOS: C
Intersection Capacity Utilization 69.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 15: Redlands Av & 4th Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	668	23	22	6	14	25	23	364	14	55	357	751
Future Volume (veh/h)	668	23	22	6	14	25	23	364	14	55	357	751
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	786	27	20	7	16	23	27	428	12	65	420	660
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	841	1826	815	16	91	81	49	781	22	84	856	672
Arrive On Green	0.47	0.51	0.51	0.01	0.05	0.05	0.03	0.22	0.22	0.05	0.24	0.24
Sat Flow, veh/h	1781	3554	1585	1781	1777	1585	1781	3531	99	1781	3554	2790
Grp Volume(v), veh/h	786	27	20	7	16	23	27	215	225	65	420	660
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1853	1781	1777	1395
Q Serve(g_s), s	36.7	0.3	0.5	0.3	0.8	1.2	1.3	9.4	9.5	3.2	9.0	20.7
Cycle Q Clear(g_c), s	36.7	0.3	0.5	0.3	0.8	1.2	1.3	9.4	9.5	3.2	9.0	20.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	841	1826	815	16	91	81	49	393	410	84	856	672
V/C Ratio(X)	0.94	0.01	0.02	0.44	0.18	0.28	0.55	0.55	0.55	0.78	0.49	0.98
Avail Cap(c_a), veh/h	1161	2841	1267	101	363	324	101	400	417	129	856	672
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	1.00
Uniform Delay (d), s/veh	22.0	10.5	10.5	43.4	40.0	40.2	42.3	30.4	30.4	41.5	28.8	33.2
Incr Delay (d2), s/veh	11.0	0.0	0.0	17.9	0.9	1.9	9.4	1.5	1.5	14.4	0.4	30.3
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	16.4	0.1	0.2	0.2	0.3	0.5	0.7	4.0	4.2	1.7	3.7	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	10.5	10.5	61.3	40.9	42.1	51.7	31.9	31.9	56.0	29.2	63.5
LnGrp LOS	C	B	B	E	D	D	D	C	C	E	C	E
Approach Vol, veh/h		833			46			467			1145	
Approach Delay, s/veh		31.7			44.6			33.0			50.5	
Approach LOS		C			D			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	24.1	5.4	49.9	7.0	25.8	46.2	9.1
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	6.4	19.8	5.0	70.4	5.0	21.2	57.4	18.0
Max Q Clear Time (g_c+I1), s	5.2	11.5	2.3	2.5	3.3	22.7	38.7	3.2
Green Ext Time (p_c), s	0.0	1.5	0.0	0.2	0.0	0.0	2.8	0.1

Intersection Summary	
HCM 6th Ctrl Delay	40.9
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	9.7
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	251	14	3	24	23	184
Future Vol, veh/h	251	14	3	24	23	184
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	285	16	3	27	26	209
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	10.6	7.4	8.8
HCM LOS	B	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	95%	0%	11%
Vol Thru, %	5%	11%	0%
Vol Right, %	0%	89%	89%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	265	27	207
LT Vol	251	0	23
Through Vol	14	3	0
RT Vol	0	24	184
Lane Flow Rate	301	31	235
Geometry Grp	1	1	1
Degree of Util (X)	0.388	0.036	0.273
Departure Headway (Hd)	4.633	4.23	4.183
Convergence, Y/N	Yes	Yes	Yes
Cap	777	844	861
Service Time	2.663	2.268	2.204
HCM Lane V/C Ratio	0.387	0.037	0.273
HCM Control Delay	10.6	7.4	8.8
HCM Lane LOS	B	A	A
HCM 95th-tile Q	1.8	0.1	1.1

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	292	5	44	441	3	36
Future Vol, veh/h	292	5	44	441	3	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	317	5	48	479	3	39

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	322	0	895	320
Stage 1	-	-	-	-	320	-
Stage 2	-	-	-	-	575	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1249	-	314	725
Stage 1	-	-	-	-	741	-
Stage 2	-	-	-	-	567	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1249	-	302	725
Mov Cap-2 Maneuver	-	-	-	-	418	-
Stage 1	-	-	-	-	741	-
Stage 2	-	-	-	-	545	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	686	-	-	1249	-
HCM Lane V/C Ratio	0.062	-	-	0.038	-
HCM Control Delay (s)	10.6	-	-	8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection	
Intersection Delay, s/veh	13
Intersection LOS	B

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	278	50	36	364	123	9
Future Vol, veh/h	278	50	36	364	123	9
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	296	53	38	387	131	10
Number of Lanes	1	1	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	11.8	14.5	11.7
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	100%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	123	9	278	50	36	364
LT Vol	123	0	0	0	36	0
Through Vol	0	0	278	0	0	364
RT Vol	0	9	0	50	0	0
Lane Flow Rate	131	10	296	53	38	387
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.252	0.015	0.443	0.069	0.062	0.571
Departure Headway (Hd)	6.929	5.714	5.39	4.684	5.81	5.306
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	522	630	660	754	610	674
Service Time	4.629	3.414	3.187	2.48	3.603	3.099
HCM Lane V/C Ratio	0.251	0.016	0.448	0.07	0.062	0.574
HCM Control Delay	11.9	8.5	12.5	7.8	9	15
HCM Lane LOS	B	A	B	A	A	B
HCM 95th-tile Q	1	0	2.3	0.2	0.2	3.6

Intersection	
Intersection Delay, s/veh	13.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	190	98	0	0	78	57	0	3	0	92	2	322
Future Vol, veh/h	190	98	0	0	78	57	0	3	0	92	2	322
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	204	105	0	0	84	61	0	3	0	99	2	346
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

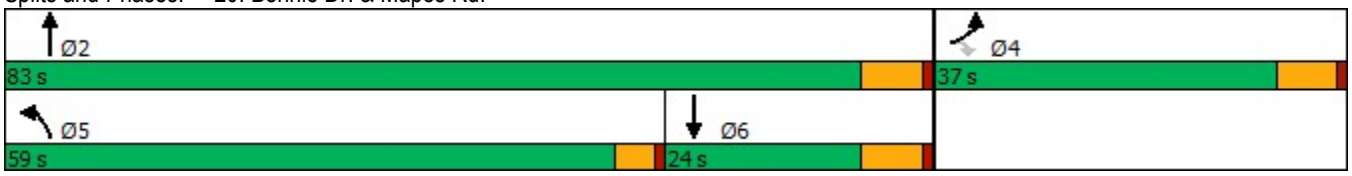
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	13	9.7	8.9	14.3
HCM LOS	B	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	66%	0%	22%
Vol Thru, %	100%	34%	58%	0%
Vol Right, %	0%	0%	42%	77%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	288	135	416
LT Vol	0	190	0	92
Through Vol	3	98	78	2
RT Vol	0	0	57	322
Lane Flow Rate	3	310	145	447
Geometry Grp	1	1	1	1
Degree of Util (X)	0.005	0.464	0.213	0.589
Departure Headway (Hd)	5.828	5.396	5.274	4.74
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	612	669	679	765
Service Time	3.879	3.429	3.313	2.74
HCM Lane V/C Ratio	0.005	0.463	0.214	0.584
HCM Control Delay	8.9	13	9.7	14.3
HCM Lane LOS	A	B	A	B
HCM 95th-tile Q	0	2.5	0.8	3.9

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	1	249	408	27	15
Future Volume (vph)	1	249	408	27	15
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)	16.5	16.5	9.6	16.5	16.5
Total Split (s)	37.0	37.0	59.0	83.0	24.0
Total Split (%)	30.8%	30.8%	49.2%	69.2%	20.0%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Min	Min
Act Effct Green (s)	10.6	10.6	20.1	34.8	10.1
Actuated g/C Ratio	0.18	0.18	0.34	0.59	0.17
v/c Ratio	0.00	0.56	0.80	0.03	0.09
Control Delay	22.0	8.1	27.8	4.9	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	8.1	27.8	4.9	18.8
LOS	C	A	C	A	B
Approach Delay	8.1			26.3	18.8
Approach LOS	A			C	B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 58.6	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 19.7	Intersection LOS: B
Intersection Capacity Utilization 48.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 20: Bonnie Dr. & Mapes Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	249	408	27	15	9
Future Volume (veh/h)	1	249	408	27	15	9
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	1	0	492	33	18	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	5		576	1287	467	0
Arrive On Green	0.00	0.00	0.32	0.68	0.25	0.00
Sat Flow, veh/h	1810	1610	1810	1900	1900	0
Grp Volume(v), veh/h	1	0	492	33	18	0
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	0
Q Serve(g_s), s	0.0	0.0	10.3	0.2	0.3	0.0
Cycle Q Clear(g_c), s	0.0	0.0	10.3	0.2	0.3	0.0
Prop In Lane	1.00	1.00	1.00			0.00
Lane Grp Cap(c), veh/h	5		576	1287	467	0
V/C Ratio(X)	0.20		0.85	0.03	0.04	0.00
Avail Cap(c_a), veh/h	1357		2421	3575	818	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.2	0.0	13.0	2.2	11.7	0.0
Incr Delay (d2), s/veh	18.5	0.0	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	0.0	0.0	2.7	0.0	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.7	0.0	14.4	2.2	11.7	0.0
LnGrp LOS	D		B	A	B	A
Approach Vol, veh/h	1	A		525	18	
Approach Delay, s/veh	38.7			13.6	11.7	
Approach LOS	D			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		34.0		6.6	17.5	16.5
Change Period (Y+Rc), s		6.5		6.5	4.6	6.5
Max Green Setting (Gmax), s		76.5		30.5	54.4	17.5
Max Q Clear Time (g_c+I1), s		2.2		2.0	12.3	2.3
Green Ext Time (p_c), s		0.1		0.0	0.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	13.6
HCM 6th LOS	B

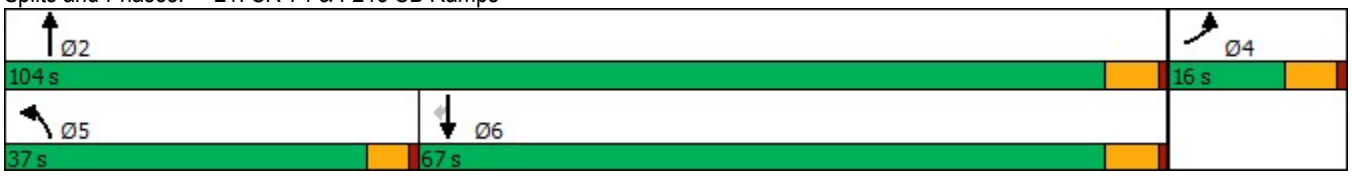
Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	59	205	349	470	676	84
Future Volume (vph)	59	205	349	470	676	84
Turn Type	Prot	Free	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		Free				6
Detector Phase	4		5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0		5.0	10.0	10.0	10.0
Minimum Split (s)	15.8		9.6	15.8	15.8	15.8
Total Split (s)	16.0		37.0	104.0	67.0	67.0
Total Split (%)	13.3%		30.8%	86.7%	55.8%	55.8%
Yellow Time (s)	4.8		3.6	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)	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	Min	Min	Min
Act Effct Green (s)	11.8	83.9	21.8	68.2	38.4	38.4
Actuated g/C Ratio	0.14	1.00	0.26	0.81	0.46	0.46
v/c Ratio	0.24	0.13	0.76	0.31	0.79	0.11
Control Delay	46.1	0.2	44.1	3.6	28.6	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.1	0.2	44.1	3.6	28.6	11.8
LOS	D	A	D	A	C	B
Approach Delay	10.4			20.8	26.7	
Approach LOS	B			C	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 83.9	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 21.8	Intersection LOS: C
Intersection Capacity Utilization 76.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 21: SR-74 & I-215 SB Ramps





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	59	205	349	470	676	84
Future Volume (veh/h)	59	205	349	470	676	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	60	0	356	480	690	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	183		409	1376	815	
Arrive On Green	0.10	0.00	0.23	0.72	0.43	0.00
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	60	0	356	480	690	0
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	2.0	0.0	12.6	6.2	21.6	0.0
Cycle Q Clear(g_c), s	2.0	0.0	12.6	6.2	21.6	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	183		409	1376	815	
V/C Ratio(X)	0.33		0.87	0.35	0.85	
Avail Cap(c_a), veh/h	278		884	2813	1753	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.7	0.0	24.7	3.4	17.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	2.3	0.2	2.5	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	0.8	0.0	5.0	1.0	8.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	28.1	0.0	27.0	3.5	19.5	0.0
LnGrp LOS	C		C	A	B	
Approach Vol, veh/h	60	A		836	690	A
Approach Delay, s/veh	28.1			13.5	19.5	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		53.8		12.5	19.6	34.2
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		98.2		10.2	32.4	61.2
Max Q Clear Time (g_c+I1), s		8.2		4.0	14.6	23.6
Green Ext Time (p_c), s		3.0		0.0	0.4	4.8

Intersection Summary		
HCM 6th Ctrl Delay		16.7
HCM 6th LOS		B

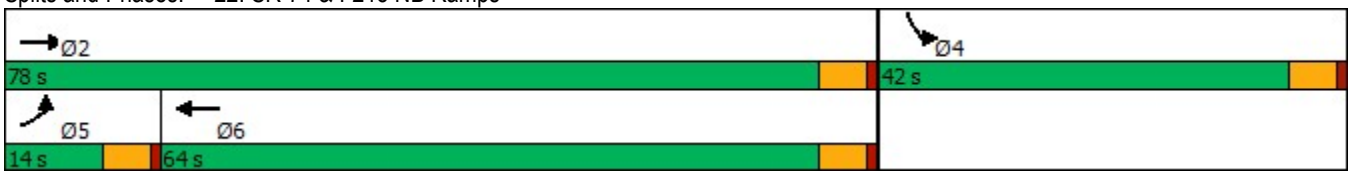
Notes

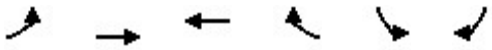
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Configurations					
Traffic Volume (vph)	40	840	758	943	187
Future Volume (vph)	40	840	758	943	187
Turn Type	Prot	NA	NA	Free	Prot
Protected Phases	5	2	6		4
Permitted Phases				Free	
Detector Phase	5	2	6		4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0		5.0
Minimum Split (s)	10.3	10.3	10.3		10.3
Total Split (s)	14.0	78.0	64.0		42.0
Total Split (%)	11.7%	65.0%	53.3%		35.0%
Yellow Time (s)	4.3	4.3	4.3		4.3
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)	5.3	5.3	5.3		5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	Min	Min		None
Act Effct Green (s)	6.3	23.0	19.2	46.8	12.4
Actuated g/C Ratio	0.13	0.49	0.41	1.00	0.26
v/c Ratio	0.17	0.48	0.52	0.60	0.53
Control Delay	24.8	8.8	13.7	1.6	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	8.8	13.7	1.6	20.3
LOS	C	A	B	A	C
Approach Delay		9.5	7.0		20.3
Approach LOS		A	A		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 46.8	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 9.0	Intersection LOS: A
Intersection Capacity Utilization 52.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 22: SR-74 & I-215 NB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	40	840	758	943	187	61
Future Volume (veh/h)	40	840	758	943	187	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	41	857	773	0	191	56
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	84	1893	1195		247	72
Arrive On Green	0.05	0.52	0.33	0.00	0.18	0.18
Sat Flow, veh/h	1810	3705	3705	1610	1356	398
Grp Volume(v), veh/h	41	857	773	0	248	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1610	1761	0
Q Serve(g_s), s	0.8	5.3	6.6	0.0	4.8	0.0
Cycle Q Clear(g_c), s	0.8	5.3	6.6	0.0	4.8	0.0
Prop In Lane	1.00			1.00	0.77	0.23
Lane Grp Cap(c), veh/h	84	1893	1195		321	0
V/C Ratio(X)	0.49	0.45	0.65		0.77	0.00
Avail Cap(c_a), veh/h	436	7266	5867		1789	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	0.00	1.00	0.00
Uniform Delay (d), s/veh	16.8	5.4	10.3	0.0	14.1	0.0
Incr Delay (d2), s/veh	1.6	0.1	0.2	0.0	1.5	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	0.3	0.7	1.6	0.0	1.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.4	5.4	10.5	0.0	15.6	0.0
LnGrp LOS	B	A	B		B	A
Approach Vol, veh/h		898	773	A	248	
Approach Delay, s/veh		6.0	10.5		15.6	
Approach LOS		A	B		B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		24.2		11.9	7.0	17.3
Change Period (Y+Rc), s		5.3		5.3	5.3	5.3
Max Green Setting (Gmax), s		72.7		36.7	8.7	58.7
Max Q Clear Time (g_c+I1), s		7.3		6.8	2.8	8.6
Green Ext Time (p_c), s		3.8		0.3	0.0	3.4

Intersection Summary	
HCM 6th Ctrl Delay	9.1
HCM 6th LOS	A

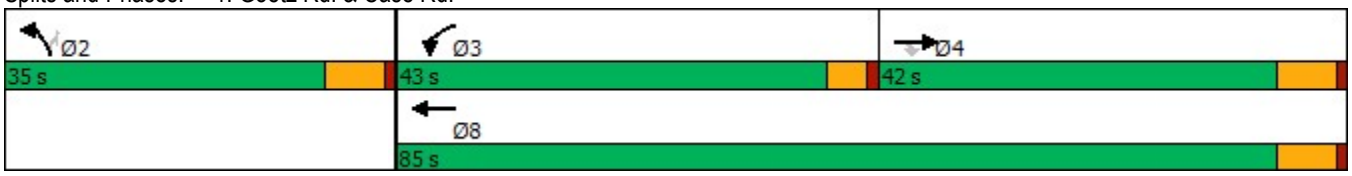
Notes

User approved volume balancing among the lanes for turning movement.
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	226	172	261	214	178	206
Future Volume (vph)	226	172	261	214	178	206
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)	34.5	34.5	9.6	16.5	16.5	16.5
Total Split (s)	42.0	42.0	43.0	85.0	35.0	35.0
Total Split (%)	35.0%	35.0%	35.8%	70.8%	29.2%	29.2%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None
Act Effct Green (s)	15.4	15.4	15.1	35.4	13.4	13.4
Actuated g/C Ratio	0.25	0.25	0.24	0.57	0.21	0.21
v/c Ratio	0.52	0.35	0.64	0.21	0.49	0.43
Control Delay	26.0	5.9	30.3	7.1	29.2	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.0	5.9	30.3	7.1	29.2	7.1
LOS	C	A	C	A	C	A
Approach Delay	17.3			19.9	17.3	
Approach LOS	B			B	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 62.6	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 18.3	Intersection LOS: B
Intersection Capacity Utilization 51.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: Goetz Rd. & Case Rd.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	226	172	261	214	178	206
Future Volume (veh/h)	226	172	261	214	178	206
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	243	158	281	230	191	113
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	413	349	350	969	381	339
Arrive On Green	0.22	0.22	0.19	0.51	0.21	0.21
Sat Flow, veh/h	1900	1606	1810	1900	1810	1610
Grp Volume(v), veh/h	243	158	281	230	191	113
Grp Sat Flow(s),veh/h/ln	1900	1606	1810	1900	1810	1610
Q Serve(g_s), s	5.3	4.0	6.9	3.1	4.3	2.8
Cycle Q Clear(g_c), s	5.3	4.0	6.9	3.1	4.3	2.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	413	349	350	969	381	339
V/C Ratio(X)	0.59	0.45	0.80	0.24	0.50	0.33
Avail Cap(c_a), veh/h	1450	1226	1494	3206	1109	987
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	16.3	15.8	17.9	6.4	16.2	15.6
Incr Delay (d2), s/veh	1.3	0.9	1.7	0.1	1.0	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	1.8	1.2	2.3	0.6	1.4	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.7	16.7	19.6	6.5	17.2	16.2
LnGrp LOS	B	B	B	A	B	B
Approach Vol, veh/h	401			511	304	
Approach Delay, s/veh	17.3			13.7	16.8	
Approach LOS	B			B	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		16.3	13.6	16.6		30.2
Change Period (Y+Rc), s		6.5	4.6	6.5		6.5
Max Green Setting (Gmax), s		28.5	38.4	35.5		78.5
Max Q Clear Time (g_c+I1), s		6.3	8.9	7.3		5.1
Green Ext Time (p_c), s		0.8	0.3	1.7		1.2

Intersection Summary	
HCM 6th Ctrl Delay	15.7
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	0	63	36	0	0	31	374	114	0	419	14
Future Vol, veh/h	10	0	63	36	0	0	31	374	114	0	419	14
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	-	-	0	150	-	-	180	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	0	67	38	0	0	33	398	121	0	446	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	719	1039	231	748	986	260	461	0	0	519	0	0
Stage 1	454	454	-	525	525	-	-	-	-	-	-	-
Stage 2	265	585	-	223	461	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	320	232	777	305	250	745	1111	-	-	1057	-	-
Stage 1	560	573	-	509	533	-	-	-	-	-	-	-
Stage 2	723	501	-	765	569	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	313	225	777	272	243	745	1111	-	-	1057	-	-
Mov Cap-2 Maneuver	418	342	-	378	351	-	-	-	-	-	-	-
Stage 1	543	573	-	494	517	-	-	-	-	-	-	-
Stage 2	702	486	-	699	569	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	15.6	0.5	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1111	-	-	418	777	378	-	-	1057	-	-
HCM Lane V/C Ratio	0.03	-	-	0.025	0.086	0.101	-	-	-	-	-
HCM Control Delay (s)	8.3	-	-	13.8	10.1	15.6	0	0	0	-	-
HCM Lane LOS	A	-	-	B	B	C	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.3	0.3	-	-	0	-	-

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	104	416	32	0	524
Future Vol, veh/h	0	104	416	32	0	524
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	-	-	-	-
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	0	113	452	35	0	570

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	244	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	763	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	763	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0
HCM LOS	B		

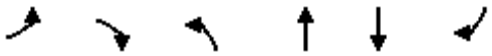
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	763	-
HCM Lane V/C Ratio	-	-	0.148	-
HCM Control Delay (s)	-	-	10.5	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.5	-

Lane Group	EBL	NBT	SBT	Ø5
Lane Configurations				
Traffic Volume (vph)	57	391	468	
Future Volume (vph)	57	391	468	
Turn Type	Prot	NA	NA	
Protected Phases	4	2	6	5
Permitted Phases				
Detector Phase	4	2	6	
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	5.0
Minimum Split (s)	14.6	16.5	27.5	9.6
Total Split (s)	44.0	76.0	66.4	9.6
Total Split (%)	36.7%	63.3%	55.3%	8%
Yellow Time (s)	3.6	5.5	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	4.6	6.5	6.5	
Lead/Lag			Lag	Lead
Lead-Lag Optimize?			Yes	Yes
Recall Mode	None	Min	Min	None
Act Effct Green (s)	10.2	20.4	20.4	
Actuated g/C Ratio	0.28	0.55	0.55	
v/c Ratio	0.24	0.21	0.26	
Control Delay	9.3	6.5	6.8	
Queue Delay	0.0	0.0	0.0	
Total Delay	9.3	6.5	6.8	
LOS	A	A	A	
Approach Delay	9.3	6.5	6.8	
Approach LOS	A	A	A	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 36.9		
Natural Cycle: 55		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.26		
Intersection Signal Delay: 7.0	Intersection LOS: A	
Intersection Capacity Utilization 30.5%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 4: Goetz Rd. & Cai Ct.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	57	57	0	391	468	0
Future Volume (veh/h)	57	57	0	391	468	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	62	62	0	425	509	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	190	190	7	1327	1327	592
Arrive On Green	0.22	0.22	0.00	0.37	0.37	0.00
Sat Flow, veh/h	846	846	1810	3705	3705	1610
Grp Volume(v), veh/h	125	0	0	425	509	0
Grp Sat Flow(s),veh/h/ln	1705	0	1810	1805	1805	1610
Q Serve(g_s), s	1.7	0.0	0.0	2.3	2.8	0.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0	2.3	2.8	0.0
Prop In Lane	0.50	0.50	1.00			1.00
Lane Grp Cap(c), veh/h	383	0	7	1327	1327	592
V/C Ratio(X)	0.33	0.00	0.00	0.32	0.38	0.00
Avail Cap(c_a), veh/h	2469	0	332	9220	7946	3544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.8	0.0	0.0	6.2	6.3	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.2	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	0.5	0.0	0.0	0.2	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.3	0.0	0.0	6.3	6.5	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	125			425	509	
Approach Delay, s/veh	9.3			6.3	6.5	
Approach LOS	A			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		16.5		10.7	0.0	16.5
Change Period (Y+Rc), s		6.5		4.6	4.6	6.5
Max Green Setting (Gmax), s		69.5		39.4	5.0	59.9
Max Q Clear Time (g_c+I1), s		4.3		3.7	0.0	4.8
Green Ext Time (p_c), s		2.6		0.4	0.0	3.1

Intersection Summary	
HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	25	26	2	410	13	503	8
Future Vol, veh/h	25	26	2	410	13	503	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	115	-	100	-	-
Veh in Median Storage, #	1	-	-	0	-	0	-
Grade, %	0	-	-	0	-	0	-
Peak Hour Factor	93	93	93	93	92	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	27	28	2	441	14	541	9

Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	799	275	550	0	441	-	0
Stage 1	574	-	-	-	-	-	-
Stage 2	225	-	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	6.4	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	2.5	-	-
Pot Cap-1 Maneuver	327	729	1030	-	763	-	-
Stage 1	532	-	-	-	-	-	-
Stage 2	797	-	-	-	-	-	-
Platoon blocked, %				-		-	-
Mov Cap-1 Maneuver	320	729	1030	-	763	-	-
Mov Cap-2 Maneuver	423	-	-	-	-	-	-
Stage 1	531	-	-	-	-	-	-
Stage 2	783	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.5	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	1030	-	538	763	-	-
HCM Lane V/C Ratio	0.002	-	0.102	0.019	-	-
HCM Control Delay (s)	8.5	-	12.5	9.8	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	0.1	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	0	6	3	0	14	10	373	0	23	495	11
Future Vol, veh/h	15	0	6	3	0	14	10	373	0	23	495	11
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	-	-	110	-	-
Veh in Median Storage, #	-	1	-	-	2	-	-	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	16	0	6	3	0	15	11	393	0	24	521	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	754	990	267	724	996	197	533	0	0	393	0	0
Stage 1	575	575	-	415	415	-	-	-	-	-	-	-
Stage 2	179	415	-	309	581	-	-	-	-	-	-	-
Critical Hdwy	6.95	6.5	6.9	6.95	6.5	7.1	4.1	-	-	5.3	-	-
Critical Hdwy Stg 1	6.5	5.5	-	7.3	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.7	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.65	4	3.3	3.65	4	3.9	2.2	-	-	3.1	-	-
Pot Cap-1 Maneuver	329	248	737	344	246	695	1045	-	-	768	-	-
Stage 1	461	506	-	521	596	-	-	-	-	-	-	-
Stage 2	773	596	-	658	503	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	312	238	737	330	236	695	1045	-	-	768	-	-
Mov Cap-2 Maneuver	382	347	-	454	403	-	-	-	-	-	-	-
Stage 1	456	490	-	515	589	-	-	-	-	-	-	-
Stage 2	749	589	-	632	487	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.6	10.8	0.2	0.4
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1045	-	-	443	635	768	-	-
HCM Lane V/C Ratio	0.01	-	-	0.05	0.028	0.032	-	-
HCM Control Delay (s)	8.5	-	-	13.6	10.8	9.8	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	18	365	6	0	511
Future Vol, veh/h	0	18	365	6	0	511
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	-	-	-	-
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	0	20	397	7	0	555

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	202	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	811	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	811	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

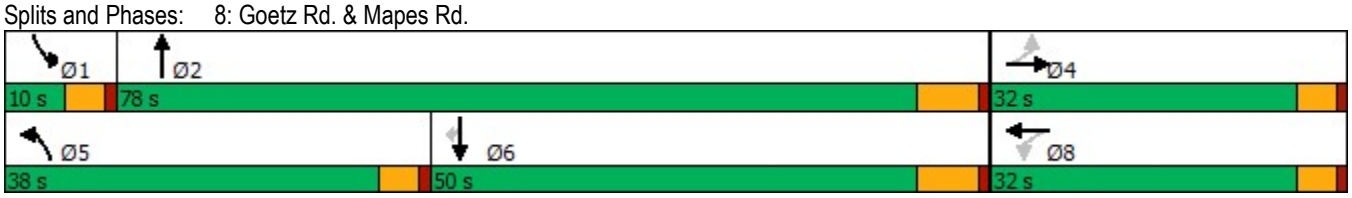
Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	0
HCM LOS	A		

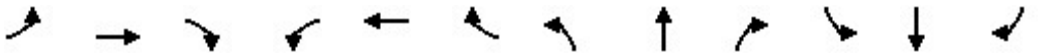
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	811	-
HCM Lane V/C Ratio	-	-	0.024	-
HCM Control Delay (s)	-	-	9.5	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	93	1	13	1	277	206	3	384	87
Future Volume (vph)	93	1	13	1	277	206	3	384	87
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA	Perm
Protected Phases		4		8	5	2	1	6	
Permitted Phases	4		8						6
Detector Phase	4	4	8	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.6	14.6	26.6	26.6	9.6	16.5	9.6	16.5	16.5
Total Split (s)	32.0	32.0	32.0	32.0	38.0	78.0	10.0	50.0	50.0
Total Split (%)	26.7%	26.7%	26.7%	26.7%	31.7%	65.0%	8.3%	41.7%	41.7%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.5	3.6	5.5	5.5
All-Red Time (s)	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
Total Lost Time (s)	4.6	4.6		4.6	4.6	6.5	4.6	6.5	6.5
Lead/Lag					Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	13.4	13.4		13.4	16.7	41.6	5.4	21.3	21.3
Actuated g/C Ratio	0.20	0.20		0.20	0.24	0.61	0.08	0.31	0.31
v/c Ratio	0.36	0.61		0.10	0.67	0.10	0.02	0.69	0.16
Control Delay	31.9	8.4		28.1	33.1	6.3	40.0	28.6	5.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.9	8.4		28.1	33.1	6.3	40.0	28.6	5.3
LOS	C	A		C	C	A	D	C	A
Approach Delay		13.3		28.1		21.6		24.3	
Approach LOS		B		C		C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 68.2	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 20.0	Intersection LOS: B
Intersection Capacity Utilization 70.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: Goetz Rd. & Mapes Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	1	355	13	1	2	277	206	1	3	384	87
Future Volume (veh/h)	93	1	355	13	1	2	277	206	1	3	384	87
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	99	1	202	14	1	1	295	219	1	3	409	84
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	462	2	317	225	16	7	366	1782	8	7	542	459
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.48	0.48	0.00	0.29	0.29
Sat Flow, veh/h	1437	8	1603	454	83	36	1810	3685	17	1810	1900	1610
Grp Volume(v), veh/h	99	0	203	16	0	0	295	107	113	3	409	84
Grp Sat Flow(s),veh/h/ln	1437	0	1611	573	0	0	1810	1805	1897	1810	1900	1610
Q Serve(g_s), s	0.0	0.0	5.8	0.2	0.0	0.0	7.8	1.6	1.6	0.1	9.8	2.0
Cycle Q Clear(g_c), s	2.4	0.0	5.8	5.9	0.0	0.0	7.8	1.6	1.6	0.1	9.8	2.0
Prop In Lane	1.00		1.00	0.87		0.06	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	462	0	319	249	0	0	366	873	917	7	542	459
V/C Ratio(X)	0.21	0.00	0.64	0.06	0.00	0.00	0.81	0.12	0.12	0.41	0.76	0.18
Avail Cap(c_a), veh/h	967	0	885	686	0	0	1211	2586	2717	196	1656	1403
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	0.0	18.4	17.3	0.0	0.0	19.0	7.1	7.1	24.8	16.3	13.5
Incr Delay (d2), s/veh	0.2	0.0	2.1	0.1	0.0	0.0	1.6	0.1	0.1	12.8	2.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	2.1	0.1	0.0	0.0	2.6	0.4	0.4	0.1	3.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.3	0.0	20.5	17.4	0.0	0.0	20.6	7.1	7.1	37.6	18.4	13.6
LnGrp LOS	B	A	C	B	A	A	C	A	A	D	B	B
Approach Vol, veh/h		302			16			515			496	
Approach Delay, s/veh		19.4			17.4			14.8			17.7	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	30.6		14.5	14.7	20.7		14.5				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		4.6				
Max Green Setting (Gmax), s	5.4	71.5		27.4	33.4	43.5		27.4				
Max Q Clear Time (g_c+I1), s	2.1	3.6		7.8	9.8	11.8		7.9				
Green Ext Time (p_c), s	0.0	1.1		1.5	0.4	2.4		0.0				

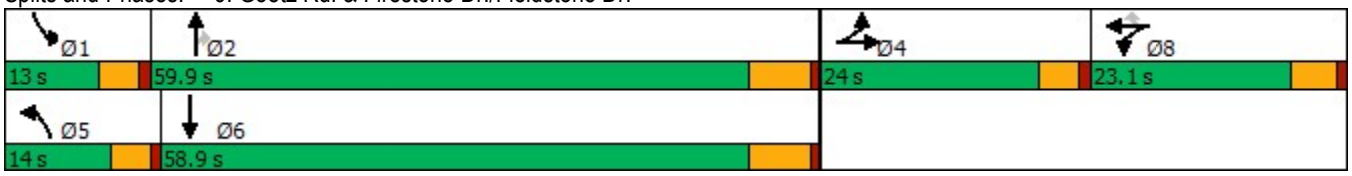
Intersection Summary												
HCM 6th Ctrl Delay			17.0									
HCM 6th LOS			B									

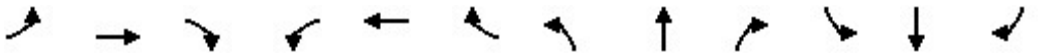
9: Goetz Rd. & Firestone Dr./Fieldstone Dr.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	36	5	2	5	10	41	438	8	34	643
Future Volume (vph)	36	5	2	5	10	41	438	8	34	643
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	8	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.6	22.6	23.1	23.1	23.1	9.6	24.5	24.5	9.6	24.5
Total Split (s)	24.0	24.0	23.1	23.1	23.1	14.0	59.9	59.9	13.0	58.9
Total Split (%)	20.0%	20.0%	19.3%	19.3%	19.3%	11.7%	49.9%	49.9%	10.8%	49.1%
Yellow Time (s)	3.6	3.6	4.1	4.1	4.1	3.6	5.5	5.5	3.6	5.5
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	4.6	5.1	5.1	5.1	4.6	6.5	6.5	4.6	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min
Act Effct Green (s)	13.3	13.3	13.3	13.3	13.3	7.3	35.4	35.4	7.0	35.2
Actuated g/C Ratio	0.24	0.24	0.24	0.24	0.24	0.13	0.63	0.63	0.13	0.63
v/c Ratio	0.09	0.10	0.00	0.01	0.02	0.18	0.38	0.01	0.16	0.23
Control Delay	28.2	14.2	30.5	29.8	0.1	34.4	16.6	0.0	35.1	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.2	14.2	30.5	29.8	0.1	34.4	16.6	0.0	35.1	12.7
LOS	C	B	C	C	A	C	B	A	D	B
Approach Delay		21.0		12.4			17.9			13.7
Approach LOS		C		B			B			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 55.8	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.38	
Intersection Signal Delay: 15.6	Intersection LOS: B
Intersection Capacity Utilization 53.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Goetz Rd. & Firestone Dr./Fieldstone Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	5	34	2	5	10	41	438	8	34	643	75
Future Volume (veh/h)	36	5	34	2	5	10	41	438	8	34	643	75
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		0.98
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	38	5	12	2	5	2	43	456	6	35	670	61
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	213	58	140	47	50	42	85	624	529	72	1553	140
Arrive On Green	0.12	0.12	0.12	0.03	0.03	0.03	0.05	0.33	0.33	0.04	0.32	0.32
Sat Flow, veh/h	1810	494	1187	1810	1900	1607	1810	1900	1610	1810	4830	436
Grp Volume(v), veh/h	38	0	17	2	5	2	43	456	6	35	478	253
Grp Sat Flow(s),veh/h/ln	1810	0	1681	1810	1900	1607	1810	1900	1610	1810	1729	1808
Q Serve(g_s), s	0.8	0.0	0.4	0.0	0.1	0.1	1.0	9.0	0.1	0.8	4.6	4.7
Cycle Q Clear(g_c), s	0.8	0.0	0.4	0.0	0.1	0.1	1.0	9.0	0.1	0.8	4.6	4.7
Prop In Lane	1.00		0.71	1.00		1.00	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	213	0	198	47	50	42	85	624	529	72	1112	582
V/C Ratio(X)	0.18	0.00	0.09	0.04	0.10	0.05	0.51	0.73	0.01	0.49	0.43	0.44
Avail Cap(c_a), veh/h	823	0	765	764	802	678	399	2379	2016	356	4249	2222
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	0.0	16.8	20.2	20.3	20.3	19.8	12.6	9.6	20.0	11.4	11.4
Incr Delay (d2), s/veh	0.4	0.0	0.2	0.4	0.9	0.5	1.7	1.7	0.0	1.9	0.3	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	0.3	0.0	0.1	0.0	0.1	0.0	0.4	2.7	0.0	0.3	1.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.3	0.0	16.9	20.6	21.2	20.7	21.6	14.3	9.7	21.9	11.7	11.9
LnGrp LOS	B	A	B	C	C	C	C	B	A	C	B	B
Approach Vol, veh/h		55			9			505			766	
Approach Delay, s/veh		17.2			20.9			14.9			12.2	
Approach LOS		B			C			B			B	

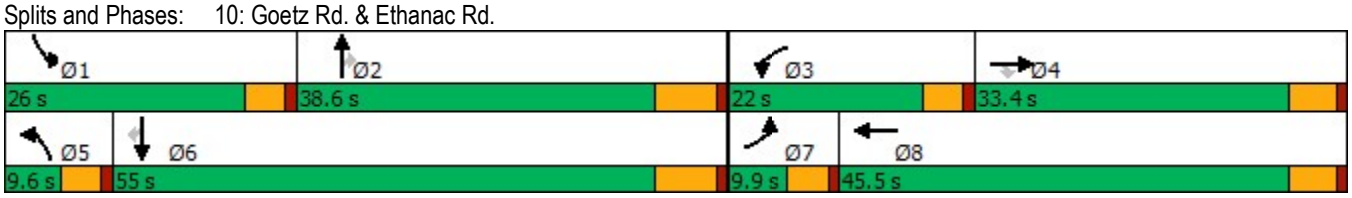
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	20.5		9.6	6.6	20.2		6.2				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		5.1				
Max Green Setting (Gmax), s	8.4	53.4		19.4	9.4	52.4		18.0				
Max Q Clear Time (g_c+I1), s	2.8	11.0		2.8	3.0	6.7		2.1				
Green Ext Time (p_c), s	0.0	2.6		0.1	0.0	4.5		0.0				

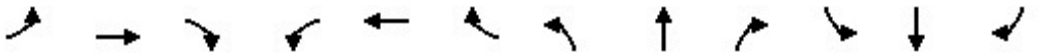
Intersection Summary			
HCM 6th Ctrl Delay		13.5	
HCM 6th LOS		B	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	15	55	5	300	79	1	166	215	361	287	31
Future Volume (vph)	15	55	5	300	79	1	166	215	361	287	31
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.4	33.4	9.6	30.4	9.6	37.5	37.5	9.6	39.5	39.5
Total Split (s)	9.9	33.4	33.4	22.0	45.5	9.6	38.6	38.6	26.0	55.0	55.0
Total Split (%)	8.3%	27.8%	27.8%	18.3%	37.9%	8.0%	32.2%	32.2%	21.7%	45.8%	45.8%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	5.5	5.5	3.6	5.5	5.5
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	5.4	5.4	4.6	5.4	4.6	6.5	6.5	4.6	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None	None
Act Effct Green (s)	5.3	12.9	12.9	17.8	33.9	5.1	15.5	15.5	21.9	40.6	40.6
Actuated g/C Ratio	0.06	0.14	0.14	0.20	0.38	0.06	0.17	0.17	0.24	0.45	0.45
v/c Ratio	0.16	0.12	0.01	0.93	0.22	0.01	0.56	0.50	0.91	0.20	0.04
Control Delay	49.3	34.6	0.0	71.2	5.4	48.0	41.0	8.4	61.4	16.3	0.1
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	49.3	34.6	0.0	71.2	5.4	48.0	41.0	8.4	61.4	16.3	0.1
LOS	D	C	A	E	A	D	D	A	E	B	A
Approach Delay		35.1			34.1		22.7			39.6	
Approach LOS		D			C		C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 89.6	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 33.8	Intersection LOS: C
Intersection Capacity Utilization 65.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: Goetz Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	55	5	300	79	307	1	166	215	361	287	31
Future Volume (veh/h)	15	55	5	300	79	307	1	166	215	361	287	31
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	61	4	333	88	254	1	184	137	401	319	21
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	36	475	212	374	1100	512	2	267	226	442	1384	616
Arrive On Green	0.02	0.13	0.13	0.21	0.32	0.32	0.00	0.14	0.14	0.24	0.38	0.38
Sat Flow, veh/h	1810	3610	1610	1810	3458	1610	1810	1900	1610	1810	3610	1608
Grp Volume(v), veh/h	17	61	4	333	88	254	1	184	137	401	319	21
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1610	1810	1900	1610	1810	1805	1608
Q Serve(g_s), s	0.7	1.1	0.2	13.6	1.4	9.7	0.0	7.0	6.1	16.4	4.5	0.6
Cycle Q Clear(g_c), s	0.7	1.1	0.2	13.6	1.4	9.7	0.0	7.0	6.1	16.4	4.5	0.6
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	36	475	212	374	1100	512	2	267	226	442	1384	616
V/C Ratio(X)	0.47	0.13	0.02	0.89	0.08	0.50	0.40	0.69	0.61	0.91	0.23	0.03
Avail Cap(c_a), veh/h	126	1329	593	414	1823	849	119	802	679	509	2302	1025
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	1.00
Uniform Delay (d), s/veh	36.9	29.2	28.8	29.3	18.1	21.0	38.0	31.1	30.7	27.9	15.9	14.7
Incr Delay (d2), s/veh	3.6	0.1	0.0	18.4	0.0	0.7	34.6	3.2	2.6	17.2	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	0.3	0.5	0.1	7.4	0.5	3.4	0.0	3.1	2.4	8.3	1.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.5	29.3	28.8	47.7	18.2	21.7	72.6	34.3	33.3	45.2	16.0	14.7
LnGrp LOS	D	C	C	D	B	C	E	C	C	D	B	B
Approach Vol, veh/h		82			675			322			741	
Approach Delay, s/veh		31.6			34.1			34.0			31.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.2	17.2	20.3	15.4	4.7	35.7	6.1	29.6
Change Period (Y+Rc), s	4.6	6.5	4.6	5.4	4.6	6.5	4.6	5.4
Max Green Setting (Gmax), s	21.4	32.1	17.4	28.0	5.0	48.5	5.3	40.1
Max Q Clear Time (g_c+I1), s	18.4	9.0	15.6	3.1	2.0	6.5	2.7	11.7
Green Ext Time (p_c), s	0.2	1.2	0.1	0.3	0.0	1.9	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	114	0	0	36	0	19
Future Vol, veh/h	114	0	0	36	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	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	124	0	0	39	0	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	62
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	996
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	996
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

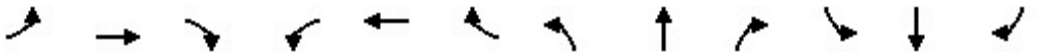
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	996	-	-	-
HCM Lane V/C Ratio	0.021	-	-	-
HCM Control Delay (s)	8.7	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	45	88	15	21	297	81	96	348
Future Volume (vph)	45	88	15	21	297	81	96	348
Turn Type	NA	Perm	NA	Perm	NA	Perm	Prot	NA
Protected Phases	4		8		2		1	6
Permitted Phases		4		2		2		
Detector Phase	4	4	8	2	2	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	14.8	16.4	16.4	16.4	9.6	16.4
Total Split (s)	15.0	15.0	37.0	47.0	47.0	47.0	21.0	68.0
Total Split (%)	12.5%	12.5%	30.8%	39.2%	39.2%	39.2%	17.5%	56.7%
Yellow Time (s)	3.8	3.8	3.8	5.4	5.4	5.4	3.6	5.4
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
Total Lost Time (s)	4.8	4.8	4.8		6.4	6.4	4.6	6.4
Lead/Lag				Lag	Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	Min	Min	Min	None	Min
Act Effct Green (s)	11.7	11.7	17.4		21.3	21.3	9.7	31.9
Actuated g/C Ratio	0.16	0.16	0.24		0.29	0.29	0.13	0.44
v/c Ratio	0.16	0.26	0.61		0.63	0.16	0.42	0.44
Control Delay	38.0	7.5	31.1		32.3	4.7	41.6	16.9
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	38.0	7.5	31.1		32.3	4.7	41.6	16.9
LOS	D	A	C		C	A	D	B
Approach Delay	17.7		31.1		26.7			22.2
Approach LOS	B		C		C			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 73.1	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.63	
Intersection Signal Delay: 25.0	Intersection LOS: C
Intersection Capacity Utilization 71.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 12: Case Rd. & Ellis Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	45	88	110	15	131	21	297	81	96	348	0
Future Volume (veh/h)	0	45	88	110	15	131	21	297	81	96	348	0
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	0	47	92	116	16	137	22	313	0	101	366	0
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	271	285	241	151	21	178	77	412		132	721	0
Arrive On Green	0.00	0.15	0.15	0.21	0.21	0.21	0.23	0.23	0.00	0.07	0.38	0.00
Sat Flow, veh/h	1810	1900	1610	736	102	869	58	1792	1610	1810	1900	0
Grp Volume(v), veh/h	0	47	92	269	0	0	335	0	0	101	366	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1707	0	0	1851	0	1610	1810	1900	0
Q Serve(g_s), s	0.0	1.3	3.1	9.0	0.0	0.0	3.1	0.0	0.0	3.3	8.9	0.0
Cycle Q Clear(g_c), s	0.0	1.3	3.1	9.0	0.0	0.0	10.1	0.0	0.0	3.3	8.9	0.0
Prop In Lane	1.00		1.00	0.43		0.51	0.07		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	271	285	241	350	0	0	490	0		132	721	0
V/C Ratio(X)	0.00	0.17	0.38	0.77	0.00	0.00	0.68	0.00		0.77	0.51	0.00
Avail Cap(c_a), veh/h	306	322	273	912	0	0	1289	0		493	1943	0
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)	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	22.3	23.1	22.6	0.0	0.0	21.7	0.0	0.0	27.4	14.4	0.0
Incr Delay (d2), s/veh	0.0	0.3	1.0	3.5	0.0	0.0	1.7	0.0	0.0	3.5	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	0.6	1.2	3.6	0.0	0.0	3.8	0.0	0.0	1.4	3.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.6	24.1	26.1	0.0	0.0	23.4	0.0	0.0	30.9	14.9	0.0
LnGrp LOS	A	C	C	C	A	A	C	A		C	B	A
Approach Vol, veh/h		139			269			335	A		467	
Approach Delay, s/veh		23.6			26.1			23.4			18.4	
Approach LOS		C			C			C			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	9.0	20.3		13.8		29.2		17.2				
Change Period (Y+Rc), s	4.6	6.4		* 4.8		6.4		4.8				
Max Green Setting (Gmax), s	16.4	40.6		* 10		61.6		32.2				
Max Q Clear Time (g_c+I1), s	5.3	12.1		5.1		10.9		11.0				
Green Ext Time (p_c), s	0.1	1.7		0.2		2.0		1.6				

Intersection Summary												
HCM 6th Ctrl Delay			22.1									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

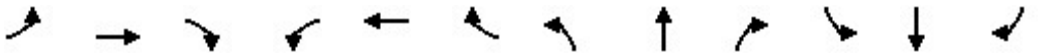
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	371	7	523	195	822	933	137
Future Volume (vph)	371	7	523	195	822	933	137
Turn Type	Split	NA	Prot	Prot	NA	NA	Perm
Protected Phases	8	8	8	5	2	6	
Permitted Phases							6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	9.5	11.0	31.0	31.0
Total Split (s)	57.0	57.0	57.0	20.0	63.0	43.0	43.0
Total Split (%)	47.5%	47.5%	47.5%	16.7%	52.5%	35.8%	35.8%
Yellow Time (s)	5.0	5.0	5.0	3.5	5.0	5.0	5.0
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)	6.0	6.0	6.0	4.5	6.0	6.0	6.0
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	Min	Min
Act Effct Green (s)	22.1	22.1	22.1	10.1	35.4	20.6	20.6
Actuated g/C Ratio	0.32	0.32	0.32	0.14	0.50	0.29	0.29
v/c Ratio	0.61	0.57	0.56	0.41	0.47	0.51	0.25
Control Delay	26.6	18.1	17.7	33.0	13.0	22.4	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.6	18.1	17.7	33.0	13.1	22.4	5.7
LOS	C	B	B	C	B	C	A
Approach Delay		20.9			16.9	20.2	
Approach LOS		C			B	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 70.1	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 19.3	Intersection LOS: B
Intersection Capacity Utilization 54.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 13: Redlands Av & I-215 NB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	371	7	523	195	822	0	0	933	137
Future Volume (veh/h)	0	0	0	371	7	523	195	822	0	0	933	137
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	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				494	0	236	201	847	0	0	962	88
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				824	0	366	344	1843	0	0	2092	515
Arrive On Green				0.23	0.00	0.23	0.10	0.52	0.00	0.00	0.33	0.33
Sat Flow, veh/h				3563	0	1585	3456	3647	0	0	6696	1585
Grp Volume(v), veh/h				494	0	236	201	847	0	0	962	88
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1609	1585
Q Serve(g_s), s				5.9	0.0	6.4	2.7	7.2	0.0	0.0	5.7	1.9
Cycle Q Clear(g_c), s				5.9	0.0	6.4	2.7	7.2	0.0	0.0	5.7	1.9
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				824	0	366	344	1843	0	0	2092	515
V/C Ratio(X)				0.60	0.00	0.64	0.58	0.46	0.00	0.00	0.46	0.17
Avail Cap(c_a), veh/h				3790	0	1686	1117	4225	0	0	4965	1223
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	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				16.5	0.0	16.6	20.6	7.3	0.0	0.0	12.8	11.6
Incr Delay (d2), s/veh				0.7	0.0	1.9	1.6	0.2	0.0	0.0	0.2	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				2.0	0.0	2.0	1.0	1.9	0.0	0.0	1.7	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				17.2	0.0	18.5	22.2	7.5	0.0	0.0	13.0	11.7
LnGrp LOS				B	A	B	C	A	A	A	B	B
Approach Vol, veh/h					730			1048			1050	
Approach Delay, s/veh					17.6			10.3			12.9	
Approach LOS					B			B			B	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		30.9			9.3	21.6		17.1				
Change Period (Y+Rc), s		6.0			4.5	6.0		6.0				
Max Green Setting (Gmax), s		57.0			15.5	37.0		51.0				
Max Q Clear Time (g_c+I1), s		9.2			4.7	7.7		8.4				
Green Ext Time (p_c), s		7.0			0.5	7.9		2.6				

Intersection Summary		
HCM 6th Ctrl Delay	13.1	
HCM 6th LOS	B	

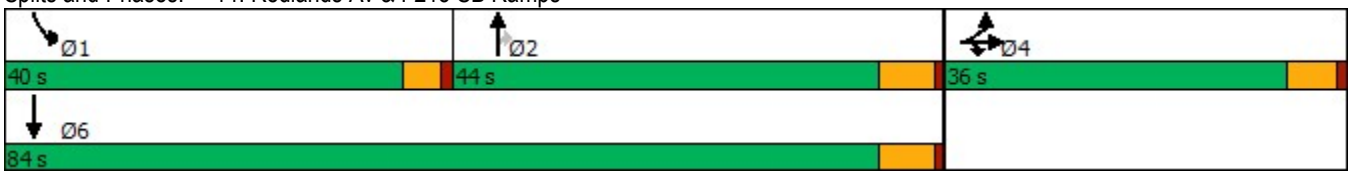
Notes

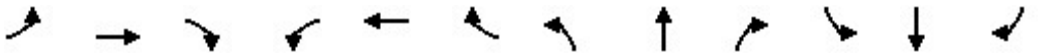
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	183	2	219	834	454	407	897
Future Volume (vph)	183	2	219	834	454	407	897
Turn Type	Split	NA	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	4	2		1	6
Permitted Phases					2		
Detector Phase	4	4	4	2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	10.5	10.5	11.0	11.0	9.5	33.0
Total Split (s)	36.0	36.0	36.0	44.0	44.0	40.0	84.0
Total Split (%)	30.0%	30.0%	30.0%	36.7%	36.7%	33.3%	70.0%
Yellow Time (s)	4.5	4.5	4.5	5.0	5.0	3.5	5.0
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)	5.5	5.5	5.5	6.0	6.0	4.5	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None	None	Min	Min	None	Min
Act Effct Green (s)	11.5	11.5	11.5	20.2	20.2	13.7	38.5
Actuated g/C Ratio	0.19	0.19	0.19	0.33	0.33	0.22	0.62
v/c Ratio	0.46	0.40	0.34	0.40	0.38	0.54	0.41
Control Delay	29.9	15.9	8.3	17.3	3.0	25.8	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.9	15.9	8.3	17.3	3.0	25.8	6.8
LOS	C	B	A	B	A	C	A
Approach Delay		18.3		12.3			12.7
Approach LOS		B		B			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 62	
Natural Cycle: 45	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 13.3	Intersection LOS: B
Intersection Capacity Utilization 54.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Redlands Av & I-215 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	2	219	0	0	0	0	834	454	407	897	0
Future Volume (veh/h)	183	2	219	0	0	0	0	834	454	407	897	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	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	217	0	68				0	842	343	411	906	0
Peak Hour Factor	0.99	0.99	0.99				0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	424	0	189				0	2150	932	645	2211	0
Arrive On Green	0.12	0.00	0.12				0.00	0.33	0.33	0.19	0.62	0.00
Sat Flow, veh/h	3563	0	1585				0	6696	2790	3456	3647	0
Grp Volume(v), veh/h	217	0	68				0	842	343	411	906	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1609	1395	1728	1777	0
Q Serve(g_s), s	2.5	0.0	1.8				0.0	4.5	4.1	4.9	5.7	0.0
Cycle Q Clear(g_c), s	2.5	0.0	1.8				0.0	4.5	4.1	4.9	5.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	424	0	189				0	2150	932	645	2211	0
V/C Ratio(X)	0.51	0.00	0.36				0.00	0.39	0.37	0.64	0.41	0.00
Avail Cap(c_a), veh/h	2446	0	1088				0	5504	2386	2762	6240	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)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.4	0.0	18.0				0.0	11.3	11.2	16.7	4.3	0.0
Incr Delay (d2), s/veh	1.0	0.0	1.2				0.0	0.1	0.2	1.0	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	0.9	0.0	0.6				0.0	1.3	1.0	1.7	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	0.0	19.2				0.0	11.4	11.5	17.7	4.4	0.0
LnGrp LOS	B	A	B				A	B	B	B	A	A
Approach Vol, veh/h		285						1185			1317	
Approach Delay, s/veh		19.3						11.5			8.5	
Approach LOS		B						B			A	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	12.8	20.8		10.8		33.6						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	35.5	38.0		30.5		78.0						
Max Q Clear Time (g_c+I1), s	6.9	6.5		4.5		7.7						
Green Ext Time (p_c), s	1.5	8.4		0.9		7.8						

Intersection Summary												
HCM 6th Ctrl Delay			10.9									
HCM 6th LOS			B									

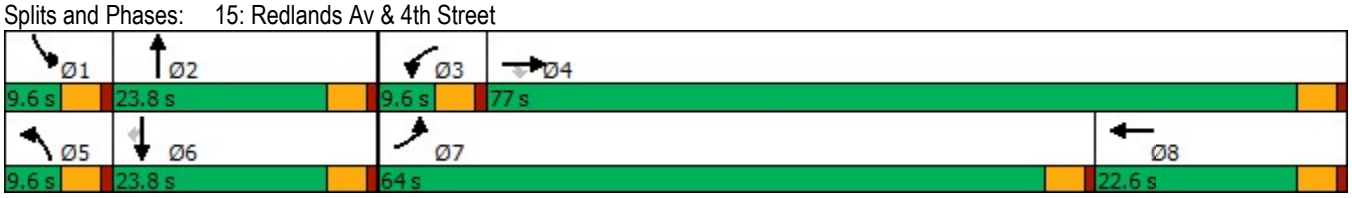
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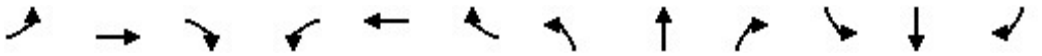
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	806	24	51	8	18	43	383	45	284	648
Future Volume (vph)	806	24	51	8	18	43	383	45	284	648
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	22.6	22.6	9.6	22.6	9.6	22.6	9.6	22.6	22.6
Total Split (s)	64.0	77.0	77.0	9.6	22.6	9.6	23.8	9.6	23.8	23.8
Total Split (%)	53.3%	64.2%	64.2%	8.0%	18.8%	8.0%	19.8%	8.0%	19.8%	19.8%
Yellow Time (s)	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
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	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min
Act Effct Green (s)	56.3	64.6	64.6	5.3	8.3	5.3	17.0	5.3	17.0	17.0
Actuated g/C Ratio	0.56	0.65	0.65	0.05	0.08	0.05	0.17	0.05	0.17	0.17
v/c Ratio	0.86	0.01	0.05	0.10	0.29	0.49	0.69	0.52	0.50	0.66
Control Delay	32.1	7.9	0.4	55.1	18.1	70.8	48.2	72.3	43.9	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	7.9	0.4	55.1	18.1	70.8	48.2	72.3	43.9	6.7
LOS	C	A	A	E	B	E	D	E	D	A
Approach Delay		29.6			21.3		50.5		20.5	
Approach LOS		C			C		D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 100	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 29.3	Intersection LOS: C
Intersection Capacity Utilization 77.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 15: Redlands Av & 4th Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	806	24	51	8	18	71	43	383	6	45	284	648
Future Volume (veh/h)	806	24	51	8	18	71	43	383	6	45	284	648
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	857	26	38	9	19	60	46	407	5	48	302	513
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	905	1978	882	20	106	94	66	722	9	67	716	562
Arrive On Green	0.51	0.56	0.56	0.01	0.06	0.06	0.04	0.20	0.20	0.04	0.20	0.20
Sat Flow, veh/h	1781	3554	1585	1781	1777	1585	1781	3595	44	1781	3554	2790
Grp Volume(v), veh/h	857	26	38	9	19	60	46	201	211	48	302	513
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1862	1781	1777	1395
Q Serve(g_s), s	43.3	0.3	1.0	0.5	1.0	3.5	2.4	9.7	9.7	2.5	7.0	17.1
Cycle Q Clear(g_c), s	43.3	0.3	1.0	0.5	1.0	3.5	2.4	9.7	9.7	2.5	7.0	17.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	905	1978	882	20	106	94	66	357	374	67	716	562
V/C Ratio(X)	0.95	0.01	0.04	0.45	0.18	0.64	0.70	0.56	0.56	0.71	0.42	0.91
Avail Cap(c_a), veh/h	1114	2709	1208	94	337	300	94	359	377	94	718	564
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	1.00
Uniform Delay (d), s/veh	22.1	9.4	9.6	46.7	42.5	43.7	45.2	34.2	34.2	45.2	33.1	37.1
Incr Delay (d2), s/veh	14.2	0.0	0.0	15.4	0.8	6.9	12.5	2.0	1.9	14.0	0.4	19.2
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	19.9	0.1	0.3	0.3	0.4	1.5	1.3	4.2	4.4	1.4	3.0	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	9.4	9.6	62.0	43.3	50.6	57.7	36.2	36.1	59.2	33.5	56.3
LnGrp LOS	D	A	A	E	D	D	E	D	D	E	C	E
Approach Vol, veh/h		921			88			458			863	
Approach Delay, s/veh		34.4			50.2			38.3			48.5	
Approach LOS		C			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	23.7	5.7	57.5	8.1	23.7	52.9	10.2
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	5.0	19.2	5.0	72.4	5.0	19.2	59.4	18.0
Max Q Clear Time (g_c+I1), s	4.5	11.7	2.5	3.0	4.4	19.1	45.3	5.5
Green Ext Time (p_c), s	0.0	1.3	0.0	0.3	0.0	0.1	3.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	225	1	6	16	3	219
Future Vol, veh/h	225	1	6	16	3	219
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	250	1	7	18	3	243
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	9.9	7.4	8.5
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	1%
Vol Thru, %	0%	27%	0%
Vol Right, %	0%	73%	99%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	226	22	222
LT Vol	225	0	3
Through Vol	1	6	0
RT Vol	0	16	219
Lane Flow Rate	251	24	247
Geometry Grp	1	1	1
Degree of Util (X)	0.325	0.029	0.272
Departure Headway (Hd)	4.664	4.271	3.977
Convergence, Y/N	Yes	Yes	Yes
Cap	776	836	905
Service Time	2.664	2.305	1.993
HCM Lane V/C Ratio	0.323	0.029	0.273
HCM Control Delay	9.9	7.4	8.5
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.4	0.1	1.1

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	541	4	39	389	10	35
Future Vol, veh/h	541	4	39	389	10	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	588	4	42	423	11	38

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	592	0	1097	590
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	507	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	994	-	238	511
Stage 1	-	-	-	-	558	-
Stage 2	-	-	-	-	609	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	994	-	228	511
Mov Cap-2 Maneuver	-	-	-	-	364	-
Stage 1	-	-	-	-	558	-
Stage 2	-	-	-	-	583	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	13.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	469	-	-	994	-
HCM Lane V/C Ratio	0.104	-	-	0.043	-
HCM Control Delay (s)	13.6	-	-	8.8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Intersection	
Intersection Delay, s/veh	17.5
Intersection LOS	C

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	458	118	24	338	89	20
Future Vol, veh/h	458	118	24	338	89	20
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	503	130	26	371	98	22
Number of Lanes	1	1	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	19.9	15.4	11.5
HCM LOS	C	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	100%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	89	20	458	118	24	338
LT Vol	89	0	0	0	24	0
Through Vol	0	0	458	0	0	338
RT Vol	0	20	0	118	0	0
Lane Flow Rate	98	22	503	130	26	371
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.202	0.038	0.756	0.169	0.045	0.58
Departure Headway (Hd)	7.422	6.202	5.407	4.7	6.123	5.618
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	484	577	674	768	586	643
Service Time	5.162	3.94	3.107	2.4	3.85	3.344
HCM Lane V/C Ratio	0.202	0.038	0.746	0.169	0.044	0.577
HCM Control Delay	12	9.2	22.9	8.4	9.1	15.8
HCM Lane LOS	B	A	C	A	A	C
HCM 95th-tile Q	0.7	0.1	6.9	0.6	0.1	3.7

Intersection	
Intersection Delay, s/veh	20.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	383	95	0	0	93	85	1	1	0	68	0	268
Future Vol, veh/h	383	95	0	0	93	85	1	1	0	68	0	268
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	426	106	0	0	103	94	1	1	0	76	0	298
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

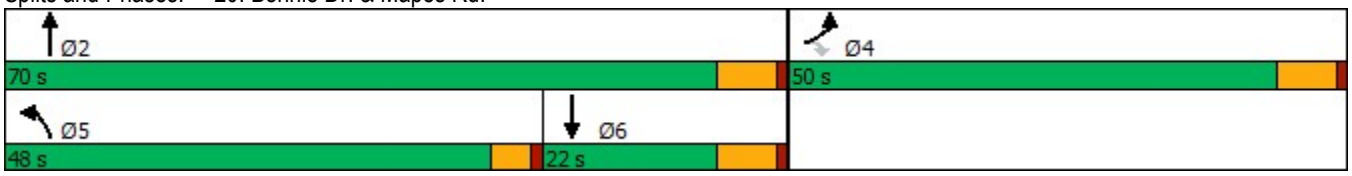
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	27.1	11	9.9	15.2
HCM LOS	D	B	A	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	50%	80%	0%	20%
Vol Thru, %	50%	20%	52%	0%
Vol Right, %	0%	0%	48%	80%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	478	178	336
LT Vol	1	383	0	68
Through Vol	1	95	93	0
RT Vol	0	0	85	268
Lane Flow Rate	2	531	198	373
Geometry Grp	1	1	1	1
Degree of Util (X)	0.004	0.804	0.303	0.56
Departure Headway (Hd)	6.774	5.451	5.521	5.404
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	524	664	649	665
Service Time	4.872	3.494	3.581	3.461
HCM Lane V/C Ratio	0.004	0.8	0.305	0.561
HCM Control Delay	9.9	27.1	11	15.2
HCM Lane LOS	A	D	B	C
HCM 95th-tile Q	0	8.2	1.3	3.5

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	4	465	330	5	9
Future Volume (vph)	4	465	330	5	9
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)	16.5	16.5	9.6	16.5	16.5
Total Split (s)	50.0	50.0	48.0	70.0	22.0
Total Split (%)	41.7%	41.7%	40.0%	58.3%	18.3%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Min	Min
Act Effct Green (s)	11.2	11.2	15.3	30.1	10.1
Actuated g/C Ratio	0.21	0.21	0.28	0.55	0.19
v/c Ratio	0.01	0.70	0.72	0.01	0.05
Control Delay	18.8	8.1	26.7	5.8	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	8.1	26.7	5.8	18.1
LOS	B	A	C	A	B
Approach Delay	8.2			26.4	18.1
Approach LOS	A			C	B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 54.5	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 15.8	Intersection LOS: B
Intersection Capacity Utilization 48.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 20: Bonnie Dr. & Mapes Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	465	330	5	9	6
Future Volume (veh/h)	4	465	330	5	9	6
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	4	0	367	6	10	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	20		454	1219	278	195
Arrive On Green	0.01	0.00	0.25	0.64	0.27	0.27
Sat Flow, veh/h	1810	1610	1810	1900	1041	728
Grp Volume(v), veh/h	4	0	367	6	0	17
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	0	1769
Q Serve(g_s), s	0.1	0.0	7.1	0.0	0.0	0.3
Cycle Q Clear(g_c), s	0.1	0.0	7.1	0.0	0.0	0.3
Prop In Lane	1.00	1.00	1.00			0.41
Lane Grp Cap(c), veh/h	20		454	1219	0	473
V/C Ratio(X)	0.20		0.81	0.00	0.00	0.04
Avail Cap(c_a), veh/h	2106		2101	3228	0	733
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	18.3	0.0	13.2	2.4	0.0	10.1
Incr Delay (d2), s/veh	5.0	0.0	1.3	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	0.1	0.0	1.9	0.0	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.3	0.0	14.5	2.4	0.0	10.2
LnGrp LOS	C		B	A	A	B
Approach Vol, veh/h	4	A		373	17	
Approach Delay, s/veh	23.3			14.3	10.2	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		30.5		6.9	14.0	16.5
Change Period (Y+Rc), s		6.5		6.5	4.6	6.5
Max Green Setting (Gmax), s		63.5		43.5	43.4	15.5
Max Q Clear Time (g_c+I1), s		2.0		2.1	9.1	2.3
Green Ext Time (p_c), s		0.0		0.0	0.5	0.0

Intersection Summary		
HCM 6th Ctrl Delay		14.2
HCM 6th LOS		B

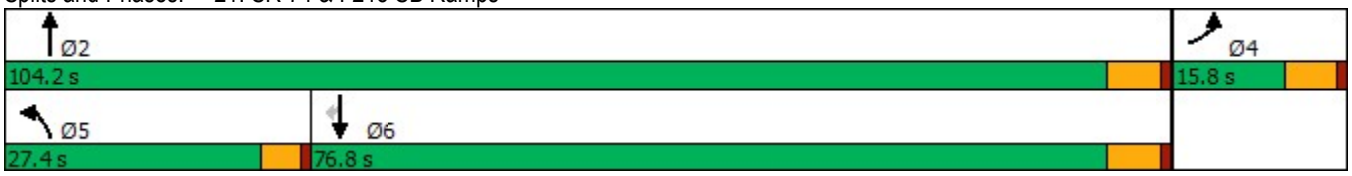
Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	115	359	282	346	906	54
Future Volume (vph)	115	359	282	346	906	54
Turn Type	Prot	Free	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		Free				6
Detector Phase	4		5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0		5.0	10.0	10.0	10.0
Minimum Split (s)	15.8		9.6	15.8	15.8	15.8
Total Split (s)	15.8		27.4	104.2	76.8	76.8
Total Split (%)	13.2%		22.8%	86.8%	64.0%	64.0%
Yellow Time (s)	4.8		3.6	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)	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	Min	Min	Min
Act Effct Green (s)	10.2	107.2	20.7	85.1	59.7	59.7
Actuated g/C Ratio	0.10	1.00	0.19	0.79	0.56	0.56
v/c Ratio	0.72	0.24	0.87	0.25	0.92	0.06
Control Delay	74.8	0.4	69.1	3.1	36.2	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.8	0.4	69.1	3.1	36.2	8.8
LOS	E	A	E	A	D	A
Approach Delay	18.4			32.7	34.6	
Approach LOS	B			C	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 107.2	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 30.3	Intersection LOS: C
Intersection Capacity Utilization 85.1%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 21: SR-74 & I-215 SB Ramps





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	115	359	282	346	906	54
Future Volume (veh/h)	115	359	282	346	906	54
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	124	0	303	372	974	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	174		336	1499	1060	
Arrive On Green	0.10	0.00	0.19	0.79	0.56	0.00
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	124	0	303	372	974	0
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	6.7	0.0	16.5	5.2	46.9	0.0
Cycle Q Clear(g_c), s	6.7	0.0	16.5	5.2	46.9	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	174		336	1499	1060	
V/C Ratio(X)	0.71		0.90	0.25	0.92	
Avail Cap(c_a), veh/h	179		409	1852	1336	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	44.3	0.0	40.2	2.8	20.2	0.0
Incr Delay (d2), s/veh	10.4	0.0	18.4	0.1	8.9	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	3.4	0.0	8.7	1.1	20.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.6	0.0	58.6	2.9	29.1	0.0
LnGrp LOS	D		E	A	C	
Approach Vol, veh/h	124	A		675	974	A
Approach Delay, s/veh	54.6			27.9	29.1	
Approach LOS	D			C	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		85.5		15.5	23.3	62.1
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		98.4		10.0	22.8	71.0
Max Q Clear Time (g_c+I1), s		7.2		8.7	18.5	48.9
Green Ext Time (p_c), s		2.2		0.0	0.2	7.4

Intersection Summary		
HCM 6th Ctrl Delay		30.4
HCM 6th LOS		C

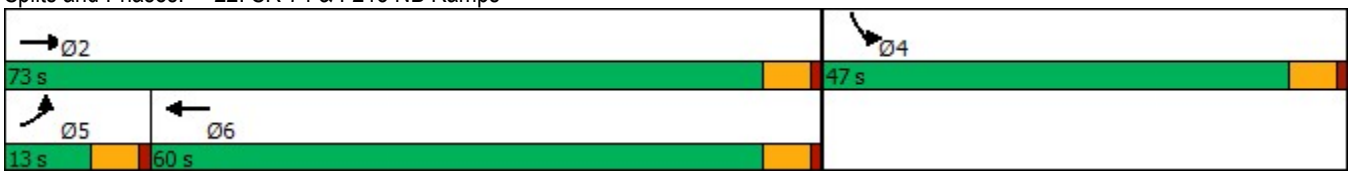
Notes

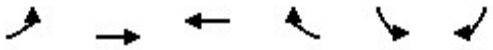
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Configurations					
Traffic Volume (vph)	58	1208	568	693	291
Future Volume (vph)	58	1208	568	693	291
Turn Type	Prot	NA	NA	Free	Prot
Protected Phases	5	2	6		4
Permitted Phases				Free	
Detector Phase	5	2	6		4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0		5.0
Minimum Split (s)	10.3	10.3	10.3		10.3
Total Split (s)	13.0	73.0	60.0		47.0
Total Split (%)	10.8%	60.8%	50.0%		39.2%
Yellow Time (s)	4.3	4.3	4.3		4.3
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)	5.3	5.3	5.3		5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	Min	Min		None
Act Effct Green (s)	6.7	28.4	21.7	57.2	17.5
Actuated g/C Ratio	0.12	0.50	0.38	1.00	0.31
v/c Ratio	0.28	0.70	0.43	0.45	0.66
Control Delay	32.1	14.0	16.7	0.9	24.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	14.0	16.7	0.9	24.7
LOS	C	B	B	A	C
Approach Delay		14.8	8.0		24.7
Approach LOS		B	A		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 57.2	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 62.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 22: SR-74 & I-215 NB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	58	1208	568	693	291	60
Future Volume (veh/h)	58	1208	568	693	291	60
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	60	1258	592	0	303	46
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	110	1769	1066		374	57
Arrive On Green	0.06	0.49	0.30	0.00	0.24	0.24
Sat Flow, veh/h	1810	3705	3705	1610	1542	234
Grp Volume(v), veh/h	60	1258	592	0	350	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1610	1781	0
Q Serve(g_s), s	1.3	10.8	5.5	0.0	7.3	0.0
Cycle Q Clear(g_c), s	1.3	10.8	5.5	0.0	7.3	0.0
Prop In Lane	1.00			1.00	0.87	0.13
Lane Grp Cap(c), veh/h	110	1769	1066		432	0
V/C Ratio(X)	0.54	0.71	0.56		0.81	0.00
Avail Cap(c_a), veh/h	352	6166	4982		1874	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	0.00	1.00	0.00
Uniform Delay (d), s/veh	18.1	7.9	11.8	0.0	14.2	0.0
Incr Delay (d2), s/veh	1.5	0.2	0.2	0.0	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	0.5	2.0	1.5	0.0	2.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.6	8.1	11.9	0.0	15.6	0.0
LnGrp LOS	B	A	B		B	A
Approach Vol, veh/h		1318	592	A	350	
Approach Delay, s/veh		8.6	11.9		15.6	
Approach LOS		A	B		B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		24.7		14.9	7.7	17.0
Change Period (Y+Rc), s		5.3		5.3	5.3	5.3
Max Green Setting (Gmax), s		67.7		41.7	7.7	54.7
Max Q Clear Time (g_c+I1), s		12.8		9.3	3.3	7.5
Green Ext Time (p_c), s		6.6		0.5	0.0	2.4

Intersection Summary		
HCM 6th Ctrl Delay	10.6	
HCM 6th LOS	B	

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 5.2: E+P (WITH PROJECT IMPROVEMENTS + IMPROVEMENTS BY OTHERS) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Volume Development - AM Peak Hour

1: Goetz Rd. & Case Rd.

	PHF:	0.845		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	272	0	285	0	0	0	0	170	132	250	187	0	1,296

2: Goetz Rd. & Ellis Av.

	PHF:	0.857		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	49	545	35	0	373	9	11	0	62	107	0	1	1,192

3: Goetz Rd. & Driveway 1

	PHF:								Count Date:			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	607	93	0	542	0	0	0	0	0	0	21	1,263

4: Goetz Rd. & Cai Ct.

	PHF:								Count Date:			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	644	0	0	491	0	57	0	57	0	0	0	1,249

5: Goetz Rd. & Malbert St.

	PHF:	0.794		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	31	652	0	38	474	30	11	0	8	0	0	0	1,244

6: Goetz Rd. & Mountain Av./Driveway 2

	PHF:	0.797		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	43	617	3	59	405	19	32	0	20	0	0	7	1,204

7: Goetz Rd. & Driveway 3

	PHF:								Count Date:			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	659	16	0	425	0	0	0	0	0	0	4	1,104

8: Goetz Rd. & Mapes Rd.

	PHF:	0.838		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	324	456	13	5	190	182	169	3	261	3	0	0	1,608

9: Goetz Rd. & Fieldstone Dr.

	PHF:	0.909		7:00am					Count Date:	11/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	19	685	5	9	431	14	77	1	39	4	0	32	1,316

10: Goetz Rd. & Ethanac Rd.

	PHF:	0.939		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	1	349	403	310	150	15	23	104	7	208	63	337	1,967

11: Driveway 4 & Ellis Av.

	PHF:								Count Date:			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	0	5	0	0	0	0	35	0	0	108	0	148

Volume Development - AM Peak Hour

12: Case Rd. & Ellis Av.

	PHF:	0.903		7:30am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	48	298	100	164	232	0	0	17	23	42	60	130	1,114

13: Redlands Av. & I-215 NB Ramps

	PHF:	0.893		7:15 AM					Count Date:		2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	195	717	0	0	1,038	212	0	0	0	336	4	285	2,788

14: Redlands Av. & I-215 SB Ramps

	PHF:	0.905		7:30 AM					Count Date:		2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	772	313	456	918	0	140	0	206	0	0	0	2,806

15: Redlands Av. & 4th St.

	PHF:	0.853		7:15 AM					Count Date:		5/23/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	23	364	14	55	357	751	668	23	22	6	14	25	2,322

16: Redlands Av. & Ellis Av.

	PHF:	0.879		7:15 AM					Count Date:		5/30/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	0	0	23	0	184	251	14	0	0	3	24	499

17: Case Rd. & Driveway 5

	PHF:								Count Date:				
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	3	0	36	0	0	0	0	292	5	44	441	0	822

18: Murrieta Rd. & Case Rd.

	PHF:	0.937		7:15am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	123	0	9	0	0	0	0	278	50	36	364	0	860

19: Case Rd. & Mapes Rd.

	PHF:	0.926		7:45am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	3	0	92	2	322	190	98	0	0	78	57	842

20: Bonnie Dr. & Mapes Rd.

	PHF:	0.827							Count Date:		11/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	408	27	0	0	15	9	1	0	249	0	0	0	708

21: I-215 SB Ramps/SR-74 & Bonnie Dr.

	PHF:	0.985		7:00am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	349	470	0	0	676	84	59	0	205	0	0	0	1,843

22: I-215 NB Ramps & SR-74

	PHF:	0.981		7:00am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	0	0	187	0	61	40	840	0	0	758	943	2,830

Volume Development - PM Peak Hour

1: Goetz Rd. & Case Rd.

PHF: 0.927 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	178	0	206	0	0	0	0	226	172	261	214	0	1,258

2: Goetz Rd. & Ellis Av.

PHF: 0.944 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	31	374	114	0	419	14	10	0	63	36	0	0	1,062

3: Goetz Rd. & Driveway 1

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	416	32	0	524	0	0	0	0	0	0	104	1,076

4: Goetz Rd. & Cai Ct.

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	396	0	0	468	0	57	0	57	0	0	0	977

5: Goetz Rd. & Malbert St.

PHF: 0.927 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	2	410	0	13	503	8	25	0	26	0	0	0	987

6: Goetz Rd. & Mountain Av./Driveway 2

PHF: 0.955 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	10	373	0	23	495	11	15	0	6	3	0	14	951

7: Goetz Rd. & Driveway 3

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	365	6	0	511	0	0	0	0	0	0	18	900

8: Goetz Rd. & Mapes Rd.

PHF: 0.942 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	277	206	1	3	384	87	93	1	355	13	1	2	1,423

9: Goetz Rd. & Fieldstone Dr.

PHF: 0.958 4:15pm Count Date: 11/15/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	41	438	8	34	643	75	36	5	34	2	5	10	1,332

10: Goetz Rd. & Ethanac Rd.

PHF: 0.898 4:15pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	1	166	215	361	287	31	15	55	5	300	79	307	1,822

11: Driveway 4 & Ellis Av.

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	0	19	0	0	0	0	114	0	0	36	0	169

Volume Development - PM Peak Hour

12: Case Rd. & Ellis Av.

	PHF:	0.951		4:30pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	21	297	81	96	348	0	0	45	88	110	15	131	1,231

13: Redlands Av. & I-215 NB Ramps

	PHF:	0.967		4:00 PM					Count Date:		2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	195	822	0	0	933	137	0	0	0	371	7	523	2,988

14: Redlands Av. & I-215 SB Ramps

	PHF:	0.989		4:00 PM					Count Date:		2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	834	454	407	897	0	183	2	219	0	0	0	2,996

15: Redlands Av. & 4th St.

	PHF:	0.944		4:15 PM					Count Date:		5/23/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	43	383	6	45	284	648	806	24	51	8	18	71	2,386

16: Redlands Av. & Ellis Av.

	PHF:	0.899		4:00 PM					Count Date:		5/30/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	0	0	3	0	219	225	1	0	0	6	16	470

17: Case Rd. & Driveway 5

	PHF:								Count Date:				
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	10	0	35	0	0	0	0	541	4	39	389	0	1,018

18: Murrieta Rd. & Case Rd.

	PHF:	0.909		5:00pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	89	0	20	0	0	0	0	458	118	24	338	0	1,046

19: Case Rd. & Mapes Rd.

	PHF:	0.901		5:00pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	1	1	0	68	0	268	383	95	0	0	93	85	995

20: Bonnie Dr. & Mapes Rd.

	PHF:	0.897							Count Date:		11/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	330	5	0	0	9	6	4	0	465	0	0	0	820

21: I-215 SB Ramps/SR-74 & Bonnie Dr.

	PHF:	0.932		4:15pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	282	346	0	0	906	54	115	0	359	0	0	0	2,062

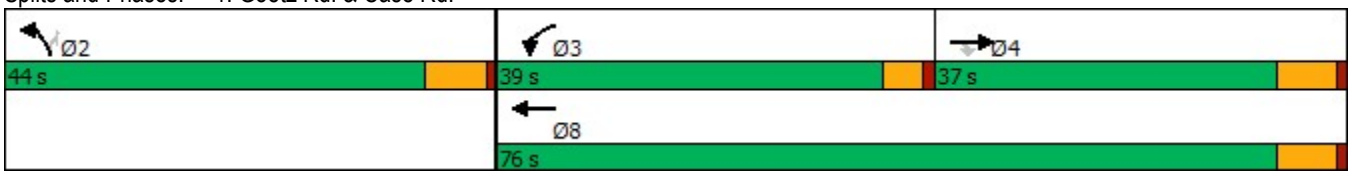
22: I-215 NB Ramps & SR-74

	PHF:	0.965		4:15pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
E+P (PCE):	0	0	0	291	0	60	58	1,208	0	0	568	693	2,878

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	170	132	250	187	272	285
Future Volume (vph)	170	132	250	187	272	285
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)	34.5	34.5	9.6	16.5	16.5	16.5
Total Split (s)	37.0	37.0	39.0	76.0	44.0	44.0
Total Split (%)	30.8%	30.8%	32.5%	63.3%	36.7%	36.7%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None
Act Effct Green (s)	15.2	15.2	17.3	37.5	19.4	19.4
Actuated g/C Ratio	0.21	0.21	0.24	0.53	0.27	0.27
v/c Ratio	0.50	0.33	0.68	0.22	0.66	0.49
Control Delay	31.6	7.4	34.8	10.0	31.7	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.6	7.4	34.8	10.0	31.7	5.8
LOS	C	A	C	B	C	A
Approach Delay	21.0			24.2	18.5	
Approach LOS	C			C	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 70.9	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 21.0	Intersection LOS: C
Intersection Capacity Utilization 52.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: Goetz Rd. & Case Rd.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	170	132	250	187	272	285
Future Volume (veh/h)	170	132	250	187	272	285
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	202	109	298	223	324	246
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	384	325	365	944	435	387
Arrive On Green	0.20	0.20	0.20	0.50	0.24	0.24
Sat Flow, veh/h	1900	1610	1810	1900	1810	1610
Grp Volume(v), veh/h	202	109	298	223	324	246
Grp Sat Flow(s),veh/h/ln	1900	1610	1810	1900	1810	1610
Q Serve(g_s), s	4.7	2.9	7.8	3.3	8.2	6.8
Cycle Q Clear(g_c), s	4.7	2.9	7.8	3.3	8.2	6.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	384	325	365	944	435	387
V/C Ratio(X)	0.53	0.33	0.82	0.24	0.74	0.64
Avail Cap(c_a), veh/h	1171	993	1258	2669	1372	1221
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	17.6	16.9	18.9	7.1	17.4	16.8
Incr Delay (d2), s/veh	1.1	0.6	1.7	0.1	2.6	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.9	2.7	0.8	2.8	2.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.7	17.5	20.6	7.2	19.9	18.6
LnGrp LOS	B	B	C	A	B	B
Approach Vol, veh/h	311			521	570	
Approach Delay, s/veh	18.3			14.9	19.4	
Approach LOS	B			B	B	

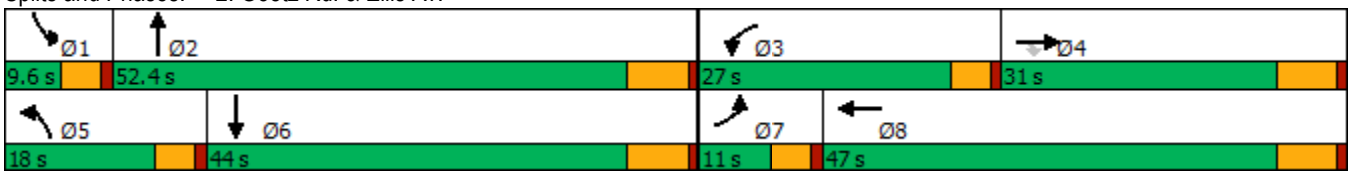
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		18.4	14.6	16.5		31.1
Change Period (Y+Rc), s		6.5	4.6	6.5		6.5
Max Green Setting (Gmax), s		37.5	34.4	30.5		69.5
Max Q Clear Time (g_c+I1), s		10.2	9.8	6.7		5.3
Green Ext Time (p_c), s		1.7	0.4	1.2		1.1

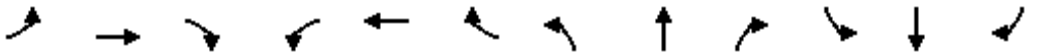
Intersection Summary	
HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBT	Ø1	Ø7
Lane Configurations									
Traffic Volume (vph)	0	62	107	0	49	545	373		
Future Volume (vph)	0	62	107	0	49	545	373		
Turn Type	NA	Perm	Prot	NA	Prot	NA	NA		
Protected Phases	4		3	8	5	2	6	1	7
Permitted Phases		4							
Detector Phase	4	4	3	8	5	2	6		
Switch Phase									
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	5.0
Minimum Split (s)	27.5	27.5	9.6	27.5	9.6	27.5	27.5	9.6	9.6
Total Split (s)	31.0	31.0	27.0	47.0	18.0	52.4	44.0	9.6	11.0
Total Split (%)	25.8%	25.8%	22.5%	39.2%	15.0%	43.7%	36.7%	8%	9%
Yellow Time (s)	5.5	5.5	3.6	5.5	3.6	5.5	5.5	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.5	6.5	4.6	6.5	4.6	6.5	6.5		
Lead/Lag	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	None
Act Effct Green (s)	0.0	21.8	7.7	30.5	7.5	32.2	25.7		
Actuated g/C Ratio	0.00	0.32	0.11	0.45	0.11	0.48	0.38		
v/c Ratio	no cap	0.11	0.31	0.00	0.28	0.40	0.32		
Control Delay		0.3	35.5	0.0	37.5	18.7	25.6		
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	Error	0.3	35.5	0.0	37.5	18.7	25.6		
LOS	F	A	D	A	D	B	C		
Approach Delay	Err			35.2		20.2	25.6		
Approach LOS	F			D		C	C		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 67.7	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: Err	Intersection LOS: F
Intersection Capacity Utilization 44.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Goetz Rd. & Ellis Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	0	62	107	0	1	49	545	35	0	373	9
Future Volume (veh/h)	11	0	62	107	0	1	49	545	35	0	373	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		0.99
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	13	0	72	124	0	1	57	634	41	0	434	10
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	276	234	304	1149	535	102	1322	85	4	820	19
Arrive On Green	0.00	0.00	0.15	0.09	0.00	0.33	0.06	0.38	0.38	0.00	0.23	0.23
Sat Flow, veh/h	0	1900	1610	3510	3458	1610	1810	3443	222	1810	3606	83
Grp Volume(v), veh/h	0	0	72	124	0	1	57	332	343	0	217	227
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1755	1729	1610	1810	1805	1860	1810	1805	1884
Q Serve(g_s), s	0.0	0.0	1.8	1.5	0.0	0.0	1.4	6.4	6.4	0.0	4.8	4.8
Cycle Q Clear(g_c), s	0.0	0.0	1.8	1.5	0.0	0.0	1.4	6.4	6.4	0.0	4.8	4.8
Prop In Lane	0.00		1.00	1.00		1.00	1.00		0.12	1.00		0.04
Lane Grp Cap(c), veh/h	0	276	234	304	1149	535	102	693	714	4	410	429
V/C Ratio(X)	0.00	0.00	0.31	0.41	0.00	0.00	0.56	0.48	0.48	0.00	0.53	0.53
Avail Cap(c_a), veh/h	0	1016	861	1716	3056	1423	529	1808	1863	197	1477	1542
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)	0.00	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	0.0	0.0	17.5	19.8	0.0	10.2	21.1	10.7	10.7	0.0	15.5	15.5
Incr Delay (d2), s/veh	0.0	0.0	0.7	0.3	0.0	0.0	1.8	0.5	0.5	0.0	1.1	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	0.0	0.0	0.6	0.5	0.0	0.0	0.5	1.7	1.7	0.0	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	18.3	20.1	0.0	10.2	22.9	11.2	11.2	0.0	16.6	16.6
LnGrp LOS	A	A	B	C	A	B	C	B	B	A	B	B
Approach Vol, veh/h		72			125			732			444	
Approach Delay, s/veh		18.3			20.1			12.1			16.6	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	24.1	8.6	13.2	7.2	16.9	0.0	21.7
Change Period (Y+Rc), s	4.6	6.5	4.6	6.5	4.6	6.5	4.6	6.5
Max Green Setting (Gmax), s	5.0	45.9	22.4	24.5	13.4	37.5	6.4	40.5
Max Q Clear Time (g_c+I1), s	0.0	8.4	3.5	3.8	3.4	6.8	0.0	2.0
Green Ext Time (p_c), s	0.0	3.7	0.2	0.1	0.0	2.2	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	14.6
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	21	607	93	0	542
Future Vol, veh/h	0	21	607	93	0	542
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	-	-	-	-
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	0	23	660	101	0	589

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	381	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	623	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	623	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	0
HCM LOS	B		

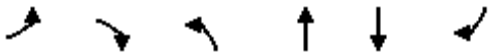
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	623	-
HCM Lane V/C Ratio	-	-	0.037	-
HCM Control Delay (s)	-	-	11	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	EBL	NBT	SBT	Ø5
Lane Configurations				
Traffic Volume (vph)	57	644	485	
Future Volume (vph)	57	644	485	
Turn Type	Prot	NA	NA	
Protected Phases	4	2	6	5
Permitted Phases				
Detector Phase	4	2	6	
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	5.0
Minimum Split (s)	14.6	16.5	27.5	9.6
Total Split (s)	43.0	77.0	67.4	9.6
Total Split (%)	35.8%	64.2%	56.2%	8%
Yellow Time (s)	3.6	5.5	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	4.6	6.5	6.5	
Lead/Lag			Lag	Lead
Lead-Lag Optimize?			Yes	Yes
Recall Mode	None	Min	Min	None
Act Effct Green (s)	10.2	22.0	22.0	
Actuated g/C Ratio	0.27	0.57	0.57	
v/c Ratio	0.25	0.34	0.25	
Control Delay	10.0	6.9	6.5	
Queue Delay	0.0	0.0	0.0	
Total Delay	10.0	6.9	6.5	
LOS	A	A	A	
Approach Delay	10.0	6.9	6.5	
Approach LOS	A	A	A	

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 38.3			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.34			
Intersection Signal Delay: 7.0		Intersection LOS: A	
Intersection Capacity Utilization 35.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 4: Goetz Rd. & Cai Ct.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	57	57	0	644	485	0
Future Volume (veh/h)	57	57	0	644	485	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	62	62	0	700	527	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	188	188	6	1384	1384	617
Arrive On Green	0.22	0.22	0.00	0.38	0.38	0.00
Sat Flow, veh/h	846	846	1810	3705	3705	1610
Grp Volume(v), veh/h	125	0	0	700	527	0
Grp Sat Flow(s),veh/h/ln	1705	0	1810	1805	1805	1610
Q Serve(g_s), s	1.7	0.0	0.0	4.2	3.0	0.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0	4.2	3.0	0.0
Prop In Lane	0.50	0.50	1.00			1.00
Lane Grp Cap(c), veh/h	378	0	6	1384	1384	617
V/C Ratio(X)	0.33	0.00	0.00	0.51	0.38	0.00
Avail Cap(c_a), veh/h	2330	0	322	9055	7822	3489
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.2	0.0	0.0	6.6	6.3	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.3	0.2	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	0.5	0.0	0.0	0.4	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.7	0.0	0.0	6.9	6.4	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	125			700	527	
Approach Delay, s/veh	9.7			6.9	6.4	
Approach LOS	A			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		17.3		10.8	0.0	17.3
Change Period (Y+Rc), s		6.5		4.6	4.6	6.5
Max Green Setting (Gmax), s		70.5		38.4	5.0	60.9
Max Q Clear Time (g_c+I1), s		6.2		3.7	0.0	5.0
Green Ext Time (p_c), s		4.6		0.4	0.0	3.3

Intersection Summary	
HCM 6th Ctrl Delay	7.0
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	11	8	31	652	38	474	30
Future Vol, veh/h	11	8	31	652	38	474	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	115	-	100	-	-
Veh in Median Storage, #	1	-	-	0	-	0	-
Grade, %	0	-	-	0	-	0	-
Peak Hour Factor	79	79	79	79	92	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	14	10	39	825	41	600	38

Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	1192	319	638	0	825	-	0
Stage 1	701	-	-	-	-	-	-
Stage 2	491	-	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	6.4	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	2.5	-	-
Pot Cap-1 Maneuver	183	683	956	-	436	-	-
Stage 1	459	-	-	-	-	-	-
Stage 2	586	-	-	-	-	-	-
Platoon blocked, %				-		-	-
Mov Cap-1 Maneuver	159	683	956	-	436	-	-
Mov Cap-2 Maneuver	284	-	-	-	-	-	-
Stage 1	440	-	-	-	-	-	-
Stage 2	531	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.2	0.4	0.9
HCM LOS	C		

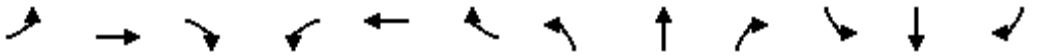
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	956	-	377	436	-	-
HCM Lane V/C Ratio	0.041	-	0.064	0.095	-	-
HCM Control Delay (s)	8.9	-	15.2	14.1	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	0.3	-	-

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	32	0	0	43	617	59	405
Future Volume (vph)	32	0	0	43	617	59	405
Turn Type	Perm	NA	NA	Prot	NA	Prot	NA
Protected Phases		4	8	5	2	1	6
Permitted Phases	4						
Detector Phase	4	4	8	5	2	1	6
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	5.0	10.0
Minimum Split (s)	27.5	27.5	27.5	9.6	27.5	9.6	27.5
Total Split (s)	34.0	34.0	34.0	20.0	64.0	22.0	66.0
Total Split (%)	28.3%	28.3%	28.3%	16.7%	53.3%	18.3%	55.0%
Yellow Time (s)	5.5	5.5	5.5	3.6	5.5	3.6	5.5
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)		6.5	6.5	4.6	6.5	4.6	6.5
Lead/Lag				Lead	Lag	Lead	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	None	Min
Act Effct Green (s)		12.7	12.7	6.9	30.0	7.4	30.4
Actuated g/C Ratio		0.26	0.26	0.14	0.61	0.15	0.62
v/c Ratio		0.15	0.01	0.21	0.35	0.27	0.24
Control Delay		6.2	0.0	27.2	12.9	26.8	11.4
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		6.2	0.0	27.2	12.9	26.8	11.4
LOS		A	A	C	B	C	B
Approach Delay		6.2			13.9		13.3
Approach LOS		A			B		B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 49.2	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.35	
Intersection Signal Delay: 13.2	Intersection LOS: B
Intersection Capacity Utilization 45.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Goetz Rd. & Mountain Av./Driveway 2





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	0	20	0	0	7	43	617	3	59	405	19
Future Volume (veh/h)	32	0	20	0	0	7	43	617	3	59	405	19
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	40	0	25	0	0	9	54	771	4	74	506	24
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	251	32	84	0	0	227	103	1250	6	128	1239	59
Arrive On Green	0.14	0.00	0.14	0.00	0.00	0.14	0.06	0.34	0.34	0.07	0.35	0.35
Sat Flow, veh/h	726	229	597	0	0	1610	1810	3682	19	1810	3509	166
Grp Volume(v), veh/h	65	0	0	0	0	9	54	378	397	74	260	270
Grp Sat Flow(s),veh/h/ln	1553	0	0	0	0	1610	1810	1805	1897	1810	1805	1870
Q Serve(g_s), s	0.1	0.0	0.0	0.0	0.0	0.2	1.1	6.9	6.9	1.6	4.3	4.3
Cycle Q Clear(g_c), s	1.3	0.0	0.0	0.0	0.0	0.2	1.1	6.9	6.9	1.6	4.3	4.3
Prop In Lane	0.62		0.38	0.00		1.00	1.00		0.01	1.00		0.09
Lane Grp Cap(c), veh/h	368	0	0	0	0	227	103	612	644	128	637	660
V/C Ratio(X)	0.18	0.00	0.00	0.00	0.00	0.04	0.53	0.62	0.62	0.58	0.41	0.41
Avail Cap(c_a), veh/h	1204	0	0	0	0	1130	711	2648	2782	803	2740	2839
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	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	0.0	0.0	0.0	0.0	14.5	18.0	10.8	10.8	17.7	9.6	9.6
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.0	0.0	0.1	1.6	1.0	1.0	1.5	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	0.4	0.0	0.0	0.0	0.0	0.1	0.4	1.7	1.8	0.5	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.2	0.0	0.0	0.0	0.0	14.6	19.5	11.8	11.8	19.2	10.0	10.0
LnGrp LOS	B	A	A	A	A	B	B	B	B	B	A	A
Approach Vol, veh/h		65			9			829			604	
Approach Delay, s/veh		15.2			14.6			12.3			11.1	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.4	19.8		12.0	6.8	20.3		12.0				
Change Period (Y+Rc), s	4.6	6.5		6.5	4.6	6.5		6.5				
Max Green Setting (Gmax), s	17.4	57.5		27.5	15.4	59.5		27.5				
Max Q Clear Time (g_c+I1), s	3.6	8.9		3.3	3.1	6.3		2.2				
Green Ext Time (p_c), s	0.1	4.4		0.3	0.0	2.8		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		12.0	
HCM 6th LOS		B	

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	659	16	0	425
Future Vol, veh/h	0	4	659	16	0	425
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	-	-	-	-
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	0	4	716	17	0	462

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	367	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	636	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	636	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

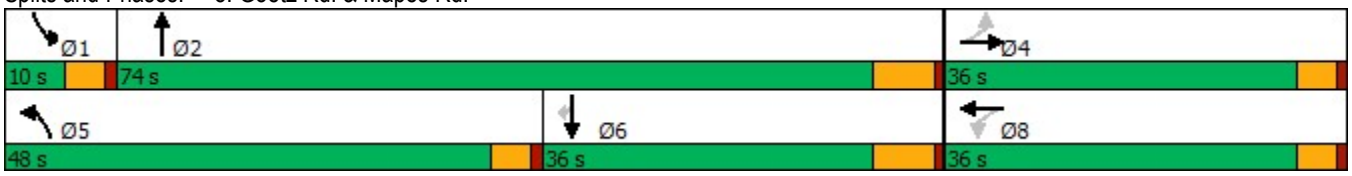
Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0
HCM LOS	B		

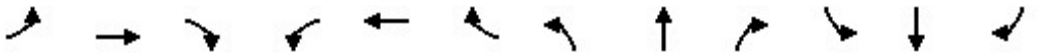
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	636	-
HCM Lane V/C Ratio	-	-	0.007	-
HCM Control Delay (s)	-	-	10.7	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	169	3	3	0	324	456	5	190	182
Future Volume (vph)	169	3	3	0	324	456	5	190	182
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA	Perm
Protected Phases		4		8	5	2	1	6	
Permitted Phases	4		8						6
Detector Phase	4	4	8	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.6	14.6	26.6	26.6	9.6	16.5	9.6	16.5	16.5
Total Split (s)	36.0	36.0	36.0	36.0	48.0	74.0	10.0	36.0	36.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	40.0%	61.7%	8.3%	30.0%	30.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.5	3.6	5.5	5.5
All-Red Time (s)	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
Total Lost Time (s)	4.6	4.6		4.6	4.6	6.5	4.6	6.5	6.5
Lead/Lag					Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	17.6	17.6		17.6	21.0	40.1	5.5	15.5	15.5
Actuated g/C Ratio	0.25	0.25		0.25	0.30	0.56	0.08	0.22	0.22
v/c Ratio	0.57	0.50		0.03	0.73	0.27	0.04	0.55	0.42
Control Delay	32.8	6.6		25.3	32.6	9.4	42.0	33.3	7.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	6.6		25.3	32.6	9.4	42.0	33.3	7.4
LOS	C	A		C	C	A	D	C	A
Approach Delay		16.8		25.3		18.9		20.9	
Approach LOS		B		C		B		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 71	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 18.8	Intersection LOS: B
Intersection Capacity Utilization 57.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 8: Goetz Rd. & Mapes Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	3	261	3	0	0	324	456	13	5	190	182
Future Volume (veh/h)	169	3	261	3	0	0	324	456	13	5	190	182
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	201	4	143	4	0	0	386	543	15	6	226	192
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	480	9	326	312	0	0	460	1635	45	14	398	337
Arrive On Green	0.21	0.21	0.21	0.21	0.00	0.00	0.25	0.46	0.46	0.01	0.21	0.21
Sat Flow, veh/h	1440	44	1573	779	0	0	1810	3588	99	1810	1900	1610
Grp Volume(v), veh/h	201	0	147	4	0	0	386	273	285	6	226	192
Grp Sat Flow(s),veh/h/ln	1440	0	1617	779	0	0	1810	1805	1882	1810	1900	1610
Q Serve(g_s), s	1.1	0.0	3.8	0.1	0.0	0.0	9.7	4.6	4.6	0.2	5.1	5.1
Cycle Q Clear(g_c), s	5.0	0.0	3.8	3.9	0.0	0.0	9.7	4.6	4.6	0.2	5.1	5.1
Prop In Lane	1.00		0.97	1.00		0.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	480	0	335	312	0	0	460	823	858	14	398	337
V/C Ratio(X)	0.42	0.00	0.44	0.01	0.00	0.00	0.84	0.33	0.33	0.41	0.57	0.57
Avail Cap(c_a), veh/h	1128	0	1063	880	0	0	1645	2552	2661	205	1174	995
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.9	0.0	16.5	18.2	0.0	0.0	16.9	8.3	8.3	23.6	16.9	16.9
Incr Delay (d2), s/veh	0.6	0.0	0.9	0.0	0.0	0.0	1.6	0.2	0.2	6.9	1.3	1.5
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	1.9	0.0	1.4	0.0	0.0	0.0	3.1	1.1	1.1	0.1	1.8	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.5	0.0	17.4	18.2	0.0	0.0	18.5	8.6	8.6	30.4	18.2	18.5
LnGrp LOS	B	A	B	B	A	A	B	A	A	C	B	B
Approach Vol, veh/h		348			4			944			424	
Approach Delay, s/veh		17.4			18.2			12.6			18.5	
Approach LOS		B			B			B			B	

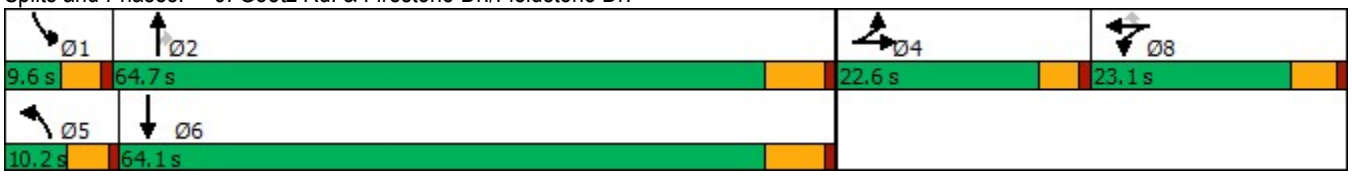
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	28.3		14.5	16.7	16.5		14.5				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		4.6				
Max Green Setting (Gmax), s	5.4	67.5		31.4	43.4	29.5		31.4				
Max Q Clear Time (g_c+I1), s	2.2	6.6		7.0	11.7	7.1		5.9				
Green Ext Time (p_c), s	0.0	3.0		1.5	0.5	1.6		0.0				

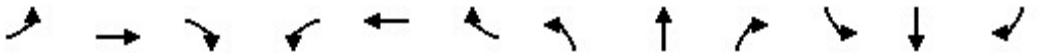
Intersection Summary		
HCM 6th Ctrl Delay		15.1
HCM 6th LOS		B

Lane Group	EBL	EBT	WBL	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	77	1	4	32	19	685	5	9	431
Future Volume (vph)	77	1	4	32	19	685	5	9	431
Turn Type	Split	NA	Split	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	8		5	2		1	6
Permitted Phases				8			2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.6	22.6	23.1	23.1	9.6	24.5	24.5	9.6	24.5
Total Split (s)	22.6	22.6	23.1	23.1	10.2	64.7	64.7	9.6	64.1
Total Split (%)	18.8%	18.8%	19.3%	19.3%	8.5%	53.9%	53.9%	8.0%	53.4%
Yellow Time (s)	3.6	3.6	4.1	4.1	3.6	5.5	5.5	3.6	5.5
All-Red Time (s)	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	5.1	5.1	4.6	6.5	6.5	4.6	6.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min
Act Effct Green (s)	13.3	13.3	13.1	13.1	6.3	42.4	42.4	6.1	40.5
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.09	0.61	0.61	0.09	0.58
v/c Ratio	0.25	0.13	0.01	0.07	0.13	0.65	0.00	0.06	0.16
Control Delay	36.0	14.1	37.0	0.2	45.4	19.5	0.0	45.4	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.0	14.1	37.0	0.2	45.4	19.5	0.0	45.4	12.2
LOS	D	B	D	A	D	B	A	D	B
Approach Delay		28.6				20.0			12.9
Approach LOS		C				C			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 69.5	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 17.9	Intersection LOS: B
Intersection Capacity Utilization 66.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Goetz Rd. & Firestone Dr./Fieldstone Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	1	39	4	0	32	19	685	5	9	431	14
Future Volume (veh/h)	77	1	39	4	0	32	19	685	5	9	431	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		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	85	1	18	4	0	16	21	753	5	10	474	10
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	258	12	217	89	93	79	44	882	747	23	2365	50
Arrive On Green	0.14	0.14	0.14	0.05	0.00	0.05	0.02	0.46	0.46	0.01	0.45	0.45
Sat Flow, veh/h	1810	84	1518	1810	1900	1605	1810	1900	1610	1810	5228	110
Grp Volume(v), veh/h	85	0	19	4	0	16	21	753	5	10	313	171
Grp Sat Flow(s),veh/h/ln	1810	0	1603	1810	1900	1605	1810	1900	1610	1810	1729	1880
Q Serve(g_s), s	2.7	0.0	0.6	0.1	0.0	0.6	0.7	22.1	0.1	0.3	3.4	3.4
Cycle Q Clear(g_c), s	2.7	0.0	0.6	0.1	0.0	0.6	0.7	22.1	0.1	0.3	3.4	3.4
Prop In Lane	1.00		0.95	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	258	0	229	89	93	79	44	882	747	23	1564	850
V/C Ratio(X)	0.33	0.00	0.08	0.05	0.00	0.20	0.48	0.85	0.01	0.43	0.20	0.20
Avail Cap(c_a), veh/h	519	0	460	519	545	461	162	1763	1494	144	3175	1726
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	24.2	0.0	23.3	28.4	0.0	28.7	30.2	14.9	9.0	30.7	10.3	10.3
Incr Delay (d2), s/veh	0.7	0.0	0.2	0.2	0.0	1.3	2.9	2.5	0.0	4.7	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.2	0.1	0.0	0.2	0.3	7.3	0.0	0.2	1.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.9	0.0	23.5	28.6	0.0	29.9	33.1	17.4	9.0	35.4	10.4	10.5
LnGrp LOS	C	A	C	C	A	C	C	B	A	D	B	B
Approach Vol, veh/h		104			20			779			494	
Approach Delay, s/veh		24.7			29.7			17.8			10.9	
Approach LOS		C			C			B			B	

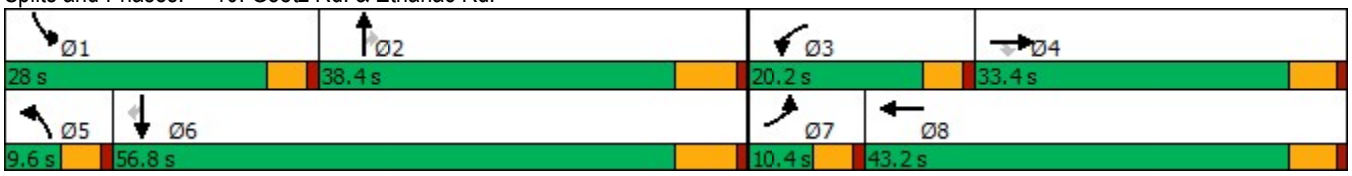
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	35.6		13.5	6.1	34.9		8.2				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		5.1				
Max Green Setting (Gmax), s	5.0	58.2		18.0	5.6	57.6		18.0				
Max Q Clear Time (g_c+I1), s	2.3	24.1		4.7	2.7	5.4		2.6				
Green Ext Time (p_c), s	0.0	5.0		0.2	0.0	2.7		0.0				

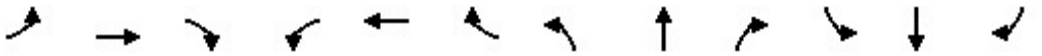
Intersection Summary			
HCM 6th Ctrl Delay		16.0	
HCM 6th LOS		B	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	23	104	7	208	63	1	349	403	310	150	15
Future Volume (vph)	23	104	7	208	63	1	349	403	310	150	15
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.4	33.4	9.6	30.4	9.6	37.5	37.5	9.6	39.5	39.5
Total Split (s)	10.4	33.4	33.4	20.2	43.2	9.6	38.4	38.4	28.0	56.8	56.8
Total Split (%)	8.7%	27.8%	27.8%	16.8%	36.0%	8.0%	32.0%	32.0%	23.3%	47.3%	47.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	5.5	5.5	3.6	5.5	5.5
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	5.4	5.4	4.6	5.4	4.6	6.5	6.5	4.6	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None	None
Act Effct Green (s)	5.5	13.1	13.1	15.4	29.5	5.1	23.9	23.9	22.2	49.2	49.2
Actuated g/C Ratio	0.06	0.14	0.14	0.16	0.31	0.05	0.25	0.25	0.23	0.51	0.51
v/c Ratio	0.23	0.23	0.02	0.77	0.26	0.01	0.79	0.74	0.79	0.09	0.02
Control Delay	54.2	39.3	0.1	59.6	6.2	51.0	47.3	23.6	51.9	13.7	0.1
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	54.2	39.3	0.1	59.6	6.2	51.0	47.3	23.6	51.9	13.7	0.1
LOS	D	D	A	E	A	D	D	C	D	B	A
Approach Delay		39.9			24.4		34.6			38.2	
Approach LOS		D			C		C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 96.1	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 32.7	Intersection LOS: C
Intersection Capacity Utilization 68.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: Goetz Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	104	7	208	63	337	1	349	403	310	150	15
Future Volume (veh/h)	23	104	7	208	63	337	1	349	403	310	150	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	24	111	5	221	67	281	1	371	264	330	160	12
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	47	477	213	263	868	404	2	462	392	374	1618	721
Arrive On Green	0.03	0.13	0.13	0.15	0.25	0.25	0.00	0.24	0.24	0.21	0.45	0.45
Sat Flow, veh/h	1810	3610	1610	1810	3458	1608	1810	1900	1610	1810	3610	1609
Grp Volume(v), veh/h	24	111	5	221	67	281	1	371	264	330	160	12
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1608	1810	1900	1610	1810	1805	1609
Q Serve(g_s), s	1.0	2.1	0.2	9.2	1.1	12.2	0.0	14.2	11.5	13.7	2.0	0.3
Cycle Q Clear(g_c), s	1.0	2.1	0.2	9.2	1.1	12.2	0.0	14.2	11.5	13.7	2.0	0.3
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	47	477	213	263	868	404	2	462	392	374	1618	721
V/C Ratio(X)	0.51	0.23	0.02	0.84	0.08	0.70	0.40	0.80	0.67	0.88	0.10	0.02
Avail Cap(c_a), veh/h	136	1309	584	365	1692	787	117	785	665	548	2351	1048
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	1.00
Uniform Delay (d), s/veh	37.1	30.0	29.2	32.1	22.1	26.2	38.5	27.5	26.5	29.7	12.3	11.8
Incr Delay (d2), s/veh	3.1	0.2	0.0	8.8	0.0	2.2	34.6	3.3	2.0	8.4	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	0.5	0.9	0.1	4.4	0.4	4.6	0.0	6.1	4.3	6.1	0.7	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	30.3	29.2	41.0	22.1	28.4	73.2	30.8	28.5	38.2	12.3	11.9
LnGrp LOS	D	C	C	D	C	C	E	C	C	D	B	B
Approach Vol, veh/h		140			569			636			502	
Approach Delay, s/veh		31.9			32.6			29.9			29.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.5	25.3	15.8	15.6	4.7	41.1	6.6	24.8
Change Period (Y+Rc), s	4.6	6.5	4.6	5.4	4.6	6.5	4.6	5.4
Max Green Setting (Gmax), s	23.4	31.9	15.6	28.0	5.0	50.3	5.8	37.8
Max Q Clear Time (g_c+I1), s	15.7	16.2	11.2	4.1	2.0	4.0	3.0	14.2
Green Ext Time (p_c), s	0.3	2.5	0.1	0.6	0.0	0.9	0.0	2.1

Intersection Summary	
HCM 6th Ctrl Delay	30.7
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	35	0	0	108	0	5
Future Vol, veh/h	35	0	0	108	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	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	38	0	0	117	0	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	19
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	1061
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	1061
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

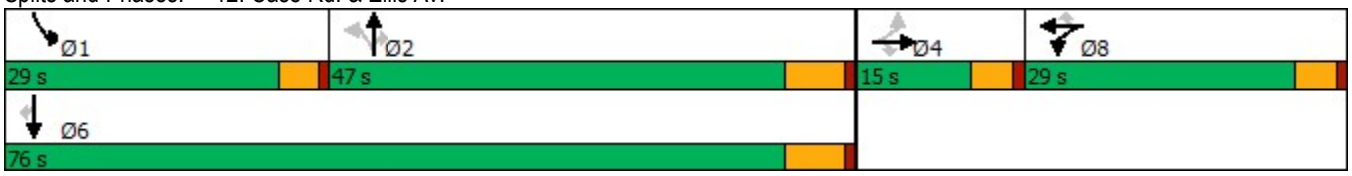
Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.4
HCM LOS			A

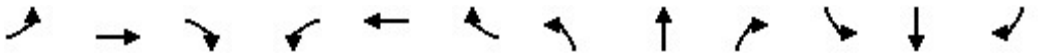
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	1061	-	-	-
HCM Lane V/C Ratio	0.005	-	-	-
HCM Control Delay (s)	8.4	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	17	23	42	60	130	48	298	100	164	232
Future Volume (vph)	17	23	42	60	130	48	298	100	164	232
Turn Type	NA	Perm	Split	NA	Perm	Perm	NA	Perm	Prot	NA
Protected Phases	4		8	8			2		1	6
Permitted Phases		4			8	2		2		
Detector Phase	4	4	8	8	8	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	14.8	14.8	14.8	16.4	16.4	16.4	9.6	16.4
Total Split (s)	15.0	15.0	29.0	29.0	29.0	47.0	47.0	47.0	29.0	76.0
Total Split (%)	12.5%	12.5%	24.2%	24.2%	24.2%	39.2%	39.2%	39.2%	24.2%	63.3%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	5.4	5.4	5.4	3.6	5.4
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)	4.8	4.8	4.8	4.8	4.8	6.4	6.4	6.4	4.6	6.4
Lead/Lag						Lag	Lag	Lag	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	Min	Min	Min	None	Min
Act Effct Green (s)	10.5	10.5	10.6	10.6	10.6	12.4	12.4	12.4	10.6	27.9
Actuated g/C Ratio	0.18	0.18	0.18	0.18	0.18	0.21	0.21	0.21	0.18	0.48
v/c Ratio	0.06	0.07	0.14	0.19	0.35	0.22	0.43	0.26	0.55	0.15
Control Delay	26.5	0.3	26.5	26.7	8.7	25.0	23.7	7.3	30.6	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.5	0.3	26.5	26.7	8.7	25.0	23.7	7.3	30.6	9.7
LOS	C	A	C	C	A	C	C	A	C	A
Approach Delay	11.4			16.6			20.1			18.4
Approach LOS	B			B			C			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 57.9	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 18.5	Intersection LOS: B
Intersection Capacity Utilization 40.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Case Rd. & Ellis Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	17	23	42	60	130	48	298	100	164	232	0
Future Volume (veh/h)	0	17	23	42	60	130	48	298	100	164	232	0
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	0	19	25	47	67	144	53	331	0	182	258	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	164	172	146	341	358	304	359	698		234	1486	
Arrive On Green	0.00	0.09	0.09	0.19	0.19	0.19	0.19	0.19	0.00	0.13	0.41	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1139	3610	1610	1810	3610	1610
Grp Volume(v), veh/h	0	19	25	47	67	144	53	331	0	182	258	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1139	1805	1610	1810	1805	1610
Q Serve(g_s), s	0.0	0.5	0.7	1.1	1.5	4.1	2.0	4.2	0.0	5.0	2.3	0.0
Cycle Q Clear(g_c), s	0.0	0.5	0.7	1.1	1.5	4.1	2.0	4.2	0.0	5.0	2.3	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	164	172	146	341	358	304	359	698		234	1486	
V/C Ratio(X)	0.00	0.11	0.17	0.14	0.19	0.47	0.15	0.47		0.78	0.17	
Avail Cap(c_a), veh/h	357	375	317	846	889	753	1033	2833		853	4856	
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)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	21.6	21.7	17.5	17.7	18.7	17.7	18.5	0.0	21.8	9.6	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.6	0.2	0.2	1.2	0.2	0.5	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	0.0	0.2	0.3	0.4	0.6	1.4	0.4	1.4	0.0	1.9	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	21.9	22.3	17.7	17.9	19.9	17.8	19.0	0.0	23.9	9.7	0.0
LnGrp LOS	A	C	C	B	B	B	B	B		C	A	
Approach Vol, veh/h		44			258			384	A		440	A
Approach Delay, s/veh		22.1			19.0			18.9			15.6	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.3	16.4		9.5		27.7		14.6				
Change Period (Y+Rc), s	4.6	6.4		* 4.8		6.4		4.8				
Max Green Setting (Gmax), s	24.4	40.6		* 10		69.6		24.2				
Max Q Clear Time (g_c+I1), s	7.0	6.2		2.7		4.3		6.1				
Green Ext Time (p_c), s	0.2	2.1		0.0		1.5		0.8				

Intersection Summary			
HCM 6th Ctrl Delay		17.7	
HCM 6th LOS		B	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

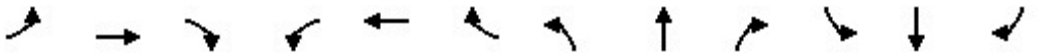
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	336	4	285	195	717	1038	212
Future Volume (vph)	336	4	285	195	717	1038	212
Turn Type	Split	NA	Prot	Prot	NA	NA	Perm
Protected Phases	8	8	8	5	2	6	
Permitted Phases							6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	9.5	11.0	31.0	31.0
Total Split (s)	47.0	47.0	47.0	24.0	73.0	49.0	49.0
Total Split (%)	39.2%	39.2%	39.2%	20.0%	60.8%	40.8%	40.8%
Yellow Time (s)	5.0	5.0	5.0	3.5	5.0	5.0	5.0
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)	6.0	6.0	6.0	4.5	6.0	6.0	6.0
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	Min	Min
Act Effct Green (s)	17.4	17.4	17.4	10.5	40.6	25.3	25.3
Actuated g/C Ratio	0.25	0.25	0.25	0.15	0.58	0.36	0.36
v/c Ratio	0.57	0.58	0.44	0.42	0.39	0.50	0.33
Control Delay	30.7	27.7	10.9	32.9	9.2	18.9	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.7	27.7	10.9	32.9	9.3	18.9	4.1
LOS	C	C	B	C	A	B	A
Approach Delay		23.5			14.3	16.4	
Approach LOS		C			B	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 70.6	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 17.3	Intersection LOS: B
Intersection Capacity Utilization 46.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 13: Redlands Av & I-215 NB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	336	4	285	195	717	0	0	1038	212
Future Volume (veh/h)	0	0	0	336	4	285	195	717	0	0	1038	212
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	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				428	0	105	219	806	0	0	1166	147
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				669	0	298	370	2089	0	0	2514	619
Arrive On Green				0.18	0.00	0.18	0.11	0.58	0.00	0.00	0.38	0.38
Sat Flow, veh/h				3619	0	1610	3510	3705	0	0	6802	1610
Grp Volume(v), veh/h				428	0	105	219	806	0	0	1166	147
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1805	0	0	1634	1610
Q Serve(g_s), s				5.6	0.0	2.9	3.0	6.2	0.0	0.0	6.8	3.1
Cycle Q Clear(g_c), s				5.6	0.0	2.9	3.0	6.2	0.0	0.0	6.8	3.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				669	0	298	370	2089	0	0	2514	619
V/C Ratio(X)				0.64	0.00	0.35	0.59	0.39	0.00	0.00	0.46	0.24
Avail Cap(c_a), veh/h				2921	0	1300	1347	4761	0	0	5532	1363
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	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				19.1	0.0	18.0	21.7	5.8	0.0	0.0	11.7	10.6
Incr Delay (d2), s/veh				1.0	0.0	0.7	1.5	0.1	0.0	0.0	0.1	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				2.0	0.0	1.0	1.2	1.5	0.0	0.0	2.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				20.2	0.0	18.8	23.2	5.9	0.0	0.0	11.8	10.8
LnGrp LOS				C	A	B	C	A	A	A	B	B
Approach Vol, veh/h					533			1025			1313	
Approach Delay, s/veh					19.9			9.6			11.7	
Approach LOS					B			A			B	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		35.4			9.9	25.5		15.4				
Change Period (Y+Rc), s		6.0			4.5	6.0		6.0				
Max Green Setting (Gmax), s		67.0			19.5	43.0		41.0				
Max Q Clear Time (g_c+I1), s		8.2			5.0	8.8		7.6				
Green Ext Time (p_c), s		6.6			0.6	10.8		1.8				

Intersection Summary		
HCM 6th Ctrl Delay	12.5	
HCM 6th LOS	B	

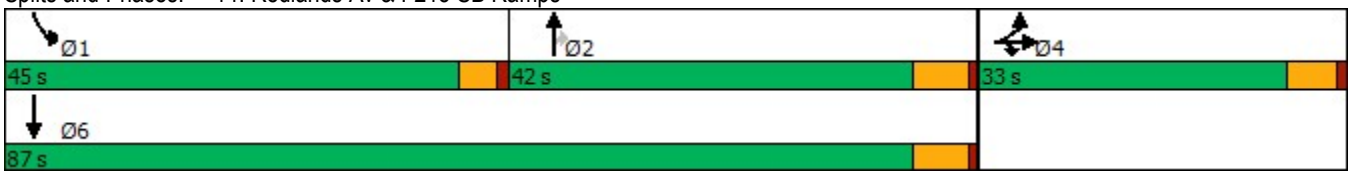
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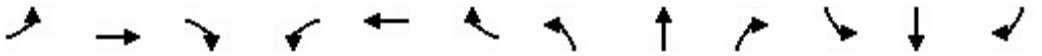
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	140	0	206	772	313	456	918
Future Volume (vph)	140	0	206	772	313	456	918
Turn Type	Split	NA	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	4	2		1	6
Permitted Phases					2		
Detector Phase	4	4	4	2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	10.5	10.5	11.0	11.0	9.5	33.0
Total Split (s)	33.0	33.0	33.0	42.0	42.0	45.0	87.0
Total Split (%)	27.5%	27.5%	27.5%	35.0%	35.0%	37.5%	72.5%
Yellow Time (s)	4.5	4.5	4.5	5.0	5.0	3.5	5.0
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)	5.5	5.5	5.5	6.0	6.0	4.5	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None	None	Min	Min	None	Min
Act Effct Green (s)	11.0	11.0	11.0	19.1	19.1	15.2	39.0
Actuated g/C Ratio	0.18	0.18	0.18	0.31	0.31	0.25	0.63
v/c Ratio	0.43	0.36	0.33	0.42	0.31	0.58	0.44
Control Delay	29.9	11.7	8.5	18.2	3.2	24.8	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.9	11.7	8.5	18.2	3.2	24.8	6.7
LOS	C	B	A	B	A	C	A
Approach Delay		17.0		13.9			12.7
Approach LOS		B		B			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 61.9	
Natural Cycle: 45	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 13.7	Intersection LOS: B
Intersection Capacity Utilization 46.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Redlands Av & I-215 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	0	206	0	0	0	0	772	313	456	918	0
Future Volume (veh/h)	140	0	206	0	0	0	0	772	313	456	918	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	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	197	0	91				0	848	295	501	1009	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	411	0	183				0	2095	908	754	2289	0
Arrive On Green	0.11	0.00	0.11				0.00	0.32	0.32	0.21	0.63	0.00
Sat Flow, veh/h	3619	0	1610				0	6802	2834	3510	3705	0
Grp Volume(v), veh/h	197	0	91				0	848	295	501	1009	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1417	1755	1805	0
Q Serve(g_s), s	2.3	0.0	2.4				0.0	4.6	3.6	6.0	6.5	0.0
Cycle Q Clear(g_c), s	2.3	0.0	2.4				0.0	4.6	3.6	6.0	6.5	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	411	0	183				0	2095	908	754	2289	0
V/C Ratio(X)	0.48	0.00	0.50				0.00	0.40	0.32	0.66	0.44	0.00
Avail Cap(c_a), veh/h	2184	0	972				0	5163	2239	3120	6417	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)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.9	0.0	19.0				0.0	12.1	11.7	16.4	4.2	0.0
Incr Delay (d2), s/veh	0.9	0.0	2.1				0.0	0.1	0.2	1.0	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	0.8	0.0	0.8				0.0	1.4	0.9	2.1	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.8	0.0	21.1				0.0	12.2	11.9	17.4	4.4	0.0
LnGrp LOS	B	A	C				A	B	B	B	A	A
Approach Vol, veh/h		288						1143			1510	
Approach Delay, s/veh		20.2						12.1			8.7	
Approach LOS		C						B			A	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.3	20.6		10.7		34.9						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	40.5	36.0		27.5		81.0						
Max Q Clear Time (g_c+I1), s	8.0	6.6		4.4		8.5						
Green Ext Time (p_c), s	1.9	8.0		0.9		9.2						

Intersection Summary												
HCM 6th Ctrl Delay			11.2									
HCM 6th LOS			B									

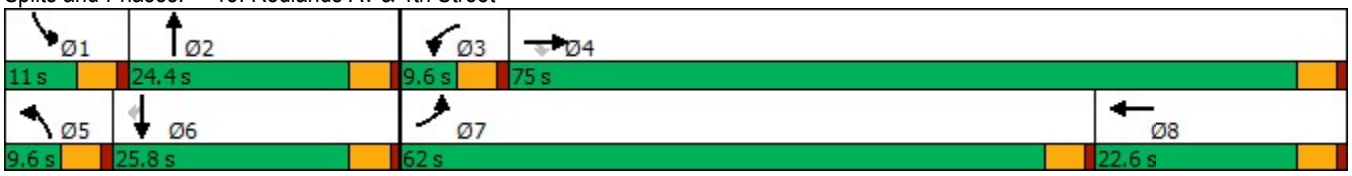
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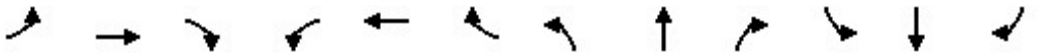
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	668	23	22	6	14	23	364	55	357	751
Future Volume (vph)	668	23	22	6	14	23	364	55	357	751
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	22.6	22.6	9.6	22.6	9.6	22.6	9.6	22.6	22.6
Total Split (s)	62.0	75.0	75.0	9.6	22.6	9.6	24.4	11.0	25.8	25.8
Total Split (%)	51.7%	62.5%	62.5%	8.0%	18.8%	8.0%	20.3%	9.2%	21.5%	21.5%
Yellow Time (s)	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
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	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min
Act Effct Green (s)	48.3	56.3	56.3	5.6	8.4	5.6	18.7	7.1	21.7	21.7
Actuated g/C Ratio	0.51	0.59	0.59	0.06	0.09	0.06	0.20	0.07	0.23	0.23
v/c Ratio	0.87	0.01	0.03	0.07	0.15	0.26	0.64	0.49	0.52	0.67
Control Delay	34.7	8.8	0.0	54.2	24.5	58.4	44.0	64.3	39.4	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	34.7	8.8	0.0	54.2	24.5	58.4	44.0	64.3	39.4	5.7
LOS	C	A	A	D	C	E	D	E	D	A
Approach Delay		32.8			28.5		44.8		18.8	
Approach LOS		C			C		D		B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 94.7	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 27.8	Intersection LOS: C
Intersection Capacity Utilization 69.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 15: Redlands Av & 4th Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	668	23	22	6	14	25	23	364	14	55	357	751
Future Volume (veh/h)	668	23	22	6	14	25	23	364	14	55	357	751
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	786	27	20	7	16	23	27	428	12	65	420	660
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	841	1826	815	16	91	81	49	781	22	84	856	672
Arrive On Green	0.47	0.51	0.51	0.01	0.05	0.05	0.03	0.22	0.22	0.05	0.24	0.24
Sat Flow, veh/h	1781	3554	1585	1781	1777	1585	1781	3531	99	1781	3554	2790
Grp Volume(v), veh/h	786	27	20	7	16	23	27	215	225	65	420	660
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1853	1781	1777	1395
Q Serve(g_s), s	36.7	0.3	0.5	0.3	0.8	1.2	1.3	9.4	9.5	3.2	9.0	20.7
Cycle Q Clear(g_c), s	36.7	0.3	0.5	0.3	0.8	1.2	1.3	9.4	9.5	3.2	9.0	20.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	841	1826	815	16	91	81	49	393	410	84	856	672
V/C Ratio(X)	0.94	0.01	0.02	0.44	0.18	0.28	0.55	0.55	0.55	0.78	0.49	0.98
Avail Cap(c_a), veh/h	1161	2841	1267	101	363	324	101	400	417	129	856	672
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	1.00
Uniform Delay (d), s/veh	22.0	10.5	10.5	43.4	40.0	40.2	42.3	30.4	30.4	41.5	28.8	33.2
Incr Delay (d2), s/veh	11.0	0.0	0.0	17.9	0.9	1.9	9.4	1.5	1.5	14.4	0.4	30.3
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	16.4	0.1	0.2	0.2	0.3	0.5	0.7	4.0	4.2	1.7	3.7	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	10.5	10.5	61.3	40.9	42.1	51.7	31.9	31.9	56.0	29.2	63.5
LnGrp LOS	C	B	B	E	D	D	D	C	C	E	C	E
Approach Vol, veh/h		833			46			467			1145	
Approach Delay, s/veh		31.7			44.6			33.0			50.5	
Approach LOS		C			D			C			D	

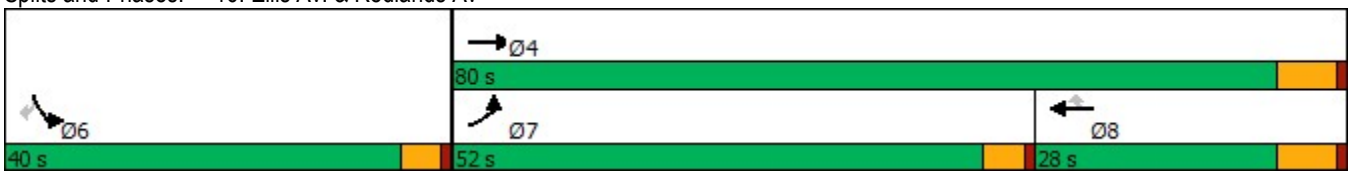
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	24.1	5.4	49.9	7.0	25.8	46.2	9.1
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	6.4	19.8	5.0	70.4	5.0	21.2	57.4	18.0
Max Q Clear Time (g_c+I1), s	5.2	11.5	2.3	2.5	3.3	22.7	38.7	3.2
Green Ext Time (p_c), s	0.0	1.5	0.0	0.2	0.0	0.0	2.8	0.1

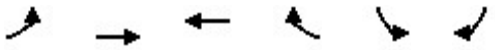
Intersection Summary	
HCM 6th Ctrl Delay	40.9
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	251	14	3	24	23	184
Future Volume (vph)	251	14	3	24	23	184
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	5.0	5.0
Minimum Split (s)	9.6	24.5	24.5	24.5	22.6	22.6
Total Split (s)	52.0	80.0	28.0	28.0	40.0	40.0
Total Split (%)	43.3%	66.7%	23.3%	23.3%	33.3%	33.3%
Yellow Time (s)	3.6	5.5	5.5	5.5	3.6	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	6.5	6.5	6.5	4.6	4.6
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	14.8	18.3	12.5	12.5	8.7	8.7
Actuated g/C Ratio	0.37	0.46	0.31	0.31	0.22	0.22
v/c Ratio	0.43	0.01	0.00	0.05	0.07	0.41
Control Delay	15.6	4.9	16.7	8.7	17.7	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	4.9	16.7	8.7	17.7	6.5
LOS	B	A	B	A	B	A
Approach Delay		15.0	9.5		7.7	
Approach LOS		B	A		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 39.9	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 11.7	Intersection LOS: B
Intersection Capacity Utilization 34.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 16: Ellis Av. & Redlands Av





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	251	14	3	24	23	184
Future Volume (veh/h)	251	14	3	24	23	184
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	285	16	3	21	26	158
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	375	1650	342	152	305	272
Arrive On Green	0.21	0.46	0.09	0.09	0.17	0.17
Sat Flow, veh/h	1810	3705	3705	1610	1810	1610
Grp Volume(v), veh/h	285	16	3	21	26	158
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1610	1810	1610
Q Serve(g_s), s	4.4	0.1	0.0	0.4	0.4	2.7
Cycle Q Clear(g_c), s	4.4	0.1	0.0	0.4	0.4	2.7
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	375	1650	342	152	305	272
V/C Ratio(X)	0.76	0.01	0.01	0.14	0.09	0.58
Avail Cap(c_a), veh/h	2893	8950	2618	1168	2161	1923
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	11.1	4.4	12.2	12.3	10.4	11.4
Incr Delay (d2), s/veh	1.2	0.0	0.0	0.4	0.0	0.7
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	0.0	0.0	0.1	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.3	4.4	12.2	12.7	10.4	12.1
LnGrp LOS	B	A	B	B	B	B
Approach Vol, veh/h		301	24		184	
Approach Delay, s/veh		11.9	12.6		11.9	
Approach LOS		B	B		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			20.0		9.6	10.7	9.3
Change Period (Y+Rc), s			6.5		4.6	4.6	6.5
Max Green Setting (Gmax), s			73.5		35.4	47.4	21.5
Max Q Clear Time (g_c+I1), s			2.1		4.7	6.4	2.4
Green Ext Time (p_c), s			0.1		0.3	0.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	11.9
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	292	5	44	441	3	36
Future Vol, veh/h	292	5	44	441	3	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	317	5	48	479	3	39

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	322	0	656	161
Stage 1	-	-	-	-	320	-
Stage 2	-	-	-	-	336	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1249	-	403	862
Stage 1	-	-	-	-	715	-
Stage 2	-	-	-	-	702	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1249	-	388	862
Mov Cap-2 Maneuver	-	-	-	-	494	-
Stage 1	-	-	-	-	715	-
Stage 2	-	-	-	-	675	-

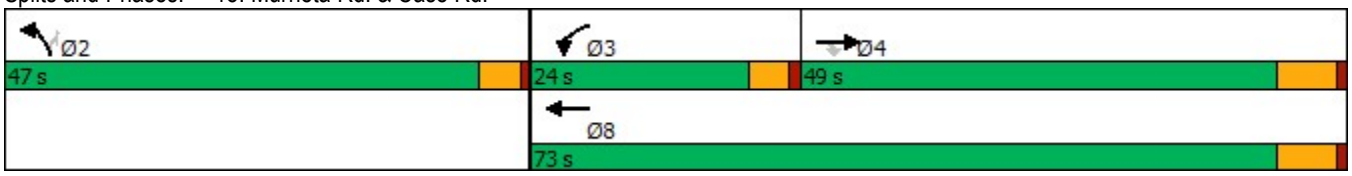
Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	815	-	-	1249	-
HCM Lane V/C Ratio	0.052	-	-	0.038	-
HCM Control Delay (s)	9.7	-	-	8	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	278	50	36	364	123	9
Future Volume (vph)	278	50	36	364	123	9
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	5.0	5.0
Minimum Split (s)	24.5	24.5	9.6	24.5	22.6	22.6
Total Split (s)	49.0	49.0	24.0	73.0	47.0	47.0
Total Split (%)	40.8%	40.8%	20.0%	60.8%	39.2%	39.2%
Yellow Time (s)	5.5	5.5	3.6	5.5	3.6	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)	6.5	6.5	4.6	6.5	4.6	4.6
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	11.9	11.9	6.0	13.2	8.6	8.6
Actuated g/C Ratio	0.35	0.35	0.18	0.39	0.25	0.25
v/c Ratio	0.23	0.09	0.12	0.28	0.29	0.02
Control Delay	10.1	4.9	17.2	7.7	13.1	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.1	4.9	17.2	7.7	13.1	7.6
LOS	B	A	B	A	B	A
Approach Delay	9.3			8.6	12.7	
Approach LOS	A			A	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 34	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.29	
Intersection Signal Delay: 9.5	Intersection LOS: A
Intersection Capacity Utilization 32.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 18: Murrieta Rd. & Case Rd.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	278	50	36	364	123	9
Future Volume (veh/h)	278	50	36	364	123	9
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	296	53	38	387	131	10
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	1122	501	81	1801	282	251
Arrive On Green	0.31	0.31	0.04	0.50	0.16	0.16
Sat Flow, veh/h	3705	1610	1810	3705	1810	1610
Grp Volume(v), veh/h	296	53	38	387	131	10
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1810	1610
Q Serve(g_s), s	2.0	0.8	0.7	1.9	2.1	0.2
Cycle Q Clear(g_c), s	2.0	0.8	0.7	1.9	2.1	0.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1122	501	81	1801	282	251
V/C Ratio(X)	0.26	0.11	0.47	0.21	0.47	0.04
Avail Cap(c_a), veh/h	4776	2130	1093	7473	2388	2125
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	8.3	7.9	15.0	4.5	12.3	11.5
Incr Delay (d2), s/veh	0.1	0.1	1.6	0.1	0.4	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	0.4	0.1	0.2	0.1	0.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.4	8.0	16.5	4.6	12.8	11.5
LnGrp LOS	A	A	B	A	B	B
Approach Vol, veh/h	349			425	141	
Approach Delay, s/veh	8.4			5.6	12.7	
Approach LOS	A			A	B	

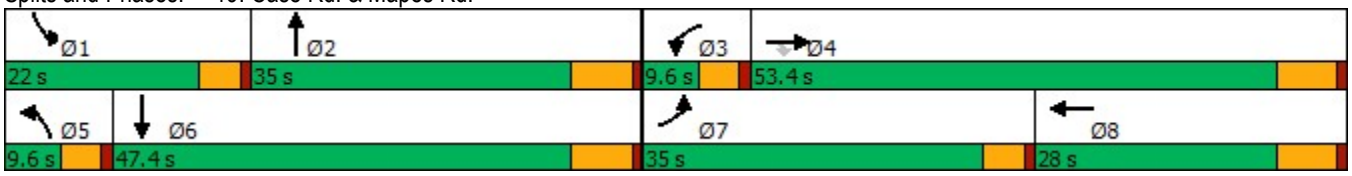
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.6	6.0	16.5		22.5
Change Period (Y+Rc), s		4.6	4.6	6.5		6.5
Max Green Setting (Gmax), s		42.4	19.4	42.5		66.5
Max Q Clear Time (g_c+I1), s		4.1	2.7	4.0		3.9
Green Ext Time (p_c), s		0.2	0.0	1.8		2.3

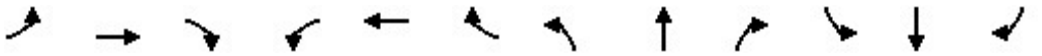
Intersection Summary	
HCM 6th Ctrl Delay	7.8
HCM 6th LOS	A

Lane Group	EBL	EBT	WBT	NBT	SBL	SBT	Ø3	Ø5
Lane Configurations								
Traffic Volume (vph)	190	98	78	3	92	2		
Future Volume (vph)	190	98	78	3	92	2		
Turn Type	Prot	NA	NA	NA	Prot	NA		
Protected Phases	7	4	8	2	1	6	3	5
Permitted Phases								
Detector Phase	7	4	8	2	1	6		
Switch Phase								
Minimum Initial (s)	5.0	10.0	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	9.6	24.5	24.5	24.5	9.6	24.5	9.6	9.6
Total Split (s)	35.0	53.4	28.0	35.0	22.0	47.4	9.6	9.6
Total Split (%)	29.2%	44.5%	23.3%	29.2%	18.3%	39.5%	8%	8%
Yellow Time (s)	3.6	5.5	5.5	5.5	3.6	5.5	3.6	3.6
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	6.5	6.5	6.5	4.6	6.5		
Lead/Lag	Lead	Lag	Lag	Lag	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	Min	None	Min	None	None
Act Effct Green (s)	12.2	28.6	11.6	11.6	8.4	22.0		
Actuated g/C Ratio	0.19	0.44	0.18	0.18	0.13	0.34		
v/c Ratio	0.60	0.12	0.22	0.01	0.42	0.45		
Control Delay	34.0	12.6	17.4	26.7	35.1	4.2		
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	34.0	12.6	17.4	26.7	35.1	4.3		
LOS	C	B	B	C	D	A		
Approach Delay		26.7	17.4	26.7		11.1		
Approach LOS		C	B	C		B		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 64.3	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 17.5	Intersection LOS: B
Intersection Capacity Utilization 53.6%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 19: Case Rd. & Mapes Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	98	0	0	78	57	0	3	0	92	2	322
Future Volume (veh/h)	190	98	0	0	78	57	0	3	0	92	2	322
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	204	105	0	0	84	46	0	3	0	99	2	260
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	259	781	662	3	419	215	3	356	0	130	4	553
Arrive On Green	0.14	0.41	0.00	0.00	0.18	0.18	0.00	0.19	0.00	0.07	0.35	0.35
Sat Flow, veh/h	1810	1900	1610	1810	2310	1182	1810	1900	0	1810	12	1600
Grp Volume(v), veh/h	204	105	0	0	64	66	0	3	0	99	0	262
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1805	1687	1810	1900	0	1810	0	1612
Q Serve(g_s), s	5.8	1.8	0.0	0.0	1.6	1.8	0.0	0.1	0.0	2.9	0.0	6.8
Cycle Q Clear(g_c), s	5.8	1.8	0.0	0.0	1.6	1.8	0.0	0.1	0.0	2.9	0.0	6.8
Prop In Lane	1.00		1.00	1.00		0.70	1.00		0.00	1.00		0.99
Lane Grp Cap(c), veh/h	259	781	662	3	328	306	3	356	0	130	0	557
V/C Ratio(X)	0.79	0.13	0.00	0.00	0.20	0.21	0.00	0.01	0.00	0.76	0.00	0.47
Avail Cap(c_a), veh/h	1030	1669	1414	169	727	679	169	1014	0	590	0	1235
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	0.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.1	9.8	0.0	0.0	18.5	18.6	0.0	17.7	0.0	24.3	0.0	13.7
Incr Delay (d2), s/veh	2.0	0.1	0.0	0.0	0.3	0.3	0.0	0.0	0.0	3.4	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	2.1	0.5	0.0	0.0	0.6	0.6	0.0	0.0	0.0	1.1	0.0	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.1	9.9	0.0	0.0	18.8	19.0	0.0	17.7	0.0	27.7	0.0	14.3
LnGrp LOS	C	A	A	A	B	B	A	B	A	C	A	B
Approach Vol, veh/h		309			130			3			361	
Approach Delay, s/veh		19.3			18.9			17.7			18.0	
Approach LOS		B			B			B			B	

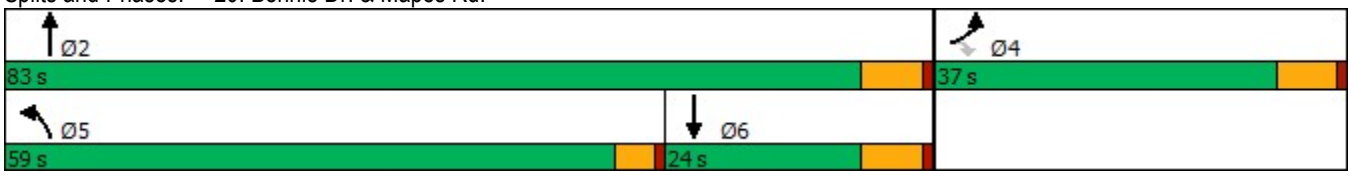
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	16.5	0.0	28.4	0.0	24.9	12.3	16.2
Change Period (Y+Rc), s	4.6	6.5	4.6	6.5	4.6	6.5	4.6	6.5
Max Green Setting (Gmax), s	17.4	28.5	5.0	46.9	5.0	40.9	30.4	21.5
Max Q Clear Time (g_c+I1), s	4.9	2.1	0.0	3.8	0.0	8.8	7.8	3.8
Green Ext Time (p_c), s	0.1	0.0	0.0	0.5	0.0	1.5	0.2	0.5

Intersection Summary	
HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	1	249	408	27	15
Future Volume (vph)	1	249	408	27	15
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)	16.5	16.5	9.6	16.5	16.5
Total Split (s)	37.0	37.0	59.0	83.0	24.0
Total Split (%)	30.8%	30.8%	49.2%	69.2%	20.0%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Min	Min
Act Effct Green (s)	10.6	10.6	20.1	34.8	10.1
Actuated g/C Ratio	0.18	0.18	0.34	0.59	0.17
v/c Ratio	0.00	0.56	0.80	0.03	0.09
Control Delay	22.0	8.1	27.8	4.9	18.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	8.1	27.8	4.9	18.8
LOS	C	A	C	A	B
Approach Delay	8.1			26.3	18.8
Approach LOS	A			C	B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 58.6	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 19.7	Intersection LOS: B
Intersection Capacity Utilization 48.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 20: Bonnie Dr. & Mapes Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	249	408	27	15	9
Future Volume (veh/h)	1	249	408	27	15	9
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	1	0	492	33	18	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	5		576	1287	467	0
Arrive On Green	0.00	0.00	0.32	0.68	0.25	0.00
Sat Flow, veh/h	1810	1610	1810	1900	1900	0
Grp Volume(v), veh/h	1	0	492	33	18	0
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	0
Q Serve(g_s), s	0.0	0.0	10.3	0.2	0.3	0.0
Cycle Q Clear(g_c), s	0.0	0.0	10.3	0.2	0.3	0.0
Prop In Lane	1.00	1.00	1.00			0.00
Lane Grp Cap(c), veh/h	5		576	1287	467	0
V/C Ratio(X)	0.20		0.85	0.03	0.04	0.00
Avail Cap(c_a), veh/h	1357		2421	3575	818	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	20.2	0.0	13.0	2.2	11.7	0.0
Incr Delay (d2), s/veh	18.5	0.0	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	0.0	0.0	2.7	0.0	0.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	38.7	0.0	14.4	2.2	11.7	0.0
LnGrp LOS	D		B	A	B	A
Approach Vol, veh/h	1	A		525	18	
Approach Delay, s/veh	38.7			13.6	11.7	
Approach LOS	D			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		34.0		6.6	17.5	16.5
Change Period (Y+Rc), s		6.5		6.5	4.6	6.5
Max Green Setting (Gmax), s		76.5		30.5	54.4	17.5
Max Q Clear Time (g_c+I1), s		2.2		2.0	12.3	2.3
Green Ext Time (p_c), s		0.1		0.0	0.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	13.6
HCM 6th LOS	B

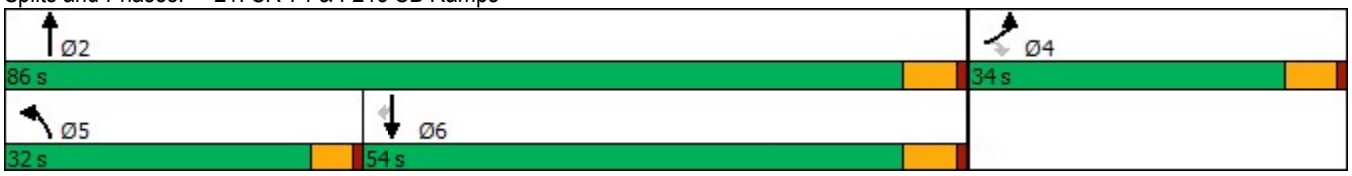
Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	59	205	349	470	676	84
Future Volume (vph)	59	205	349	470	676	84
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)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	34.0	34.0	32.0	86.0	54.0	54.0
Total Split (%)	28.3%	28.3%	26.7%	71.7%	45.0%	45.0%
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 Effct Green (s)	10.2	10.2	10.6	32.9	17.6	17.6
Actuated g/C Ratio	0.19	0.19	0.19	0.60	0.32	0.32
v/c Ratio	0.18	0.45	0.52	0.42	0.60	0.15
Control Delay	23.2	7.8	23.5	6.9	18.0	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.2	7.8	23.5	6.9	18.0	4.7
LOS	C	A	C	A	B	A
Approach Delay	11.2			13.9	16.6	
Approach LOS	B			B	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 54.8	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 14.6	Intersection LOS: B
Intersection Capacity Utilization 50.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 21: SR-74 & I-215 SB Ramps





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	59	205	349	470	676	84
Future Volume (veh/h)	59	205	349	470	676	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	60	110	356	480	690	81
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	344	306	526	1067	1132	505
Arrive On Green	0.19	0.19	0.15	0.56	0.31	0.31
Sat Flow, veh/h	1810	1610	3510	1900	3705	1610
Grp Volume(v), veh/h	60	110	356	480	690	81
Grp Sat Flow(s),veh/h/ln	1810	1610	1755	1900	1805	1610
Q Serve(g_s), s	1.3	2.8	4.5	6.9	7.6	1.7
Cycle Q Clear(g_c), s	1.3	2.8	4.5	6.9	7.6	1.7
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	344	306	526	1067	1132	505
V/C Ratio(X)	0.17	0.36	0.68	0.45	0.61	0.16
Avail Cap(c_a), veh/h	1091	970	2056	3257	3719	1659
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	15.9	16.5	18.8	6.0	13.6	11.6
Incr Delay (d2), s/veh	0.1	0.3	0.6	0.3	0.5	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	0.4	2.6	1.5	1.5	2.4	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.0	16.7	19.4	6.3	14.2	11.8
LnGrp LOS	B	B	B	A	B	B
Approach Vol, veh/h	170			836	771	
Approach Delay, s/veh	16.5			11.9	13.9	
Approach LOS	B			B	B	

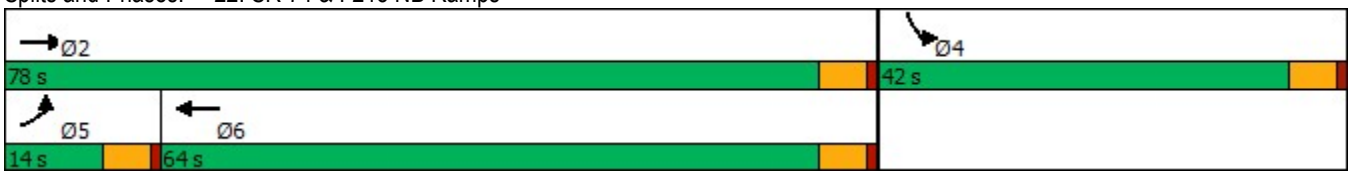
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		32.1		14.7	11.6	20.5
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		80.2		28.2	27.4	48.2
Max Q Clear Time (g_c+I1), s		8.9		4.8	6.5	9.6
Green Ext Time (p_c), s		3.0		0.2	0.6	5.1

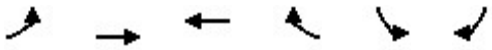
Intersection Summary		
HCM 6th Ctrl Delay		13.2
HCM 6th LOS		B

Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Configurations					
Traffic Volume (vph)	40	840	758	943	187
Future Volume (vph)	40	840	758	943	187
Turn Type	Prot	NA	NA	Free	Prot
Protected Phases	5	2	6		4
Permitted Phases				Free	
Detector Phase	5	2	6		4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0		5.0
Minimum Split (s)	10.3	10.3	10.3		10.3
Total Split (s)	14.0	78.0	64.0		42.0
Total Split (%)	11.7%	65.0%	53.3%		35.0%
Yellow Time (s)	4.3	4.3	4.3		4.3
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)	5.3	5.3	5.3		5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	Min	Min		None
Act Effct Green (s)	6.3	23.0	19.2	46.8	12.4
Actuated g/C Ratio	0.13	0.49	0.41	1.00	0.26
v/c Ratio	0.17	0.48	0.52	0.60	0.53
Control Delay	24.8	8.8	13.7	1.6	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	8.8	13.7	1.6	20.3
LOS	C	A	B	A	C
Approach Delay		9.5	7.0		20.3
Approach LOS		A	A		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 46.8	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 9.0	Intersection LOS: A
Intersection Capacity Utilization 52.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 22: SR-74 & I-215 NB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	40	840	758	943	187	61
Future Volume (veh/h)	40	840	758	943	187	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	41	857	773	0	191	56
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	84	1893	1195		247	72
Arrive On Green	0.05	0.52	0.33	0.00	0.18	0.18
Sat Flow, veh/h	1810	3705	3705	1610	1356	398
Grp Volume(v), veh/h	41	857	773	0	248	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1610	1761	0
Q Serve(g_s), s	0.8	5.3	6.6	0.0	4.8	0.0
Cycle Q Clear(g_c), s	0.8	5.3	6.6	0.0	4.8	0.0
Prop In Lane	1.00			1.00	0.77	0.23
Lane Grp Cap(c), veh/h	84	1893	1195		321	0
V/C Ratio(X)	0.49	0.45	0.65		0.77	0.00
Avail Cap(c_a), veh/h	436	7266	5867		1789	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	0.00	1.00	0.00
Uniform Delay (d), s/veh	16.8	5.4	10.3	0.0	14.1	0.0
Incr Delay (d2), s/veh	1.6	0.1	0.2	0.0	1.5	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	0.3	0.7	1.6	0.0	1.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.4	5.4	10.5	0.0	15.6	0.0
LnGrp LOS	B	A	B		B	A
Approach Vol, veh/h		898	773	A	248	
Approach Delay, s/veh		6.0	10.5		15.6	
Approach LOS		A	B		B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		24.2		11.9	7.0	17.3
Change Period (Y+Rc), s		5.3		5.3	5.3	5.3
Max Green Setting (Gmax), s		72.7		36.7	8.7	58.7
Max Q Clear Time (g_c+I1), s		7.3		6.8	2.8	8.6
Green Ext Time (p_c), s		3.8		0.3	0.0	3.4

Intersection Summary	
HCM 6th Ctrl Delay	9.1
HCM 6th LOS	A

Notes

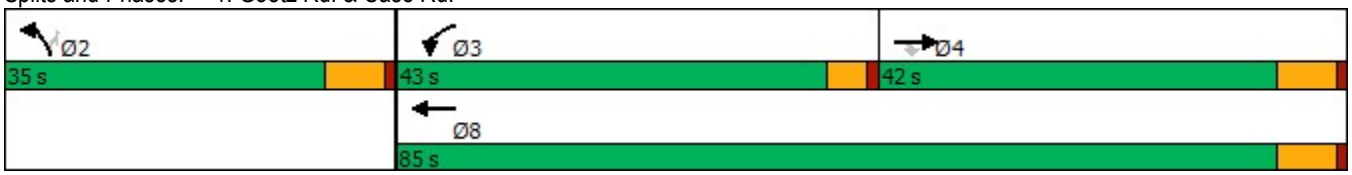
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	226	172	261	214	178	206
Future Volume (vph)	226	172	261	214	178	206
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)	34.5	34.5	9.6	16.5	16.5	16.5
Total Split (s)	42.0	42.0	43.0	85.0	35.0	35.0
Total Split (%)	35.0%	35.0%	35.8%	70.8%	29.2%	29.2%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None
Act Effct Green (s)	15.4	15.4	15.1	35.4	13.4	13.4
Actuated g/C Ratio	0.25	0.25	0.24	0.57	0.21	0.21
v/c Ratio	0.52	0.35	0.64	0.21	0.49	0.43
Control Delay	26.0	5.9	30.3	7.1	29.2	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.0	5.9	30.3	7.1	29.2	7.1
LOS	C	A	C	A	C	A
Approach Delay	17.3			19.9	17.3	
Approach LOS	B			B	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 62.6	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 18.3	Intersection LOS: B
Intersection Capacity Utilization 51.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: Goetz Rd. & Case Rd.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	226	172	261	214	178	206
Future Volume (veh/h)	226	172	261	214	178	206
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	243	158	281	230	191	113
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	413	349	350	969	381	339
Arrive On Green	0.22	0.22	0.19	0.51	0.21	0.21
Sat Flow, veh/h	1900	1606	1810	1900	1810	1610
Grp Volume(v), veh/h	243	158	281	230	191	113
Grp Sat Flow(s),veh/h/ln	1900	1606	1810	1900	1810	1610
Q Serve(g_s), s	5.3	4.0	6.9	3.1	4.3	2.8
Cycle Q Clear(g_c), s	5.3	4.0	6.9	3.1	4.3	2.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	413	349	350	969	381	339
V/C Ratio(X)	0.59	0.45	0.80	0.24	0.50	0.33
Avail Cap(c_a), veh/h	1450	1226	1494	3206	1109	987
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	16.3	15.8	17.9	6.4	16.2	15.6
Incr Delay (d2), s/veh	1.3	0.9	1.7	0.1	1.0	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	1.8	1.2	2.3	0.6	1.4	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.7	16.7	19.6	6.5	17.2	16.2
LnGrp LOS	B	B	B	A	B	B
Approach Vol, veh/h	401			511	304	
Approach Delay, s/veh	17.3			13.7	16.8	
Approach LOS	B			B	B	

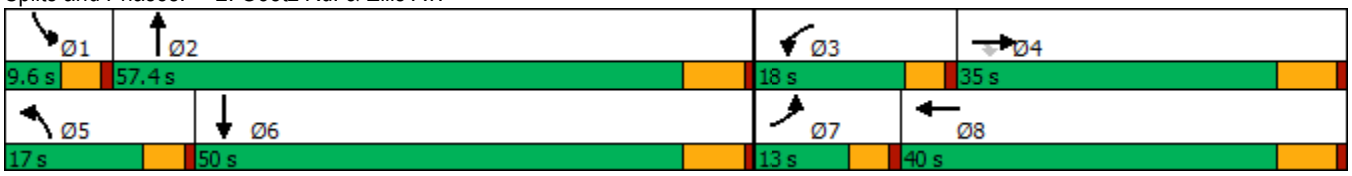
Timer - Assigned Phs		2	3	4			8
Phs Duration (G+Y+Rc), s		16.3	13.6	16.6			30.2
Change Period (Y+Rc), s		6.5	4.6	6.5			6.5
Max Green Setting (Gmax), s		28.5	38.4	35.5			78.5
Max Q Clear Time (g_c+I1), s		6.3	8.9	7.3			5.1
Green Ext Time (p_c), s		0.8	0.3	1.7			1.2

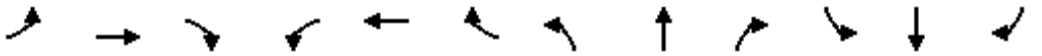
Intersection Summary	
HCM 6th Ctrl Delay	15.7
HCM 6th LOS	B

Lane Group	EBT	EBR	WBL	NBL	NBT	SBT	Ø1	Ø7	Ø8
Lane Configurations									
Traffic Volume (vph)	0	63	36	31	374	419			
Future Volume (vph)	0	63	36	31	374	419			
Turn Type	NA	Perm	Prot	Prot	NA	NA			
Protected Phases	4		3	5	2	6	1	7	8
Permitted Phases		4							
Detector Phase	4	4	3	5	2	6			
Switch Phase									
Minimum Initial (s)	10.0	10.0	5.0	5.0	10.0	10.0	5.0	5.0	10.0
Minimum Split (s)	27.5	27.5	9.6	9.6	27.5	27.5	9.6	9.6	27.5
Total Split (s)	35.0	35.0	18.0	17.0	57.4	50.0	9.6	13.0	40.0
Total Split (%)	29.2%	29.2%	15.0%	14.2%	47.8%	41.7%	8%	11%	33%
Yellow Time (s)	5.5	5.5	3.6	3.6	5.5	5.5	3.6	3.6	5.5
All-Red Time (s)	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			
Total Lost Time (s)	6.5	6.5	4.6	4.6	6.5	6.5			
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	Min	None	None	None
Act Effct Green (s)	0.0	27.3	6.4	6.8	35.2	31.8			
Actuated g/C Ratio	0.00	0.46	0.11	0.11	0.59	0.54			
v/c Ratio	no cap	0.08	0.10	0.16	0.25	0.24			
Control Delay		0.2	34.7	35.6	14.6	20.9			
Queue Delay		0.0	0.0	0.0	0.0	0.0			
Total Delay	Error	0.2	34.7	35.6	14.6	20.9			
LOS	F	A	C	D	B	C			
Approach Delay	Err				15.9	20.9			
Approach LOS	F				B	C			

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 59.4	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: Err	Intersection LOS: F
Intersection Capacity Utilization 44.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Goetz Rd. & Ellis Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	63	36	0	0	31	374	114	0	419	14
Future Volume (veh/h)	10	0	63	36	0	0	31	374	114	0	419	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	0	67	38	0	0	33	398	121	0	446	15
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	272	230	150	1538	0	69	1067	321	4	859	29
Arrive On Green	0.00	0.00	0.14	0.04	0.00	0.00	0.04	0.39	0.39	0.00	0.24	0.24
Sat Flow, veh/h	0	1900	1610	3510	5358	0	1810	2735	822	1810	3564	120
Grp Volume(v), veh/h	0	0	67	38	0	0	33	261	258	0	226	235
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1755	1729	0	1810	1805	1752	1810	1805	1878
Q Serve(g_s), s	0.0	0.0	1.5	0.4	0.0	0.0	0.7	4.3	4.4	0.0	4.5	4.5
Cycle Q Clear(g_c), s	0.0	0.0	1.5	0.4	0.0	0.0	0.7	4.3	4.4	0.0	4.5	4.5
Prop In Lane	0.00		1.00	1.00		0.00	1.00		0.47	1.00		0.06
Lane Grp Cap(c), veh/h	0	272	230	150	1538	0	69	704	683	4	435	453
V/C Ratio(X)	0.00	0.00	0.29	0.25	0.00	0.00	0.48	0.37	0.38	0.00	0.52	0.52
Avail Cap(c_a), veh/h	0	1305	1106	1134	4189	0	541	2215	2150	218	1893	1970
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)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	15.9	19.2	0.0	0.0	19.5	9.0	9.0	0.0	13.7	13.7
Incr Delay (d2), s/veh	0.0	0.0	0.7	0.3	0.0	0.0	1.9	0.3	0.3	0.0	1.0	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	0.0	0.0	0.5	0.2	0.0	0.0	0.3	1.0	1.0	0.0	1.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	16.6	19.5	0.0	0.0	21.5	9.3	9.4	0.0	14.6	14.6
LnGrp LOS	A	A	B	B	A	A	C	A	A	A	B	B
Approach Vol, veh/h		67			38			552			461	
Approach Delay, s/veh		16.6			19.5			10.1			14.6	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	22.7	6.4	12.4	6.2	16.5	0.0	18.8
Change Period (Y+Rc), s	4.6	6.5	4.6	6.5	4.6	6.5	4.6	6.5
Max Green Setting (Gmax), s	5.0	50.9	13.4	28.5	12.4	43.5	8.4	33.5
Max Q Clear Time (g_c+I1), s	0.0	6.4	2.4	3.5	2.7	6.5	0.0	0.0
Green Ext Time (p_c), s	0.0	2.8	0.0	0.1	0.0	2.4	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	104	416	32	0	524
Future Vol, veh/h	0	104	416	32	0	524
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	-	-	-	-
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	0	113	452	35	0	570

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	244	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	763	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	763	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0
HCM LOS	B		

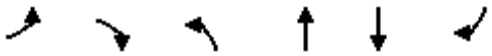
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	763	-
HCM Lane V/C Ratio	-	-	0.148	-
HCM Control Delay (s)	-	-	10.5	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.5	-

Lane Group	EBL	NBT	SBT	Ø5
Lane Configurations				
Traffic Volume (vph)	57	391	468	
Future Volume (vph)	57	391	468	
Turn Type	Prot	NA	NA	
Protected Phases	4	2	6	5
Permitted Phases				
Detector Phase	4	2	6	
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	5.0
Minimum Split (s)	14.6	16.5	27.5	9.6
Total Split (s)	44.0	76.0	66.4	9.6
Total Split (%)	36.7%	63.3%	55.3%	8%
Yellow Time (s)	3.6	5.5	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	4.6	6.5	6.5	
Lead/Lag			Lag	Lead
Lead-Lag Optimize?			Yes	Yes
Recall Mode	None	Min	Min	None
Act Effct Green (s)	10.2	20.4	20.4	
Actuated g/C Ratio	0.28	0.55	0.55	
v/c Ratio	0.24	0.21	0.26	
Control Delay	9.3	6.5	6.8	
Queue Delay	0.0	0.0	0.0	
Total Delay	9.3	6.5	6.8	
LOS	A	A	A	
Approach Delay	9.3	6.5	6.8	
Approach LOS	A	A	A	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 36.9		
Natural Cycle: 55		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.26		
Intersection Signal Delay: 7.0		Intersection LOS: A
Intersection Capacity Utilization 30.5%		ICU Level of Service A
Analysis Period (min) 15		

Splits and Phases: 4: Goetz Rd. & Cai Ct.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	57	57	0	391	468	0
Future Volume (veh/h)	57	57	0	391	468	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	62	62	0	425	509	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	190	190	7	1327	1327	592
Arrive On Green	0.22	0.22	0.00	0.37	0.37	0.00
Sat Flow, veh/h	846	846	1810	3705	3705	1610
Grp Volume(v), veh/h	125	0	0	425	509	0
Grp Sat Flow(s),veh/h/ln	1705	0	1810	1805	1805	1610
Q Serve(g_s), s	1.7	0.0	0.0	2.3	2.8	0.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0	2.3	2.8	0.0
Prop In Lane	0.50	0.50	1.00			1.00
Lane Grp Cap(c), veh/h	383	0	7	1327	1327	592
V/C Ratio(X)	0.33	0.00	0.00	0.32	0.38	0.00
Avail Cap(c_a), veh/h	2469	0	332	9220	7946	3544
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.8	0.0	0.0	6.2	6.3	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.2	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	0.5	0.0	0.0	0.2	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.3	0.0	0.0	6.3	6.5	0.0
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	125			425	509	
Approach Delay, s/veh	9.3			6.3	6.5	
Approach LOS	A			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		16.5		10.7	0.0	16.5
Change Period (Y+Rc), s		6.5		4.6	4.6	6.5
Max Green Setting (Gmax), s		69.5		39.4	5.0	59.9
Max Q Clear Time (g_c+I1), s		4.3		3.7	0.0	4.8
Green Ext Time (p_c), s		2.6		0.4	0.0	3.1

Intersection Summary		
HCM 6th Ctrl Delay		6.8
HCM 6th LOS		A

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	25	26	2	410	13	503	8
Future Vol, veh/h	25	26	2	410	13	503	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	115	-	100	-	-
Veh in Median Storage, #	1	-	-	0	-	0	-
Grade, %	0	-	-	0	-	0	-
Peak Hour Factor	93	93	93	93	92	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	27	28	2	441	14	541	9

Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	799	275	550	0	441	-	0
Stage 1	574	-	-	-	-	-	-
Stage 2	225	-	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	6.4	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	2.5	-	-
Pot Cap-1 Maneuver	327	729	1030	-	763	-	-
Stage 1	532	-	-	-	-	-	-
Stage 2	797	-	-	-	-	-	-
Platoon blocked, %				-		-	-
Mov Cap-1 Maneuver	320	729	1030	-	763	-	-
Mov Cap-2 Maneuver	423	-	-	-	-	-	-
Stage 1	531	-	-	-	-	-	-
Stage 2	783	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.5	0	0.2
HCM LOS	B		

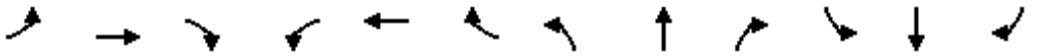
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	1030	-	538	763	-	-
HCM Lane V/C Ratio	0.002	-	0.102	0.019	-	-
HCM Control Delay (s)	8.5	-	12.5	9.8	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	0.1	-	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	15	0	3	0	10	373	23	495
Future Volume (vph)	15	0	3	0	10	373	23	495
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)	27.5	27.5	27.5	27.5	9.6	27.5	9.6	27.5
Total Split (s)	34.0	34.0	34.0	34.0	17.0	65.0	21.0	69.0
Total Split (%)	28.3%	28.3%	28.3%	28.3%	14.2%	54.2%	17.5%	57.5%
Yellow Time (s)	5.5	5.5	5.5	5.5	3.6	5.5	3.6	5.5
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)		6.5		6.5	4.6	6.5	4.6	6.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min
Act Effct Green (s)		12.3		12.3	5.6	32.4	5.9	32.5
Actuated g/C Ratio		0.33		0.33	0.15	0.86	0.16	0.87
v/c Ratio		0.03		0.03	0.04	0.13	0.09	0.17
Control Delay		0.1		0.1	19.5	5.7	19.2	5.5
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		0.1		0.1	19.5	5.7	19.2	5.5
LOS		A		A	B	A	B	A
Approach Delay		0.1		0.1		6.0		6.1
Approach LOS		A		A		A		A

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 37.5	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.17	
Intersection Signal Delay: 5.8	Intersection LOS: A
Intersection Capacity Utilization 38.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Goetz Rd. & Mountain Av./Driveway 2





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	0	6	3	0	14	10	373	0	23	495	11
Future Volume (veh/h)	15	0	6	3	0	14	10	373	0	23	495	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	16	0	6	3	0	15	11	393	0	24	521	12
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	287	13	38	152	6	125	26	1146	0	54	1201	28
Arrive On Green	0.09	0.00	0.09	0.09	0.00	0.09	0.01	0.32	0.00	0.03	0.33	0.33
Sat Flow, veh/h	960	134	410	200	66	1329	1810	3705	0	1810	3607	83
Grp Volume(v), veh/h	22	0	0	18	0	0	11	393	0	24	261	272
Grp Sat Flow(s),veh/h/ln	1504	0	0	1595	0	0	1810	1805	0	1810	1805	1885
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.2	2.6	0.0	0.4	3.5	3.6
Cycle Q Clear(g_c), s	0.4	0.0	0.0	0.3	0.0	0.0	0.2	2.6	0.0	0.4	3.5	3.6
Prop In Lane	0.73		0.27	0.17		0.83	1.00		0.00	1.00		0.04
Lane Grp Cap(c), veh/h	338	0	0	283	0	0	26	1146	0	54	601	628
V/C Ratio(X)	0.07	0.00	0.00	0.06	0.00	0.00	0.42	0.34	0.00	0.44	0.43	0.43
Avail Cap(c_a), veh/h	1482	0	0	1512	0	0	712	6704	0	942	3581	3740
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	0.00	1.00	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.1	0.0	0.0	13.1	0.0	0.0	15.4	8.2	0.0	15.0	8.2	8.2
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.1	0.0	0.0	3.9	0.2	0.0	2.1	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	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.5	0.0	0.1	0.6	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.2	0.0	0.0	13.2	0.0	0.0	19.3	8.4	0.0	17.1	8.7	8.7
LnGrp LOS	B	A	A	B	A	A	B	A	A	B	A	A
Approach Vol, veh/h		22			18			404			557	
Approach Delay, s/veh		13.2			13.2			8.7			9.0	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	16.5		9.5	5.1	17.0		9.5				
Change Period (Y+Rc), s	4.6	6.5		6.5	4.6	6.5		6.5				
Max Green Setting (Gmax), s	16.4	58.5		27.5	12.4	62.5		27.5				
Max Q Clear Time (g_c+I1), s	2.4	4.6		2.4	2.2	5.6		2.3				
Green Ext Time (p_c), s	0.0	2.3		0.1	0.0	2.8		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		9.1
HCM 6th LOS		A

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	18	365	6	0	511
Future Vol, veh/h	0	18	365	6	0	511
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	-	-	-	-
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	0	20	397	7	0	555

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	202	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	811	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	811	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

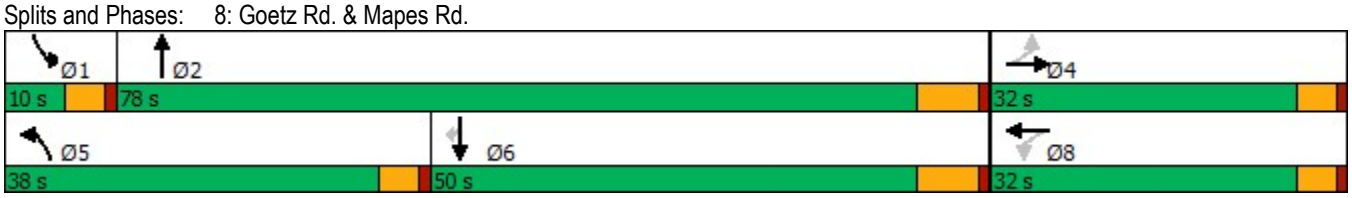
Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	0
HCM LOS	A		

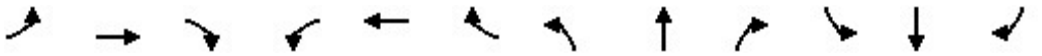
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	811	-
HCM Lane V/C Ratio	-	-	0.024	-
HCM Control Delay (s)	-	-	9.5	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	93	1	13	1	277	206	3	384	87
Future Volume (vph)	93	1	13	1	277	206	3	384	87
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA	Perm
Protected Phases		4		8	5	2	1	6	
Permitted Phases	4		8						6
Detector Phase	4	4	8	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.6	14.6	26.6	26.6	9.6	16.5	9.6	16.5	16.5
Total Split (s)	32.0	32.0	32.0	32.0	38.0	78.0	10.0	50.0	50.0
Total Split (%)	26.7%	26.7%	26.7%	26.7%	31.7%	65.0%	8.3%	41.7%	41.7%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.5	3.6	5.5	5.5
All-Red Time (s)	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
Total Lost Time (s)	4.6	4.6		4.6	4.6	6.5	4.6	6.5	6.5
Lead/Lag					Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	13.4	13.4		13.4	16.7	41.6	5.4	21.3	21.3
Actuated g/C Ratio	0.20	0.20		0.20	0.24	0.61	0.08	0.31	0.31
v/c Ratio	0.36	0.61		0.10	0.67	0.10	0.02	0.69	0.16
Control Delay	31.9	8.4		28.1	33.1	6.3	40.0	28.6	5.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.9	8.4		28.1	33.1	6.3	40.0	28.6	5.3
LOS	C	A		C	C	A	D	C	A
Approach Delay		13.3		28.1		21.6		24.3	
Approach LOS		B		C		C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 68.2	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 20.0	Intersection LOS: B
Intersection Capacity Utilization 70.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: Goetz Rd. & Mapes Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	1	355	13	1	2	277	206	1	3	384	87
Future Volume (veh/h)	93	1	355	13	1	2	277	206	1	3	384	87
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	99	1	202	14	1	1	295	219	1	3	409	84
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	462	2	317	225	16	7	366	1782	8	7	542	459
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.48	0.48	0.00	0.29	0.29
Sat Flow, veh/h	1437	8	1603	454	83	36	1810	3685	17	1810	1900	1610
Grp Volume(v), veh/h	99	0	203	16	0	0	295	107	113	3	409	84
Grp Sat Flow(s),veh/h/ln	1437	0	1611	573	0	0	1810	1805	1897	1810	1900	1610
Q Serve(g_s), s	0.0	0.0	5.8	0.2	0.0	0.0	7.8	1.6	1.6	0.1	9.8	2.0
Cycle Q Clear(g_c), s	2.4	0.0	5.8	5.9	0.0	0.0	7.8	1.6	1.6	0.1	9.8	2.0
Prop In Lane	1.00		1.00	0.87		0.06	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	462	0	319	249	0	0	366	873	917	7	542	459
V/C Ratio(X)	0.21	0.00	0.64	0.06	0.00	0.00	0.81	0.12	0.12	0.41	0.76	0.18
Avail Cap(c_a), veh/h	967	0	885	686	0	0	1211	2586	2717	196	1656	1403
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	0.0	18.4	17.3	0.0	0.0	19.0	7.1	7.1	24.8	16.3	13.5
Incr Delay (d2), s/veh	0.2	0.0	2.1	0.1	0.0	0.0	1.6	0.1	0.1	12.8	2.2	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	2.1	0.1	0.0	0.0	2.6	0.4	0.4	0.1	3.4	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.3	0.0	20.5	17.4	0.0	0.0	20.6	7.1	7.1	37.6	18.4	13.6
LnGrp LOS	B	A	C	B	A	A	C	A	A	D	B	B
Approach Vol, veh/h		302			16			515			496	
Approach Delay, s/veh		19.4			17.4			14.8			17.7	
Approach LOS		B			B			B			B	

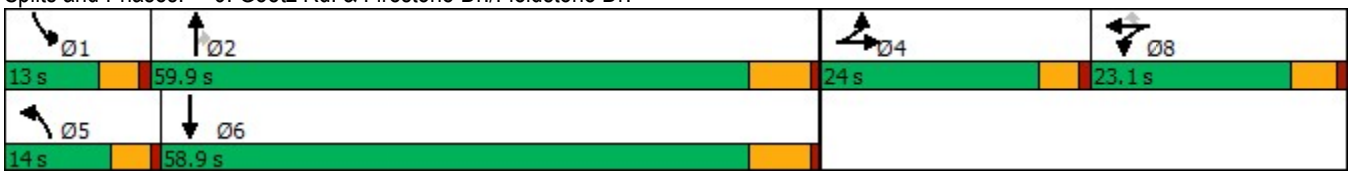
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	30.6		14.5	14.7	20.7		14.5				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		4.6				
Max Green Setting (Gmax), s	5.4	71.5		27.4	33.4	43.5		27.4				
Max Q Clear Time (g_c+I1), s	2.1	3.6		7.8	9.8	11.8		7.9				
Green Ext Time (p_c), s	0.0	1.1		1.5	0.4	2.4		0.0				

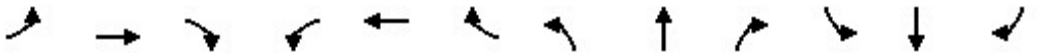
Intersection Summary			
HCM 6th Ctrl Delay		17.0	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	36	5	2	5	10	41	438	8	34	643
Future Volume (vph)	36	5	2	5	10	41	438	8	34	643
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	8	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.6	22.6	23.1	23.1	23.1	9.6	24.5	24.5	9.6	24.5
Total Split (s)	24.0	24.0	23.1	23.1	23.1	14.0	59.9	59.9	13.0	58.9
Total Split (%)	20.0%	20.0%	19.3%	19.3%	19.3%	11.7%	49.9%	49.9%	10.8%	49.1%
Yellow Time (s)	3.6	3.6	4.1	4.1	4.1	3.6	5.5	5.5	3.6	5.5
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	4.6	5.1	5.1	5.1	4.6	6.5	6.5	4.6	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min
Act Effct Green (s)	13.3	13.3	13.3	13.3	13.3	7.3	35.4	35.4	7.0	35.2
Actuated g/C Ratio	0.24	0.24	0.24	0.24	0.24	0.13	0.63	0.63	0.13	0.63
v/c Ratio	0.09	0.10	0.00	0.01	0.02	0.18	0.38	0.01	0.16	0.23
Control Delay	28.2	14.2	30.5	29.8	0.1	34.4	16.6	0.0	35.1	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.2	14.2	30.5	29.8	0.1	34.4	16.6	0.0	35.1	12.7
LOS	C	B	C	C	A	C	B	A	D	B
Approach Delay		21.0		12.4			17.9			13.7
Approach LOS		C		B			B			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 55.8	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.38	
Intersection Signal Delay: 15.6	Intersection LOS: B
Intersection Capacity Utilization 53.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 9: Goetz Rd. & Firestone Dr./Fieldstone Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	5	34	2	5	10	41	438	8	34	643	75
Future Volume (veh/h)	36	5	34	2	5	10	41	438	8	34	643	75
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		0.98
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	38	5	12	2	5	2	43	456	6	35	670	61
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	213	58	140	47	50	42	85	624	529	72	1553	140
Arrive On Green	0.12	0.12	0.12	0.03	0.03	0.03	0.05	0.33	0.33	0.04	0.32	0.32
Sat Flow, veh/h	1810	494	1187	1810	1900	1607	1810	1900	1610	1810	4830	436
Grp Volume(v), veh/h	38	0	17	2	5	2	43	456	6	35	478	253
Grp Sat Flow(s),veh/h/ln	1810	0	1681	1810	1900	1607	1810	1900	1610	1810	1729	1808
Q Serve(g_s), s	0.8	0.0	0.4	0.0	0.1	0.1	1.0	9.0	0.1	0.8	4.6	4.7
Cycle Q Clear(g_c), s	0.8	0.0	0.4	0.0	0.1	0.1	1.0	9.0	0.1	0.8	4.6	4.7
Prop In Lane	1.00		0.71	1.00		1.00	1.00		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	213	0	198	47	50	42	85	624	529	72	1112	582
V/C Ratio(X)	0.18	0.00	0.09	0.04	0.10	0.05	0.51	0.73	0.01	0.49	0.43	0.44
Avail Cap(c_a), veh/h	823	0	765	764	802	678	399	2379	2016	356	4249	2222
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	0.0	16.8	20.2	20.3	20.3	19.8	12.6	9.6	20.0	11.4	11.4
Incr Delay (d2), s/veh	0.4	0.0	0.2	0.4	0.9	0.5	1.7	1.7	0.0	1.9	0.3	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	0.3	0.0	0.1	0.0	0.1	0.0	0.4	2.7	0.0	0.3	1.2	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.3	0.0	16.9	20.6	21.2	20.7	21.6	14.3	9.7	21.9	11.7	11.9
LnGrp LOS	B	A	B	C	C	C	C	B	A	C	B	B
Approach Vol, veh/h		55			9			505			766	
Approach Delay, s/veh		17.2			20.9			14.9			12.2	
Approach LOS		B			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	20.5		9.6	6.6	20.2		6.2				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		5.1				
Max Green Setting (Gmax), s	8.4	53.4		19.4	9.4	52.4		18.0				
Max Q Clear Time (g_c+I1), s	2.8	11.0		2.8	3.0	6.7		2.1				
Green Ext Time (p_c), s	0.0	2.6		0.1	0.0	4.5		0.0				

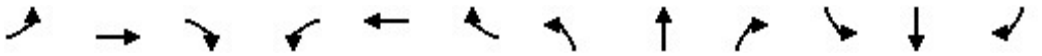
Intersection Summary			
HCM 6th Ctrl Delay		13.5	
HCM 6th LOS		B	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	15	55	5	300	79	1	166	215	361	287	31
Future Volume (vph)	15	55	5	300	79	1	166	215	361	287	31
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.4	33.4	9.6	30.4	9.6	37.5	37.5	9.6	39.5	39.5
Total Split (s)	9.9	33.4	33.4	22.0	45.5	9.6	38.6	38.6	26.0	55.0	55.0
Total Split (%)	8.3%	27.8%	27.8%	18.3%	37.9%	8.0%	32.2%	32.2%	21.7%	45.8%	45.8%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	5.5	5.5	3.6	5.5	5.5
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	5.4	5.4	4.6	5.4	4.6	6.5	6.5	4.6	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None	None
Act Effct Green (s)	5.3	12.9	12.9	17.8	33.9	5.1	15.5	15.5	21.9	40.6	40.6
Actuated g/C Ratio	0.06	0.14	0.14	0.20	0.38	0.06	0.17	0.17	0.24	0.45	0.45
v/c Ratio	0.16	0.12	0.01	0.93	0.22	0.01	0.56	0.50	0.91	0.20	0.04
Control Delay	49.3	34.6	0.0	71.2	5.4	48.0	41.0	8.4	61.4	16.3	0.1
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	49.3	34.6	0.0	71.2	5.4	48.0	41.0	8.4	61.4	16.3	0.1
LOS	D	C	A	E	A	D	D	A	E	B	A
Approach Delay		35.1			34.1		22.7			39.6	
Approach LOS		D			C		C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 89.6	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 33.8	Intersection LOS: C
Intersection Capacity Utilization 65.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 10: Goetz Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	55	5	300	79	307	1	166	215	361	287	31
Future Volume (veh/h)	15	55	5	300	79	307	1	166	215	361	287	31
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	61	4	333	88	254	1	184	137	401	319	21
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	36	475	212	374	1100	512	2	267	226	442	1384	616
Arrive On Green	0.02	0.13	0.13	0.21	0.32	0.32	0.00	0.14	0.14	0.24	0.38	0.38
Sat Flow, veh/h	1810	3610	1610	1810	3458	1610	1810	1900	1610	1810	3610	1608
Grp Volume(v), veh/h	17	61	4	333	88	254	1	184	137	401	319	21
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1610	1810	1900	1610	1810	1805	1608
Q Serve(g_s), s	0.7	1.1	0.2	13.6	1.4	9.7	0.0	7.0	6.1	16.4	4.5	0.6
Cycle Q Clear(g_c), s	0.7	1.1	0.2	13.6	1.4	9.7	0.0	7.0	6.1	16.4	4.5	0.6
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	36	475	212	374	1100	512	2	267	226	442	1384	616
V/C Ratio(X)	0.47	0.13	0.02	0.89	0.08	0.50	0.40	0.69	0.61	0.91	0.23	0.03
Avail Cap(c_a), veh/h	126	1329	593	414	1823	849	119	802	679	509	2302	1025
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	1.00
Uniform Delay (d), s/veh	36.9	29.2	28.8	29.3	18.1	21.0	38.0	31.1	30.7	27.9	15.9	14.7
Incr Delay (d2), s/veh	3.6	0.1	0.0	18.4	0.0	0.7	34.6	3.2	2.6	17.2	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	0.3	0.5	0.1	7.4	0.5	3.4	0.0	3.1	2.4	8.3	1.6	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.5	29.3	28.8	47.7	18.2	21.7	72.6	34.3	33.3	45.2	16.0	14.7
LnGrp LOS	D	C	C	D	B	C	E	C	C	D	B	B
Approach Vol, veh/h		82			675			322			741	
Approach Delay, s/veh		31.6			34.1			34.0			31.7	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.2	17.2	20.3	15.4	4.7	35.7	6.1	29.6
Change Period (Y+Rc), s	4.6	6.5	4.6	5.4	4.6	6.5	4.6	5.4
Max Green Setting (Gmax), s	21.4	32.1	17.4	28.0	5.0	48.5	5.3	40.1
Max Q Clear Time (g_c+I1), s	18.4	9.0	15.6	3.1	2.0	6.5	2.7	11.7
Green Ext Time (p_c), s	0.2	1.2	0.1	0.3	0.0	1.9	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	114	0	0	36	0	19
Future Vol, veh/h	114	0	0	36	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	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	124	0	0	39	0	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	62
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	996
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	996
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

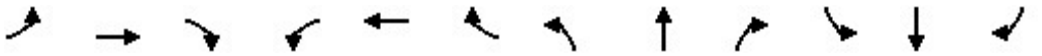
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	996	-	-	-
HCM Lane V/C Ratio	0.021	-	-	-
HCM Control Delay (s)	8.7	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Lane Group	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	45	88	110	15	131	21	297	81	96	348
Future Volume (vph)	45	88	110	15	131	21	297	81	96	348
Turn Type	NA	Perm	Split	NA	Perm	Perm	NA	Perm	Prot	NA
Protected Phases	4		8	8			2		1	6
Permitted Phases		4			8	2		2		
Detector Phase	4	4	8	8	8	2	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	14.8	14.8	14.8	16.4	16.4	16.4	9.6	16.4
Total Split (s)	15.0	15.0	37.0	37.0	37.0	47.0	47.0	47.0	21.0	68.0
Total Split (%)	12.5%	12.5%	30.8%	30.8%	30.8%	39.2%	39.2%	39.2%	17.5%	56.7%
Yellow Time (s)	3.8	3.8	3.8	3.8	3.8	5.4	5.4	5.4	3.6	5.4
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)	4.8	4.8	4.8	4.8	4.8	6.4	6.4	6.4	4.6	6.4
Lead/Lag						Lag	Lag	Lag	Lead	
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	Min	Min	Min	None	Min
Act Effct Green (s)	10.8	10.8	11.5	11.5	11.5	12.4	12.4	12.4	8.2	22.0
Actuated g/C Ratio	0.19	0.19	0.20	0.20	0.20	0.22	0.22	0.22	0.15	0.39
v/c Ratio	0.13	0.23	0.32	0.04	0.31	0.10	0.40	0.20	0.39	0.26
Control Delay	25.2	5.9	26.1	22.9	7.5	22.9	23.5	5.6	29.8	12.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.2	5.9	26.1	22.9	7.5	22.9	23.5	5.6	29.8	12.5
LOS	C	A	C	C	A	C	C	A	C	B
Approach Delay	12.4			16.4			19.8			16.2
Approach LOS	B			B			B			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 56.4	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.40	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 45.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 12: Case Rd. & Ellis Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	45	88	110	15	131	21	297	81	96	348	0
Future Volume (veh/h)	0	45	88	110	15	131	21	297	81	96	348	0
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	0	47	92	116	16	137	22	313	0	101	366	0
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	297	312	265	335	352	298	331	681		132	1258	
Arrive On Green	0.00	0.16	0.16	0.19	0.19	0.19	0.19	0.19	0.00	0.07	0.35	0.00
Sat Flow, veh/h	1810	1900	1610	1810	1900	1610	1032	3610	1610	1810	3610	1610
Grp Volume(v), veh/h	0	47	92	116	16	137	22	313	0	101	366	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1900	1610	1032	1805	1610	1810	1805	1610
Q Serve(g_s), s	0.0	1.1	2.7	3.0	0.4	4.0	0.9	4.1	0.0	2.9	3.9	0.0
Cycle Q Clear(g_c), s	0.0	1.1	2.7	3.0	0.4	4.0	0.9	4.1	0.0	2.9	3.9	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	297	312	265	335	352	298	331	681		132	1258	
V/C Ratio(X)	0.00	0.15	0.35	0.35	0.05	0.46	0.07	0.46		0.76	0.29	
Avail Cap(c_a), veh/h	348	366	310	1100	1155	979	927	2766		560	4197	
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)	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	19.0	19.6	18.8	17.7	19.2	17.8	19.1	0.0	24.1	12.5	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.8	0.6	0.1	1.1	0.1	0.5	0.0	3.4	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	0.0	0.5	1.0	1.2	0.1	1.4	0.2	1.4	0.0	1.2	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.2	20.4	19.4	17.8	20.3	17.9	19.6	0.0	27.5	12.6	0.0
LnGrp LOS	A	B	C	B	B	C	B	B		C	B	
Approach Vol, veh/h		139			269			335	A		467	A
Approach Delay, s/veh		20.0			19.8			19.5			15.9	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	8.5	16.4		13.5		24.9		14.6				
Change Period (Y+Rc), s	4.6	6.4		* 4.8		6.4		4.8				
Max Green Setting (Gmax), s	16.4	40.6		* 10		61.6		32.2				
Max Q Clear Time (g_c+I1), s	4.9	6.1		4.7		5.9		6.0				
Green Ext Time (p_c), s	0.1	1.9		0.2		2.2		0.8				

Intersection Summary		
HCM 6th Ctrl Delay		18.2
HCM 6th LOS		B

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

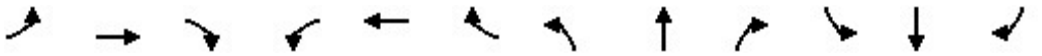
Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	371	7	523	195	822	933	137
Future Volume (vph)	371	7	523	195	822	933	137
Turn Type	Split	NA	Prot	Prot	NA	NA	Perm
Protected Phases	8	8	8	5	2	6	
Permitted Phases							6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	9.5	11.0	31.0	31.0
Total Split (s)	57.0	57.0	57.0	20.0	63.0	43.0	43.0
Total Split (%)	47.5%	47.5%	47.5%	16.7%	52.5%	35.8%	35.8%
Yellow Time (s)	5.0	5.0	5.0	3.5	5.0	5.0	5.0
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)	6.0	6.0	6.0	4.5	6.0	6.0	6.0
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	Min	Min
Act Effct Green (s)	22.1	22.1	22.1	10.1	35.4	20.6	20.6
Actuated g/C Ratio	0.32	0.32	0.32	0.14	0.50	0.29	0.29
v/c Ratio	0.61	0.57	0.56	0.41	0.47	0.51	0.25
Control Delay	26.6	18.1	17.7	33.0	13.0	22.4	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.6	18.1	17.7	33.0	13.1	22.4	5.7
LOS	C	B	B	C	B	C	A
Approach Delay		20.9			16.9	20.2	
Approach LOS		C			B	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 70.1	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 19.3	Intersection LOS: B
Intersection Capacity Utilization 54.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 13: Redlands Av & I-215 NB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	371	7	523	195	822	0	0	933	137
Future Volume (veh/h)	0	0	0	371	7	523	195	822	0	0	933	137
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	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				494	0	236	201	847	0	0	962	88
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				824	0	366	344	1843	0	0	2092	515
Arrive On Green				0.23	0.00	0.23	0.10	0.52	0.00	0.00	0.33	0.33
Sat Flow, veh/h				3563	0	1585	3456	3647	0	0	6696	1585
Grp Volume(v), veh/h				494	0	236	201	847	0	0	962	88
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1609	1585
Q Serve(g_s), s				5.9	0.0	6.4	2.7	7.2	0.0	0.0	5.7	1.9
Cycle Q Clear(g_c), s				5.9	0.0	6.4	2.7	7.2	0.0	0.0	5.7	1.9
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				824	0	366	344	1843	0	0	2092	515
V/C Ratio(X)				0.60	0.00	0.64	0.58	0.46	0.00	0.00	0.46	0.17
Avail Cap(c_a), veh/h				3790	0	1686	1117	4225	0	0	4965	1223
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	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				16.5	0.0	16.6	20.6	7.3	0.0	0.0	12.8	11.6
Incr Delay (d2), s/veh				0.7	0.0	1.9	1.6	0.2	0.0	0.0	0.2	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				2.0	0.0	2.0	1.0	1.9	0.0	0.0	1.7	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				17.2	0.0	18.5	22.2	7.5	0.0	0.0	13.0	11.7
LnGrp LOS				B	A	B	C	A	A	A	B	B
Approach Vol, veh/h					730			1048			1050	
Approach Delay, s/veh					17.6			10.3			12.9	
Approach LOS					B			B			B	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	30.9		9.3	21.6		17.1						
Change Period (Y+Rc), s	6.0		4.5	6.0		6.0						
Max Green Setting (Gmax), s	57.0		15.5	37.0		51.0						
Max Q Clear Time (g_c+I1), s	9.2		4.7	7.7		8.4						
Green Ext Time (p_c), s	7.0		0.5	7.9		2.6						

Intersection Summary		
HCM 6th Ctrl Delay	13.1	
HCM 6th LOS	B	

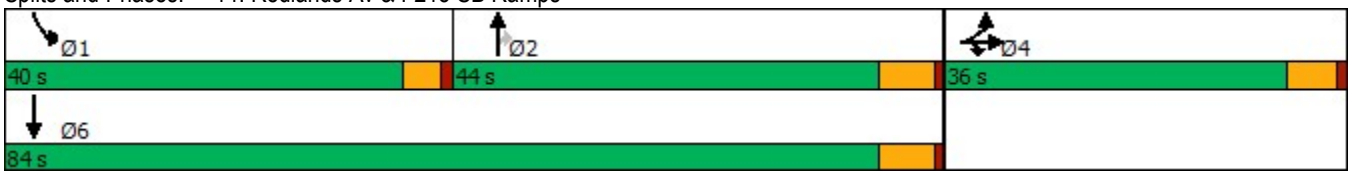
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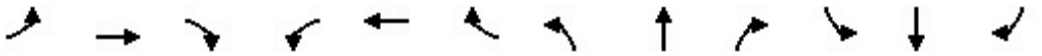
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	183	2	219	834	454	407	897
Future Volume (vph)	183	2	219	834	454	407	897
Turn Type	Split	NA	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	4	2		1	6
Permitted Phases					2		
Detector Phase	4	4	4	2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	10.5	10.5	11.0	11.0	9.5	33.0
Total Split (s)	36.0	36.0	36.0	44.0	44.0	40.0	84.0
Total Split (%)	30.0%	30.0%	30.0%	36.7%	36.7%	33.3%	70.0%
Yellow Time (s)	4.5	4.5	4.5	5.0	5.0	3.5	5.0
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)	5.5	5.5	5.5	6.0	6.0	4.5	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None	None	Min	Min	None	Min
Act Effct Green (s)	11.5	11.5	11.5	20.2	20.2	13.7	38.5
Actuated g/C Ratio	0.19	0.19	0.19	0.33	0.33	0.22	0.62
v/c Ratio	0.46	0.40	0.34	0.40	0.38	0.54	0.41
Control Delay	29.9	15.9	8.3	17.3	3.0	25.8	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.9	15.9	8.3	17.3	3.0	25.8	6.8
LOS	C	B	A	B	A	C	A
Approach Delay		18.3		12.3			12.7
Approach LOS		B		B			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 62	
Natural Cycle: 45	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.54	
Intersection Signal Delay: 13.3	Intersection LOS: B
Intersection Capacity Utilization 54.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 14: Redlands Av & I-215 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	183	2	219	0	0	0	0	834	454	407	897	0
Future Volume (veh/h)	183	2	219	0	0	0	0	834	454	407	897	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	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	217	0	68				0	842	343	411	906	0
Peak Hour Factor	0.99	0.99	0.99				0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	424	0	189				0	2150	932	645	2211	0
Arrive On Green	0.12	0.00	0.12				0.00	0.33	0.33	0.19	0.62	0.00
Sat Flow, veh/h	3563	0	1585				0	6696	2790	3456	3647	0
Grp Volume(v), veh/h	217	0	68				0	842	343	411	906	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1609	1395	1728	1777	0
Q Serve(g_s), s	2.5	0.0	1.8				0.0	4.5	4.1	4.9	5.7	0.0
Cycle Q Clear(g_c), s	2.5	0.0	1.8				0.0	4.5	4.1	4.9	5.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	424	0	189				0	2150	932	645	2211	0
V/C Ratio(X)	0.51	0.00	0.36				0.00	0.39	0.37	0.64	0.41	0.00
Avail Cap(c_a), veh/h	2446	0	1088				0	5504	2386	2762	6240	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)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	18.4	0.0	18.0				0.0	11.3	11.2	16.7	4.3	0.0
Incr Delay (d2), s/veh	1.0	0.0	1.2				0.0	0.1	0.2	1.0	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	0.9	0.0	0.6				0.0	1.3	1.0	1.7	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.3	0.0	19.2				0.0	11.4	11.5	17.7	4.4	0.0
LnGrp LOS	B	A	B				A	B	B	B	A	A
Approach Vol, veh/h		285						1185			1317	
Approach Delay, s/veh		19.3						11.5			8.5	
Approach LOS		B						B			A	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	12.8	20.8		10.8		33.6						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	35.5	38.0		30.5		78.0						
Max Q Clear Time (g_c+I1), s	6.9	6.5		4.5		7.7						
Green Ext Time (p_c), s	1.5	8.4		0.9		7.8						

Intersection Summary	
HCM 6th Ctrl Delay	10.9
HCM 6th LOS	B

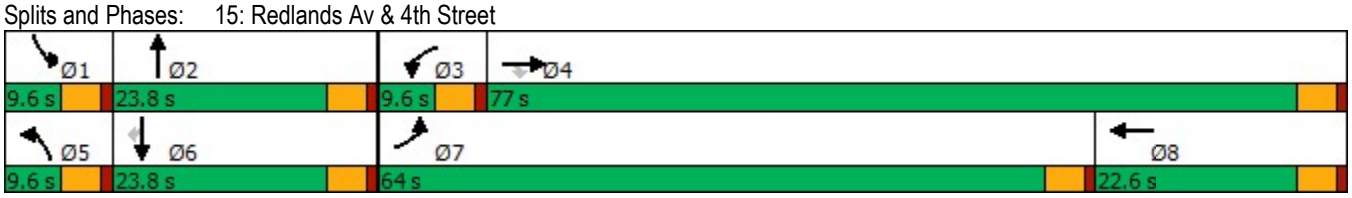
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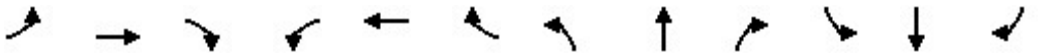
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	806	24	51	8	18	43	383	45	284	648
Future Volume (vph)	806	24	51	8	18	43	383	45	284	648
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.6	22.6	22.6	9.6	22.6	9.6	22.6	9.6	22.6	22.6
Total Split (s)	64.0	77.0	77.0	9.6	22.6	9.6	23.8	9.6	23.8	23.8
Total Split (%)	53.3%	64.2%	64.2%	8.0%	18.8%	8.0%	19.8%	8.0%	19.8%	19.8%
Yellow Time (s)	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
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	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min
Act Effct Green (s)	56.3	64.6	64.6	5.3	8.3	5.3	17.0	5.3	17.0	17.0
Actuated g/C Ratio	0.56	0.65	0.65	0.05	0.08	0.05	0.17	0.05	0.17	0.17
v/c Ratio	0.86	0.01	0.05	0.10	0.29	0.49	0.69	0.52	0.50	0.66
Control Delay	32.1	7.9	0.4	55.1	18.1	70.8	48.2	72.3	43.9	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	7.9	0.4	55.1	18.1	70.8	48.2	72.3	43.9	6.7
LOS	C	A	A	E	B	E	D	E	D	A
Approach Delay		29.6			21.3		50.5		20.5	
Approach LOS		C			C		D		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 100	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 29.3	Intersection LOS: C
Intersection Capacity Utilization 77.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 15: Redlands Av & 4th Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	806	24	51	8	18	71	43	383	6	45	284	648
Future Volume (veh/h)	806	24	51	8	18	71	43	383	6	45	284	648
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	857	26	38	9	19	60	46	407	5	48	302	513
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	905	1978	882	20	106	94	66	722	9	67	716	562
Arrive On Green	0.51	0.56	0.56	0.01	0.06	0.06	0.04	0.20	0.20	0.04	0.20	0.20
Sat Flow, veh/h	1781	3554	1585	1781	1777	1585	1781	3595	44	1781	3554	2790
Grp Volume(v), veh/h	857	26	38	9	19	60	46	201	211	48	302	513
Grp Sat Flow(s),veh/h/ln	1781	1777	1585	1781	1777	1585	1781	1777	1862	1781	1777	1395
Q Serve(g_s), s	43.3	0.3	1.0	0.5	1.0	3.5	2.4	9.7	9.7	2.5	7.0	17.1
Cycle Q Clear(g_c), s	43.3	0.3	1.0	0.5	1.0	3.5	2.4	9.7	9.7	2.5	7.0	17.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	905	1978	882	20	106	94	66	357	374	67	716	562
V/C Ratio(X)	0.95	0.01	0.04	0.45	0.18	0.64	0.70	0.56	0.56	0.71	0.42	0.91
Avail Cap(c_a), veh/h	1114	2709	1208	94	337	300	94	359	377	94	718	564
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	1.00
Uniform Delay (d), s/veh	22.1	9.4	9.6	46.7	42.5	43.7	45.2	34.2	34.2	45.2	33.1	37.1
Incr Delay (d2), s/veh	14.2	0.0	0.0	15.4	0.8	6.9	12.5	2.0	1.9	14.0	0.4	19.2
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	19.9	0.1	0.3	0.3	0.4	1.5	1.3	4.2	4.4	1.4	3.0	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	9.4	9.6	62.0	43.3	50.6	57.7	36.2	36.1	59.2	33.5	56.3
LnGrp LOS	D	A	A	E	D	D	E	D	D	E	C	E
Approach Vol, veh/h		921			88			458			863	
Approach Delay, s/veh		34.4			50.2			38.3			48.5	
Approach LOS		C			D			D			D	

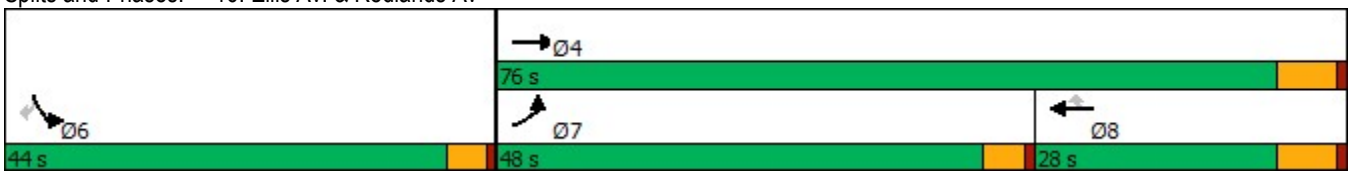
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.2	23.7	5.7	57.5	8.1	23.7	52.9	10.2
Change Period (Y+Rc), s	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
Max Green Setting (Gmax), s	5.0	19.2	5.0	72.4	5.0	19.2	59.4	18.0
Max Q Clear Time (g_c+I1), s	4.5	11.7	2.5	3.0	4.4	19.1	45.3	5.5
Green Ext Time (p_c), s	0.0	1.3	0.0	0.3	0.0	0.1	3.0	0.2

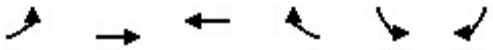
Intersection Summary	
HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	225	1	6	16	3	219
Future Volume (vph)	225	1	6	16	3	219
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	5.0	5.0
Minimum Split (s)	9.6	24.5	24.5	24.5	22.6	22.6
Total Split (s)	48.0	76.0	28.0	28.0	44.0	44.0
Total Split (%)	40.0%	63.3%	23.3%	23.3%	36.7%	36.7%
Yellow Time (s)	3.6	5.5	5.5	5.5	3.6	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	6.5	6.5	6.5	4.6	4.6
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	14.5	18.1	12.3	12.3	10.3	10.3
Actuated g/C Ratio	0.35	0.44	0.30	0.30	0.25	0.25
v/c Ratio	0.39	0.00	0.01	0.04	0.01	0.41
Control Delay	15.8	5.0	16.0	9.6	17.7	5.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.8	5.0	16.0	9.6	17.7	5.9
LOS	B	A	B	A	B	A
Approach Delay		15.7	11.4		6.0	
Approach LOS		B	B		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 41.1	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.41	
Intersection Signal Delay: 11.0	Intersection LOS: B
Intersection Capacity Utilization 32.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 16: Ellis Av. & Redlands Av





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	225	1	6	16	3	219
Future Volume (veh/h)	225	1	6	16	3	219
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	250	1	7	14	3	182
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	351	1491	203	90	352	313
Arrive On Green	0.19	0.41	0.06	0.06	0.19	0.19
Sat Flow, veh/h	1810	3705	3705	1610	1810	1610
Grp Volume(v), veh/h	250	1	7	14	3	182
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1610	1810	1610
Q Serve(g_s), s	3.7	0.0	0.1	0.2	0.0	2.9
Cycle Q Clear(g_c), s	3.7	0.0	0.1	0.2	0.0	2.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	351	1491	203	90	352	313
V/C Ratio(X)	0.71	0.00	0.03	0.15	0.01	0.58
Avail Cap(c_a), veh/h	2778	8876	2746	1225	2522	2244
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	10.6	4.9	12.6	12.7	9.2	10.3
Incr Delay (d2), s/veh	2.7	0.0	0.2	2.2	0.0	1.7
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	0.0	0.0	0.1	0.0	2.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.3	4.9	12.8	14.9	9.2	12.1
LnGrp LOS	B	A	B	B	A	B
Approach Vol, veh/h		251	21		185	
Approach Delay, s/veh		13.3	14.2		12.0	
Approach LOS		B	B		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			18.2		10.1	10.1	8.1
Change Period (Y+Rc), s			6.5		4.6	4.6	6.5
Max Green Setting (Gmax), s			69.5		39.4	43.4	21.5
Max Q Clear Time (g_c+I1), s			2.0		4.9	5.7	2.2
Green Ext Time (p_c), s			0.0		0.6	0.7	0.1

Intersection Summary	
HCM 6th Ctrl Delay	12.8
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	541	4	39	389	10	35
Future Vol, veh/h	541	4	39	389	10	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	588	4	42	423	11	38

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	592	0	886	296
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	296	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	994	-	288	706
Stage 1	-	-	-	-	522	-
Stage 2	-	-	-	-	735	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	994	-	276	706
Mov Cap-2 Maneuver	-	-	-	-	395	-
Stage 1	-	-	-	-	522	-
Stage 2	-	-	-	-	704	-

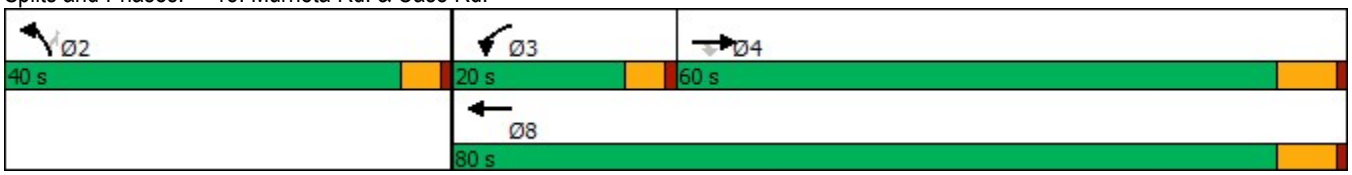
Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	11.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	601	-	-	994	-
HCM Lane V/C Ratio	0.081	-	-	0.043	-
HCM Control Delay (s)	11.5	-	-	8.8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	458	118	24	338	89	20
Future Volume (vph)	458	118	24	338	89	20
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	5.0	5.0
Minimum Split (s)	24.5	24.5	9.6	24.5	22.6	22.6
Total Split (s)	60.0	60.0	20.0	80.0	40.0	40.0
Total Split (%)	50.0%	50.0%	16.7%	66.7%	33.3%	33.3%
Yellow Time (s)	5.5	5.5	3.6	5.5	3.6	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)	6.5	6.5	4.6	6.5	4.6	4.6
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	13.0	13.0	5.8	14.3	8.2	8.2
Actuated g/C Ratio	0.38	0.38	0.17	0.41	0.24	0.24
v/c Ratio	0.37	0.19	0.09	0.25	0.23	0.06
Control Delay	10.3	3.9	18.0	7.2	13.2	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	3.9	18.0	7.2	13.2	6.8
LOS	B	A	B	A	B	A
Approach Delay	9.0			7.9	12.1	
Approach LOS	A			A	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 34.6	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.37	
Intersection Signal Delay: 8.9	Intersection LOS: A
Intersection Capacity Utilization 34.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 18: Murrieta Rd. & Case Rd.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	458	118	24	338	89	20
Future Volume (veh/h)	458	118	24	338	89	20
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	503	130	26	371	98	22
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	1138	508	58	1778	285	254
Arrive On Green	0.32	0.32	0.03	0.49	0.16	0.16
Sat Flow, veh/h	3705	1610	1810	3705	1810	1610
Grp Volume(v), veh/h	503	130	26	371	98	22
Grp Sat Flow(s),veh/h/ln	1805	1610	1810	1805	1810	1610
Q Serve(g_s), s	3.5	1.9	0.4	1.8	1.5	0.4
Cycle Q Clear(g_c), s	3.5	1.9	0.4	1.8	1.5	0.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1138	508	58	1778	285	254
V/C Ratio(X)	0.44	0.26	0.45	0.21	0.34	0.09
Avail Cap(c_a), veh/h	6088	2716	878	8364	2019	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	8.6	8.1	15.1	4.6	11.9	11.4
Incr Delay (d2), s/veh	0.3	0.3	2.0	0.1	0.3	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	0.6	0.3	0.2	0.1	0.5	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.9	8.4	17.0	4.6	12.2	11.5
LnGrp LOS	A	A	B	A	B	B
Approach Vol, veh/h	633			397	120	
Approach Delay, s/veh	8.8			5.4	12.0	
Approach LOS	A			A	B	

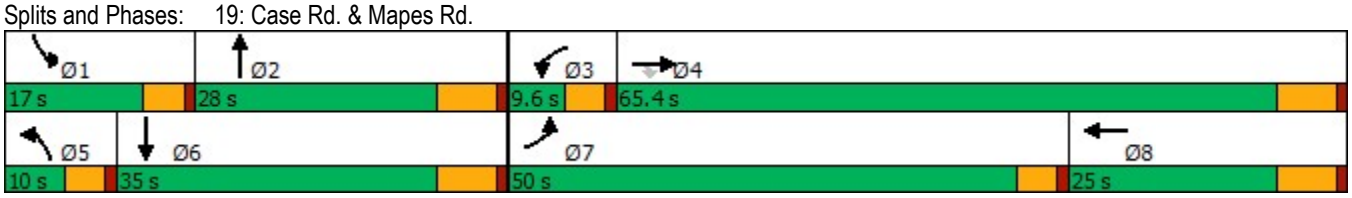
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		9.6	5.6	16.5		22.1
Change Period (Y+Rc), s		4.6	4.6	6.5		6.5
Max Green Setting (Gmax), s		35.4	15.4	53.5		73.5
Max Q Clear Time (g_c+I1), s		3.5	2.4	5.5		3.8
Green Ext Time (p_c), s		0.2	0.0	3.5		2.2

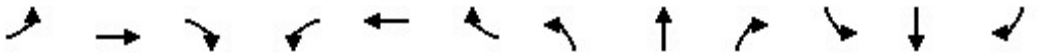
Intersection Summary	
HCM 6th Ctrl Delay	8.0
HCM 6th LOS	A

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT	Ø3
Lane Configurations								
Traffic Volume (vph)	383	95	93	1	1	68	0	
Future Volume (vph)	383	95	93	1	1	68	0	
Turn Type	Prot	NA	NA	Prot	NA	Prot	NA	
Protected Phases	7	4	8	5	2	1	6	3
Permitted Phases								
Detector Phase	7	4	8	5	2	1	6	
Switch Phase								
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0
Minimum Split (s)	9.6	24.5	24.5	9.6	24.5	9.6	24.5	9.6
Total Split (s)	50.0	65.4	25.0	10.0	28.0	17.0	35.0	9.6
Total Split (%)	41.7%	54.5%	20.8%	8.3%	23.3%	14.2%	29.2%	8%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	3.6	5.5	3.6
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	
Total Lost Time (s)	4.6	6.5	6.5	4.6	6.5	4.6	6.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	None	Min	None
Act Effct Green (s)	22.1	38.7	11.8	5.3	11.8	8.0	20.5	
Actuated g/C Ratio	0.30	0.52	0.16	0.07	0.16	0.11	0.28	
v/c Ratio	0.80	0.11	0.32	0.01	0.00	0.39	0.27	
Control Delay	37.0	10.4	19.6	43.0	34.0	42.1	0.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.3	
Total Delay	37.0	10.4	19.6	43.0	34.0	42.1	0.9	
LOS	D	B	B	D	C	D	A	
Approach Delay		31.7	19.6		38.5		9.3	
Approach LOS		C	B		D		A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 74.4	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 22.0	Intersection LOS: C
Intersection Capacity Utilization 60.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 19: Case Rd. & Mapes Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	383	95	0	0	93	85	1	1	0	68	0	268
Future Volume (veh/h)	383	95	0	0	93	85	1	1	0	68	0	268
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	426	106	0	0	103	72	1	1	0	76	0	226
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	482	948	804	3	334	216	3	304	0	106	0	350
Arrive On Green	0.27	0.50	0.00	0.00	0.16	0.16	0.00	0.16	0.00	0.06	0.00	0.22
Sat Flow, veh/h	1810	1900	1610	1810	2101	1359	1810	1900	0	1810	0	1610
Grp Volume(v), veh/h	426	106	0	0	87	88	1	1	0	76	0	226
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	1805	1655	1810	1900	0	1810	0	1610
Q Serve(g_s), s	14.1	1.8	0.0	0.0	2.7	2.9	0.0	0.0	0.0	2.6	0.0	8.0
Cycle Q Clear(g_c), s	14.1	1.8	0.0	0.0	2.7	2.9	0.0	0.0	0.0	2.6	0.0	8.0
Prop In Lane	1.00		1.00	1.00		0.82	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	482	948	804	3	287	263	3	304	0	106	0	350
V/C Ratio(X)	0.88	0.11	0.00	0.00	0.30	0.33	0.34	0.00	0.00	0.72	0.00	0.65
Avail Cap(c_a), veh/h	1316	1793	1519	145	535	491	157	654	0	359	0	735
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	0.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.0	8.3	0.0	0.0	23.2	23.3	31.1	22.0	0.0	28.9	0.0	22.2
Incr Delay (d2), s/veh	2.2	0.1	0.0	0.0	0.6	0.7	24.2	0.0	0.0	3.3	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	5.1	0.5	0.0	0.0	1.0	1.0	0.0	0.0	0.0	1.1	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.1	8.3	0.0	0.0	23.8	24.0	55.4	22.0	0.0	32.2	0.0	24.2
LnGrp LOS	C	A	A	A	C	C	E	C	A	C	A	C
Approach Vol, veh/h		532			175			2			302	
Approach Delay, s/veh		21.0			23.9			38.7			26.2	
Approach LOS		C			C			D			C	

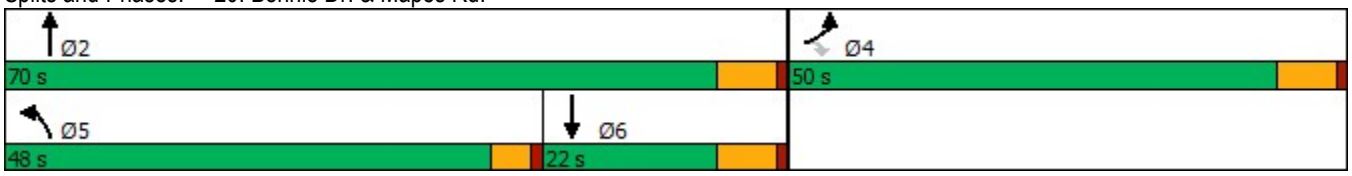
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	16.5	0.0	37.7	4.7	20.1	21.2	16.4
Change Period (Y+Rc), s	4.6	6.5	4.6	6.5	4.6	6.5	4.6	6.5
Max Green Setting (Gmax), s	12.4	21.5	5.0	58.9	5.4	28.5	45.4	18.5
Max Q Clear Time (g_c+I1), s	4.6	2.0	0.0	3.8	2.0	10.0	16.1	4.9
Green Ext Time (p_c), s	0.0	0.0	0.0	0.5	0.0	1.1	0.5	0.6

Intersection Summary		
HCM 6th Ctrl Delay		23.1
HCM 6th LOS		C

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	4	465	330	5	9
Future Volume (vph)	4	465	330	5	9
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)	16.5	16.5	9.6	16.5	16.5
Total Split (s)	50.0	50.0	48.0	70.0	22.0
Total Split (%)	41.7%	41.7%	40.0%	58.3%	18.3%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Min	Min
Act Effct Green (s)	11.2	11.2	15.3	30.1	10.1
Actuated g/C Ratio	0.21	0.21	0.28	0.55	0.19
v/c Ratio	0.01	0.70	0.72	0.01	0.05
Control Delay	18.8	8.1	26.7	5.8	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	8.1	26.7	5.8	18.1
LOS	B	A	C	A	B
Approach Delay	8.2			26.4	18.1
Approach LOS	A			C	B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 54.5	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 15.8	Intersection LOS: B
Intersection Capacity Utilization 48.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 20: Bonnie Dr. & Mapes Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	465	330	5	9	6
Future Volume (veh/h)	4	465	330	5	9	6
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	4	0	367	6	10	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	20		454	1219	278	195
Arrive On Green	0.01	0.00	0.25	0.64	0.27	0.27
Sat Flow, veh/h	1810	1610	1810	1900	1041	728
Grp Volume(v), veh/h	4	0	367	6	0	17
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	0	1769
Q Serve(g_s), s	0.1	0.0	7.1	0.0	0.0	0.3
Cycle Q Clear(g_c), s	0.1	0.0	7.1	0.0	0.0	0.3
Prop In Lane	1.00	1.00	1.00			0.41
Lane Grp Cap(c), veh/h	20		454	1219	0	473
V/C Ratio(X)	0.20		0.81	0.00	0.00	0.04
Avail Cap(c_a), veh/h	2106		2101	3228	0	733
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	18.3	0.0	13.2	2.4	0.0	10.1
Incr Delay (d2), s/veh	5.0	0.0	1.3	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	0.1	0.0	1.9	0.0	0.0	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.3	0.0	14.5	2.4	0.0	10.2
LnGrp LOS	C		B	A	A	B
Approach Vol, veh/h	4	A		373	17	
Approach Delay, s/veh	23.3			14.3	10.2	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		30.5		6.9	14.0	16.5
Change Period (Y+Rc), s		6.5		6.5	4.6	6.5
Max Green Setting (Gmax), s		63.5		43.5	43.4	15.5
Max Q Clear Time (g_c+I1), s		2.0		2.1	9.1	2.3
Green Ext Time (p_c), s		0.0		0.0	0.5	0.0

Intersection Summary	
HCM 6th Ctrl Delay	14.2
HCM 6th LOS	B

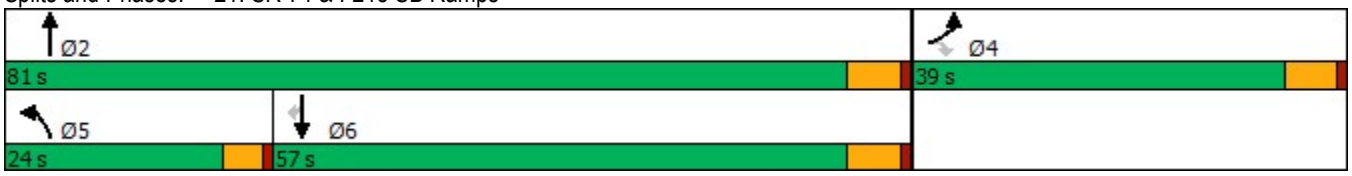
Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	115	359	282	346	906	54
Future Volume (vph)	115	359	282	346	906	54
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)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	39.0	39.0	24.0	81.0	57.0	57.0
Total Split (%)	32.5%	32.5%	20.0%	67.5%	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			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effct Green (s)	11.9	11.9	11.0	41.8	26.0	26.0
Actuated g/C Ratio	0.18	0.18	0.17	0.64	0.40	0.40
v/c Ratio	0.38	0.68	0.52	0.31	0.68	0.09
Control Delay	30.3	12.6	30.1	6.2	19.5	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.3	12.6	30.1	6.2	19.5	6.9
LOS	C	B	C	A	B	A
Approach Delay	16.9			16.9	18.8	
Approach LOS	B			B	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 65.8	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 17.8	Intersection LOS: B
Intersection Capacity Utilization 56.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 21: SR-74 & I-215 SB Ramps





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	115	359	282	346	906	54
Future Volume (veh/h)	115	359	282	346	906	54
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	124	384	303	372	974	58
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	488	434	416	1063	1346	601
Arrive On Green	0.27	0.27	0.12	0.56	0.37	0.37
Sat Flow, veh/h	1810	1610	3510	1900	3705	1610
Grp Volume(v), veh/h	124	384	303	372	974	58
Grp Sat Flow(s),veh/h/ln	1810	1610	1755	1900	1805	1610
Q Serve(g_s), s	3.6	15.5	5.6	7.3	15.7	1.6
Cycle Q Clear(g_c), s	3.6	15.5	5.6	7.3	15.7	1.6
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	488	434	416	1063	1346	601
V/C Ratio(X)	0.25	0.89	0.73	0.35	0.72	0.10
Avail Cap(c_a), veh/h	886	789	1005	2108	2727	1216
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	19.4	23.8	28.8	8.2	18.2	13.8
Incr Delay (d2), s/veh	0.1	2.5	0.9	0.2	0.8	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	1.4	12.8	2.2	2.2	5.7	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.5	26.2	29.7	8.4	19.0	13.9
LnGrp LOS	B	C	C	A	B	B
Approach Vol, veh/h	508			675	1032	
Approach Delay, s/veh	24.6			18.0	18.7	
Approach LOS	C			B	B	

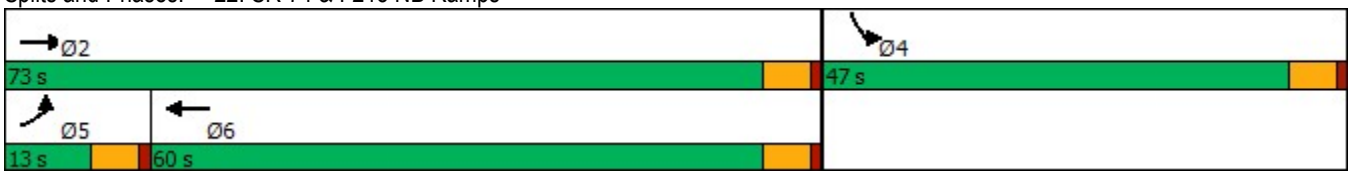
Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		43.7		24.1	12.6	31.1
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		75.2		33.2	19.4	51.2
Max Q Clear Time (g_c+I1), s		9.3		17.5	7.6	17.7
Green Ext Time (p_c), s		2.2		0.8	0.4	7.6

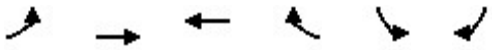
Intersection Summary		
HCM 6th Ctrl Delay		19.8
HCM 6th LOS		B

Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Configurations					
Traffic Volume (vph)	58	1208	568	693	291
Future Volume (vph)	58	1208	568	693	291
Turn Type	Prot	NA	NA	Free	Prot
Protected Phases	5	2	6		4
Permitted Phases				Free	
Detector Phase	5	2	6		4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0		5.0
Minimum Split (s)	10.3	10.3	10.3		10.3
Total Split (s)	13.0	73.0	60.0		47.0
Total Split (%)	10.8%	60.8%	50.0%		39.2%
Yellow Time (s)	4.3	4.3	4.3		4.3
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)	5.3	5.3	5.3		5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	Min	Min		None
Act Effct Green (s)	6.7	28.4	21.7	57.2	17.5
Actuated g/C Ratio	0.12	0.50	0.38	1.00	0.31
v/c Ratio	0.28	0.70	0.43	0.45	0.66
Control Delay	32.1	14.0	16.7	0.9	24.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	14.0	16.7	0.9	24.7
LOS	C	B	B	A	C
Approach Delay		14.8	8.0		24.7
Approach LOS		B	A		C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 57.2	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 13.0	Intersection LOS: B
Intersection Capacity Utilization 62.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 22: SR-74 & I-215 NB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	58	1208	568	693	291	60
Future Volume (veh/h)	58	1208	568	693	291	60
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	60	1258	592	0	303	46
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	110	1769	1066		374	57
Arrive On Green	0.06	0.49	0.30	0.00	0.24	0.24
Sat Flow, veh/h	1810	3705	3705	1610	1542	234
Grp Volume(v), veh/h	60	1258	592	0	350	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1610	1781	0
Q Serve(g_s), s	1.3	10.8	5.5	0.0	7.3	0.0
Cycle Q Clear(g_c), s	1.3	10.8	5.5	0.0	7.3	0.0
Prop In Lane	1.00			1.00	0.87	0.13
Lane Grp Cap(c), veh/h	110	1769	1066		432	0
V/C Ratio(X)	0.54	0.71	0.56		0.81	0.00
Avail Cap(c_a), veh/h	352	6166	4982		1874	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	0.00	1.00	0.00
Uniform Delay (d), s/veh	18.1	7.9	11.8	0.0	14.2	0.0
Incr Delay (d2), s/veh	1.5	0.2	0.2	0.0	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	0.5	2.0	1.5	0.0	2.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.6	8.1	11.9	0.0	15.6	0.0
LnGrp LOS	B	A	B		B	A
Approach Vol, veh/h		1318	592	A	350	
Approach Delay, s/veh		8.6	11.9		15.6	
Approach LOS		A	B		B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		24.7		14.9	7.7	17.0
Change Period (Y+Rc), s		5.3		5.3	5.3	5.3
Max Green Setting (Gmax), s		67.7		41.7	7.7	54.7
Max Q Clear Time (g_c+I1), s		12.8		9.3	3.3	7.5
Green Ext Time (p_c), s		6.6		0.5	0.0	2.4

Intersection Summary		
HCM 6th Ctrl Delay	10.6	
HCM 6th LOS	B	

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 5.3: E+P CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

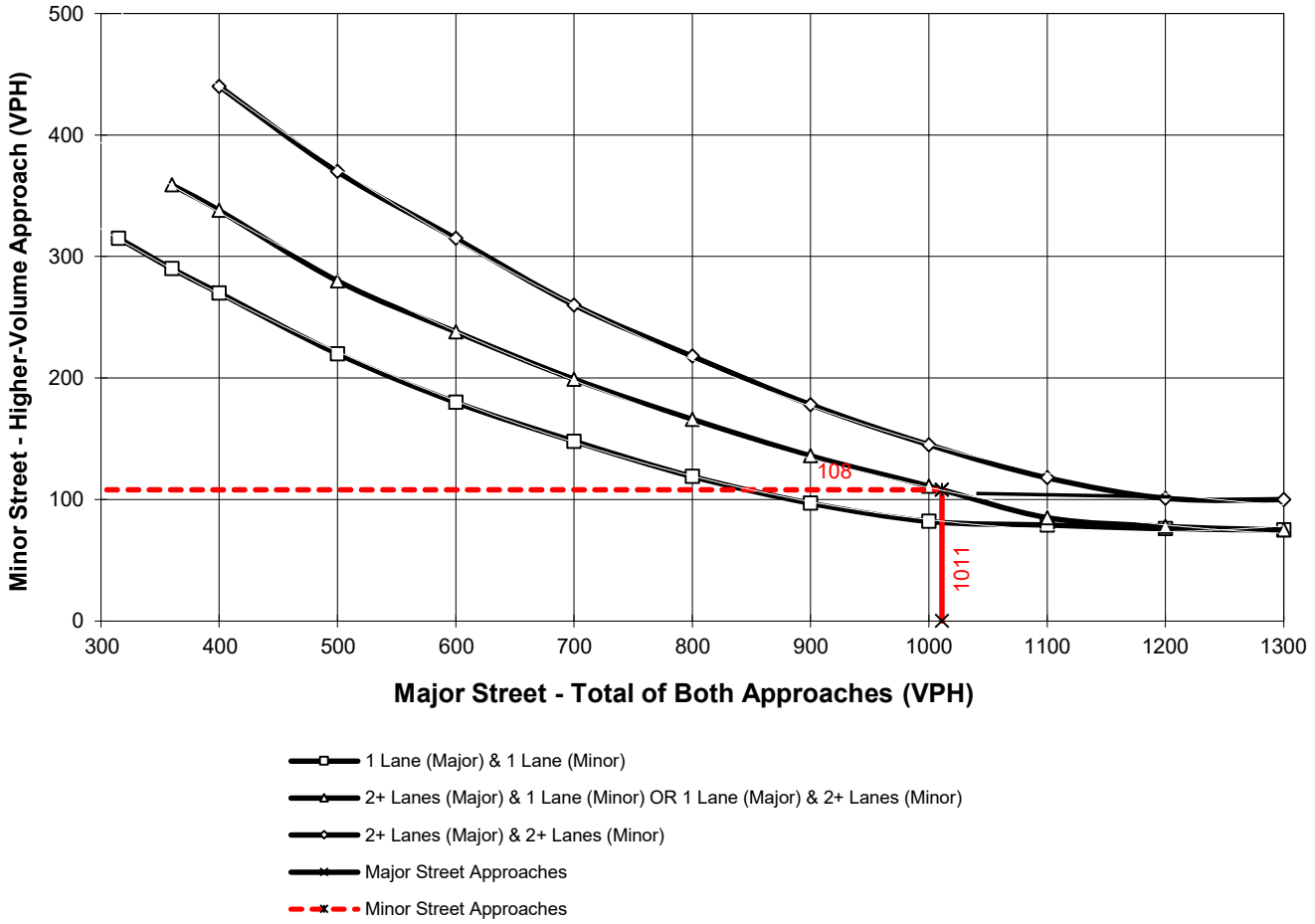
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P Conditions - Weekday AM Peak Hour**

Major Street Name = **Goetz Rd.**
Total of Both Approaches (VPH) = **1011**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Ellis Av.**
High Volume Approach (VPH) = **108**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*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)

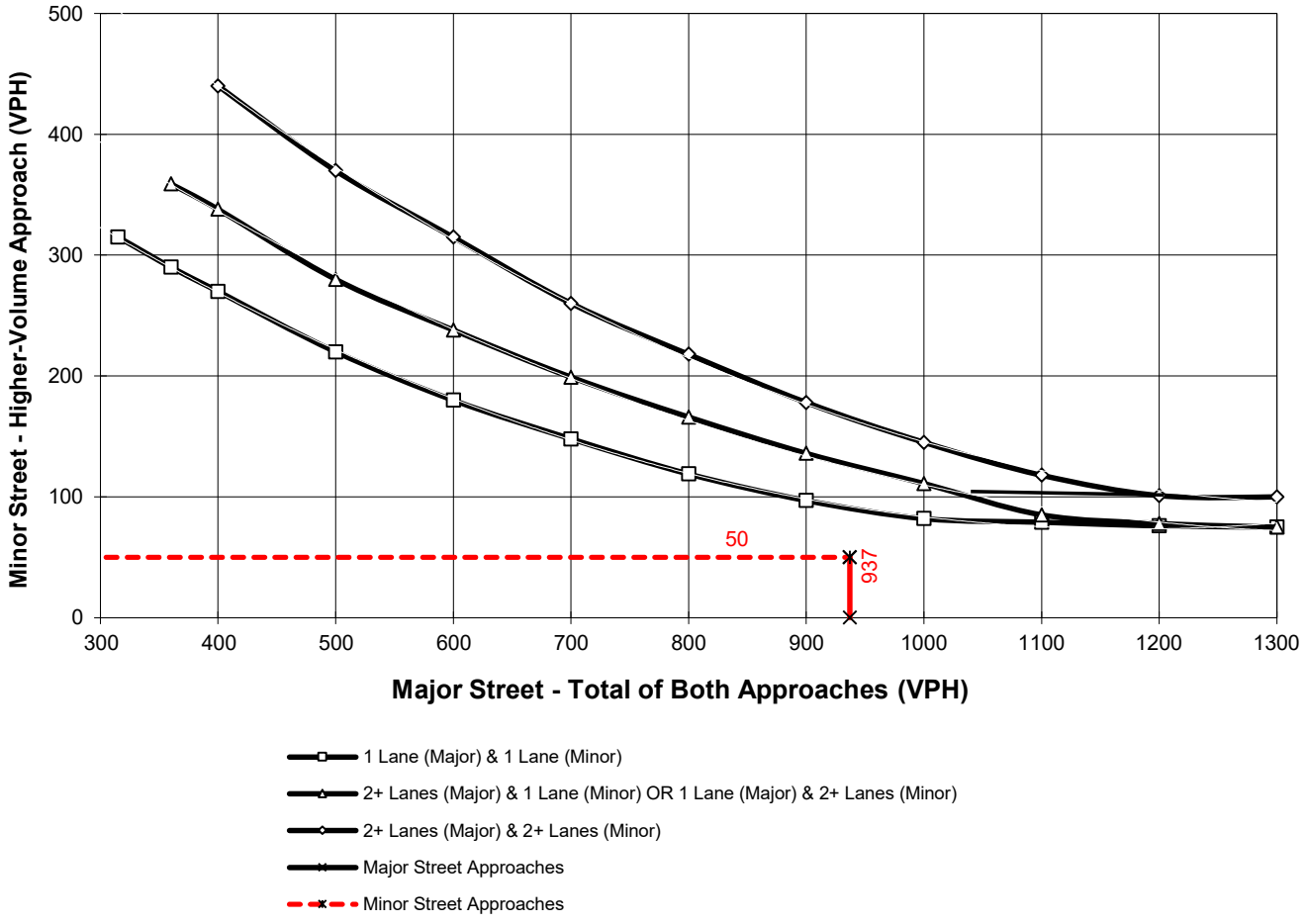
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P Conditions - Weekday PM Peak Hour**

Major Street Name = **Goetz Rd.**
Total of Both Approaches (VPH) = **937**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Malbert St.**
High Volume Approach (VPH) = **50**
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)

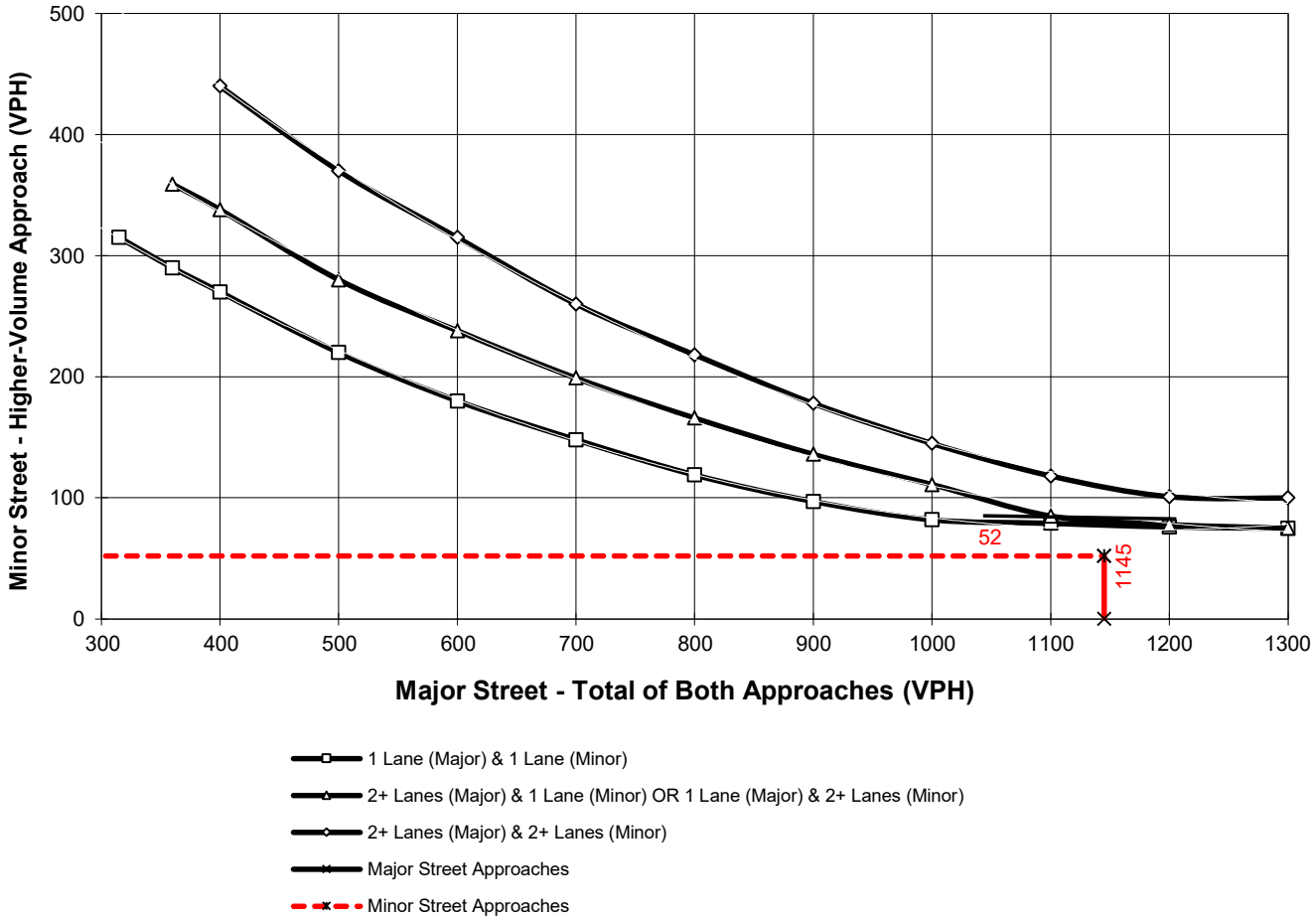
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P Conditions - Weekday AM Peak Hour**

Major Street Name = **Goetz Rd.**
Total of Both Approaches (VPH) = **1145**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Mountain Av.**
High Volume Approach (VPH) = **52**
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

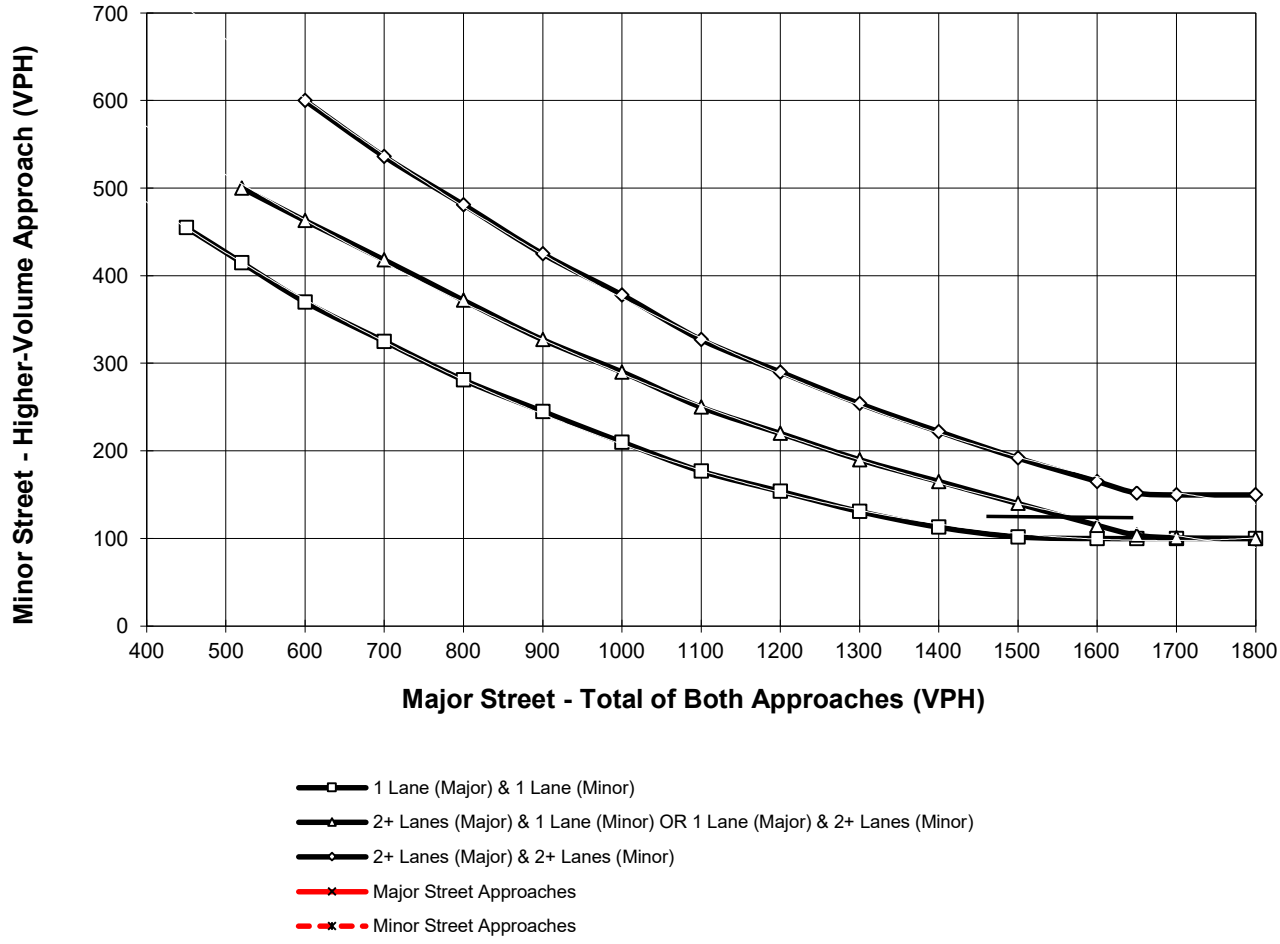
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **E+P Conditions - Weekday PM Peak Hour**

Major Street Name = **Redlands Av.**
Total of Both Approaches (VPH) = **248**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Ellis Av.**
High Volume Approach (VPH) = **222**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		E+P
				CALC JB	DATE	09/07/23
Jurisdiction: **City of Perris**				CHK JB	DATE	09/07/23
Major Street: **Case Rd.**				Critical Approach Speed (Major)		55 mph
Minor Street: **Driveway 5**				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **12,338** vpd Minor Street Future ADT = **341** 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: XX

CONDITION A - Minimum Vehicular Volume

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Minimum Requirements EADT: Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1	1	8,000	5,600	2,400	1,680
2 + **12,338**	1 **341**	9,600	6,720 *	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1	1	12,000	8,400	1,200	850
2 + **12,338**	1 **341**	14,400	10,080 *	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied / Not Satisfied: XX

No one condition satisfied, but following conditions fulfilled 80% of more ..... A: 20% B: 40%

2 CONDITIONS 80%

2 CONDITIONS 80%

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.

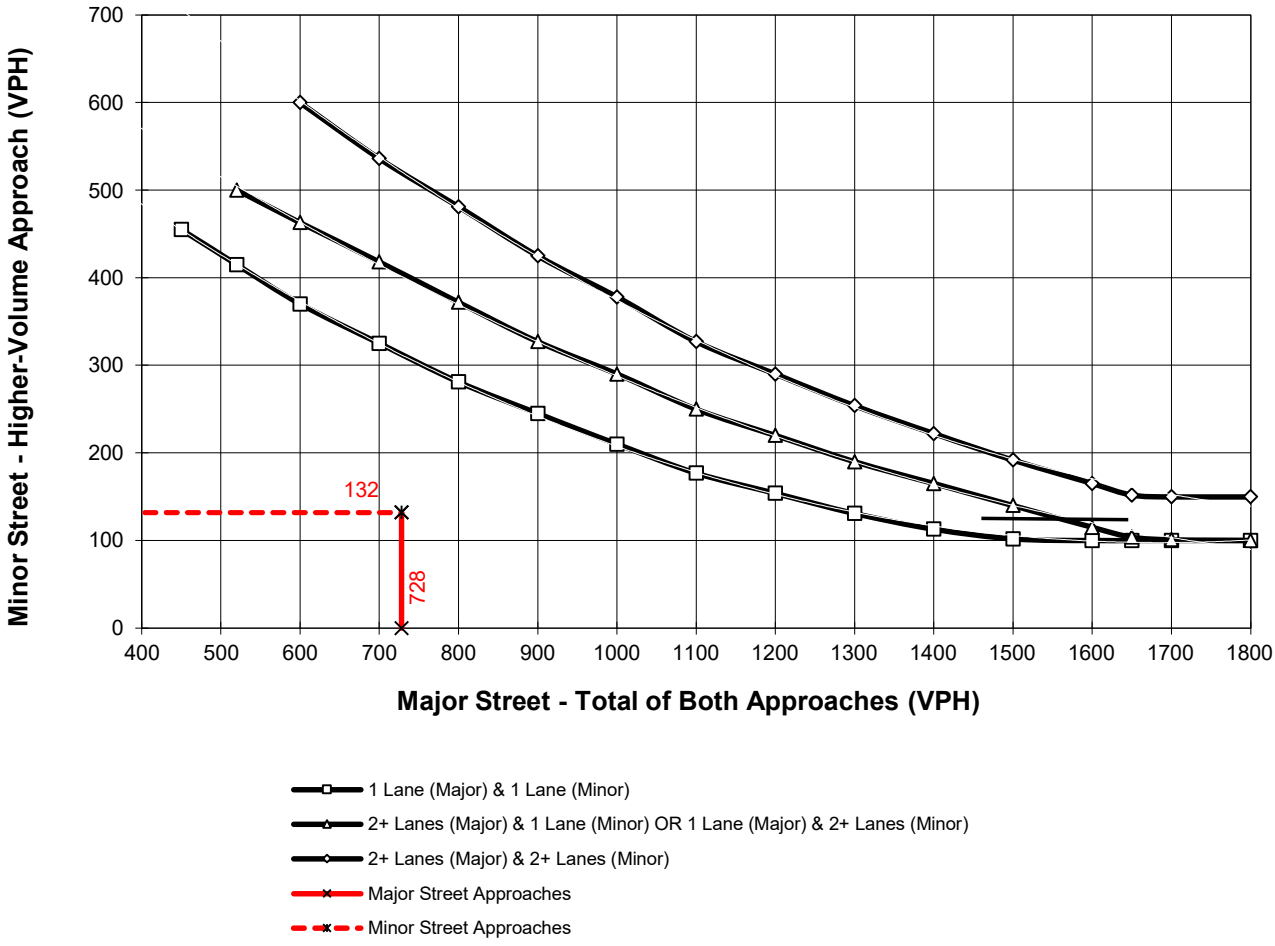
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **E+P Conditions - Weekday AM Peak Hour**

Major Street Name = **Case Rd.**
Total of Both Approaches (VPH) = **728**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Murrieta Rd.**
High Volume Approach (VPH) = **132**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **E+P Conditions - Weekday AM Peak Hour**

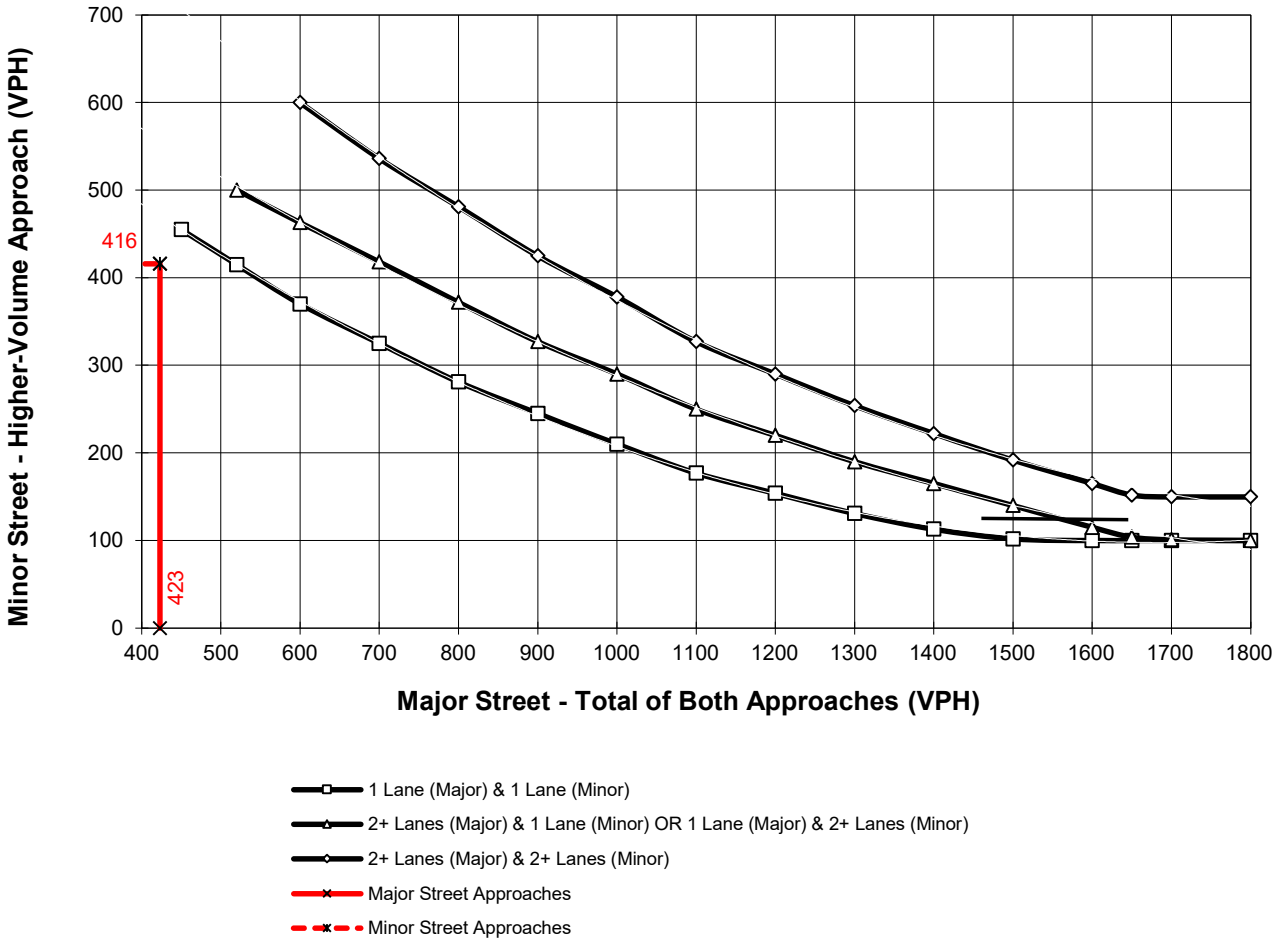
Major Street Name = **Mapes Rd.**

Total of Both Approaches (VPH) = **423**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Case Rd.**

High Volume Approach (VPH) = **416**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 5.4: E+P (WITH PROJECT IMPROVEMENTS) QUEUING ANALYSIS WORKSHEETS

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Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	242	239	221	219	806	1166	238
v/c Ratio	0.57	0.58	0.44	0.42	0.39	0.50	0.33
Control Delay	30.7	27.7	10.9	32.9	9.2	18.9	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.7	27.7	10.9	32.9	9.3	18.9	4.1
Queue Length 50th (ft)	92	82	20	43	85	106	0
Queue Length 95th (ft)	206	195	88	99	166	182	44
Internal Link Dist (ft)		1295			320	683	
Turn Bay Length (ft)	800		400				
Base Capacity (vph)	1050	978	1003	1020	3272	4199	1122
Starvation Cap Reductn	0	0	0	0	714	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	0.23	0.24	0.22	0.21	0.32	0.28	0.21

Intersection Summary



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	132	126	122	848	344	501	1009
v/c Ratio	0.43	0.36	0.33	0.42	0.31	0.58	0.44
Control Delay	29.9	11.7	8.5	18.2	3.2	24.8	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.9	11.7	8.5	18.2	3.2	24.8	6.7
Queue Length 50th (ft)	46	7	0	69	0	82	82
Queue Length 95th (ft)	115	58	44	123	30	162	152
Internal Link Dist (ft)		1169		429			320
Turn Bay Length (ft)	740		140		200		
Base Capacity (vph)	791	748	773	3948	1853	2379	3598
Starvation Cap Reductn	0	0	0	0	0	0	697
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.17	0.16	0.21	0.19	0.21	0.35

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	60	209	356	480	690	86
v/c Ratio	0.24	0.13	0.76	0.31	0.79	0.11
Control Delay	46.1	0.2	44.1	3.6	28.6	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.1	0.2	44.1	3.6	28.6	11.8
Queue Length 50th (ft)	31	0	182	70	317	19
Queue Length 95th (ft)	90	0	361	99	546	52
Internal Link Dist (ft)	1304			1430	1438	
Turn Bay Length (ft)		50	110			50
Base Capacity (vph)	258	1615	865	1820	1383	1182
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	0.23	0.13	0.41	0.26	0.50	0.07

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	41	857	773	962	253
v/c Ratio	0.17	0.48	0.52	0.60	0.53
Control Delay	24.8	8.8	13.7	1.6	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	8.8	13.7	1.6	20.3
Queue Length 50th (ft)	8	68	60	0	42
Queue Length 95th (ft)	42	131	183	0	148
Internal Link Dist (ft)		1430	701		1371
Turn Bay Length (ft)	240			100	
Base Capacity (vph)	360	3610	3518	1615	1456
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	0.11	0.24	0.22	0.60	0.17

Intersection Summary



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	321	305	302	201	847	962	141
v/c Ratio	0.61	0.57	0.56	0.41	0.47	0.51	0.25
Control Delay	26.6	18.1	17.7	33.0	13.0	22.4	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.6	18.1	17.7	33.0	13.1	22.4	5.7
Queue Length 50th (ft)	117	73	68	40	113	96	0
Queue Length 95th (ft)	244	185	173	91	216	167	41
Internal Link Dist (ft)		1295			320	683	
Turn Bay Length (ft)	800		400				
Base Capacity (vph)	1272	1147	1163	796	2911	3551	940
Starvation Cap Reductn	0	0	0	0	473	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	0.25	0.27	0.26	0.25	0.35	0.27	0.15

Intersection Summary



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	142	136	130	842	459	411	906
v/c Ratio	0.46	0.40	0.34	0.40	0.38	0.54	0.41
Control Delay	29.9	15.9	8.3	17.3	3.0	25.8	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.9	15.9	8.3	17.3	3.0	25.8	6.8
Queue Length 50th (ft)	49	18	0	67	0	68	74
Queue Length 95th (ft)	123	78	45	119	32	139	138
Internal Link Dist (ft)		1169		429			320
Turn Bay Length (ft)	740		140		200		
Base Capacity (vph)	861	809	834	4094	1946	2049	3497
Starvation Cap Reductn	0	0	0	0	0	0	667
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.17	0.16	0.21	0.24	0.20	0.32

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	124	386	303	372	974	58
v/c Ratio	0.72	0.24	0.87	0.25	0.92	0.06
Control Delay	74.8	0.4	69.1	3.1	36.2	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.8	0.4	69.1	3.1	36.2	8.8
Queue Length 50th (ft)	91	0	215	50	598	14
Queue Length 95th (ft)	#204	0	#391	72	#845	32
Internal Link Dist (ft)	1304			1430	1438	
Turn Bay Length (ft)		50	110			50
Base Capacity (vph)	172	1615	392	1702	1287	1098
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	0.72	0.24	0.77	0.22	0.76	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	60	1258	592	722	366
v/c Ratio	0.28	0.70	0.43	0.45	0.66
Control Delay	32.1	14.0	16.7	0.9	24.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	14.0	16.7	0.9	24.7
Queue Length 50th (ft)	18	152	86	0	100
Queue Length 95th (ft)	66	296	162	0	237
Internal Link Dist (ft)		1430	701		1371
Turn Bay Length (ft)	240			100	
Base Capacity (vph)	259	3488	3259	1615	1359
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	0.23	0.36	0.18	0.45	0.27

Intersection Summary

APPENDIX 5.5: E+P (WITH PROJECT IMPROVEMENTS + IMPROVEMENTS BY OTHERS) QUEUING ANALYSIS WORKSHEETS

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Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	242	239	221	219	806	1166	238
v/c Ratio	0.57	0.58	0.44	0.42	0.39	0.50	0.33
Control Delay	30.7	27.7	10.9	32.9	9.2	18.9	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.7	27.7	10.9	32.9	9.3	18.9	4.1
Queue Length 50th (ft)	92	82	20	43	85	106	0
Queue Length 95th (ft)	206	195	88	99	166	182	44
Internal Link Dist (ft)		1295			320	683	
Turn Bay Length (ft)	800		400				
Base Capacity (vph)	1050	978	1003	1020	3272	4199	1122
Starvation Cap Reductn	0	0	0	0	714	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	0.23	0.24	0.22	0.21	0.32	0.28	0.21

Intersection Summary



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	132	126	122	848	344	501	1009
v/c Ratio	0.43	0.36	0.33	0.42	0.31	0.58	0.44
Control Delay	29.9	11.7	8.5	18.2	3.2	24.8	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.9	11.7	8.5	18.2	3.2	24.8	6.7
Queue Length 50th (ft)	46	7	0	69	0	82	82
Queue Length 95th (ft)	115	58	44	123	30	162	152
Internal Link Dist (ft)		1169		429			320
Turn Bay Length (ft)	740		140		200		
Base Capacity (vph)	791	748	773	3948	1853	2379	3598
Starvation Cap Reductn	0	0	0	0	0	0	697
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.17	0.16	0.21	0.19	0.21	0.35

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	60	209	356	480	690	86
v/c Ratio	0.18	0.45	0.52	0.42	0.60	0.15
Control Delay	23.2	7.8	23.5	6.9	18.0	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.2	7.8	23.5	6.9	18.0	4.7
Queue Length 50th (ft)	17	0	53	70	95	1
Queue Length 95th (ft)	52	52	99	113	154	25
Internal Link Dist (ft)	1207			1430	1438	
Turn Bay Length (ft)		50	110			150
Base Capacity (vph)	942	943	1777	1900	3183	1434
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	0.06	0.22	0.20	0.25	0.22	0.06

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	41	857	773	962	253
v/c Ratio	0.17	0.48	0.52	0.60	0.53
Control Delay	24.8	8.8	13.7	1.6	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	8.8	13.7	1.6	20.3
Queue Length 50th (ft)	8	68	60	0	42
Queue Length 95th (ft)	42	131	183	0	148
Internal Link Dist (ft)		1430	701		1371
Turn Bay Length (ft)	240			100	
Base Capacity (vph)	360	3610	3518	1615	1456
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	0.11	0.24	0.22	0.60	0.17

Intersection Summary



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	321	305	302	201	847	962	141
v/c Ratio	0.61	0.57	0.56	0.41	0.47	0.51	0.25
Control Delay	26.6	18.1	17.7	33.0	13.0	22.4	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.6	18.1	17.7	33.0	13.1	22.4	5.7
Queue Length 50th (ft)	117	73	68	40	113	96	0
Queue Length 95th (ft)	244	185	173	91	216	167	41
Internal Link Dist (ft)		1295			320	683	
Turn Bay Length (ft)	800		400				
Base Capacity (vph)	1272	1147	1163	796	2911	3551	940
Starvation Cap Reductn	0	0	0	0	473	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	0.25	0.27	0.26	0.25	0.35	0.27	0.15

Intersection Summary



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	142	136	130	842	459	411	906
v/c Ratio	0.46	0.40	0.34	0.40	0.38	0.54	0.41
Control Delay	29.9	15.9	8.3	17.3	3.0	25.8	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.9	15.9	8.3	17.3	3.0	25.8	6.8
Queue Length 50th (ft)	49	18	0	67	0	68	74
Queue Length 95th (ft)	123	78	45	119	32	139	138
Internal Link Dist (ft)		1169		429			320
Turn Bay Length (ft)	740		140		200		
Base Capacity (vph)	861	809	834	4094	1946	2049	3497
Starvation Cap Reductn	0	0	0	0	0	0	667
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.17	0.16	0.21	0.24	0.20	0.32

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	124	386	303	372	974	58
v/c Ratio	0.38	0.68	0.52	0.31	0.68	0.09
Control Delay	30.3	12.6	30.1	6.2	19.5	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.3	12.6	30.1	6.2	19.5	6.9
Queue Length 50th (ft)	42	16	53	50	150	4
Queue Length 95th (ft)	112	111	122	120	285	27
Internal Link Dist (ft)	1207			1430	1438	
Turn Bay Length (ft)		50	110			150
Base Capacity (vph)	947	1007	1073	1834	2920	1314
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	0.38	0.28	0.20	0.33	0.04

Intersection Summary



Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	60	1258	592	722	366
v/c Ratio	0.28	0.70	0.43	0.45	0.66
Control Delay	32.1	14.0	16.7	0.9	24.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.1	14.0	16.7	0.9	24.7
Queue Length 50th (ft)	18	152	86	0	100
Queue Length 95th (ft)	66	296	162	0	237
Internal Link Dist (ft)		1430	701		1371
Turn Bay Length (ft)	240			100	
Base Capacity (vph)	259	3488	3259	1615	1359
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	0.23	0.36	0.18	0.45	0.27

Intersection Summary

APPENDIX 6.1: EAC (2025) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Volume Development - AM Peak Hour

1: Goetz Rd. & Case Rd.

	PHF:	0.845		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	338	1	303	0	1	0	0	219	176	266	246	0	1,550

2: Goetz Rd. & Ellis Av.

	PHF:	0.857		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	52	629	219	0	433	10	12	0	67	346	0	1	1,768

3: Goetz Rd. & Driveway 1

	PHF:								Count Date:			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	0	900	0	0	845	0	0	0	0	0	0	0	1,745

4: Goetz Rd. & Cai Ct.

	PHF:								Count Date:			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	0	840	0	0	792	0	60	0	60	0	0	0	1,752

5: Goetz Rd. & Malbert St.

	PHF:	0.794		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	34	885	0	0	802	38	13	0	9	0	0	0	1,781

6: Goetz Rd. & Mountain Av./Driveway 2

	PHF:	0.797		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	73	769	3	2	652	157	145	0	29	0	0	3	1,834

7: Goetz Rd. & Driveway 3

	PHF:								Count Date:			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	0	845	0	0	651	0	0	0	0	0	0	0	1,497

8: Goetz Rd. & Mapes Rd.

	PHF:	0.838		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	378	563	14	5	259	222	209	3	284	3	0	0	1,941

9: Goetz Rd. & Fieldstone Dr.

	PHF:	0.909		7:00am					Count Date:	11/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	20	796	27	25	490	15	82	1	42	63	0	77	1,638

10: Goetz Rd. & Ethanac Rd.

	PHF:	0.939		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	1	444	432	385	194	17	25	110	8	236	67	372	2,292

11: Driveway 4 & Ellis Av.

	PHF:								Count Date:			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	0	0	0	0	0	0	0	219	0	0	347	0	566

Volume Development - AM Peak Hour

12: Case Rd. & Ellis Av.

	PHF:	0.903		7:30am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	202	383	304	201	261	0	0	82	136	168	145	146	2,028

13: Redlands Av. & I-215 NB Ramps

	PHF:	0.893		7:15 AM					Count Date:		2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	356	1,066	0	0	1,419	387	0	0	0	371	4	510	4,112

14: Redlands Av. & I-215 SB Ramps

	PHF:	0.905		7:30 AM					Count Date:		2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	0	1,108	344	675	1,114	0	314	0	371	0	0	0	3,926

15: Redlands Av. & 4th St.

	PHF:	0.853		7:15 AM					Count Date:		5/23/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	24	494	15	58	483	985	902	24	23	6	15	27	3,057

16: Redlands Av. & Ellis Av.

	PHF:	0.879		7:15 AM					Count Date:		5/30/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	0	0	0	53	0	317	360	210	0	0	95	34	1,070

17: Case Rd. & Driveway 5

	PHF:								Count Date:				
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	0	0	0	0	0	0	0	566	0	0	890	0	1,456

18: Murrieta Rd. & Case Rd.

	PHF:	0.937		7:15am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	171	0	105	0	0	0	0	501	65	71	719	0	1,632

19: Case Rd. & Mapes Rd.

	PHF:	0.926		7:45am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	0	3	0	98	2	707	502	104	0	0	83	61	1,559

20: Bonnie Dr. & Mapes Rd.

	PHF:	0.827							Count Date:		11/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	798	28	0	0	16	9	1	0	564	0	0	0	1,418

21: I-215 SB Ramps/SR-74 & Bonnie Dr.

	PHF:	0.985		7:00am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	654	729	0	0	865	172	172	0	409	0	0	0	3,001

22: I-215 NB Ramps & SR-74

	PHF:	0.981		7:00am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	0	0	0	325	0	305	189	1,084	0	0	1,079	1,204	4,187

Volume Development - PM Peak Hour

1: Goetz Rd. & Case Rd.

PHF: 0.927 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	247	1	219	0	1	0	0	293	243	277	285	0	1,565

2: Goetz Rd. & Ellis Av.

PHF: 0.944 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	27	455	414	0	505	15	11	0	68	267	0	0	1,764

3: Goetz Rd. & Driveway 1

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	0	897	0	0	841	0	0	0	0	0	0	0	1,738

4: Goetz Rd. & Cai Ct.

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	0	842	0	0	781	0	60	0	60	0	0	0	1,743

5: Goetz Rd. & Malbert St.

PHF: 0.927 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	2	862	0	0	832	12	32	0	28	0	0	0	1,769

6: Goetz Rd. & Mountain Av./Driveway 2

PHF: 0.955 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	18	562	0	5	756	98	296	0	44	3	0	2	1,785

7: Goetz Rd. & Driveway 3

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	0	580	0	0	772	0	0	0	0	0	0	0	1,353

8: Goetz Rd. & Mapes Rd.

PHF: 0.942 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	312	274	1	3	561	113	159	1	405	14	1	2	1,847

9: Goetz Rd. & Fieldstone Dr.

PHF: 0.958 4:15pm Count Date: 11/15/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	44	510	76	83	818	81	39	5	36	37	5	39	1,774

10: Goetz Rd. & Ethanac Rd.

PHF: 0.898 4:15pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	1	227	245	446	412	34	17	58	5	322	84	385	2,236

11: Driveway 4 & Ellis Av.

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	0	0	0	0	0	0	0	414	0	0	267	0	681

Volume Development - PM Peak Hour

12: Case Rd. & Ellis Av.

	PHF:	0.951		4:30pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	157	347	234	116	424	0	0	164	250	369	110	175	2,347

13: Redlands Av. & I-215 NB Ramps

	PHF:	0.967		4:00 PM					Count Date:		2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	414	1,254	0	0	1,384	354	0	0	0	404	7	800	4,618

14: Redlands Av. & I-215 SB Ramps

	PHF:	0.989		4:00 PM					Count Date:		2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	0	1,261	498	666	1,123	0	407	2	423	0	0	0	4,380

15: Redlands Av. & 4th St.

	PHF:	0.944		4:15 PM					Count Date:		5/23/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	45	356	6	63	284	830	1,056	148	54	8	268	113	3,233

16: Redlands Av. & Ellis Av.

	PHF:	0.899		4:00 PM					Count Date:		5/30/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	0	0	0	18	0	358	389	124	0	0	255	55	1,200

17: Case Rd. & Driveway 5

	PHF:								Count Date:				
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	0	0	0	0	0	0	0	1,044	0	0	738	0	1,783

18: Murrieta Rd. & Case Rd.

	PHF:	0.909		5:00pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	118	0	81	0	0	0	0	879	165	132	620	0	1,995

19: Case Rd. & Mapes Rd.

	PHF:	0.901		5:00pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	1	1	0	73	0	653	859	101	0	0	98	91	1,877

20: Bonnie Dr. & Mapes Rd.

	PHF:	0.897							Count Date:		11/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	719	5	0	0	10	7	4	0	946	0	0	0	1,692

21: I-215 SB Ramps/SR-74 & Bonnie Dr.

	PHF:	0.932		4:15pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	532	584	0	0	1,280	192	395	0	562	0	0	0	3,545

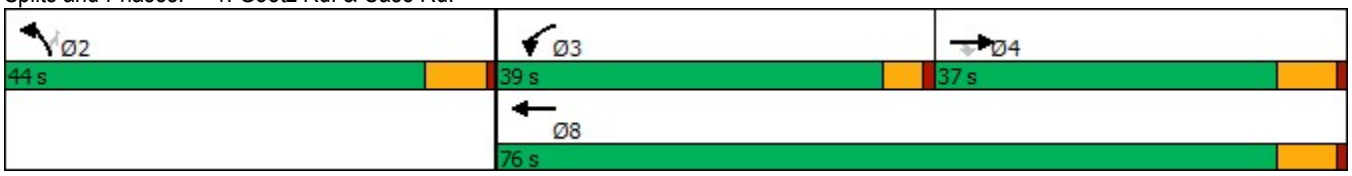
22: I-215 NB Ramps & SR-74

	PHF:	0.965		4:15pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAC (PCE):	0	0	0	546	0	231	193	1,649	0	0	885	916	4,421

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	219	176	266	246	338	303
Future Volume (vph)	219	176	266	246	338	303
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)	34.5	34.5	9.6	16.5	16.5	16.5
Total Split (s)	37.0	37.0	39.0	76.0	44.0	44.0
Total Split (%)	30.8%	30.8%	32.5%	63.3%	36.7%	36.7%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None
Act Effct Green (s)	17.8	17.8	20.0	42.8	24.4	24.4
Actuated g/C Ratio	0.22	0.22	0.25	0.53	0.30	0.30
v/c Ratio	0.63	0.41	0.71	0.29	0.74	0.49
Control Delay	38.6	7.4	40.0	12.1	36.8	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.6	7.4	40.0	12.1	36.8	5.5
LOS	D	A	D	B	D	A
Approach Delay	24.7			26.6	22.0	
Approach LOS	C			C	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 81.2	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 24.2	Intersection LOS: C
Intersection Capacity Utilization 59.7%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Goetz Rd. & Case Rd.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	219	176	266	246	338	303
Future Volume (veh/h)	219	176	266	246	338	303
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	261	162	317	293	402	268
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	370	314	379	925	504	449
Arrive On Green	0.19	0.19	0.21	0.49	0.28	0.28
Sat Flow, veh/h	1900	1610	1810	1900	1810	1610
Grp Volume(v), veh/h	261	162	317	293	402	268
Grp Sat Flow(s),veh/h/ln	1900	1610	1810	1900	1810	1610
Q Serve(g_s), s	7.1	5.0	9.3	5.2	11.4	8.0
Cycle Q Clear(g_c), s	7.1	5.0	9.3	5.2	11.4	8.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	370	314	379	925	504	449
V/C Ratio(X)	0.71	0.52	0.84	0.32	0.80	0.60
Avail Cap(c_a), veh/h	1045	885	1122	2380	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	20.8	20.0	21.0	8.6	18.6	17.3
Incr Delay (d2), s/veh	2.5	1.3	1.9	0.2	2.9	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	1.6	3.3	1.4	4.1	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.3	21.3	22.9	8.8	21.5	18.6
LnGrp LOS	C	C	C	A	C	B
Approach Vol, veh/h	423			610	670	
Approach Delay, s/veh	22.5			16.2	20.3	
Approach LOS	C			B	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		22.0	16.2	17.3		33.5
Change Period (Y+Rc), s		6.5	4.6	6.5		6.5
Max Green Setting (Gmax), s		37.5	34.4	30.5		69.5
Max Q Clear Time (g_c+I1), s		13.4	11.3	9.1		7.2
Green Ext Time (p_c), s		2.0	0.4	1.7		1.5

Intersection Summary	
HCM 6th Ctrl Delay	19.4
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	97.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	0	67	346	0	1	52	629	219	0	433	10
Future Vol, veh/h	12	0	67	346	0	1	52	629	219	0	433	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	-	180	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	14	0	78	402	0	1	60	731	255	0	503	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1001	1621	264	1231	1500	493	521	0	0	986	0	0
Stage 1	515	515	-	979	979	-	-	-	-	-	-	-
Stage 2	486	1106	-	252	521	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	200	104	741	~ 136	123	527	1056	-	-	709	-	-
Stage 1	516	538	-	~ 272	331	-	-	-	-	-	-	-
Stage 2	537	289	-	736	535	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	190	97	737	~ 116	115	527	1050	-	-	709	-	-
Mov Cap-2 Maneuver	312	203	-	~ 205	221	-	-	-	-	-	-	-
Stage 1	483	535	-	~ 256	312	-	-	-	-	-	-	-
Stage 2	505	273	-	658	532	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	$ 491.4	0.5	0
HCM LOS	B	F		

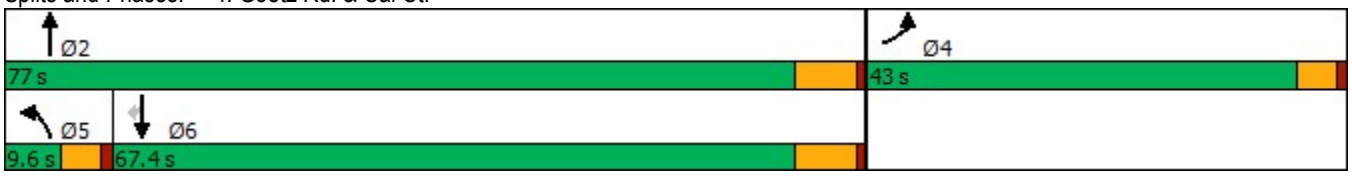
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1050	-	-	312	737	205	709	-	-
HCM Lane V/C Ratio	0.058	-	-	0.045	0.106	1.968	-	-	-
HCM Control Delay (s)	8.6	-	-	17.1	10.5	$ 491.4	0	-	-
HCM Lane LOS	A	-	-	C	B	F	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0.4	29.9	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	NBT	SBT	Ø5
Lane Configurations				
Traffic Volume (vph)	60	840	792	
Future Volume (vph)	60	840	792	
Turn Type	Prot	NA	NA	
Protected Phases	4	2	6	5
Permitted Phases				
Detector Phase	4	2	6	
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	5.0
Minimum Split (s)	14.6	16.5	27.5	9.6
Total Split (s)	43.0	77.0	67.4	9.6
Total Split (%)	35.8%	64.2%	56.2%	8%
Yellow Time (s)	3.6	5.5	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	4.6	6.5	6.5	
Lead/Lag			Lag	Lead
Lead-Lag Optimize?			Yes	Yes
Recall Mode	None	Min	Min	None
Act Effct Green (s)	10.2	24.1	24.1	
Actuated g/C Ratio	0.25	0.60	0.60	
v/c Ratio	0.28	0.42	0.40	
Control Delay	11.0	7.3	7.2	
Queue Delay	0.0	0.0	0.0	
Total Delay	11.0	7.3	7.2	
LOS	B	A	A	
Approach Delay	11.0	7.3	7.2	
Approach LOS	B	A	A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 40.5	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.42	
Intersection Signal Delay: 7.5	Intersection LOS: A
Intersection Capacity Utilization 40.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Goetz Rd. & Cai Ct.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	60	0	840	792	0
Future Volume (veh/h)	60	60	0	840	792	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	65	65	0	913	861	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	180	180	6	1617	1617	721
Arrive On Green	0.21	0.21	0.00	0.45	0.45	0.00
Sat Flow, veh/h	846	846	1810	3705	3705	1610
Grp Volume(v), veh/h	131	0	0	913	861	0
Grp Sat Flow(s),veh/h/ln	1705	0	1810	1805	1805	1610
Q Serve(g_s), s	2.1	0.0	0.0	6.1	5.7	0.0
Cycle Q Clear(g_c), s	2.1	0.0	0.0	6.1	5.7	0.0
Prop In Lane	0.50	0.50	1.00			1.00
Lane Grp Cap(c), veh/h	363	0	6	1617	1617	721
V/C Ratio(X)	0.36	0.00	0.00	0.56	0.53	0.00
Avail Cap(c_a), veh/h	2002	0	277	7779	6720	2997
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.0	0.0	0.0	6.7	6.5	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.3	0.3	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	0.7	0.0	0.0	0.7	0.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.6	0.0	0.0	7.0	6.8	0.0
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	131			913	861	
Approach Delay, s/veh	11.6			7.0	6.8	
Approach LOS	B			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		21.2		11.6	0.0	21.2
Change Period (Y+Rc), s		6.5		4.6	4.6	6.5
Max Green Setting (Gmax), s		70.5		38.4	5.0	60.9
Max Q Clear Time (g_c+I1), s		8.1		4.1	0.0	7.7
Green Ext Time (p_c), s		6.5		0.4	0.0	6.0

Intersection Summary	
HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	13	9	34	885	0	802	38
Future Vol, veh/h	13	9	34	885	0	802	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	115	-	100	-	-
Veh in Median Storage, #	1	-	-	0	-	0	-
Grade, %	0	-	-	0	-	0	-
Peak Hour Factor	79	79	79	79	92	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	16	11	43	1120	0	1015	48

Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	1685	532	1063	0	1120	-	0
Stage 1	1039	-	-	-	-	-	-
Stage 2	646	-	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	6.4	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	2.5	-	-
Pot Cap-1 Maneuver	87	497	663	-	283	-	-
Stage 1	306	-	-	-	-	-	-
Stage 2	489	-	-	-	-	-	-
Platoon blocked, %				-		-	-
Mov Cap-1 Maneuver	81	497	663	-	283	-	-
Mov Cap-2 Maneuver	198	-	-	-	-	-	-
Stage 1	286	-	-	-	-	-	-
Stage 2	489	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.3	0.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	663	-	263	283	-	-
HCM Lane V/C Ratio	0.065	-	0.106	-	-	-
HCM Control Delay (s)	10.8	-	20.3	0	-	-
HCM Lane LOS	B	-	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.4	0	-	-

Intersection	
Int Delay, s/veh	8.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	145	29	73	769	652	157
Future Vol, veh/h	145	29	73	769	652	157
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	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	181	36	91	961	815	196

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1576	506	1011	0	-	0
Stage 1	913	-	-	-	-	-
Stage 2	663	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 102	517	694	-	-	-
Stage 1	356	-	-	-	-	-
Stage 2	480	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 89	517	694	-	-	-
Mov Cap-2 Maneuver	210	-	-	-	-	-
Stage 1	309	-	-	-	-	-
Stage 2	480	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	87.4	1	0
HCM LOS	F		

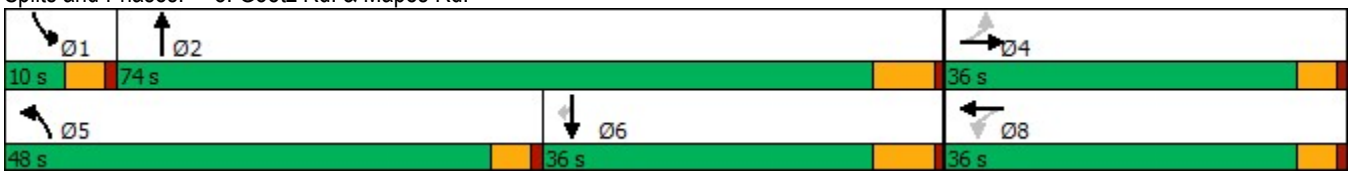
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	694	-	233	-	-
HCM Lane V/C Ratio	0.131	-	0.933	-	-
HCM Control Delay (s)	11	-	87.4	-	-
HCM Lane LOS	B	-	F	-	-
HCM 95th %tile Q(veh)	0.5	-	8.1	-	-

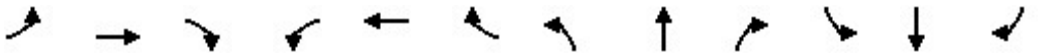
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	209	3	3	0	378	563	5	259	222
Future Volume (vph)	209	3	3	0	378	563	5	259	222
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA	Perm
Protected Phases		4		8	5	2	1	6	
Permitted Phases	4		8						6
Detector Phase	4	4	8	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.6	14.6	26.6	26.6	9.6	16.5	9.6	16.5	16.5
Total Split (s)	36.0	36.0	36.0	36.0	48.0	74.0	10.0	36.0	36.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	40.0%	61.7%	8.3%	30.0%	30.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.5	3.6	5.5	5.5
All-Red Time (s)	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
Total Lost Time (s)	4.6	4.6		4.6	4.6	6.5	4.6	6.5	6.5
Lead/Lag					Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	21.8	21.8		21.8	27.4	51.2	5.5	20.2	20.2
Actuated g/C Ratio	0.25	0.25		0.25	0.32	0.59	0.06	0.23	0.23
v/c Ratio	0.69	0.52		0.03	0.79	0.32	0.05	0.69	0.46
Control Delay	43.4	7.1		31.3	39.4	10.1	51.4	42.3	7.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.4	7.1		31.3	39.4	10.1	51.4	42.3	7.2
LOS	D	A		C	D	B	D	D	A
Approach Delay		22.4		31.3		21.7		26.4	
Approach LOS		C		C		C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 86.5	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 23.1	Intersection LOS: C
Intersection Capacity Utilization 65.4%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: Goetz Rd. & Mapes Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	209	3	284	3	0	0	378	563	14	5	259	222
Future Volume (veh/h)	209	3	284	3	0	0	378	563	14	5	259	222
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	249	4	170	4	0	0	450	670	17	6	308	239
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	462	8	323	265	0	0	514	1805	46	14	429	363
Arrive On Green	0.20	0.20	0.20	0.20	0.00	0.00	0.28	0.50	0.50	0.01	0.23	0.23
Sat Flow, veh/h	1440	37	1579	654	0	0	1810	3597	91	1810	1900	1610
Grp Volume(v), veh/h	249	0	174	4	0	0	450	336	351	6	308	239
Grp Sat Flow(s),veh/h/ln	1440	0	1616	654	0	0	1810	1805	1884	1810	1900	1610
Q Serve(g_s), s	2.0	0.0	5.3	0.2	0.0	0.0	13.0	6.3	6.3	0.2	8.2	7.4
Cycle Q Clear(g_c), s	7.5	0.0	5.3	5.4	0.0	0.0	13.0	6.3	6.3	0.2	8.2	7.4
Prop In Lane	1.00		0.98	1.00		0.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	462	0	331	265	0	0	514	906	945	14	429	363
V/C Ratio(X)	0.54	0.00	0.53	0.02	0.00	0.00	0.88	0.37	0.37	0.42	0.72	0.66
Avail Cap(c_a), veh/h	990	0	923	715	0	0	1428	2216	2312	178	1019	864
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	0.0	19.5	21.9	0.0	0.0	18.8	8.4	8.4	27.1	19.7	19.4
Incr Delay (d2), s/veh	1.0	0.0	1.3	0.0	0.0	0.0	1.9	0.3	0.2	7.0	2.3	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	2.9	0.0	2.0	0.0	0.0	0.0	4.4	1.5	1.6	0.1	3.1	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.2	0.0	20.8	21.9	0.0	0.0	20.7	8.6	8.6	34.1	21.9	21.4
LnGrp LOS	C	A	C	C	A	A	C	A	A	C	C	C
Approach Vol, veh/h		423			4			1137			553	
Approach Delay, s/veh		21.0			21.9			13.4			21.8	
Approach LOS		C			C			B			C	

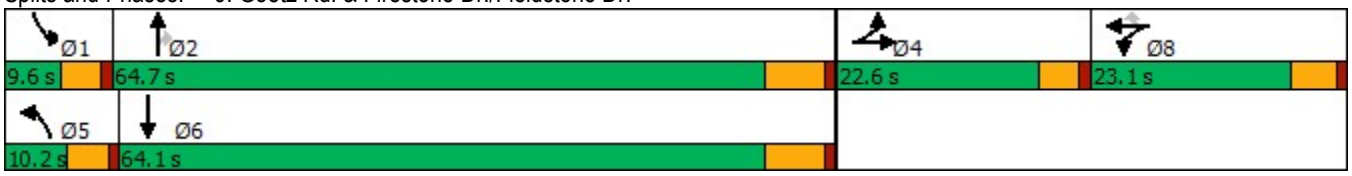
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	34.1		15.9	20.2	18.9		15.9				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		4.6				
Max Green Setting (Gmax), s	5.4	67.5		31.4	43.4	29.5		31.4				
Max Q Clear Time (g_c+I1), s	2.2	8.3		9.5	15.0	10.2		7.4				
Green Ext Time (p_c), s	0.0	3.8		1.8	0.6	2.2		0.0				

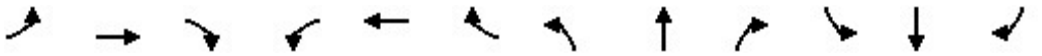
Intersection Summary			
HCM 6th Ctrl Delay		17.1	
HCM 6th LOS		B	

Lane Group	EBL	EBT	WBL	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	82	1	63	77	20	796	27	25	490
Future Volume (vph)	82	1	63	77	20	796	27	25	490
Turn Type	Split	NA	Split	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	8		5	2		1	6
Permitted Phases				8			2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.6	22.6	23.1	23.1	9.6	24.5	24.5	9.6	24.5
Total Split (s)	22.6	22.6	23.1	23.1	10.2	64.7	64.7	9.6	64.1
Total Split (%)	18.8%	18.8%	19.3%	19.3%	8.5%	53.9%	53.9%	8.0%	53.4%
Yellow Time (s)	3.6	3.6	4.1	4.1	3.6	5.5	5.5	3.6	5.5
All-Red Time (s)	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	5.1	5.1	4.6	6.5	6.5	4.6	6.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min
Act Effct Green (s)	12.8	12.8	12.5	12.5	5.9	57.1	57.1	5.6	58.6
Actuated g/C Ratio	0.14	0.14	0.14	0.14	0.06	0.62	0.62	0.06	0.64
v/c Ratio	0.36	0.18	0.28	0.20	0.19	0.74	0.03	0.25	0.17
Control Delay	47.7	15.1	46.7	1.0	55.0	24.8	0.0	57.0	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	15.1	46.7	1.0	55.0	24.8	0.0	57.0	11.3
LOS	D	B	D	A	D	C	A	E	B
Approach Delay		36.6				24.7			13.4
Approach LOS		D				C			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 91.5	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 21.7	Intersection LOS: C
Intersection Capacity Utilization 72.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 9: Goetz Rd. & Firestone Dr./Fieldstone Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	1	42	63	0	77	20	796	27	25	490	15
Future Volume (veh/h)	82	1	42	63	0	77	20	796	27	25	490	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		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	90	1	21	69	0	66	22	875	30	27	538	11
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	208	8	175	202	212	179	43	964	817	50	2676	55
Arrive On Green	0.12	0.12	0.12	0.11	0.00	0.11	0.02	0.51	0.51	0.03	0.51	0.51
Sat Flow, veh/h	1810	72	1521	1810	1900	1603	1810	1900	1610	1810	5232	107
Grp Volume(v), veh/h	90	0	22	69	0	66	22	875	30	27	355	194
Grp Sat Flow(s),veh/h/ln	1810	0	1593	1810	1900	1603	1810	1900	1610	1810	1729	1881
Q Serve(g_s), s	4.0	0.0	1.1	3.1	0.0	3.3	1.0	36.7	0.8	1.3	4.9	4.9
Cycle Q Clear(g_c), s	4.0	0.0	1.1	3.1	0.0	3.3	1.0	36.7	0.8	1.3	4.9	4.9
Prop In Lane	1.00		0.95	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	208	0	184	202	212	179	43	964	817	50	1769	962
V/C Ratio(X)	0.43	0.00	0.12	0.34	0.00	0.37	0.51	0.91	0.04	0.54	0.20	0.20
Avail Cap(c_a), veh/h	373	0	328	373	392	331	116	1267	1074	104	2282	1241
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	36.0	0.0	34.6	35.8	0.0	35.9	42.1	19.6	10.8	41.9	11.6	11.6
Incr Delay (d2), s/veh	1.4	0.0	0.3	1.0	0.0	1.3	3.5	7.9	0.0	3.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.4	1.4	0.0	1.3	0.5	15.0	0.2	0.6	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	0.0	34.9	36.8	0.0	37.2	45.6	27.5	10.8	45.3	11.7	11.7
LnGrp LOS	D	A	C	D	A	D	D	C	B	D	B	B
Approach Vol, veh/h		112			135			927			576	
Approach Delay, s/veh		36.9			37.0			27.4			13.3	
Approach LOS		D			D			C			B	

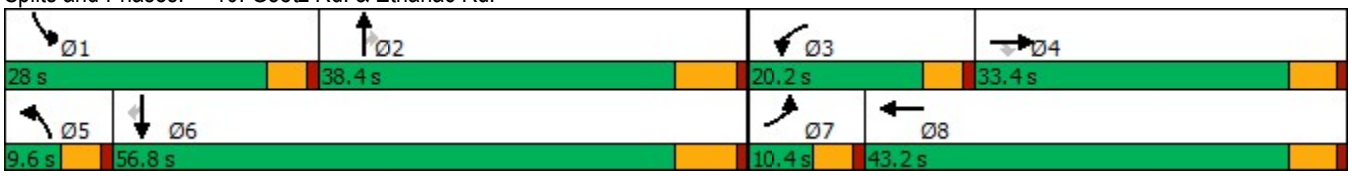
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	50.8		14.7	6.7	51.1		14.8				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		5.1				
Max Green Setting (Gmax), s	5.0	58.2		18.0	5.6	57.6		18.0				
Max Q Clear Time (g_c+I1), s	3.3	38.7		6.0	3.0	6.9		5.3				
Green Ext Time (p_c), s	0.0	5.6		0.2	0.0	3.2		0.3				

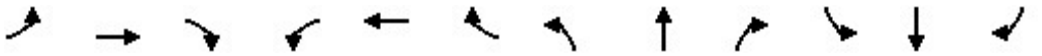
Intersection Summary			
HCM 6th Ctrl Delay		24.1	
HCM 6th LOS		C	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	25	110	8	236	67	1	444	432	385	194	17
Future Volume (vph)	25	110	8	236	67	1	444	432	385	194	17
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.4	33.4	9.6	30.4	9.6	37.5	37.5	9.6	39.5	39.5
Total Split (s)	10.4	33.4	33.4	20.2	43.2	9.6	38.4	38.4	28.0	56.8	56.8
Total Split (%)	8.7%	27.8%	27.8%	16.8%	36.0%	8.0%	32.0%	32.0%	23.3%	47.3%	47.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	5.5	5.5	3.6	5.5	5.5
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	5.4	5.4	4.6	5.4	4.6	6.5	6.5	4.6	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None	None
Act Effct Green (s)	5.5	13.2	13.2	15.7	27.5	5.0	30.5	30.5	23.5	57.0	57.0
Actuated g/C Ratio	0.05	0.13	0.13	0.15	0.26	0.05	0.29	0.29	0.23	0.55	0.55
v/c Ratio	0.28	0.26	0.02	0.92	0.32	0.01	0.85	0.75	1.01	0.10	0.02
Control Delay	58.0	42.1	0.1	83.8	6.5	52.0	50.9	27.8	88.1	13.3	0.1
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	58.0	42.1	0.1	83.8	6.5	52.0	50.9	27.8	88.1	13.3	0.1
LOS	E	D	A	F	A	D	D	C	F	B	A
Approach Delay		42.4			33.5		39.5			61.2	
Approach LOS		D			C		D			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 104.2	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.01	
Intersection Signal Delay: 43.6	Intersection LOS: D
Intersection Capacity Utilization 79.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 10: Goetz Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	110	8	236	67	372	1	444	432	385	194	17
Future Volume (veh/h)	25	110	8	236	67	372	1	444	432	385	194	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	27	117	7	251	71	318	1	472	295	410	206	14
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	48	381	170	283	814	378	2	532	451	436	1876	836
Arrive On Green	0.03	0.11	0.11	0.16	0.24	0.24	0.00	0.28	0.28	0.24	0.52	0.52
Sat Flow, veh/h	1810	3610	1610	1810	3458	1608	1810	1900	1610	1810	3610	1609
Grp Volume(v), veh/h	27	117	7	251	71	318	1	472	295	410	206	14
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1608	1810	1900	1610	1810	1805	1609
Q Serve(g_s), s	1.4	2.9	0.4	13.2	1.6	18.3	0.1	23.1	15.7	21.6	2.8	0.4
Cycle Q Clear(g_c), s	1.4	2.9	0.4	13.2	1.6	18.3	0.1	23.1	15.7	21.6	2.8	0.4
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	48	381	170	283	814	378	2	532	451	436	1876	836
V/C Ratio(X)	0.56	0.31	0.04	0.89	0.09	0.84	0.40	0.89	0.65	0.94	0.11	0.02
Avail Cap(c_a), veh/h	108	1040	464	291	1345	626	93	624	529	436	1876	836
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	1.00
Uniform Delay (d), s/veh	46.7	40.2	39.0	40.1	29.0	35.4	48.5	33.5	30.8	36.2	11.9	11.3
Incr Delay (d2), s/veh	3.7	0.5	0.1	25.0	0.0	5.3	34.8	13.1	2.3	28.3	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	0.7	1.3	0.2	7.6	0.6	7.4	0.0	11.6	6.1	12.2	1.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.5	40.6	39.1	65.2	29.1	40.8	83.3	46.6	33.1	64.5	11.9	11.3
LnGrp LOS	D	D	D	E	C	D	F	D	C	E	B	B
Approach Vol, veh/h		151			640			768			630	
Approach Delay, s/veh		42.3			49.0			41.4			46.2	
Approach LOS		D			D			D			D	

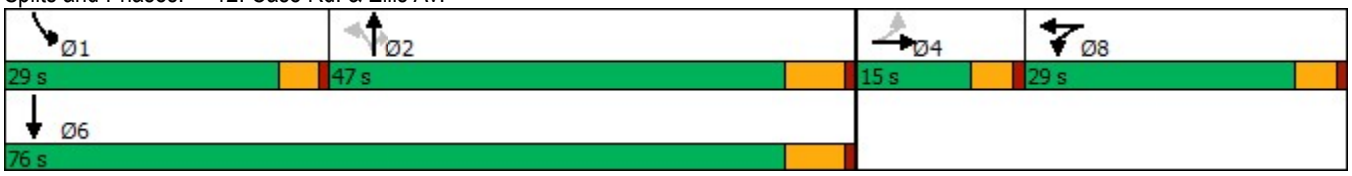
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	33.7	19.8	15.6	4.7	57.0	7.2	28.3
Change Period (Y+Rc), s	4.6	6.5	4.6	5.4	4.6	6.5	4.6	5.4
Max Green Setting (Gmax), s	23.4	31.9	15.6	28.0	5.0	50.3	5.8	37.8
Max Q Clear Time (g_c+I1), s	23.6	25.1	15.2	4.9	2.1	4.8	3.4	20.3
Green Ext Time (p_c), s	0.0	2.0	0.0	0.6	0.0	1.2	0.0	2.2

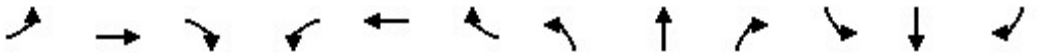
Intersection Summary	
HCM 6th Ctrl Delay	45.1
HCM 6th LOS	D

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	82	145	202	383	304	201	261
Future Volume (vph)	82	145	202	383	304	201	261
Turn Type	NA	NA	Perm	NA	Perm	Prot	NA
Protected Phases	4	8		2		1	6
Permitted Phases			2		2		
Detector Phase	4	8	2	2	2	1	6
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	16.4	16.4	16.4	9.6	16.4
Total Split (s)	15.0	29.0	47.0	47.0	47.0	29.0	76.0
Total Split (%)	12.5%	24.2%	39.2%	39.2%	39.2%	24.2%	63.3%
Yellow Time (s)	3.8	3.8	5.4	5.4	5.4	3.6	5.4
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)	4.8	4.8		6.4	6.4	4.6	6.4
Lead/Lag			Lag	Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	
Recall Mode	None	None	Min	Min	Min	None	Min
Act Effct Green (s)	10.2	24.2		40.7	40.7	18.0	63.2
Actuated g/C Ratio	0.09	0.21		0.36	0.36	0.16	0.56
v/c Ratio	1.18	1.30		1.24	0.49	0.78	0.27
Control Delay	156.1	187.2		157.6	17.4	64.9	13.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	156.1	187.2		157.6	17.4	64.9	13.9
LOS	F	F		F	B	E	B
Approach Delay	156.1	187.2		109.6			36.1
Approach LOS	F	F		F			D

Intersection Summary			
Cycle Length: 120			
Actuated Cycle Length: 113.7			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.30			
Intersection Signal Delay: 115.4		Intersection LOS: F	
Intersection Capacity Utilization 102.2%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 12: Case Rd. & Ellis Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	82	136	168	145	146	202	383	304	201	261	0
Future Volume (veh/h)	0	82	136	168	145	146	202	383	304	201	261	0
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	0	91	150	187	161	162	224	426	0	223	290	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	59	98	141	121	122	235	365		254	1039	0
Arrive On Green	0.00	0.09	0.09	0.22	0.22	0.22	0.37	0.37	0.00	0.14	0.55	0.00
Sat Flow, veh/h	0	645	1063	648	558	561	525	998	1610	1810	1900	0
Grp Volume(v), veh/h	0	0	241	510	0	0	650	0	0	223	290	0
Grp Sat Flow(s),veh/h/ln	0	0	1709	1767	0	0	1523	0	1610	1810	1900	0
Q Serve(g_s), s	0.0	0.0	10.2	24.2	0.0	0.0	40.6	0.0	0.0	13.4	9.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	10.2	24.2	0.0	0.0	40.6	0.0	0.0	13.4	9.1	0.0
Prop In Lane	0.00		0.62	0.37		0.32	0.34		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	157	384	0	0	600	0		254	1039	0
V/C Ratio(X)	0.00	0.00	1.54	1.33	0.00	0.00	1.08	0.00		0.88	0.28	0.00
Avail Cap(c_a), veh/h	0	0	157	384	0	0	600	0		397	1189	0
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)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	50.5	43.5	0.0	0.0	36.8	0.0	0.0	46.9	13.5	0.0
Incr Delay (d2), s/veh	0.0	0.0	271.3	164.0	0.0	0.0	61.5	0.0	0.0	8.6	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	0.0	0.0	16.1	27.9	0.0	0.0	25.7	0.0	0.0	6.3	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	321.8	207.5	0.0	0.0	98.3	0.0	0.0	55.4	13.6	0.0
LnGrp LOS	A	A	F	F	A	A	F	A		E	B	A
Approach Vol, veh/h		241			510			650	A		513	
Approach Delay, s/veh		321.8			207.5			98.3			31.8	
Approach LOS		F			F			F			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	20.2	47.0		15.0		67.2		29.0				
Change Period (Y+Rc), s	4.6	6.4		* 4.8		6.4		4.8				
Max Green Setting (Gmax), s	24.4	40.6		* 10		69.6		24.2				
Max Q Clear Time (g_c+I1), s	15.4	42.6		12.2		11.1		26.2				
Green Ext Time (p_c), s	0.2	0.0		0.0		1.5		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			137.7									
HCM 6th LOS			F									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

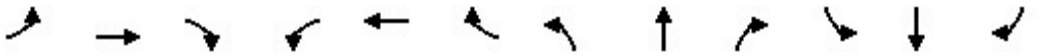
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	371	4	510	356	1066	1419	387
Future Volume (vph)	371	4	510	356	1066	1419	387
Turn Type	Split	NA	Prot	Prot	NA	NA	Perm
Protected Phases	8	8	8	5	2	6	
Permitted Phases							6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	9.5	11.0	31.0	31.0
Total Split (s)	47.0	47.0	47.0	24.0	73.0	49.0	49.0
Total Split (%)	39.2%	39.2%	39.2%	20.0%	60.8%	40.8%	40.8%
Yellow Time (s)	5.0	5.0	5.0	3.5	5.0	5.0	5.0
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)	6.0	6.0	6.0	4.5	6.0	6.0	6.0
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	Min	Min
Act Effct Green (s)	28.2	28.2	28.2	16.4	60.9	39.8	39.8
Actuated g/C Ratio	0.28	0.28	0.28	0.16	0.60	0.39	0.39
v/c Ratio	0.73	0.70	0.68	0.71	0.55	0.62	0.48
Control Delay	43.3	35.7	33.5	49.6	14.2	27.1	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.9	0.0	0.0
Total Delay	43.3	35.7	33.5	49.6	15.1	27.1	4.5
LOS	D	D	C	D	B	C	A
Approach Delay		37.6			23.7	22.3	
Approach LOS		D			C	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 101.4	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 26.1	Intersection LOS: C
Intersection Capacity Utilization 63.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: Redlands Av & I-215 NB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	371	4	510	356	1066	0	0	1419	387
Future Volume (veh/h)	0	0	0	371	4	510	356	1066	0	0	1419	387
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	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				545	0	273	400	1198	0	0	1594	344
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				807	0	359	521	2241	0	0	2705	666
Arrive On Green				0.22	0.00	0.22	0.15	0.62	0.00	0.00	0.41	0.41
Sat Flow, veh/h				3619	0	1610	3510	3705	0	0	6802	1610
Grp Volume(v), veh/h				545	0	273	400	1198	0	0	1594	344
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1805	0	0	1634	1610
Q Serve(g_s), s				10.6	0.0	12.2	8.4	14.5	0.0	0.0	14.5	12.2
Cycle Q Clear(g_c), s				10.6	0.0	12.2	8.4	14.5	0.0	0.0	14.5	12.2
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				807	0	359	521	2241	0	0	2705	666
V/C Ratio(X)				0.68	0.00	0.76	0.77	0.53	0.00	0.00	0.59	0.52
Avail Cap(c_a), veh/h				1933	0	860	892	3151	0	0	3661	902
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	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				27.3	0.0	27.9	31.4	8.3	0.0	0.0	17.4	16.8
Incr Delay (d2), s/veh				1.0	0.0	3.3	2.4	0.2	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				4.3	0.0	4.6	3.6	4.5	0.0	0.0	5.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				28.3	0.0	31.3	33.8	8.5	0.0	0.0	17.6	17.4
LnGrp LOS				C	A	C	C	A	A	A	B	B
Approach Vol, veh/h					818			1598			1938	
Approach Delay, s/veh					29.3			14.8			17.6	
Approach LOS					C			B			B	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	53.7		15.9	37.8		23.1						
Change Period (Y+Rc), s	6.0		4.5	6.0		6.0						
Max Green Setting (Gmax), s	67.0		19.5	43.0		41.0						
Max Q Clear Time (g_c+I1), s	16.5		10.4	16.5		14.2						
Green Ext Time (p_c), s	11.7		1.0	15.3		2.9						

Intersection Summary		
HCM 6th Ctrl Delay	18.8	
HCM 6th LOS	B	

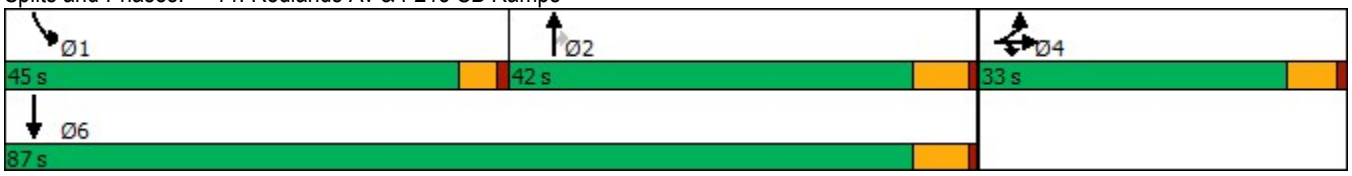
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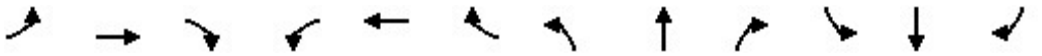
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	314	0	371	1108	344	675	1114
Future Volume (vph)	314	0	371	1108	344	675	1114
Turn Type	Split	NA	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	4	2		1	6
Permitted Phases					2		
Detector Phase	4	4	4	2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	10.5	10.5	11.0	11.0	9.5	33.0
Total Split (s)	33.0	33.0	33.0	42.0	42.0	45.0	87.0
Total Split (%)	27.5%	27.5%	27.5%	35.0%	35.0%	37.5%	72.5%
Yellow Time (s)	4.5	4.5	4.5	5.0	5.0	3.5	5.0
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)	5.5	5.5	5.5	6.0	6.0	4.5	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None	None	Min	Min	None	Min
Act Effct Green (s)	20.7	20.7	20.7	30.7	30.7	26.5	61.8
Actuated g/C Ratio	0.22	0.22	0.22	0.32	0.32	0.28	0.65
v/c Ratio	0.70	0.63	0.58	0.57	0.32	0.76	0.52
Control Delay	46.8	32.1	27.1	28.8	3.7	37.7	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.3
Total Delay	46.8	32.1	27.1	28.8	3.7	37.8	10.0
LOS	D	C	C	C	A	D	A
Approach Delay		35.6		22.9			20.5
Approach LOS		D		C			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 94.5	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 24.0	Intersection LOS: C
Intersection Capacity Utilization 63.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 14: Redlands Av & I-215 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	0	371	0	0	0	0	1108	344	675	1114	0
Future Volume (veh/h)	314	0	371	0	0	0	0	1108	344	675	1114	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	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	444	0	213				0	1218	329	742	1224	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	657	0	292				0	2166	939	928	2377	0
Arrive On Green	0.18	0.00	0.18				0.00	0.33	0.33	0.26	0.66	0.00
Sat Flow, veh/h	3619	0	1610				0	6802	2834	3510	3705	0
Grp Volume(v), veh/h	444	0	213				0	1218	329	742	1224	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1417	1755	1805	0
Q Serve(g_s), s	8.2	0.0	9.0				0.0	11.0	6.3	14.2	12.6	0.0
Cycle Q Clear(g_c), s	8.2	0.0	9.0				0.0	11.0	6.3	14.2	12.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	657	0	292				0	2166	939	928	2377	0
V/C Ratio(X)	0.68	0.00	0.73				0.00	0.56	0.35	0.80	0.51	0.00
Avail Cap(c_a), veh/h	1384	0	616				0	3273	1419	1978	4067	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)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.4	0.0	27.7				0.0	19.8	18.2	24.7	6.3	0.0
Incr Delay (d2), s/veh	1.2	0.0	3.5				0.0	0.2	0.2	1.6	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
%ile BackOfQ(50%),veh/ln	3.3	0.0	3.4				0.0	3.9	1.9	5.7	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.7	0.0	31.2				0.0	20.0	18.4	26.3	6.5	0.0
LnGrp LOS	C	A	C				A	B	B	C	A	A
Approach Vol, veh/h		657						1547			1966	
Approach Delay, s/veh		29.5						19.6			14.0	
Approach LOS		C						B			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	23.5	29.8		18.6		53.3
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0
Max Green Setting (Gmax), s	40.5	36.0		27.5		81.0
Max Q Clear Time (g_c+I1), s	16.2	13.0		11.0		14.6
Green Ext Time (p_c), s	2.8	10.8		2.1		12.5

Intersection Summary	
HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

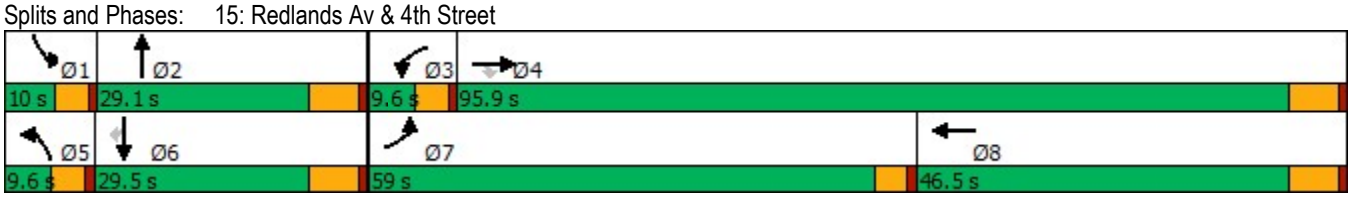
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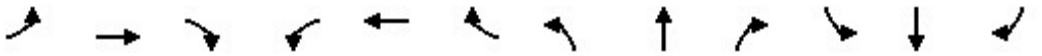
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	902	24	23	6	15	24	494	58	483	985
Future Volume (vph)	902	24	23	6	15	24	494	58	483	985
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	46.5	46.5	9.6	46.5	9.6	24.5	9.6	26.5	26.5
Total Split (s)	59.0	95.9	95.9	9.6	46.5	9.6	29.1	10.0	29.5	29.5
Total Split (%)	40.8%	66.3%	66.3%	6.6%	32.2%	6.6%	20.1%	6.9%	20.4%	20.4%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	3.6	5.5	3.6	5.5	5.5
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	6.5	6.5	4.6	6.5	4.6	6.5	4.6	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min
Act Effct Green (s)	55.6	75.0	75.0	5.1	20.5	5.1	23.1	5.5	28.0	28.0
Actuated g/C Ratio	0.45	0.61	0.61	0.04	0.17	0.04	0.19	0.04	0.23	0.23
v/c Ratio	1.33	0.01	0.03	0.10	0.09	0.38	0.86	0.86	0.67	0.83
Control Delay	187.0	9.3	0.0	68.3	19.7	79.3	63.3	129.2	51.6	18.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	187.0	9.3	0.0	68.3	19.7	79.3	63.3	129.2	51.6	18.6
LOS	F	A	A	E	B	E	E	F	D	B
Approach Delay		178.0			25.6		64.0		33.2	
Approach LOS		F			C		E		C	

Intersection Summary	
Cycle Length: 144.6	
Actuated Cycle Length: 123.3	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.33	
Intersection Signal Delay: 83.4	Intersection LOS: F
Intersection Capacity Utilization 89.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 15: Redlands Av & 4th Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	902	24	23	6	15	27	24	494	15	58	483	985
Future Volume (veh/h)	902	24	23	6	15	27	24	494	15	58	483	985
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1061	28	15	7	18	20	28	581	14	68	568	630
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	866	2099	890	16	156	133	46	667	16	86	769	652
Arrive On Green	0.73	0.84	0.84	0.01	0.13	0.13	0.04	0.27	0.27	0.07	0.31	0.31
Sat Flow, veh/h	1781	3741	1585	1781	1870	1585	1781	3637	88	1781	3741	3170
Grp Volume(v), veh/h	1061	28	15	7	18	20	28	299	296	68	568	630
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1855	1781	1870	1585
Q Serve(g_s), s	54.4	0.1	0.2	0.4	1.0	1.3	1.7	17.0	17.1	4.2	15.2	21.9
Cycle Q Clear(g_c), s	54.4	0.1	0.2	0.4	1.0	1.3	1.7	17.0	17.1	4.2	15.2	21.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	866	2099	890	16	156	133	46	343	340	86	769	652
V/C Ratio(X)	1.22	0.01	0.02	0.45	0.12	0.15	0.61	0.87	0.87	0.79	0.74	0.97
Avail Cap(c_a), veh/h	866	2990	1267	80	669	567	80	378	375	86	769	652
HCM Platoon Ratio	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
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	1.00
Uniform Delay (d), s/veh	15.1	3.9	3.9	54.9	45.2	45.4	53.2	39.3	39.3	51.3	36.0	38.3
Incr Delay (d2), s/veh	111.4	0.0	0.0	7.4	0.3	0.5	4.7	18.1	18.4	35.4	3.8	27.0
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	38.8	0.1	0.1	0.2	0.5	0.5	0.8	8.6	8.6	2.7	6.6	10.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	126.5	3.9	3.9	62.3	45.6	45.9	57.8	57.4	57.7	86.7	39.8	65.3
LnGrp LOS	F	A	A	E	D	D	E	E	E	F	D	E
Approach Vol, veh/h		1104			45			623			1266	
Approach Delay, s/veh		121.8			48.3			57.5			55.0	
Approach LOS		F			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	27.0	5.6	69.3	7.5	29.5	59.0	15.9
Change Period (Y+Rc), s	4.6	6.5	4.6	6.5	4.6	6.5	4.6	6.5
Max Green Setting (Gmax), s	5.4	22.6	5.0	89.4	5.0	23.0	54.4	40.0
Max Q Clear Time (g_c+I1), s	6.2	19.1	2.4	2.2	3.7	23.9	56.4	3.3
Green Ext Time (p_c), s	0.0	1.1	0.0	0.2	0.0	0.0	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	79.7
HCM 6th LOS	E

Intersection	
Intersection Delay, s/veh	38.5
Intersection LOS	E

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	360	210	95	34	53	317
Future Vol, veh/h	360	210	95	34	53	317
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	409	239	108	39	60	360
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	57.5	11.1	18.7
HCM LOS	F	B	C

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	63%	0%	14%
Vol Thru, %	37%	74%	0%
Vol Right, %	0%	26%	86%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	570	129	370
LT Vol	360	0	53
Through Vol	210	95	0
RT Vol	0	34	317
Lane Flow Rate	648	147	420
Geometry Grp	1	1	1
Degree of Util (X)	0.995	0.246	0.653
Departure Headway (Hd)	5.532	6.041	5.587
Convergence, Y/N	Yes	Yes	Yes
Cap	654	589	643
Service Time	3.59	4.132	3.662
HCM Lane V/C Ratio	0.991	0.25	0.653
HCM Control Delay	57.5	11.1	18.7
HCM Lane LOS	F	B	C
HCM 95th-tile Q	15.3	1	4.8

Intersection	
Intersection Delay, s/veh	110.5
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	501	65	71	719	171	105
Future Vol, veh/h	501	65	71	719	171	105
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	533	69	76	765	182	112
Number of Lanes	1	1	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	51.2	186.3	15.4
HCM LOS	F	F	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	100%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	171	105	501	65	71	719
LT Vol	171	0	0	0	71	0
Through Vol	0	0	501	0	0	719
RT Vol	0	105	0	65	0	0
Lane Flow Rate	182	112	533	69	76	765
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.409	0.214	0.962	0.111	0.147	1.385
Departure Headway (Hd)	8.719	7.474	6.953	6.234	7.028	6.517
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	415	484	528	579	511	558
Service Time	6.419	5.174	4.653	3.934	4.771	4.26
HCM Lane V/C Ratio	0.439	0.231	1.009	0.119	0.149	1.371
HCM Control Delay	17.3	12.2	56.6	9.7	11	203.6
HCM Lane LOS	C	B	F	A	B	F
HCM 95th-tile Q	2	0.8	12.5	0.4	0.5	34.6

Intersection	
Intersection Delay, s/veh	139.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	502	104	0	0	83	61	0	3	0	98	2	707
Future Vol, veh/h	502	104	0	0	83	61	0	3	0	98	2	707
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	540	112	0	0	89	66	0	3	0	105	2	760
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

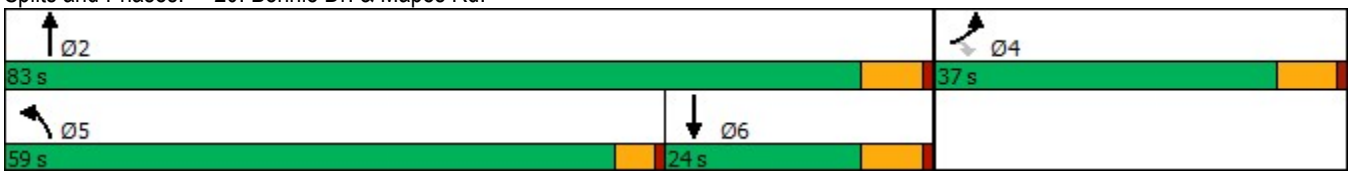
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	107.8	14.1	11.9	186.8
HCM LOS	F	B	B	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	83%	0%	12%
Vol Thru, %	100%	17%	58%	0%
Vol Right, %	0%	0%	42%	88%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	606	144	807
LT Vol	0	502	0	98
Through Vol	3	104	83	2
RT Vol	0	0	61	707
Lane Flow Rate	3	652	155	868
Geometry Grp	1	1	1	1
Degree of Util (X)	0.007	1.134	0.291	1.35
Departure Headway (Hd)	8.856	7.141	7.916	5.964
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	407	515	457	616
Service Time	6.856	5.141	5.916	3.964
HCM Lane V/C Ratio	0.007	1.266	0.339	1.409
HCM Control Delay	11.9	107.8	14.1	186.8
HCM Lane LOS	B	F	B	F
HCM 95th-tile Q	0	19.5	1.2	35.1

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	1	564	798	28	16
Future Volume (vph)	1	564	798	28	16
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)	16.5	16.5	9.6	16.5	16.5
Total Split (s)	37.0	37.0	59.0	83.0	24.0
Total Split (%)	30.8%	30.8%	49.2%	69.2%	20.0%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Min	Min
Act Effct Green (s)	13.6	13.6	54.7	69.3	10.0
Actuated g/C Ratio	0.14	0.14	0.57	0.72	0.10
v/c Ratio	0.00	0.84	0.94	0.02	0.15
Control Delay	33.0	13.2	37.6	5.2	32.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	33.0	13.2	37.6	5.2	32.3
LOS	C	B	D	A	C
Approach Delay	13.2			36.5	32.3
Approach LOS	B			D	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 96	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.94	
Intersection Signal Delay: 27.1	Intersection LOS: C
Intersection Capacity Utilization 70.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 20: Bonnie Dr. & Mapes Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	564	798	28	16	9
Future Volume (veh/h)	1	564	798	28	16	9
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	1	0	961	34	19	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	5		1009	1501	303	0
Arrive On Green	0.00	0.00	0.56	0.79	0.16	0.00
Sat Flow, veh/h	1810	1610	1810	1900	1900	0
Grp Volume(v), veh/h	1	0	961	34	19	0
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	0
Q Serve(g_s), s	0.0	0.0	31.5	0.2	0.5	0.0
Cycle Q Clear(g_c), s	0.0	0.0	31.5	0.2	0.5	0.0
Prop In Lane	1.00	1.00	1.00			0.00
Lane Grp Cap(c), veh/h	5		1009	1501	303	0
V/C Ratio(X)	0.20		0.95	0.02	0.06	0.00
Avail Cap(c_a), veh/h	879		1568	2315	530	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	31.2	0.0	13.1	1.4	22.4	0.0
Incr Delay (d2), s/veh	18.6	0.0	7.6	0.0	0.1	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	0.0	9.7	0.0	0.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	49.9	0.0	20.7	1.4	22.5	0.0
LnGrp LOS	D		C	A	C	A
Approach Vol, veh/h	1	A		995	19	
Approach Delay, s/veh	49.9			20.0	22.5	
Approach LOS	D			C	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		56.1		6.7	39.6	16.5
Change Period (Y+Rc), s		6.5		6.5	4.6	6.5
Max Green Setting (Gmax), s		76.5		30.5	54.4	17.5
Max Q Clear Time (g_c+I1), s		2.2		2.0	33.5	2.5
Green Ext Time (p_c), s		0.1		0.0	1.6	0.0

Intersection Summary	
HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C

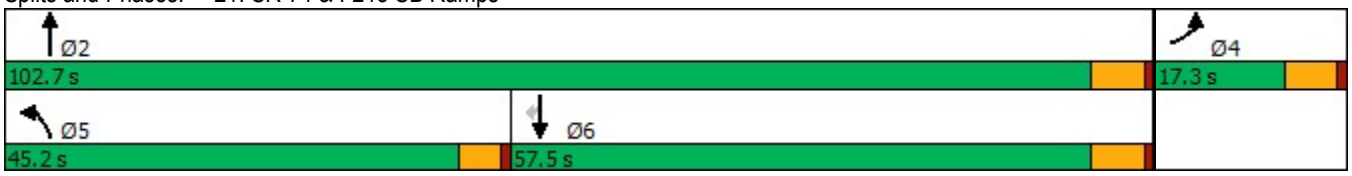
Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	172	409	654	729	865	172
Future Volume (vph)	172	409	654	729	865	172
Turn Type	Prot	Free	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		Free				6
Detector Phase	4		5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0		5.0	10.0	10.0	10.0
Minimum Split (s)	15.8		9.6	15.8	15.8	15.8
Total Split (s)	17.3		45.2	102.7	57.5	57.5
Total Split (%)	14.4%		37.7%	85.6%	47.9%	47.9%
Yellow Time (s)	4.8		3.6	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)	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	Min	Min	Min
Act Effct Green (s)	11.5	120.0	40.6	96.9	51.7	51.7
Actuated g/C Ratio	0.10	1.00	0.34	0.81	0.43	0.43
v/c Ratio	1.02	0.26	1.09	0.49	1.08	0.25
Control Delay	128.3	0.4	102.6	4.9	88.7	18.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	128.3	0.4	102.6	4.9	88.7	18.7
LOS	F	A	F	A	F	B
Approach Delay	38.4			51.1	77.1	
Approach LOS	D			D	E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.09	
Intersection Signal Delay: 57.6	Intersection LOS: E
Intersection Capacity Utilization 104.8%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 21: SR-74 & I-215 SB Ramps





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	172	409	654	729	865	172
Future Volume (veh/h)	172	409	654	729	865	172
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	176	0	667	744	883	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	173		612	1534	819	
Arrive On Green	0.10	0.00	0.34	0.81	0.43	0.00
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	176	0	667	744	883	0
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	11.5	0.0	40.6	14.9	51.7	0.0
Cycle Q Clear(g_c), s	11.5	0.0	40.6	14.9	51.7	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	173		612	1534	819	
V/C Ratio(X)	1.01		1.09	0.48	1.08	
Avail Cap(c_a), veh/h	173		612	1534	819	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	54.3	0.0	39.7	3.7	34.2	0.0
Incr Delay (d2), s/veh	72.3	0.0	63.1	0.2	54.9	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	8.6	0.0	27.8	3.6	34.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	126.5	0.0	102.8	3.9	89.0	0.0
LnGrp LOS	F		F	A	F	
Approach Vol, veh/h	176	A		1411	883	A
Approach Delay, s/veh	126.5			50.6	89.0	
Approach LOS	F			D	F	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		102.7		17.3	45.2	57.5
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		96.9		11.5	40.6	51.7
Max Q Clear Time (g_c+I1), s		16.9		13.5	42.6	53.7
Green Ext Time (p_c), s		5.6		0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	69.8
HCM 6th LOS	E

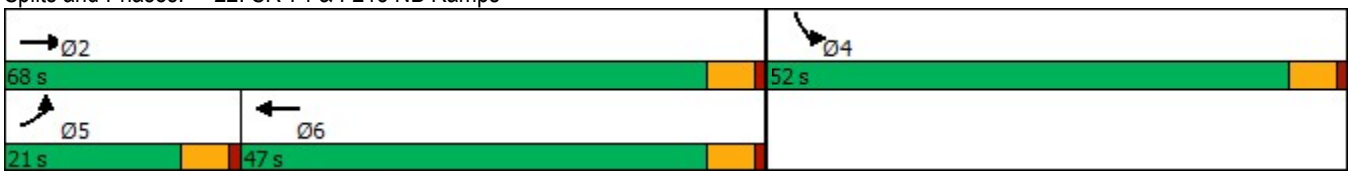
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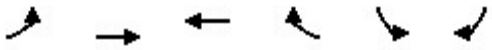
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Configurations					
Traffic Volume (vph)	189	1084	1079	1204	325
Future Volume (vph)	189	1084	1079	1204	325
Turn Type	Prot	NA	NA	Free	Prot
Protected Phases	5	2	6		4
Permitted Phases				Free	
Detector Phase	5	2	6		4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0		5.0
Minimum Split (s)	10.3	10.3	10.3		10.3
Total Split (s)	21.0	68.0	47.0		52.0
Total Split (%)	17.5%	56.7%	39.2%		43.3%
Yellow Time (s)	4.3	4.3	4.3		4.3
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)	5.3	5.3	5.3		5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	Min	Min		None
Act Effct Green (s)	14.4	57.5	37.6	110.3	42.0
Actuated g/C Ratio	0.13	0.52	0.34	1.00	0.38
v/c Ratio	0.82	0.59	0.90	0.76	0.93
Control Delay	75.4	20.2	45.6	3.4	53.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	75.4	20.2	45.6	3.4	53.5
LOS	E	C	D	A	D
Approach Delay		28.4	23.4		53.5
Approach LOS		C	C		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 110.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 29.4	Intersection LOS: C
Intersection Capacity Utilization 90.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 22: SR-74 & I-215 NB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	189	1084	1079	1204	325	305
Future Volume (veh/h)	189	1084	1079	1204	325	305
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	193	1106	1101	0	332	305
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	223	1849	1224		346	318
Arrive On Green	0.12	0.51	0.34	0.00	0.39	0.39
Sat Flow, veh/h	1810	3705	3705	1610	889	817
Grp Volume(v), veh/h	193	1106	1101	0	638	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1610	1709	0
Q Serve(g_s), s	11.2	23.1	31.1	0.0	39.1	0.0
Cycle Q Clear(g_c), s	11.2	23.1	31.1	0.0	39.1	0.0
Prop In Lane	1.00			1.00	0.52	0.48
Lane Grp Cap(c), veh/h	223	1849	1224		665	0
V/C Ratio(X)	0.86	0.60	0.90		0.96	0.00
Avail Cap(c_a), veh/h	265	2110	1403		744	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	0.00	1.00	0.00
Uniform Delay (d), s/veh	46.1	18.4	33.7	0.0	31.9	0.0
Incr Delay (d2), s/veh	19.4	0.2	6.9	0.0	21.7	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	6.1	8.8	13.9	0.0	18.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	65.6	18.6	40.6	0.0	53.6	0.0
LnGrp LOS	E	B	D		D	A
Approach Vol, veh/h		1299	1101	A	638	
Approach Delay, s/veh		25.6	40.6		53.6	
Approach LOS		C	D		D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		60.2		47.0	18.5	41.7
Change Period (Y+Rc), s		5.3		5.3	5.3	5.3
Max Green Setting (Gmax), s		62.7		46.7	15.7	41.7
Max Q Clear Time (g_c+I1), s		25.1		41.1	13.2	33.1
Green Ext Time (p_c), s		5.4		0.7	0.1	3.3

Intersection Summary	
HCM 6th Ctrl Delay	36.9
HCM 6th LOS	D

Notes

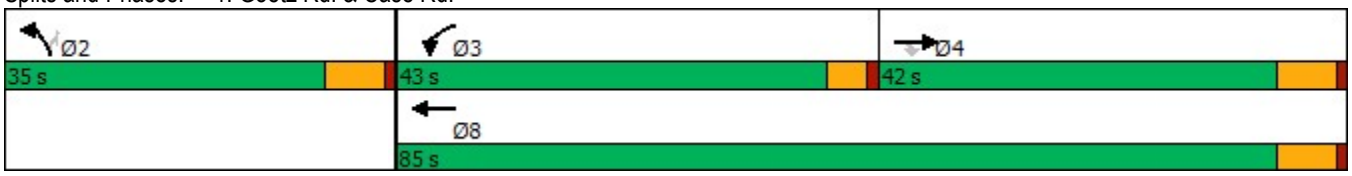
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	293	243	277	285	247	219
Future Volume (vph)	293	243	277	285	247	219
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)	34.5	34.5	9.6	16.5	16.5	16.5
Total Split (s)	42.0	42.0	43.0	85.0	35.0	35.0
Total Split (%)	35.0%	35.0%	35.8%	70.8%	29.2%	29.2%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None
Act Effct Green (s)	19.0	19.0	17.9	41.8	17.3	17.3
Actuated g/C Ratio	0.26	0.26	0.24	0.57	0.24	0.24
v/c Ratio	0.64	0.43	0.68	0.28	0.62	0.42
Control Delay	32.4	6.1	35.5	8.9	34.5	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.4	6.1	35.5	8.9	34.5	6.7
LOS	C	A	D	A	C	A
Approach Delay	20.4			22.0	21.5	
Approach LOS	C			C	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 73.1	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 21.3	Intersection LOS: C
Intersection Capacity Utilization 59.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Goetz Rd. & Case Rd.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	293	243	277	285	247	219
Future Volume (veh/h)	293	243	277	285	247	219
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	315	234	298	306	266	126
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	457	387	365	1018	364	324
Arrive On Green	0.24	0.24	0.20	0.54	0.20	0.20
Sat Flow, veh/h	1900	1607	1810	1900	1810	1610
Grp Volume(v), veh/h	315	234	298	306	266	126
Grp Sat Flow(s),veh/h/ln	1900	1607	1810	1900	1810	1610
Q Serve(g_s), s	7.5	6.4	7.8	4.4	6.8	3.4
Cycle Q Clear(g_c), s	7.5	6.4	7.8	4.4	6.8	3.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	457	387	365	1018	364	324
V/C Ratio(X)	0.69	0.60	0.82	0.30	0.73	0.39
Avail Cap(c_a), veh/h	1365	1154	1406	3018	1043	928
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	17.1	16.7	18.9	6.4	18.5	17.1
Incr Delay (d2), s/veh	1.9	1.5	1.7	0.2	2.8	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	2.7	1.9	2.6	0.9	2.5	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.9	18.2	20.6	6.5	21.3	17.9
LnGrp LOS	B	B	C	A	C	B
Approach Vol, veh/h	549			604	392	
Approach Delay, s/veh	18.6			13.5	20.2	
Approach LOS	B			B	C	

Timer - Assigned Phs		2	3	4			8
Phs Duration (G+Y+Rc), s		16.5	14.6	18.4			33.0
Change Period (Y+Rc), s		6.5	4.6	6.5			6.5
Max Green Setting (Gmax), s		28.5	38.4	35.5			78.5
Max Q Clear Time (g_c+I1), s		8.8	9.8	9.5			6.4
Green Ext Time (p_c), s		1.1	0.4	2.3			1.6

Intersection Summary	
HCM 6th Ctrl Delay	17.0
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	16.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	0	68	267	0	0	27	455	414	0	505	15
Future Vol, veh/h	11	0	68	267	0	0	27	455	414	0	505	15
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	-	-	0	-	-	-	180	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	12	0	72	284	0	0	29	484	440	0	537	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	845	1527	277	1031	1315	462	553	0	0	924	0	0
Stage 1	545	545	-	762	762	-	-	-	-	-	-	-
Stage 2	300	982	-	269	553	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	259	119	726	~ 190	159	552	1027	-	-	748	-	-
Stage 1	495	522	-	368	416	-	-	-	-	-	-	-
Stage 2	690	330	-	719	518	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	253	116	726	~ 167	155	552	1027	-	-	748	-	-
Mov Cap-2 Maneuver	366	230	-	~ 275	272	-	-	-	-	-	-	-
Stage 1	481	522	-	358	404	-	-	-	-	-	-	-
Stage 2	671	321	-	647	518	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	103.8	0.3	0
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1027	-	-	366	726	275	748	-	-
HCM Lane V/C Ratio	0.028	-	-	0.032	0.1	1.033	-	-	-
HCM Control Delay (s)	8.6	-	-	15.2	10.5	103.8	0	-	-
HCM Lane LOS	A	-	-	C	B	F	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.3	10.9	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	NBT	SBT	Ø5
Lane Configurations				
Traffic Volume (vph)	60	842	781	
Future Volume (vph)	60	842	781	
Turn Type	Prot	NA	NA	
Protected Phases	4	2	6	5
Permitted Phases				
Detector Phase	4	2	6	
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	5.0
Minimum Split (s)	14.6	16.5	27.5	9.6
Total Split (s)	44.0	76.0	66.4	9.6
Total Split (%)	36.7%	63.3%	55.3%	8%
Yellow Time (s)	3.6	5.5	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	4.6	6.5	6.5	
Lead/Lag			Lag	Lead
Lead-Lag Optimize?			Yes	Yes
Recall Mode	None	Min	Min	None
Act Effct Green (s)	10.3	24.2	24.2	
Actuated g/C Ratio	0.25	0.60	0.60	
v/c Ratio	0.28	0.43	0.39	
Control Delay	10.9	7.4	7.1	
Queue Delay	0.0	0.0	0.0	
Total Delay	10.9	7.4	7.1	
LOS	B	A	A	
Approach Delay	10.9	7.4	7.1	
Approach LOS	B	A	A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 40.6	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 7.5	Intersection LOS: A
Intersection Capacity Utilization 40.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Goetz Rd. & Cai Ct.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	60	0	842	781	0
Future Volume (veh/h)	60	60	0	842	781	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	65	65	0	915	849	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	180	180	6	1619	1619	722
Arrive On Green	0.21	0.21	0.00	0.45	0.45	0.00
Sat Flow, veh/h	846	846	1810	3705	3705	1610
Grp Volume(v), veh/h	131	0	0	915	849	0
Grp Sat Flow(s),veh/h/ln	1705	0	1810	1805	1805	1610
Q Serve(g_s), s	2.1	0.0	0.0	6.1	5.6	0.0
Cycle Q Clear(g_c), s	2.1	0.0	0.0	6.1	5.6	0.0
Prop In Lane	0.50	0.50	1.00			1.00
Lane Grp Cap(c), veh/h	363	0	6	1619	1619	722
V/C Ratio(X)	0.36	0.00	0.00	0.57	0.52	0.00
Avail Cap(c_a), veh/h	2051	0	276	7659	6601	2944
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.0	0.0	0.0	6.7	6.5	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.3	0.3	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	0.7	0.0	0.0	0.7	0.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.6	0.0	0.0	7.0	6.8	0.0
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	131			915	849	
Approach Delay, s/veh	11.6			7.0	6.8	
Approach LOS	B			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		21.2		11.6	0.0	21.2
Change Period (Y+Rc), s		6.5		4.6	4.6	6.5
Max Green Setting (Gmax), s		69.5		39.4	5.0	59.9
Max Q Clear Time (g_c+I1), s		8.1		4.1	0.0	7.6
Green Ext Time (p_c), s		6.6		0.4	0.0	5.9

Intersection Summary	
HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	32	28	2	862	0	832	12
Future Vol, veh/h	32	28	2	862	0	832	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	115	-	100	-	-
Veh in Median Storage, #	1	-	-	0	-	0	-
Grade, %	0	-	-	0	-	0	-
Peak Hour Factor	93	93	93	93	92	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	34	30	2	927	0	895	13

Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	1370	454	908	0	927	-	0
Stage 1	902	-	-	-	-	-	-
Stage 2	468	-	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	6.4	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	2.5	-	-
Pot Cap-1 Maneuver	140	559	758	-	376	-	-
Stage 1	361	-	-	-	-	-	-
Stage 2	602	-	-	-	-	-	-
Platoon blocked, %				-		-	-
Mov Cap-1 Maneuver	140	559	758	-	376	-	-
Mov Cap-2 Maneuver	264	-	-	-	-	-	-
Stage 1	360	-	-	-	-	-	-
Stage 2	602	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.6	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	758	-	350	376	-	-
HCM Lane V/C Ratio	0.003	-	0.184	-	-	-
HCM Control Delay (s)	9.8	-	17.6	0	-	-
HCM Lane LOS	A	-	C	A	-	-
HCM 95th %tile Q(veh)	0	-	0.7	0	-	-

Intersection	
Int Delay, s/veh	25.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	296	44	18	562	756	98
Future Vol, veh/h	296	44	18	562	756	98
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	-	100	-	-	-
Veh in Median Storage, #	1	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	312	46	19	592	796	103

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1182	450	899	0	-	0
Stage 1	848	-	-	-	-	-
Stage 2	334	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	~ 186	562	764	-	-	-
Stage 1	385	-	-	-	-	-
Stage 2	703	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 181	562	764	-	-	-
Mov Cap-2 Maneuver	~ 294	-	-	-	-	-
Stage 1	375	-	-	-	-	-
Stage 2	703	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	132.2	0.3	0
HCM LOS	F		

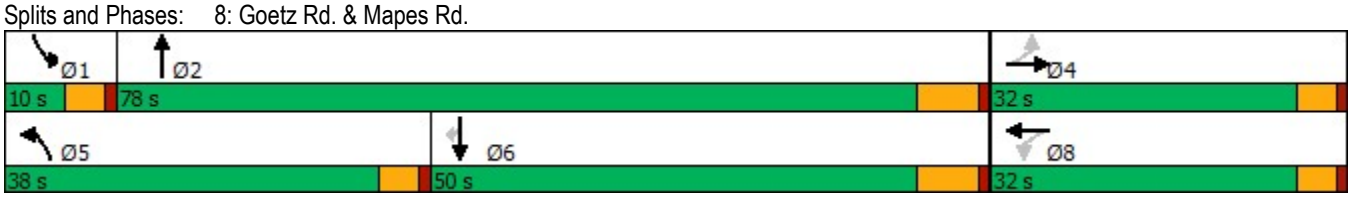
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	764	-	313	-	-
HCM Lane V/C Ratio	0.025	-	1.143	-	-
HCM Control Delay (s)	9.8	-	132.2	-	-
HCM Lane LOS	A	-	F	-	-
HCM 95th %tile Q(veh)	0.1	-	14.7	-	-

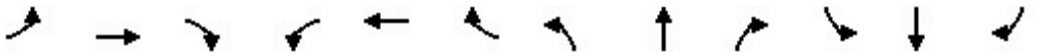
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	159	1	14	1	312	274	3	561	113
Future Volume (vph)	159	1	14	1	312	274	3	561	113
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA	Perm
Protected Phases		4		8	5	2	1	6	
Permitted Phases	4		8						6
Detector Phase	4	4	8	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.6	14.6	26.6	26.6	9.6	16.5	9.6	16.5	16.5
Total Split (s)	32.0	32.0	32.0	32.0	38.0	78.0	10.0	50.0	50.0
Total Split (%)	26.7%	26.7%	26.7%	26.7%	31.7%	65.0%	8.3%	41.7%	41.7%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.5	3.6	5.5	5.5
All-Red Time (s)	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
Total Lost Time (s)	4.6	4.6		4.6	4.6	6.5	4.6	6.5	6.5
Lead/Lag					Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	18.3	18.3		18.3	22.2	60.2	5.4	34.6	34.6
Actuated g/C Ratio	0.20	0.20		0.20	0.24	0.66	0.06	0.38	0.38
v/c Ratio	0.60	0.65		0.13	0.76	0.12	0.03	0.84	0.18
Control Delay	46.4	8.8		35.2	46.8	7.0	52.7	39.7	7.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.4	8.8		35.2	46.8	7.0	52.7	39.7	7.2
LOS	D	A		D	D	A	D	D	A
Approach Delay		19.4		35.2		28.1		34.4	
Approach LOS		B		D		C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 91.9	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 27.8	Intersection LOS: C
Intersection Capacity Utilization 85.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: Goetz Rd. & Mapes Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	1	405	14	1	2	312	274	1	3	561	113
Future Volume (veh/h)	159	1	405	14	1	2	312	274	1	3	561	113
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	169	1	255	15	1	1	332	291	1	3	597	111
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	432	1	328	151	10	4	381	2118	7	7	698	592
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.21	0.57	0.57	0.00	0.37	0.37
Sat Flow, veh/h	1437	6	1605	278	51	21	1810	3690	13	1810	1900	1610
Grp Volume(v), veh/h	169	0	256	17	0	0	332	142	150	3	597	111
Grp Sat Flow(s),veh/h/ln	1437	0	1611	349	0	0	1810	1805	1898	1810	1900	1610
Q Serve(g_s), s	0.0	0.0	10.8	0.6	0.0	0.0	12.8	2.6	2.6	0.1	20.9	3.4
Cycle Q Clear(g_c), s	6.4	0.0	10.8	11.4	0.0	0.0	12.8	2.6	2.6	0.1	20.9	3.4
Prop In Lane	1.00		1.00	0.88		0.06	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	432	0	329	165	0	0	381	1036	1089	7	698	592
V/C Ratio(X)	0.39	0.00	0.78	0.10	0.00	0.00	0.87	0.14	0.14	0.41	0.86	0.19
Avail Cap(c_a), veh/h	684	0	612	374	0	0	838	1788	1880	135	1145	971
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.4	0.0	27.2	28.1	0.0	0.0	27.5	7.1	7.1	35.8	21.1	15.5
Incr Delay (d2), s/veh	0.6	0.0	4.0	0.3	0.0	0.0	2.5	0.1	0.1	13.1	3.6	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	4.4	0.3	0.0	0.0	5.1	0.7	0.8	0.1	8.2	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	0.0	31.1	28.3	0.0	0.0	30.0	7.2	7.2	48.9	24.6	15.7
LnGrp LOS	C	A	C	C	A	A	C	A	A	D	C	B
Approach Vol, veh/h		425			17			624			711	
Approach Delay, s/veh		29.1			28.3			19.3			23.3	
Approach LOS		C			C			B			C	

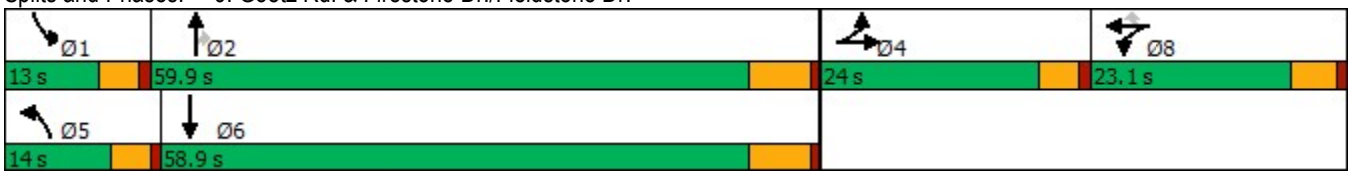
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.9	47.9		19.4	19.8	33.0		19.4				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		4.6				
Max Green Setting (Gmax), s	5.4	71.5		27.4	33.4	43.5		27.4				
Max Q Clear Time (g_c+I1), s	2.1	4.6		12.8	14.8	22.9		13.4				
Green Ext Time (p_c), s	0.0	1.4		1.9	0.4	3.6		0.0				

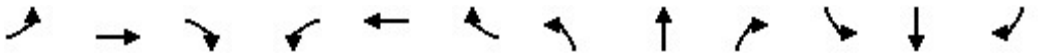
Intersection Summary			
HCM 6th Ctrl Delay		23.3	
HCM 6th LOS		C	

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	39	5	37	5	39	44	510	76	83	818
Future Volume (vph)	39	5	37	5	39	44	510	76	83	818
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	8	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.6	22.6	23.1	23.1	23.1	9.6	24.5	24.5	9.6	24.5
Total Split (s)	24.0	24.0	23.1	23.1	23.1	14.0	59.9	59.9	13.0	58.9
Total Split (%)	20.0%	20.0%	19.3%	19.3%	19.3%	11.7%	49.9%	49.9%	10.8%	49.1%
Yellow Time (s)	3.6	3.6	4.1	4.1	4.1	3.6	5.5	5.5	3.6	5.5
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	4.6	5.1	5.1	5.1	4.6	6.5	6.5	4.6	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min
Act Effct Green (s)	12.9	12.9	12.9	12.9	12.9	7.4	36.3	36.3	8.4	39.2
Actuated g/C Ratio	0.18	0.18	0.18	0.18	0.18	0.10	0.49	0.49	0.11	0.53
v/c Ratio	0.13	0.14	0.12	0.02	0.11	0.26	0.57	0.09	0.42	0.35
Control Delay	35.5	15.4	35.4	35.2	0.6	42.9	24.6	2.6	46.0	16.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.5	15.4	35.4	35.2	0.6	42.9	24.6	2.6	46.0	16.6
LOS	D	B	D	D	A	D	C	A	D	B
Approach Delay		25.2		18.6			23.3			19.0
Approach LOS		C		B			C			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 73.7	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.57	
Intersection Signal Delay: 20.8	Intersection LOS: C
Intersection Capacity Utilization 57.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Goetz Rd. & Firestone Dr./Fieldstone Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	5	36	37	5	39	44	510	76	83	818	81
Future Volume (veh/h)	39	5	36	37	5	39	44	510	76	83	818	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.98
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	5	15	39	5	33	46	531	77	86	852	67
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	203	47	140	223	235	198	81	655	555	116	1783	140
Arrive On Green	0.11	0.11	0.11	0.12	0.12	0.12	0.04	0.34	0.34	0.06	0.36	0.36
Sat Flow, veh/h	1810	417	1250	1810	1900	1605	1810	1900	1610	1810	4895	383
Grp Volume(v), veh/h	41	0	20	39	5	33	46	531	77	86	601	318
Grp Sat Flow(s),veh/h/ln	1810	0	1667	1810	1900	1605	1810	1900	1610	1810	1729	1821
Q Serve(g_s), s	1.2	0.0	0.6	1.1	0.1	1.1	1.5	14.9	1.9	2.7	7.8	7.9
Cycle Q Clear(g_c), s	1.2	0.0	0.6	1.1	0.1	1.1	1.5	14.9	1.9	2.7	7.8	7.9
Prop In Lane	1.00		0.75	1.00		1.00	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	203	0	187	223	235	198	81	655	555	116	1259	663
V/C Ratio(X)	0.20	0.00	0.11	0.17	0.02	0.17	0.57	0.81	0.14	0.74	0.48	0.48
Avail Cap(c_a), veh/h	599	0	552	556	584	493	290	1732	1468	259	3093	1629
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	0.0	23.4	23.0	22.6	23.0	27.4	17.4	13.2	26.9	14.3	14.4
Incr Delay (d2), s/veh	0.5	0.0	0.2	0.4	0.0	0.4	2.3	2.5	0.1	3.4	0.3	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	0.5	0.0	0.3	0.5	0.1	0.4	0.6	5.3	0.6	1.1	2.4	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.1	0.0	23.6	23.4	22.6	23.4	29.7	19.9	13.3	30.3	14.6	14.9
LnGrp LOS	C	A	C	C	C	C	C	B	B	C	B	B
Approach Vol, veh/h		61			77			654			1005	
Approach Delay, s/veh		23.9			23.3			19.8			16.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	26.7		11.2	7.2	27.8		12.3				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		5.1				
Max Green Setting (Gmax), s	8.4	53.4		19.4	9.4	52.4		18.0				
Max Q Clear Time (g_c+I1), s	4.7	16.9		3.2	3.5	9.9		3.1				
Green Ext Time (p_c), s	0.0	3.3		0.1	0.0	5.9		0.1				

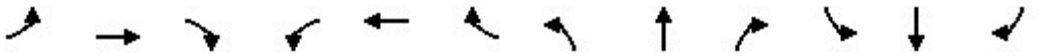
Intersection Summary			
HCM 6th Ctrl Delay		18.0	
HCM 6th LOS		B	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	17	58	5	322	84	1	227	245	446	412	34
Future Volume (vph)	17	58	5	322	84	1	227	245	446	412	34
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.4	33.4	9.6	30.4	9.6	37.5	37.5	9.6	39.5	39.5
Total Split (s)	9.9	33.4	33.4	22.0	45.5	9.6	38.6	38.6	26.0	55.0	55.0
Total Split (%)	8.3%	27.8%	27.8%	18.3%	37.9%	8.0%	32.2%	32.2%	21.7%	45.8%	45.8%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	5.5	5.5	3.6	5.5	5.5
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	5.4	5.4	4.6	5.4	4.6	6.5	6.5	4.6	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None	None
Act Effct Green (s)	5.3	13.0	13.0	17.7	31.8	5.1	18.1	18.1	21.8	43.1	43.1
Actuated g/C Ratio	0.06	0.14	0.14	0.19	0.35	0.06	0.20	0.20	0.24	0.47	0.47
v/c Ratio	0.18	0.13	0.02	1.03	0.28	0.01	0.68	0.55	1.16	0.27	0.05
Control Delay	51.1	35.9	0.0	95.9	5.6	49.0	44.1	12.4	130.1	16.7	0.1
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	51.1	35.9	0.0	95.9	5.6	49.0	44.1	12.4	130.1	16.7	0.1
LOS	D	D	A	F	A	D	D	B	F	B	A
Approach Delay		36.7			42.4		27.7			72.7	
Approach LOS		D			D		C			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 92.1	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.16	
Intersection Signal Delay: 51.2	Intersection LOS: D
Intersection Capacity Utilization 74.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 10: Goetz Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	58	5	322	84	385	1	227	245	446	412	34
Future Volume (veh/h)	17	58	5	322	84	385	1	227	245	446	412	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	19	64	4	358	93	341	1	252	170	496	458	25
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	39	427	190	372	1046	487	2	331	280	458	1536	684
Arrive On Green	0.02	0.12	0.12	0.21	0.30	0.30	0.00	0.17	0.17	0.25	0.43	0.43
Sat Flow, veh/h	1810	3610	1610	1810	3458	1610	1810	1900	1610	1810	3610	1608
Grp Volume(v), veh/h	19	64	4	358	93	341	1	252	170	496	458	25
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1610	1810	1900	1610	1810	1805	1608
Q Serve(g_s), s	0.9	1.3	0.2	16.6	1.6	15.9	0.0	10.7	8.3	21.4	7.1	0.8
Cycle Q Clear(g_c), s	0.9	1.3	0.2	16.6	1.6	15.9	0.0	10.7	8.3	21.4	7.1	0.8
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	39	427	190	372	1046	487	2	331	280	458	1536	684
V/C Ratio(X)	0.49	0.15	0.02	0.96	0.09	0.70	0.40	0.76	0.61	1.08	0.30	0.04
Avail Cap(c_a), veh/h	113	1195	533	372	1639	763	107	721	611	458	2069	922
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	1.00
Uniform Delay (d), s/veh	41.0	33.5	33.0	33.3	21.2	26.1	42.2	33.3	32.3	31.6	16.0	14.2
Incr Delay (d2), s/veh	3.6	0.2	0.0	36.4	0.0	1.8	34.7	3.7	2.1	66.6	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	0.6	0.1	10.6	0.6	5.9	0.0	4.8	3.2	16.8	2.5	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.6	33.7	33.0	69.7	21.2	28.0	76.9	36.9	34.4	98.2	16.1	14.2
LnGrp LOS	D	C	C	E	C	C	E	D	C	F	B	B
Approach Vol, veh/h		87			792			423			979	
Approach Delay, s/veh		36.0			46.0			36.0			57.6	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	21.2	22.0	15.4	4.7	42.5	6.4	31.0
Change Period (Y+Rc), s	4.6	6.5	4.6	5.4	4.6	6.5	4.6	5.4
Max Green Setting (Gmax), s	21.4	32.1	17.4	28.0	5.0	48.5	5.3	40.1
Max Q Clear Time (g_c+I1), s	23.4	12.7	18.6	3.3	2.0	9.1	2.9	17.9
Green Ext Time (p_c), s	0.0	1.6	0.0	0.3	0.0	2.8	0.0	2.7

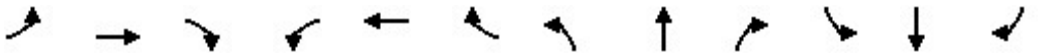
Intersection Summary	
HCM 6th Ctrl Delay	48.8
HCM 6th LOS	D

Lane Group	EBT	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	164	110	157	347	234	116	424
Future Volume (vph)	164	110	157	347	234	116	424
Turn Type	NA	NA	Perm	NA	Perm	Prot	NA
Protected Phases	4	8		2		1	6
Permitted Phases			2		2		
Detector Phase	4	8	2	2	2	1	6
Switch Phase							
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	16.4	16.4	16.4	9.6	16.4
Total Split (s)	15.0	37.0	47.0	47.0	47.0	21.0	68.0
Total Split (%)	12.5%	30.8%	39.2%	39.2%	39.2%	17.5%	56.7%
Yellow Time (s)	3.8	3.8	5.4	5.4	5.4	3.6	5.4
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)	4.8	4.8		6.4	6.4	4.6	6.4
Lead/Lag			Lag	Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	Yes	
Recall Mode	None	None	Min	Min	Min	None	Min
Act Effct Green (s)	10.2	32.2		40.6	40.6	11.9	57.1
Actuated g/C Ratio	0.09	0.28		0.35	0.35	0.10	0.49
v/c Ratio	2.19	1.36		1.09	0.37	0.66	0.47
Control Delay	573.2	206.7		102.9	13.3	66.9	21.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	573.2	206.7		102.9	13.3	66.9	21.2
LOS	F	F		F	B	E	C
Approach Delay	573.2	206.7		74.5			31.0
Approach LOS	F	F		E			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 115.6	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.19	
Intersection Signal Delay: 189.5	Intersection LOS: F
Intersection Capacity Utilization 128.8%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 12: Case Rd. & Ellis Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	164	250	369	110	175	157	347	234	116	424	0
Future Volume (veh/h)	0	164	250	369	110	175	157	347	234	116	424	0
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	0	173	262	388	116	183	165	365	0	122	446	0
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	0	62	93	284	85	134	189	330		150	918	0
Arrive On Green	0.00	0.09	0.09	0.29	0.29	0.29	0.36	0.36	0.00	0.08	0.48	0.00
Sat Flow, veh/h	0	682	1032	997	298	470	409	919	1610	1810	1900	0
Grp Volume(v), veh/h	0	0	435	687	0	0	530	0	0	122	446	0
Grp Sat Flow(s),veh/h/ln	0	0	1714	1765	0	0	1328	0	1610	1810	1900	0
Q Serve(g_s), s	0.0	0.0	10.2	32.2	0.0	0.0	36.6	0.0	0.0	7.5	17.9	0.0
Cycle Q Clear(g_c), s	0.0	0.0	10.2	32.2	0.0	0.0	40.6	0.0	0.0	7.5	17.9	0.0
Prop In Lane	0.00		0.60	0.56		0.27	0.31		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	0	0	155	503	0	0	519	0		150	918	0
V/C Ratio(X)	0.00	0.00	2.81	1.36	0.00	0.00	1.02	0.00		0.81	0.49	0.00
Avail Cap(c_a), veh/h	0	0	155	503	0	0	519	0		263	1036	0
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)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	51.4	40.4	0.0	0.0	39.4	0.0	0.0	50.9	19.7	0.0
Incr Delay (d2), s/veh	0.0	0.0	832.2	176.7	0.0	0.0	45.0	0.0	0.0	4.0	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	0.0	0.0	40.1	38.3	0.0	0.0	20.3	0.0	0.0	3.4	7.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	883.6	217.0	0.0	0.0	84.4	0.0	0.0	55.0	20.1	0.0
LnGrp LOS	A	A	F	F	A	A	F	A		D	C	A
Approach Vol, veh/h		435			687			530	A		568	
Approach Delay, s/veh		883.6			217.0			84.4			27.6	
Approach LOS		F			F			F			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.9	47.0		15.0		60.9		37.0				
Change Period (Y+Rc), s	4.6	6.4		* 4.8		6.4		4.8				
Max Green Setting (Gmax), s	16.4	40.6		* 10		61.6		32.2				
Max Q Clear Time (g_c+I1), s	9.5	42.6		12.2		19.9		34.2				
Green Ext Time (p_c), s	0.1	0.0		0.0		2.5		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			267.5									
HCM 6th LOS			F									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

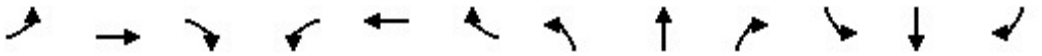
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	404	7	800	414	1254	1384	354
Future Volume (vph)	404	7	800	414	1254	1384	354
Turn Type	Split	NA	Prot	Prot	NA	NA	Perm
Protected Phases	8	8	8	5	2	6	
Permitted Phases							6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	9.5	11.0	31.0	31.0
Total Split (s)	57.0	57.0	57.0	20.0	63.0	43.0	43.0
Total Split (%)	47.5%	47.5%	47.5%	16.7%	52.5%	35.8%	35.8%
Yellow Time (s)	5.0	5.0	5.0	3.5	5.0	5.0	5.0
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)	6.0	6.0	6.0	4.5	6.0	6.0	6.0
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	Min	Min
Act Effct Green (s)	37.7	37.7	37.7	15.7	54.8	34.5	34.5
Actuated g/C Ratio	0.36	0.36	0.36	0.15	0.52	0.33	0.33
v/c Ratio	0.62	0.80	0.75	0.83	0.70	0.68	0.48
Control Delay	32.2	40.4	33.0	60.3	22.9	33.2	5.4
Queue Delay	0.0	0.0	0.0	0.0	7.8	0.0	0.0
Total Delay	32.2	40.4	33.0	60.3	30.8	33.2	5.4
LOS	C	D	C	E	C	C	A
Approach Delay		35.3			38.1	27.5	
Approach LOS		D			D	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 104.8	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 33.4	Intersection LOS: C
Intersection Capacity Utilization 77.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 13: Redlands Av & I-215 NB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	404	7	800	414	1254	0	0	1384	354
Future Volume (veh/h)	0	0	0	404	7	800	414	1254	0	0	1384	354
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	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				280	0	787	427	1293	0	0	1427	312
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				546	0	971	520	1954	0	0	2222	547
Arrive On Green				0.31	0.00	0.31	0.15	0.55	0.00	0.00	0.35	0.35
Sat Flow, veh/h				1781	0	3170	3456	3647	0	0	6696	1585
Grp Volume(v), veh/h				280	0	787	427	1293	0	0	1427	312
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1609	1585
Q Serve(g_s), s				10.8	0.0	19.1	10.0	21.5	0.0	0.0	15.6	13.4
Cycle Q Clear(g_c), s				10.8	0.0	19.1	10.0	21.5	0.0	0.0	15.6	13.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				546	0	971	520	1954	0	0	2222	547
V/C Ratio(X)				0.51	0.00	0.81	0.82	0.66	0.00	0.00	0.64	0.57
Avail Cap(c_a), veh/h				1090	0	1939	642	2429	0	0	2855	703
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	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				23.8	0.0	26.7	34.3	13.3	0.0	0.0	23.0	22.2
Incr Delay (d2), s/veh				0.7	0.0	1.7	6.9	0.5	0.0	0.0	0.3	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				4.3	0.0	6.8	4.5	7.6	0.0	0.0	5.6	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				24.6	0.0	28.4	41.3	13.8	0.0	0.0	23.3	23.2
LnGrp LOS				C	A	C	D	B	A	A	C	C
Approach Vol, veh/h					1067			1720			1739	
Approach Delay, s/veh					27.4			20.6			23.3	
Approach LOS					C			C			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	51.8		17.0	34.8		31.5						
Change Period (Y+Rc), s	6.0		4.5	6.0		6.0						
Max Green Setting (Gmax), s	57.0		15.5	37.0		51.0						
Max Q Clear Time (g_c+I1), s	23.5		12.0	17.6		21.1						
Green Ext Time (p_c), s	12.0		0.6	11.2		4.4						

Intersection Summary		
HCM 6th Ctrl Delay	23.2	
HCM 6th LOS	C	

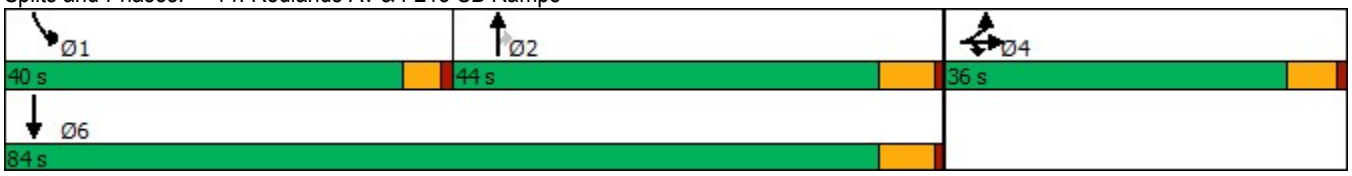
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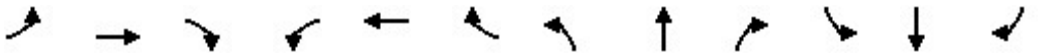
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	407	2	423	1261	498	666	1123
Future Volume (vph)	407	2	423	1261	498	666	1123
Turn Type	Split	NA	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	4	2		1	6
Permitted Phases					2		
Detector Phase	4	4	4	2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	10.5	10.5	11.0	11.0	9.5	33.0
Total Split (s)	36.0	36.0	36.0	44.0	44.0	40.0	84.0
Total Split (%)	30.0%	30.0%	30.0%	36.7%	36.7%	33.3%	70.0%
Yellow Time (s)	4.5	4.5	4.5	5.0	5.0	3.5	5.0
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)	5.5	5.5	5.5	6.0	6.0	4.5	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None	None	Min	Min	None	Min
Act Effct Green (s)	23.3	23.3	23.3	34.1	34.1	25.6	64.3
Actuated g/C Ratio	0.23	0.23	0.23	0.34	0.34	0.26	0.65
v/c Ratio	0.74	0.71	0.62	0.58	0.39	0.76	0.50
Control Delay	49.4	40.1	28.2	29.4	3.5	41.6	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.4
Total Delay	49.4	40.1	28.2	29.4	3.5	41.8	10.8
LOS	D	D	C	C	A	D	B
Approach Delay		39.5		22.1			22.3
Approach LOS		D		C			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 99.6	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 25.5	Intersection LOS: C
Intersection Capacity Utilization 77.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 14: Redlands Av & I-215 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	407	2	423	0	0	0	0	1261	498	666	1123	0
Future Volume (veh/h)	407	2	423	0	0	0	0	1261	498	666	1123	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	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	507	0	205				0	1274	387	673	1134	0
Peak Hour Factor	0.99	0.99	0.99				0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	687	0	306				0	2242	972	840	2318	0
Arrive On Green	0.19	0.00	0.19				0.00	0.35	0.35	0.24	0.65	0.00
Sat Flow, veh/h	3563	0	1585				0	6696	2790	3456	3647	0
Grp Volume(v), veh/h	507	0	205				0	1274	387	673	1134	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1609	1395	1728	1777	0
Q Serve(g_s), s	9.9	0.0	8.9				0.0	11.9	7.8	13.6	12.1	0.0
Cycle Q Clear(g_c), s	9.9	0.0	8.9				0.0	11.9	7.8	13.6	12.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	687	0	306				0	2242	972	840	2318	0
V/C Ratio(X)	0.74	0.00	0.67				0.00	0.57	0.40	0.80	0.49	0.00
Avail Cap(c_a), veh/h	1465	0	652				0	3295	1429	1653	3736	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)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.2	0.0	27.8				0.0	19.6	18.3	26.4	6.6	0.0
Incr Delay (d2), s/veh	1.6	0.0	2.5				0.0	0.2	0.3	1.8	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	4.0	0.0	3.3				0.0	4.1	2.4	5.4	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	0.0	30.3				0.0	19.9	18.5	28.2	6.8	0.0
LnGrp LOS	C	A	C				A	B	B	C	A	A
Approach Vol, veh/h		712						1661			1807	
Approach Delay, s/veh		29.9						19.6			14.7	
Approach LOS		C						B			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	22.5	31.9		19.8		54.4
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0
Max Green Setting (Gmax), s	35.5	38.0		30.5		78.0
Max Q Clear Time (g_c+I1), s	15.6	13.9		11.9		14.1
Green Ext Time (p_c), s	2.5	11.9		2.4		11.0

Intersection Summary	
HCM 6th Ctrl Delay	19.2
HCM 6th LOS	B

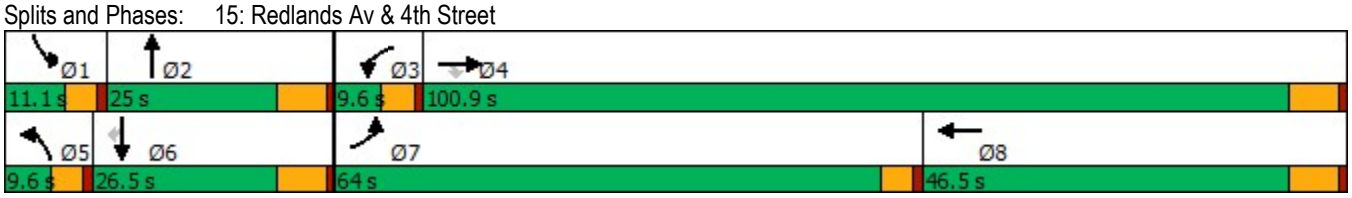
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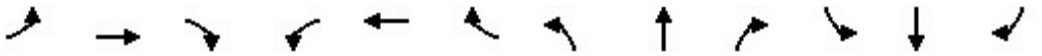
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	1056	148	54	8	268	45	356	63	284	830
Future Volume (vph)	1056	148	54	8	268	45	356	63	284	830
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	46.5	46.5	9.6	46.5	9.6	24.5	9.6	26.5	26.5
Total Split (s)	64.0	100.9	100.9	9.6	46.5	9.6	25.0	11.1	26.5	26.5
Total Split (%)	43.7%	68.8%	68.8%	6.5%	31.7%	6.5%	17.1%	7.6%	18.1%	18.1%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	3.6	5.5	3.6	5.5	5.5
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	6.5	6.5	4.6	6.5	4.6	6.5	4.6	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min
Act Effct Green (s)	60.1	87.3	87.3	5.1	24.3	5.1	17.1	6.6	20.8	20.8
Actuated g/C Ratio	0.46	0.67	0.67	0.04	0.19	0.04	0.13	0.05	0.16	0.16
v/c Ratio	1.38	0.06	0.05	0.13	0.58	0.71	0.79	0.75	0.51	0.71
Control Delay	208.7	7.9	0.4	71.2	44.7	111.3	68.4	108.3	56.1	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	208.7	7.9	0.4	71.2	44.7	111.3	68.4	108.3	56.1	7.0
LOS	F	A	A	E	D	F	E	F	E	A
Approach Delay		176.2			45.3		73.2		24.2	
Approach LOS		F			D		E		C	

Intersection Summary		
Cycle Length: 146.6		
Actuated Cycle Length: 130.5		
Natural Cycle: 115		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 1.38		
Intersection Signal Delay: 92.1	Intersection LOS: F	
Intersection Capacity Utilization 102.2%	ICU Level of Service G	
Analysis Period (min) 15		

Splits and Phases: 15: Redlands Av & 4th Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1056	148	54	8	268	113	45	356	6	63	284	830
Future Volume (veh/h)	1056	148	54	8	268	113	45	356	6	63	284	830
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1123	157	30	9	285	93	48	379	5	67	302	457
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	868	2292	971	19	370	118	62	539	7	86	597	506
Arrive On Green	0.73	0.92	0.61	0.01	0.20	0.20	0.03	0.22	0.15	0.05	0.24	0.24
Sat Flow, veh/h	1781	3741	1585	1781	2717	868	1781	3683	49	1781	3741	3170
Grp Volume(v), veh/h	1123	157	30	9	194	184	48	192	192	67	302	457
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1714	1781	1870	1862	1781	1870	1585
Q Serve(g_s), s	59.4	0.4	0.9	0.6	11.9	12.4	3.3	11.6	11.6	4.5	8.5	17.0
Cycle Q Clear(g_c), s	59.4	0.4	0.9	0.6	11.9	12.4	3.3	11.6	11.6	4.5	8.5	17.0
Prop In Lane	1.00		1.00	1.00		0.51	1.00		0.03	1.00		1.00
Lane Grp Cap(c), veh/h	868	2292	971	19	255	233	62	274	272	86	597	506
V/C Ratio(X)	1.29	0.07	0.03	0.47	0.76	0.79	0.78	0.70	0.70	0.78	0.51	0.90
Avail Cap(c_a), veh/h	868	2897	1228	73	614	563	73	284	283	95	614	520
HCM Platoon Ratio	1.50	1.50	1.00	1.00	1.50	1.50	1.00	1.50	1.00	1.00	1.50	1.50
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	1.00
Uniform Delay (d), s/veh	16.4	1.9	9.3	59.9	46.6	46.8	58.4	45.1	45.2	57.4	42.2	45.4
Incr Delay (d2), s/veh	140.7	0.0	0.0	6.5	4.7	5.8	29.1	7.3	7.4	27.1	0.7	18.7
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	48.2	0.2	0.3	0.3	5.5	5.3	1.9	5.5	5.5	2.7	3.8	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	157.1	1.9	9.3	66.4	51.3	52.6	87.5	52.4	52.6	84.5	42.8	64.2
LnGrp LOS	F	A	A	E	D	D	F	D	D	F	D	E
Approach Vol, veh/h		1310			387			432			826	
Approach Delay, s/veh		135.1			52.3			56.4			58.0	
Approach LOS		F			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	24.3	5.9	81.2	8.8	26.0	64.0	23.1
Change Period (Y+Rc), s	4.6	6.5	4.6	6.5	4.6	6.5	4.6	6.5
Max Green Setting (Gmax), s	6.5	18.5	5.0	94.4	5.0	20.0	59.4	40.0
Max Q Clear Time (g_c+I1), s	6.5	13.6	2.6	2.9	5.3	19.0	61.4	14.4
Green Ext Time (p_c), s	0.0	0.9	0.0	1.1	0.0	0.4	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	91.2
HCM 6th LOS	F

Intersection	
Intersection Delay, s/veh	33.7
Intersection LOS	D

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	389	124	255	55	18	358
Future Vol, veh/h	389	124	255	55	18	358
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	432	138	283	61	20	398
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	52.5	17.8	21
HCM LOS	F	C	C

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	76%	0%	5%
Vol Thru, %	24%	82%	0%
Vol Right, %	0%	18%	95%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	513	310	376
LT Vol	389	0	18
Through Vol	124	255	0
RT Vol	0	55	358
Lane Flow Rate	570	344	418
Geometry Grp	1	1	1
Degree of Util (X)	0.962	0.591	0.687
Departure Headway (Hd)	6.075	6.177	5.922
Convergence, Y/N	Yes	Yes	Yes
Cap	599	582	610
Service Time	4.075	4.229	3.969
HCM Lane V/C Ratio	0.952	0.591	0.685
HCM Control Delay	52.5	17.8	21
HCM Lane LOS	F	C	C
HCM 95th-tile Q	13.3	3.8	5.4

Intersection	
Intersection Delay, s/veh	188
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	879	165	132	620	118	81
Future Vol, veh/h	879	165	132	620	118	81
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	966	181	145	681	130	89
Number of Lanes	1	1	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	277.6	109.5	14.4
HCM LOS	F	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	100%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	118	81	879	165	132	620
LT Vol	118	0	0	0	132	0
Through Vol	0	0	879	0	0	620
RT Vol	0	81	0	165	0	0
Lane Flow Rate	130	89	966	181	145	681
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.297	0.174	1.673	0.279	0.275	1.198
Departure Headway (Hd)	9.232	7.976	6.574	5.86	7.48	6.967
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	392	453	560	616	483	525
Service Time	6.932	5.676	4.274	3.56	5.18	4.667
HCM Lane V/C Ratio	0.332	0.196	1.725	0.294	0.3	1.297
HCM Control Delay	15.8	12.3	327.7	10.8	13	130
HCM Lane LOS	C	B	F	B	B	F
HCM 95th-tile Q	1.2	0.6	52.6	1.1	1.1	22.9

Intersection	
Intersection Delay, s/veh	284.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	859	101	0	0	98	91	1	1	0	73	0	653
Future Vol, veh/h	859	101	0	0	98	91	1	1	0	73	0	653
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	954	112	0	0	109	101	1	1	0	81	0	726
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

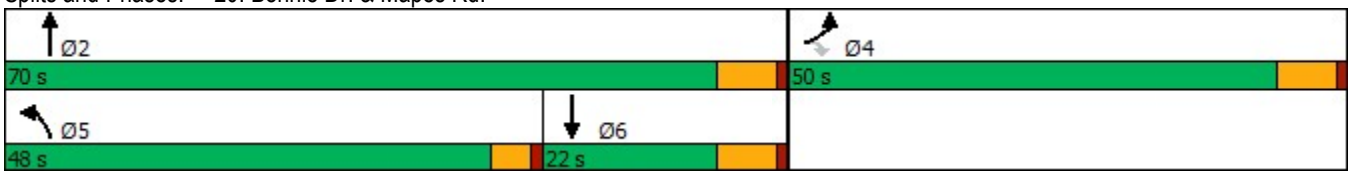
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	428.4	17.3	14.3	163.5
HCM LOS	F	C	B	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	50%	89%	0%	10%
Vol Thru, %	50%	11%	52%	0%
Vol Right, %	0%	0%	48%	90%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	960	189	726
LT Vol	1	859	0	73
Through Vol	1	101	98	0
RT Vol	0	0	91	653
Lane Flow Rate	2	1067	210	807
Geometry Grp	1	1	1	1
Degree of Util (X)	0.005	1.897	0.392	1.279
Departure Headway (Hd)	11.233	7.145	8.764	7.347
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	321	523	414	500
Service Time	9.233	5.145	6.764	5.347
HCM Lane V/C Ratio	0.006	2.04	0.507	1.614
HCM Control Delay	14.3	428.4	17.3	163.5
HCM Lane LOS	B	F	C	F
HCM 95th-tile Q	0	62.3	1.8	26.1

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	4	946	719	5	10
Future Volume (vph)	4	946	719	5	10
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)	16.5	16.5	9.6	16.5	16.5
Total Split (s)	50.0	50.0	48.0	70.0	22.0
Total Split (%)	41.7%	41.7%	40.0%	58.3%	18.3%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Min	Min
Act Effct Green (s)	18.1	18.1	44.2	59.1	10.2
Actuated g/C Ratio	0.20	0.20	0.49	0.65	0.11
v/c Ratio	0.01	0.90	0.90	0.00	0.09
Control Delay	24.8	13.8	39.3	10.4	32.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.8	13.8	39.3	10.4	32.5
LOS	C	B	D	B	C
Approach Delay	13.8			39.1	32.5
Approach LOS	B			D	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 90.4	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 24.8	Intersection LOS: C
Intersection Capacity Utilization 77.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 20: Bonnie Dr. & Mapes Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	946	719	5	10	7
Future Volume (veh/h)	4	946	719	5	10	7
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	4	0	799	6	11	8
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	20		859	1419	191	139
Arrive On Green	0.01	0.00	0.47	0.75	0.19	0.19
Sat Flow, veh/h	1810	1610	1810	1900	1023	744
Grp Volume(v), veh/h	4	0	799	6	0	19
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	0	1766
Q Serve(g_s), s	0.1	0.0	22.3	0.0	0.0	0.5
Cycle Q Clear(g_c), s	0.1	0.0	22.3	0.0	0.0	0.5
Prop In Lane	1.00	1.00	1.00			0.42
Lane Grp Cap(c), veh/h	20		859	1419	0	329
V/C Ratio(X)	0.20		0.93	0.00	0.00	0.06
Avail Cap(c_a), veh/h	1468		1464	2250	0	510
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	26.3	0.0	13.3	1.7	0.0	17.9
Incr Delay (d2), s/veh	5.1	0.0	4.1	0.0	0.0	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	0.1	0.0	6.4	0.0	0.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	31.4	0.0	17.3	1.7	0.0	18.0
LnGrp LOS	C		B	A	A	B
Approach Vol, veh/h	4	A		805	19	
Approach Delay, s/veh	31.4			17.2	18.0	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		46.6		7.1	30.1	16.5
Change Period (Y+Rc), s		6.5		6.5	4.6	6.5
Max Green Setting (Gmax), s		63.5		43.5	43.4	15.5
Max Q Clear Time (g_c+I1), s		2.0		2.1	24.3	2.5
Green Ext Time (p_c), s		0.0		0.0	1.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	17.3
HCM 6th LOS	B

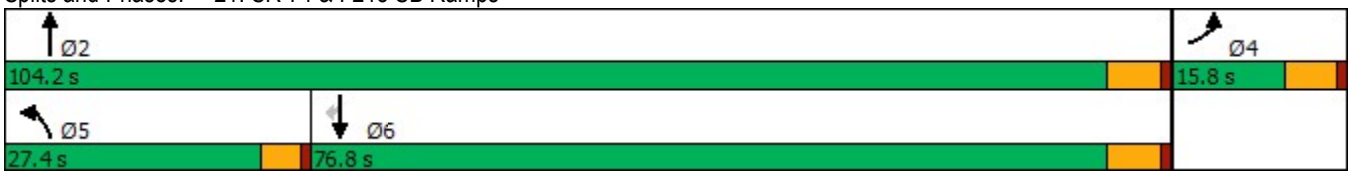
Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	395	562	532	584	1280	192
Future Volume (vph)	395	562	532	584	1280	192
Turn Type	Prot	Free	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		Free				6
Detector Phase	4		5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0		5.0	10.0	10.0	10.0
Minimum Split (s)	15.8		9.6	15.8	15.8	15.8
Total Split (s)	15.8		27.4	104.2	76.8	76.8
Total Split (%)	13.2%		22.8%	86.8%	64.0%	64.0%
Yellow Time (s)	4.8		3.6	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)	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	Min	Min	Min
Act Effct Green (s)	10.0	120.0	22.8	98.4	71.0	71.0
Actuated g/C Ratio	0.08	1.00	0.19	0.82	0.59	0.59
v/c Ratio	2.83	0.37	1.67	0.40	1.22	0.21
Control Delay	863.7	0.7	347.0	3.8	134.3	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	863.7	0.7	347.0	3.8	134.3	10.1
LOS	F	A	F	A	F	B
Approach Delay	357.1			167.4	118.1	
Approach LOS	F			F	F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 2.83	
Intersection Signal Delay: 198.2	Intersection LOS: F
Intersection Capacity Utilization 132.2%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 21: SR-74 & I-215 SB Ramps





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	395	562	532	584	1280	192
Future Volume (veh/h)	395	562	532	584	1280	192
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	425	0	572	628	1376	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	151		344	1558	1124	
Arrive On Green	0.08	0.00	0.19	0.82	0.59	0.00
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	425	0	572	628	1376	0
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	10.0	0.0	22.8	10.7	71.0	0.0
Cycle Q Clear(g_c), s	10.0	0.0	22.8	10.7	71.0	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	151		344	1558	1124	
V/C Ratio(X)	2.82		1.66	0.40	1.22	
Avail Cap(c_a), veh/h	151		344	1558	1124	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	55.0	0.0	48.6	2.9	24.5	0.0
Incr Delay (d2), s/veh	836.4	0.0	311.3	0.2	108.9	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	39.5	0.0	39.7	2.4	61.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	891.4	0.0	359.9	3.1	133.4	0.0
LnGrp LOS	F		F	A	F	
Approach Vol, veh/h	425	A		1200	1376	A
Approach Delay, s/veh	891.4			173.1	133.4	
Approach LOS	F			F	F	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		104.2		15.8	27.4	76.8
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		98.4		10.0	22.8	71.0
Max Q Clear Time (g_c+I1), s		12.7		12.0	24.8	73.0
Green Ext Time (p_c), s		4.3		0.0	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay	256.6	
HCM 6th LOS	F	

Notes

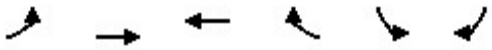
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Configurations					
Traffic Volume (vph)	193	1649	885	916	546
Future Volume (vph)	193	1649	885	916	546
Turn Type	Prot	NA	NA	Free	Prot
Protected Phases	5	2	6		4
Permitted Phases				Free	
Detector Phase	5	2	6		4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0		5.0
Minimum Split (s)	10.3	10.3	10.3		10.3
Total Split (s)	20.2	63.0	42.8		57.0
Total Split (%)	16.8%	52.5%	35.7%		47.5%
Yellow Time (s)	4.3	4.3	4.3		4.3
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)	5.3	5.3	5.3		5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	Min	Min		None
Act Effct Green (s)	14.6	57.7	37.8	120.0	51.7
Actuated g/C Ratio	0.12	0.48	0.32	1.00	0.43
v/c Ratio	0.91	0.99	0.81	0.59	1.05
Control Delay	94.4	50.6	44.7	1.6	79.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	94.4	50.6	44.7	1.6	79.6
LOS	F	D	D	A	E
Approach Delay		55.2	22.8		79.6
Approach LOS		E	C		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 46.3	Intersection LOS: D
Intersection Capacity Utilization 98.8%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 22: SR-74 & I-215 NB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	193	1649	885	916	546	231
Future Volume (veh/h)	193	1649	885	916	546	231
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	201	1718	922	0	569	152
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	228	1763	1145		586	157
Arrive On Green	0.13	0.49	0.32	0.00	0.42	0.42
Sat Flow, veh/h	1810	3705	3705	1610	1390	371
Grp Volume(v), veh/h	201	1718	922	0	722	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1610	1764	0
Q Serve(g_s), s	12.9	54.7	27.6	0.0	47.2	0.0
Cycle Q Clear(g_c), s	12.9	54.7	27.6	0.0	47.2	0.0
Prop In Lane	1.00			1.00	0.79	0.21
Lane Grp Cap(c), veh/h	228	1763	1145		744	0
V/C Ratio(X)	0.88	0.97	0.81		0.97	0.00
Avail Cap(c_a), veh/h	229	1770	1150		775	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	0.00	1.00	0.00
Uniform Delay (d), s/veh	50.6	29.4	36.8	0.0	33.3	0.0
Incr Delay (d2), s/veh	29.3	15.7	3.9	0.0	24.6	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	7.5	25.4	12.2	0.0	23.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	79.9	45.1	40.8	0.0	57.9	0.0
LnGrp LOS	E	D	D		E	A
Approach Vol, veh/h		1919	922	A	722	
Approach Delay, s/veh		48.7	40.8		57.9	
Approach LOS		D	D		E	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		62.8		54.9	20.1	42.6
Change Period (Y+Rc), s		5.3		5.3	5.3	5.3
Max Green Setting (Gmax), s		57.7		51.7	14.9	37.5
Max Q Clear Time (g_c+I1), s		56.7		49.2	14.9	29.6
Green Ext Time (p_c), s		0.8		0.4	0.0	2.6

Intersection Summary	
HCM 6th Ctrl Delay	48.5
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 6.2: EAPC (2025) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Volume Development - AM Peak Hour

1: Goetz Rd. & Case Rd.

	PHF:	0.845		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	341	1	303	0	1	0	0	220	187	266	247	0	1,566

2: Goetz Rd. & Ellis Av.

	PHF:	0.857		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	53	632	244	0	444	10	12	0	67	432	0	1	1,894

3: Goetz Rd. & Driveway 1

	PHF:								Count Date:			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	0	907	93	0	943	0	0	0	0	0	0	21	1,964

4: Goetz Rd. & Cai Ct.

	PHF:								Count Date:			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	0	940	0	0	890	0	60	0	60	0	0	0	1,950

5: Goetz Rd. & Malbert St.

	PHF:	0.794		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	34	947	0	38	862	38	13	0	9	0	0	0	1,941

6: Goetz Rd. & Mountain Av./Driveway 2

	PHF:	0.797		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	74	800	3	60	654	157	145	0	29	0	0	7	1,930

7: Goetz Rd. & Driveway 3

	PHF:								Count Date:			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	0	873	16	0	654	0	0	0	0	0	0	4	1,548

8: Goetz Rd. & Mapes Rd.

	PHF:	0.838		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	378	608	14	5	262	222	209	3	284	3	0	0	1,989

9: Goetz Rd. & Fieldstone Dr.

	PHF:	0.909		7:00am					Count Date:	11/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	20	841	27	25	493	15	82	1	42	63	0	77	1,686

10: Goetz Rd. & Ethanac Rd.

	PHF:	0.939		7:15am					Count Date:	5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	1	462	432	385	197	17	25	110	8	237	67	399	2,341

11: Driveway 4 & Ellis Av.

	PHF:								Count Date:			
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	0	0	5	0	0	0	0	244	0	0	433	0	682

Volume Development - AM Peak Hour

12: Case Rd. & Ellis Av.

	PHF:	0.903		7:30am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	250	384	306	201	262	0	0	91	157	171	183	146	2,151

13: Redlands Av. & I-215 NB Ramps

	PHF:	0.893		7:15 AM					Count Date:		2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	367	1,066	0	0	1,419	387	0	0	0	371	4	510	4,123

14: Redlands Av. & I-215 SB Ramps

	PHF:	0.905		7:30 AM					Count Date:		2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	0	1,119	344	675	1,114	0	314	0	412	0	0	0	3,978

15: Redlands Av. & 4th St.

	PHF:	0.853		7:15 AM					Count Date:		5/23/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	24	505	15	58	524	985	902	24	23	6	15	27	3,109

16: Redlands Av. & Ellis Av.

	PHF:	0.879		7:15 AM					Count Date:		5/30/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	0	0	0	53	0	358	371	210	0	0	95	34	1,122

17: Case Rd. & Driveway 5

	PHF:								Count Date:				
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	3	0	36	0	0	0	0	586	5	44	937	0	1,611

18: Murrieta Rd. & Case Rd.

	PHF:	0.937		7:15am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	171	0	105	0	0	0	0	557	65	71	811	0	1,780

19: Case Rd. & Mapes Rd.

	PHF:	0.926		7:45am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	0	3	0	98	2	799	558	104	0	0	83	61	1,707

20: Bonnie Dr. & Mapes Rd.

	PHF:	0.827							Count Date:		11/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	890	28	0	0	16	9	1	0	620	0	0	0	1,566

21: I-215 SB Ramps/SR-74 & Bonnie Dr.

	PHF:	0.985		7:00am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	702	729	0	0	865	215	202	0	435	0	0	0	3,148

22: I-215 NB Ramps & SR-74

	PHF:	0.981		7:00am					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	0	0	0	325	0	353	215	1,084	0	0	1,079	1,204	4,261

Volume Development - PM Peak Hour

1: Goetz Rd. & Case Rd.

PHF: 0.927 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	259	1	219	0	1	0	0	294	247	277	287	0	1,584

2: Goetz Rd. & Ellis Av.

PHF: 0.944 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	33	467	525	0	509	15	11	0	68	301	0	0	1,931

3: Goetz Rd. & Driveway 1

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	0	923	32	0	885	0	0	0	0	0	0	104	1,944

4: Goetz Rd. & Cai Ct.

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	0	900	0	0	825	0	60	0	60	0	0	0	1,845

5: Goetz Rd. & Malbert St.

PHF: 0.927 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	2	907	0	13	863	12	32	0	28	0	0	0	1,858

6: Goetz Rd. & Mountain Av./Driveway 2

PHF: 0.955 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	24	585	0	28	764	98	296	0	44	3	0	14	1,857

7: Goetz Rd. & Driveway 3

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	0	591	6	0	787	0	0	0	0	0	0	18	1,403

8: Goetz Rd. & Mapes Rd.

PHF: 0.942 4:00pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	312	290	1	3	576	113	159	1	405	14	1	2	1,878

9: Goetz Rd. & Fieldstone Dr.

PHF: 0.958 4:15pm Count Date: 11/15/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	44	526	76	83	833	81	39	5	36	37	5	39	1,805

10: Goetz Rd. & Ethanac Rd.

PHF: 0.898 4:15pm Count Date: 5/24/2022

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	1	234	245	446	427	34	17	58	5	328	84	395	2,274

11: Driveway 4 & Ellis Av.

PHF: Count Date:

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	0	0	19	0	0	0	0	525	0	0	301	0	845

Volume Development - PM Peak Hour

12: Case Rd. & Ellis Av.

	PHF:	0.951		4:30pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	178	349	240	116	425	0	0	207	337	371	123	175	2,522

13: Redlands Av. & I-215 NB Ramps

	PHF:	0.967		4:00 PM					Count Date:		2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	462	1,254	0	0	1,384	354	0	0	0	404	7	800	4,666

14: Redlands Av. & I-215 SB Ramps

	PHF:	0.989		4:00 PM					Count Date:		2/3/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	0	1,309	498	666	1,123	0	407	2	439	0	0	0	4,444

15: Redlands Av. & 4th St.

	PHF:	0.944		4:15 PM					Count Date:		5/23/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	45	404	6	63	300	830	1,056	148	54	8	268	113	3,297

16: Redlands Av. & Ellis Av.

	PHF:	0.899		4:00 PM					Count Date:		5/30/2023		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	0	0	0	18	0	374	437	124	0	0	255	55	1,264

17: Case Rd. & Driveway 5

	PHF:								Count Date:				
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	10	0	35	0	0	0	0	1,130	4	39	757	0	1,976

18: Murrieta Rd. & Case Rd.

	PHF:	0.909		5:00pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	118	0	81	0	0	0	0	999	166	132	677	0	2,173

19: Case Rd. & Mapes Rd.

	PHF:	0.901		5:00pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	1	1	0	73	0	710	979	101	0	0	98	91	2,054

20: Bonnie Dr. & Mapes Rd.

	PHF:	0.897							Count Date:		11/15/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	776	5	0	0	10	7	4	0	1,066	0	0	0	1,869

21: I-215 SB Ramps/SR-74 & Bonnie Dr.

	PHF:	0.932		4:15pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	560	584	0	0	1,280	221	479	0	598	0	0	0	3,722

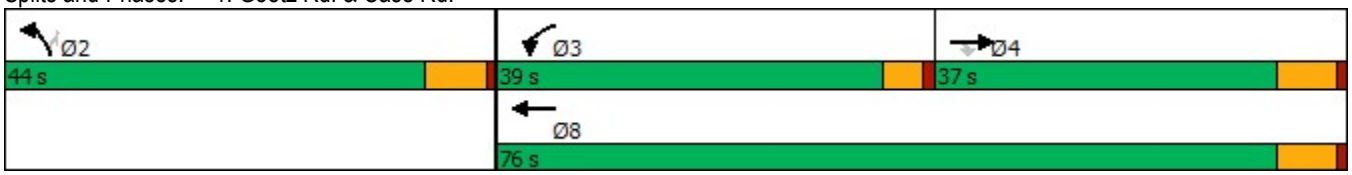
22: I-215 NB Ramps & SR-74

	PHF:	0.965		4:15pm					Count Date:		5/24/2022		
	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	TOTAL
EAPC (PCE):	0	0	0	546	0	259	229	1,649	0	0	885	916	4,485

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	220	187	266	247	341	303
Future Volume (vph)	220	187	266	247	341	303
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)	34.5	34.5	9.6	16.5	16.5	16.5
Total Split (s)	37.0	37.0	39.0	76.0	44.0	44.0
Total Split (%)	30.8%	30.8%	32.5%	63.3%	36.7%	36.7%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None
Act Effct Green (s)	17.9	17.9	20.1	42.9	24.5	24.5
Actuated g/C Ratio	0.22	0.22	0.25	0.53	0.30	0.30
v/c Ratio	0.63	0.42	0.71	0.29	0.75	0.49
Control Delay	38.9	7.4	40.1	12.2	37.1	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.9	7.4	40.1	12.2	37.1	5.5
LOS	D	A	D	B	D	A
Approach Delay	24.4			26.7	22.2	
Approach LOS	C			C	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 81.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 24.2	Intersection LOS: C
Intersection Capacity Utilization 59.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Goetz Rd. & Case Rd.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	220	187	266	247	341	303
Future Volume (veh/h)	220	187	266	247	341	303
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	262	175	317	294	406	268
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	372	315	378	925	507	451
Arrive On Green	0.20	0.20	0.21	0.49	0.28	0.28
Sat Flow, veh/h	1900	1610	1810	1900	1810	1610
Grp Volume(v), veh/h	262	175	317	294	406	268
Grp Sat Flow(s),veh/h/ln	1900	1610	1810	1900	1810	1610
Q Serve(g_s), s	7.2	5.5	9.4	5.2	11.6	8.0
Cycle Q Clear(g_c), s	7.2	5.5	9.4	5.2	11.6	8.0
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	372	315	378	925	507	451
V/C Ratio(X)	0.70	0.56	0.84	0.32	0.80	0.59
Avail Cap(c_a), veh/h	1037	879	1114	2362	1214	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	21.0	20.3	21.2	8.7	18.7	17.4
Incr Delay (d2), s/veh	2.5	1.5	1.9	0.2	3.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	1.8	3.4	1.4	4.2	2.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	23.4	21.8	23.1	8.9	21.6	18.6
LnGrp LOS	C	C	C	A	C	B
Approach Vol, veh/h	437			611	674	
Approach Delay, s/veh	22.8			16.3	20.4	
Approach LOS	C			B	C	

Timer - Assigned Phs	2	3	4	8
Phs Duration (G+Y+Rc), s	22.2	16.3	17.4	33.7
Change Period (Y+Rc), s	6.5	4.6	6.5	6.5
Max Green Setting (Gmax), s	37.5	34.4	30.5	69.5
Max Q Clear Time (g_c+I1), s	13.6	11.4	9.2	7.2
Green Ext Time (p_c), s	2.0	0.4	1.7	1.5

Intersection Summary	
HCM 6th Ctrl Delay	19.6
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	43.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	0	68	301	0	0	33	467	525	0	509	15
Future Vol, veh/h	11	0	68	301	0	0	33	467	525	0	509	15
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	-	-	0	150	-	-	180	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	12	0	72	320	0	0	35	497	559	0	541	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	818	1675	279	1118	1404	528	557	0	0	1056	0	0
Stage 1	549	549	-	847	847	-	-	-	-	-	-	-
Stage 2	269	1126	-	271	557	-	-	-	-	-	-	-
Critical Hdwy	6.95	6.5	6.9	6.95	6.5	7.1	4.1	-	-	5.3	-	-
Critical Hdwy Stg 1	6.5	5.5	-	7.3	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.7	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.65	4	3.3	3.65	4	3.9	2.2	-	-	3.1	-	-
Pot Cap-1 Maneuver	299	96	724	~ 190	141	428	1024	-	-	374	-	-
Stage 1	477	520	-	~ 264	381	-	-	-	-	-	-	-
Stage 2	683	282	-	692	515	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	291	93	724	~ 167	136	428	1024	-	-	374	-	-
Mov Cap-2 Maneuver	372	200	-	~ 219	251	-	-	-	-	-	-	-
Stage 1	461	520	-	~ 255	368	-	-	-	-	-	-	-
Stage 2	660	272	-	623	515	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.1	272.5	0.3	0
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1024	-	-	372	724	219	-	374	-	-
HCM Lane V/C Ratio	0.034	-	-	0.031	0.1	1.462	-	-	-	-
HCM Control Delay (s)	8.6	-	-	15	10.5	272.5	0	0	-	-
HCM Lane LOS	A	-	-	C	B	F	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.3	19	-	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	21	907	93	0	943
Future Vol, veh/h	0	21	907	93	0	943
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	-	-	-	-
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	0	23	986	101	0	1025

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	544	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	488	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	488	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.7	0	0
HCM LOS	B		

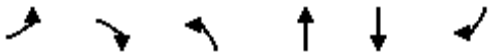
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	488	-
HCM Lane V/C Ratio	-	-	0.047	-
HCM Control Delay (s)	-	-	12.7	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	EBL	NBT	SBT	Ø5
Lane Configurations				
Traffic Volume (vph)	60	940	890	
Future Volume (vph)	60	940	890	
Turn Type	Prot	NA	NA	
Protected Phases	4	2	6	5
Permitted Phases				
Detector Phase	4	2	6	
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	5.0
Minimum Split (s)	14.6	16.5	27.5	9.6
Total Split (s)	43.0	77.0	67.4	9.6
Total Split (%)	35.8%	64.2%	56.2%	8%
Yellow Time (s)	3.6	5.5	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	4.6	6.5	6.5	
Lead/Lag			Lag	Lead
Lead-Lag Optimize?			Yes	Yes
Recall Mode	None	Min	Min	None
Act Effct Green (s)	10.4	26.1	26.1	
Actuated g/C Ratio	0.24	0.61	0.61	
v/c Ratio	0.29	0.46	0.44	
Control Delay	11.9	7.5	7.2	
Queue Delay	0.0	0.0	0.0	
Total Delay	11.9	7.5	7.2	
LOS	B	A	A	
Approach Delay	11.9	7.5	7.2	
Approach LOS	B	A	A	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 42.5		
Natural Cycle: 55		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.46		
Intersection Signal Delay: 7.7	Intersection LOS: A	
Intersection Capacity Utilization 43.6%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 4: Goetz Rd. & Cai Ct.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	60	0	940	890	0
Future Volume (veh/h)	60	60	0	940	890	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	65	65	0	1022	967	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	173	173	5	1734	1734	773
Arrive On Green	0.20	0.20	0.00	0.48	0.48	0.00
Sat Flow, veh/h	846	846	1810	3705	3705	1610
Grp Volume(v), veh/h	131	0	0	1022	967	0
Grp Sat Flow(s),veh/h/ln	1705	0	1810	1805	1805	1610
Q Serve(g_s), s	2.3	0.0	0.0	7.2	6.7	0.0
Cycle Q Clear(g_c), s	2.3	0.0	0.0	7.2	6.7	0.0
Prop In Lane	0.50	0.50	1.00			1.00
Lane Grp Cap(c), veh/h	350	0	5	1734	1734	773
V/C Ratio(X)	0.37	0.00	0.00	0.59	0.56	0.00
Avail Cap(c_a), veh/h	1857	0	257	7218	6235	2781
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.1	0.0	0.0	6.6	6.5	0.0
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.3	0.3	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	0.8	0.0	0.0	0.8	0.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.7	0.0	0.0	7.0	6.8	0.0
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	131			1022	967	
Approach Delay, s/veh	12.7			7.0	6.8	
Approach LOS	B			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		23.4		11.8	0.0	23.4
Change Period (Y+Rc), s		6.5		4.6	4.6	6.5
Max Green Setting (Gmax), s		70.5		38.4	5.0	60.9
Max Q Clear Time (g_c+I1), s		9.2		4.3	0.0	8.7
Green Ext Time (p_c), s		7.7		0.4	0.0	7.1

Intersection Summary	
HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	13	9	34	947	38	862	38
Future Vol, veh/h	13	9	34	947	38	862	38
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	115	-	100	-	-
Veh in Median Storage, #	1	-	-	0	-	0	-
Grade, %	0	-	-	0	-	0	-
Peak Hour Factor	79	79	79	79	92	79	79
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	16	11	43	1199	41	1091	48

Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	1883	570	1139	0	1199	-	0
Stage 1	1197	-	-	-	-	-	-
Stage 2	686	-	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	6.4	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	2.5	-	-
Pot Cap-1 Maneuver	64	470	621	-	252	-	-
Stage 1	253	-	-	-	-	-	-
Stage 2	467	-	-	-	-	-	-
Platoon blocked, %				-		-	-
Mov Cap-1 Maneuver	50	470	621	-	252	-	-
Mov Cap-2 Maneuver	150	-	-	-	-	-	-
Stage 1	236	-	-	-	-	-	-
Stage 2	391	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	25	0.4	0.8
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	621	-	208	252	-	-
HCM Lane V/C Ratio	0.069	-	0.134	0.164	-	-
HCM Control Delay (s)	11.2	-	25	22.1	-	-
HCM Lane LOS	B	-	D	C	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	0.6	-	-

Intersection	
Int Delay, s/veh	24.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	145	0	29	0	0	7	74	800	3	60	654	157
Future Vol, veh/h	145	0	29	0	0	7	74	800	3	60	654	157
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	-	-	110	-	-
Veh in Median Storage, #	-	1	-	-	2	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	181	0	36	0	0	9	93	1000	4	75	818	196

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1652	2256	507	1747	2352	502	1014	0	0	1004	0	0
Stage 1	1066	1066	-	1188	1188	-	-	-	-	-	-	-
Stage 2	586	1190	-	559	1164	-	-	-	-	-	-	-
Critical Hdwy	6.95	6.5	6.9	6.95	6.5	7.1	4.1	-	-	5.3	-	-
Critical Hdwy Stg 1	6.5	5.5	-	7.3	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.7	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.65	4	3.3	3.65	4	3.9	2.2	-	-	3.1	-	-
Pot Cap-1 Maneuver	~ 84	42	516	72	36	445	692	-	-	396	-	-
Stage 1	235	301	-	153	264	-	-	-	-	-	-	-
Stage 2	440	263	-	471	271	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 63	29	516	51	25	445	692	-	-	396	-	-
Mov Cap-2 Maneuver	~ 138	98	-	118	107	-	-	-	-	-	-	-
Stage 1	204	244	-	132	229	-	-	-	-	-	-	-
Stage 2	373	228	-	355	220	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	262.3	13.3	0.9	1.1
HCM LOS	F	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	692	-	-	157	445	396	-	-
HCM Lane V/C Ratio	0.134	-	-	1.385	0.02	0.189	-	-
HCM Control Delay (s)	11	-	-	262.3	13.3	16.2	-	-
HCM Lane LOS	B	-	-	F	B	C	-	-
HCM 95th %tile Q(veh)	0.5	-	-	13.6	0.1	0.7	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	4	873	16	0	654
Future Vol, veh/h	0	4	873	16	0	654
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	-	-	-	-
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	0	4	949	17	0	711

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	483	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	535	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	535	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

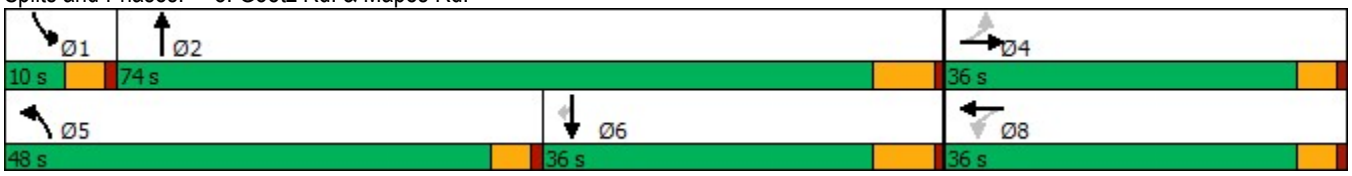
Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	0
HCM LOS	B		

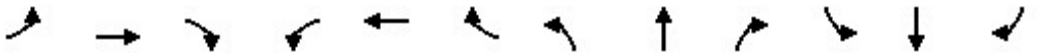
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	535	-
HCM Lane V/C Ratio	-	-	0.008	-
HCM Control Delay (s)	-	-	11.8	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	209	3	3	0	378	608	5	262	222
Future Volume (vph)	209	3	3	0	378	608	5	262	222
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA	Perm
Protected Phases		4		8	5	2	1	6	
Permitted Phases	4		8						6
Detector Phase	4	4	8	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.6	14.6	26.6	26.6	9.6	16.5	9.6	16.5	16.5
Total Split (s)	36.0	36.0	36.0	36.0	48.0	74.0	10.0	36.0	36.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	40.0%	61.7%	8.3%	30.0%	30.0%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.5	3.6	5.5	5.5
All-Red Time (s)	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
Total Lost Time (s)	4.6	4.6		4.6	4.6	6.5	4.6	6.5	6.5
Lead/Lag					Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	21.8	21.8		21.8	27.5	51.5	5.5	20.4	20.4
Actuated g/C Ratio	0.25	0.25		0.25	0.32	0.59	0.06	0.23	0.23
v/c Ratio	0.69	0.52		0.03	0.79	0.35	0.05	0.70	0.45
Control Delay	43.6	7.1		31.3	39.6	10.3	51.6	42.6	7.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.6	7.1		31.3	39.6	10.3	51.6	42.6	7.2
LOS	D	A		C	D	B	D	D	A
Approach Delay		22.5		31.3		21.3		26.6	
Approach LOS		C		C		C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 86.9	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 22.9	Intersection LOS: C
Intersection Capacity Utilization 65.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 8: Goetz Rd. & Mapes Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	209	3	284	3	0	0	378	608	14	5	262	222
Future Volume (veh/h)	209	3	284	3	0	0	378	608	14	5	262	222
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	249	4	170	4	0	0	450	724	17	6	312	239
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	461	8	323	264	0	0	513	1815	43	14	432	366
Arrive On Green	0.20	0.20	0.20	0.20	0.00	0.00	0.28	0.50	0.50	0.01	0.23	0.23
Sat Flow, veh/h	1440	37	1579	653	0	0	1810	3605	85	1810	1900	1610
Grp Volume(v), veh/h	249	0	174	4	0	0	450	362	379	6	312	239
Grp Sat Flow(s),veh/h/ln	1440	0	1616	653	0	0	1810	1805	1885	1810	1900	1610
Q Serve(g_s), s	2.0	0.0	5.3	0.2	0.0	0.0	13.1	6.9	6.9	0.2	8.4	7.4
Cycle Q Clear(g_c), s	7.5	0.0	5.3	5.5	0.0	0.0	13.1	6.9	6.9	0.2	8.4	7.4
Prop In Lane	1.00		0.98	1.00		0.00	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	461	0	331	264	0	0	513	909	949	14	432	366
V/C Ratio(X)	0.54	0.00	0.53	0.02	0.00	0.00	0.88	0.40	0.40	0.42	0.72	0.65
Avail Cap(c_a), veh/h	985	0	918	711	0	0	1421	2205	2302	177	1014	860
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	0.0	19.6	22.0	0.0	0.0	18.9	8.5	8.5	27.3	19.7	19.4
Incr Delay (d2), s/veh	1.0	0.0	1.3	0.0	0.0	0.0	1.9	0.3	0.3	7.0	2.3	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	2.9	0.0	2.0	0.0	0.0	0.0	4.4	1.7	1.8	0.1	3.2	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.3	0.0	20.9	22.1	0.0	0.0	20.8	8.8	8.8	34.3	22.0	21.3
LnGrp LOS	C	A	C	C	A	A	C	A	A	C	C	C
Approach Vol, veh/h		423			4			1191			557	
Approach Delay, s/veh		21.1			22.1			13.3			21.8	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.0	34.3		15.9	20.3	19.1		15.9				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		4.6				
Max Green Setting (Gmax), s	5.4	67.5		31.4	43.4	29.5		31.4				
Max Q Clear Time (g_c+I1), s	2.2	8.9		9.5	15.1	10.4		7.5				
Green Ext Time (p_c), s	0.0	4.2		1.8	0.6	2.2		0.0				

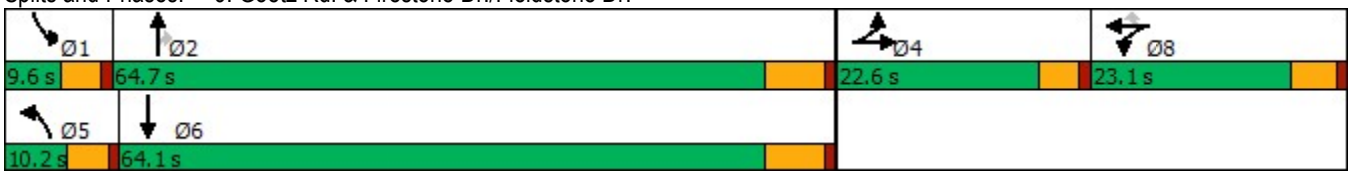
Intersection Summary			
HCM 6th Ctrl Delay		17.0	
HCM 6th LOS		B	

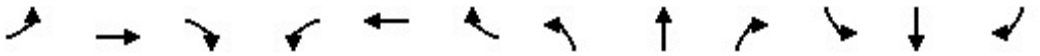
9: Goetz Rd. & Firestone Dr./Fieldstone Dr.

Lane Group	EBL	EBT	WBL	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	82	1	63	77	20	841	27	25	493
Future Volume (vph)	82	1	63	77	20	841	27	25	493
Turn Type	Split	NA	Split	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	8		5	2		1	6
Permitted Phases				8			2		
Detector Phase	4	4	8	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.6	22.6	23.1	23.1	9.6	24.5	24.5	9.6	24.5
Total Split (s)	22.6	22.6	23.1	23.1	10.2	64.7	64.7	9.6	64.1
Total Split (%)	18.8%	18.8%	19.3%	19.3%	8.5%	53.9%	53.9%	8.0%	53.4%
Yellow Time (s)	3.6	3.6	4.1	4.1	3.6	5.5	5.5	3.6	5.5
All-Red Time (s)	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	5.1	5.1	4.6	6.5	6.5	4.6	6.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	Min
Act Effct Green (s)	12.1	12.1	11.7	11.7	5.4	58.8	58.8	5.1	60.5
Actuated g/C Ratio	0.12	0.12	0.12	0.12	0.05	0.58	0.58	0.05	0.60
v/c Ratio	0.42	0.21	0.33	0.21	0.23	0.83	0.03	0.30	0.18
Control Delay	50.3	15.6	48.9	1.2	57.0	28.7	0.1	60.2	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.3	15.6	48.9	1.2	57.0	28.7	0.1	60.2	11.2
LOS	D	B	D	A	E	C	A	E	B
Approach Delay		38.4				28.5			13.5
Approach LOS		D				C			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 100.7	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 24.0	Intersection LOS: C
Intersection Capacity Utilization 74.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 9: Goetz Rd. & Firestone Dr./Fieldstone Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	82	1	42	63	0	77	20	841	27	25	493	15
Future Volume (veh/h)	82	1	42	63	0	77	20	841	27	25	493	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		1.00	1.00		1.00	1.00		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	90	1	21	69	0	66	22	924	30	27	542	11
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	201	8	169	193	203	171	42	1004	850	49	2783	56
Arrive On Green	0.11	0.11	0.11	0.11	0.00	0.11	0.02	0.53	0.53	0.03	0.53	0.53
Sat Flow, veh/h	1810	72	1520	1810	1900	1603	1810	1900	1610	1810	5233	106
Grp Volume(v), veh/h	90	0	22	69	0	66	22	924	30	27	358	195
Grp Sat Flow(s),veh/h/ln	1810	0	1592	1810	1900	1603	1810	1900	1610	1810	1729	1881
Q Serve(g_s), s	4.3	0.0	1.1	3.2	0.0	3.5	1.1	40.9	0.8	1.4	4.9	5.0
Cycle Q Clear(g_c), s	4.3	0.0	1.1	3.2	0.0	3.5	1.1	40.9	0.8	1.4	4.9	5.0
Prop In Lane	1.00		0.95	1.00		1.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	201	0	177	193	203	171	42	1004	850	49	1839	1000
V/C Ratio(X)	0.45	0.00	0.12	0.36	0.00	0.39	0.52	0.92	0.04	0.55	0.19	0.20
Avail Cap(c_a), veh/h	355	0	313	355	373	315	111	1207	1023	99	2174	1182
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	38.1	0.0	36.7	38.0	0.0	38.1	44.2	19.9	10.4	44.0	11.2	11.2
Incr Delay (d2), s/veh	1.6	0.0	0.3	1.1	0.0	1.4	3.6	10.2	0.0	3.5	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.5	1.5	0.0	1.4	0.5	17.3	0.2	0.6	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.7	0.0	37.0	39.1	0.0	39.5	47.9	30.1	10.4	47.6	11.2	11.3
LnGrp LOS	D	A	D	D	A	D	D	C	B	D	B	B
Approach Vol, veh/h		112			135			976			580	
Approach Delay, s/veh		39.2			39.3			29.9			13.0	
Approach LOS		D			D			C			B	

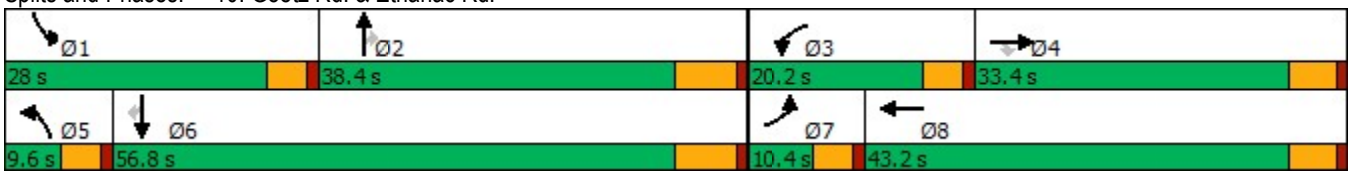
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	54.9		14.8	6.7	55.2		14.9				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		5.1				
Max Green Setting (Gmax), s	5.0	58.2		18.0	5.6	57.6		18.0				
Max Q Clear Time (g_c+I1), s	3.4	42.9		6.3	3.1	7.0		5.5				
Green Ext Time (p_c), s	0.0	5.5		0.2	0.0	3.2		0.3				

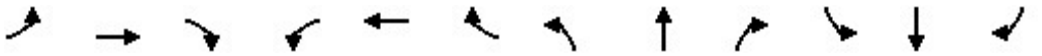
Intersection Summary			
HCM 6th Ctrl Delay		25.7	
HCM 6th LOS		C	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	25	110	8	237	67	1	462	432	385	197	17
Future Volume (vph)	25	110	8	237	67	1	462	432	385	197	17
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.4	33.4	9.6	30.4	9.6	37.5	37.5	9.6	39.5	39.5
Total Split (s)	10.4	33.4	33.4	20.2	43.2	9.6	38.4	38.4	28.0	56.8	56.8
Total Split (%)	8.7%	27.8%	27.8%	16.8%	36.0%	8.0%	32.0%	32.0%	23.3%	47.3%	47.3%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	5.5	5.5	3.6	5.5	5.5
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	5.4	5.4	4.6	5.4	4.6	6.5	6.5	4.6	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None	None
Act Effct Green (s)	5.5	13.2	13.2	15.7	27.4	5.0	31.6	31.6	23.5	58.1	58.1
Actuated g/C Ratio	0.05	0.13	0.13	0.15	0.26	0.05	0.30	0.30	0.22	0.55	0.55
v/c Ratio	0.29	0.26	0.02	0.94	0.34	0.01	0.86	0.74	1.02	0.11	0.02
Control Delay	58.2	42.3	0.1	86.9	6.3	52.0	51.8	28.1	90.9	13.2	0.1
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	58.2	42.3	0.1	86.9	6.3	52.0	51.8	28.1	90.9	13.2	0.1
LOS	E	D	A	F	A	D	D	C	F	B	A
Approach Delay		42.6			33.5		40.4			62.8	
Approach LOS		D			C		D			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 105.2	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 44.2	Intersection LOS: D
Intersection Capacity Utilization 80.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 10: Goetz Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	110	8	237	67	399	1	462	432	385	197	17
Future Volume (veh/h)	25	110	8	237	67	399	1	462	432	385	197	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	27	117	7	252	71	346	1	491	295	410	210	14
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	48	433	193	279	858	399	2	542	459	419	1861	830
Arrive On Green	0.03	0.12	0.12	0.15	0.25	0.25	0.00	0.29	0.29	0.23	0.52	0.52
Sat Flow, veh/h	1810	3610	1610	1810	3458	1608	1810	1900	1610	1810	3610	1609
Grp Volume(v), veh/h	27	117	7	252	71	346	1	491	295	410	210	14
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1608	1810	1900	1610	1810	1805	1609
Q Serve(g_s), s	1.5	3.0	0.4	13.8	1.6	20.8	0.1	25.2	16.2	22.8	3.0	0.4
Cycle Q Clear(g_c), s	1.5	3.0	0.4	13.8	1.6	20.8	0.1	25.2	16.2	22.8	3.0	0.4
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	48	433	193	279	858	399	2	542	459	419	1861	830
V/C Ratio(X)	0.57	0.27	0.04	0.90	0.08	0.87	0.40	0.91	0.64	0.98	0.11	0.02
Avail Cap(c_a), veh/h	104	1000	446	279	1293	601	90	600	508	419	1861	830
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	1.00
Uniform Delay (d), s/veh	48.6	40.4	39.3	42.0	29.2	36.4	50.4	34.8	31.6	38.6	12.6	12.0
Incr Delay (d2), s/veh	3.9	0.3	0.1	29.3	0.0	8.6	34.9	16.5	2.4	38.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.3	0.2	8.2	0.6	8.8	0.0	13.1	6.3	13.7	1.1	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.5	40.8	39.4	71.3	29.2	45.0	85.3	51.3	34.0	76.7	12.6	12.0
LnGrp LOS	D	D	D	E	C	D	F	D	C	E	B	B
Approach Vol, veh/h		151			669			787			634	
Approach Delay, s/veh		42.8			53.2			44.8			54.0	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	28.0	35.3	20.2	17.5	4.7	58.6	7.3	30.5
Change Period (Y+Rc), s	4.6	6.5	4.6	5.4	4.6	6.5	4.6	5.4
Max Green Setting (Gmax), s	23.4	31.9	15.6	28.0	5.0	50.3	5.8	37.8
Max Q Clear Time (g_c+I1), s	24.8	27.2	15.8	5.0	2.1	5.0	3.5	22.8
Green Ext Time (p_c), s	0.0	1.6	0.0	0.6	0.0	1.2	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	49.8
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	525	0	0	301	0	19
Future Vol, veh/h	525	0	0	301	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	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	571	0	0	327	0	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	286
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	717
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	717
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

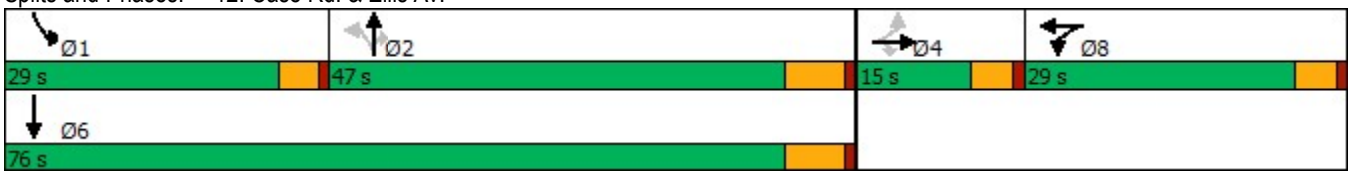
Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.2
HCM LOS			B

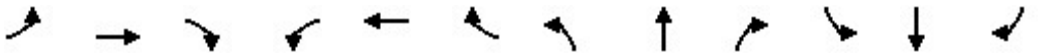
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	717	-	-	-
HCM Lane V/C Ratio	0.029	-	-	-
HCM Control Delay (s)	10.2	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	91	157	183	250	384	306	201	262
Future Volume (vph)	91	157	183	250	384	306	201	262
Turn Type	NA	Perm	NA	Perm	NA	Perm	Prot	NA
Protected Phases	4		8		2		1	6
Permitted Phases		4		2		2		
Detector Phase	4	4	8	2	2	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	14.8	16.4	16.4	16.4	9.6	16.4
Total Split (s)	15.0	15.0	29.0	47.0	47.0	47.0	29.0	76.0
Total Split (%)	12.5%	12.5%	24.2%	39.2%	39.2%	39.2%	24.2%	63.3%
Yellow Time (s)	3.8	3.8	3.8	5.4	5.4	5.4	3.6	5.4
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
Total Lost Time (s)	4.8	4.8	4.8		6.4	6.4	4.6	6.4
Lead/Lag				Lag	Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	Min	Min	Min	None	Min
Act Effct Green (s)	10.1	10.1	24.2		40.7	40.7	18.0	63.3
Actuated g/C Ratio	0.09	0.09	0.21		0.36	0.36	0.16	0.56
v/c Ratio	0.60	0.58	1.41		1.39	0.50	0.78	0.28
Control Delay	66.4	15.7	232.2		219.0	18.7	64.8	13.9
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	66.4	15.7	232.2		219.0	18.7	64.8	13.9
LOS	E	B	F		F	B	E	B
Approach Delay	34.3		232.2		153.8			36.0
Approach LOS	C		F		F			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 113.7	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.41	
Intersection Signal Delay: 132.9	Intersection LOS: F
Intersection Capacity Utilization 97.2%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 12: Case Rd. & Ellis Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	91	157	171	183	146	250	384	306	201	262	0
Future Volume (veh/h)	0	91	157	171	183	146	250	384	306	201	262	0
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	0	101	173	190	203	162	278	427	0	223	291	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	166	174	148	132	141	113	258	327		254	1039	0
Arrive On Green	0.00	0.09	0.09	0.22	0.22	0.22	0.37	0.37	0.00	0.14	0.55	0.00
Sat Flow, veh/h	1810	1900	1610	608	650	518	584	897	1610	1810	1900	0
Grp Volume(v), veh/h	0	101	173	555	0	0	705	0	0	223	291	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1776	0	0	1480	0	1610	1810	1900	0
Q Serve(g_s), s	0.0	5.7	10.2	24.2	0.0	0.0	40.6	0.0	0.0	13.4	9.1	0.0
Cycle Q Clear(g_c), s	0.0	5.7	10.2	24.2	0.0	0.0	40.6	0.0	0.0	13.4	9.1	0.0
Prop In Lane	1.00		1.00	0.34		0.29	0.39		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	166	174	148	387	0	0	586	0		254	1039	0
V/C Ratio(X)	0.00	0.58	1.17	1.44	0.00	0.00	1.20	0.00		0.88	0.28	0.00
Avail Cap(c_a), veh/h	166	174	148	387	0	0	586	0		397	1189	0
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)	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	48.4	50.5	43.5	0.0	0.0	36.9	0.0	0.0	46.9	13.5	0.0
Incr Delay (d2), s/veh	0.0	4.7	127.5	210.4	0.0	0.0	107.3	0.0	0.0	8.6	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	0.0	2.9	9.3	33.0	0.0	0.0	32.6	0.0	0.0	6.3	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	53.2	178.0	253.9	0.0	0.0	144.1	0.0	0.0	55.4	13.6	0.0
LnGrp LOS	A	D	F	F	A	A	F	A		E	B	A
Approach Vol, veh/h		274			555			705	A		514	
Approach Delay, s/veh		132.0			253.9			144.1			31.8	
Approach LOS		F			F			F			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	20.2	47.0		15.0		67.2		29.0				
Change Period (Y+Rc), s	4.6	6.4		* 4.8		6.4		4.8				
Max Green Setting (Gmax), s	24.4	40.6		* 10		69.6		24.2				
Max Q Clear Time (g_c+I1), s	15.4	42.6		12.2		11.1		26.2				
Green Ext Time (p_c), s	0.2	0.0		0.0		1.5		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		144.1	
HCM 6th LOS		F	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

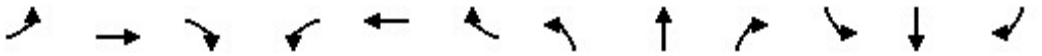
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	371	4	510	367	1066	1419	387
Future Volume (vph)	371	4	510	367	1066	1419	387
Turn Type	Split	NA	Prot	Prot	NA	NA	Perm
Protected Phases	8	8	8	5	2	6	
Permitted Phases							6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	9.5	11.0	31.0	31.0
Total Split (s)	47.0	47.0	47.0	24.0	73.0	49.0	49.0
Total Split (%)	39.2%	39.2%	39.2%	20.0%	60.8%	40.8%	40.8%
Yellow Time (s)	5.0	5.0	5.0	3.5	5.0	5.0	5.0
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)	6.0	6.0	6.0	4.5	6.0	6.0	6.0
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	Min	Min
Act Effct Green (s)	28.2	28.2	28.2	16.6	61.1	39.9	39.9
Actuated g/C Ratio	0.28	0.28	0.28	0.16	0.60	0.39	0.39
v/c Ratio	0.73	0.70	0.68	0.72	0.55	0.62	0.48
Control Delay	43.4	35.8	33.6	50.1	14.2	27.2	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.9	0.0	0.0
Total Delay	43.4	35.8	33.6	50.1	15.1	27.2	4.5
LOS	D	D	C	D	B	C	A
Approach Delay		37.7			24.1	22.3	
Approach LOS		D			C	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 101.7	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 26.3	Intersection LOS: C
Intersection Capacity Utilization 63.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 13: Redlands Av & I-215 NB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	371	4	510	367	1066	0	0	1419	387
Future Volume (veh/h)	0	0	0	371	4	510	367	1066	0	0	1419	387
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	1900	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				545	0	273	412	1198	0	0	1594	344
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				805	0	358	532	2246	0	0	2695	664
Arrive On Green				0.22	0.00	0.22	0.15	0.62	0.00	0.00	0.41	0.41
Sat Flow, veh/h				3619	0	1610	3510	3705	0	0	6802	1610
Grp Volume(v), veh/h				545	0	273	412	1198	0	0	1594	344
Grp Sat Flow(s),veh/h/ln				1810	0	1610	1755	1805	0	0	1634	1610
Q Serve(g_s), s				10.7	0.0	12.3	8.7	14.5	0.0	0.0	14.6	12.3
Cycle Q Clear(g_c), s				10.7	0.0	12.3	8.7	14.5	0.0	0.0	14.6	12.3
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				805	0	358	532	2246	0	0	2695	664
V/C Ratio(X)				0.68	0.00	0.76	0.77	0.53	0.00	0.00	0.59	0.52
Avail Cap(c_a), veh/h				1920	0	854	886	3131	0	0	3638	896
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	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				27.5	0.0	28.1	31.5	8.3	0.0	0.0	17.6	17.0
Incr Delay (d2), s/veh				1.0	0.0	3.4	2.4	0.2	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				4.3	0.0	4.6	3.7	4.5	0.0	0.0	5.1	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				28.5	0.0	31.5	33.9	8.5	0.0	0.0	17.9	17.6
LnGrp LOS				C	A	C	C	A	A	A	B	B
Approach Vol, veh/h					818			1610			1938	
Approach Delay, s/veh					29.5			15.0			17.8	
Approach LOS					C			B			B	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	54.1		16.2	37.9		23.2						
Change Period (Y+Rc), s	6.0		4.5	6.0		6.0						
Max Green Setting (Gmax), s	67.0		19.5	43.0		41.0						
Max Q Clear Time (g_c+I1), s	16.5		10.7	16.6		14.3						
Green Ext Time (p_c), s	11.7		1.0	15.2		2.9						

Intersection Summary		
HCM 6th Ctrl Delay	19.0	
HCM 6th LOS	B	

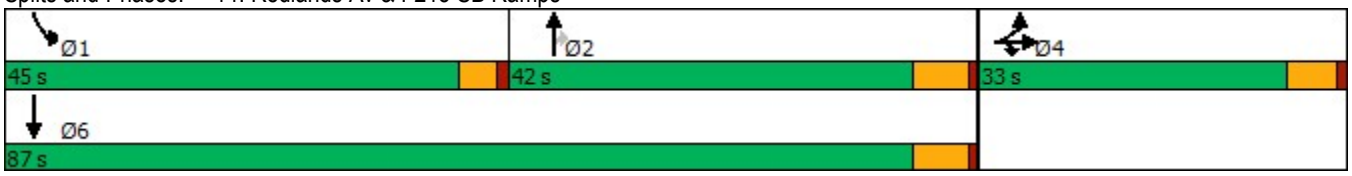
Notes

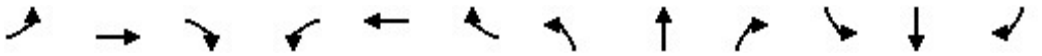
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	314	0	412	1119	344	675	1114
Future Volume (vph)	314	0	412	1119	344	675	1114
Turn Type	Split	NA	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	4	2		1	6
Permitted Phases					2		
Detector Phase	4	4	4	2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	10.5	10.5	11.0	11.0	9.5	33.0
Total Split (s)	33.0	33.0	33.0	42.0	42.0	45.0	87.0
Total Split (%)	27.5%	27.5%	27.5%	35.0%	35.0%	37.5%	72.5%
Yellow Time (s)	4.5	4.5	4.5	5.0	5.0	3.5	5.0
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)	5.5	5.5	5.5	6.0	6.0	4.5	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None	None	Min	Min	None	Min
Act Effct Green (s)	21.3	21.3	21.3	31.1	31.1	26.6	62.4
Actuated g/C Ratio	0.22	0.22	0.22	0.32	0.32	0.28	0.65
v/c Ratio	0.72	0.64	0.62	0.58	0.32	0.76	0.52
Control Delay	48.1	29.9	28.9	29.2	3.7	38.4	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.3
Total Delay	48.1	29.9	28.9	29.2	3.7	38.5	10.3
LOS	D	C	C	C	A	D	B
Approach Delay		35.9		23.2			20.9
Approach LOS		D		C			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 95.7	
Natural Cycle: 50	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 24.5	Intersection LOS: C
Intersection Capacity Utilization 63.8%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 14: Redlands Av & I-215 SB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	0	412	0	0	0	0	1119	344	675	1114	0
Future Volume (veh/h)	314	0	412	0	0	0	0	1119	344	675	1114	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	1900				0	1900	1900	1900	1900	0
Adj Flow Rate, veh/h	461	0	239				0	1230	329	742	1224	0
Peak Hour Factor	0.91	0.91	0.91				0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	0	0				0	0	0	0	0	0
Cap, veh/h	710	0	316				0	2137	927	921	2346	0
Arrive On Green	0.20	0.00	0.20				0.00	0.33	0.33	0.26	0.65	0.00
Sat Flow, veh/h	3619	0	1610				0	6802	2834	3510	3705	0
Grp Volume(v), veh/h	461	0	239				0	1230	329	742	1224	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1634	1417	1755	1805	0
Q Serve(g_s), s	8.8	0.0	10.5				0.0	11.6	6.6	14.8	13.4	0.0
Cycle Q Clear(g_c), s	8.8	0.0	10.5				0.0	11.6	6.6	14.8	13.4	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	710	0	316				0	2137	927	921	2346	0
V/C Ratio(X)	0.65	0.00	0.76				0.00	0.58	0.35	0.81	0.52	0.00
Avail Cap(c_a), veh/h	1334	0	593				0	3153	1367	1905	3918	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)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.6	0.0	28.3				0.0	20.8	19.1	25.7	6.9	0.0
Incr Delay (d2), s/veh	1.0	0.0	3.7				0.0	0.2	0.2	1.7	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
%ile BackOfQ(50%),veh/ln	3.6	0.0	4.0				0.0	4.1	2.0	5.9	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	0.0	32.0				0.0	21.1	19.3	27.5	7.1	0.0
LnGrp LOS	C	A	C				A	C	B	C	A	A
Approach Vol, veh/h		700						1559			1966	
Approach Delay, s/veh		29.8						20.7			14.8	
Approach LOS		C						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	24.1	30.4		20.1		54.5
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0
Max Green Setting (Gmax), s	40.5	36.0		27.5		81.0
Max Q Clear Time (g_c+I1), s	16.8	13.6		12.5		15.4
Green Ext Time (p_c), s	2.8	10.8		2.2		12.5

Intersection Summary		
HCM 6th Ctrl Delay		19.5
HCM 6th LOS		B

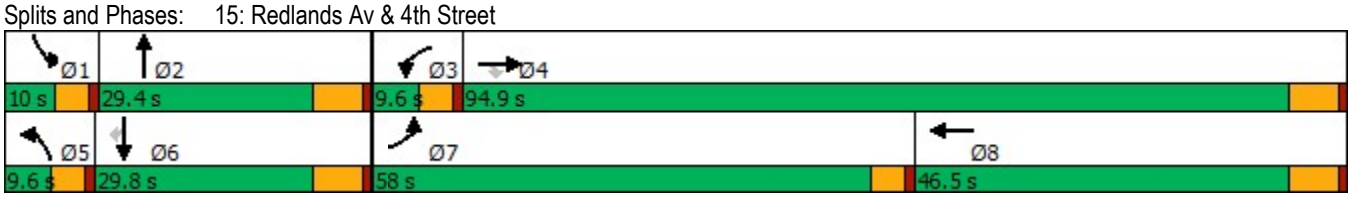
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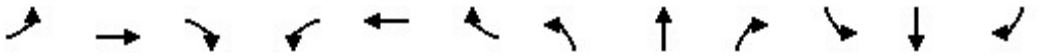
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	902	24	23	6	15	24	505	58	524	985
Future Volume (vph)	902	24	23	6	15	24	505	58	524	985
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	46.5	46.5	9.6	46.5	9.6	24.5	9.6	26.5	26.5
Total Split (s)	58.0	94.9	94.9	9.6	46.5	9.6	29.4	10.0	29.8	29.8
Total Split (%)	40.3%	65.9%	65.9%	6.7%	32.3%	6.7%	20.4%	6.9%	20.7%	20.7%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	3.6	5.5	3.6	5.5	5.5
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	6.5	6.5	4.6	6.5	4.6	6.5	4.6	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min
Act Effct Green (s)	54.2	68.4	68.4	5.1	15.0	5.1	23.3	5.5	27.9	27.9
Actuated g/C Ratio	0.46	0.59	0.59	0.04	0.13	0.04	0.20	0.05	0.24	0.24
v/c Ratio	1.29	0.01	0.03	0.09	0.11	0.37	0.83	0.82	0.69	0.84
Control Delay	168.7	10.0	0.0	62.8	21.4	73.0	56.3	116.4	47.8	20.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	168.7	10.0	0.0	62.8	21.4	73.0	56.3	116.4	47.8	20.2
LOS	F	A	A	E	C	E	E	F	D	C
Approach Delay		160.7			26.5		57.0		33.0	
Approach LOS		F			C		E		C	

Intersection Summary	
Cycle Length: 143.9	
Actuated Cycle Length: 116.6	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.29	
Intersection Signal Delay: 76.1	Intersection LOS: E
Intersection Capacity Utilization 90.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 15: Redlands Av & 4th Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	902	24	23	6	15	27	24	505	15	58	524	985
Future Volume (veh/h)	902	24	23	6	15	27	24	505	15	58	524	985
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1061	28	15	7	18	20	28	594	14	68	616	630
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	856	2079	881	16	157	133	46	681	16	87	784	665
Arrive On Green	0.72	0.56	0.56	0.01	0.08	0.08	0.03	0.28	0.19	0.05	0.31	0.31
Sat Flow, veh/h	1781	3741	1585	1781	1870	1585	1781	3640	86	1781	3741	3170
Grp Volume(v), veh/h	1061	28	15	7	18	20	28	305	303	68	616	630
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1870	1855	1781	1870	1585
Q Serve(g_s), s	53.4	0.4	0.5	0.4	1.0	1.3	1.7	17.3	17.3	4.2	16.7	21.6
Cycle Q Clear(g_c), s	53.4	0.4	0.5	0.4	1.0	1.3	1.7	17.3	17.3	4.2	16.7	21.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.05	1.00		1.00
Lane Grp Cap(c), veh/h	856	2079	881	16	157	133	46	350	347	87	784	665
V/C Ratio(X)	1.24	0.01	0.02	0.45	0.11	0.15	0.60	0.87	0.87	0.79	0.79	0.95
Avail Cap(c_a), veh/h	856	2976	1261	80	673	571	80	385	382	87	784	665
HCM Platoon Ratio	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.50	1.00	1.00	1.50	1.50
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	1.00
Uniform Delay (d), s/veh	15.5	11.0	11.1	54.8	47.1	47.2	53.6	38.7	39.0	52.3	35.8	37.5
Incr Delay (d2), s/veh	117.8	0.0	0.0	18.9	0.3	0.5	12.0	18.0	18.2	36.7	5.3	22.9
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	40.1	0.2	0.2	0.3	0.5	0.5	0.9	8.7	8.7	2.7	7.3	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	133.3	11.0	11.1	73.8	47.4	47.7	65.5	56.7	57.2	89.0	41.1	60.4
LnGrp LOS	F	B	B	E	D	D	E	E	E	F	D	E
Approach Vol, veh/h		1104			45			636			1314	
Approach Delay, s/veh		128.5			51.6			57.3			52.8	
Approach LOS		F			D			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	27.3	5.6	68.3	7.5	29.8	58.0	15.8
Change Period (Y+Rc), s	4.6	6.5	4.6	6.5	4.6	6.5	4.6	6.5
Max Green Setting (Gmax), s	5.4	22.9	5.0	88.4	5.0	23.3	53.4	40.0
Max Q Clear Time (g_c+I1), s	6.2	19.3	2.4	2.5	3.7	23.6	55.4	3.3
Green Ext Time (p_c), s	0.0	1.2	0.0	0.2	0.0	0.0	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	80.7
HCM 6th LOS	F

Intersection	
Intersection Delay, s/veh	46.9
Intersection LOS	E

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	371	210	95	34	53	358
Future Vol, veh/h	371	210	95	34	53	358
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	422	239	108	39	60	407
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	72.1	11.5	22.4
HCM LOS	F	B	C

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	64%	0%	13%
Vol Thru, %	36%	74%	0%
Vol Right, %	0%	26%	87%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	581	129	411
LT Vol	371	0	53
Through Vol	210	95	0
RT Vol	0	34	358
Lane Flow Rate	660	147	467
Geometry Grp	1	1	1
Degree of Util (X)	1.046	0.251	0.725
Departure Headway (Hd)	5.701	6.362	5.747
Convergence, Y/N	Yes	Yes	Yes
Cap	634	569	635
Service Time	3.746	4.362	3.747
HCM Lane V/C Ratio	1.041	0.258	0.735
HCM Control Delay	72.1	11.5	22.4
HCM Lane LOS	F	B	C
HCM 95th-tile Q	17.6	1	6.2

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	586	5	44	937	3	36
Future Vol, veh/h	586	5	44	937	3	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	637	5	48	1018	3	39

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	642	0	1754	640
Stage 1	-	-	-	-	640	-
Stage 2	-	-	-	-	1114	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	952	-	95	479
Stage 1	-	-	-	-	529	-
Stage 2	-	-	-	-	317	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	952	-	90	479
Mov Cap-2 Maneuver	-	-	-	-	212	-
Stage 1	-	-	-	-	529	-
Stage 2	-	-	-	-	301	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	14.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	437	-	-	952	-
HCM Lane V/C Ratio	0.097	-	-	0.05	-
HCM Control Delay (s)	14.1	-	-	9	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-

Intersection	
Intersection Delay, s/veh	156.4
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	557	65	71	811	171	105
Future Vol, veh/h	557	65	71	811	171	105
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	593	69	76	863	182	112
Number of Lanes	1	1	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	78.7	255.1	15.8
HCM LOS	F	F	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	100%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	171	105	557	65	71	811
LT Vol	171	0	0	0	71	0
Through Vol	0	0	557	0	0	811
RT Vol	0	105	0	65	0	0
Lane Flow Rate	182	112	593	69	76	863
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.407	0.213	1.072	0.112	0.145	1.555
Departure Headway (Hd)	9.009	7.756	7.092	6.372	7.162	6.65
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	402	466	516	566	504	552
Service Time	6.709	5.456	4.792	4.072	4.862	4.35
HCM Lane V/C Ratio	0.453	0.24	1.149	0.122	0.151	1.563
HCM Control Delay	17.8	12.5	86.7	9.9	11.1	276.5
HCM Lane LOS	C	B	F	A	B	F
HCM 95th-tile Q	1.9	0.8	16.8	0.4	0.5	44.6

Intersection	
Intersection Delay, s/veh	192.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	558	104	0	0	83	61	0	3	0	98	2	799
Future Vol, veh/h	558	104	0	0	83	61	0	3	0	98	2	799
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	600	112	0	0	89	66	0	3	0	105	2	859
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

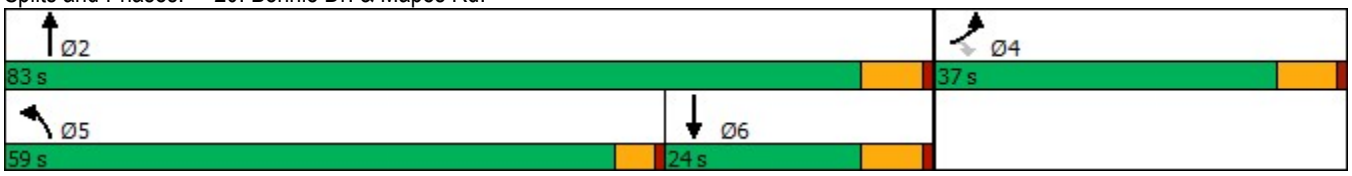
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	149.4	14.9	12.5	253.4
HCM LOS	F	B	B	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	84%	0%	11%
Vol Thru, %	100%	16%	58%	0%
Vol Right, %	0%	0%	42%	89%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	3	662	144	899
LT Vol	0	558	0	98
Through Vol	3	104	83	2
RT Vol	0	0	61	799
Lane Flow Rate	3	712	155	967
Geometry Grp	1	1	1	1
Degree of Util (X)	0.007	1.242	0.291	1.505
Departure Headway (Hd)	9.437	7.468	8.458	6.143
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	382	491	427	599
Service Time	7.437	5.468	6.458	4.143
HCM Lane V/C Ratio	0.008	1.45	0.363	1.614
HCM Control Delay	12.5	149.4	14.9	253.4
HCM Lane LOS	B	F	B	F
HCM 95th-tile Q	0	24	1.2	44.4

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	1	620	890	28	16
Future Volume (vph)	1	620	890	28	16
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)	16.5	16.5	9.6	16.5	16.5
Total Split (s)	37.0	37.0	59.0	83.0	24.0
Total Split (%)	30.8%	30.8%	49.2%	69.2%	20.0%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Min	Min
Act Effct Green (s)	14.6	14.6	54.7	69.4	10.1
Actuated g/C Ratio	0.15	0.15	0.56	0.71	0.10
v/c Ratio	0.00	0.85	1.05	0.03	0.15
Control Delay	32.0	13.2	66.7	5.8	33.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.0	13.2	66.7	5.8	33.2
LOS	C	B	E	A	C
Approach Delay	13.2			64.9	33.2
Approach LOS	B			E	C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 97.1	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.05	
Intersection Signal Delay: 43.8	Intersection LOS: D
Intersection Capacity Utilization 75.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 20: Bonnie Dr. & Mapes Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	1	620	890	28	16	9
Future Volume (veh/h)	1	620	890	28	16	9
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	1	0	1072	34	19	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	5		1110	1551	264	0
Arrive On Green	0.00	0.00	0.61	0.82	0.14	0.00
Sat Flow, veh/h	1810	1610	1810	1900	1900	0
Grp Volume(v), veh/h	1	0	1072	34	19	0
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	0
Q Serve(g_s), s	0.0	0.0	40.4	0.2	0.6	0.0
Cycle Q Clear(g_c), s	0.0	0.0	40.4	0.2	0.6	0.0
Prop In Lane	1.00	1.00	1.00			0.00
Lane Grp Cap(c), veh/h	5		1110	1551	264	0
V/C Ratio(X)	0.20		0.97	0.02	0.07	0.00
Avail Cap(c_a), veh/h	767		1369	2021	462	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.8	0.0	13.2	1.2	26.9	0.0
Incr Delay (d2), s/veh	18.7	0.0	14.3	0.0	0.1	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	0.0	14.1	0.0	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.5	0.0	27.4	1.2	27.0	0.0
LnGrp LOS	D		C	A	C	A
Approach Vol, veh/h	1	A		1106	19	
Approach Delay, s/veh	54.5			26.6	27.0	
Approach LOS	D			C	C	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		65.2		6.7	48.7	16.5
Change Period (Y+Rc), s		6.5		6.5	4.6	6.5
Max Green Setting (Gmax), s		76.5		30.5	54.4	17.5
Max Q Clear Time (g_c+I1), s		2.2		2.0	42.4	2.6
Green Ext Time (p_c), s		0.1		0.0	1.7	0.0

Intersection Summary	
HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

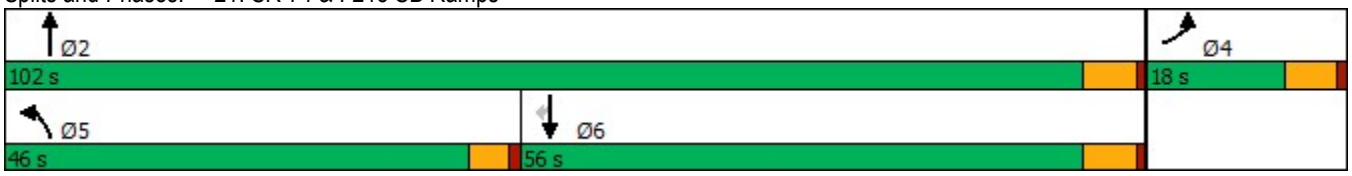
Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	202	435	702	729	865	215
Future Volume (vph)	202	435	702	729	865	215
Turn Type	Prot	Free	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		Free				6
Detector Phase	4		5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0		5.0	10.0	10.0	10.0
Minimum Split (s)	15.8		9.6	15.8	15.8	15.8
Total Split (s)	18.0		46.0	102.0	56.0	56.0
Total Split (%)	15.0%		38.3%	85.0%	46.7%	46.7%
Yellow Time (s)	4.8		3.6	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)	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	Min	Min	Min
Act Effct Green (s)	12.2	120.0	41.4	96.2	50.2	50.2
Actuated g/C Ratio	0.10	1.00	0.34	0.80	0.42	0.42
v/c Ratio	1.13	0.27	1.15	0.49	1.11	0.31
Control Delay	153.0	0.4	122.1	5.1	101.1	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	153.0	0.4	122.1	5.1	101.1	20.5
LOS	F	A	F	A	F	C
Approach Delay	48.8			62.5	85.1	
Approach LOS	D			E	F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay: 67.5	Intersection LOS: E
Intersection Capacity Utilization 109.1%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 21: SR-74 & I-215 SB Ramps





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	202	435	702	729	865	215
Future Volume (veh/h)	202	435	702	729	865	215
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	206	0	716	744	883	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	184		624	1523	795	
Arrive On Green	0.10	0.00	0.34	0.80	0.42	0.00
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	206	0	716	744	883	0
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	12.2	0.0	41.4	15.3	50.2	0.0
Cycle Q Clear(g_c), s	12.2	0.0	41.4	15.3	50.2	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	184		624	1523	795	
V/C Ratio(X)	1.12		1.15	0.49	1.11	
Avail Cap(c_a), veh/h	184		624	1523	795	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	53.9	0.0	39.3	3.9	34.9	0.0
Incr Delay (d2), s/veh	102.2	0.0	83.9	0.2	66.9	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	10.6	0.0	32.0	3.8	36.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	156.1	0.0	123.2	4.1	101.8	0.0
LnGrp LOS	F		F	A	F	
Approach Vol, veh/h	206	A		1460	883	A
Approach Delay, s/veh	156.1			62.5	101.8	
Approach LOS	F			E	F	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		102.0		18.0	46.0	56.0
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		96.2		12.2	41.4	50.2
Max Q Clear Time (g_c+I1), s		17.3		14.2	43.4	52.2
Green Ext Time (p_c), s		5.6		0.0	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	83.7
HCM 6th LOS	F

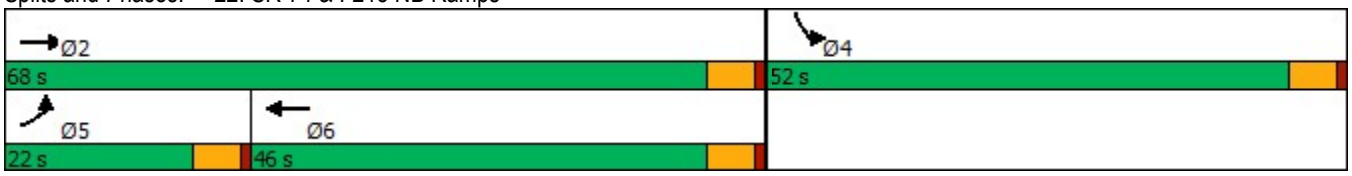
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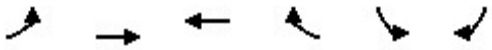
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Configurations					
Traffic Volume (vph)	215	1084	1079	1204	325
Future Volume (vph)	215	1084	1079	1204	325
Turn Type	Prot	NA	NA	Free	Prot
Protected Phases	5	2	6		4
Permitted Phases				Free	
Detector Phase	5	2	6		4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0		5.0
Minimum Split (s)	10.3	10.3	10.3		10.3
Total Split (s)	22.0	68.0	46.0		52.0
Total Split (%)	18.3%	56.7%	38.3%		43.3%
Yellow Time (s)	4.3	4.3	4.3		4.3
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)	5.3	5.3	5.3		5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	Min	Min		None
Act Effct Green (s)	15.9	59.7	38.5	116.2	45.8
Actuated g/C Ratio	0.14	0.51	0.33	1.00	0.39
v/c Ratio	0.89	0.60	0.92	0.76	0.97
Control Delay	84.5	21.4	50.7	3.4	60.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	84.5	21.4	50.7	3.4	60.5
LOS	F	C	D	A	E
Approach Delay		31.8	25.8		60.5
Approach LOS		C	C		E

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 116.2	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 33.2	Intersection LOS: C
Intersection Capacity Utilization 94.6%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 22: SR-74 & I-215 NB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	215	1084	1079	1204	325	353
Future Volume (veh/h)	215	1084	1079	1204	325	353
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	219	1106	1101	0	332	354
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	246	1842	1187		328	350
Arrive On Green	0.14	0.51	0.33	0.00	0.40	0.40
Sat Flow, veh/h	1810	3705	3705	1610	822	877
Grp Volume(v), veh/h	219	1106	1101	0	687	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1610	1701	0
Q Serve(g_s), s	13.9	25.3	34.5	0.0	46.7	0.0
Cycle Q Clear(g_c), s	13.9	25.3	34.5	0.0	46.7	0.0
Prop In Lane	1.00			1.00	0.48	0.52
Lane Grp Cap(c), veh/h	246	1842	1187		679	0
V/C Ratio(X)	0.89	0.60	0.93		1.01	0.00
Avail Cap(c_a), veh/h	258	1935	1256		679	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	0.00	1.00	0.00
Uniform Delay (d), s/veh	49.7	20.2	37.9	0.0	35.1	0.0
Incr Delay (d2), s/veh	27.2	0.3	11.2	0.0	37.4	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	8.0	9.9	16.3	0.0	25.1	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	76.9	20.5	49.1	0.0	72.6	0.0
LnGrp LOS	E	C	D		F	A
Approach Vol, veh/h		1325	1101	A	687	
Approach Delay, s/veh		29.9	49.1		72.6	
Approach LOS		C	D		E	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		65.0		52.0	21.2	43.8
Change Period (Y+Rc), s		5.3		5.3	5.3	5.3
Max Green Setting (Gmax), s		62.7		46.7	16.7	40.7
Max Q Clear Time (g_c+I1), s		27.3		48.7	15.9	36.5
Green Ext Time (p_c), s		5.3		0.0	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	46.1
HCM 6th LOS	D

Notes

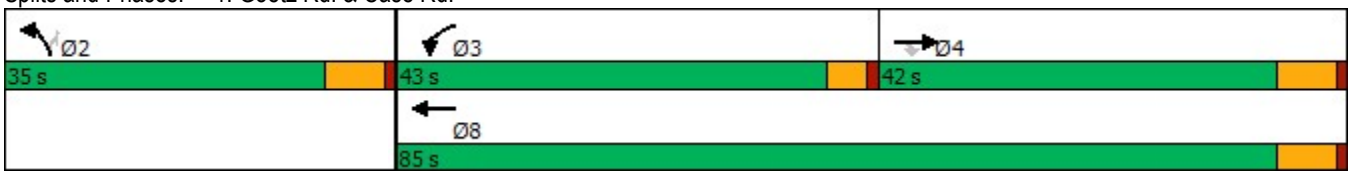
User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	294	247	277	287	259	219
Future Volume (vph)	294	247	277	287	259	219
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)	34.5	34.5	9.6	16.5	16.5	16.5
Total Split (s)	42.0	42.0	43.0	85.0	35.0	35.0
Total Split (%)	35.0%	35.0%	35.8%	70.8%	29.2%	29.2%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5	6.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	Min	Min	None	Min	None	None
Act Effct Green (s)	19.2	19.2	18.0	42.1	17.8	17.8
Actuated g/C Ratio	0.26	0.26	0.24	0.57	0.24	0.24
v/c Ratio	0.64	0.44	0.68	0.29	0.64	0.42
Control Delay	32.8	6.1	36.0	9.2	35.0	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	6.1	36.0	9.2	35.0	6.6
LOS	C	A	D	A	C	A
Approach Delay	20.6			22.3	22.0	
Approach LOS	C			C	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 73.9	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 21.6	Intersection LOS: C
Intersection Capacity Utilization 60.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Goetz Rd. & Case Rd.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	294	247	277	287	259	219
Future Volume (veh/h)	294	247	277	287	259	219
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	316	239	298	309	278	126
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	458	387	365	1015	371	330
Arrive On Green	0.24	0.24	0.20	0.53	0.21	0.21
Sat Flow, veh/h	1900	1607	1810	1900	1810	1610
Grp Volume(v), veh/h	316	239	298	309	278	126
Grp Sat Flow(s),veh/h/ln	1900	1607	1810	1900	1810	1610
Q Serve(g_s), s	7.6	6.6	7.9	4.5	7.2	3.4
Cycle Q Clear(g_c), s	7.6	6.6	7.9	4.5	7.2	3.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	458	387	365	1015	371	330
V/C Ratio(X)	0.69	0.62	0.82	0.30	0.75	0.38
Avail Cap(c_a), veh/h	1351	1142	1391	2987	1033	919
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	16.9	19.1	6.5	18.6	17.1
Incr Delay (d2), s/veh	1.9	1.6	1.7	0.2	3.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	2.0	2.7	0.9	2.6	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.1	18.5	20.8	6.6	21.7	17.8
LnGrp LOS	B	B	C	A	C	B
Approach Vol, veh/h	555			607	404	
Approach Delay, s/veh	18.9			13.6	20.5	
Approach LOS	B			B	C	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		16.8	14.7	18.5		33.2
Change Period (Y+Rc), s		6.5	4.6	6.5		6.5
Max Green Setting (Gmax), s		28.5	38.4	35.5		78.5
Max Q Clear Time (g_c+I1), s		9.2	9.9	9.6		6.5
Green Ext Time (p_c), s		1.1	0.4	2.3		1.6

Intersection Summary	
HCM 6th Ctrl Delay	17.2
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	214.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	0	67	432	0	1	53	632	244	0	444	10
Future Vol, veh/h	12	0	67	432	0	1	53	632	244	0	444	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	150	-	-	180	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	14	0	78	502	0	1	62	735	284	0	516	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	946	1671	270	1259	1535	510	534	0	0	1019	0	0
Stage 1	528	528	-	1001	1001	-	-	-	-	-	-	-
Stage 2	418	1143	-	258	534	-	-	-	-	-	-	-
Critical Hdwy	6.95	6.5	6.9	6.95	6.5	7.1	4.1	-	-	5.3	-	-
Critical Hdwy Stg 1	6.5	5.5	-	7.3	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.7	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.65	4	3.3	3.65	4	3.9	2.2	-	-	3.1	-	-
Pot Cap-1 Maneuver	247	97	734	~ 154	117	439	1044	-	-	389	-	-
Stage 1	491	531	-	~ 206	323	-	-	-	-	-	-	-
Stage 2	556	277	-	704	528	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	234	91	730	~ 131	109	439	1038	-	-	389	-	-
Mov Cap-2 Maneuver	329	194	-	~ 170	214	-	-	-	-	-	-	-
Stage 1	459	528	-	~ 194	304	-	-	-	-	-	-	-
Stage 2	521	260	-	629	525	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	$ 934.7	0.5	0
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1038	-	-	329	730	170	439	389	-	-
HCM Lane V/C Ratio	0.059	-	-	0.042	0.107	2.955	0.003	-	-	-
HCM Control Delay (s)	8.7	-	-	16.4	10.5	$ 936.8	13.2	0	-	-
HCM Lane LOS	A	-	-	C	B	F	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0.4	45.7	0	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	104	923	32	0	885
Future Vol, veh/h	0	104	923	32	0	885
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	-	-	-	-
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	0	113	1003	35	0	962

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	519	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	507	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	507	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.1	0	0
HCM LOS	B		

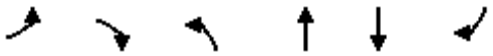
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	507	-
HCM Lane V/C Ratio	-	-	0.223	-
HCM Control Delay (s)	-	-	14.1	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.8	-

Lane Group	EBL	NBT	SBT	Ø5
Lane Configurations				
Traffic Volume (vph)	60	900	825	
Future Volume (vph)	60	900	825	
Turn Type	Prot	NA	NA	
Protected Phases	4	2	6	5
Permitted Phases				
Detector Phase	4	2	6	
Switch Phase				
Minimum Initial (s)	10.0	10.0	10.0	5.0
Minimum Split (s)	14.6	16.5	27.5	9.6
Total Split (s)	44.0	76.0	66.4	9.6
Total Split (%)	36.7%	63.3%	55.3%	8%
Yellow Time (s)	3.6	5.5	5.5	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	4.6	6.5	6.5	
Lead/Lag			Lag	Lead
Lead-Lag Optimize?			Yes	Yes
Recall Mode	None	Min	Min	None
Act Effct Green (s)	10.3	25.2	25.2	
Actuated g/C Ratio	0.25	0.61	0.61	
v/c Ratio	0.28	0.45	0.41	
Control Delay	11.5	7.4	7.1	
Queue Delay	0.0	0.0	0.0	
Total Delay	11.5	7.4	7.1	
LOS	B	A	A	
Approach Delay	11.5	7.4	7.1	
Approach LOS	B	A	A	

Intersection Summary		
Cycle Length: 120		
Actuated Cycle Length: 41.6		
Natural Cycle: 55		
Control Type: Actuated-Uncoordinated		
Maximum v/c Ratio: 0.45		
Intersection Signal Delay: 7.5	Intersection LOS: A	
Intersection Capacity Utilization 42.5%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 4: Goetz Rd. & Cai Ct.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	60	60	0	900	825	0
Future Volume (veh/h)	60	60	0	900	825	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	65	65	0	978	897	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	176	176	5	1687	1687	752
Arrive On Green	0.21	0.21	0.00	0.47	0.47	0.00
Sat Flow, veh/h	846	846	1810	3705	3705	1610
Grp Volume(v), veh/h	131	0	0	978	897	0
Grp Sat Flow(s),veh/h/ln	1705	0	1810	1805	1805	1610
Q Serve(g_s), s	2.3	0.0	0.0	6.8	6.0	0.0
Cycle Q Clear(g_c), s	2.3	0.0	0.0	6.8	6.0	0.0
Prop In Lane	0.50	0.50	1.00			1.00
Lane Grp Cap(c), veh/h	355	0	5	1687	1687	752
V/C Ratio(X)	0.37	0.00	0.00	0.58	0.53	0.00
Avail Cap(c_a), veh/h	1965	0	265	7336	6323	2820
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.6	0.0	0.0	6.7	6.5	0.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.3	0.3	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	0.8	0.0	0.0	0.8	0.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.3	0.0	0.0	7.0	6.7	0.0
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	131			978	897	
Approach Delay, s/veh	12.3			7.0	6.7	
Approach LOS	B			A	A	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		22.5		11.7	0.0	22.5
Change Period (Y+Rc), s		6.5		4.6	4.6	6.5
Max Green Setting (Gmax), s		69.5		39.4	5.0	59.9
Max Q Clear Time (g_c+I1), s		8.8		4.3	0.0	8.0
Green Ext Time (p_c), s		7.2		0.4	0.0	6.3

Intersection Summary	
HCM 6th Ctrl Delay	7.2
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations							
Traffic Vol, veh/h	32	28	2	907	13	863	12
Future Vol, veh/h	32	28	2	907	13	863	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	115	-	100	-	-
Veh in Median Storage, #	1	-	-	0	-	0	-
Grade, %	0	-	-	0	-	0	-
Peak Hour Factor	93	93	93	93	92	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0
Mvmt Flow	34	30	2	975	14	928	13

Major/Minor	Minor2		Major1		Major2		
Conflicting Flow All	1455	471	941	0	975	-	0
Stage 1	963	-	-	-	-	-	-
Stage 2	492	-	-	-	-	-	-
Critical Hdwy	6.8	6.9	4.1	-	6.4	-	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	2.5	-	-
Pot Cap-1 Maneuver	123	545	737	-	350	-	-
Stage 1	336	-	-	-	-	-	-
Stage 2	586	-	-	-	-	-	-
Platoon blocked, %				-		-	-
Mov Cap-1 Maneuver	118	545	737	-	350	-	-
Mov Cap-2 Maneuver	239	-	-	-	-	-	-
Stage 1	335	-	-	-	-	-	-
Stage 2	563	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.9	0	0.2
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBU	SBT	SBR
Capacity (veh/h)	737	-	324	350	-	-
HCM Lane V/C Ratio	0.003	-	0.199	0.04	-	-
HCM Control Delay (s)	9.9	-	18.9	15.7	-	-
HCM Lane LOS	A	-	C	C	-	-
HCM 95th %tile Q(veh)	0	-	0.7	0.1	-	-

Intersection	
Int Delay, s/veh	47.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	296	0	44	3	0	14	24	585	0	28	764	98
Future Vol, veh/h	296	0	44	3	0	14	24	585	0	28	764	98
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	-	-	110	-	-
Veh in Median Storage, #	-	1	-	-	2	-	-	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	312	0	46	3	0	15	25	616	0	29	804	103

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1210	1580	454	1126	1631	308	907	0	0	616	0	0
Stage 1	914	914	-	666	666	-	-	-	-	-	-	-
Stage 2	296	666	-	460	965	-	-	-	-	-	-	-
Critical Hdwy	6.95	6.5	6.9	6.95	6.5	7.1	4.1	-	-	5.3	-	-
Critical Hdwy Stg 1	6.5	5.5	-	7.3	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.7	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.65	4	3.3	3.65	4	3.9	2.2	-	-	3.1	-	-
Pot Cap-1 Maneuver	~ 166	110	559	188	103	591	759	-	-	604	-	-
Stage 1	~ 290	355	-	351	460	-	-	-	-	-	-	-
Stage 2	658	460	-	538	336	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 152	101	559	162	95	591	759	-	-	604	-	-
Mov Cap-2 Maneuver	~ 229	216	-	289	247	-	-	-	-	-	-	-
Stage 1	~ 280	338	-	339	445	-	-	-	-	-	-	-
Stage 2	620	445	-	470	320	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	258.4	12.5	0.4	0.4
HCM LOS	F	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	759	-	-	248	499	604	-	-
HCM Lane V/C Ratio	0.033	-	-	1.443	0.036	0.049	-	-
HCM Control Delay (s)	9.9	-	-	258.4	12.5	11.3	-	-
HCM Lane LOS	A	-	-	F	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	-	20.3	0.1	0.2	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	18	591	6	0	787
Future Vol, veh/h	0	18	591	6	0	787
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	-	-	-	-
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	0	20	642	7	0	855

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	325	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-	-
Pot Cap-1 Maneuver	0	677	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	677	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

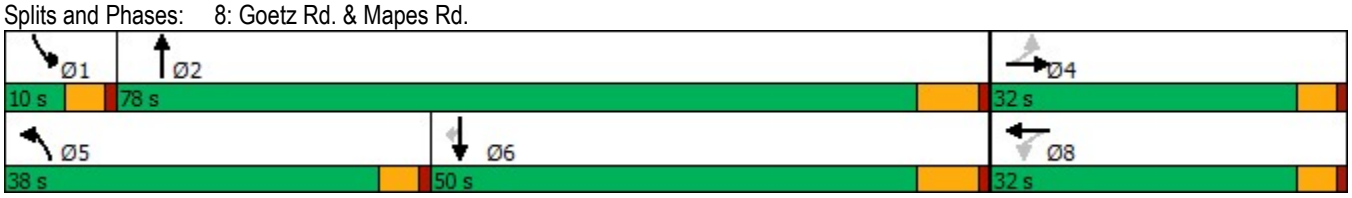
Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0
HCM LOS	B		

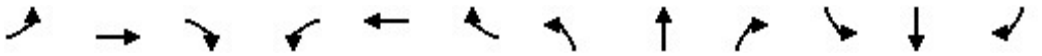
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	677	-
HCM Lane V/C Ratio	-	-	0.029	-
HCM Control Delay (s)	-	-	10.5	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	159	1	14	1	312	290	3	576	113
Future Volume (vph)	159	1	14	1	312	290	3	576	113
Turn Type	Perm	NA	Perm	NA	Prot	NA	Prot	NA	Perm
Protected Phases		4		8	5	2	1	6	
Permitted Phases	4		8						6
Detector Phase	4	4	8	8	5	2	1	6	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	14.6	14.6	26.6	26.6	9.6	16.5	9.6	16.5	16.5
Total Split (s)	32.0	32.0	32.0	32.0	38.0	78.0	10.0	50.0	50.0
Total Split (%)	26.7%	26.7%	26.7%	26.7%	31.7%	65.0%	8.3%	41.7%	41.7%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.5	3.6	5.5	5.5
All-Red Time (s)	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
Total Lost Time (s)	4.6	4.6		4.6	4.6	6.5	4.6	6.5	6.5
Lead/Lag					Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	Min	None	Min	Min
Act Effct Green (s)	18.3	18.3		18.3	22.4	61.5	5.4	35.8	35.8
Actuated g/C Ratio	0.20	0.20		0.20	0.24	0.66	0.06	0.38	0.38
v/c Ratio	0.61	0.65		0.13	0.77	0.13	0.03	0.84	0.18
Control Delay	47.2	8.9		35.4	47.7	6.9	52.7	39.9	7.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.2	8.9		35.4	47.7	6.9	52.7	39.9	7.5
LOS	D	A		D	D	A	D	D	A
Approach Delay		19.7		35.4		28.0		34.7	
Approach LOS		B		D		C		C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 93.2	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 28.0	Intersection LOS: C
Intersection Capacity Utilization 85.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 8: Goetz Rd. & Mapes Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	1	405	14	1	2	312	290	1	3	576	113
Future Volume (veh/h)	159	1	405	14	1	2	312	290	1	3	576	113
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	169	1	255	15	1	1	332	309	1	3	613	111
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	428	1	326	147	10	4	380	2142	7	7	712	603
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.21	0.58	0.58	0.00	0.37	0.37
Sat Flow, veh/h	1437	6	1605	272	50	20	1810	3691	12	1810	1900	1610
Grp Volume(v), veh/h	169	0	256	17	0	0	332	151	159	3	613	111
Grp Sat Flow(s),veh/h/ln	1437	0	1611	342	0	0	1810	1805	1898	1810	1900	1610
Q Serve(g_s), s	0.0	0.0	11.1	0.6	0.0	0.0	13.1	2.8	2.8	0.1	22.0	3.4
Cycle Q Clear(g_c), s	6.6	0.0	11.1	11.7	0.0	0.0	13.1	2.8	2.8	0.1	22.0	3.4
Prop In Lane	1.00		1.00	0.88		0.06	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	428	0	327	161	0	0	380	1048	1102	7	712	603
V/C Ratio(X)	0.40	0.00	0.78	0.11	0.00	0.00	0.87	0.14	0.14	0.41	0.86	0.18
Avail Cap(c_a), veh/h	668	0	597	360	0	0	818	1746	1836	132	1118	948
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.1	0.0	27.9	28.9	0.0	0.0	28.3	7.1	7.1	36.7	21.3	15.5
Incr Delay (d2), s/veh	0.6	0.0	4.1	0.3	0.0	0.0	2.5	0.1	0.1	13.1	4.3	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	4.5	0.3	0.0	0.0	5.2	0.8	0.8	0.1	8.8	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	0.0	32.0	29.2	0.0	0.0	30.8	7.2	7.2	49.8	25.6	15.7
LnGrp LOS	C	A	C	C	A	A	C	A	A	D	C	B
Approach Vol, veh/h		425			17			642			727	
Approach Delay, s/veh		29.9			29.2			19.4			24.2	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.9	49.4		19.6	20.1	34.2		19.6				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		4.6				
Max Green Setting (Gmax), s	5.4	71.5		27.4	33.4	43.5		27.4				
Max Q Clear Time (g_c+I1), s	2.1	4.8		13.1	15.1	24.0		13.7				
Green Ext Time (p_c), s	0.0	1.5		1.9	0.4	3.7		0.0				

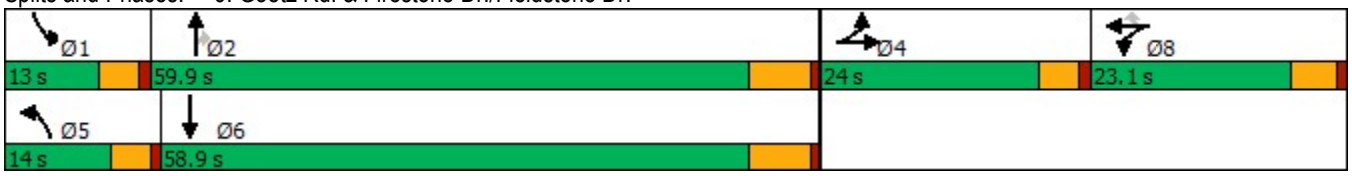
Intersection Summary												
HCM 6th Ctrl Delay			23.9									
HCM 6th LOS			C									

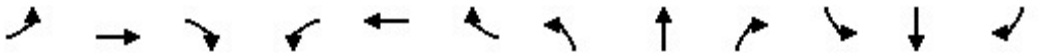
9: Goetz Rd. & Firestone Dr./Fieldstone Dr.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations										
Traffic Volume (vph)	39	5	37	5	39	44	526	76	83	833
Future Volume (vph)	39	5	37	5	39	44	526	76	83	833
Turn Type	Split	NA	Split	NA	Perm	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	8	8		5	2		1	6
Permitted Phases					8			2		
Detector Phase	4	4	8	8	8	5	2	2	1	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	22.6	22.6	23.1	23.1	23.1	9.6	24.5	24.5	9.6	24.5
Total Split (s)	24.0	24.0	23.1	23.1	23.1	14.0	59.9	59.9	13.0	58.9
Total Split (%)	20.0%	20.0%	19.3%	19.3%	19.3%	11.7%	49.9%	49.9%	10.8%	49.1%
Yellow Time (s)	3.6	3.6	4.1	4.1	4.1	3.6	5.5	5.5	3.6	5.5
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	4.6	5.1	5.1	5.1	4.6	6.5	6.5	4.6	6.5
Lead/Lag						Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	Min	None	Min
Act Effct Green (s)	13.0	13.0	13.0	13.0	13.0	7.4	37.2	37.2	8.4	40.1
Actuated g/C Ratio	0.17	0.17	0.17	0.17	0.17	0.10	0.50	0.50	0.11	0.54
v/c Ratio	0.13	0.14	0.12	0.02	0.11	0.26	0.58	0.09	0.42	0.35
Control Delay	36.1	15.5	36.1	36.0	0.6	43.6	24.7	2.5	46.8	16.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.1	15.5	36.1	36.0	0.6	43.6	24.7	2.5	46.8	16.4
LOS	D	B	D	D	A	D	C	A	D	B
Approach Delay		25.6		19.0			23.4			18.9
Approach LOS		C		B			C			B

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 74.7	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.58	
Intersection Signal Delay: 20.8	Intersection LOS: C
Intersection Capacity Utilization 58.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 9: Goetz Rd. & Firestone Dr./Fieldstone Dr.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	39	5	36	37	5	39	44	526	76	83	833	81
Future Volume (veh/h)	39	5	36	37	5	39	44	526	76	83	833	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		1.00	1.00		0.98
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	5	15	39	5	33	46	548	77	86	868	67
Peak Hour Factor	0.96	0.96	0.96	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	0	0	0
Cap, veh/h	202	46	139	222	233	197	81	671	569	115	1826	140
Arrive On Green	0.11	0.11	0.11	0.12	0.12	0.12	0.04	0.35	0.35	0.06	0.37	0.37
Sat Flow, veh/h	1810	417	1250	1810	1900	1605	1810	1900	1610	1810	4903	377
Grp Volume(v), veh/h	41	0	20	39	5	33	46	548	77	86	611	324
Grp Sat Flow(s),veh/h/ln	1810	0	1667	1810	1900	1605	1810	1900	1610	1810	1729	1822
Q Serve(g_s), s	1.2	0.0	0.6	1.2	0.1	1.1	1.5	15.6	1.9	2.8	8.0	8.1
Cycle Q Clear(g_c), s	1.2	0.0	0.6	1.2	0.1	1.1	1.5	15.6	1.9	2.8	8.0	8.1
Prop In Lane	1.00		0.75	1.00		1.00	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	202	0	186	222	233	197	81	671	569	115	1288	679
V/C Ratio(X)	0.20	0.00	0.11	0.18	0.02	0.17	0.57	0.82	0.14	0.75	0.47	0.48
Avail Cap(c_a), veh/h	589	0	543	546	574	485	285	1702	1443	255	3040	1602
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.1	0.0	23.8	23.5	23.0	23.4	27.9	17.5	13.1	27.4	14.3	14.3
Incr Delay (d2), s/veh	0.5	0.0	0.3	0.4	0.0	0.4	2.3	2.5	0.1	3.6	0.3	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	0.5	0.0	0.3	0.5	0.1	0.4	0.6	5.6	0.6	1.2	2.4	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	0.0	24.1	23.8	23.1	23.8	30.2	20.0	13.2	31.0	14.5	14.8
LnGrp LOS	C	A	C	C	C	C	C	C	B	C	B	B
Approach Vol, veh/h		61			77			671			1021	
Approach Delay, s/veh		24.4			23.8			19.9			16.0	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	27.6		11.2	7.3	28.7		12.4				
Change Period (Y+Rc), s	4.6	6.5		4.6	4.6	6.5		5.1				
Max Green Setting (Gmax), s	8.4	53.4		19.4	9.4	52.4		18.0				
Max Q Clear Time (g_c+I1), s	4.8	17.6		3.2	3.5	10.1		3.2				
Green Ext Time (p_c), s	0.0	3.4		0.1	0.0	6.0		0.1				

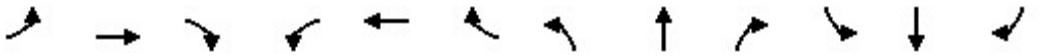
Intersection Summary			
HCM 6th Ctrl Delay		18.0	
HCM 6th LOS		B	

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	17	58	5	328	84	1	234	245	446	427	34
Future Volume (vph)	17	58	5	328	84	1	234	245	446	427	34
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2		1	6	
Permitted Phases			4					2			6
Detector Phase	7	4	4	3	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	33.4	33.4	9.6	30.4	9.6	37.5	37.5	9.6	39.5	39.5
Total Split (s)	9.9	33.4	33.4	22.0	45.5	9.6	38.6	38.6	26.0	55.0	55.0
Total Split (%)	8.3%	27.8%	27.8%	18.3%	37.9%	8.0%	32.2%	32.2%	21.7%	45.8%	45.8%
Yellow Time (s)	3.6	4.4	4.4	3.6	4.4	3.6	5.5	5.5	3.6	5.5	5.5
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	5.4	5.4	4.6	5.4	4.6	6.5	6.5	4.6	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	Min	None	Min	None	None	None	None	None	None
Act Effct Green (s)	5.3	13.0	13.0	17.7	31.8	5.1	18.4	18.4	21.8	43.4	43.4
Actuated g/C Ratio	0.06	0.14	0.14	0.19	0.34	0.06	0.20	0.20	0.24	0.47	0.47
v/c Ratio	0.19	0.13	0.02	1.05	0.29	0.01	0.69	0.55	1.16	0.28	0.05
Control Delay	51.3	36.0	0.0	101.5	5.6	49.0	44.6	13.1	131.4	16.7	0.1
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	51.3	36.0	0.0	101.5	5.6	49.0	44.6	13.1	131.4	16.7	0.1
LOS	D	D	A	F	A	D	D	B	F	B	A
Approach Delay		36.9			44.5		28.5			72.5	
Approach LOS		D			D		C			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 92.4	
Natural Cycle: 115	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.16	
Intersection Signal Delay: 52.1	Intersection LOS: D
Intersection Capacity Utilization 75.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 10: Goetz Rd. & Ethanac Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	58	5	328	84	395	1	234	245	446	427	34
Future Volume (veh/h)	17	58	5	328	84	395	1	234	245	446	427	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	19	64	4	364	93	352	1	260	170	496	474	25
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	38	425	189	370	1041	485	2	338	287	455	1546	689
Arrive On Green	0.02	0.12	0.12	0.20	0.30	0.30	0.00	0.18	0.18	0.25	0.43	0.43
Sat Flow, veh/h	1810	3610	1610	1810	3458	1610	1810	1900	1610	1810	3610	1608
Grp Volume(v), veh/h	19	64	4	364	93	352	1	260	170	496	474	25
Grp Sat Flow(s),veh/h/ln	1810	1805	1610	1810	1729	1610	1810	1900	1610	1810	1805	1608
Q Serve(g_s), s	0.9	1.4	0.2	17.0	1.6	16.6	0.0	11.1	8.3	21.4	7.3	0.8
Cycle Q Clear(g_c), s	0.9	1.4	0.2	17.0	1.6	16.6	0.0	11.1	8.3	21.4	7.3	0.8
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	38	425	189	370	1041	485	2	338	287	455	1546	689
V/C Ratio(X)	0.49	0.15	0.02	0.98	0.09	0.73	0.40	0.77	0.59	1.09	0.31	0.04
Avail Cap(c_a), veh/h	113	1189	530	370	1631	759	106	717	608	455	2059	917
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	1.00
Uniform Delay (d), s/veh	41.2	33.7	33.2	33.7	21.4	26.6	42.4	33.3	32.1	31.8	16.0	14.1
Incr Delay (d2), s/veh	3.6	0.2	0.0	42.0	0.0	2.1	34.7	3.7	2.0	68.5	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	0.6	0.1	11.4	0.6	6.2	0.0	5.0	3.2	17.0	2.6	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.8	33.9	33.2	75.7	21.4	28.7	77.1	37.0	34.1	100.3	16.1	14.1
LnGrp LOS	D	C	C	E	C	C	E	D	C	F	B	B
Approach Vol, veh/h		87			809			431			995	
Approach Delay, s/veh		36.2			49.0			35.9			58.0	
Approach LOS		D			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.0	21.6	22.0	15.4	4.7	42.9	6.4	31.0
Change Period (Y+Rc), s	4.6	6.5	4.6	5.4	4.6	6.5	4.6	5.4
Max Green Setting (Gmax), s	21.4	32.1	17.4	28.0	5.0	48.5	5.3	40.1
Max Q Clear Time (g_c+I1), s	23.4	13.1	19.0	3.4	2.0	9.3	2.9	18.6
Green Ext Time (p_c), s	0.0	1.7	0.0	0.3	0.0	2.9	0.0	2.7

Intersection Summary	
HCM 6th Ctrl Delay	50.0
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	244	0	0	433	0	5
Future Vol, veh/h	244	0	0	433	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	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	265	0	0	471	0	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	133
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	-	-	0	-	0	898
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	898
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9
HCM LOS			A

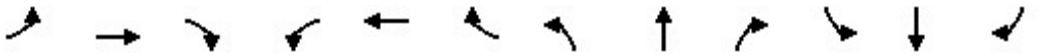
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	898	-	-	-
HCM Lane V/C Ratio	0.006	-	-	-
HCM Control Delay (s)	9	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	207	337	123	178	349	240	116	425
Future Volume (vph)	207	337	123	178	349	240	116	425
Turn Type	NA	Perm	NA	Perm	NA	Perm	Prot	NA
Protected Phases	4		8		2		1	6
Permitted Phases		4		2		2		
Detector Phase	4	4	8	2	2	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	14.8	16.4	16.4	16.4	9.6	16.4
Total Split (s)	15.0	15.0	37.0	47.0	47.0	47.0	21.0	68.0
Total Split (%)	12.5%	12.5%	30.8%	39.2%	39.2%	39.2%	17.5%	56.7%
Yellow Time (s)	3.8	3.8	3.8	5.4	5.4	5.4	3.6	5.4
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
Total Lost Time (s)	4.8	4.8	4.8		6.4	6.4	4.6	6.4
Lead/Lag				Lag	Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	Min	Min	Min	None	Min
Act Effct Green (s)	10.2	10.2	32.2		40.6	40.6	11.9	57.1
Actuated g/C Ratio	0.09	0.09	0.28		0.35	0.35	0.10	0.49
v/c Ratio	1.31	0.89	1.39		1.16	0.38	0.66	0.48
Control Delay	214.5	36.5	218.8		129.0	14.0	66.9	21.3
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0
Total Delay	214.5	36.5	218.8		129.0	14.0	66.9	21.3
LOS	F	D	F		F	B	E	C
Approach Delay	104.3		218.8		92.9			31.0
Approach LOS	F		F		F			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 115.6	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.39	
Intersection Signal Delay: 115.5	Intersection LOS: F
Intersection Capacity Utilization 117.8%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 12: Case Rd. & Ellis Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	207	337	371	123	175	178	349	240	116	425	0
Future Volume (veh/h)	0	207	337	371	123	175	178	349	240	116	425	0
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	0	218	354	391	129	183	187	367	0	122	447	0
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	163	172	145	280	92	131	199	306		150	918	0
Arrive On Green	0.00	0.09	0.09	0.29	0.29	0.29	0.36	0.36	0.00	0.08	0.48	0.00
Sat Flow, veh/h	1810	1900	1610	983	324	460	434	852	1610	1810	1900	0
Grp Volume(v), veh/h	0	218	354	703	0	0	554	0	0	122	447	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1768	0	0	1285	0	1610	1810	1900	0
Q Serve(g_s), s	0.0	10.2	10.2	32.2	0.0	0.0	36.6	0.0	0.0	7.5	18.0	0.0
Cycle Q Clear(g_c), s	0.0	10.2	10.2	32.2	0.0	0.0	40.6	0.0	0.0	7.5	18.0	0.0
Prop In Lane	1.00		1.00	0.56		0.26	0.34		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	163	172	145	504	0	0	505	0		150	918	0
V/C Ratio(X)	0.00	1.27	2.43	1.39	0.00	0.00	1.10	0.00		0.81	0.49	0.00
Avail Cap(c_a), veh/h	163	172	145	504	0	0	505	0		263	1036	0
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)	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	51.4	51.4	40.4	0.0	0.0	39.7	0.0	0.0	50.9	19.7	0.0
Incr Delay (d2), s/veh	0.0	159.4	665.9	189.5	0.0	0.0	69.4	0.0	0.0	4.0	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	0.0	12.4	31.0	40.2	0.0	0.0	23.2	0.0	0.0	3.4	7.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	210.7	717.3	229.9	0.0	0.0	109.1	0.0	0.0	55.0	20.1	0.0
LnGrp LOS	A	F	F	F	A	A	F	A		D	C	A
Approach Vol, veh/h		572			703			554	A		569	
Approach Delay, s/veh		524.2			229.9			109.1			27.6	
Approach LOS		F			F			F			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.9	47.0		15.0		60.9		37.0				
Change Period (Y+Rc), s	4.6	6.4		* 4.8		6.4		4.8				
Max Green Setting (Gmax), s	16.4	40.6		* 10		61.6		32.2				
Max Q Clear Time (g_c+I1), s	9.5	42.6		12.2		20.0		34.2				
Green Ext Time (p_c), s	0.1	0.0		0.0		2.5		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		224.2	
HCM 6th LOS		F	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

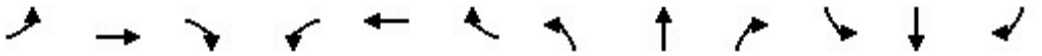
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Configurations							
Traffic Volume (vph)	404	7	800	462	1254	1384	354
Future Volume (vph)	404	7	800	462	1254	1384	354
Turn Type	Split	NA	Prot	Prot	NA	NA	Perm
Protected Phases	8	8	8	5	2	6	
Permitted Phases							6
Detector Phase	8	8	8	5	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	11.0	9.5	11.0	31.0	31.0
Total Split (s)	57.0	57.0	57.0	20.0	63.0	43.0	43.0
Total Split (%)	47.5%	47.5%	47.5%	16.7%	52.5%	35.8%	35.8%
Yellow Time (s)	5.0	5.0	5.0	3.5	5.0	5.0	5.0
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)	6.0	6.0	6.0	4.5	6.0	6.0	6.0
Lead/Lag				Lead		Lag	Lag
Lead-Lag Optimize?				Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	Min	Min
Act Effct Green (s)	37.7	37.7	37.7	15.8	54.9	34.5	34.5
Actuated g/C Ratio	0.36	0.36	0.36	0.15	0.52	0.33	0.33
v/c Ratio	0.62	0.80	0.75	0.92	0.70	0.68	0.48
Control Delay	32.2	40.4	33.0	70.6	22.9	33.2	5.4
Queue Delay	0.0	0.0	0.0	0.0	7.9	0.0	0.0
Total Delay	32.2	40.4	33.0	70.6	30.9	33.2	5.4
LOS	C	D	C	E	C	C	A
Approach Delay		35.4			41.6	27.6	
Approach LOS		D			D	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 104.9	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.92	
Intersection Signal Delay: 34.7	Intersection LOS: C
Intersection Capacity Utilization 77.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 13: Redlands Av & I-215 NB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	404	7	800	462	1254	0	0	1384	354
Future Volume (veh/h)	0	0	0	404	7	800	462	1254	0	0	1384	354
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	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				280	0	787	476	1293	0	0	1427	312
Peak Hour Factor				0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				543	0	966	560	1972	0	0	2190	540
Arrive On Green				0.30	0.00	0.30	0.16	0.56	0.00	0.00	0.34	0.34
Sat Flow, veh/h				1781	0	3170	3456	3647	0	0	6696	1585
Grp Volume(v), veh/h				280	0	787	476	1293	0	0	1427	312
Grp Sat Flow(s),veh/h/ln				1781	0	1585	1728	1777	0	0	1609	1585
Q Serve(g_s), s				11.1	0.0	19.6	11.5	21.8	0.0	0.0	16.1	13.8
Cycle Q Clear(g_c), s				11.1	0.0	19.6	11.5	21.8	0.0	0.0	16.1	13.8
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				543	0	966	560	1972	0	0	2190	540
V/C Ratio(X)				0.52	0.00	0.81	0.85	0.66	0.00	0.00	0.65	0.58
Avail Cap(c_a), veh/h				1062	0	1889	626	2367	0	0	2782	685
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	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				24.5	0.0	27.5	34.8	13.3	0.0	0.0	23.9	23.2
Incr Delay (d2), s/veh				0.8	0.0	1.7	9.9	0.5	0.0	0.0	0.4	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
%ile BackOfQ(50%),veh/ln				4.4	0.0	7.0	5.4	7.7	0.0	0.0	5.8	5.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				25.3	0.0	29.2	44.8	13.8	0.0	0.0	24.3	24.2
LnGrp LOS				C	A	C	D	B	A	A	C	C
Approach Vol, veh/h					1067			1769			1739	
Approach Delay, s/veh					28.2			22.1			24.3	
Approach LOS					C			C			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	53.5		18.4	35.1		32.1						
Change Period (Y+Rc), s	6.0		4.5	6.0		6.0						
Max Green Setting (Gmax), s	57.0		15.5	37.0		51.0						
Max Q Clear Time (g_c+I1), s	23.8		13.5	18.1		21.6						
Green Ext Time (p_c), s	11.9		0.4	11.0		4.4						

Intersection Summary		
HCM 6th Ctrl Delay	24.4	
HCM 6th LOS	C	

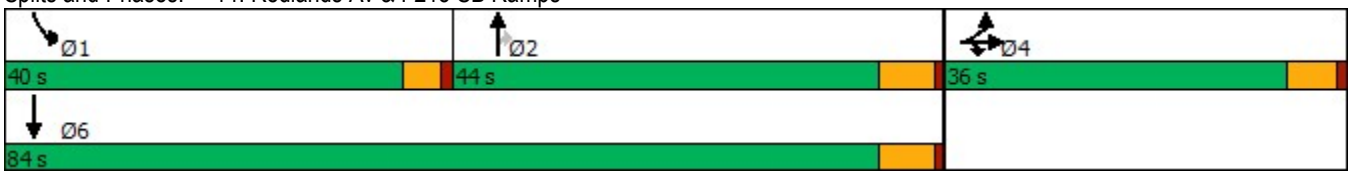
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	407	2	439	1309	498	666	1123
Future Volume (vph)	407	2	439	1309	498	666	1123
Turn Type	Split	NA	Prot	NA	Perm	Prot	NA
Protected Phases	4	4	4	2		1	6
Permitted Phases					2		
Detector Phase	4	4	4	2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.5	10.5	10.5	11.0	11.0	9.5	33.0
Total Split (s)	36.0	36.0	36.0	44.0	44.0	40.0	84.0
Total Split (%)	30.0%	30.0%	30.0%	36.7%	36.7%	33.3%	70.0%
Yellow Time (s)	4.5	4.5	4.5	5.0	5.0	3.5	5.0
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)	5.5	5.5	5.5	6.0	6.0	4.5	6.0
Lead/Lag				Lag	Lag	Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	
Recall Mode	None	None	None	Min	Min	None	Min
Act Effct Green (s)	23.6	23.6	23.6	34.4	34.4	25.7	64.7
Actuated g/C Ratio	0.24	0.24	0.24	0.34	0.34	0.26	0.65
v/c Ratio	0.76	0.71	0.62	0.60	0.39	0.77	0.50
Control Delay	50.4	39.1	28.2	29.9	3.5	42.0	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.4
Total Delay	50.4	39.1	28.2	29.9	3.5	42.1	10.9
LOS	D	D	C	C	A	D	B
Approach Delay		39.6		22.7			22.5
Approach LOS		D		C			C

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 100.3	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 25.8	Intersection LOS: C
Intersection Capacity Utilization 77.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 14: Redlands Av & I-215 SB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	407	2	439	0	0	0	0	1309	498	666	1123	0
Future Volume (veh/h)	407	2	439	0	0	0	0	1309	498	666	1123	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	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	512	0	216				0	1322	387	673	1134	0
Peak Hour Factor	0.99	0.99	0.99				0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	690	0	307				0	2275	987	836	2327	0
Arrive On Green	0.19	0.00	0.19				0.00	0.35	0.35	0.24	0.65	0.00
Sat Flow, veh/h	3563	0	1585				0	6696	2790	3456	3647	0
Grp Volume(v), veh/h	512	0	216				0	1322	387	673	1134	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	1609	1395	1728	1777	0
Q Serve(g_s), s	10.3	0.0	9.7				0.0	12.7	7.9	13.9	12.3	0.0
Cycle Q Clear(g_c), s	10.3	0.0	9.7				0.0	12.7	7.9	13.9	12.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	690	0	307				0	2275	987	836	2327	0
V/C Ratio(X)	0.74	0.00	0.70				0.00	0.58	0.39	0.81	0.49	0.00
Avail Cap(c_a), veh/h	1432	0	637				0	3222	1397	1617	3653	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)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.8	0.0	28.6				0.0	19.9	18.4	27.1	6.6	0.0
Incr Delay (d2), s/veh	1.6	0.0	2.9				0.0	0.2	0.3	1.9	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	3.6				0.0	4.4	2.4	5.6	3.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.4	0.0	31.5				0.0	20.2	18.7	29.0	6.8	0.0
LnGrp LOS	C	A	C				A	C	B	C	A	A
Approach Vol, veh/h		728						1709			1807	
Approach Delay, s/veh		30.7						19.8			15.1	
Approach LOS		C						B			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	22.9	32.8		20.2		55.7
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0
Max Green Setting (Gmax), s	35.5	38.0		30.5		78.0
Max Q Clear Time (g_c+I1), s	15.9	14.7		12.3		14.3
Green Ext Time (p_c), s	2.4	12.2		2.4		11.0

Intersection Summary	
HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

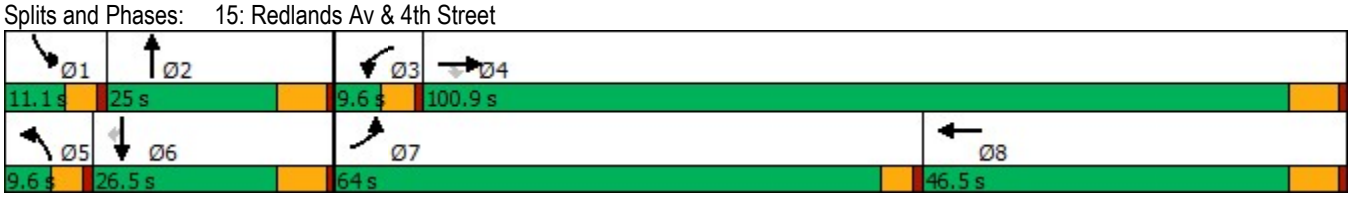
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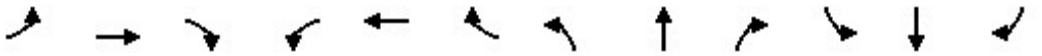
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	1056	148	54	8	268	45	404	63	300	830
Future Volume (vph)	1056	148	54	8	268	45	404	63	300	830
Turn Type	Prot	NA	Perm	Prot	NA	Prot	NA	Prot	NA	Perm
Protected Phases	7	4		3	8	5	2	1	6	
Permitted Phases			4							6
Detector Phase	7	4	4	3	8	5	2	1	6	6
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	46.5	46.5	9.6	46.5	9.6	24.5	9.6	26.5	26.5
Total Split (s)	64.0	100.9	100.9	9.6	46.5	9.6	25.0	11.1	26.5	26.5
Total Split (%)	43.7%	68.8%	68.8%	6.5%	31.7%	6.5%	17.1%	7.6%	18.1%	18.1%
Yellow Time (s)	3.6	5.5	5.5	3.6	5.5	3.6	5.5	3.6	5.5	5.5
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	6.5	6.5	4.6	6.5	4.6	6.5	4.6	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min	Min
Act Effct Green (s)	59.9	87.3	87.3	5.0	24.4	5.0	18.2	6.6	21.9	21.9
Actuated g/C Ratio	0.46	0.66	0.66	0.04	0.19	0.04	0.14	0.05	0.17	0.17
v/c Ratio	1.39	0.06	0.05	0.13	0.58	0.71	0.85	0.76	0.52	0.70
Control Delay	214.8	8.1	0.4	71.4	45.1	112.7	71.9	110.1	56.0	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	214.8	8.1	0.4	71.4	45.1	112.7	71.9	110.1	56.0	6.8
LOS	F	A	A	E	D	F	E	F	E	A
Approach Delay		181.4			45.6		76.0		24.6	
Approach LOS		F			D		E		C	

Intersection Summary			
Cycle Length: 146.6			
Actuated Cycle Length: 131.5			
Natural Cycle: 115			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.39			
Intersection Signal Delay: 94.0		Intersection LOS: F	
Intersection Capacity Utilization 103.6%		ICU Level of Service G	
Analysis Period (min) 15			

Splits and Phases: 15: Redlands Av & 4th Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1056	148	54	8	268	113	45	404	6	63	300	830
Future Volume (veh/h)	1056	148	54	8	268	113	45	404	6	63	300	830
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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	1123	157	30	9	285	93	48	430	5	67	319	457
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	868	2292	971	19	370	118	62	540	6	86	598	506
Arrive On Green	0.73	0.92	0.61	0.01	0.20	0.20	0.03	0.22	0.15	0.05	0.24	0.24
Sat Flow, veh/h	1781	3741	1585	1781	2717	868	1781	3690	43	1781	3741	3170
Grp Volume(v), veh/h	1123	157	30	9	194	184	48	218	217	67	319	457
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1714	1781	1870	1863	1781	1870	1585
Q Serve(g_s), s	59.4	0.4	0.9	0.6	11.9	12.4	3.3	13.4	13.5	4.5	9.1	17.0
Cycle Q Clear(g_c), s	59.4	0.4	0.9	0.6	11.9	12.4	3.3	13.4	13.5	4.5	9.1	17.0
Prop In Lane	1.00		1.00	1.00		0.51	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	868	2292	971	19	255	233	62	274	273	86	598	506
V/C Ratio(X)	1.29	0.07	0.03	0.47	0.76	0.79	0.78	0.80	0.80	0.78	0.53	0.90
Avail Cap(c_a), veh/h	868	2897	1228	73	614	563	73	284	283	95	614	520
HCM Platoon Ratio	1.50	1.50	1.00	1.00	1.50	1.50	1.00	1.50	1.00	1.00	1.50	1.50
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	1.00
Uniform Delay (d), s/veh	16.4	1.9	9.3	59.9	46.6	46.8	58.4	45.8	46.0	57.4	42.4	45.4
Incr Delay (d2), s/veh	140.7	0.0	0.0	6.5	4.7	5.8	29.1	14.1	14.3	27.1	0.8	18.7
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	48.2	0.2	0.3	0.3	5.5	5.3	1.9	6.8	6.8	2.7	4.0	7.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	157.1	1.9	9.3	66.4	51.3	52.6	87.5	60.0	60.2	84.5	43.2	64.1
LnGrp LOS	F	A	A	E	D	D	F	E	E	F	D	E
Approach Vol, veh/h		1310			387			483			843	
Approach Delay, s/veh		135.1			52.3			62.8			57.8	
Approach LOS		F			D			E			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.5	24.3	5.9	81.2	8.8	26.0	64.0	23.1
Change Period (Y+Rc), s	4.6	6.5	4.6	6.5	4.6	6.5	4.6	6.5
Max Green Setting (Gmax), s	6.5	18.5	5.0	94.4	5.0	20.0	59.4	40.0
Max Q Clear Time (g_c+I1), s	6.5	15.5	2.6	2.9	5.3	19.0	61.4	14.4
Green Ext Time (p_c), s	0.0	0.7	0.0	1.1	0.0	0.4	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	91.4
HCM 6th LOS	F

Intersection	
Intersection Delay, s/veh	48.1
Intersection LOS	E

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	437	124	255	55	18	374
Future Vol, veh/h	437	124	255	55	18	374
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	486	138	283	61	20	416
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	81.4	18.7	23.6
HCM LOS	F	C	C

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	78%	0%	5%
Vol Thru, %	22%	82%	0%
Vol Right, %	0%	18%	95%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	561	310	392
LT Vol	437	0	18
Through Vol	124	255	0
RT Vol	0	55	374
Lane Flow Rate	623	344	436
Geometry Grp	1	1	1
Degree of Util (X)	1.069	0.601	0.725
Departure Headway (Hd)	6.175	6.441	6.144
Convergence, Y/N	Yes	Yes	Yes
Cap	592	565	592
Service Time	4.175	4.441	4.144
HCM Lane V/C Ratio	1.052	0.609	0.736
HCM Control Delay	81.4	18.7	23.6
HCM Lane LOS	F	C	C
HCM 95th-tile Q	18	4	6.1

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1130	4	39	757	10	35
Future Vol, veh/h	1130	4	39	757	10	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1228	4	42	823	11	38

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1232	0	2137	1230
Stage 1	-	-	-	-	1230	-
Stage 2	-	-	-	-	907	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	573	-	55	219
Stage 1	-	-	-	-	279	-
Stage 2	-	-	-	-	397	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	573	-	51	219
Mov Cap-2 Maneuver	-	-	-	-	168	-
Stage 1	-	-	-	-	279	-
Stage 2	-	-	-	-	368	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	28
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	205	-	-	573	-
HCM Lane V/C Ratio	0.239	-	-	0.074	-
HCM Control Delay (s)	28	-	-	11.8	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	0.9	-	-	0.2	-

Intersection	
Intersection Delay, s/veh	254
Intersection LOS	F

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	999	166	132	677	118	81
Future Vol, veh/h	999	166	132	677	118	81
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	1098	182	145	744	130	89
Number of Lanes	1	1	1	1	1	1

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	372.3	142.5	14.8
HCM LOS	F	F	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	100%	0%	0%	0%	100%	0%
Vol Thru, %	0%	0%	100%	0%	0%	100%
Vol Right, %	0%	100%	0%	100%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	118	81	999	166	132	677
LT Vol	118	0	0	0	132	0
Through Vol	0	0	999	0	0	677
RT Vol	0	81	0	166	0	0
Lane Flow Rate	130	89	1098	182	145	744
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.297	0.174	1.91	0.282	0.272	1.292
Departure Headway (Hd)	9.495	8.231	6.649	5.934	7.678	7.164
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	381	439	560	609	471	513
Service Time	7.195	5.931	4.349	3.634	5.378	4.864
HCM Lane V/C Ratio	0.341	0.203	1.961	0.299	0.308	1.45
HCM Control Delay	16.2	12.7	432.4	10.9	13.2	167.7
HCM Lane LOS	C	B	F	B	B	F
HCM 95th-tile Q	1.2	0.6	67.3	1.2	1.1	27.3

Intersection	
Intersection Delay, s/veh	362
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	979	101	0	0	98	91	1	1	0	73	0	710
Future Vol, veh/h	979	101	0	0	98	91	1	1	0	73	0	710
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1088	112	0	0	109	101	1	1	0	81	0	789
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

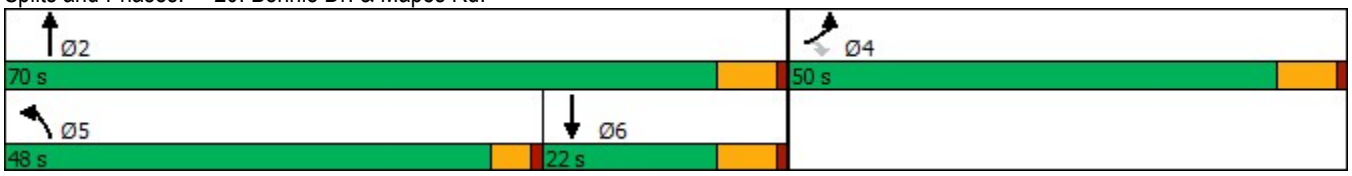
Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	535.9	18.3	15.2	205.9
HCM LOS	F	C	C	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	50%	91%	0%	9%
Vol Thru, %	50%	9%	52%	0%
Vol Right, %	0%	0%	48%	91%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	2	1080	189	783
LT Vol	1	979	0	73
Through Vol	1	101	98	0
RT Vol	0	0	91	710
Lane Flow Rate	2	1200	210	870
Geometry Grp	1	1	1	1
Degree of Util (X)	0.005	2.138	0.392	1.379
Departure Headway (Hd)	12.165	7.361	9.39	7.746
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	296	504	386	478
Service Time	10.165	5.361	7.39	5.746
HCM Lane V/C Ratio	0.007	2.381	0.544	1.82
HCM Control Delay	15.2	535.9	18.3	205.9
HCM Lane LOS	C	F	C	F
HCM 95th-tile Q	0	74.8	1.8	30

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Traffic Volume (vph)	4	1066	776	5	10
Future Volume (vph)	4	1066	776	5	10
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)	16.5	16.5	9.6	16.5	16.5
Total Split (s)	50.0	50.0	48.0	70.0	22.0
Total Split (%)	41.7%	41.7%	40.0%	58.3%	18.3%
Yellow Time (s)	5.5	5.5	3.6	5.5	5.5
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)	6.5	6.5	4.6	6.5	6.5
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	Min	Min
Act Effct Green (s)	33.6	33.6	43.9	58.7	10.1
Actuated g/C Ratio	0.32	0.32	0.42	0.56	0.10
v/c Ratio	0.01	0.96	1.15	0.01	0.11
Control Delay	22.2	22.0	112.6	14.0	36.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	22.2	22.0	112.6	14.0	36.5
LOS	C	C	F	B	D
Approach Delay	22.0			111.9	36.5
Approach LOS	C			F	D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 105.5	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.15	
Intersection Signal Delay: 59.7	Intersection LOS: E
Intersection Capacity Utilization 85.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 20: Bonnie Dr. & Mapes Rd.





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	1066	776	5	10	7
Future Volume (veh/h)	4	1066	776	5	10	7
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	4	0	862	6	11	8
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	19		916	1447	179	130
Arrive On Green	0.01	0.00	0.51	0.76	0.17	0.17
Sat Flow, veh/h	1810	1610	1810	1900	1023	744
Grp Volume(v), veh/h	4	0	862	6	0	19
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	0	1766
Q Serve(g_s), s	0.1	0.0	25.7	0.0	0.0	0.5
Cycle Q Clear(g_c), s	0.1	0.0	25.7	0.0	0.0	0.5
Prop In Lane	1.00	1.00	1.00			0.42
Lane Grp Cap(c), veh/h	19		916	1447	0	309
V/C Ratio(X)	0.21		0.94	0.00	0.00	0.06
Avail Cap(c_a), veh/h	1377		1374	2110	0	479
HCM Platoon Ratio	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
Uniform Delay (d), s/veh	28.0	0.0	13.3	1.6	0.0	19.7
Incr Delay (d2), s/veh	5.1	0.0	7.6	0.0	0.0	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	0.1	0.0	8.3	0.0	0.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.1	0.0	20.9	1.6	0.0	19.8
LnGrp LOS	C		C	A	A	B
Approach Vol, veh/h	4	A		868	19	
Approach Delay, s/veh	33.1			20.8	19.8	
Approach LOS	C			C	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		50.1		7.1	33.6	16.5
Change Period (Y+Rc), s		6.5		6.5	4.6	6.5
Max Green Setting (Gmax), s		63.5		43.5	43.4	15.5
Max Q Clear Time (g_c+I1), s		2.0		2.1	27.7	2.5
Green Ext Time (p_c), s		0.0		0.0	1.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	20.8
HCM 6th LOS	C

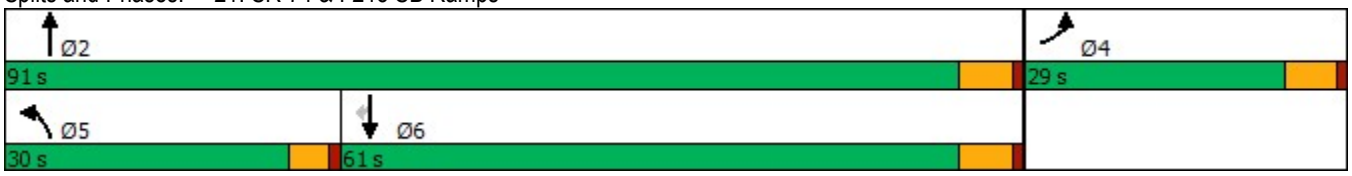
Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	479	598	560	584	1280	221
Future Volume (vph)	479	598	560	584	1280	221
Turn Type	Prot	Free	Prot	NA	NA	Perm
Protected Phases	4		5	2	6	
Permitted Phases		Free				6
Detector Phase	4		5	2	6	6
Switch Phase						
Minimum Initial (s)	10.0		5.0	10.0	10.0	10.0
Minimum Split (s)	15.8		9.6	15.8	15.8	15.8
Total Split (s)	29.0		30.0	91.0	61.0	61.0
Total Split (%)	24.2%		25.0%	75.8%	50.8%	50.8%
Yellow Time (s)	4.8		3.6	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)	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	Min	Min	Min
Act Effct Green (s)	23.2	120.0	25.4	85.2	55.2	55.2
Actuated g/C Ratio	0.19	1.00	0.21	0.71	0.46	0.46
v/c Ratio	1.48	0.40	1.58	0.47	1.57	0.31
Control Delay	266.1	0.7	304.4	8.9	291.0	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	266.1	0.7	304.4	8.9	291.0	19.2
LOS	F	A	F	A	F	B
Approach Delay	118.8			153.5	250.9	
Approach LOS	F			F	F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.58	
Intersection Signal Delay: 182.7	Intersection LOS: F
Intersection Capacity Utilization 138.4%	ICU Level of Service H
Analysis Period (min) 15	

Splits and Phases: 21: SR-74 & I-215 SB Ramps





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	479	598	560	584	1280	221
Future Volume (veh/h)	479	598	560	584	1280	221
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	515	0	602	628	1376	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	350		383	1349	874	
Arrive On Green	0.19	0.00	0.21	0.71	0.46	0.00
Sat Flow, veh/h	1810	1610	1810	1900	1900	1610
Grp Volume(v), veh/h	515	0	602	628	1376	0
Grp Sat Flow(s),veh/h/ln	1810	1610	1810	1900	1900	1610
Q Serve(g_s), s	23.2	0.0	25.4	17.2	55.2	0.0
Cycle Q Clear(g_c), s	23.2	0.0	25.4	17.2	55.2	0.0
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	350		383	1349	874	
V/C Ratio(X)	1.47		1.57	0.47	1.57	
Avail Cap(c_a), veh/h	350		383	1349	874	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	48.4	0.0	47.3	7.5	32.4	0.0
Incr Delay (d2), s/veh	227.4	0.0	269.6	0.3	264.0	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	32.2	0.0	39.7	5.9	87.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	275.8	0.0	316.9	7.8	296.4	0.0
LnGrp LOS	F		F	A	F	
Approach Vol, veh/h	515	A		1230	1376	A
Approach Delay, s/veh	275.8			159.1	296.4	
Approach LOS	F			F	F	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		91.0		29.0	30.0	61.0
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		85.2		23.2	25.4	55.2
Max Q Clear Time (g_c+I1), s		19.2		25.2	27.4	57.2
Green Ext Time (p_c), s		4.3		0.0	0.0	0.0

Intersection Summary		
HCM 6th Ctrl Delay	238.9	
HCM 6th LOS	F	

Notes

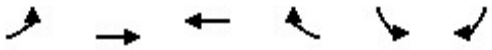
Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Configurations					
Traffic Volume (vph)	229	1649	885	916	546
Future Volume (vph)	229	1649	885	916	546
Turn Type	Prot	NA	NA	Free	Prot
Protected Phases	5	2	6		4
Permitted Phases				Free	
Detector Phase	5	2	6		4
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0		5.0
Minimum Split (s)	10.3	10.3	10.3		10.3
Total Split (s)	22.6	62.0	39.4		58.0
Total Split (%)	18.8%	51.7%	32.8%		48.3%
Yellow Time (s)	4.3	4.3	4.3		4.3
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)	5.3	5.3	5.3		5.3
Lead/Lag	Lead		Lag		
Lead-Lag Optimize?	Yes		Yes		
Recall Mode	None	Min	Min		None
Act Effct Green (s)	17.0	56.7	34.4	120.0	52.7
Actuated g/C Ratio	0.14	0.47	0.29	1.00	0.44
v/c Ratio	0.93	1.01	0.89	0.59	1.07
Control Delay	92.8	55.5	53.2	1.6	84.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	92.8	55.5	53.2	1.6	84.0
LOS	F	E	D	A	F
Approach Delay		60.1	27.0		84.0
Approach LOS		E	C		F

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.07	
Intersection Signal Delay: 51.1	Intersection LOS: D
Intersection Capacity Utilization 100.5%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 22: SR-74 & I-215 NB Ramps





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	229	1649	885	916	546	259
Future Volume (veh/h)	229	1649	885	916	546	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	239	1718	922	0	569	166
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	265	1733	1042		585	171
Arrive On Green	0.15	0.48	0.29	0.00	0.43	0.43
Sat Flow, veh/h	1810	3705	3705	1610	1361	397
Grp Volume(v), veh/h	239	1718	922	0	736	0
Grp Sat Flow(s),veh/h/ln	1810	1805	1805	1610	1760	0
Q Serve(g_s), s	15.3	55.7	28.8	0.0	48.3	0.0
Cycle Q Clear(g_c), s	15.3	55.7	28.8	0.0	48.3	0.0
Prop In Lane	1.00			1.00	0.77	0.23
Lane Grp Cap(c), veh/h	265	1733	1042		757	0
V/C Ratio(X)	0.90	0.99	0.88		0.97	0.00
Avail Cap(c_a), veh/h	265	1733	1042		786	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	0.00	1.00	0.00
Uniform Delay (d), s/veh	49.6	30.4	40.1	0.0	33.0	0.0
Incr Delay (d2), s/veh	30.3	19.4	8.9	0.0	24.7	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	9.0	26.8	13.5	0.0	24.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	79.8	49.9	49.0	0.0	57.6	0.0
LnGrp LOS	E	D	D		E	A
Approach Vol, veh/h		1957	922	A	736	
Approach Delay, s/veh		53.5	49.0		57.6	
Approach LOS		D	D		E	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		62.0		56.1	22.6	39.4
Change Period (Y+Rc), s		5.3		5.3	5.3	5.3
Max Green Setting (Gmax), s		56.7		52.7	17.3	34.1
Max Q Clear Time (g_c+I1), s		57.7		50.3	17.3	30.8
Green Ext Time (p_c), s		0.0		0.4	0.0	1.4

Intersection Summary		
HCM 6th Ctrl Delay	53.2	
HCM 6th LOS	D	

Notes

User approved volume balancing among the lanes for turning movement.

Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 6.3: EAC (2025) WITHOUT PROJECT CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

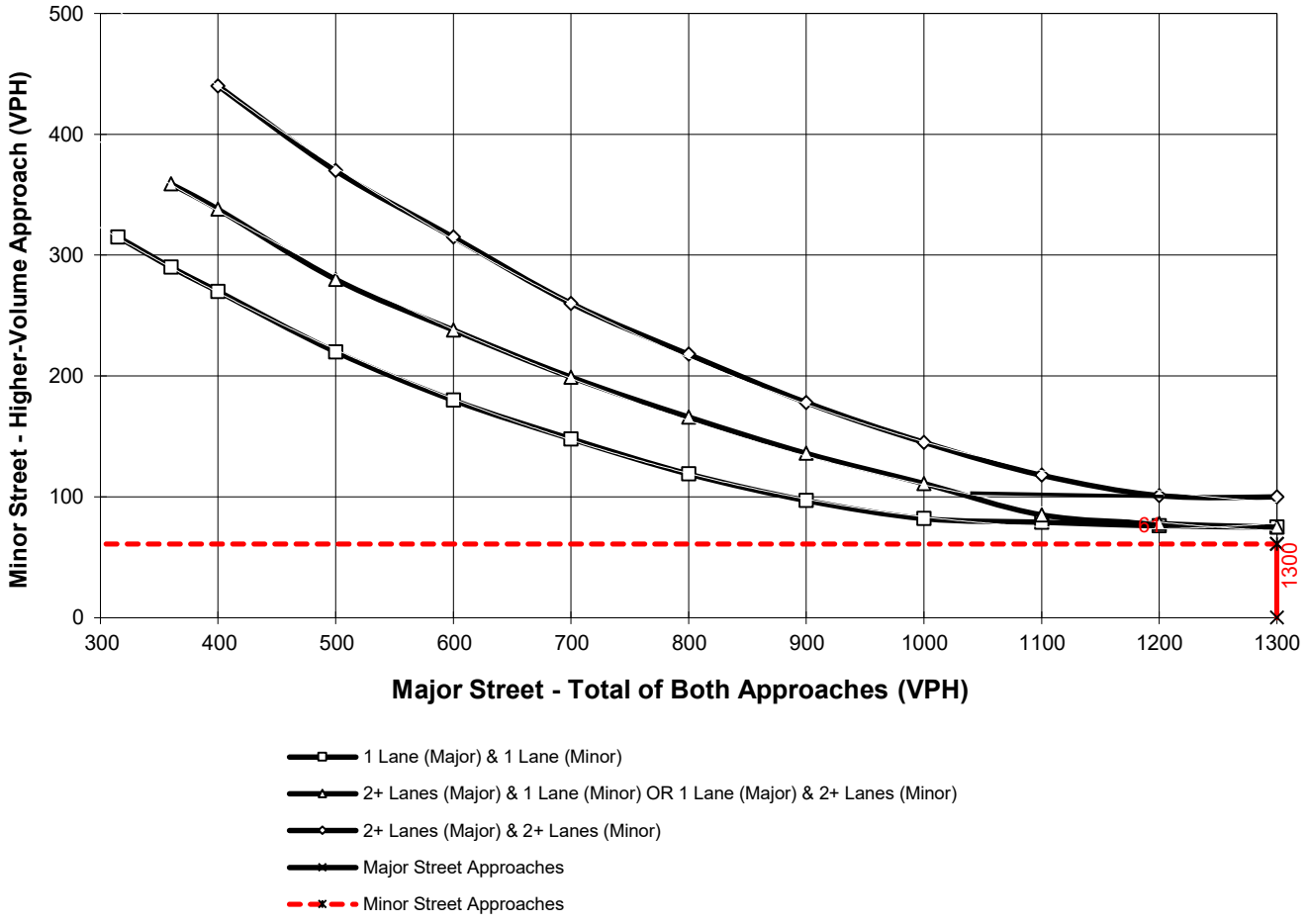
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAC (2025) Conditions - Weekday PM Peak Hour**

Major Street Name = **Goetz Rd.**
Total of Both Approaches (VPH) = **1709**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Malbert St.**
High Volume Approach (VPH) = **61**
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)

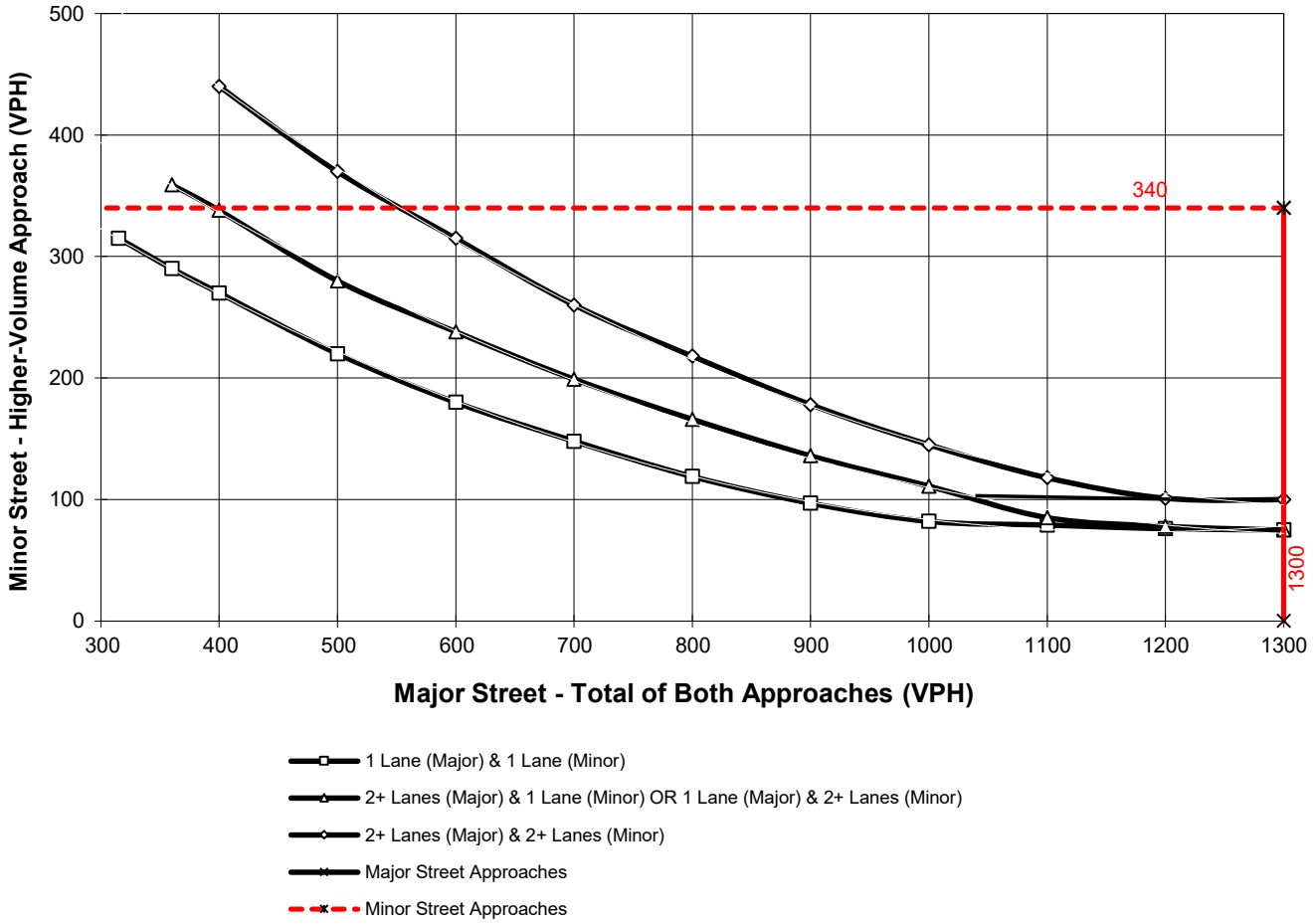
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAC (2025) Conditions - Weekday PM Peak Hour**

Major Street Name = **Goetz Rd.**
Total of Both Approaches (VPH) = **1440**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Mountain Av.**
High Volume Approach (VPH) = **340**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*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

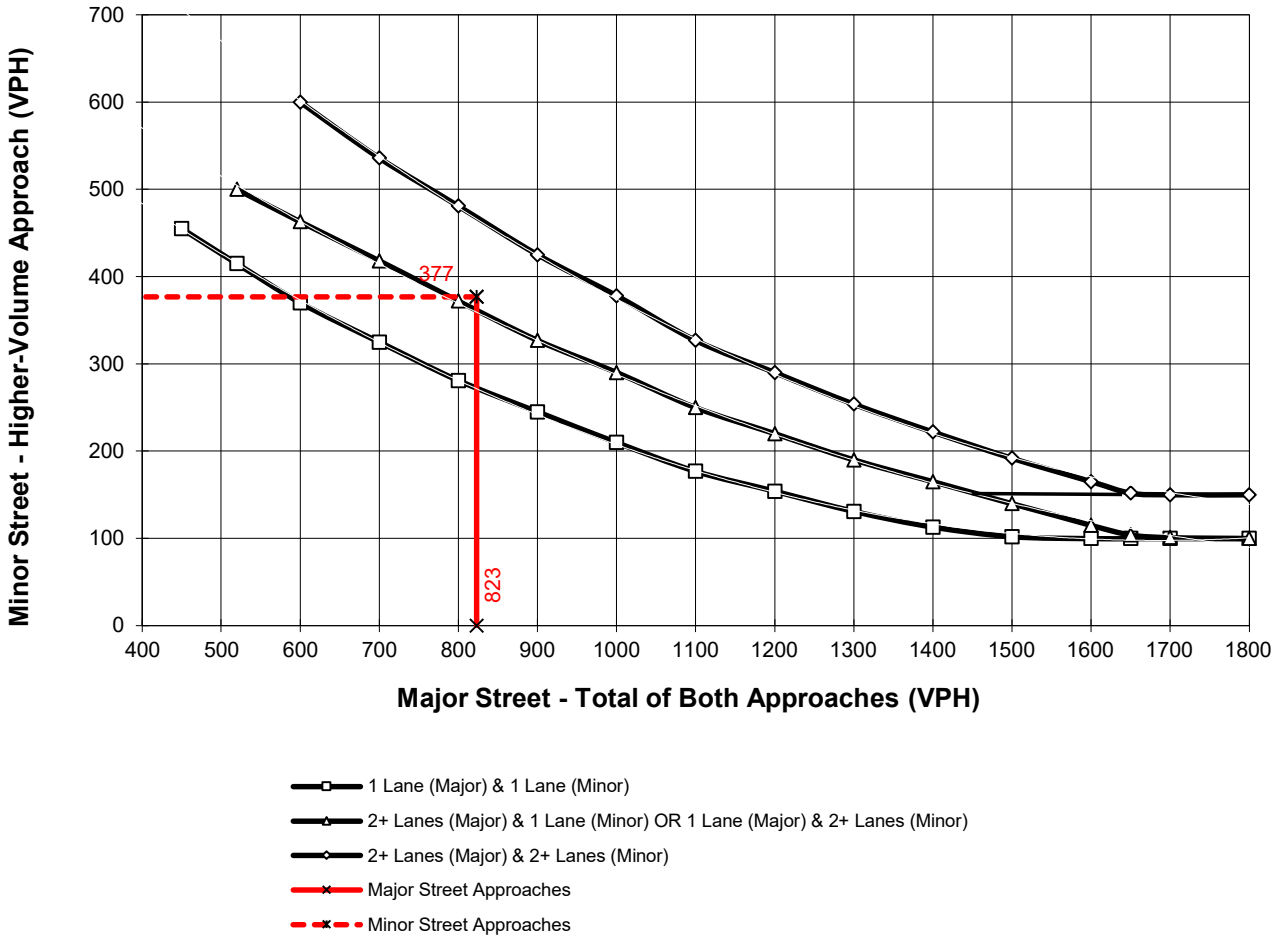
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAC (2025) Conditions - Weekday PM Peak Hour**

Major Street Name = **Redlands Av.**
Total of Both Approaches (VPH) = **823**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Ellis Av.**
High Volume Approach (VPH) = **377**
Number of Approach Lanes On Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

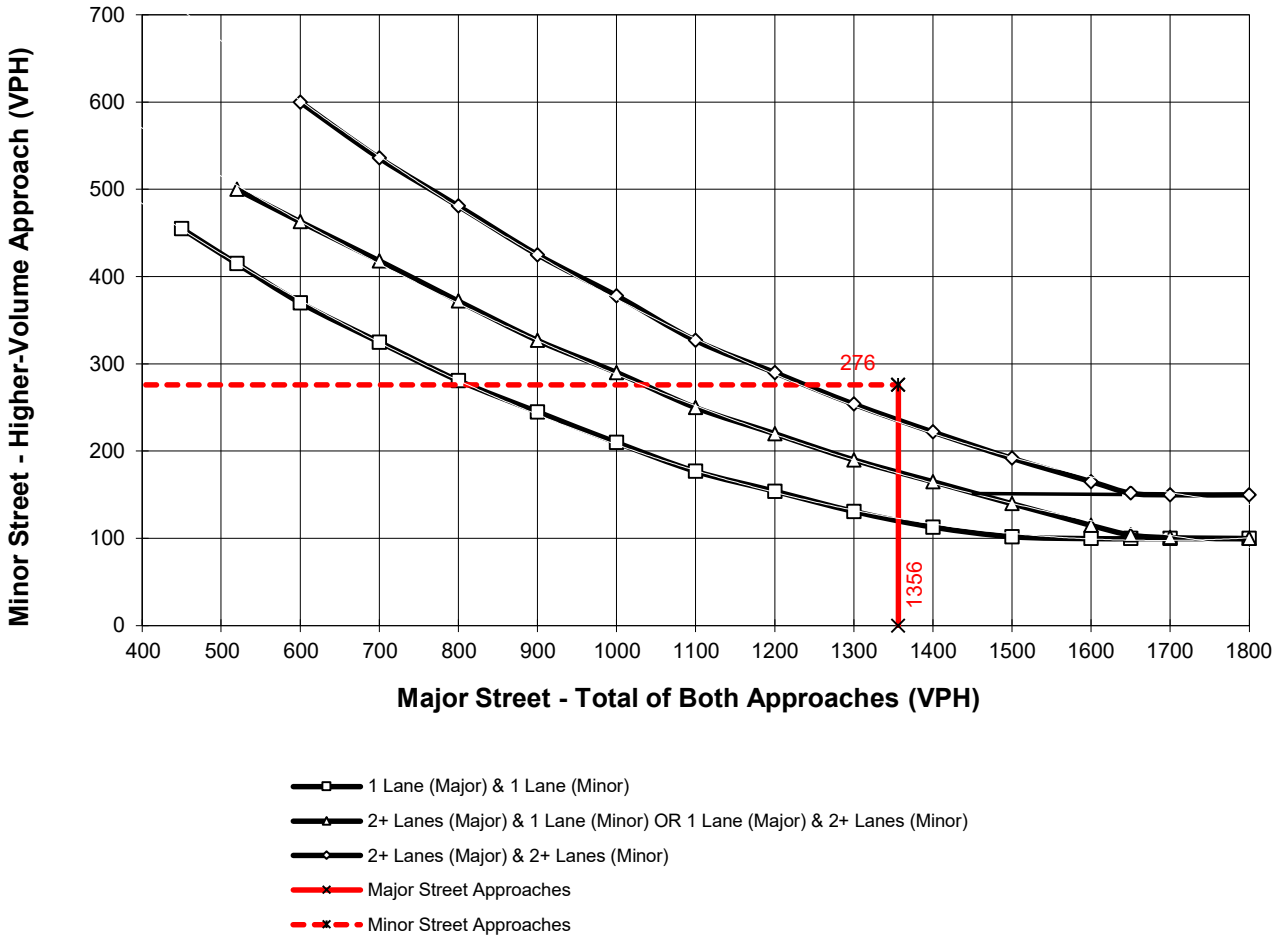
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAC (2025) Conditions - Weekday AM Peak Hour**

Major Street Name = **Case Rd.**
Total of Both Approaches (VPH) = **1356**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Murrieta Rd.**
High Volume Approach (VPH) = **276**
Number of Approach Lanes On Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAC (2025) Conditions - Weekday AM Peak Hour**

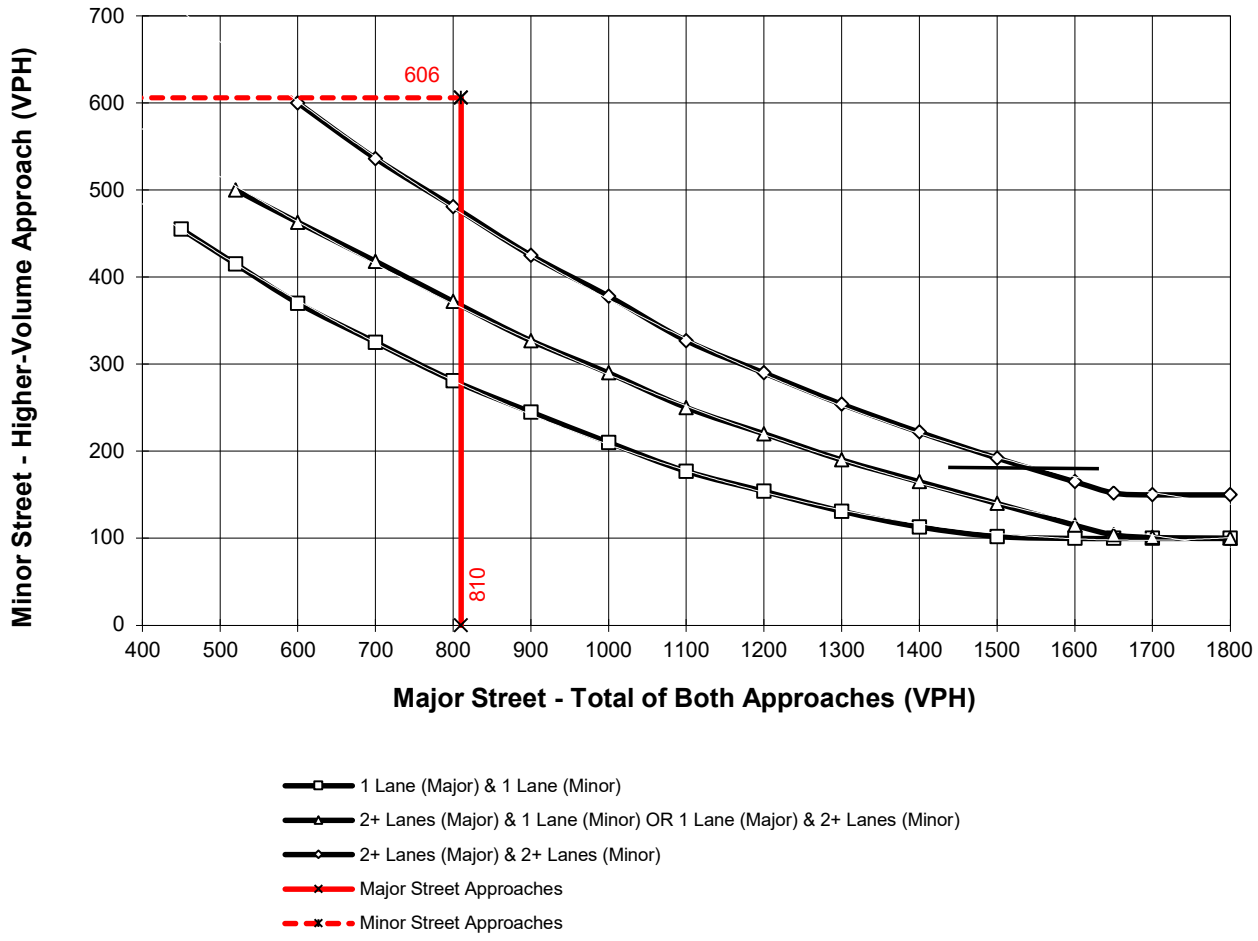
Major Street Name = **Mapes Rd.**

Total of Both Approaches (VPH) = **810**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Case Rd.**

High Volume Approach (VPH) = **606**
Number of Approach Lanes On Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

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APPENDIX 6.4: EAPC (2025) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

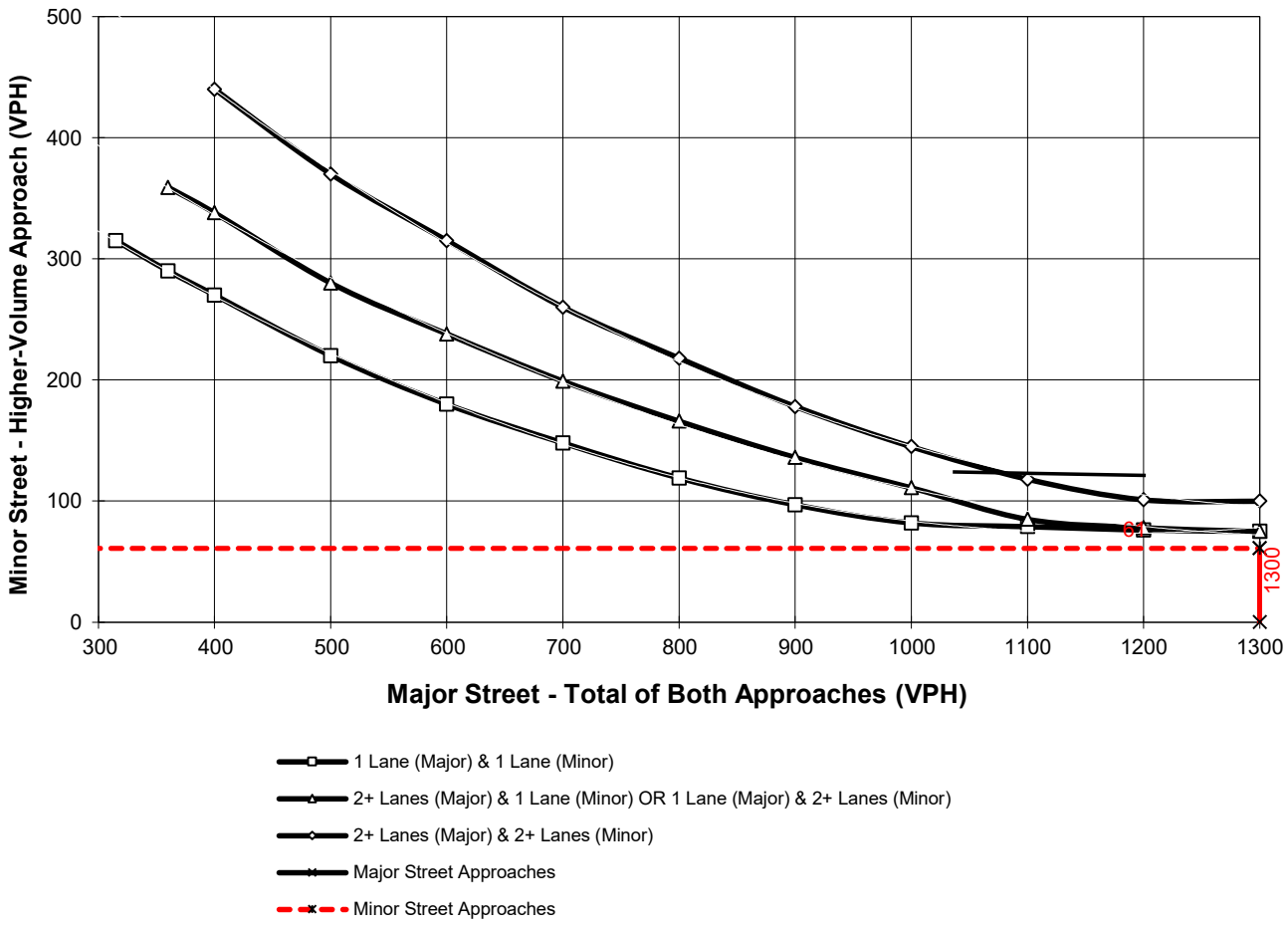
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC (2025) Conditions - Weekday PM Peak Hour**

Major Street Name = **Goetz Rd.**
Total of Both Approaches (VPH) = **1798**
Number of Approach Lanes Major Street = **2**

Minor Street Name = **Malbert St.**
High Volume Approach (VPH) = **61**
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-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS		EAPC (2025)
				CALC JB	DATE	09/07/23
Jurisdiction: City of Perris				CHK JB	DATE	09/07/23
Major Street: Case Rd.				Critical Approach Speed (Major)		55 mph
Minor Street: Driveway 5				Critical Approach Speed (Minor)		25 mph

Major Street Approach Lanes = **2** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **20,581** vpd Minor Street Future ADT = **341** 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: XX

CONDITION A - Minimum Vehicular Volume

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach		Minimum Requirements EADT			
Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
		Urban	Rural	Urban	Rural
1	1	8,000	5,600	2,400	1,680
2 + **20,581**	1 **341**	9,600	6,720 *	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	1	12,000	8,400	1,200	850
2 + **20,581**	1 **341**	14,400	10,080 *	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied / Not Satisfied: XX

No one condition satisfied, but following conditions fulfilled 80% of more ..... A: 20% B: 40%

2 CONDITIONS 80%

2 CONDITIONS 80%

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.

APPENDIX 6.5: EAC (2025) QUEUING ANALYSIS WORKSHEETS

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Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	346	327	321	400	1198	1594	435
v/c Ratio	0.73	0.70	0.68	0.71	0.55	0.62	0.48
Control Delay	43.3	35.7	33.5	49.6	14.2	27.1	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.9	0.0	0.0
Total Delay	43.3	35.7	33.5	49.6	15.1	27.1	4.5
Queue Length 50th (ft)	224	179	161	132	228	240	0
Queue Length 95th (ft)	332	289	263	204	368	340	63
Internal Link Dist (ft)		1295			320	683	
Turn Bay Length (ft)	800		400				
Base Capacity (vph)	714	666	678	694	2457	2855	950
Starvation Cap Reductn	0	0	0	0	881	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	0.49	0.47	0.58	0.76	0.56	0.46

Intersection Summary



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	262	250	241	1218	378	742	1224
v/c Ratio	0.70	0.63	0.58	0.57	0.32	0.76	0.52
Control Delay	46.8	32.1	27.1	28.8	3.7	37.7	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.3
Total Delay	46.8	32.1	27.1	28.8	3.7	37.8	10.0
Queue Length 50th (ft)	158	106	82	181	0	219	188
Queue Length 95th (ft)	283	223	186	261	36	315	273
Internal Link Dist (ft)		1169		429			320
Turn Bay Length (ft)	740		140		200		
Base Capacity (vph)	521	519	534	2602	1358	1568	3057
Starvation Cap Reductn	0	0	0	0	0	141	986
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.48	0.45	0.47	0.28	0.52	0.59

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	176	417	667	744	883	176
v/c Ratio	1.02	0.26	1.09	0.49	1.08	0.25
Control Delay	128.3	0.4	102.6	4.9	88.7	18.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	128.3	0.4	102.6	4.9	88.7	18.7
Queue Length 50th (ft)	~142	0	~583	145	~764	69
Queue Length 95th (ft)	#289	0	#813	200	#1010	120
Internal Link Dist (ft)	1304			1430	1438	
Turn Bay Length (ft)		50	110			50
Base Capacity (vph)	172	1615	610	1534	818	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	1.02	0.26	1.09	0.49	1.08	0.25

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.



Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	193	1106	1101	1229	643
v/c Ratio	0.82	0.59	0.90	0.76	0.93
Control Delay	75.4	20.2	45.6	3.4	53.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	75.4	20.2	45.6	3.4	53.5
Queue Length 50th (ft)	148	299	418	0	441
Queue Length 95th (ft)	#271	365	#515	0	#677
Internal Link Dist (ft)		1430	701		1371
Turn Bay Length (ft)	240			100	
Base Capacity (vph)	262	2097	1394	1615	775
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	0.53	0.79	0.76	0.83

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	374	437	437	427	1293	1427	365
v/c Ratio	0.62	0.80	0.75	0.83	0.70	0.68	0.48
Control Delay	32.2	40.4	33.0	60.3	22.9	33.2	5.4
Queue Delay	0.0	0.0	0.0	0.0	7.8	0.0	0.0
Total Delay	32.2	40.4	33.0	60.3	30.8	33.2	5.4
Queue Length 50th (ft)	222	280	235	151	336	241	0
Queue Length 95th (ft)	321	417	358	#274	515	328	69
Internal Link Dist (ft)		1295			320	683	
Turn Bay Length (ft)	800		400				
Base Capacity (vph)	834	739	780	518	1963	2308	803
Starvation Cap Reductn	0	0	0	0	632	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	0.45	0.59	0.56	0.82	0.97	0.62	0.45

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	292	279	269	1274	503	673	1134
v/c Ratio	0.74	0.71	0.62	0.58	0.39	0.76	0.50
Control Delay	49.4	40.1	28.2	29.4	3.5	41.6	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.4
Total Delay	49.4	40.1	28.2	29.4	3.5	41.8	10.8
Queue Length 50th (ft)	190	152	101	194	0	218	185
Queue Length 95th (ft)	321	281	210	283	41	300	268
Internal Link Dist (ft)		1169		429			320
Turn Bay Length (ft)	740		140		200		
Base Capacity (vph)	535	519	552	2545	1410	1274	2795
Starvation Cap Reductn	0	0	0	0	0	83	994
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	0.54	0.49	0.50	0.36	0.57	0.63

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	425	604	572	628	1376	206
v/c Ratio	2.83	0.37	1.67	0.40	1.22	0.21
Control Delay	863.7	0.7	347.0	3.8	134.3	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	863.7	0.7	347.0	3.8	134.3	10.1
Queue Length 50th (ft)	~564	0	~646	102	~1312	58
Queue Length 95th (ft)	#765	0	#865	140	#1575	97
Internal Link Dist (ft)	1304			1430	1438	
Turn Bay Length (ft)		50	110			50
Base Capacity (vph)	150	1615	342	1558	1124	969
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	2.83	0.37	1.67	0.40	1.22	0.21

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.



Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	201	1718	922	954	810
v/c Ratio	0.91	0.99	0.81	0.59	1.05
Control Delay	94.4	50.6	44.7	1.6	79.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	94.4	50.6	44.7	1.6	79.6
Queue Length 50th (ft)	156	674	346	0	~674
Queue Length 95th (ft)	#296	#860	428	0	#919
Internal Link Dist (ft)		1430	701		1371
Turn Bay Length (ft)	240			100	
Base Capacity (vph)	224	1735	1136	1615	771
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	0.90	0.99	0.81	0.59	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.

APPENDIX 6.6: EAPC (2025) QUEUING ANALYSIS WORKSHEETS

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13: Redlands Av & I-215 NB Ramps



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	346	327	321	412	1198	1594	435
v/c Ratio	0.73	0.70	0.68	0.72	0.55	0.62	0.48
Control Delay	43.4	35.8	33.6	50.1	14.2	27.2	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.9	0.0	0.0
Total Delay	43.4	35.8	33.6	50.1	15.1	27.2	4.5
Queue Length 50th (ft)	225	180	162	138	229	243	0
Queue Length 95th (ft)	332	289	263	211	368	340	63
Internal Link Dist (ft)		1295			320	683	
Turn Bay Length (ft)	800		400				
Base Capacity (vph)	711	664	676	691	2448	2845	948
Starvation Cap Reductn	0	0	0	0	883	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	0.49	0.49	0.47	0.60	0.77	0.56	0.46

Intersection Summary

14: Redlands Av & I-215 SB Ramps



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	276	264	258	1230	378	742	1224
v/c Ratio	0.72	0.64	0.62	0.58	0.32	0.76	0.52
Control Delay	48.1	29.9	28.9	29.2	3.7	38.4	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.3
Total Delay	48.1	29.9	28.9	29.2	3.7	38.5	10.3
Queue Length 50th (ft)	173	105	96	187	0	228	196
Queue Length 95th (ft)	298	221	205	264	36	315	273
Internal Link Dist (ft)		1169		429			320
Turn Bay Length (ft)	740		140		200		
Base Capacity (vph)	514	523	528	2565	1345	1546	3024
Starvation Cap Reductn	0	0	0	0	0	144	995
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.50	0.49	0.48	0.28	0.53	0.60

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	206	444	716	744	883	219
v/c Ratio	1.13	0.27	1.15	0.49	1.11	0.31
Control Delay	153.0	0.4	122.1	5.1	101.1	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	153.0	0.4	122.1	5.1	101.1	20.5
Queue Length 50th (ft)	~184	0	~652	152	~783	91
Queue Length 95th (ft)	#339	0	#886	208	#1029	152
Internal Link Dist (ft)	1304			1430	1438	
Turn Bay Length (ft)		50	110			50
Base Capacity (vph)	183	1615	622	1523	794	697
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	1.13	0.27	1.15	0.49	1.11	0.31

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.

22: SR-74 & I-215 NB Ramps



Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	219	1106	1101	1229	692
v/c Ratio	0.89	0.60	0.92	0.76	0.97
Control Delay	84.5	21.4	50.7	3.4	60.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	84.5	21.4	50.7	3.4	60.5
Queue Length 50th (ft)	168	299	424	0	495
Queue Length 95th (ft)	#309	365	#549	0	#757
Internal Link Dist (ft)		1430	701		1371
Turn Bay Length (ft)	240			100	
Base Capacity (vph)	260	1956	1269	1615	728
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	0.84	0.57	0.87	0.76	0.95

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

13: Redlands Av & I-215 NB Ramps



Lane Group	WBL	WBT	WBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	374	437	437	476	1293	1427	365
v/c Ratio	0.62	0.80	0.75	0.92	0.70	0.68	0.48
Control Delay	32.2	40.4	33.0	70.6	22.9	33.2	5.4
Queue Delay	0.0	0.0	0.0	0.0	7.9	0.0	0.0
Total Delay	32.2	40.4	33.0	70.6	30.9	33.2	5.4
Queue Length 50th (ft)	222	280	235	171	336	241	0
Queue Length 95th (ft)	321	417	358	#319	515	328	69
Internal Link Dist (ft)		1295			320	683	
Turn Bay Length (ft)	800		400				
Base Capacity (vph)	834	738	780	517	1962	2305	803
Starvation Cap Reductn	0	0	0	0	632	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	0.45	0.59	0.56	0.92	0.97	0.62	0.45

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

14: Redlands Av & I-215 SB Ramps



Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	300	286	270	1322	503	673	1134
v/c Ratio	0.76	0.71	0.62	0.60	0.39	0.77	0.50
Control Delay	50.4	39.1	28.2	29.9	3.5	42.0	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1	0.4
Total Delay	50.4	39.1	28.2	29.9	3.5	42.1	10.9
Queue Length 50th (ft)	196	151	102	206	0	220	189
Queue Length 95th (ft)	330	282	211	295	41	300	268
Internal Link Dist (ft)		1169		429			320
Turn Bay Length (ft)	740		140		200		
Base Capacity (vph)	530	519	547	2519	1400	1260	2778
Starvation Cap Reductn	0	0	0	0	0	84	991
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.55	0.49	0.52	0.36	0.57	0.63

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	515	643	602	628	1376	238
v/c Ratio	1.48	0.40	1.58	0.47	1.57	0.31
Control Delay	266.1	0.7	304.4	8.9	291.0	19.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	266.1	0.7	304.4	8.9	291.0	19.2
Queue Length 50th (ft)	~549	0	~662	188	~1514	99
Queue Length 95th (ft)	#762	0	#886	259	#1776	159
Internal Link Dist (ft)	1304			1430	1438	
Turn Bay Length (ft)		50	110			50
Base Capacity (vph)	348	1615	382	1349	874	758
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	1.48	0.40	1.58	0.47	1.57	0.31

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.

22: SR-74 & I-215 NB Ramps



Lane Group	EBL	EBT	WBT	WBR	SBL
Lane Group Flow (vph)	239	1718	922	954	839
v/c Ratio	0.93	1.01	0.89	0.59	1.07
Control Delay	92.8	55.5	53.2	1.6	84.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	92.8	55.5	53.2	1.6	84.0
Queue Length 50th (ft)	185	~696	361	0	~709
Queue Length 95th (ft)	#338	#873	#477	0	#956
Internal Link Dist (ft)		1430	701		1371
Turn Bay Length (ft)	240			100	
Base Capacity (vph)	260	1705	1033	1615	786
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	0.92	1.01	0.89	0.59	1.07

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.

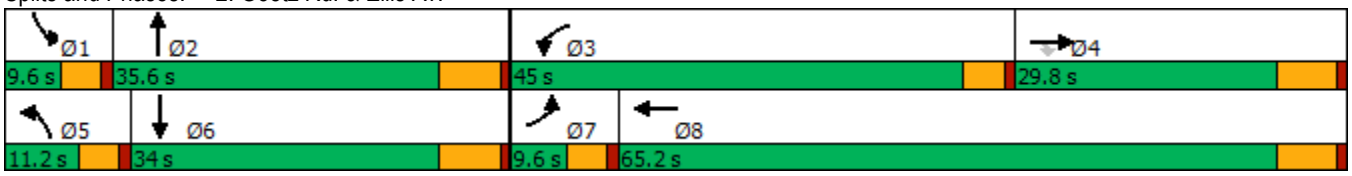
APPENDIX 6.7: EAPC (2025) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS

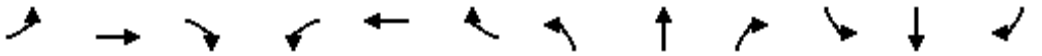
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Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	SBT	Ø1	Ø7
Lane Configurations									
Traffic Volume (vph)	0	67	432	0	53	632	444		
Future Volume (vph)	0	67	432	0	53	632	444		
Turn Type	NA	Perm	Prot	NA	Prot	NA	NA		
Protected Phases	4		3	8	5	2	6	1	7
Permitted Phases		4							
Detector Phase	4	4	3	8	5	2	6		
Switch Phase									
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	10.0	10.0	5.0	5.0
Minimum Split (s)	27.5	27.5	9.6	27.5	9.6	27.5	27.5	9.6	9.6
Total Split (s)	29.8	29.8	45.0	65.2	11.2	35.6	34.0	9.6	9.6
Total Split (%)	24.8%	24.8%	37.5%	54.3%	9.3%	29.7%	28.3%	8%	8%
Yellow Time (s)	5.5	5.5	3.6	5.5	3.6	5.5	5.5	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
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Total Lost Time (s)	6.5	6.5	4.6	6.5	4.6	6.5	6.5		
Lead/Lag	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	Min	None	None
Act Effct Green (s)	0.0	20.3	17.5	37.4	6.5	32.5	24.2		
Actuated g/C Ratio	0.00	0.24	0.21	0.45	0.08	0.39	0.29		
v/c Ratio	no cap	0.15	0.68	0.00	0.45	0.74	0.51		
Control Delay		0.6	37.6	0.0	53.0	28.1	31.7		
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0		
Total Delay	Error	0.6	37.6	0.0	53.0	28.1	31.7		
LOS	F	A	D	A	D	C	C		
Approach Delay	Err			37.5		29.5	31.7		
Approach LOS	F			D		C	C		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 83.6	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: Err	Intersection LOS: F
Intersection Capacity Utilization 63.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Goetz Rd. & Ellis Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	0	67	432	0	1	53	632	244	0	444	10
Future Volume (veh/h)	12	0	67	432	0	1	53	632	244	0	444	10
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		0.99
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	0	78	502	0	1	62	735	284	0	516	12
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	259	220	642	1388	647	100	933	360	3	827	19
Arrive On Green	0.00	0.00	0.14	0.18	0.00	0.40	0.06	0.37	0.37	0.00	0.23	0.23
Sat Flow, veh/h	0	1900	1610	3510	3458	1610	1810	2545	983	1810	3605	84
Grp Volume(v), veh/h	0	0	78	502	0	1	62	521	498	0	258	270
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1755	1729	1610	1810	1805	1723	1810	1805	1884
Q Serve(g_s), s	0.0	0.0	2.5	7.6	0.0	0.0	1.9	14.4	14.4	0.0	7.2	7.2
Cycle Q Clear(g_c), s	0.0	0.0	2.5	7.6	0.0	0.0	1.9	14.4	14.4	0.0	7.2	7.2
Prop In Lane	0.00		1.00	1.00		1.00	1.00		0.57	1.00		0.04
Lane Grp Cap(c), veh/h	0	259	220	642	1388	647	100	662	632	3	414	432
V/C Ratio(X)	0.00	0.00	0.35	0.78	0.00	0.00	0.62	0.79	0.79	0.00	0.62	0.62
Avail Cap(c_a), veh/h	0	790	669	2530	3621	1686	213	937	894	161	885	924
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)	0.00	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	0.0	0.0	22.0	21.8	0.0	10.1	25.9	15.8	15.8	0.0	19.4	19.4
Incr Delay (d2), s/veh	0.0	0.0	1.0	0.8	0.0	0.0	2.3	3.0	3.1	0.0	1.5	1.5
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	0.0	0.0	0.8	2.6	0.0	0.0	0.8	4.8	4.7	0.0	2.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	22.9	22.6	0.0	10.1	28.2	18.8	18.9	0.0	21.0	20.9
LnGrp LOS	A	A	C	C	A	B	C	B	B	A	C	C
Approach Vol, veh/h		78			503			1081			528	
Approach Delay, s/veh		22.9			22.6			19.4			20.9	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	27.1	14.9	14.2	7.7	19.4	0.0	29.0
Change Period (Y+Rc), s	4.6	6.5	4.6	6.5	4.6	6.5	4.6	6.5
Max Green Setting (Gmax), s	5.0	29.1	40.4	23.3	6.6	27.5	5.0	58.7
Max Q Clear Time (g_c+I1), s	0.0	16.4	9.6	4.5	3.9	9.2	0.0	2.0
Green Ext Time (p_c), s	0.0	4.1	0.6	0.1	0.0	2.1	0.0	0.0

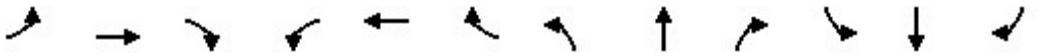
Intersection Summary	
HCM 6th Ctrl Delay	20.6
HCM 6th LOS	C

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	91	157	171	183	250	384	306	201	262
Future Volume (vph)	91	157	171	183	250	384	306	201	262
Turn Type	NA	Perm	Split	NA	Perm	NA	Perm	Prot	NA
Protected Phases	4		8	8		2		1	6
Permitted Phases		4			2		2		
Detector Phase	4	4	8	8	2	2	2	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	14.8	14.8	16.4	16.4	16.4	9.6	16.4
Total Split (s)	15.1	15.1	33.0	33.0	47.9	47.9	47.9	24.0	71.9
Total Split (%)	12.6%	12.6%	27.5%	27.5%	39.9%	39.9%	39.9%	20.0%	59.9%
Yellow Time (s)	3.8	3.8	3.8	3.8	5.4	5.4	5.4	3.6	5.4
All-Red Time (s)	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)	4.8	4.8	4.8	4.8	6.4	6.4	6.4	4.6	6.4
Lead/Lag					Lag	Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	Min	Min	Min	None	Min
Act Effct Green (s)	10.5	10.5	24.1	24.1	32.2	32.2	32.2	16.4	53.3
Actuated g/C Ratio	0.10	0.10	0.23	0.23	0.31	0.31	0.31	0.16	0.51
v/c Ratio	0.53	0.55	0.46	0.84	0.82	0.73	0.46	0.79	0.30
Control Delay	60.9	14.8	40.7	55.3	54.3	40.9	5.2	65.3	15.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.9	14.8	40.7	55.3	54.3	40.9	5.2	65.3	15.6
LOS	E	B	D	E	D	D	A	E	B
Approach Delay	31.7			50.3		32.8			37.2
Approach LOS	C			D		C			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 104.5	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 37.7	Intersection LOS: D
Intersection Capacity Utilization 63.1%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 12: Case Rd. & Ellis Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	91	157	171	183	146	250	384	306	201	262	0
Future Volume (veh/h)	0	91	157	171	183	146	250	384	306	201	262	0
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	0	101	173	190	203	162	278	427	0	223	291	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	200	210	178	429	232	185	397	549		258	914	0
Arrive On Green	0.00	0.11	0.11	0.24	0.24	0.24	0.29	0.29	0.00	0.14	0.48	0.00
Sat Flow, veh/h	1810	1900	1610	1810	979	781	1105	1900	1610	1810	1900	0
Grp Volume(v), veh/h	0	101	173	190	0	365	278	427	0	223	291	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1759	1105	1900	1610	1810	1900	0
Q Serve(g_s), s	0.0	4.7	10.0	8.3	0.0	18.6	22.3	19.2	0.0	11.2	8.7	0.0
Cycle Q Clear(g_c), s	0.0	4.7	10.0	8.3	0.0	18.6	22.3	19.2	0.0	11.2	8.7	0.0
Prop In Lane	1.00		1.00	1.00		0.44	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	200	210	178	429	0	417	397	549		258	914	0
V/C Ratio(X)	0.00	0.48	0.97	0.44	0.00	0.88	0.70	0.78		0.86	0.32	0.00
Avail Cap(c_a), veh/h	200	210	178	548	0	532	570	846		377	1335	0
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)	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	38.9	41.3	30.3	0.0	34.2	31.5	30.4	0.0	39.1	14.8	0.0
Incr Delay (d2), s/veh	0.0	1.7	59.1	0.7	0.0	12.6	2.3	2.5	0.0	9.5	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	0.0	2.1	6.6	3.6	0.0	9.1	5.6	8.3	0.0	5.3	3.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	40.6	100.4	31.0	0.0	46.8	33.7	32.9	0.0	48.6	15.0	0.0
LnGrp LOS	A	D	F	C	A	D	C	C		D	B	A
Approach Vol, veh/h		274			555			705	A		514	
Approach Delay, s/veh		78.3			41.4			33.2			29.6	
Approach LOS		E			D			C			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	17.9	33.3		15.1		51.2		26.9				
Change Period (Y+Rc), s	4.6	6.4		* 4.8		6.4		4.8				
Max Green Setting (Gmax), s	19.4	41.5		* 10		65.5		28.2				
Max Q Clear Time (g_c+I1), s	13.2	24.3		12.0		10.7		20.6				
Green Ext Time (p_c), s	0.1	2.6		0.0		1.3		1.5				

Intersection Summary			
HCM 6th Ctrl Delay		40.6	
HCM 6th LOS		D	

Notes

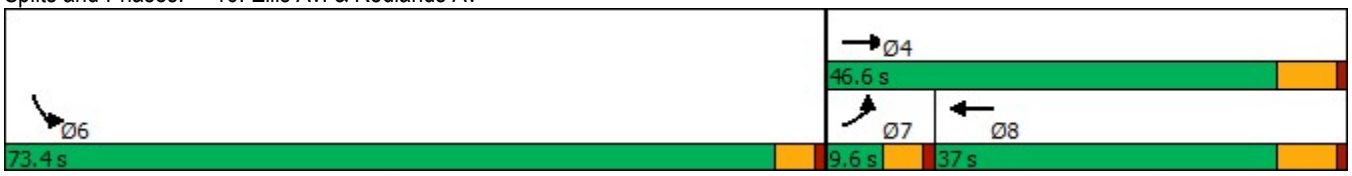
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

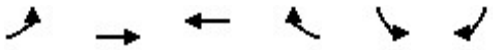
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBT	SBL	Ø7
Lane Configurations				
Traffic Volume (vph)	210	95	53	
Future Volume (vph)	210	95	53	
Turn Type	NA	NA	Prot	
Protected Phases	4	8	6	7
Permitted Phases				
Detector Phase	4	8	6	
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	5.0
Minimum Split (s)	24.5	24.5	22.6	9.6
Total Split (s)	46.6	37.0	73.4	9.6
Total Split (%)	38.8%	30.8%	61.2%	8%
Yellow Time (s)	5.5	5.5	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	6.5	6.5	4.6	
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	Min	None
Act Effct Green (s)	0.0	40.4	8.8	
Actuated g/C Ratio	0.00	0.67	0.15	
v/c Ratio	no cap	0.12	0.79	
Control Delay		4.5	15.3	
Queue Delay		0.0	0.0	
Total Delay	Error	4.5	15.3	
LOS	F	A	B	
Approach Delay	Err	4.5	15.3	
Approach LOS	F	A	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 60.3	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: Err	Intersection LOS: F
Intersection Capacity Utilization 79.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 16: Ellis Av. & Redlands Av





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	371	210	95	34	53	358
Future Volume (veh/h)	371	210	95	34	53	358
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	422	239	108	33	60	356
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	0	617	453	139	74	440
Arrive On Green	0.00	0.32	0.32	0.32	0.31	0.31
Sat Flow, veh/h	0	1900	1396	427	235	1397
Grp Volume(v), veh/h	0	239	0	141	417	0
Grp Sat Flow(s),veh/h/ln	0	1900	0	1823	1637	0
Q Serve(g_s), s	0.0	3.0	0.0	1.7	7.2	0.0
Cycle Q Clear(g_c), s	0.0	3.0	0.0	1.7	7.2	0.0
Prop In Lane	0.00			0.23	0.14	0.85
Lane Grp Cap(c), veh/h	0	617	0	592	515	0
V/C Ratio(X)	0.00	0.39	0.00	0.24	0.81	0.00
Avail Cap(c_a), veh/h	0	2476	0	1807	3659	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	8.0	0.0	7.6	9.7	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.2	1.2	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	0.0	0.8	0.0	0.4	1.6	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	8.4	0.0	7.8	10.9	0.0
LnGrp LOS	A	A	A	A	B	A
Approach Vol, veh/h		239	141		417	
Approach Delay, s/veh		8.4	7.8		10.9	
Approach LOS		A	A		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			16.5		14.3	0.0	16.5
Change Period (Y+Rc), s			6.5		4.6	4.6	6.5
Max Green Setting (Gmax), s			40.1		68.8	5.0	30.5
Max Q Clear Time (g_c+I1), s			5.0		9.2	0.0	3.7
Green Ext Time (p_c), s			1.1		0.5	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	9.6
HCM 6th LOS	A

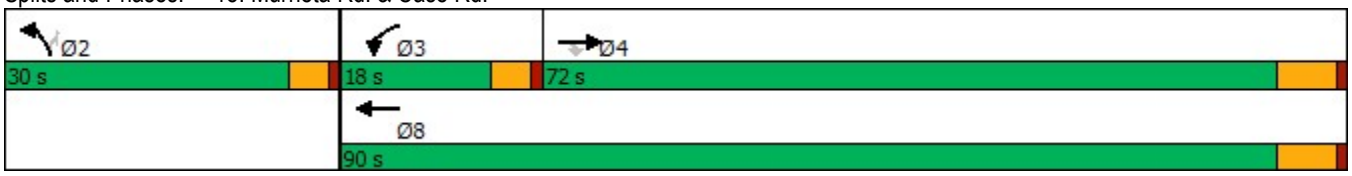
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	557	65	71	811	171	105
Future Volume (vph)	557	65	71	811	171	105
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	5.0	5.0
Minimum Split (s)	24.5	24.5	9.6	24.5	22.6	22.6
Total Split (s)	72.0	72.0	18.0	90.0	30.0	30.0
Total Split (%)	60.0%	60.0%	15.0%	75.0%	25.0%	25.0%
Yellow Time (s)	5.5	5.5	3.6	5.5	3.6	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)	6.5	6.5	4.6	6.5	4.6	4.6
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	27.9	27.9	7.8	37.5	11.6	11.6
Actuated g/C Ratio	0.46	0.46	0.13	0.61	0.19	0.19
v/c Ratio	0.68	0.09	0.33	0.74	0.53	0.28
Control Delay	19.4	3.7	33.9	12.9	32.2	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.4	3.7	33.9	12.9	32.2	8.4
LOS	B	A	C	B	C	A
Approach Delay	17.8			14.6	23.2	
Approach LOS	B			B	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 61.2	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 17.0	Intersection LOS: B
Intersection Capacity Utilization 61.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 18: Murrieta Rd. & Case Rd.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	557	65	71	811	171	105
Future Volume (veh/h)	557	65	71	811	171	105
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	593	69	76	863	182	112
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	757	641	128	1103	272	242
Arrive On Green	0.40	0.40	0.07	0.58	0.15	0.15
Sat Flow, veh/h	1900	1610	1810	1900	1810	1610
Grp Volume(v), veh/h	593	69	76	863	182	112
Grp Sat Flow(s),veh/h/ln	1900	1610	1810	1900	1810	1610
Q Serve(g_s), s	11.2	1.1	1.7	14.4	3.9	2.6
Cycle Q Clear(g_c), s	11.2	1.1	1.7	14.4	3.9	2.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	757	641	128	1103	272	242
V/C Ratio(X)	0.78	0.11	0.60	0.78	0.67	0.46
Avail Cap(c_a), veh/h	3021	2560	589	3851	1116	993
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	10.8	7.8	18.6	6.6	16.5	16.0
Incr Delay (d2), s/veh	1.8	0.1	1.7	1.3	1.1	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	2.9	0.2	0.6	1.7	1.4	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.7	7.9	20.2	7.9	17.6	16.5
LnGrp LOS	B	A	C	A	B	B
Approach Vol, veh/h	662			939	294	
Approach Delay, s/veh	12.2			8.9	17.2	
Approach LOS	B			A	B	

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		10.8	7.5	22.9		30.4
Change Period (Y+Rc), s		4.6	4.6	6.5		6.5
Max Green Setting (Gmax), s		25.4	13.4	65.5		83.5
Max Q Clear Time (g_c+I1), s		5.9	3.7	13.2		16.4
Green Ext Time (p_c), s		0.3	0.0	3.2		5.4

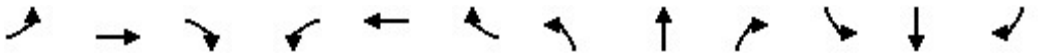
Intersection Summary	
HCM 6th Ctrl Delay	11.3
HCM 6th LOS	B

Lane Group	EBL	EBT	WBT	NBT	SBL	SBT	Ø3	Ø5
Lane Configurations								
Traffic Volume (vph)	558	104	83	3	98	2		
Future Volume (vph)	558	104	83	3	98	2		
Turn Type	Prot	NA	NA	NA	Perm	NA		
Protected Phases	7	4	8	2		6	3	5
Permitted Phases					6			
Detector Phase	7	4	8	2	6	6		
Switch Phase								
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	5.0	5.0
Minimum Split (s)	9.6	24.5	24.5	24.5	24.5	24.5	9.6	9.6
Total Split (s)	25.5	40.4	24.5	70.0	60.4	60.4	9.6	9.6
Total Split (%)	21.3%	33.7%	20.4%	58.3%	50.3%	50.3%	8%	8%
Yellow Time (s)	3.6	5.5	5.5	5.5	5.5	5.5	3.6	3.6
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		
Total Lost Time (s)	4.6	6.5	6.5	6.5		6.5		
Lead/Lag	Lead	Lag	Lag		Lag	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes		Yes	Yes	Yes	Yes
Recall Mode	None	None	None	Min	Min	Min	None	None
Act Effct Green (s)	20.9	38.8	13.3	54.0		54.0		
Actuated g/C Ratio	0.20	0.37	0.13	0.51		0.51		
v/c Ratio	0.87	0.16	0.63	0.00		0.93		
Control Delay	55.8	23.0	47.8	14.0		30.4		
Queue Delay	0.0	0.0	0.0	0.0		0.0		
Total Delay	55.8	23.0	47.8	14.0		30.4		
LOS	E	C	D	B		C		
Approach Delay		50.6	47.8	14.0		30.4		
Approach LOS		D	D	B		C		

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 105.8	
Natural Cycle: 120	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 39.7	Intersection LOS: D
Intersection Capacity Utilization 102.1%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 19: Case Rd. & Mapes Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	558	104	0	0	83	61	0	3	0	98	2	799
Future Volume (veh/h)	558	104	0	0	83	61	0	3	0	98	2	799
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	600	112	0	0	89	39	0	3	0	105	2	483
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	724	771	0	0	171	75	0	790	0	153	25	542
Arrive On Green	0.21	0.41	0.00	0.00	0.14	0.14	0.00	0.42	0.00	0.42	0.42	0.42
Sat Flow, veh/h	3510	1900	0	0	1252	549	0	1900	0	229	60	1303
Grp Volume(v), veh/h	600	112	0	0	0	128	0	3	0	590	0	0
Grp Sat Flow(s),veh/h/ln	1755	1900	0	0	0	1801	0	1900	0	1592	0	0
Q Serve(g_s), s	11.9	2.7	0.0	0.0	0.0	4.8	0.0	0.1	0.0	19.4	0.0	0.0
Cycle Q Clear(g_c), s	11.9	2.7	0.0	0.0	0.0	4.8	0.0	0.1	0.0	25.0	0.0	0.0
Prop In Lane	1.00		0.00	0.00		0.30	0.00		0.00	0.18		0.82
Lane Grp Cap(c), veh/h	724	771	0	0	0	245	0	790	0	720	0	0
V/C Ratio(X)	0.83	0.15	0.00	0.00	0.00	0.52	0.00	0.00	0.00	0.82	0.00	0.00
Avail Cap(c_a), veh/h	1008	885	0	0	0	445	0	1657	0	1232	0	0
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	0.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	27.7	13.7	0.0	0.0	0.0	29.2	0.0	12.4	0.0	19.6	0.0	0.0
Incr Delay (d2), s/veh	4.2	0.1	0.0	0.0	0.0	1.7	0.0	0.0	0.0	2.4	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	4.8	1.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	7.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.8	13.7	0.0	0.0	0.0	30.9	0.0	12.4	0.0	22.0	0.0	0.0
LnGrp LOS	C	B	A	A	A	C	A	B	A	C	A	A
Approach Vol, veh/h		712			128			3			590	
Approach Delay, s/veh		29.0			30.9			12.4			22.0	
Approach LOS		C			C			B			C	

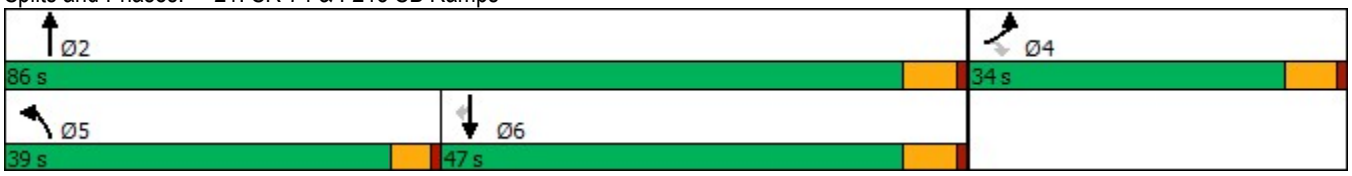
Timer - Assigned Phs		2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s		36.8	0.0	36.0	0.0	36.8	19.6	16.4				
Change Period (Y+Rc), s		6.5	4.6	6.5	4.6	6.5	4.6	6.5				
Max Green Setting (Gmax), s		63.5	5.0	33.9	5.0	53.9	20.9	18.0				
Max Q Clear Time (g_c+I1), s		2.1	0.0	4.7	0.0	27.0	13.9	6.8				
Green Ext Time (p_c), s		0.0	0.0	0.4	0.0	3.3	1.1	0.3				

Intersection Summary												
HCM 6th Ctrl Delay			26.3									
HCM 6th LOS			C									

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	202	435	702	729	865	215
Future Volume (vph)	202	435	702	729	865	215
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)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	34.0	34.0	39.0	86.0	47.0	47.0
Total Split (%)	28.3%	28.3%	32.5%	71.7%	39.2%	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	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	Min	Min	Min
Act Effct Green (s)	15.6	15.6	23.0	57.5	29.6	29.6
Actuated g/C Ratio	0.18	0.18	0.27	0.67	0.35	0.35
v/c Ratio	0.63	0.68	0.76	0.58	0.70	0.31
Control Delay	44.2	9.5	35.7	9.8	28.5	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.2	9.5	35.7	9.8	28.5	4.7
LOS	D	A	D	A	C	A
Approach Delay	20.5			22.5	23.8	
Approach LOS	C			C	C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 85.3	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 22.5	Intersection LOS: C
Intersection Capacity Utilization 68.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 21: SR-74 & I-215 SB Ramps





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	202	435	702	729	865	215
Future Volume (veh/h)	202	435	702	729	865	215
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	206	0	716	744	883	214
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	284		848	1246	1227	547
Arrive On Green	0.16	0.00	0.24	0.66	0.34	0.34
Sat Flow, veh/h	1810	1610	3510	1900	3705	1610
Grp Volume(v), veh/h	206	0	716	744	883	214
Grp Sat Flow(s),veh/h/ln	1810	1610	1755	1900	1805	1610
Q Serve(g_s), s	6.7	0.0	12.0	13.7	13.2	6.3
Cycle Q Clear(g_c), s	6.7	0.0	12.0	13.7	13.2	6.3
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	284		848	1246	1227	547
V/C Ratio(X)	0.73		0.84	0.60	0.72	0.39
Avail Cap(c_a), veh/h	824		1950	2461	2402	1071
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	0.0	22.4	6.0	17.9	15.6
Incr Delay (d2), s/veh	1.3	0.0	0.9	0.5	0.8	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	2.6	0.0	4.4	3.1	4.7	2.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	26.2	0.0	23.3	6.5	18.7	16.0
LnGrp LOS	C		C	A	B	B
Approach Vol, veh/h	206	A		1460	1097	
Approach Delay, s/veh	26.2			14.7	18.1	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		46.4		15.5	19.6	26.9
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		80.2		28.2	34.4	41.2
Max Q Clear Time (g_c+I1), s		15.7		8.7	14.0	15.2
Green Ext Time (p_c), s		4.5		0.2	0.9	5.8

Intersection Summary		
HCM 6th Ctrl Delay		16.9
HCM 6th LOS		B

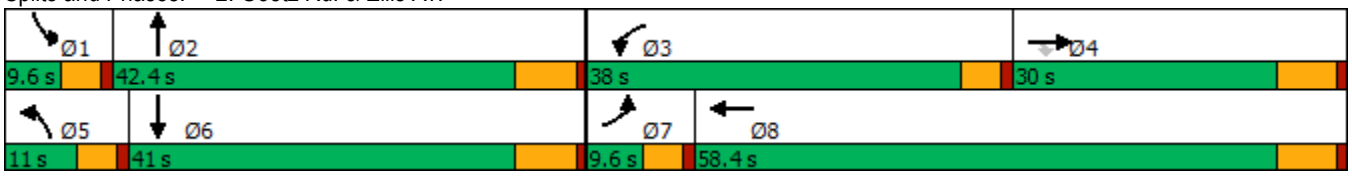
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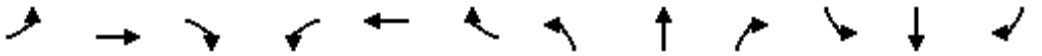
Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	NBL	NBT	SBT	Ø1	Ø7	Ø8
Lane Configurations									
Traffic Volume (vph)	0	68	301	33	467	509			
Future Volume (vph)	0	68	301	33	467	509			
Turn Type	NA	Perm	Prot	Prot	NA	NA			
Protected Phases	4		3	5	2	6	1	7	8
Permitted Phases		4							
Detector Phase	4	4	3	5	2	6			
Switch Phase									
Minimum Initial (s)	10.0	10.0	5.0	5.0	10.0	10.0	5.0	5.0	10.0
Minimum Split (s)	27.5	27.5	9.6	9.6	27.5	27.5	9.6	9.6	27.5
Total Split (s)	30.0	30.0	38.0	11.0	42.4	41.0	9.6	9.6	58.4
Total Split (%)	25.0%	25.0%	31.7%	9.2%	35.3%	34.2%	8%	8%	49%
Yellow Time (s)	5.5	5.5	3.6	3.6	5.5	5.5	3.6	3.6	5.5
All-Red Time (s)	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			
Total Lost Time (s)	6.5	6.5	4.6	4.6	6.5	6.5			
Lead/Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	Min	Min	None	None	None
Act Effct Green (s)	0.0	20.8	14.3	6.3	28.6	22.9			
Actuated g/C Ratio	0.00	0.27	0.19	0.08	0.37	0.30			
v/c Ratio	no cap	0.13	0.49	0.24	0.76	0.52			
Control Delay		0.5	35.6	43.7	21.3	27.8			
Queue Delay		0.0	0.0	0.0	0.0	0.0			
Total Delay	Error	0.5	35.6	43.7	21.3	27.8			
LOS	F	A	D	D	C	C			
Approach Delay	Err				22.0	27.8			
Approach LOS	F				C	C			

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 76.7	
Natural Cycle: 80	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: Err	Intersection LOS: F
Intersection Capacity Utilization 55.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Goetz Rd. & Ellis Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	0	68	301	0	0	33	467	525	0	509	15
Future Volume (veh/h)	11	0	68	301	0	0	33	467	525	0	509	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	12	0	72	320	0	0	35	497	559	0	541	16
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	247	209	453	1766	0	68	774	690	3	1109	33
Arrive On Green	0.00	0.00	0.13	0.13	0.00	0.00	0.04	0.43	0.43	0.00	0.31	0.31
Sat Flow, veh/h	0	1900	1610	3510	5358	0	1810	1805	1610	1810	3580	106
Grp Volume(v), veh/h	0	0	72	320	0	0	35	497	559	0	273	284
Grp Sat Flow(s),veh/h/ln	0	1900	1610	1755	1729	0	1810	1805	1610	1810	1805	1881
Q Serve(g_s), s	0.0	0.0	2.3	4.9	0.0	0.0	1.1	12.2	17.1	0.0	6.9	6.9
Cycle Q Clear(g_c), s	0.0	0.0	2.3	4.9	0.0	0.0	1.1	12.2	17.1	0.0	6.9	6.9
Prop In Lane	0.00		1.00	1.00		0.00	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	0	247	209	453	1766	0	68	774	690	3	559	583
V/C Ratio(X)	0.00	0.00	0.34	0.71	0.00	0.00	0.52	0.64	0.81	0.00	0.49	0.49
Avail Cap(c_a), veh/h	0	793	672	2081	4778	0	206	1150	1026	161	1105	1152
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)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	22.3	23.5	0.0	0.0	26.6	12.7	14.1	0.0	15.8	15.8
Incr Delay (d2), s/veh	0.0	0.0	1.0	0.8	0.0	0.0	2.3	0.9	3.1	0.0	0.7	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	0.0	0.0	0.8	1.9	0.0	0.0	0.4	3.6	4.8	0.0	2.3	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	23.3	24.3	0.0	0.0	28.9	13.6	17.1	0.0	16.5	16.5
LnGrp LOS	A	A	C	C	A	A	C	B	B	A	B	B
Approach Vol, veh/h		72			320			1091			557	
Approach Delay, s/veh		23.3			24.3			15.9			16.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	0.0	30.7	11.9	13.8	6.7	23.9	0.0	25.7
Change Period (Y+Rc), s	4.6	6.5	4.6	6.5	4.6	6.5	4.6	6.5
Max Green Setting (Gmax), s	5.0	35.9	33.4	23.5	6.4	34.5	5.0	51.9
Max Q Clear Time (g_c+I1), s	0.0	19.1	6.9	4.3	3.1	8.9	0.0	0.0
Green Ext Time (p_c), s	0.0	5.0	0.4	0.1	0.0	2.4	0.0	0.0

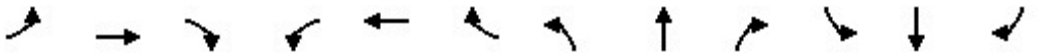
Intersection Summary	
HCM 6th Ctrl Delay	17.6
HCM 6th LOS	B

Lane Group	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	207	337	371	123	178	349	240	116	425
Future Volume (vph)	207	337	371	123	178	349	240	116	425
Turn Type	NA	Perm	Split	NA	Perm	NA	Perm	Prot	NA
Protected Phases	4		8	8		2		1	6
Permitted Phases		4			2		2		
Detector Phase	4	4	8	8	2	2	2	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	10.0	5.0	10.0
Minimum Split (s)	14.8	14.8	14.8	14.8	16.4	16.4	16.4	9.6	16.4
Total Split (s)	24.0	24.0	38.0	38.0	41.0	41.0	41.0	17.0	58.0
Total Split (%)	20.0%	20.0%	31.7%	31.7%	34.2%	34.2%	34.2%	14.2%	48.3%
Yellow Time (s)	3.8	3.8	3.8	3.8	5.4	5.4	5.4	3.6	5.4
All-Red Time (s)	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)	4.8	4.8	4.8	4.8	6.4	6.4	6.4	4.6	6.4
Lead/Lag					Lag	Lag	Lag	Lead	
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	Min	Min	Min	None	Min
Act Effct Green (s)	16.3	16.3	27.1	27.1	26.0	26.0	26.0	10.5	41.4
Actuated g/C Ratio	0.16	0.16	0.27	0.27	0.26	0.26	0.26	0.10	0.41
v/c Ratio	0.71	0.78	0.81	0.62	0.76	0.76	0.42	0.66	0.58
Control Delay	57.6	28.5	51.2	33.9	57.8	46.9	6.4	65.6	27.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.6	28.5	51.2	33.9	57.8	46.9	6.4	65.6	27.7
LOS	E	C	D	C	E	D	A	E	C
Approach Delay	39.6			43.5		36.7			35.8
Approach LOS	D			D		D			D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 101.6	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.81	
Intersection Signal Delay: 38.9	Intersection LOS: D
Intersection Capacity Utilization 82.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 12: Case Rd. & Ellis Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	207	337	371	123	175	178	349	240	116	425	0
Future Volume (veh/h)	0	207	337	371	123	175	178	349	240	116	425	0
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	0	218	354	391	129	183	187	367	0	122	447	0
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	343	360	305	446	175	249	285	527		151	772	0
Arrive On Green	0.00	0.19	0.19	0.25	0.25	0.25	0.28	0.28	0.00	0.08	0.41	0.00
Sat Flow, veh/h	1810	1900	1610	1810	711	1008	958	1900	1610	1810	1900	0
Grp Volume(v), veh/h	0	218	354	391	0	312	187	367	0	122	447	0
Grp Sat Flow(s),veh/h/ln	1810	1900	1610	1810	0	1719	958	1900	1610	1810	1900	0
Q Serve(g_s), s	0.0	10.7	19.2	21.1	0.0	16.9	19.1	17.5	0.0	6.7	18.5	0.0
Cycle Q Clear(g_c), s	0.0	10.7	19.2	21.1	0.0	16.9	24.5	17.5	0.0	6.7	18.5	0.0
Prop In Lane	1.00		1.00	1.00		0.59	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	343	360	305	446	0	424	285	527		151	772	0
V/C Ratio(X)	0.00	0.61	1.16	0.88	0.00	0.74	0.66	0.70		0.81	0.58	0.00
Avail Cap(c_a), veh/h	343	360	305	593	0	563	346	648		221	967	0
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)	0.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	37.6	41.1	36.7	0.0	35.1	38.0	32.8	0.0	45.7	23.4	0.0
Incr Delay (d2), s/veh	0.0	2.9	102.5	11.1	0.0	3.5	3.3	2.5	0.0	8.0	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	5.1	16.1	10.4	0.0	7.3	4.4	7.8	0.0	3.2	7.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	40.5	143.5	47.8	0.0	38.6	41.3	35.3	0.0	53.6	24.1	0.0
LnGrp LOS	A	D	F	D	A	D	D	D		D	C	A
Approach Vol, veh/h		572			703			554	A		569	
Approach Delay, s/veh		104.3			43.7			37.3			30.4	
Approach LOS		F			D			D			C	

Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	13.1	34.5		24.0		47.6		29.8				
Change Period (Y+Rc), s	4.6	6.4		* 4.8		6.4		4.8				
Max Green Setting (Gmax), s	12.4	34.6		* 19		51.6		33.2				
Max Q Clear Time (g_c+I1), s	8.7	26.5		21.2		20.5		23.1				
Green Ext Time (p_c), s	0.0	1.6		0.0		2.0		2.0				

Intersection Summary			
HCM 6th Ctrl Delay		53.5	
HCM 6th LOS		D	

Notes

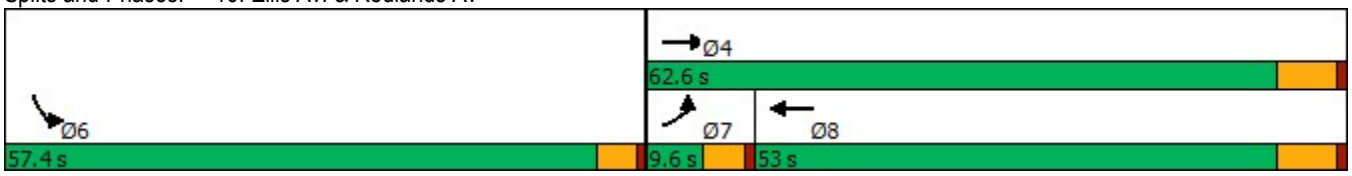
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

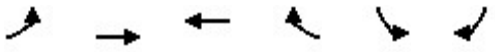
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBT	SBL	Ø7
Lane Configurations				
Traffic Volume (vph)	124	255	18	
Future Volume (vph)	124	255	18	
Turn Type	NA	NA	Prot	
Protected Phases	4	8	6	7
Permitted Phases				
Detector Phase	4	8	6	
Switch Phase				
Minimum Initial (s)	10.0	10.0	5.0	5.0
Minimum Split (s)	24.5	24.5	22.6	9.6
Total Split (s)	62.6	53.0	57.4	9.6
Total Split (%)	52.2%	44.2%	47.8%	8%
Yellow Time (s)	5.5	5.5	3.6	3.6
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	
Total Lost Time (s)	6.5	6.5	4.6	
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	None	None	Min	None
Act Effct Green (s)	0.0	56.3	8.9	
Actuated g/C Ratio	0.00	0.74	0.12	
v/c Ratio	no cap	0.25	0.78	
Control Delay		4.3	14.7	
Queue Delay		0.0	0.0	
Total Delay	Error	4.3	14.7	
LOS	F	A	B	
Approach Delay	Err	4.3	14.7	
Approach LOS	F	A	B	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 76.4	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: Err	
Intersection Signal Delay: Err	Intersection LOS: F
Intersection Capacity Utilization 86.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 16: Ellis Av. & Redlands Av





Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	437	124	255	55	18	374
Future Volume (veh/h)	437	124	255	55	18	374
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	486	138	283	57	20	355
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	0	660	533	107	26	466
Arrive On Green	0.00	0.35	0.35	0.35	0.30	0.30
Sat Flow, veh/h	0	1900	1535	309	86	1530
Grp Volume(v), veh/h	0	138	0	340	376	0
Grp Sat Flow(s),veh/h/ln	0	1900	0	1844	1620	0
Q Serve(g_s), s	0.0	1.6	0.0	4.7	6.7	0.0
Cycle Q Clear(g_c), s	0.0	1.6	0.0	4.7	6.7	0.0
Prop In Lane	0.00			0.17	0.05	0.94
Lane Grp Cap(c), veh/h	0	660	0	640	494	0
V/C Ratio(X)	0.00	0.21	0.00	0.53	0.76	0.00
Avail Cap(c_a), veh/h	0	3343	0	2690	2683	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	7.3	0.0	8.3	10.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	1.9	2.5	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	0.5	0.0	1.4	1.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	7.8	0.0	10.2	12.5	0.0
LnGrp LOS	A	A	A	B	B	A
Approach Vol, veh/h		138	340		376	
Approach Delay, s/veh		7.8	10.2		12.5	
Approach LOS		A	B		B	

Timer - Assigned Phs			4		6	7	8
Phs Duration (G+Y+Rc), s			17.6		14.3	0.0	17.6
Change Period (Y+Rc), s			6.5		4.6	4.6	6.5
Max Green Setting (Gmax), s			56.1		52.8	5.0	46.5
Max Q Clear Time (g_c+I1), s			3.6		8.7	0.0	6.7
Green Ext Time (p_c), s			1.7		1.0	0.0	4.5

Intersection Summary	
HCM 6th Ctrl Delay	10.8
HCM 6th LOS	B

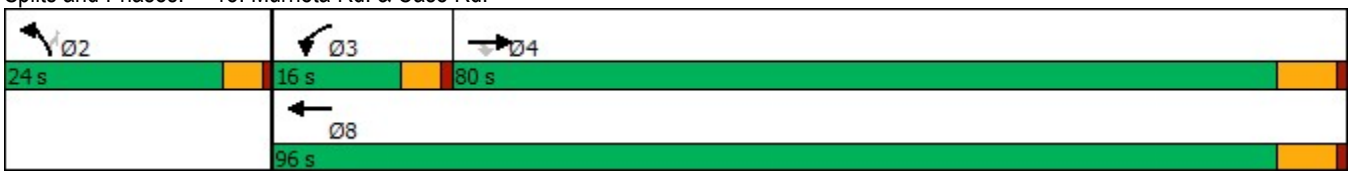
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	999	166	132	677	118	81
Future Volume (vph)	999	166	132	677	118	81
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	5.0	5.0
Minimum Split (s)	24.5	24.5	9.6	24.5	22.6	22.6
Total Split (s)	80.0	80.0	16.0	96.0	24.0	24.0
Total Split (%)	66.7%	66.7%	13.3%	80.0%	20.0%	20.0%
Yellow Time (s)	5.5	5.5	3.6	5.5	3.6	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)	6.5	6.5	4.6	6.5	4.6	4.6
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	65.2	65.2	11.0	80.9	12.2	12.2
Actuated g/C Ratio	0.62	0.62	0.11	0.77	0.12	0.12
v/c Ratio	0.93	0.17	0.76	0.51	0.62	0.33
Control Delay	32.4	1.7	74.7	6.0	59.6	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.4	1.7	74.7	6.0	59.6	13.3
LOS	C	A	E	A	E	B
Approach Delay	28.0			17.2	40.8	
Approach LOS	C			B	D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 104.5	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay: 25.2	Intersection LOS: C
Intersection Capacity Utilization 79.5%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 18: Murrieta Rd. & Case Rd.





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	999	166	132	677	118	81
Future Volume (veh/h)	999	166	132	677	118	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	1098	182	145	744	130	89
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	1192	1011	179	1480	171	153
Arrive On Green	0.63	0.63	0.10	0.78	0.09	0.09
Sat Flow, veh/h	1900	1610	1810	1900	1810	1610
Grp Volume(v), veh/h	1098	182	145	744	130	89
Grp Sat Flow(s),veh/h/ln	1900	1610	1810	1900	1810	1610
Q Serve(g_s), s	44.7	4.2	6.9	12.5	6.1	4.6
Cycle Q Clear(g_c), s	44.7	4.2	6.9	12.5	6.1	4.6
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1192	1011	179	1480	171	153
V/C Ratio(X)	0.92	0.18	0.81	0.50	0.76	0.58
Avail Cap(c_a), veh/h	1592	1349	235	1939	400	356
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	14.4	6.9	38.7	3.5	38.7	38.0
Incr Delay (d2), s/veh	7.5	0.1	11.3	0.3	2.6	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.6	1.1	3.4	1.8	2.8	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	21.9	6.9	50.0	3.8	41.3	39.4
LnGrp LOS	C	A	D	A	D	D
Approach Vol, veh/h	1280			889	219	
Approach Delay, s/veh	19.7			11.3	40.5	
Approach LOS	B			B	D	

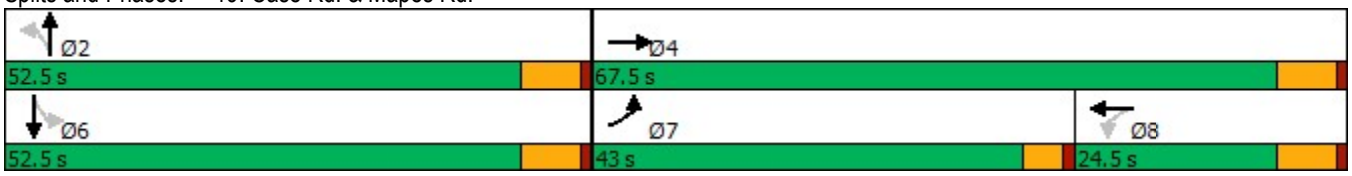
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		12.9	13.3	61.5		74.8
Change Period (Y+Rc), s		4.6	4.6	6.5		6.5
Max Green Setting (Gmax), s		19.4	11.4	73.5		89.5
Max Q Clear Time (g_c+I1), s		8.1	8.9	46.7		14.5
Green Ext Time (p_c), s		0.2	0.0	8.3		4.2

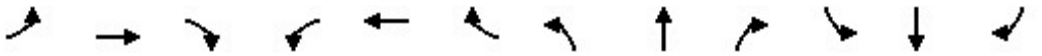
Intersection Summary	
HCM 6th Ctrl Delay	18.5
HCM 6th LOS	B

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	979	101	98	1	1	73	0
Future Volume (vph)	979	101	98	1	1	73	0
Turn Type	Prot	NA	NA	Perm	NA	Perm	NA
Protected Phases	7	4	8		2		6
Permitted Phases				2		6	
Detector Phase	7	4	8	2	2	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	24.5	24.5	24.5	24.5	24.5	24.5
Total Split (s)	43.0	67.5	24.5	52.5	52.5	52.5	52.5
Total Split (%)	35.8%	56.3%	20.4%	43.8%	43.8%	43.8%	43.8%
Yellow Time (s)	3.6	5.5	5.5	5.5	5.5	5.5	5.5
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
Total Lost Time (s)	4.6	6.5	6.5		6.5		6.5
Lead/Lag	Lead		Lag				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	None	None	None	Min	Min	Min	Min
Act Effct Green (s)	37.3	57.4	15.5		42.7		42.7
Actuated g/C Ratio	0.33	0.51	0.14		0.38		0.38
v/c Ratio	0.95	0.12	0.77		0.00		0.96
Control Delay	54.6	15.8	60.4		23.0		38.6
Queue Delay	0.0	0.0	0.0		0.0		0.0
Total Delay	54.6	15.8	60.4		23.0		38.6
LOS	D	B	E		C		D
Approach Delay		50.9	60.4		23.0		38.6
Approach LOS		D	E		C		D

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 113.3	
Natural Cycle: 100	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 47.1	Intersection LOS: D
Intersection Capacity Utilization 103.1%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 19: Case Rd. & Mapes Rd.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	979	101	0	0	98	91	1	1	0	73	0	710
Future Volume (veh/h)	979	101	0	0	98	91	1	1	0	73	0	710
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	1088	112	0	0	109	68	1	1	0	81	0	400
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	1196	984	0	0	135	84	194	175	0	119	19	436
Arrive On Green	0.51	0.78	0.00	0.00	0.18	0.18	0.49	0.49	0.00	0.49	0.00	0.49
Sat Flow, veh/h	3510	1900	0	0	1094	683	397	532	0	212	56	1325
Grp Volume(v), veh/h	1088	112	0	0	0	177	2	0	0	481	0	0
Grp Sat Flow(s),veh/h/ln	1755	1900	0	0	0	1777	929	0	0	1594	0	0
Q Serve(g_s), s	24.1	1.2	0.0	0.0	0.0	8.1	0.0	0.0	0.0	18.0	0.0	0.0
Cycle Q Clear(g_c), s	24.1	1.2	0.0	0.0	0.0	8.1	0.0	0.0	0.0	23.7	0.0	0.0
Prop In Lane	1.00		0.00	0.00		0.38	0.50		0.00	0.17		0.83
Lane Grp Cap(c), veh/h	1196	984	0	0	0	219	369	0	0	574	0	0
V/C Ratio(X)	0.91	0.11	0.00	0.00	0.00	0.81	0.01	0.00	0.00	0.84	0.00	0.00
Avail Cap(c_a), veh/h	1582	1360	0	0	0	375	645	0	0	906	0	0
HCM Platoon Ratio	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
Upstream Filter(I)	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.6	4.7	0.0	0.0	0.0	33.8	14.5	0.0	0.0	20.4	0.0	0.0
Incr Delay (d2), s/veh	6.6	0.1	0.0	0.0	0.0	6.9	0.0	0.0	0.0	4.0	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.2	0.4	0.0	0.0	0.0	3.5	0.0	0.0	0.0	6.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	4.8	0.0	0.0	0.0	40.7	14.5	0.0	0.0	24.4	0.0	0.0
LnGrp LOS	C	A	A	A	A	D	B	A	A	C	A	A
Approach Vol, veh/h		1200			177			2			481	
Approach Delay, s/veh		24.3			40.7			14.5			24.4	
Approach LOS		C			D			B			C	

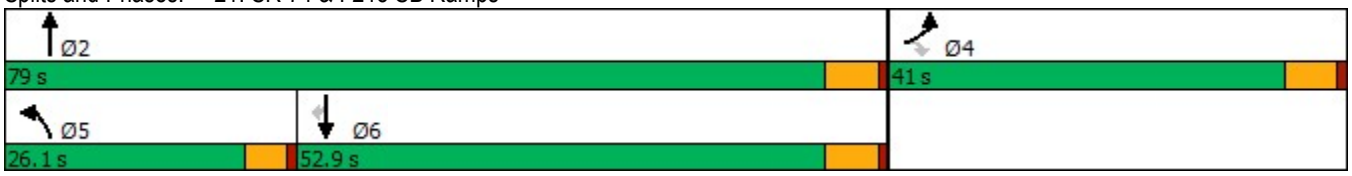
Timer - Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		34.6		50.6		34.6	33.6	17.0				
Change Period (Y+Rc), s		6.5		6.5		6.5	4.6	6.5				
Max Green Setting (Gmax), s		46.0		61.0		46.0	38.4	18.0				
Max Q Clear Time (g_c+I1), s		2.0		3.2		25.7	26.1	10.1				
Green Ext Time (p_c), s		0.0		0.4		2.4	2.9	0.4				

Intersection Summary												
HCM 6th Ctrl Delay			25.8									
HCM 6th LOS			C									

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	479	598	560	584	1280	221
Future Volume (vph)	479	598	560	584	1280	221
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)	15.8	15.8	9.6	15.8	15.8	15.8
Total Split (s)	41.0	41.0	26.1	79.0	52.9	52.9
Total Split (%)	34.2%	34.2%	21.8%	65.8%	44.1%	44.1%
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 Effct Green (s)	35.0	35.0	21.5	73.2	47.1	47.1
Actuated g/C Ratio	0.29	0.29	0.18	0.61	0.39	0.39
v/c Ratio	0.98	0.90	0.96	0.54	0.97	0.31
Control Delay	76.4	35.0	76.2	15.8	53.9	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.4	35.0	76.2	15.8	53.9	4.0
LOS	E	C	E	B	D	A
Approach Delay	53.4			45.3	46.5	
Approach LOS	D			D	D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 119.8	
Natural Cycle: 110	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.98	
Intersection Signal Delay: 48.1	Intersection LOS: D
Intersection Capacity Utilization 91.4%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 21: SR-74 & I-215 SB Ramps





Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	479	598	560	584	1280	221
Future Volume (veh/h)	479	598	560	584	1280	221
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	515	0	602	628	1376	120
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0
Cap, veh/h	531		629	1159	1416	632
Arrive On Green	0.29	0.00	0.18	0.61	0.39	0.59
Sat Flow, veh/h	1810	1610	3510	1900	3705	1610
Grp Volume(v), veh/h	515	0	602	628	1376	120
Grp Sat Flow(s),veh/h/ln	1810	1610	1755	1900	1805	1610
Q Serve(g_s), s	33.7	0.0	20.4	23.1	44.9	4.1
Cycle Q Clear(g_c), s	33.7	0.0	20.4	23.1	44.9	4.1
Prop In Lane	1.00	1.00	1.00			1.00
Lane Grp Cap(c), veh/h	531		629	1159	1416	632
V/C Ratio(X)	0.97		0.96	0.54	0.97	0.19
Avail Cap(c_a), veh/h	531		629	1159	1417	632
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.50
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	0.0	48.8	13.6	35.8	15.9
Incr Delay (d2), s/veh	31.2	0.0	25.3	0.5	17.5	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	19.0	0.0	10.9	9.0	22.0	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	73.1	0.0	74.1	14.2	53.3	16.0
LnGrp LOS	E		E	B	D	B
Approach Vol, veh/h	515	A		1230	1496	
Approach Delay, s/veh	73.1			43.5	50.3	
Approach LOS	E			D	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		79.0		41.0	26.1	52.9
Change Period (Y+Rc), s		5.8		5.8	4.6	5.8
Max Green Setting (Gmax), s		73.2		35.2	21.5	47.1
Max Q Clear Time (g_c+I1), s		25.1		35.7	22.4	46.9
Green Ext Time (p_c), s		3.5		0.0	0.0	0.2

Intersection Summary	
HCM 6th Ctrl Delay	51.3
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR] is excluded from calculations of the approach delay and intersection delay.

APPENDIX 6.8: EAPC (2025) QUEUING ANALYSIS WORKSHEETS WITH IMPROVEMENTS

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	206	444	716	744	883	219
v/c Ratio	0.63	0.68	0.76	0.58	0.70	0.31
Control Delay	44.2	9.5	35.7	9.8	28.5	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.2	9.5	35.7	9.8	28.5	4.7
Queue Length 50th (ft)	4	0	7	7	8	0
Queue Length 95th (ft)	9	4	12	14	14	2
Internal Link Dist (ft)	1309			1430	1438	
Turn Bay Length (ft)		50	110			150
Base Capacity (vph)	629	852	1490	1702	1839	930
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	0.33	0.52	0.48	0.44	0.48	0.24

Intersection Summary



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	515	643	602	628	1376	238
v/c Ratio	0.98	0.90	0.96	0.54	0.97	0.31
Control Delay	76.4	35.0	76.2	15.8	53.9	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	76.4	35.0	76.2	15.8	53.9	4.0
Queue Length 50th (ft)	16	10	9	11	21	0
Queue Length 95th (ft)	#25	#19	#14	15	#28	2
Internal Link Dist (ft)	1309			1430	1438	
Turn Bay Length (ft)		50	110			150
Base Capacity (vph)	530	720	628	1160	1418	779
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	0.97	0.89	0.96	0.54	0.97	0.31

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.