APPENDIX J

Traffic Impact Analysis

Traffic Impact Analysis
for the
Campo Wind Project with Boulder Brush Facilities

Prepared for:

Bureau of Indian Affairs
Pacific Region
2800 Cottage Way
Sacramento, California 95825
Contact: Mr. Dan (Harold) Hall

Prepared by:

DUDEK
605 Third Street
Encinitas, California 92024
Contact: Dennis Pascua, Transportation Services Manager

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1 INTRODUCTION

The purpose of this Traffic Impact Analysis (TIA) is to identify potential construction-related traffic impacts associated with the Campo Wind Project with Boulder Brush Facilities (Project) which includes both the Campo Wind Facilities (on the Reservation) and the Boulder Brush Facilities (on private lands). The TIA evaluates the Project's construction-level impacts and:

- Documents existing traffic conditions including roadway segment and intersection levels of service along or in proximity to the Project
- Estimates trip generation and trip characteristics for construction-related activities of the Project
- Analyzes the potential for traffic impacts to occur as a result of construction of the Project
- Describes the significance of any potential impacts
- Identifies recommended mitigation measures for any adverse construction-related traffic impacts

As explained below, operation and maintenance of the Project are not expected to generate significant daily or peak hour traffic. Hence, this TIA focuses only on traffic impacts related to the Project's peak construction period.

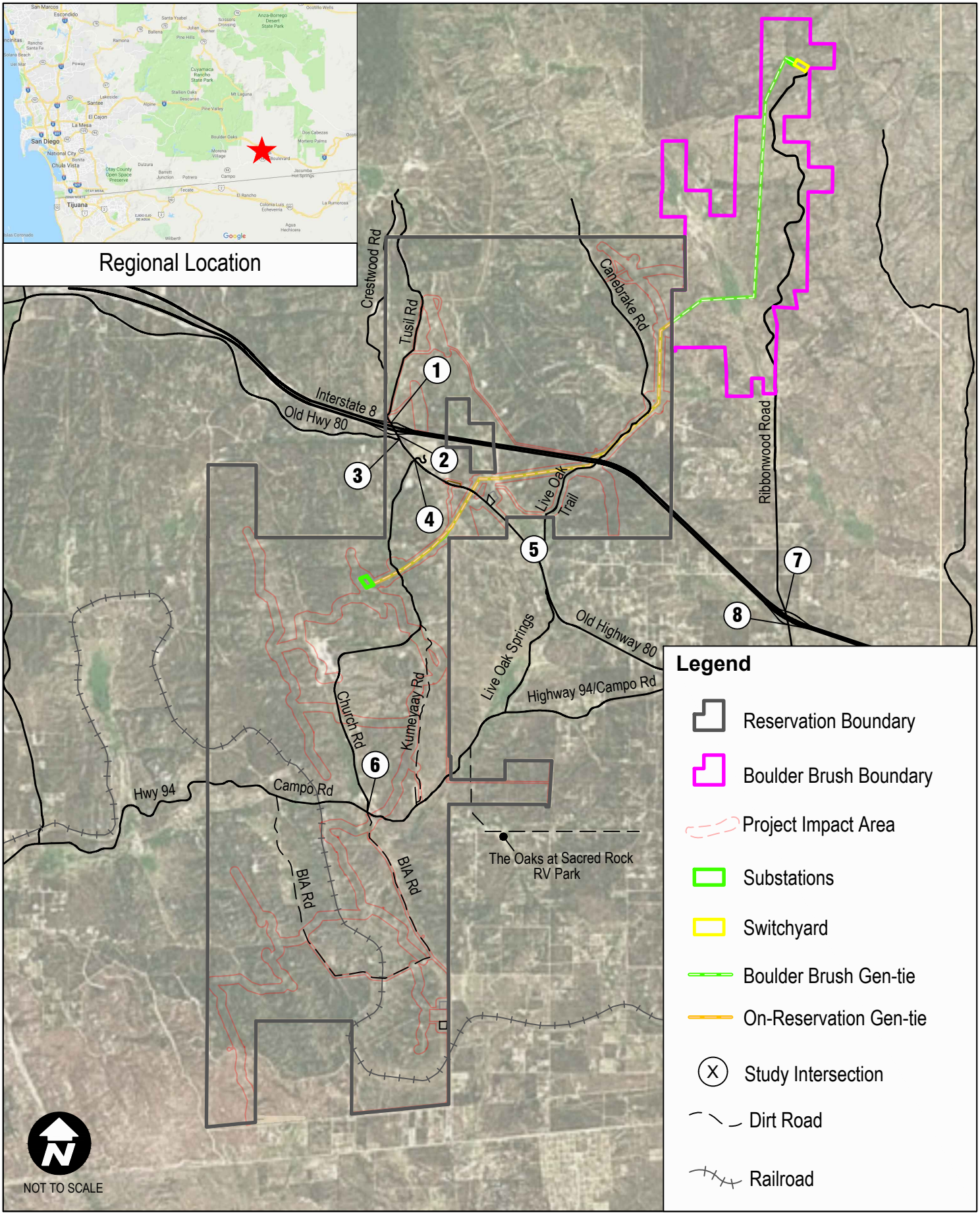
1.1 Project Description

The Project consists of two main components: (1) the Campo Wind Facilities, which would involve the construction and operation of up to 60 wind turbines and associated infrastructure located within an approximately 2,200-acre area on the Reservation, and (2) the Boulder Brush Facilities, which would consist of the portion of the gen-tie line and related facilities located within an approximately 500-acre area on private land within San Diego County to connect energy generated by the Project to the existing San Diego Gas & Electric Company (SDG&E) Sunrise Powerlink. See Section 1.2 and Table 1, including the chart, for detail on Project components, construction schedule, and phasing. These two areas are referred to as the Project Site.

The Campo Wind Facilities would be constructed if the Bureau of Indian Affairs approves a lease between the Campo Band of Diegueño Mission Indians (Tribe) and Terra-Gen Development Company LLC (developer). Under the lease, the developer would construct and operate a wind energy project capable of generating up to 252 megawatts (MW) of electricity on the Reservation. The Project also includes infrastructure on private land needed to transport the electricity to the existing 500 kV Sunrise Powerlink. Although three alternatives are considered for the Project's development, the most potentially traffic-intensive use Alternative 1: Full Build-Out Alternative

is analyzed in the TIA. Alternative 2 would include a 20% reduction in turbines and thus a reduction in associated construction traffic and components delivery, though could ostensibly have the same peak traffic as Alternative 1. The No Project Alternative would have no traffic effects.

Figure 1 shows the Project's regional location and the intersection, roadway segments and freeway ramps that constitute the Study Area for purposes of traffic analysis. The Project is located in the southeastern portion of the County. Major highways in the Project vicinity include Interstate 8 (I-8), and State Road 94 (SR-94) that provide access to the Project via Church Road, Old Highway 80, and Live Oak Trail.



Source: BING Maps, 2018

FIGURE 1

Regional Location and Study Area

Traffic Impact Analysis for Campo Wind Project

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1.2 Construction of Campo Wind Project with Boulder Brush Facilities

Construction activities, schedule and an estimate of related workers and trucks for the Project are shown in Table 1.

The proposed schedule for construction is approximately 14 months from August/September 2019 to October 2020. Project construction would include several simultaneous phases: wind turbines including the assembly of turbines, installation of foundations, placement of turbines on foundations, and trenching and installation of underground electrical equipment for turbines; electrical facilities including the construction of a substation, transmission line, switchyard, and O&M facility, meteorological towers; and grading of access roads.

The length of each phase over the 14-month construction period was evaluated to identify which phases could occur concurrently to determine peak worker and truck traffic, since traffic during these overlapping phases would be additive. Overlap of Phases 2, 3, 4, 5, 6, 7, and 9 during construction activities of the Project is estimated to generate peak worker and truck traffic (i.e., 501 workers, 22 vendor trucks, and 28 haul trucks). Additionally, peak construction phase of Boulder Brush Facilities is estimated to require 240 workers, 19 vendor truck and 2-haul truck during its peak construction phase (Phases 2, 9 and 11–13).

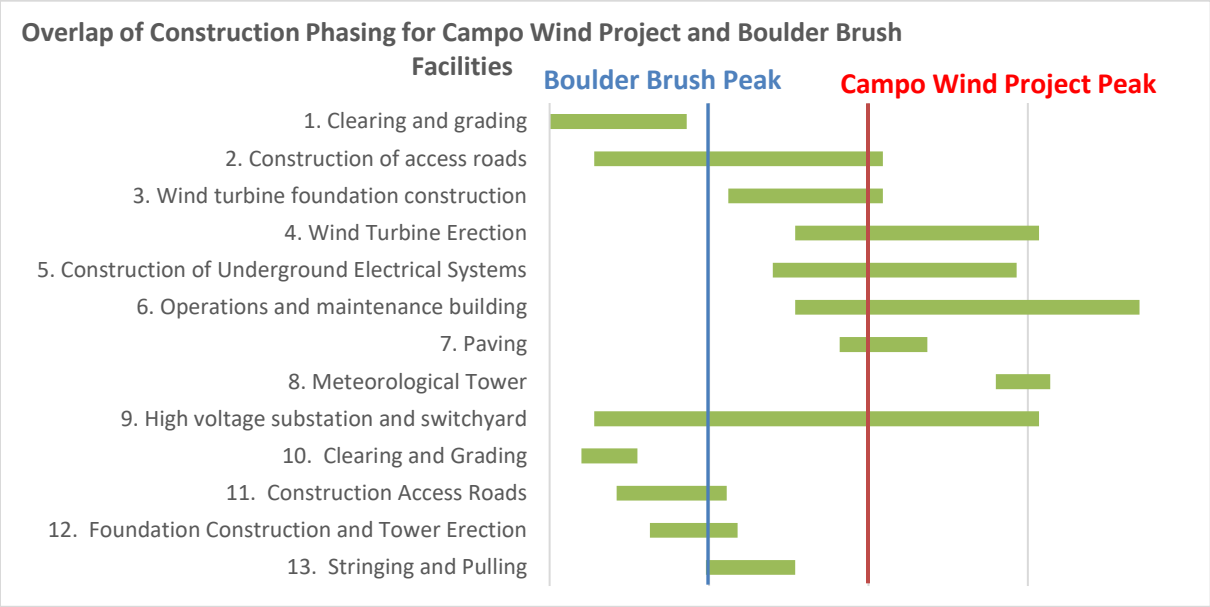
Table 1
Construction Phasing and Schedule

No.	Phase	Start	End	No. of Workers	Daily Vendor Trucks	Total Haul Trucks
Campo Wind Facilities (On-Reservation)						
1	Clearing and grading	1-Sep-19	26-Nov-19	36	54	6
2	Construction of access roads	29-Sep-19	28-Mar-20	60	0	0
3	Wind turbine foundation construction	22-Dec-19	28-Mar-20	84	10	22
4	Wind turbine erection	2-Feb-20	4-Jul-20	72	0	3
5	Electrical Connection and Communication System	19-Jan-20	20-Jun-20	120	6	2
6	Operations and maintenance building	2-Feb-20	5-Sep-20	60	2	0
7	Paving	1-Mar-20	25-Apr-20	33	0	0
8	Meteorological tower	7-Jun-20	11-Jul-20	12	2	2
Boulder Brush Facilities (Off-Reservation Private Lands)						
9	High Voltage substation and switchyard	29-Sep-19	4-Jul-20	72	4	1
10	Clearing and grading	21-Sep-19	26-Oct-19	24	10	0
11	Construction of access roads	13-Oct-19	21-Dec-19	24	5	0
12	Foundation construction and tower erection	3-Nov-19	28-Dec-19	48	5	0

Table 1
Construction Phasing and Schedule

No.	Phase	Start	End	No. of Workers	Daily Vendor Trucks	Total Haul Trucks
13	Stringing and pulling	8-Dec-19	2-Feb-20	36	5	0
Peak Construction Scenario for Boulder Brush Facilities (overlap of Phases 2,9,11,12,13)[1]				**240**	**19**	**2**
Peak Construction Scenario for the Campo Wind Project with Boulder Brush Facilities (Overlap of Phases 2,3,4,5,6,7,9)[2]				**501**	**22**	**28**

[1] Indicates the peak scenario during which construction of the Boulder Brush Facilities is occurring simultaneously with construction of the Campo Wind Facilities.
[2] Indicates the peak scenario during which the maximum worker and truck trips occur throughout all construction phases of the Project.



Based on Table 1, the peak construction period for traffic analysis of the Project is identified as overlap of construction phases 2, 3, 4, 5, 6, 7 and 9.

1.2.1 Operation and Maintenance of the Project

Operation and maintenance (O&M) of the Campo Wind Facilities would require trucks, forklifts, and loaders for routine and unscheduled maintenance. The developer anticipates that approximately 10-12 O&M staff would be employed at a time throughout the life of the Project, with one on-call emergency staff at all times. Activities associated with the operation and maintenance of the Boulder Brush Facilities would be only as needed and are not likely to generate

significant daily or peak hour traffic. Thus, the Project as a whole would not have adverse effects on traffic during the Project's operations and maintenance.

Hence, this TIA focuses only on traffic impacts related to the peak construction period of the Project (i.e., 501 workers, 22 vendor trucks and 28 haul trucks).

1.3 Traffic Study Area and Scope

Access to the Project would be primarily via Crestwood Road, and Old Highway 80, and their intersections with I-8 and Church Road, respectively. Access to the turbines located north of I-8 and the gen-tie route would be via old Highway 80 and its intersection with Live Oak Trail, however some construction traffic for the gen-tie and sub-station construction would utilize I-8/Ribbonwood interchange. Therefore, for the purposes of the traffic analysis, the Study Area was defined along Crestwood Road, Church Road, Old Highway, Ribbonwood Road and SR-94. Figure 1 illustrates the Traffic Study Area . The Traffic Study Area is comprised of eight intersections, and seven roadway segments, including one highway segment (State Route-94) and three freeway segments (Interstate-8) that would be most impacted by construction of the Project.

As shown on Figure 1, the Traffic Study Area intersections include:

1. Crestwood Road/ Interstate 8 (I-8) westbound ramps
2. Crestwood Road/I-8 eastbound ramps
3. Crestwood Road/Old Highway 80
4. Old Highway 80/Church Road (BIA Route 10) – Golden Acorn Casino Driveway
5. Old Highway 80/Live Oak Trail
6. Church Road (BIA Route 10)/Campo Road (SR-94)
7. Ribbonwood Road-SR-94/I-8 westbound ramps
8. Ribbonwood Road-SR-94/I-8 eastbound ramps

The Traffic Study Area roadway segments include:

1. Crestwood Road, I-8 westbound (WB) to eastbound (EB) Ramps
2. Crestwood Road, Old Highway 80 to Church Road
3. Old Highway 80, Church Road to Live Oak Trail
4. Old Highway 80, Live Oak Springs Road to Campo Road (SR-94)
5. Church Road (BIA Route 10), Old Highway 80 to Campo Road (SR-94)

6. Ribbonwood Road, north of I-8
7. Campo Road (SR-94), BIA RT 15 to Church Road

The Traffic Study Area freeway segments include:

1. I-8, Cameron Road to Crestwood Road-Old Hwy 80
2. I-8, Crestwood Road-Old Hwy 80 to Ribbonwood Road-SR-94
3. I-8, Ribbonwood Road-SR-94 to Carrizo Gorge

This TIA focuses on both the average daily traffic (24 hour) and the weekday AM (7:00 to 9:00 a.m.) peak period and the PM (4:00 to 6:00 p.m.) peak period. The peak periods represent the highest cumulative total traffic for the adjacent street system. The Traffic Study Area freeway segments, roadway segments and intersections were analyzed for the following study scenarios:

Existing Conditions

This TIA includes a description of existing conditions in the Traffic Study Area, including existing street system, existing weekday AM and PM peak hour traffic volumes, existing roadway segment daily traffic volumes and traffic operations. The existing conditions are representative of the year 2018.

Existing plus Project

This TIA reveals that existing plus Project conditions would be similar to existing conditions. It includes analysis of weekday AM and PM peak hour traffic volumes, roadway daily traffic volumes and traffic operations with project traffic added to the existing conditions. Project traffic comprises of construction-related traffic generated from the peak construction period. This traffic was distributed and assigned to the roadway segments and intersections in the Traffic Study Area and analyzed under Existing plus Project conditions.

Existing plus Project plus Cumulative Projects Traffic

This TIA also analyzes Existing plus Project plus Cumulative Projects conditions, representing existing traffic, background growth and traffic from anticipated land development projects, and traffic from peak construction period of the Project. Existing plus Project plus Cumulative Projects conditions are representative of the year 2020.

1.4 Methodology

This TIA uses level of service (LOS), which is commonly used as a qualitative description of roadway segments and intersection operations and is based on the capacity and the volume of traffic using the segment or the intersection.

1.4.1 Intersections

San Diego County and Caltrans utilize the Highway Capacity Manual (HCM) intersection analysis methodology to analyze the operation of signalized and unsignalized study intersections. It should be noted that all study intersections are currently unsignalized. The HCM analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding control delay experienced per vehicle for unsignalized intersections.

At unsignalized intersections, as well as all Caltrans intersections in the Traffic Study Area, the level of service was calculated using the HCM 6th methodology. The Synchro 10 LOS software was used to determine intersection LOS for all study scenarios. Synchro is consistent with the HCM 6th methodology (Transportation Research Board 2016). Table 2 shows the LOS for unsignalized and signalized intersections under the HCM methodology (delay).

Table 2
Levels of Service for Intersections using HCM Methodology

Level of Service	Unsignalized Intersections Control Delay (in seconds/vehicle)	Signalized Intersections Control Delay (in seconds)
A	0-10	< 10
B	> 10-15	> 10-20
C	> 15-25	> 20-35
D	> 25-35	> 35-55
E	> 35-50	> 55-80
F	> 50.0	> 80.0

Source: HCM 2016

1.4.2 Roadway Segments

Roadway segment analysis is based upon the comparison of daily traffic volumes to the County of San Diego's Public Road Standards, March 2012, Average Daily Trips (ADT) (Table 1). This table provides LOS thresholds for different street classifications, based on traffic volumes, and travel lanes. Table 3 presents the roadway segment LOS thresholds by facility type in the Traffic Study Area per County of San Diego's Public Road standards.

Table 3
County of San Diego Daily Roadway Segment LOS Thresholds

Roadway Classification		Levels of Service				
	No. of Travel Lanes	*LOS A*	*LOS B*	*LOS C*	*LOS D*	*LOS E*
Community Collector (w/Passing Lane 2.1 D)	2	<3,000	<6,000	<9,500	<13,500	<19,000
Light Collector (No Median 2.2E)	2	<1,900	<4,100	<7,100	<10,900	<16,200
Rural Residential Collector	2	-	-	<4,500	-	-

Source: County of San Diego Public Road Standards, Average Daily Trips Table 1

1.4.3 Freeway Segments

All freeway mainline segments analyzed in this TIA are under the jurisdiction of Caltrans. Per Caltrans requirements, Caltrans facilities were analyzed using the *Highway Capacity Manual* (HCM) methodology with the *Highway Capacity Software 7.5* (HCS).

The freeway analysis is based on assessing freeway operations based on traffic volumes, freeway network and other segment-specific characteristics and reporting freeway volume-to-capacity ratio (V/C), speed, and density. Density is a measure of the flow rate (in passenger cars per hour, per lane) which is used to determine LOS. Table 4 presents the freeway segment criteria based on the service measure of density.

Table 4
Levels of Service for Freeway Segments using HCM Methodology

Level of Service	Density Range (in pc/mi/ln)[1]
A	0-11
B	> 11-18
C	> 18-26
D	> 26-35
E	> 35-45
F	> 45

Source: HCM 2016
[1] pc/mi/ln– Passenger car per mile per lane

1.5 Impact Indicators

The Project would result in an adverse effect with respect to traffic and transportation if found to:

- Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system;

- Degrade road conditions as a result of construction; or
- Result in hazardous traffic conditions.

Though County regulations do not apply on the Reservation, to further assess whether these impact indicators are triggered, this TIA utilizes the County of San Diego General Plan Mobility Element, County's *Guidelines for Determining Significance* updated on August 24, 2011. The TIA utilizes SANTEC/ITE *Guidelines for Traffic Impact Studies in the San Diego Region*, March 2002 for the facilities under Caltrans jurisdiction.

1.5.1 Roadway Segments

Pursuant to the County's General Plan Mobility Element (ME), development projects within the County's jurisdiction must provide improvements or other measures to mitigate traffic impacts to achieve a LOS D or higher on all Mobility Element roads except for those where a failing level of service has been accepted by the County.

The County has created the following guidelines to evaluate likely traffic impacts of a proposed project for road segments and intersections serving that project site, for purposes of determining whether the development would "significantly impact congestion" on the referenced LOS E and F roads. The allowable increases shown in the County of San Diego Guidelines for Determining Significance and Report Format and Content Requirement are listed in Table 4, Measure of Significant Project Impacts to Congestion of Road Segments.

The thresholds in Table 5 are based upon average operating conditions on County roadways.

Table 5
Measures of Significant Project Impacts to Congestion on Circulation Element Road

Level of Service	Two-Lane Road	Four-Lane Road	Six-Lane Road
LOS E	200 ADT	400 ADT	600 ADT
LOS F	100 ADT	200 ADT	300 ADT

Notes:
1 By adding proposed project trips to all other trips from a list of projects, this same table must be used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes additional trips must mitigate a share of the cumulative impacts.
2 The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.

1.5.2 Intersections

All of the Traffic Study Area intersections are unsignalized. This section provides guidance for evaluating potential significant impacts a project may have on unsignalized intersections. Table 6

was obtained from the County Guidelines and summarizes allowable increases and measures of significant project impacts for unsignalized intersections.

Table 6
Measures of Significant Project Impacts to Congestion on Intersections

Level of Service	Unsignalized
LOS E	20 or less peak hour trips on a critical movement
LOS F	5 or less peak hour trips on a critical movement

Notes:

1 A critical movement is an intersection movement (right turn, left turn, through-movement) that experiences excessive queues, which typically operate at LOS F. Also, if a project adds significant volume to a minor roadway approach, a gap study should be provided that details the headways between vehicles on the major roadway.

2 By adding proposed project trips to all other trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project is responsible for mitigating its share of the cumulative impact.

3 The County may also determine impacts have occurred on roads even when a project's direct or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.

Unsignalized Intersections

Traffic volume increases from public or private projects that result in one or more of the following criteria will be considered to have a significant traffic impact on an unsignalized intersection:

- The additional or redistributed ADT generated by the Project will add 21 or more peak hour trips to a critical movement of an unsignalized intersection, and cause an unsignalized intersection to operate below LOS D;
- The additional or redistributed ADT generated by the Project will add 21 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS E;
- The additional or redistributed ADT generated by the Project will add 6 or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate at LOS F;
- The additional or redistributed ADT generated by the Project will add 6 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS F; or
- Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or other factors, the project would significantly impact the operations of the intersection.

The operating parameters and conditions for unsignalized intersections differ dramatically from those of signalized intersections. Very small volume increases on one leg or turn and/or through movement of an unsignalized intersection can substantially affect the calculated delay for the entire

intersection. Significance criteria for unsignalized intersections are based upon a minimum number of trips added to a critical movement at an unsignalized intersection.

1.5.3 Congestion Management Program Requirements

For projects under the County's jurisdiction, projects that generate over 2,400 ADT or 200 peak hour trips, would need to comply with the traffic study requirements of SANDAG's Congestion Management Program ("CMP"). Trip distributions for these projects must also use the current regional computer traffic model. Projects that must prepare a CMP analysis should also follow the CMP traffic impact analysis guidelines. However, only the Boulder Brush Facilities are within the jurisdiction of the County while the portions of the Project on the Reservation are outside of the jurisdiction of the County.

Based on the trip generation analysis in Section 3, the Project is not expected to generate over 2,400 ADT and therefore, a CMP level analysis is not required.

1.5.4 Caltrans

The freeway facility of I-8 and its intersection with Crestwood Road and Ribbonwood, as well as SR-94 and its intersection with Church Road in the Study Area are under the jurisdiction of Caltrans. As stated in the Caltrans Guide for the Preparation of Traffic Impact Studies (December 2002), the LOS for operating State highway facilities is based upon measures of effectiveness (MOEs). These MOEs describe the measures best suited for analyzing State highway facilities (i.e., freeway segments, signalized intersections, on- or off-ramps, etc.). Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities; however, Caltrans acknowledges that this may not always be feasible and if an existing State highway facility is operating at less than the appropriate target LOS, the existing MOE should be maintained.

For the San Diego region, LOS D or better is considered acceptable and the SANTEC/ITE Guidelines for Traffic Impact Studies in the San Diego Region (March 2002), is used for the determination of the significance of impacts for Caltrans maintained facilities. The SANTEC/ITE traffic impact significance thresholds are provided in Table 7.

Table 7
Measures of Significant Project Impacts

Level of Service with Project[a]	Allowable Change due to Project Impacts					
	Freeways		*Roadway Segments*		*Intersections*	
	V/C	*Speed (mph)*	*V/C*	*Speed (mph)*	*Delay (sec.)*	*Delay (min.)*
D,E, and F	0.01	1	0.02	1	2	2

Source: SANTEC/ITE 2000.

[a] All level of service measurements are based upon HCM procedures for peak-hour conditions. However, V/C ratios for Roadway Segments may be estimated on an ADT/24-hour traffic volume basis (using Table 2 I or a similar LOS chart for each jurisdiction). The acceptable LOS for freeways, roadways, and intersections is generally "D" ("C" for undeveloped or not densely developed locations per jurisdiction definitions). For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.

[b] If a proposed project's traffic causes the values shown in the table to be exceeded, the impacts are deemed to be significant. These impact changes may be measured from appropriate computer programs or expanded manual spreadsheets. The project applicant shall then identify feasible mitigations (within the Traffic Impact Study [TIS] report) that will maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable (see note "a" above), the project applicant shall be responsible for mitigating significant impact changes.

General Notes:

1 V/C = Volume to Capacity Ratio
2 Speed = Arterial speed measured in miles per hour
3 Delay = Average stopped delay per vehicle measured in seconds for intersections.
4 LOS = Level of Service

2 EXISTING CONDITIONS

This section describes existing conditions within the identified Traffic Study Area (defined under Section 1.3 and illustrated in Figure 1). Characteristics are provided for the existing street system, daily roadway segment traffic volumes, peak hour traffic volumes, and traffic operations.

2.1 Existing Street System

The existing traffic controls and geometrics at the Traffic Study Area intersections are shown in Figure 2. All the intersections identified in the Study Area are unsignalized. Characteristics of the existing street system in the Traffic Study Area are described below.

Interstate 8 (I-8) is currently built as a 4-lane east-west freeway connecting the San Diego area to the California-Arizona border and beyond. It provides 2-lanes in each direction in the Traffic Study Area. The posted speed limit is 70 miles per hour (mph), and an interchange is provided at Crestwood Road and Ribbonwood Road in the study area. Project traffic would access the Traffic Study Area via I-8 and its interchange at Crestwood Road as well as Ribbonwood Road.

Crestwood Road is an unclassified roadway in the Mountain Empire Mobility Network and is currently built as a 2-lane roadway in the Traffic Study Area. South of I-8, Crestwood Road turns into Old Highway 80. Parking is prohibiting on Crestwood Road.

Old Highway 80 is classified as a 2.2E Light Collector from southern boundary Central Mountain Subregion boundary to SR-94 on the County of San Diego's Mobility and Infrastructure Element. Within the Traffic Study Area, Old Highway 80 is a 2-lane undivided roadway. Bike lanes are provided in both directions.

Church Road is an unclassified roadway on the Mountain Empire Mobility Network and currently built as a 2-lane roadway in the Traffic Study Area. Parking is prohibited on Church Road.

Ribbonwood Road is an unclassified roadway on the Mountain Empire Mobility Network and is currently constructed as a two-lane roadway in the Traffic Study Area. Ribbonwood Road is paved for approximately 1.5 miles north of I-8, then becomes a graded dirt road, north of Opalocka Road.

Campo Road/State Road 94 (SR-94) is classified as a 2.1D Community Collector (Improvement Options on passing lanes) on the County of San Diego's Mobility and Infrastructure Element. Within the Traffic Study Area, SR-94 is a 2-lane undivided roadway. Bike lanes are provided in both directions.

2.2 Transit System

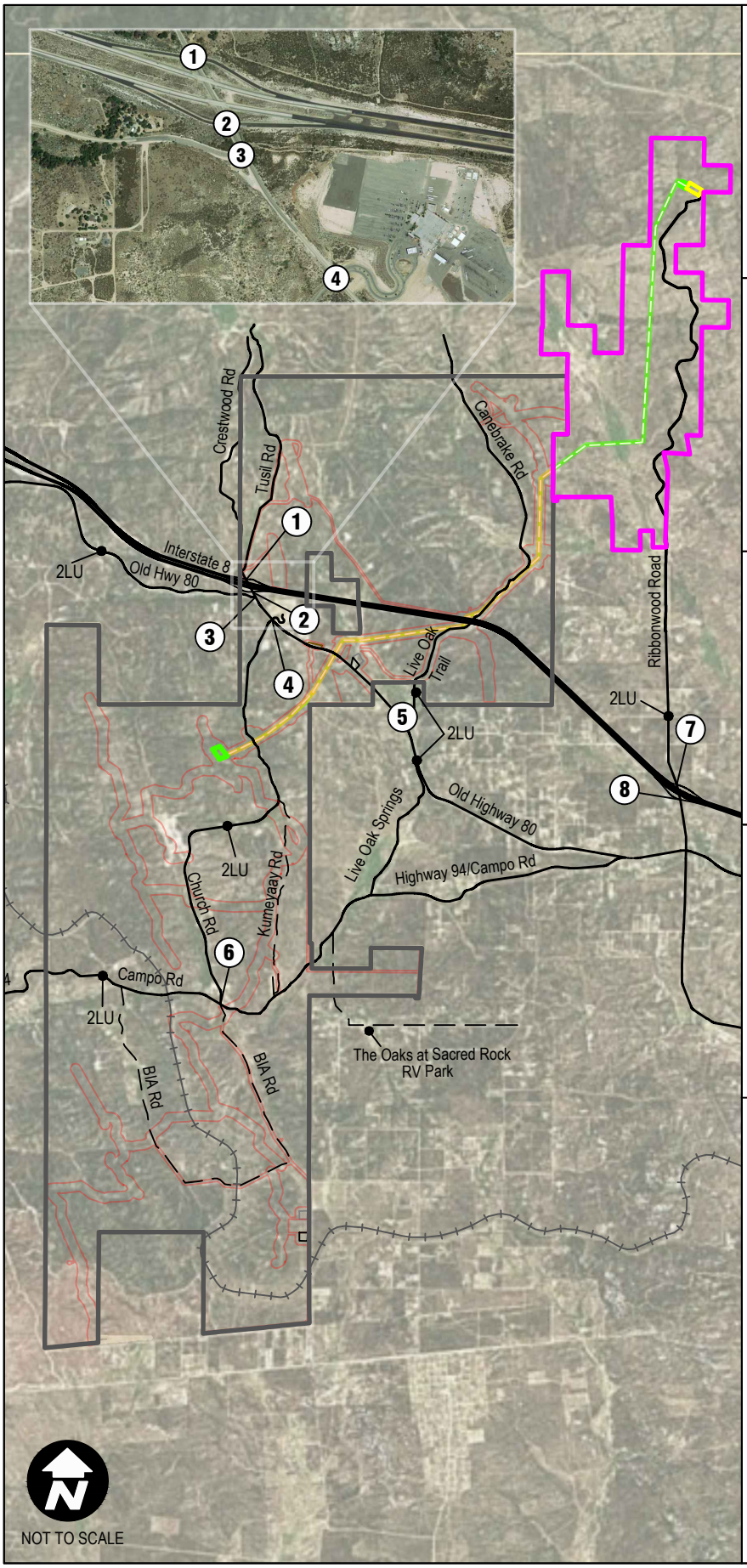
The San Diego Metropolitan Transit System (SDMTS) provides passenger bus service between, and within, the rural communities of San Diego County. The transit system offers intercity service along with local and regional transit service. Currently, there are four bus stops located in the Traffic Study Area served by bus route 888 that operates on Mondays and Fridays only. Route 888 provides service between the Westfield Parkway Plaza in El Cajon and the end of the line in Jacumba Hot Springs/Old Highway 80 and Campo Street.

2.3 Traffic Volumes

2.3.1 Existing Traffic Volumes

Existing peak hour counts and ADT counts at the study intersections and roadway segments were conducted in September 2018 during a typical non-holiday week. Detailed vehicle axle classification was also collected and was used to calculate heavy vehicle percentages. The existing volumes were adjusted to include a "heavy vehicle percentage" within Synchro. Use of the heavy vehicle percentage factor within Synchro more accurately estimates the operation of an intersection that is being evaluated with the HCM methodology. Existing annual average daily traffic (AADT) and peak hour volumes for freeway segments were obtained from the Caltrans *Traffic Census Program* webpage for the year 2017 (most recent available). These values were then adjusted via the K and D factors located in the *2017 Peak Hour Volume Data Report* for the nearest freeway segment, thereby calculating peak hour volumes for the freeway analysis.

Raw traffic count worksheets are provided in Appendix A. Existing weekday AM and PM peak hour traffic volumes and ADTs are summarized on Figure 3.



1 Crestwood Road I-8 WB Ramps

2 Crestwood Road I-8 EB Ramps

3 Crestwood Road Old Highway 80

4 Old Highway 80 Church Road - Golden Acorn Dwy

5 Old Highway 80 Live Oak Trail

6 Church Road SR 94 - Campo Road

7 Ribbonwood Road I-8 WB Ramps

8 Ribbonwood Road I-8 EB Ramps

Legend

- Reservation Boundary
- Boulder Brush Boundary
- Project Impact Area
- Study Intersection
- Lane Geometrics
- Stop Sign
- Substations
- Switchyard
- Boulder Brush Gen-tie
- On-Reservation Gen-tie
- Dirt Road
- Railroad
- 2LU 2 Lane Undivided

Source: BING Maps, 2018

FIGURE 2

Existing Roadways and Intersection Conditions

Traffic Impact Analysis for the Campo Wind Project

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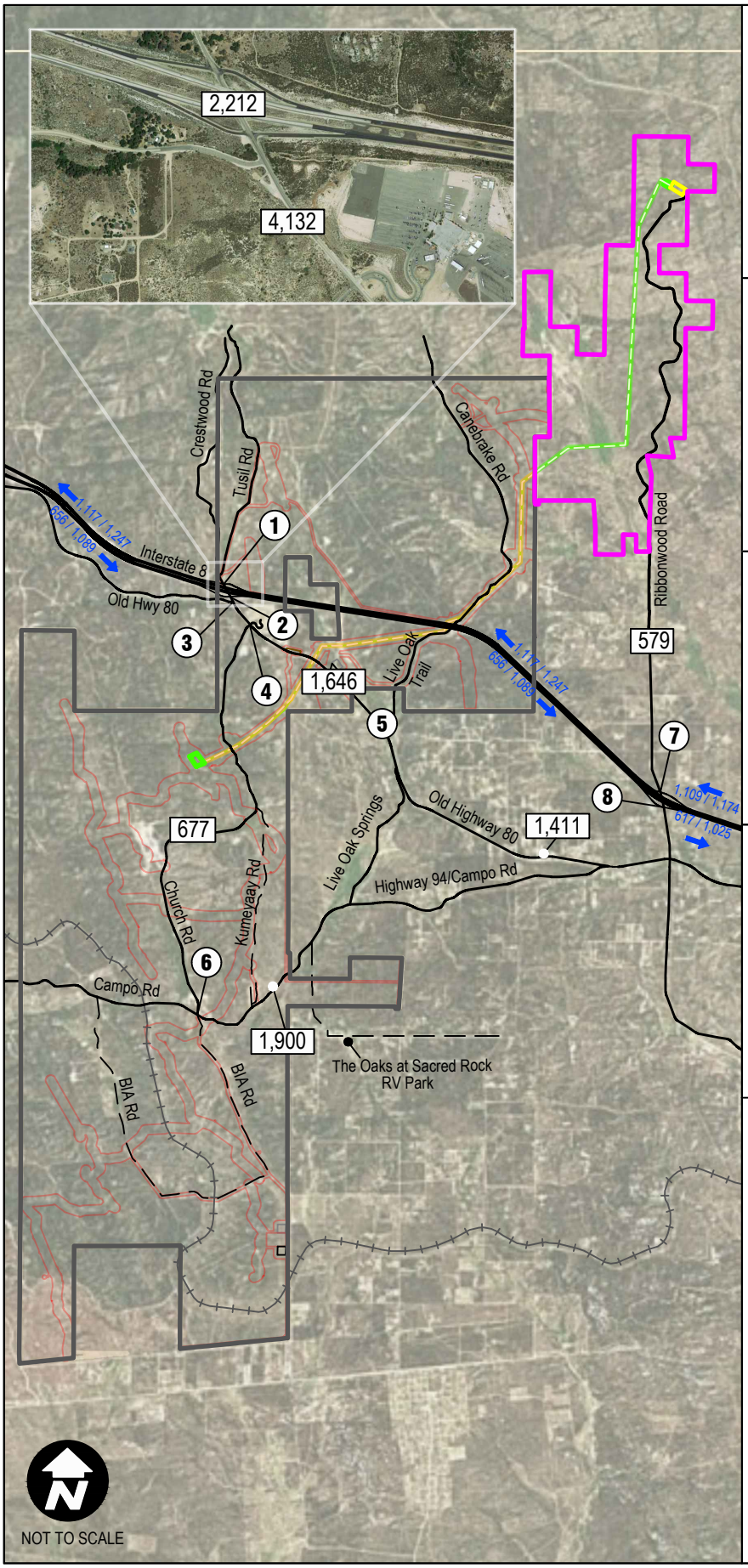

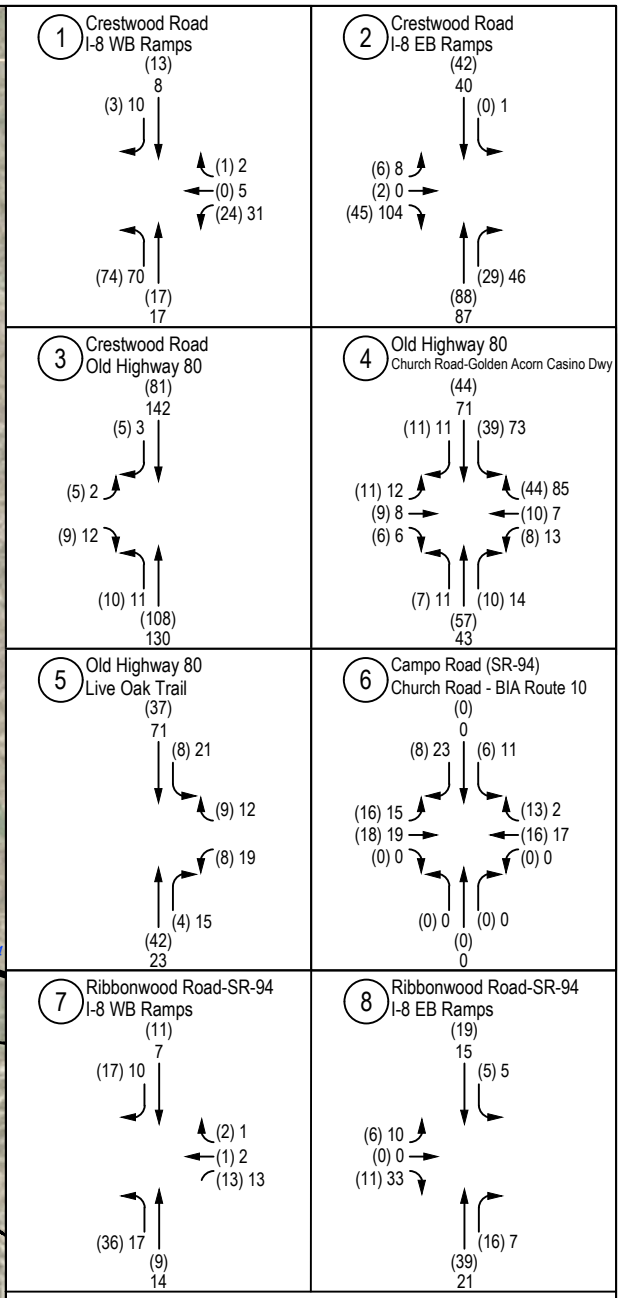

Legend

- Substations
- Reservation Boundary
- Switchyard
- Boulder Brush Boundary
- Boulder Brush Gen-tie
- Project Impact Area
- On-Reservation Gen-tie
- X — Study Intersection
- (X) — Weekday AM Peak Hour Traffic Volumes
- X — Weekday PM Peak Hour Traffic Volumes
- AM / PM — AM / PM Freeway Peak Hour Volumes
- X,XXX — Average Daily Traffic

Source: BING Maps, 2018

FIGURE 3

Existing Traffic Volumes

Traffic Impact Analysis for the Campo Wind Project

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2.4 Existing Traffic Conditions

2.4.1 Existing Intersection Conditions

An intersection LOS analysis was prepared for the existing conditions using HCM 2010 methodology via the Synchro LOS software as discussed in Chapter 1. Table 8 shows the results of the existing conditions LOS analysis. LOS worksheets are provided in Appendix B. As shown in the table, all of the Traffic Study Area intersections are currently operating at LOS B or better under existing conditions, during both peak periods.

Table 8
Existing Weekday Peak Hour Intersection LOS

No.	Intersection	LOS Method	Critical Movement	AM Peak		PM Peak	
				Delay[1]	*LOS*[2]	*Delay*[1]	*LOS*[2]
1	Crestwood Road/I-8 westbound ramps	HCM	WBL	10.2	B	10.6	B
2	Crestwood Road/I-8 eastbound ramps	HCM	EBL	9.4	A	9.8	A
3	Crestwood Road/Old Highway 80	HCM	EBL	9.4	A	9.4	A
4	Old Hwy 80/Church Rd-Golden Acorn Casino	HCM	EBL	11.0	B	12.6	B
5	Old Highway 80/Live Oak Trail	HCM	WBL	9.1	A	9.3	A
6	Campo Road (SR-94)/Church Rd-BIA Route 10	HCM	SBL	9.3	A	9.1	A
7	Ribbonwood Road-SR-94/I-8 westbound ramps	HCM	WBL	9.3	A	9.0	A
8	Ribbonwood Road-SR-94/I-8 eastbound ramps	HCM	EBL	9.1	A	8.9	A

Source: Dudek, 2018.
HCM = Highway Capacity Manual; WBL = Westbound left; EBL = Eastbound left; SBL = Southbound left.
1 Delay in seconds per vehicle reported for critical movement at unsignalized intersections
2 Level of Service (LOS)

2.4.2 Existing Roadway Segment Conditions

A roadway segment LOS analysis was prepared for the existing conditions using the roadway segment LOS methodology as discussed in Section 1. Table 9 shows the results of the existing conditions LOS analysis for the study roadway segments. As shown in the table, all of the Traffic Study Area roadway segments are currently operating at LOS C or better under existing conditions.

Table 9
Existing Daily Roadway Segment Level of Service

Roadway Segment	Classification	LOS "E" ADT	Existing Conditions		
			Existing ADT[1]	*Existing V/C*[2]	*Existing LOS*[3]
Crestwood Road					
-between I-8 WB and I-8 EB ramps	2 Lane undivided	16,200	2,212	0.14	B

Table 9
Existing Daily Roadway Segment Level of Service

Roadway Segment	Classification	LOS "E" ADT	Existing Conditions		
			Existing ADT[1]	*Existing V/C[2]*	*Existing LOS[3]*
-Old Highway 80 to Church Road	2 Lane undivided	16,200	4,132	0.26	C
Old Highway 80					
-Church Road to Live Oak Trail	2 Lane undivided	16,200	1,646	0.10	A
-Live Oak Trail to Campo Road (SR-94)	2 Lane undivided	16,200	1,411	0.09	A
Church Road					
-Old Highway 80 to Campo Road	2 Lane undivided	16,200	677	0.04	A
Ribbonwood Road					
-north of I-8	2 Lane undivided	4,500	579	0.13	<C
Campo Road (SR-94)					
-Buckman Springs Road to Live Oak Springs Road	2 Lane undivided	19,000	1,900	0.10	A

Source: Dudek, ADT counts collected in 2018 and SR-94 counts from Caltrans 2017
Note: LOS is based on County of San Diego Public Road Standard Average Daily Trips - Table 1
1 ADT – Average Daily Traffic
2 V/C – volume to capacity ratio
3 LOS – Level of Service

2.4.3 Existing Freeway Segment Conditions

A mainline freeway segment analysis was prepared for the existing conditions weekday AM and PM peak hour conditions. The analyses were calculated using HCS 7 software which utilizes the HCM 6th methodology described in Chapter 1. Table 10 shows the results of the existing conditions LOS analysis for the study freeway segments. Detailed LOS worksheets are included in Appendix C. As shown in the table, all of the Traffic Study Area freeway segments are currently operating at LOS B or better under existing conditions.

Table 10
Existing Freeway Mainline Segment LOS

Freeway Segment	Dir.	Mainline Lanes[1]	Average Daily Traffic[2]	Peak Hour Volume[3]		V/C[4]		Density (pc/ln/mi)[5]		LOS[6]	
				AM	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*
Interstate 8											
Cameron Road to Crestwood Road-Old Hwy 80	EB	2	18,000	656	1,089	0.20	0.34	6.7	11.1	A	B
	WB	2		1,177	1,247	0.37	0.39	12.0	12.7	B	B
Crestwood Road-Old Hwy 80 to	EB	2	17,100	656	1,089	0.20	0.34	6.7	11.1	A	B
	WB	2		1,177	1,247	0.37	0.39	12.0	12.7	B	B

Table 10
Existing Freeway Mainline Segment LOS

Freeway Segment	Dir.	Mainline Lanes[1]	Average Daily Traffic[2]	Peak Hour Volume[3]		V/C[4]		Density (pc/ln/mi)[5]		LOS[6]	
				AM	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*
Interstate 8											
Ribbonwood Road-SR-94											
Ribbonwood Road-SR-94 to Carrizo Gorge	EB	2	16,100	617	1,025	0.19	0.32	6.3	10.5	A	A
	WB	2		1,109	1,174	0.35	0.37	11.3	11.9	B	B

Notes: LOS based on HCM methodology, analyzed in the *2010 Highway Capacity Software* (HCS).

1 Lane geometry taken from PeMS lane configurations at corresponding postmile.

2 Existing ADT volumes from most recent Caltrans Traffic Census Program (2017).

3 Peak hour volumes calculated from Caltrans Traffic Census Program Peak Hour Volume Data (2017).

4 V/C = (Peak Hour Volume/Hourly Capacity)

5 Density is presented in "passenger cars per lane per mile."

6 LOS = Level of Service

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3 TRIP GENERATION

This section documents the trip generation, distribution and assignment of construction-related traffic associated with the Project.

3.1 Trip Generation

Trip generation estimates for the construction phase of the Project were calculated based on the peak construction traffic during construction of the Project. Construction traffic includes the number of workers, and the amount of delivery and haul truck traffic that would be generated to and from the site daily and during the AM and PM peak hours. The construction activities will occur during the daylight hours for approximately 12 hours over the weekdays, Monday through Friday.

As discussed previously, construction of the Project would require a maximum of approximately 501 workers, 22 vendor trucks (trucks delivering water), and 28 haul trucks (trucks delivering water and/or materials from off-site locations) per day. Since the work shift would begin before the AM peak period (7:00 a.m. – 9:00 a.m.), and workers would likely arrive before the AM peak hour starts, approximately 50% of the workers estimated to arrive during the AM peak hour. However, 100% of the workers were estimated to depart during the PM peak hour. It is expected that some carpooling will occur, however, to provide a conservative analysis no credits for carpooling among workers were assumed. Truck traffic (vendor and haul) to and from the site was evenly distributed assuming a 9-hour workday, as there may be some peak hour restrictions to transport oversized equipment truck loads. As shown in Section 1.2, the peak construction phases of Campo Wind Facilities would not coincide with the peak construction of Boulder Brush Facilities. However, it should be noted that the, peak construction phase of Campo Wind Facilities is representative of the peak of the Project. Therefore, the TIA primarily analyses the Project and also provides an analysis of Boulder Brush Facilities.

The calculation of Project trip generation estimates is shown in Table 11. Passenger car equivalent (PCE) factors were used to account for the project's truck traffic and provide a more realistic measurement in terms of the impact of project-related truck traffic.

Table 11
Project Trip Generation

Vehicle Type	Daily Quantity	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	*Out*	*Total*	*In*	*Out*	*Total*
Trip Generation[1]								
Workers	501 workers	1,002	251	0	251	0	501	501
Vendor Trucks	22 Trucks	44	2	2	4	2	2	4
Haul Trucks	28 Trucks	56	3	3	6	3	3	6
Total		**1,102**	**256**	**5**	**261**	**5**	**506**	**511**

Table 11
Project Trip Generation

Vehicle Type	Daily Quantity	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	*Out*	*Total*	*In*	*Out*	*Total*
Trip Generation w/PCE[1]								
Workers[2] (1.0 PCE)	501 workers	1,002	251	0	251	0	501	501
Vendor Trucks (2.5 PCE)[3]	22 Trucks	110	5	5	10	5	5	10
Haul Trucks (2.5 PCE)[3]	28 Trucks	139	7	7	14	7	7	14
	Total (w/PCE)	**1,251**	**263**	**12**	**275**	**12**	**513**	**525**

PCE – Passenger Car Equivalent
Note:
[1] Trips have been rounded to the nearest whole number; rounding errors may be present
[2] PCE factor of 1 was utilized for worker passenger cars
[3] PCE factor of 2.5 was utilized for vendor and haul trucks

As shown in Table 11, the Project would generate 1,012 total daily trips, 261 AM peak hour trips (256 inbound and 5 outbound), and 511 PM peak hour trips (5 inbound and 506 outbound). With the application of PCE factors to truck trips, the Campo Wind Facilities would generate 1,251 total PCE daily trips, and 275 PCE trips during the AM peak hour (263 inbound and 12 outbound) and 525 PCE trips during the PM peak hour (12 inbound and 513 outbound).

3.2 Trip Distribution and Assignment

Project trips were distributed to the Traffic Study Area intersections and roadway segments using the regional location of the Project, logical commute routes for workers, and available truck routes for Project-related trucks.

Construction-related Project traffic (workers and trucks) will access the Traffic Study Area via I-8, at its existing interchange with Crestwood Road and utilize Old Highway 80, Live Oak Trail, and SR-94. The existing I-8 interchange with Ribbonwood Road will also be utilized to access the Traffic Study Area. On site, the majority of construction traffic would travel along designated private roads. The Project traffic utilizing I-8 will consist of all of the material and equipment delivery trucks, and construction workers accessing the site.

Based on the information provided by the developer/applicant and Dudek's construction data analysis, approximately 45% of the truck traffic would access the Project Site from the east (Imperial County area), and approximately 55% of the truck and worker traffic would access the project from the west (San Diego County area). A temporary house site is located at the Sacred Rock RV Park, south of the project site. Approximately 45% of the workers would access the Project Site from this location.

Project trips were assigned to the Traffic Study Area intersections by applying the trip generation estimates to the trip distribution percentages at each Traffic Study Area intersection and roadway segments. Based on the location and number of wind turbines, location of the collector substation and the Boulder Brush Facilities, the worker and truck traffic was distributed across the Project Site. The Project trip distribution for workers and trucks is shown in Figure 4.

The resulting Project trip assignments for workers, trucks and total Project traffic are shown in Figures 5, 6, and 7, respectively.

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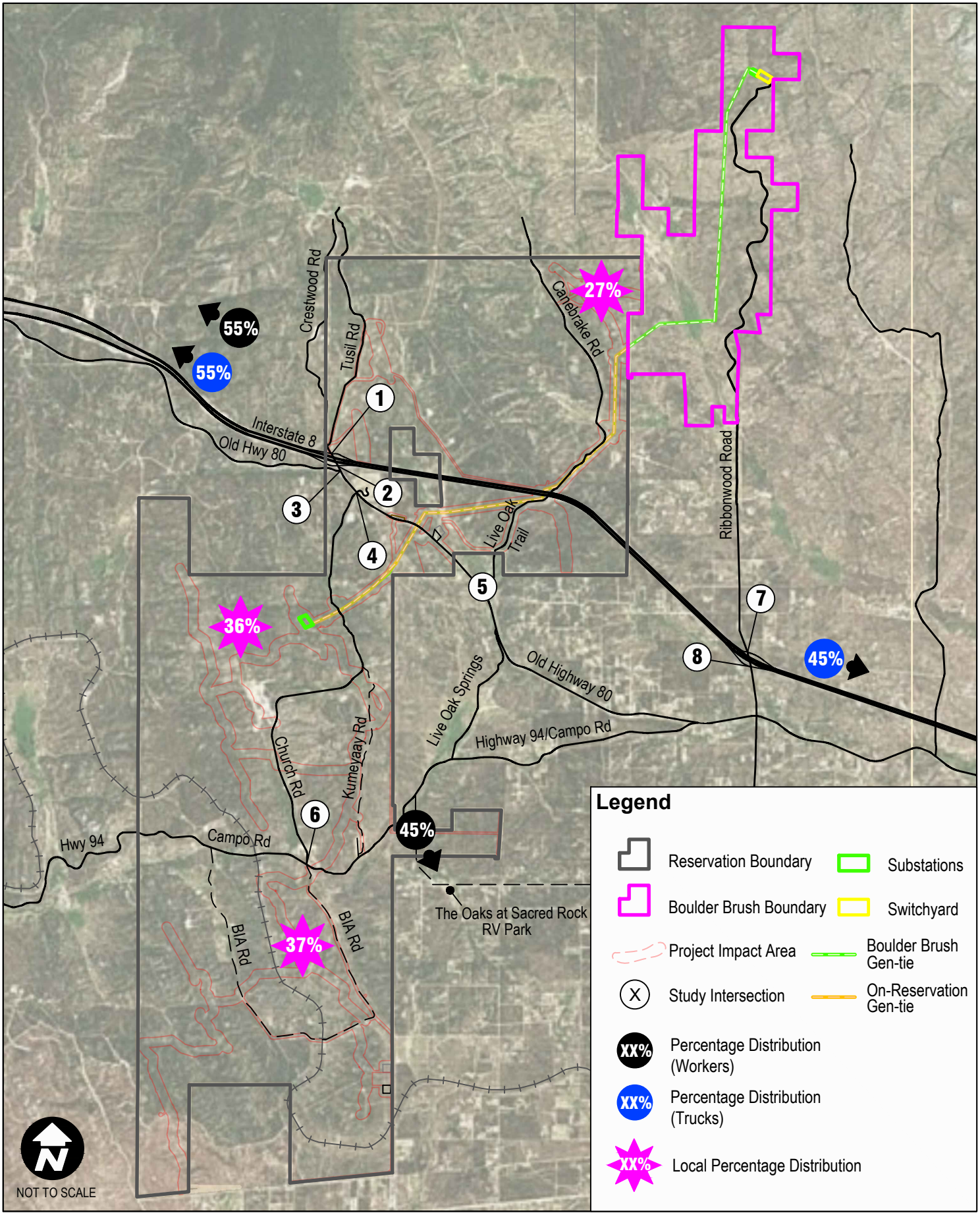

Source: BING Maps, 2018

FIGURE 4

Project Trip Distribution

Traffic Impact Analysis for the Campo Wind Project

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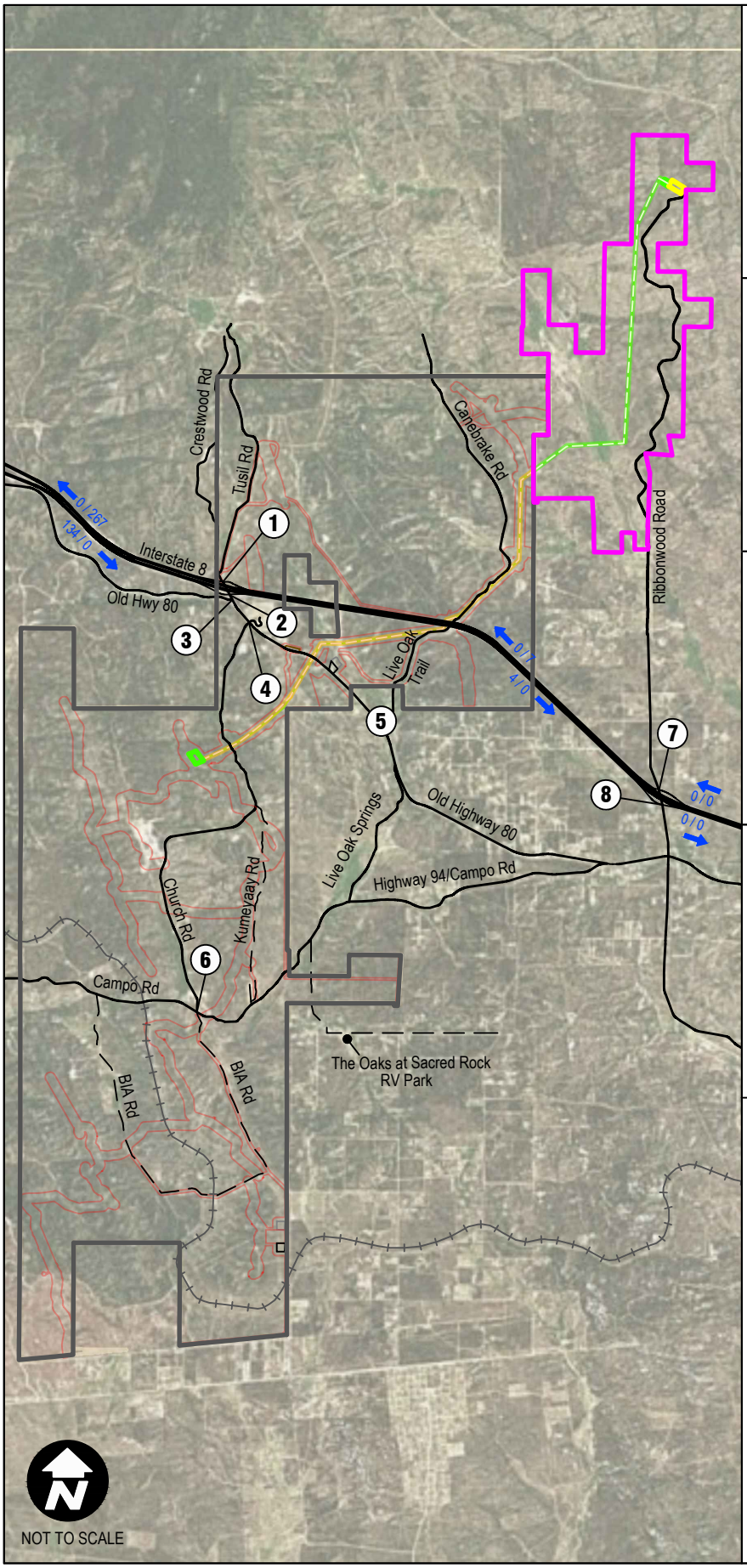

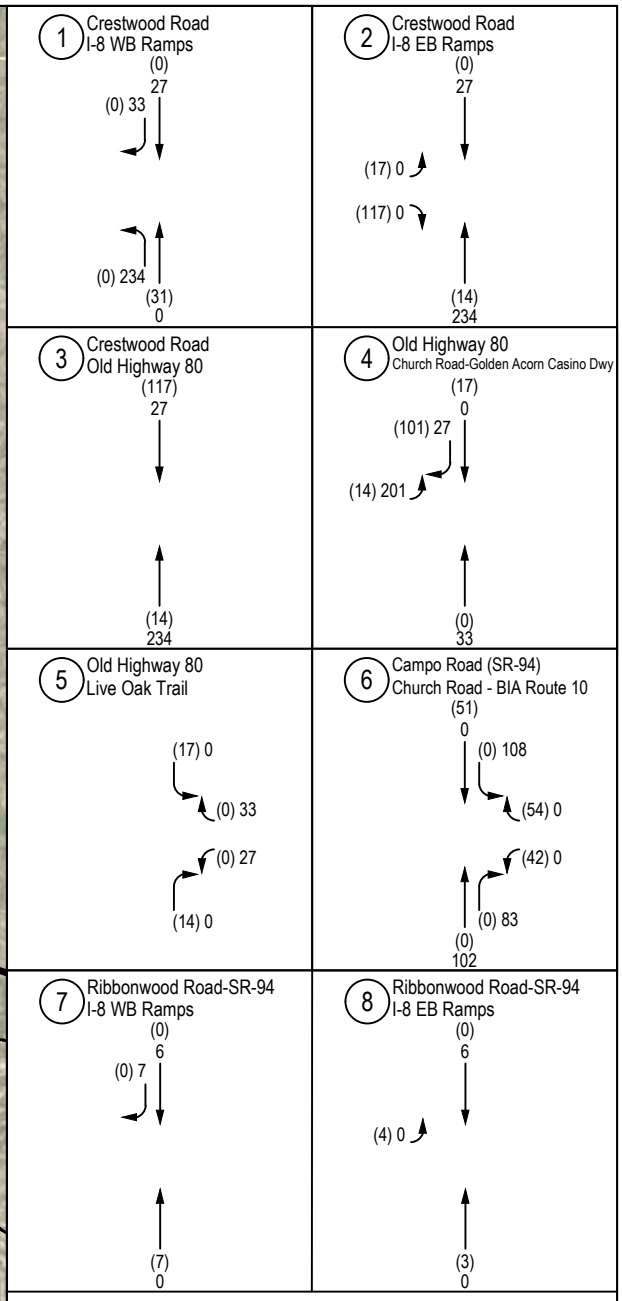

Legend

- Reservation Boundary
- Boulder Brush Boundary
- Project Impact Area
- (X) Study Intersection
- Substations
- Switchyard
- Boulder Brush Gen-tie
- On-Reservation Gen-tie
- (X) Weekday AM Peak Hour Traffic Volumes
- X Weekday PM Peak Hour Traffic Volumes
- AM / PM AM / PM Freeway Peak Hour Volumes
- X,XXX Average Daily Traffic

Source: BING Maps, 2018

FIGURE 5

Project Trip Assignment - Workers (Peak Construction)

Traffic Impact Analysis for the Campo Wind Project

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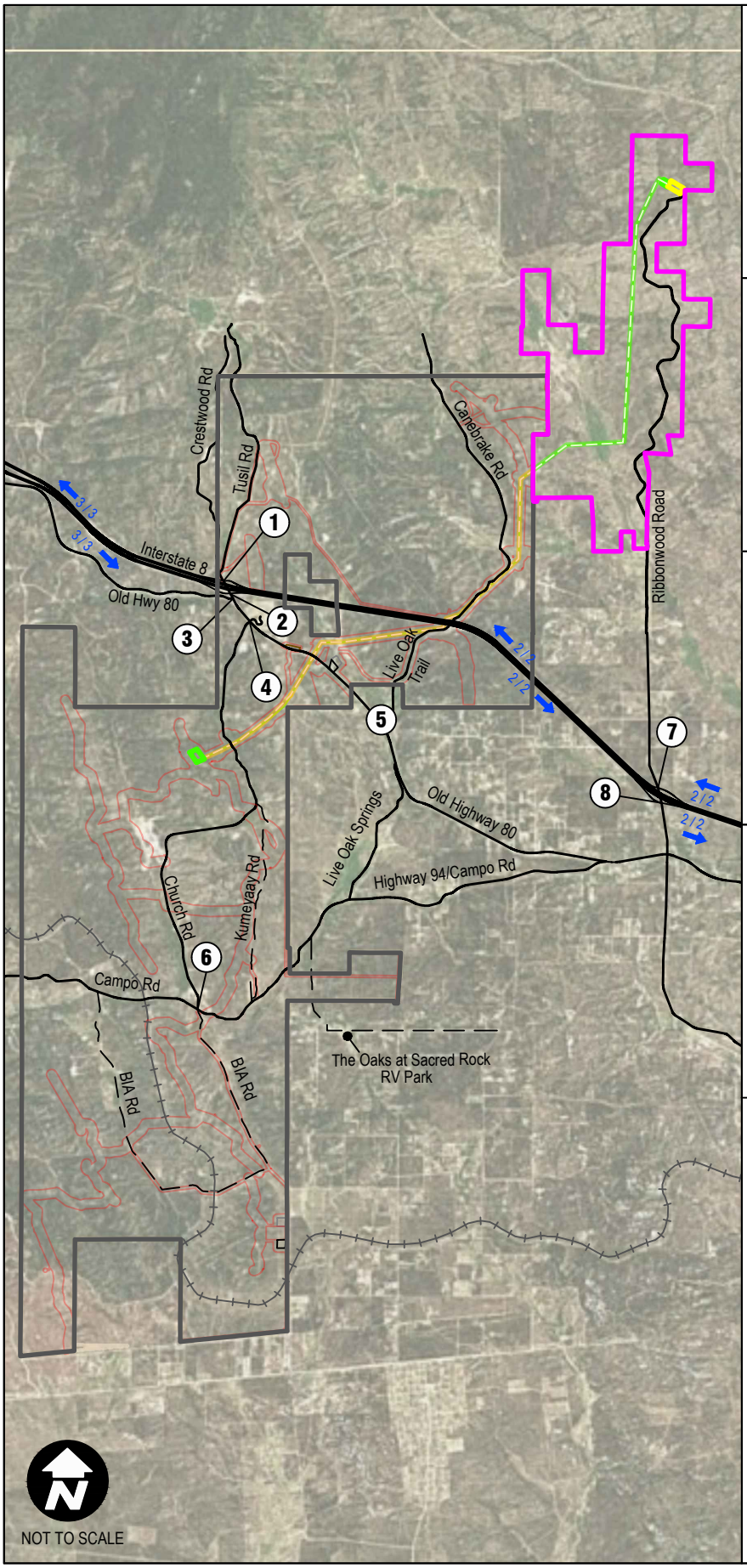

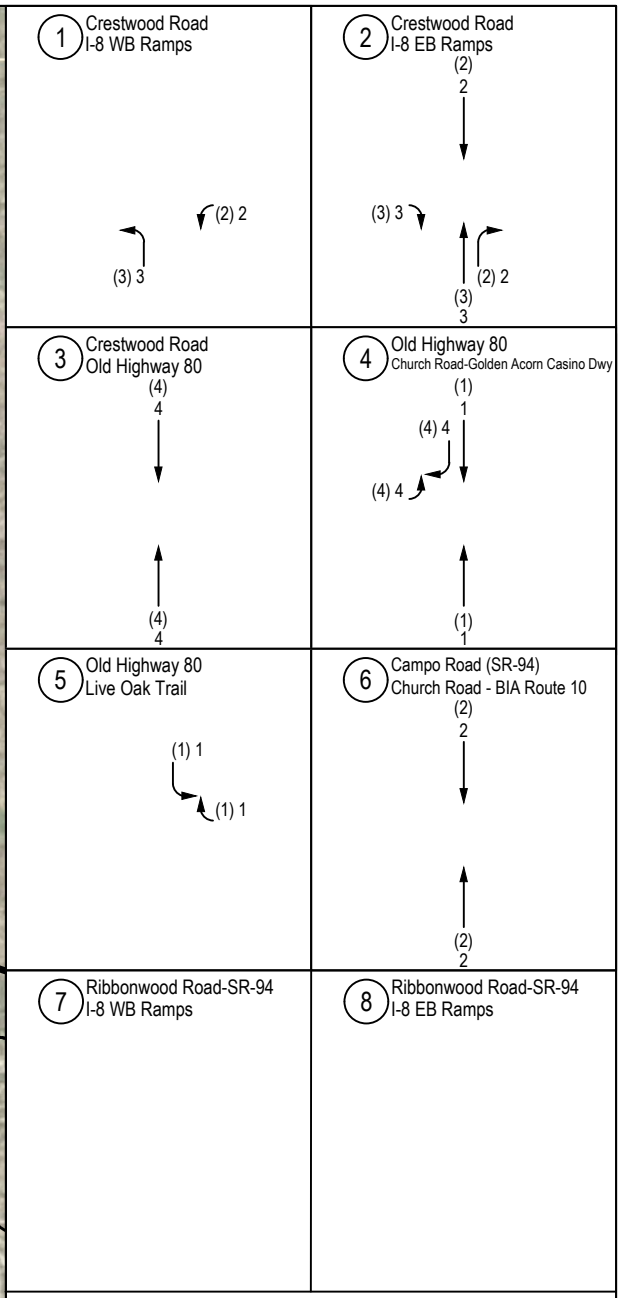

Legend

- Reservation Boundary
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- Project Impact Area
- (X) Study Intersection
- Substations
- Switchyard
- Boulder Brush Gen-tie
- On-Reservation Gen-tie
- (X) Weekday AM Peak Hour Traffic Volumes
- X Weekday PM Peak Hour Traffic Volumes
- AM / PM → AM / PM Freeway Peak Hour Volumes
- X,XXX Average Daily Traffic

Source: BING Maps, 2018

FIGURE 6

Project Trip Assignment - Trucks (Peak Construction)

Traffic Impact Analysis for the Campo Wind Project

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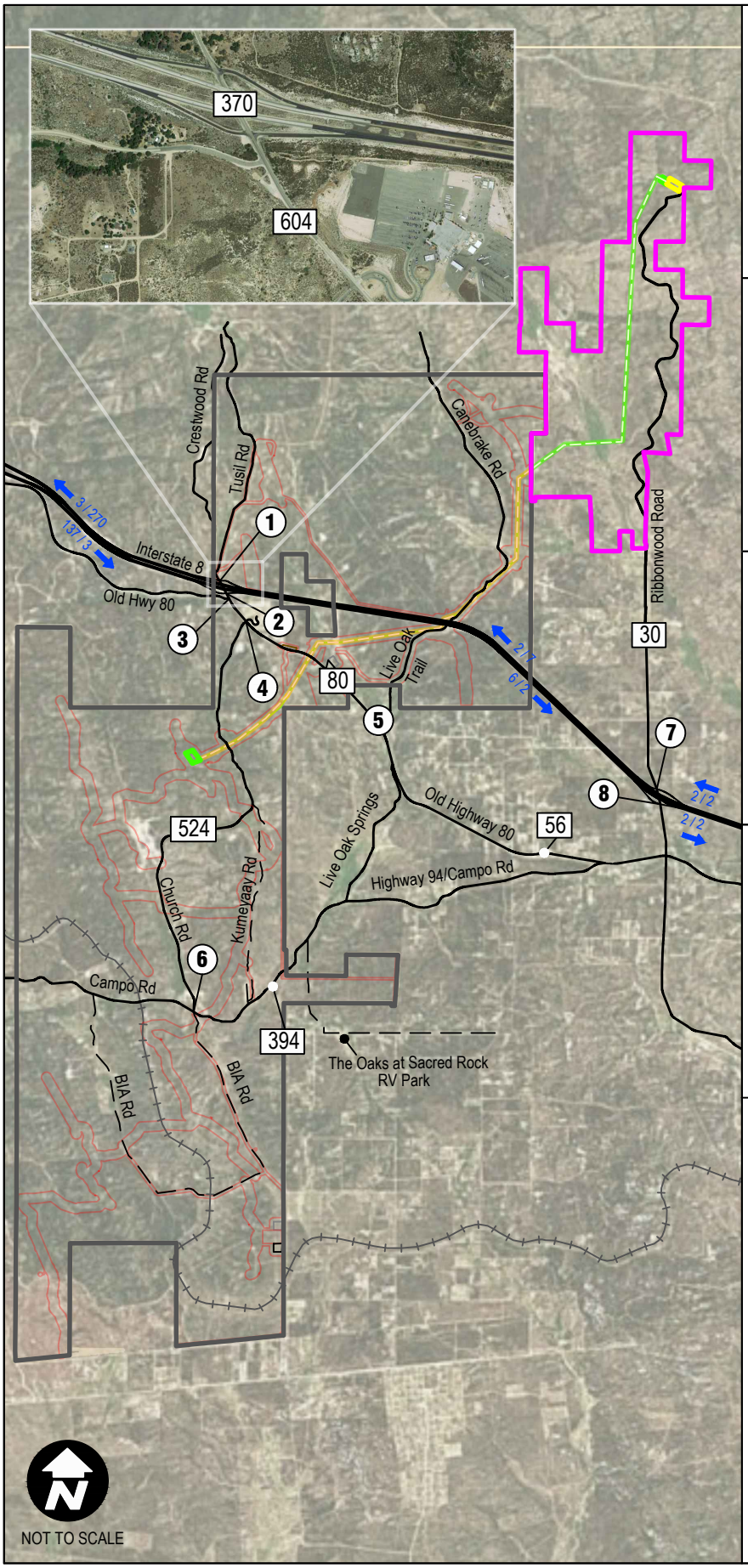

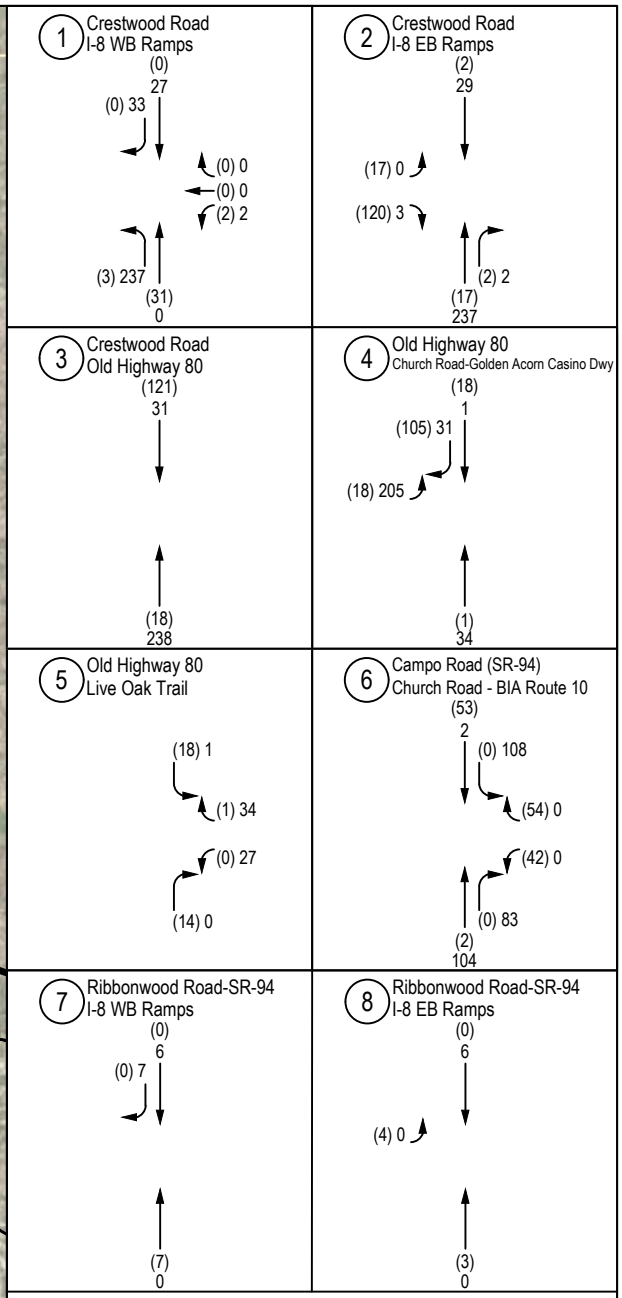

Legend

- Reservation Boundary
- Boulder Brush Boundary
- Project Impact Area
- Study Intersection
- Substations
- Switchyard
- Boulder Brush Gen-tie
- On-Reservation Gen-tie
- (X) Weekday AM Peak Hour Traffic Volumes
- X Weekday PM Peak Hour Traffic Volumes
- AM / PM — AM / PM Freeway Peak Hour Volumes
- X,XXX — Average Daily Traffic

Source: BING Maps, 2018

FIGURE 7

Project Trip Assignment - Workers and Trucks (Peak Construction)

Traffic Impact Analysis for the Campo Wind Project

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4 EXISTING PLUS PROJECT CONDITIONS

This section documents impacts on Traffic Study Area intersections and roadway segments related to construction-related project traffic under Existing plus Project (construction phase) conditions.

4.1 Traffic Volumes

Existing traffic volumes were collected in September 2018 and are shown in Figure 3. As shown under the existing conditions analysis, the traffic volumes in the Traffic Study Area are relatively low. Project impacts were calculated for the Existing plus Project (peak construction phase) conditions.

4.1.1 Existing plus Project

The Project trip assignments shown in Figure 6 for peak construction-related Project traffic (workers and trucks), were added to the existing traffic volumes shown in Figure 3 to derive the Existing plus Project traffic volumes. Figure 8 illustrates the Existing plus Project traffic volumes that were used to evaluate Existing plus Project traffic conditions.

4.2 Intersection Operations

An intersection operations analysis was conducted for the Traffic Study Area to evaluate the Existing plus Project weekday AM and PM peak hour conditions. Intersection operations were calculated using the LOS methodology described in Section 1.4. The following presents the results of the analysis.

4.2.1 Existing plus Project (Peak Construction)

Table 12 shows the results of the Existing plus Project LOS analysis and provides a comparison to the existing (without Project) conditions for the weekday peak hours using HCM methodology for unsignalized intersections. Detailed LOS worksheets are included in Appendix B. With the exception of Crestwood Road/I-8 westbound ramps, all intersections operate at LOS C or better with the addition of the peak construction-related traffic from the Project. The Crestwood Road/I-8 westbound ramps intersection would operate with unsatisfactory LOS under Existing plus Project Conditions during construction:

- Crestwood Road/I-8 westbound ramps (LOS D in PM peak hour and increase in delay greater than 2 seconds per SANTEC /ITE criteria for significant impact)

Per Caltrans and County significance criteria, the Project would have an adverse effect at the Crestwood Road/I-8 westbound ramps intersection. It should be noted that these impacts would be temporary and short-term during the peak phase of construction.

Section 8 provides recommended measures to reduce the Project's direct adverse effects.

Construction-related activities across SR-94, and any other State highway facilities, will be required to follow the Caltrans Encroachment Permit process in regards to oversized vehicles. As shown in Table 12, the Caltrans intersection of SR-94/Church Road intersection operates at LOS B or better under Existing plus Project conditions.

4.3 Roadway Segment Operations

An ADT roadway segment LOS analysis was conducted for the Traffic Study Area to evaluate the Existing plus Project for 24-hour roadway capacity conditions. The Traffic Study Area roadway segments were analyzed using the methodology described in Section 1. The following presents the results of the project analysis.

4.3.1 Existing plus Project (Peak Construction)

Table 13 shows the results of the Existing plus Project LOS analysis and provides a comparison to the existing (without Project) conditions for ADT volumes. Based on the appropriate significance criteria, all roadway segments are forecast to continue to operate at LOS C or better with the addition of the peak construction-related Project traffic.

Therefore, the Project would not have an adverse effect to the roadway segments analyzed under Existing plus Project conditions.

Table 12
Existing plus Project Peak Hour Intersection Level of Service

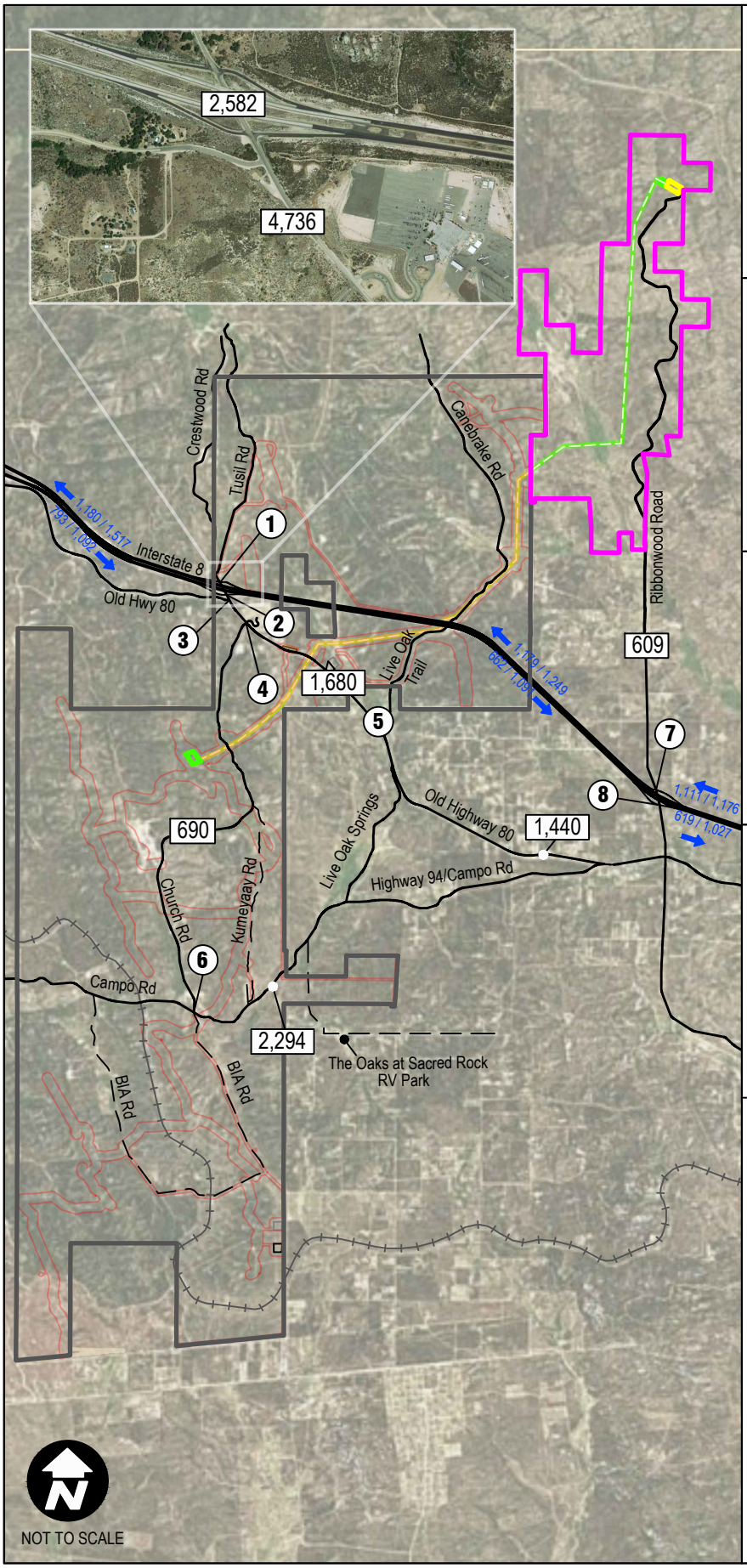
No.	Intersection	LOS Method	Critical Movement	Existing				Existing plus Project				Change in Delay		Substantial Adverse Effect?	
				AM Peak		PM Peak		AM Peak		PM Peak					
				Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	AM	PM	AM	PM
1	Crestwood Road/I-8 westbound ramps	HCM	WBL	10.2	B	10.6	B	10.7	B	27.2	D	0.5	**16.6**	No	**Yes**
2	Crestwood Road/I-8 eastbound ramps	HCM	EBL	9.4	A	9.8	A	9.6	A	12.6	B	0.2	2.8	No	No
3	Crestwood Road/Old Highway 80	HCM	EBL	9.4	A	9.4	A	10.3	B	10.0	B	0.9	0.6	No	No
4	Old Highway 80/Church Road-Golden Acorn Casino Driveway	HCM	EBL	11.0	B	12.6	B	12.7	B	24.4	C	1.7	11.8	No	No
5	Old Highway 80 /Live Oak Trail	HCM	WBL	9.1	A	9.3	A	9.4	A	9.6	A	0.3	0.3	No	No
6	Campo Road (SR-94)/Church Road-BIA Route 10	HCM	SBL	9.3	A	9.1	A	12.6	B	13.1	B	3.3	4.0	No	No
7	Ribbonwood Road-SR-94/I-8 westbound ramps	HCM	WBL	9.3	A	9.0	A	9.4	A	9.1	A	0.1	0.1	No	No
8	Ribbonwood Road-SR-94/I-8 eastbound ramps	HCM	EBL	9.1	A	8.9	A	9.1	A	8.9	A	0.0	0.0	No	No

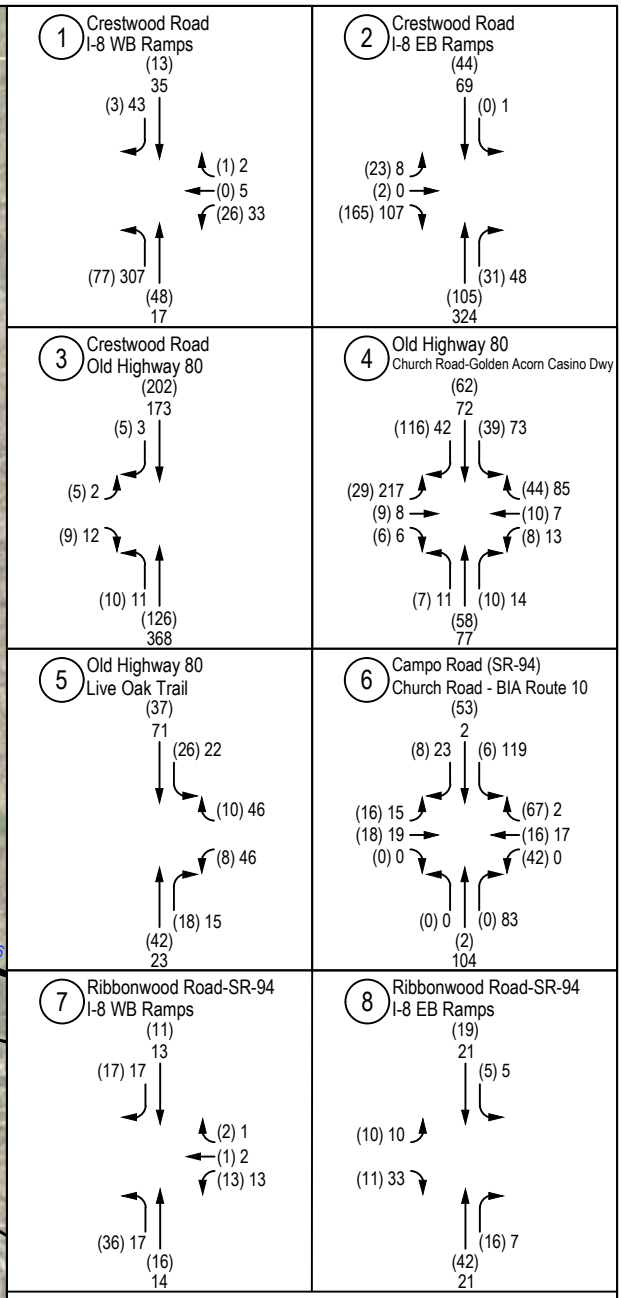
Source: Dudek, 2018.
HCM = Highway Capacity Manual; WBL = Westbound left; EBL = Eastbound left; SBL = Southbound left.
1 Delay in seconds per vehicle reported for critical movement at unsignalized intersections
2 Level of Service (LOS)
BOLD value indicates unsatisfactory LOS

Table 13
Existing plus Project Roadway Segment Level of Service

Roadway Segment	Classification	LOS "E" ADT	Existing			Existing plus Project				Change in v/c
			ADT[1]	*V/C*[2]	*LOS*[3]	*Project Traffic*	*ADT*[1]	*V/C*[2]	*LOS*[3]	
Crestwood Road										
-Between I-8 WB and I-8 EB ramps	2 Lane Undivided	16,200	2,212	0.14	B	370	2,582	0.16	B	0.02
-Old Highway 80 to Church Road	2 Lane Undivided	16,200	4,132	0.26	C	604	4,736	0.29	C	0.04
Old Highway 80										
-Church Road to Live Oak Trail	2 Lane Undivided	16,200	1,646	0.10	A	80	1,726	0.11	A	0.00
-Live Oak Trail to Campo Road (SR-94)	2 Lane Undivided	16,200	1,411	0.09	A	56	1,467	0.09	A	0.00
Church Road										
-Old Highway 80 to Campo Road	2 Lane Undivided	16,200	677	0.04	A	524	1,201	0.07	A	0.03
Ribbonwood Road										
-north of I-8	2 Lane undivided	4,500	579	0.13	<C	30	609	0.14	<C	0.01
Campo Road (SR-94)										
-Buckman Springs Road to Live Oak Springs Road	2 Lane Undivided	19,200	1,900	0.10	A	394	2,294	0.12	A	0.02

Source: Dudek 2018
Notes:
1 ADT – Average Daily Traffic
2 V/C – Volume to Capacity
3 LOS – Level of Service





Legend

- Reservation Boundary
- Boulder Brush Boundary
- Project Impact Area
- (X) Study Intersection
- Substations
- Switchyard
- Boulder Brush Gen-tie
- On-Reservation Gen-tie
- (X) Weekday AM Peak Hour Traffic Volumes
- X Weekday PM Peak Hour Traffic Volumes
- AM / PM AM / PM Freeway Peak Hour Volumes
- X,XXX Average Daily Traffic

Source: BING Maps, 2018

FIGURE 8

Existing plus Project (Peak Construction) Traffic Volumes

Traffic Impact Analysis for the Campo Wind Project

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4.4 Freeway Segment Operations

A mainline freeway segment analysis was prepared for the Existing plus Project weekday AM and PM peak hour conditions. The analyses were calculated using HCS 7 software which utilizes the HCM 6th methodology described in Chapter 1. The following presents the results of the analysis.

4.4.1 Existing plus Project (Peak Construction)

Table 14 shows the results of the Existing plus Project LOS analysis for the Traffic Study Area freeway segments and provides a comparison to the existing (without Project) conditions for peak hour traffic volumes. Detailed LOS worksheets are included in Appendix C. Based on the appropriate significance criteria, all freeway segments are forecast to continue to operate at LOS B or better with the addition of the peak construction-related Project traffic.

Therefore, the Project would not have an adverse effect to the freeway segments analyzed under Existing plus Project conditions.

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Table 14
Existing plus Project Freeway Segment Operations

Freeway Segment	Dir.	Mainline Lanes[1]	Existing								Existing plus Project								Δ V/C[6]		Substantial Adverse Impact?[7]
			Volume[2]		V/C[3]		Density[4]		LOS[5]		Volume[2]		V/C[3]		Density[4]		LOS[5]				
			AM	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	*AM*	*PM*	
Interstate 8																					
Cameron Road to Crestwood Road-Old Hwy 80	EB	2	656	1,089	0.20	0.34	6.7	11.1	A	B	793	1,092	0.25	0.34	8.1	11.1	A	B	0.05	0.00	No
	WB	2	1,177	1,247	0.37	0.39	12.0	12.7	B	B	1,180	1,517	0.37	0.47	12.0	15.4	B	B	0.00	0.08	No
Crestwood Rd/ Old Highway 80 to Ribbonwood Rd/ SR-94	EB	2	656	1,089	0.20	0.34	6.7	11.1	A	B	662	1091	0.21	0.34	6.7	11.1	A	B	0.01	0.00	No
	WB	2	1,177	1,247	0.37	0.39	12.0	12.7	B	B	1,179	1,249	0.37	0.39	12.0	12.7	B	B	0.00	0.00	No
Ribbonwood Rd/ SR-94 to Carrizo Gorge	EB	2	617	1,025	0.19	0.32	6.3	10.5	A	A	619	1027	0.19	0.32	6.3	10.5	A	A	0.00	0.00	No
	WB	2	1,109	1,174	0.35	0.37	11.3	11.9	B	B	1,111	1,176	0.35	0.37	11.4	12.0	B	B	0.00	0.00	No

Notes: LOS based on HCM methodology, analyzed in the *2010 Highway Capacity Software* (HCS).
XXX - Mainline segment operates with unsatisfactory LOS.
1 Lane geometry taken from PeMS lane configurations at corresponding postmile.
2 Peak hour volumes calculated from Caltrans Traffic Census Program Peak Hour Volume Data (2017).
3 V/C = (Peak Hour Volume/Hourly Capacity)
4 Density is presented in "passenger cars per lane per mile."
5 LOS = Level of Service
6 "Δ" denotes the Project-induced increase in V/C. Per SANTEC/ITE Guidelines, a significant impact occurs when the V/C is increased by greater than 0.01 for LOS E or LOS F.
7 Sig? = Significant impact, yes or no

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5 EXISTING PLUS PROJECT PLUS CUMULATIVE PROJECTS CONDITIONS

This section documents impacts on Traffic Study Area intersections and roadway segments related to construction-related project traffic under Existing plus Project (peak construction) plus Cumulative Projects.

5.1 Cumulative Projects

A list of approximately twenty-five cumulative projects were identified and reviewed in the Traffic Study Area. Cumulative projects are either projects that are proposed and in the review process, but not yet fully approved; or, projects that have been approved, but not fully constructed or occupied. Based on review of the project characteristics, status, and locations of cumulative projects, four projects were identified that would likely add traffic to the Traffic Study Area roadway segments and intersections. Figure 9 illustrates the location of the cumulative projects.

5.1.1 Cumulative Projects Trip Generation, Distribution and Assignment

Table 15 provides a trip generation estimate of the cumulative projects.

Table 15
Cumulative Projects Trip Generation Summary

No.	Land Use/ Description	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	*Out*	*Total*	*In*	*Out*	*Total*
1	Freedom Ranch (expand existing facilities from 50 beds to 125 in four phases. (Alcohol/Drug Treatment and Recovery Facility) [1]	375	23	15	38	15	23	38
2	Rough Acres Foundation Campground Facility - campground/conference center. (wellness center and campground facility) on 713 acres) [2]	596	10	14	24	33	15	48
3	Torrey Wind (construction of 30 new wind turbines and related facilities on 2,063 acre site) [3]	841	337	23	360	23	337	360
4	Rugged Solar (74 MW solar energy system on an approximately 765-acre site) [4]	292	146	0	146	0	146	146
	Total Trip Generation	2,104	516	52	568	71	521	592

Notes:
1 Trip generation from Noise Analysis Report for San Diego Freedom Ranch Expansion Campo, California, KHA, February 28, 2012,
2 Trip generation estimated using SANDAG trip rates for campsites.
3 Trip Generation from Transportation Impact Analysis for Torrey Wind Project, LLG, 2019
4 Trip generation estimated from Soitec Solar Program EIR, 2015

Trip distributions and assignments for the cumulative projects were completed assuming logical travel corridors. The trips generated by the cumulative projects were distributed through the Traffic

Study Area network, primarily along Crestwood Road, Ribbonwood Road, Old Highway and Campo Road (SR-94), and then added to the existing traffic volumes.

5.2 Cumulative Traffic Volumes

Cumulative traffic volumes for the freeway segments of I-8 in the Traffic Study Area were estimated by applying a growth rate based on review of historical data (conservatively, estimated to be 10% over existing volumes). Cumulative traffic volumes for the roadway segments and intersections were estimated by applying an annual ambient growth rate of one percent (1%) per year for a period of two years, plus the addition of traffic from cumulative projects, to the existing traffic volumes. Figure 10 illustrates the Existing plus Cumulative Projects Traffic Volumes for the daily and peak hour conditions.

5.3 Existing plus Project plus Cumulative Projects Traffic Volumes

The trip assignments shown in Figure 7 for peak construction-related Project traffic (workers and trucks), were added to the Existing plus Cumulative Projects traffic volumes shown in Figure 10 to derive the Existing plus Project plus Cumulative Projects traffic volumes. Figure 11 illustrates the Existing plus Project plus Cumulative traffic volumes that were used to evaluate Existing plus Project plus Cumulative Projects traffic conditions.

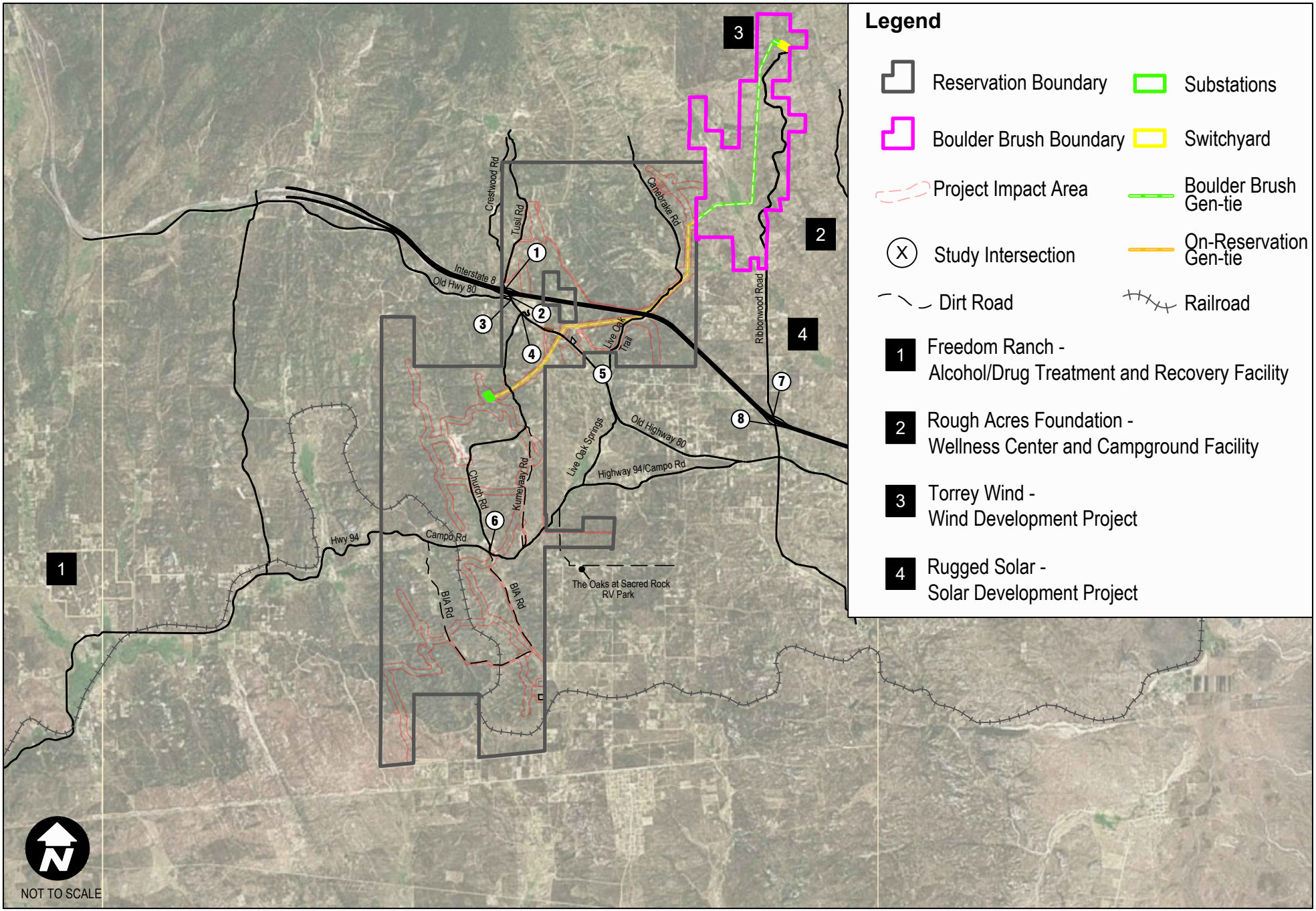
5.4 Intersection Operations

An intersection operations analysis was conducted for the Traffic Study Area to evaluate the Existing plus Project plus Cumulative projects weekday AM and PM peak hour conditions. Intersection operations were calculated using the LOS methodology described in Chapter 1. The following presents the results of the analysis.

5.4.1 Existing plus Project plus Cumulative Projects

Table16 shows the results of the Existing plus Project plus Cumulative Projects LOS analysis and provides a comparison to the existing (without project) and existing with project conditions for the weekday peak hours using HCM methodology for unsignalized intersections. Detailed LOS worksheets are included in Appendix B. With the exception of Crestwood Road/I-8 westbound ramps, all intersections operate at LOS B or better with the addition of the peak construction-related traffic from the project. The Crestwood Road/I-8 westbound ramps intersection would operate with unsatisfactory LOS under Existing plus Project Conditions during construction:

- Crestwood Road/I-8 westbound ramps (LOS D in PM peak hour and increase in delay greater than 2 seconds per SANTEC /ITE criteria and therefore causes an adverse impact)



Source: BING Maps, 2018

FIGURE 9

Locations of Cumulative Projects

Traffic Impact Analysis for the Campo Wind Project

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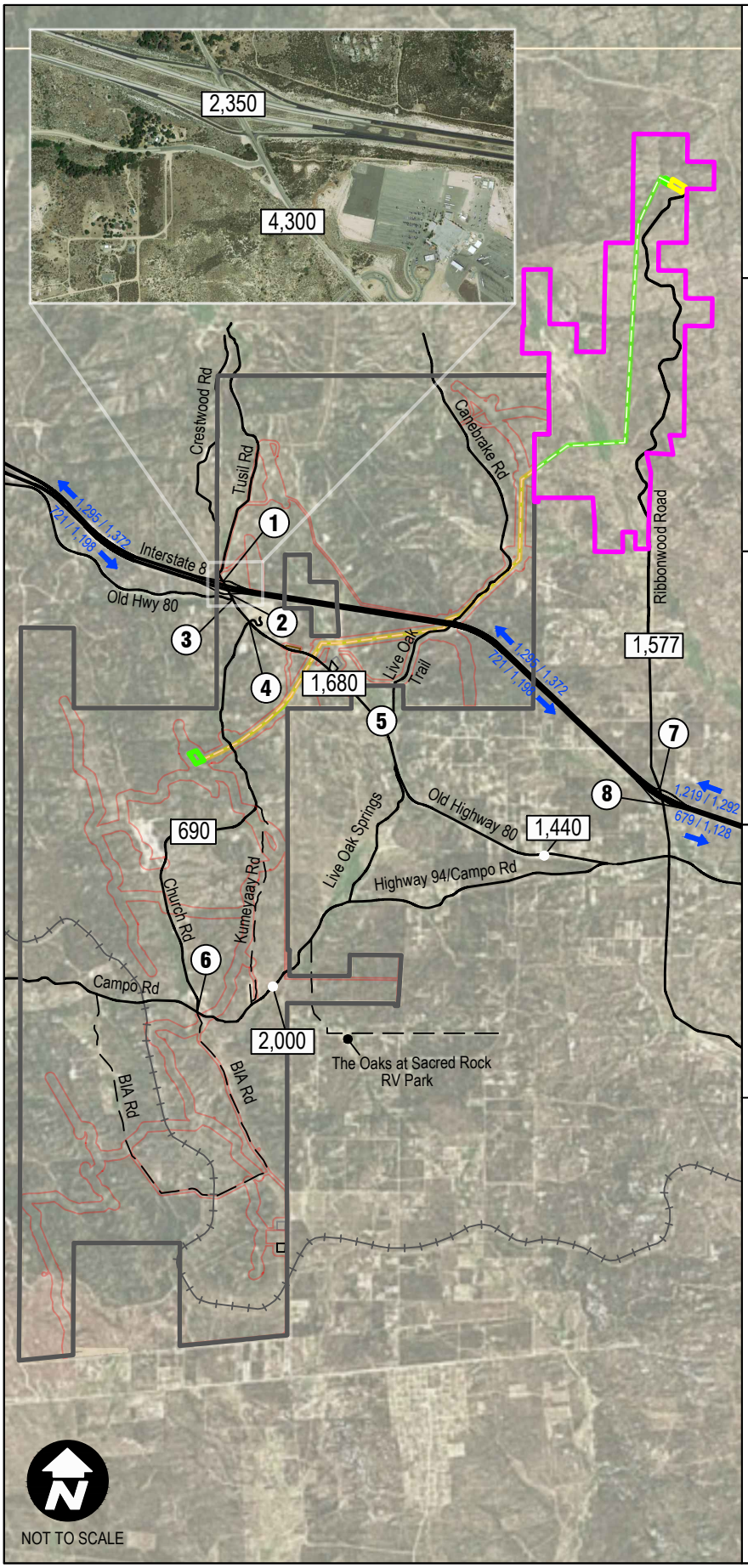

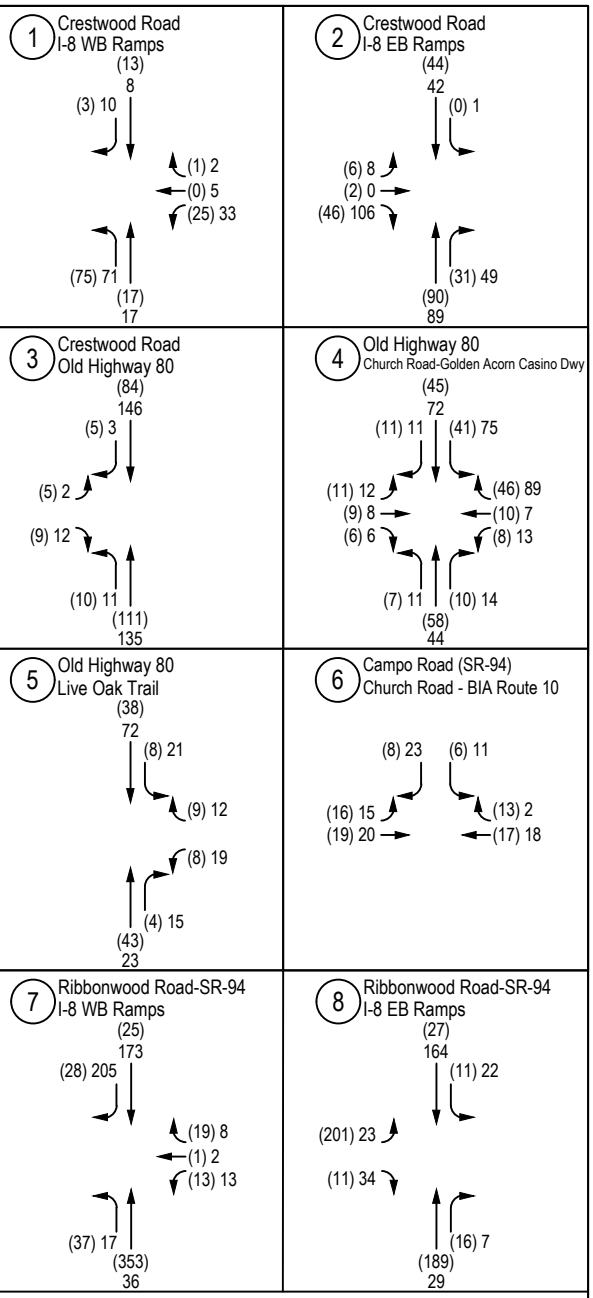

Legend

- Reservation Boundary
- Boulder Brush Boundary
- Project Impact Area
- (X) Study Intersection
- Substations
- Switchyard
- Boulder Brush Gen-tie
- On-Reservation Gen-tie
- (X) Weekday AM Peak Hour Traffic Volumes
- X Weekday PM Peak Hour Traffic Volumes
- AM / PM AM / PM Freeway Peak Hour Volumes
- X,XXX Average Daily Traffic

Source: BING Maps, 2018

FIGURE 10

Existing plus Cumulative Projects Traffic Volumes

Traffic Impact Analysis for the Campo Wind Project

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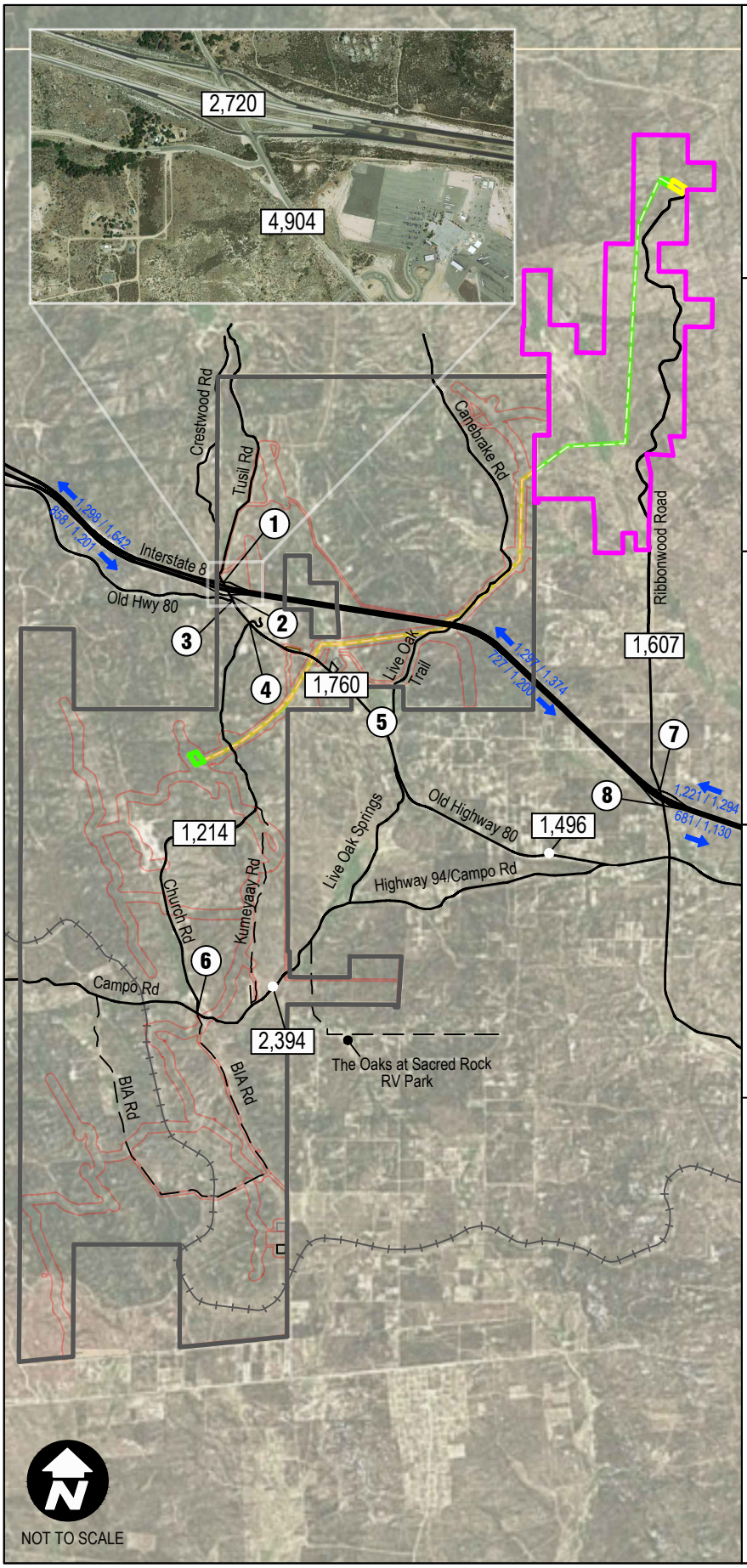

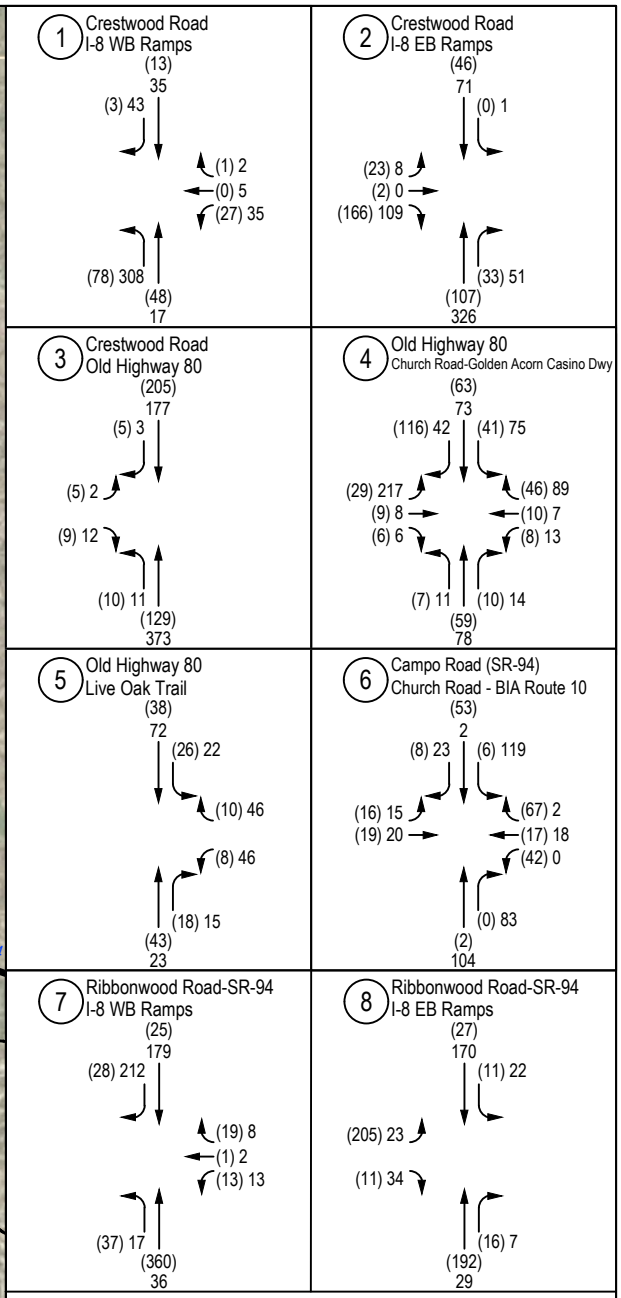

Legend

- Reservation Boundary
- Boulder Brush Boundary
- Project Impact Area
- Study Intersection
- (X) Weekday AM Peak Hour Traffic Volumes
- X Weekday PM Peak Hour Traffic Volumes
- AM / PM — AM / PM Freeway Peak Hour Volumes
- X,XXX Average Daily Traffic
- Substations
- Switchyard
- Boulder Brush Gen-tie
- On-Reservation Gen-tie

Source: BING Maps, 2018

FIGURE 11

Existing plus Project (Peak Construction) plus Cumulative Projects Traffic Volumes

Traffic Impact Analysis for the Campo Wind Project

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The Project would have a cumulative impact at the Crestwood Road/I-8 westbound ramps intersection. It should be noted that this impact would be temporary and short-term during the peak phase of construction. Section 8 provides recommended measures to reduce the Project's impact.

Construction-related activities across SR-94, and any other State highway facilities, will be required to follow the Caltrans Encroachment Permit process for oversized vehicles. As shown in Table 16, the Caltrans intersection of SR-94/Church Road intersection is forecast to operate at LOS B or better under Existing plus Project plus Cumulative Projects conditions.

5.5 Roadway Segment Operations

An ADT roadway segment LOS analysis was conducted for the Traffic Study Area to evaluate the Existing plus Project plus Cumulative Projects for 24-hour roadway capacity conditions. The Traffic Study Area roadway segments were analyzed using the methodology described in Section 1. The following presents the results of the analysis.

5.5.1 Existing plus Project plus Cumulative Projects

Table 17 shows the results of the Existing plus Project plus Cumulative Projects LOS analysis and provides a comparison to the existing (without the Project) and existing with project conditions for ADT volumes. Based on the appropriate significance criteria, all roadway segments are forecast to continue to operate at LOS C or better with the addition of the peak construction-related project traffic under Existing plus Project plus Cumulative Projects conditions. Therefore, the Project would not have an adverse effect to the roadway segments analyzed under Existing plus Project plus Cumulative Projects conditions.

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Table 16
Existing plus Project plus Cumulative Projects Peak Hour Intersection Level of Service

No.	Intersection	Critical Movement	Existing				Existing plus Project				Existing plus Project plus Cumulative				Change in Delay		Adverse Effect?	
			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak					
			Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	AM	PM	AM	PM
1	Crestwood Road/ I-8 westbound ramps	WBL	10.2	B	10.6	B	10.7	B	27.2	D	10.7	B	27.6	D	0.5	**17.0**	No	**Yes**
2	Crestwood Road/ I-8 eastbound ramps	EBL	9.4	A	9.8	A	9.6	A	12.6	B	9.7	A	12.7	B	0.3	2.9	No	No
3	Crestwood Road/ Old Highway 80	EBL	9.4	A	9.4	A	10.3	B	10.0	B	10.3	B	10.1	B	0.9	0.7	No	No
4	Old Highway 80/ Church Road-Golden Acorn Casino Driveway	EBL	11.0	B	12.6	B	12.7	B	24.4	C	12.8	B	25.3	D	1.8	12.7	No	No
5	Old Highway 80/ Live Oak Trail	WBL	9.1	A	9.3	A	9.4	A	9.6	A	9.4	A	9.6	A	0.3	0.3	No	No
6	Campo Road (SR-94)/ Church Road-BIA Route 10	SBL	9.3	A	9.1	A	12.6	B	13.1	B	12.7	B	13.2	B	3.4	4.1	No	No
7	Ribbonwood Road-SR-94/I-8 westbound ramps	WBL	9.3	A	9.0	A	9.4	A	9.1	A	13.1	B	11.9	B	3.8	2.9	No	No
8	Ribbonwood Road-SR-94/I-8 eastbound ramps	EBL	9.1	A	8.9	A	9.1	A	8.9	A	14.2	B	10.6	B	5.1	1.7	No	No

Source: Dudek, 2018.
HCM = Highway Capacity Manual; WBL = Westbound left; EBL = Eastbound left; SBL = Southbound left.
[1] Delay in seconds per vehicle reported for critical movement at unsignalized intersections
[2] Level of Service (LOS)
BOLD value indicates unsatisfactory LOS

Table 17
Existing plus Project plus Cumulative Projects Roadway Segment Level of Service

Roadway Segment	Classifi-cation	LOS "E" ADT	Existing			Project Traffic	Existing plus Project			Existing plus Project plus Cumulative Projects			Change in V/C
			ADT[1]	V/C[2]	LOS[3]		ADT[1]	V/C[2]	LOS[3]	ADT[1]	V/C[2]	LOS[3]	
Crestwood Road													
-Between I-8 WB and I-8 EB ramps	2 LU	16,200	2,212	0.14	B	370	2,582	0.16	B	2,720	0.17	B	0.03
-Old Highway 80 to Church Road	2 LU	16,200	4,132	0.26	C	604	4,736	0.29	C	4,904	0.30	C	0.05
Old Highway 80													
-Church Road to Live Oak Trail	2 LU	16,200	1,646	0.10	A	80	1,726	0.11	A	1,760	0.11	A	0.01
-Live Oak Trail to Campo Road (SR-94)	2 LU	16,200	1,411	0.09	A	56	1,467	0.09	A	1,496	0.09	A	0.01
Church Road													
-Old Highway 80 to Campo Road	2 LU	16,200	677	0.04	A	524	1,201	0.07	A	1,214	0.07	A	0.03
Ribbonwood Road													
-north of I-8	2 LU	4,500	579	0.13	<C	30	609	0.14	<C	1,607	0.36	<C	0.23
Campo Road (SR-94)													
-Buckman Springs Road to Live Oak Springs Road	2 LU	19,200	1,900	0.10	A	394	2,294	0.12	A	2,394	0.13	A	0.03

Source: Dudek 2018
Notes:
2 LU 2-Lane undivided
1 ADT – Average Daily Traffic
2 V/C – Volume to Capacity
3 LOS – Level of Service

5.6 Freeway Segment Operations

A mainline freeway segment analysis was prepared for the Existing plus Project plus Cumulative weekday AM and PM peak hour conditions. The analyses were calculated using HCS 7 software which utilizes the HCM 6th methodology described in Chapter 1. The following presents the results of the analysis.

5.6.1 Existing plus Project plus Cumulative (Peak Construction)

Table 18 shows the results of the Existing plus Project plus Cumulative Projects LOS analysis for the study freeway segments and provides a comparison to the Existing plus Project conditions for peak hour traffic volumes. Detailed LOS worksheets are included in Appendix C. Based on the appropriate significance criteria, all freeway segments are forecast to continue to operate at LOS B or better during both the peak hours, with the addition of the peak construction-related Project traffic under the Existing plus Project plus Cumulative Projects conditions.

Therefore, the Project would not have an adverse effect to the freeway segments analyzed under Existing plus Project plus Cumulative Projects conditions.

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Table 18
Existing plus Project plus Cumulative Freeway Segment Operations

Freeway Segment	Dir.	Mainline Lanes[1]	Existing plus Project								Existing plus Project plus Cumulative								Δ V/C[6]		Adverse Effect?
			Volume[2]		V/C[3]		Density[4]		LOS[5]		Volume[2]		V/C[3]		Density[4]		LOS[5]				
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
Interstate 8																					
Cameron Road to Crestwood Road-Old Hwy 80	EB	2	793	1,092	0.25	0.34	8.1	11.1	A	B	858	1,201	0.27	0.38	8.7	12.2	A	B	0.02	0.04	No
	WB	2	1,180	1,517	0.37	0.47	12.0	15.4	B	B	1,298	1,642	0.41	0.51	13.2	16.8	B	B	0.04	0.04	No
Crestwood Rd/ Old Highway 80 to Ribbonwood Rd/ SR-94	EB	2	662	1091	0.21	0.34	6.7	11.1	A	B	727	1,200	0.23	0.37	7.4	12.2	A	B	0.02	0.03	No
	WB	2	1,179	1,249	0.37	0.39	12.0	12.7	B	B	1,297	1,374	0.41	0.43	13.2	14.0	B	B	0.04	0.04	No
Ribbonwood Rd/ SR-94 to Carrizo Gorge	EB	2	619	1027	0.19	0.32	6.3	10.5	A	A	681	1,130	0.21	0.35	7.0	11.6	A	B	0.02	0.03	No
	WB	2	1,111	1,176	0.35	0.37	11.4	12.0	B	B	1,221	1,294	0.38	0.41	12.5	13.2	B	B	0.03	0.04	No

Notes: LOS based on HCM methodology, analyzed in the *2010 Highway Capacity Software* (HCS).
1 Lane geometry taken from PeMS lane configurations at corresponding postmile.
2 Peak hour volumes calculated from Caltrans Traffic Census Program Peak Hour Volume Data (2017).
3 V/C = (Peak Hour Volume/Hourly Capacity)
4 Density is presented in "passenger cars per lane per mile."
5 LOS = Level of Service
6 "Δ" denotes the Project-induced increase in V/C. Per SANTEC/ITE Guidelines, a significant impact occurs when the V/C is increased by greater than 0.01 for LOS E or LOS F.

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6 BOULDER BRUSH FACILITIES

This section is included in the TIA to analyze the peak phase that would occur during the construction of the Boulder Brush Facilities that are located on private lands, north of I-8. This analysis is also included to inform the BIA and County of the Boulder Brush Facilities traffic impacts as a subset of the Project and to facilitate preparation of the CEQA document for the County of San Diego. Construction-related traffic (i.e., workers and truck traffic) for the Boulder Brush Facilities would primarily utilize the I-8/Ribbonwood Road interchange and Ribbonwood Road. A majority of Boulder Brush Facilities-related construction traffic would travel along access roads constructed within the site.

As shown in Section 3, Table 12, construction of the Boulder Brush Facilities would generate 248 total daily trips, 58 AM peak hour trips (56 inbound and 2 outbound), and 112 PM peak hour trips (2 inbound and 110 outbound). With the application of PCE factors to truck trips, it would generate 296 total PCE daily trips, 65 PCE trips during the AM peak hour (60 inbound and 5 outbound) and 119 PCE trips during the PM peak hour (5 inbound and 114 outbound).

However, peak construction of phase of Boulder Brush Facilities would overlap with construction of the Campo Wind Facilities and, as depicted in Table 20, would generate 522 total daily trips, 126 AM peak hour trips (123 inbound and 3 outbound), and 246 PM peak hour trips (3 inbound and 243 outbound). With the application of PCE factors to truck trips, it would generate 585 total PCE daily trips, 136 PCE trips during the AM peak hour (128 inbound and 8 outbound) and 256 PCE trips during the PM peak hour (8 inbound and 248 outbound).

Table 19
Trip Generation for Boulder Brush Facilities Peak Construction

Vehicle Type	Daily Quantity	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	*Out*	*Total*	*In*	*Out*	*Total*
Trip Generation[1]								
Workers	240 workers	480	120	0	120	0	240	240
Vendor Trucks	19 Trucks	38	3	3	6	3	3	6
Haul Trucks	2 Trucks	4	0	0	0	0	0	0
Total		**522**	**123**	**3**	**126**	**3**	**243**	**246**
Trip Generation w/PCE[1]								
Workers[2] (1.0 PCE)	240 workers	480	120	0	120	0	240	240
Vendor Trucks (2.5 PCE)[3]	19 Trucks	95	7	7	14	7	7	14
Haul Trucks (2.5 PCE)[3]	2 Trucks	10	1	1	2	1	1	2
Total (w/PCE)		**585**	**128**	**8**	**136**	**8**	**248**	**256**

PCE – Passenger Car Equivalent

Note:

1 Trips have been rounded to the nearest whole number; rounding errors may be present

[2] PCE factor of 1 was utilized for worker passenger cars
[3] PCE factor of 2.5 was utilized for vendor and haul trucks

The project trip assignment peak construction-related project traffic (workers and trucks) for Boulder Brush Facilities (Figure 12), were added to the existing traffic volumes shown in Figure 3 to derive the Existing plus Project (Boulder Brush Peak Construction) traffic volumes (Figure 13) and to Figure 10 to derive Existing plus Project (Boulder Brush Peak Construction) plus Cumulative traffic volumes (Figure 14).

The peak construction phase of the Boulder Brush Facilities portion generates significantly less trips as compared to the peak construction of the Project as a whole. Since all roadway segments and freeway segments operate at acceptable LOS conditions with peak construction traffic from Campo Wind Project (or Project), only an intersection analysis was conducted to determine if Boulder Brush Facilities would have an adverse impact to the Crestwood Road/I-8 westbound ramps. As shown in Table 20, peak construction traffic from Boulder Brush Facilities would not cause the intersections of Crestwood Road/I-8 westbound ramps to operate with unsatisfactory LOS during the peak hours under Existing plus Project and Existing plus Project plus Cumulative projects conditions. The Crestwood Road/I-8 westbound ramps intersection is forecast to operate at LOS B or better under Existing plus Project and Existing plus Project plus Cumulative projects conditions during the peak construction of Boulder Brush Facilities.

The same mitigation measures recommended to address the Project's impacts would reduce the effects from the peak construction phase of the Boulder Brush Facilities.

Since the Boulder Brush Facilities are within the jurisdiction of the County, to mitigate any potential cumulative impact, the Facilities would participate in the County's Transportation Impact Fee (TIF) program by paying into the program based on the projected use and new trips to local and regional roads associated with it.

Additionally, the Project would require the temporary closure of I-8 at a time to be determined by Caltrans for the construction of the gen-tie line portion that crosses over I-8.

Table 20
Boulder Brush Facilities Peak Hour Intersection Level of Service

No.	Intersection	Critical Movement	Existing				Existing plus Project				Existing plus Project plus Cumulative				Adverse Effect?	
			AM Peak		PM Peak		AM Peak		PM Peak		AM Peak		PM Peak			
			Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	AM	PM
1	Crestwood Road/ I-8 westbound ramps	WBL	10.2	B	10.6	B	10.4	B	11.5	B	10.4	B	11.6	B	No	No
2	Crestwood Road/ I-8 eastbound ramps	EBL	9.4	A	9.8	A	9.4	A	10.1	B	9.5	A	10.2	B	No	No
3	Crestwood Road/ Old Highway 80	EBL	9.4	A	9.4	A	9.5	A	9.5	A	9.5	A	9.5	A	No	No
4	Old Highway 80/ Church Road-Golden Acorn Casino Driveway	EBL	11.0	B	12.6	B	11.5	B	13.4	C	11.6	B	13.6	B	No	No
5	Old Highway 80/ Live Oak Trail	WBL	9.1	A	9.3	A	9.1	A	9.3	A	9.1	A	9.3	A	No	No
6	Campo Road (SR-94)/ Church Road-BIA Route 10	SBL	9.3	A	9.1	A	10.9	B	9.4	A	10.9	B	9.5	A	No	No
7	Ribbonwood Road-SR-94/I-8 westbound ramps	WBL	9.3	A	9.0	A	10.1	B	10.1	B	14.4	B	13.5	B	No	No
8	Ribbonwood Road-SR-94/I-8 eastbound ramps	EBL	9.1	A	8.9	A	9.6	A	9.5	A	16.8	C	11.5	B	No	No

Source: Dudek, 2018.
HCM = Highway Capacity Manual; WBL = Westbound left; EBL = Eastbound left; SBL = Southbound left.
1 Delay in seconds per vehicle reported for critical movement at unsignalized intersections
2 Level of Service (LOS)

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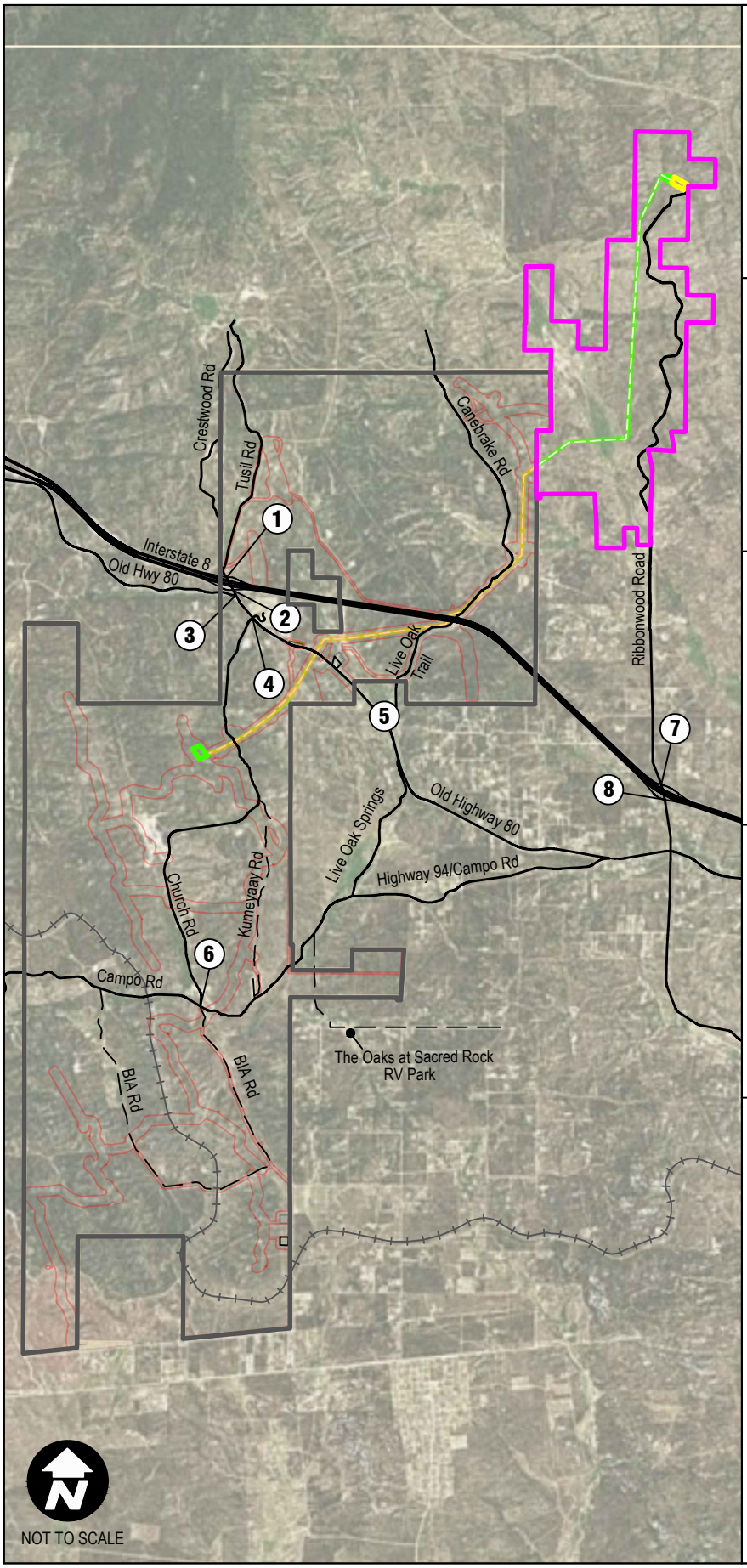

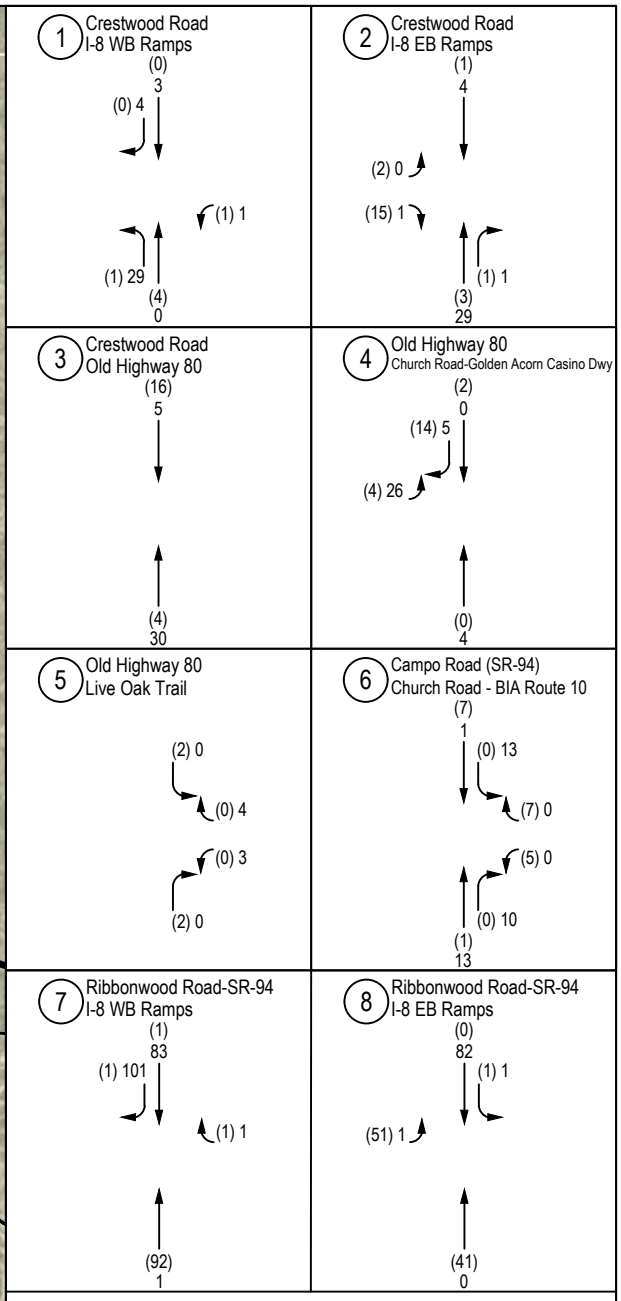

Legend

- Reservation Boundary
- Substations
- Boulder Brush Boundary
- Switchyard
- Project Impact Area
- Boulder Brush Gen-tie
- (X) Study Intersection
- On-Reservation Gen-tie
- (X) Weekday AM Peak Hour Traffic Volumes
- X Weekday PM Peak Hour Traffic Volumes

Source: BING Maps, 2018

FIGURE 12

Project Trip Assignment - Workers and Trucks (Boulder Brush Peak Construction)

Traffic Impact Analysis for the Campo Wind Project

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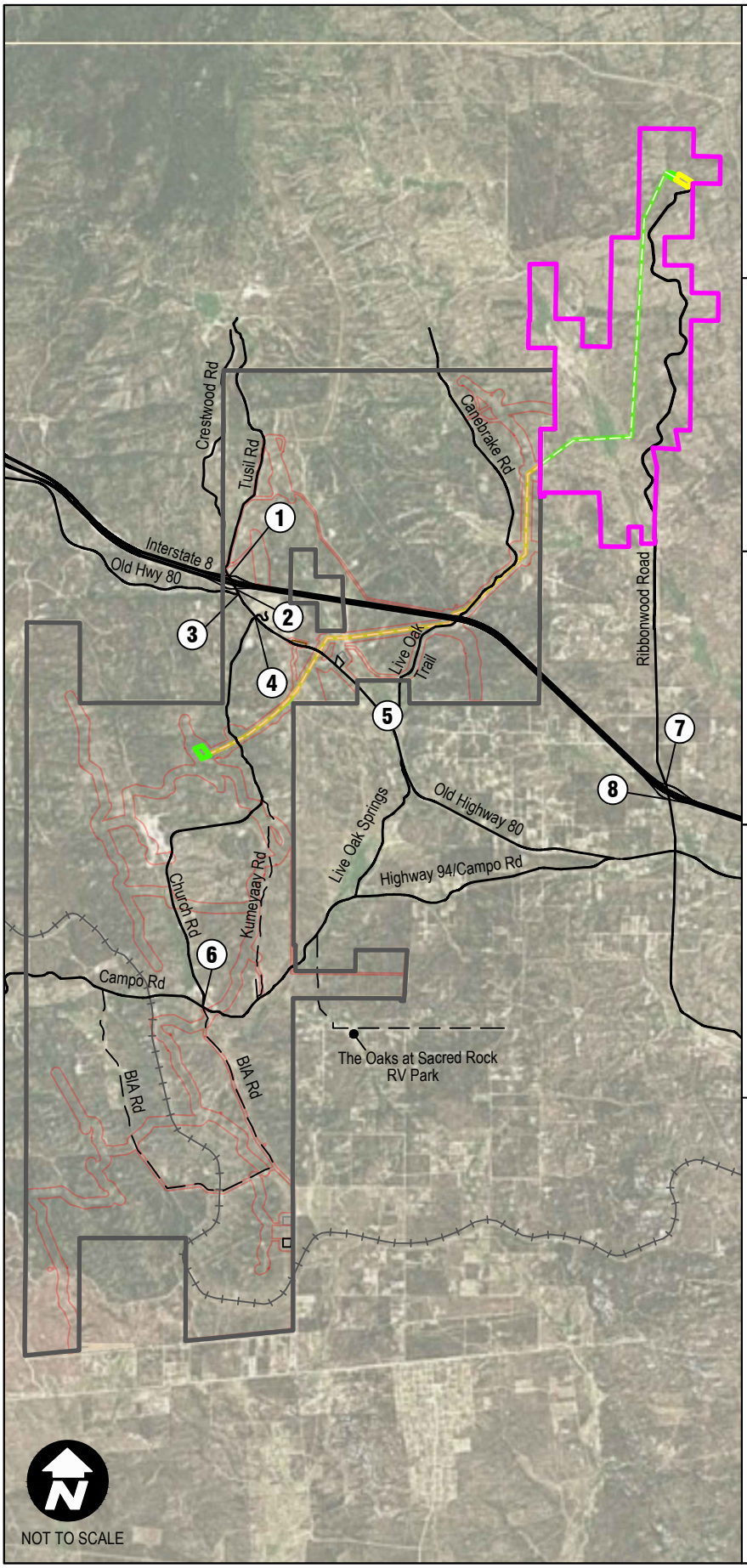

1 Crestwood Road
I-8 WB Ramps
(13)
11
(3) 14
(1) 2
(0) 5
(25) 32
(75) 99
(21)
17

2 Crestwood Road
I-8 EB Ramps
(43)
44
(0) 1
(8) 8
(2) 0
(60) 105
(30) 47
(91)
116

3 Crestwood Road
Old Highway 80
(97)
147
(5) 3
(5) 2
(9) 12
(10) 11
(112)
160

4 Old Highway 80
Church Road-Golden Acorn Casino Dwy
(46)
71
(25) 16
(39) 73
(15) 38
(44) 85
(9) 8
(10) 7
(6) 6
(8) 13
(7) 11
(10) 14
(57)
47

5 Old Highway 80
Live Oak Trail
(37)
71
(10) 21
(9) 16
(8) 22
(6) 15
(42)
23

6 Campo Road (SR-94)
Church Road - BIA Route 10
(7)
1
(8) 23
(6) 24
(16) 15
(20) 2
(18) 19
(16) 17
(5) 0
(0) 10
(1)
13

7 Ribbonwood Road-SR-94
I-8 WB Ramps
(12)
88
(18) 111
(3) 2
(1) 2
(13) 9
(36) 17
(101)
15

8 Ribbonwood Road-SR-94
I-8 EB Ramps
(12)
97
(4) 6
(57) 11
(11) 33
(16) 7
(75)
20

Legend

- Reservation Boundary
- Boulder Brush Boundary
- Project Impact Area
- X Study Intersection
- (X) Weekday AM Peak Hour Traffic Volumes
- X Weekday PM Peak Hour Traffic Volumes
- Substations
- Switchyard
- Boulder Brush Gen-tie
- On-Reservation Gen-tie

Source: BING Maps, 2018

FIGURE 13

Existing plus Project (Boulder Brush Peak Construction) Traffic Volumes

Traffic Impact Analysis for the Campo Wind Project

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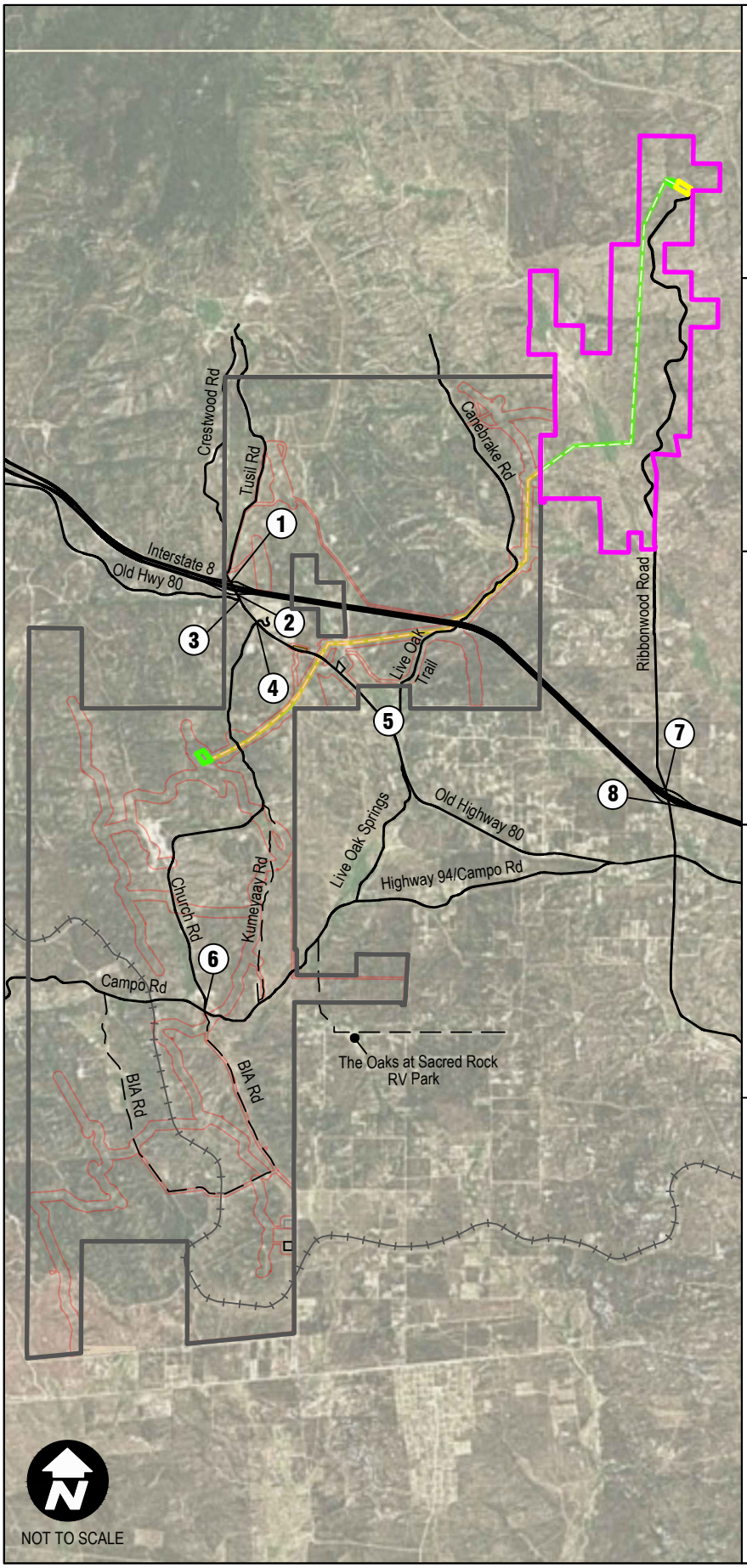

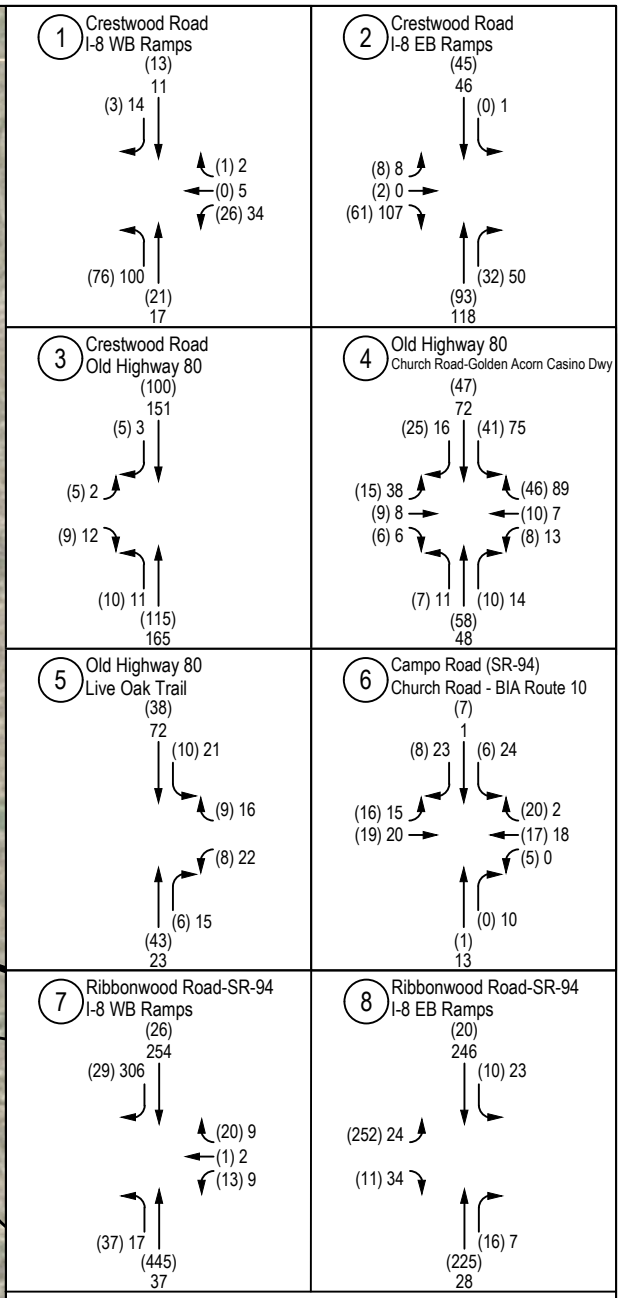

Source: BING Maps, 2018

FIGURE 14

Existing plus Project (Boulder Brush Peak Construction) plus Cumulative Projects Traffic Volumes

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Traffic Impact Analysis for the Campo Wind Project

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7 ROAD CONDITION, TRUCK HEIGHT, LENGTH, TURN RADII AND VERTICAL CLEARANCE

Construction of the Project, would include the construction of new dirt roads and modification of some existing roads within the Reservation. Damage to existing roadways by construction vehicles and equipment (e.g., oversized trucks used for wind turbine component delivery, concrete trucks) could occur from vehicles entering and leaving roadways during construction. These effects would be adverse; however, repair and restoration of roads (MM TRA-2), to their preconstruction condition at a minimum, would reduce the effects to not adverse.

As shown in Section 3, the peak construction phase of the Project would generate the use of approximately 50 trucks per day. These trucks would be utilized for transportation of steel pipe, movement of heavy equipment for turbine construction, dump trucks, concrete trucks, water trucks and subcontractor trucks. These trucks are expected to use Crestwood Road and Ribbonwood Road.

Field surveys were conducted for a previous wind project (Tule Wind) to determine the height of the Crestwood Road and Ribbonwood Road under-crossings on I-8 to determine the maximum height of the trucks that can possibly use this access road. As-builts of the under-crossings to determine the vertical clearances obtained from Caltrans and are provided in Appendix D.

Based on review of the as-builts at the I-8/Crestwood Road and Ribbonwood Road interchanges, the Crestwood Road under-crossing has a minimum vertical clearance of 16 feet and 11 inches; and Ribbonwood Road undercrossing has a minimum vertical clearance of 19 feet and 1 inch.

The California vehicle code (*Section 35250*) suggests that the maximum height of a vehicle cannot exceed 14 feet. Per the Caltrans Encroachment Permit process, the Project developer will be required to coordinate with Caltrans and obtain special permits for oversized vehicles that exceed 14 feet in height. Also, large wind turbine components may be delivered on specialized trucks of up to 180 feet in length when loaded, with steering capabilities on rear axles to maneuver around corners. As part of the Caltrans permit process, any vehicles with excessive height and length are expected to require pilot cars, which typically provide overhead height warning devices to ensure oversized loads do not exceed undercrossing height limits. Modifications to proposed roads to provide sufficient turn radii and pavement within the reservation to accommodate the delivery of wind turbine components may be required. The turn for these specialized trucks would require use of the entire available pavement, requiring all other traffic to be stopped to ensure safe conditions.

The developer would implement a Traffic Control and Management Plan (MM TRA 3) that would address all of the above and ensure coordination with Caltrans, California Highway Patrol, and County officials, including the Sheriff's department.

Section 8 provides recommended measures (MM TRA 1, MM TRA 2 and MM TRA 3) to reduce the Project's effects.

8 RECOMMENDED MITIGATION MEASURES

As shown in the TIA, all the Traffic Study Area intersections, roadway segments and freeway segments are operating at acceptable LOS under existing conditions. The LOS analysis provided above demonstrates that with the peak level of construction-related traffic added to the Traffic Study Area, the forecast LOS for one of the Traffic Study Area intersections will be adversely affected; however, the roadway and freeway segments would not be adversely affected by the Project.

The construction-related traffic from the Project would have an adverse effect on the following intersection under the Existing plus Project conditions and Existing plus Project plus Cumulative Projects conditions:

- Crestwood Road/I-8 westbound ramps (LOS D in the PM peak hour)

The effects would be temporary and short term for the peak of construction phase. The following mitigation measure is recommended to reduce effects on the intersection:

MM TRA 1 **Use of Traffic Flagger during PM Peak Hour**-The Project shall utilize a trained and qualified traffic flagger for the duration of the peak construction phase of the Project construction (i.e., approximately 27 days - during the overlap of Phases 2, 3 and 8) at the Project access roads at the end of the day shift (PM peak hour) to stagger outbound Project traffic, in order to minimize delays at the impacted intersection of Crestwood Road/I-8 westbound ramps.

To reduce the effects of construction traffic to roadway conditions within the Reservation following mitigation measure is recommended:

MM TRA 2 **Repair and Restoration of Road**- It is recommended that the Tribe and the BIA Roads Branch perform site inspection before Project start and again after Project completion to ensure that the quality of roadways is not compromised by construction traffic. If damage to roads is found to have resulted from construction activities, it is recommended that the developer coordinate repairs with the affected Tribal and public agencies to ensure that any impacts to area roads are adequately repaired at the developer's cost, pursuant to the Campo Lease and all applicable permits. It is recommended that roads disturbed by construction activities or construction vehicles be properly restored to ensure long-term protection of road surfaces. This would include consideration of damage to roadside drainage structures. BIA streets would be repaired, resurfaced, and restriped by the contractor after completion of the Project construction.

Implementation of a Traffic Control and Management Plan (TCMP) is recommended to address potential hazards to motorists on public roadways and ensure coordination with Caltrans, California Highway Patrol, and County officials, including the Sheriff's department.

MM TRA 3 Traffic Control and Management Plan- As part of standard practice, the developer will implement the following measures included in a Traffic Control and Management (TCMP) Plan during the construction of the Project:

- Temporary traffic control devices in accordance with Caltrans' California Manual on Uniform Traffic Control Device (CAMUTCD) to identify locations/sections where construction is ongoing. This may include slow-moving-vehicle warning signs, signage to warn of merging trucks, barriers for separating construction and non-construction traffic, use of traffic control flagmen, and any additional measures required for the sole convenience of safely passing non-construction traffic through and around construction areas.
- Coordination with Caltrans in order to secure the necessary encroachment and trip permits necessary for specialized haul trucks. Also, any excessive height/length vehicles should consider the need to use pilot car services to provide safe over-the-road operations and overhead height warnings, if necessary.
- Notification of California Highway Patrol (CHP) in order to facilitate slowing freeway traffic to ensure safe access for motorists.
- Coordination with Caltrans, California Highway Patrol, and County officials, including the Sheriff's department.
- Employment of a contract transport company that would be responsible for surveying the route to determine how turns on existing roads would be accomplished; ensure that analysis is reflected in the traffic control and management plan.
- Establishment of procedures for coordinating with local emergency response agencies to ensure dissemination of information regarding emergency response vehicle routes affected by construction activities.
- Encouragement of carpooling among workers to reduce worker commute trips entering and exiting the Project Site.

9 FINDINGS AND RECOMMENDATIONS

The findings of this TIA are summarized as follows:

- The overlap of peak construction phases of Campo Wind Facilities and Boulder Brush Facilities represents the peak construction trip generation of the Project. Section 1.2 provides details on overlap of construction phases.

  The overlap of peak construction phases of Project would generate 1,012 total daily trips, 261 AM peak hour trips (256 inbound and 5 outbound), and 511 PM peak hour trips (5 inbound and 506 outbound). With the application of PCE factors to truck trips, the Project would generate 1,251 total PCE daily trips, and 275 PCE trips during the AM peak hour (263 inbound and 12 outbound) and 525 PCE trips during the PM peak hour (12 inbound and 513 outbound).

- All of the Traffic Study Area intersections and roadway segments currently operate at LOS B (intersections) or better or at LOS C (roadway segments) under existing conditions during both the peak hour and daily traffic conditions.

- With the exception of one intersection, all the Traffic Study Area intersections, roadway segments and freeway segments are forecast to operate at LOS C or better (intersections) LOS C (roadway segments) and LOS B or better (freeway segments) during both the peak hours and daily traffic conditions under Existing plus Project condition and Existing plus Project plus Cumulative Projects conditions.

- The construction-related traffic from peak construction phase of the Project would create adverse traffic effects to the Crestwood Road/I-8 westbound ramps intersection during the PM peak hour under the Existing plus Project conditions and Existing plus Project plus Cumulative Projects conditions:

- Project effects at the Crestwood Road/I-8 westbound ramps intersection would be reduced with implementation of recommended mitigation measure (MM TRA 1) described in Section 8.

- The overlap of peak construction phases of Boulder Brush Facilities would generate 522 total daily trips, 126 AM peak hour trips (123 inbound and 3 outbound), and 246 PM peak hour trips (3 inbound and 243 outbound). With the application of PCE factors to truck trips, it would generate 585 total PCE daily trips, 136 PCE trips during the AM peak hour (128 inbound and 8 outbound) and 256 PCE trips during the PM peak hour (8 inbound and 248 outbound).

- There would be no adverse effect during the peak construction phase of Boulder Brush Facilities. Since Boulder Brush Facilities are within the jurisdiction of San Diego County,

to mitigate any potential cumulative impact, the applicant would participate in the County's Transportation Impact Fee (TIF) program.

- There would be adverse cumulative effect during the peak construction of Project construction-related traffic from peak construction phase to the Crestwood Road/I-8 westbound ramps intersection during the PM peak hour under the Existing plus Project conditions and Existing plus Project plus Cumulative Projects conditions. Adverse cumulative effects at the Crestwood Road/I-8 westbound ramps intersection could be mitigated with implementation of recommended mitigation measure (MM TRA 1) described in Section 8.
- To reduce the effects of construction traffic to roadway conditions within the Reservation, MM TRA 2 is recommended.
- Implementation of MM TR 3 - Traffic Control and Management Plan (TCMP) is recommended to address potential hazards to motorists on public roadways and ensure coordination with Caltrans, California Highway Patrol, and County officials, including the Sheriff's department.

APPENDIX A

Traffic Counts

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Crestwood Rd Bet. I-80 WB Ramps & I-8 EB Ramps

Day: Thursday
Date: 9/13/2018

City: Campo
Project #: CA18_4267_001

DAILY TOTALS	NB	SB	EB	WB	Total
	1,316	896	0	0	2,212

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	0		4		0	0	4		12:00	20		16		0	0	36	
00:15	1		1		0	0	2		12:15	20		12		0	0	32	
00:30	2		0		0	0	2		12:30	24		14		0	0	38	
00:45	3	6	1	6	0	0	4	12	12:45	21	85	8	50	0	0	29	135
01:00	1		4		0	0	5		13:00	15		10		0	0	25	
01:15	0		4		0	0	4		13:15	26		22		0	0	48	
01:30	3		1		0	0	4		13:30	25		14		0	0	39	
01:45	1	5	2	11	0	0	3	16	13:45	26	92	8	54	0	0	34	146
02:00	3		6		0	0	9		14:00	24		15		0	0	39	
02:15	2		2		0	0	4		14:15	14		11		0	0	25	
02:30	6		3		0	0	9		14:30	18		16		0	0	34	
02:45	1	12	0	11	0	0	1	23	14:45	13	69	17	59	0	0	30	128
03:00	8		4		0	0	12		15:00	30		12		0	0	42	
03:15	4		0		0	0	4		15:15	16		16		0	0	32	
03:30	5		4		0	0	9		15:30	17		10		0	0	27	
03:45	7	24	0	8	0	0	7	32	15:45	22	85	18	56	0	0	40	141
04:00	6		2		0	0	8		16:00	17		7		0	0	24	
04:15	11		2		0	0	13		16:15	20		14		0	0	34	
04:30	9		7		0	0	16		16:30	32		15		0	0	47	
04:45	12	38	4	15	0	0	16	53	16:45	20	89	11	47	0	0	31	136
05:00	12		3		0	0	15		17:00	13		7		0	0	20	
05:15	20		2		0	0	22		17:15	13		19		0	0	32	
05:30	10		3		0	0	13		17:30	18		23		0	0	41	
05:45	19	61	12	20	0	0	31	81	17:45	15	59	17	66	0	0	32	125
06:00	15		2		0	0	17		18:00	16		21		0	0	37	
06:15	17		14		0	0	31		18:15	15		17		0	0	32	
06:30	21		8		0	0	29		18:30	16		10		0	0	26	
06:45	21	74	9	33	0	0	30	107	18:45	9	56	9	57	0	0	18	113
07:00	18		8		0	0	26		19:00	14		11		0	0	25	
07:15	13		5		0	0	18		19:15	6		10		0	0	16	
07:30	21		15		0	0	36		19:30	7		14		0	0	21	
07:45	26	78	7	35	0	0	33	113	19:45	10	37	10	45	0	0	20	82
08:00	23		12		0	0	35		20:00	10		8		0	0	18	
08:15	20		10		0	0	30		20:15	10		16		0	0	26	
08:30	21		11		0	0	32		20:30	11		10		0	0	21	
08:45	25	89	15	48	0	0	40	137	20:45	17	48	9	43	0	0	26	91
09:00	22		18		0	0	40		21:00	11		11		0	0	22	
09:15	16		10		0	0	26		21:15	12		8		0	0	20	
09:30	28		15		0	0	43		21:30	7		10		0	0	17	
09:45	19	85	9	52	0	0	28	137	21:45	8	38	8	37	0	0	16	75
10:00	29		17		0	0	46		22:00	7		3		0	0	10	
10:15	21		8		0	0	29		22:15	6		4		0	0	10	
10:30	21		12		0	0	33		22:30	5		4		0	0	9	
10:45	14	85	10	47	0	0	24	132	22:45	5	23	1	12	0	0	6	35
11:00	20		16		0	0	36		23:00	2		7		0	0	9	
11:15	14		23		0	0	37		23:15	2		5		0	0	7	
11:30	17		12		0	0	29		23:30	2		1		0	0	3	
11:45	16	67	14	65	0	0	30	132	23:45	5	11	6	19	0	0	11	30
TOTALS		624		351				**975**	**TOTALS**		692		545				**1237**
SPLIT %		64.0%		36.0%				**44.1%**	**SPLIT %**		55.9%		44.1%				**55.9%**

DAILY TOTALS	NB	SB	EB	WB	Total
	1,316	896	0	0	2,212

AM Peak Hour	09:30	11:00					**08:45**		**PM Peak Hour**	13:15	17:15					**13:15**		
AM Pk Volume	97	65					**149**		**PM Pk Volume**	101	80					**160**		
Pk Hr Factor	0.836	0.707					**0.866**		**Pk Hr Factor**	0.971	0.870					**0.833**		
7 - 9 Volume	167	83	0	0			**250**		**4 - 6 Volume**	148	113	0	0			**261**		
7 - 9 Peak Hour	07:30	08:00					**08:00**		**4 - 6 Peak Hour**	16:00	17:00					**16:00**		
7 - 9 Pk Volume	90	48	0	0			**137**		**4 - 6 Pk Volume**	89	66	0	0			**136**		
Pk Hr Factor	0.865	0.800	0.000	0.000			**0.856**		**Pk Hr Factor**	0.695	0.717	0.000	0.000			**0.723**		

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Crestwood Rd Bet. Old Hwy 80 & Church Rd

Day: Thursday
Date: 9/13/2018

City: Campo
Project #: CA18_4267_002

DAILY TOTALS	NB	SB	EB	WB	Total
	2,060	2,072	0	0	4,132

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	3		5		0	0	8		12:00	37		37		0	0	74	
00:15	5		9		0	0	14		12:15	33		30		0	0	63	
00:30	6		4		0	0	10		12:30	36		37		0	0	73	
00:45	8	22	5	23	0	0	13	45	12:45	30	136	26	130	0	0	56	266
01:00	5		7		0	0	12		13:00	23		34		0	0	57	
01:15	4		6		0	0	10		13:15	34		50		0	0	84	
01:30	9		3		0	0	12		13:30	38		34		0	0	72	
01:45	4	22	4	20	0	0	8	42	13:45	39	134	24	142	0	0	63	276
02:00	6		4		0	0	10		14:00	40		31		0	0	71	
02:15	1		3		0	0	4		14:15	32		25		0	0	57	
02:30	10		5		0	0	15		14:30	30		42		0	0	72	
02:45	1	18	2	14	0	0	3	32	14:45	35	137	34	132	0	0	69	269
03:00	9		3		0	0	12		15:00	46		39		0	0	85	
03:15	5		3		0	0	8		15:15	28		48		0	0	76	
03:30	5		3		0	0	8		15:30	33		28		0	0	61	
03:45	8	27	0	9	0	0	8	36	15:45	32	139	32	147	0	0	64	286
04:00	10		2		0	0	12		16:00	26		34		0	0	60	
04:15	13		3		0	0	16		16:15	35		42		0	0	77	
04:30	10		7		0	0	17		16:30	43		45		0	0	88	
04:45	13	46	3	15	0	0	16	61	16:45	31	135	33	154	0	0	64	289
05:00	17		8		0	0	25		17:00	18		34		0	0	52	
05:15	26		3		0	0	29		17:15	21		44		0	0	65	
05:30	13		5		0	0	18		17:30	31		40		0	0	71	
05:45	21	77	17	33	0	0	38	110	17:45	26	96	40	158	0	0	66	254
06:00	22		14		0	0	36		18:00	26		47		0	0	73	
06:15	27		15		0	0	42		18:15	25		42		0	0	67	
06:30	29		16		0	0	45		18:30	27		24		0	0	51	
06:45	32	110	22	67	0	0	54	177	18:45	18	96	18	131	0	0	36	227
07:00	31		13		0	0	44		19:00	22		24		0	0	46	
07:15	24		20		0	0	44		19:15	16		33		0	0	49	
07:30	29		20		0	0	49		19:30	16		24		0	0	40	
07:45	27	111	26	79	0	0	53	190	19:45	20	74	29	110	0	0	49	184
08:00	31		21		0	0	52		20:00	23		19		0	0	42	
08:15	31		17		0	0	48		20:15	12		35		0	0	47	
08:30	22		23		0	0	45		20:30	21		27		0	0	48	
08:45	26	110	19	80	0	0	45	190	20:45	19	75	21	102	0	0	40	177
09:00	32		28		0	0	60		21:00	12		22		0	0	34	
09:15	22		27		0	0	49		21:15	15		17		0	0	32	
09:30	37		29		0	0	66		21:30	13		14		0	0	27	
09:45	22	113	24	108	0	0	46	221	21:45	15	55	20	73	0	0	35	128
10:00	30		28		0	0	58		22:00	11		17		0	0	28	
10:15	29		27		0	0	56		22:15	14		9		0	0	23	
10:30	33		33		0	0	66		22:30	18		9		0	0	27	
10:45	29	121	26	114	0	0	55	235	22:45	13	56	14	49	0	0	27	105
11:00	39		26		0	0	65		23:00	15		15		0	0	30	
11:15	18		44		0	0	62		23:15	11		10		0	0	21	
11:30	29		32		0	0	61		23:30	6		11		0	0	17	
11:45	28	114	39	141	0	0	67	255	23:45	4	36	5	41	0	0	9	77
TOTALS		891		703				**1594**	**TOTALS**		1169		1369				**2538**
SPLIT %		55.9%		44.1%				**38.6%**	**SPLIT %**		46.1%		53.9%				**61.4%**

DAILY TOTALS	NB	SB	EB	WB	Total
	2,060	2,072	0	0	4,132

AM Peak Hour	11:45	11:15			**11:45**	**PM Peak Hour**	13:15	17:15			**14:30**
AM Pk Volume	134	152			**277**	**PM Pk Volume**	151	171			**302**
Pk Hr Factor	0.905	0.864			**0.936**	**Pk Hr Factor**	0.944	0.910			**0.888**
7 - 9 Volume	221	159	0	0	**380**	**4 - 6 Volume**	231	312	0	0	**543**
7 - 9 Peak Hour	07:30	07:15			**07:30**	**4 - 6 Peak Hour**	16:00	17:00			**16:00**
7 - 9 Pk Volume	118	87	0	0	**202**	**4 - 6 Pk Volume**	135	158	0	0	**289**
Pk Hr Factor	0.952	0.837	0.000	0.000	**0.953**	**Pk Hr Factor**	0.785	0.898	0.000	0.000	**0.821**

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Old Hwy 80 Bet. Church Rd & Live Oak Trail

Day: Thursday
Date: 9/13/2018

City: Campo
Project #: CA18_4267_003

DAILY TOTALS	NB	SB	EB	WB	Total
	819	827	0	0	1,646

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	1		4		0	0	5		12:00	11		10		0	0	21	
00:15	1		4		0	0	5		12:15	12		10		0	0	22	
00:30	1		3		0	0	4		12:30	9		8		0	0	17	
00:45	2	5	1	12	0	0	3	17	12:45	14	46	11	39	0	0	25	85
01:00	0		3		0	0	3		13:00	10		10		0	0	20	
01:15	1		4		0	0	5		13:15	9		15		0	0	24	
01:30	4		0		0	0	4		13:30	12		10		0	0	22	
01:45	1	6	1	8	0	0	2	14	13:45	17	48	10	45	0	0	27	93
02:00	1		0		0	0	1		14:00	13		12		0	0	25	
02:15	0		1		0	0	1		14:15	7		5		0	0	12	
02:30	3		2		0	0	5		14:30	10		25		0	0	35	
02:45	2	6	1	4	0	0	3	10	14:45	11	41	12	54	0	0	23	95
03:00	3		2		0	0	5		15:00	16		18		0	0	34	
03:15	3		0		0	0	3		15:15	14		25		0	0	39	
03:30	4		1		0	0	5		15:30	15		22		0	0	37	
03:45	5	15	1	4	0	0	6	19	15:45	18	63	10	75	0	0	28	138
04:00	3		0		0	0	3		16:00	9		13		0	0	22	
04:15	8		1		0	0	9		16:15	12		23		0	0	35	
04:30	8		1		0	0	9		16:30	15		25		0	0	40	
04:45	10	29	0	2	0	0	10	31	16:45	8	44	16	77	0	0	24	121
05:00	13		2		0	0	15		17:00	7		22		0	0	29	
05:15	11		0		0	0	11		17:15	3		22		0	0	25	
05:30	11		0		0	0	11		17:30	12		23		0	0	35	
05:45	16	51	4	6	0	0	20	57	17:45	12	34	24	91	0	0	36	125
06:00	14		1		0	0	15		18:00	9		16		0	0	25	
06:15	23		4		0	0	27		18:15	7		17		0	0	24	
06:30	14		4		0	0	18		18:30	7		17		0	0	24	
06:45	25	76	6	15	0	0	31	91	18:45	4	27	12	62	0	0	16	89
07:00	18		5		0	0	23		19:00	10		10		0	0	20	
07:15	8		9		0	0	17		19:15	7		10		0	0	17	
07:30	14		5		0	0	19		19:30	3		11		0	0	14	
07:45	16	56	5	24	0	0	21	80	19:45	9	29	10	41	0	0	19	70
08:00	14		10		0	0	24		20:00	7		14		0	0	21	
08:15	12		11		0	0	23		20:15	5		14		0	0	19	
08:30	11		10		0	0	21		20:30	8		14		0	0	22	
08:45	20	57	14	45	0	0	34	102	20:45	3	23	10	52	0	0	13	75
09:00	15		8		0	0	23		21:00	6		7		0	0	13	
09:15	10		5		0	0	15		21:15	1		8		0	0	9	
09:30	18		6		0	0	24		21:30	3		7		0	0	10	
09:45	9	52	7	26	0	0	16	78	21:45	2	12	11	33	0	0	13	45
10:00	9		4		0	0	13		22:00	2		3		0	0	5	
10:15	14		6		0	0	20		22:15	2		3		0	0	5	
10:30	8		11		0	0	19		22:30	5		7		0	0	12	
10:45	14	45	10	31	0	0	24	76	22:45	7	16	9	22	0	0	16	38
11:00	7		5		0	0	12		23:00	5		4		0	0	9	
11:15	9		12		0	0	21		23:15	1		11		0	0	12	
11:30	4		9		0	0	13		23:30	0		1		0	0	1	
11:45	11	31	12	38	0	0	23	69	23:45	1	7	5	21	0	0	6	28
TOTALS		429		215				644	TOTALS		390		612				1002
SPLIT %		66.6%		33.4%				39.1%	SPLIT %		38.9%		61.1%				60.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	819	827	0	0	1,646

AM Peak Hour	06:15	08:00					08:00		PM Peak Hour	15:00	17:00					15:00		
AM Pk Volume	80	45					102		PM Pk Volume	63	91					138		
Pk Hr Factor	0.800	0.804					0.750		Pk Hr Factor	0.875	0.948					0.885		
7 - 9 Volume	113	69	0	0			182		4 - 6 Volume	78	168	0	0			246		
7 - 9 Peak Hour	08:00	08:00					08:00		4 - 6 Peak Hour	16:00	17:00					16:15		
7 - 9 Pk Volume	57	45	0	0			102		4 - 6 Pk Volume	44	91	0	0			128		
Pk Hr Factor	0.713	0.804	0.000	0.000			0.750		Pk Hr Factor	0.733	0.948	0.000	0.000			0.800		

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Old Hwy 80 Bet. Live Oak Trail & Campo Rd (SR-94)

Day: Thursday
Date: 9/13/2018

City: Campo
Project #: CA18_4267_004

DAILY TOTALS	NB	SB	EB	WB	Total
	709	702	0	0	1,411

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	0		2		0	0	2		12:00	7		7		0	0	14	
00:15	2		2		0	0	4		12:15	7		12		0	0	19	
00:30	0		1		0	0	1		12:30	13		7		0	0	20	
00:45	2	4	2	7	0	0	4	11	12:45	8	35	6	32	0	0	14	67
01:00	0		2		0	0	2		13:00	11		14		0	0	25	
01:15	2		1		0	0	3		13:15	10		11		0	0	21	
01:30	1		1		0	0	2		13:30	7		9		0	0	16	
01:45	0	3	1	5	0	0	1	8	13:45	14	42	7	41	0	0	21	83
02:00	1		0		0	0	1		14:00	13		12		0	0	25	
02:15	1		1		0	0	2		14:15	11		7		0	0	18	
02:30	2		0		0	0	2		14:30	11		18		0	0	29	
02:45	1	5	3	4	0	0	4	9	14:45	19	54	15	52	0	0	34	106
03:00	2		1		0	0	3		15:00	13		18		0	0	31	
03:15	3		0		0	0	3		15:15	12		25		0	0	37	
03:30	2		0		0	0	2		15:30	17		23		0	0	40	
03:45	4	11	1	2	0	0	5	13	15:45	14	56	8	74	0	0	22	130
04:00	5		1		0	0	6		16:00	11		11		0	0	22	
04:15	7		0		0	0	7		16:15	10		17		0	0	27	
04:30	8		2		0	0	10		16:30	14		21		0	0	35	
04:45	8	28	0	3	0	0	8	31	16:45	5	40	13	62	0	0	18	102
05:00	12		2		0	0	14		17:00	7		21		0	0	28	
05:15	8		0		0	0	8		17:15	9		23		0	0	32	
05:30	10		1		0	0	11		17:30	10		19		0	0	29	
05:45	10	40	3	6	0	0	13	46	17:45	7	33	16	79	0	0	23	112
06:00	14		1		0	0	15		18:00	7		11		0	0	18	
06:15	12		2		0	0	14		18:15	2		12		0	0	14	
06:30	15		2		0	0	17		18:30	9		11		0	0	20	
06:45	15	56	3	8	0	0	18	64	18:45	4	22	15	49	0	0	19	71
07:00	11		2		0	0	13		19:00	9		7		0	0	16	
07:15	11		8		0	0	19		19:15	5		12		0	0	17	
07:30	13		5		0	0	18		19:30	1		9		0	0	10	
07:45	11	46	3	18	0	0	14	64	19:45	7	22	7	35	0	0	14	57
08:00	12		6		0	0	18		20:00	5		6		0	0	11	
08:15	9		6		0	0	15		20:15	6		12		0	0	18	
08:30	12		10		0	0	22		20:30	3		10		0	0	13	
08:45	10	43	19	41	0	0	29	84	20:45	2	16	10	38	0	0	12	54
09:00	17		8		0	0	25		21:00	2		9		0	0	11	
09:15	10		2		0	0	12		21:15	2		5		0	0	7	
09:30	17		8		0	0	25		21:30	4		4		0	0	8	
09:45	6	50	4	22	0	0	10	72	21:45	3	11	9	27	0	0	12	38
10:00	10		5		0	0	15		22:00	2		4		0	0	6	
10:15	12		7		0	0	19		22:15	1		4		0	0	5	
10:30	10		7		0	0	17		22:30	5		4		0	0	9	
10:45	8	40	12	31	0	0	20	71	22:45	5	13	8	20	0	0	13	33
11:00	9		4		0	0	13		23:00	2		4		0	0	6	
11:15	8		14		0	0	22		23:15	0		8		0	0	8	
11:30	10		4		0	0	14		23:30	1		3		0	0	4	
11:45	8	35	7	29	0	0	15	64	23:45	1	4	2	17	0	0	3	21
TOTALS		361		176				**537**	**TOTALS**		348		526				**874**
SPLIT %		67.2%		32.8%				**38.1%**	**SPLIT %**		39.8%		60.2%				**61.9%**

DAILY TOTALS	NB	SB	EB	WB	Total
	709	702	0	0	1,411

AM Peak Hour	06:00	08:15			**08:15**		**PM Peak Hour**	14:45	14:45			**14:45**	
AM Pk Volume	56	43			**91**		**PM Pk Volume**	61	81			**142**	
Pk Hr Factor	0.933	0.566			**0.784**		**Pk Hr Factor**	0.803	0.810			**0.888**	
7 - 9 Volume	89	59	0	0	**148**		**4 - 6 Volume**	73	141	0	0	**214**	
7 - 9 Peak Hour	07:15	08:00			**08:00**		**4 - 6 Peak Hour**	16:00	17:00			**16:30**	
7 - 9 Pk Volume	47	41	0	0	**84**		**4 - 6 Pk Volume**	40	79	0	0	**113**	
Pk Hr Factor	0.904	0.539	0.000	0.000	**0.724**		**Pk Hr Factor**	0.714	0.859	0.000	0.000	**0.807**	

Prepared by NDS/ATD

Prepared by National Data & Surveying Services

VOLUME

Church Rd Bet. Old Hwy 80 & Campo Rd (SR-94)

Day: Thursday
Date: 9/13/2018

City: Campo
Project #: CA18_4267_005

DAILY TOTALS	NB	SB	EB	WB	Total
	349	328	0	0	677

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	0		1		0	0	1		12:00	6		7		0	0	13	
00:15	0		0		0	0			12:15	4		4		0	0	8	
00:30	1		2		0	0	3		12:30	3		6		0	0	9	
00:45	2	3	1	4	0	0	3	7	12:45	4	17	2	19	0	0	6	36
01:00	0		1		0	0	1		13:00	5		10		0	0	15	
01:15	1		1		0	0	2		13:15	5		4		0	0	9	
01:30	0		1		0	0	1		13:30	2		4		0	0	6	
01:45	1	2	1	4	0	0	2	6	13:45	5	17	7	25	0	0	12	42
02:00	0		1		0	0	1		14:00	7		2		0	0	9	
02:15	1		0		0	0	1		14:15	5		3		0	0	8	
02:30	1		0		0	0	1		14:30	9		3		0	0	12	
02:45	0	2	0	1	0	0		3	14:45	8	29	2	10	0	0	10	39
03:00	1		0		0	0	1		15:00	8		6		0	0	14	
03:15	0		0		0	0			15:15	6		17		0	0	23	
03:30	0		1		0	0	1		15:30	8		6		0	0	14	
03:45	0	1	0	1	0	0		2	15:45	7	29	6	35	0	0	13	64
04:00	2		0		0	0	2		16:00	5		5		0	0	10	
04:15	1		0		0	0	1		16:15	5		9		0	0	14	
04:30	1		1		0	0	2		16:30	11		8		0	0	19	
04:45	0	4	0	1	0	0		5	16:45	7	28	6	28	0	0	13	56
05:00	1		0		0	0	1		17:00	6		5		0	0	11	
05:15	3		0		0	0	3		17:15	5		4		0	0	9	
05:30	2		1		0	0	3		17:30	4		8		0	0	12	
05:45	1	7	4	5	0	0	5	12	17:45	5	20	2	19	0	0	7	39
06:00	3		0		0	0	3		18:00	4		5		0	0	9	
06:15	4		3		0	0	7		18:15	4		3		0	0	7	
06:30	3		2		0	0	5		18:30	4		3		0	0	7	
06:45	4	14	4	9	0	0	8	23	18:45	2	14	4	15	0	0	6	29
07:00	8		2		0	0	10		19:00	1		3		0	0	4	
07:15	2		1		0	0	3		19:15	2		5		0	0	7	
07:30	3		2		0	0	5		19:30	4		2		0	0	6	
07:45	8	21	10	15	0	0	18	36	19:45	6	13	5	15	0	0	11	28
08:00	7		9		0	0	16		20:00	5		7		0	0	12	
08:15	6		4		0	0	10		20:15	1		7		0	0	8	
08:30	4		3		0	0	7		20:30	3		4		0	0	7	
08:45	1	18	2	18	0	0	3	36	20:45	3	12	8	26	0	0	11	38
09:00	2		7		0	0	9		21:00	3		2		0	0	5	
09:15	7		3		0	0	10		21:15	3		4		0	0	7	
09:30	6		2		0	0	8		21:30	3		2		0	0	5	
09:45	5	20	1	13	0	0	6	33	21:45	2	11	5	13	0	0	7	24
10:00	4		2		0	0	6		22:00	1		4		0	0	5	
10:15	7		5		0	0	12		22:15	2		1		0	0	3	
10:30	2		2		0	0	4		22:30	3		0		0	0	3	
10:45	9	22	2	11	0	0	11	33	22:45	3	9	1	6	0	0	4	15
11:00	7		7		0	0	14		23:00	3		1		0	0	4	
11:15	6		7		0	0	13		23:15	3		4		0	0	7	
11:30	8		7		0	0	15		23:30	0		3		0	0	3	
11:45	5	26	4	25	0	0	9	51	23:45	4	10	2	10	0	0	6	20
TOTALS		140		107				**247**	**TOTALS**		209		221				**430**
SPLIT %		56.7%		43.3%				**36.5%**	**SPLIT %**		48.6%		51.4%				**63.5%**

DAILY TOTALS	NB	SB	EB	WB	Total
	349	328	0	0	677

AM Peak Hour	10:45		07:45				**10:45**		**PM Peak Hour**	14:30		15:00				**15:00**	
AM Pk Volume	30		26				**53**		**PM Pk Volume**	31		35				**64**	
Pk Hr Factor	0.833		0.650				**0.883**		**Pk Hr Factor**	0.861		0.515				**0.696**	
7 - 9 Volume	39		33		0	0	**72**		**4 - 6 Volume**	48		47		0	0	**95**	
7 - 9 Peak Hour	07:45		07:45				**07:45**		**4 - 6 Peak Hour**	16:15		16:00				**16:15**	
7 - 9 Pk Volume	25		26		0	0	**51**		**4 - 6 Pk Volume**	29		28		0	0	**57**	
Pk Hr Factor	0.781		0.650		0.000	0.000	**0.708**		**Pk Hr Factor**	0.659		0.778		0.000	0.000	**0.750**	

Prepared by NDS

VOLUME

Ribbonwood Rd N/O I-8 WB Ramps

Day: Tuesday
Date: 1/22/2019

City: Boulevard
Project #: CA19_4028_001

DAILY TOTALS	NB	SB	EB	WB	Total
	291	288	0	0	579

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00	0		2						2		**12:00**	3		3						6	
00:15	0		0						0		**12:15**	4		9						13	
00:30	1		3						4		**12:30**	7		5						12	
00:45	1	2	0	5					1	7	**12:45**	1	15	3	20					4	35
01:00	0		2						2		**13:00**	3		2						5	
01:15	0		0						0		**13:15**	5		3						8	
01:30	0		0						0		**13:30**	11		4						15	
01:45	1	1	0	2					1	3	**13:45**	5	24	6	15					11	39
02:00	0		0						0		**14:00**	5		3						8	
02:15	0		0						0		**14:15**	4		3						7	
02:30	0		0						0		**14:30**	2		9						11	
02:45	0		0						0		**14:45**	5	16	8	23					13	39
03:00	1		0						1		**15:00**	8		5						13	
03:15	0		0						0		**15:15**	7		5						12	
03:30	2		0						2		**15:30**	8		16						24	
03:45	1	4	1	1					2	5	**15:45**	5	28	8	34					13	62
04:00	1		1						2		**16:00**	7		4						11	
04:15	0		2						2		**16:15**	1		2						3	
04:30	0		1						1		**16:30**	4		5						9	
04:45	1	2	4	8					5	10	**16:45**	6	18	4	15					10	33
05:00	1		2						3		**17:00**	4		4						8	
05:15	4		1						5		**17:15**	7		2						9	
05:30	8		1						9		**17:30**	2		3						5	
05:45	13	26	2	6					15	32	**17:45**	3	16	0	9					3	25
06:00	5		0						5		**18:00**	1		3						4	
06:15	0		6						6		**18:15**	8		3						11	
06:30	4		4						8		**18:30**	1		4						5	
06:45	12	21	5	15					17	36	**18:45**	4	14	0	10					4	24
07:00	1		7						8		**19:00**	3		1						4	
07:15	3		3						6		**19:15**	4		0						4	
07:30	1		7						8		**19:30**	2		2						4	
07:45	2	7	6	23					8	30	**19:45**	2	11	3	6					5	17
08:00	3		6						9		**20:00**	7		5						12	
08:15	1		4						5		**20:15**	2		0						2	
08:30	0		2						2		**20:30**	2		2						4	
08:45	2	6	2	14					4	20	**20:45**	2	13	2	9					4	22
09:00	1		0						1		**21:00**	4		1						5	
09:15	1		3						4		**21:15**	2		2						4	
09:30	5		3						8		**21:30**	2		4						6	
09:45	7	14	5	11					12	25	**21:45**	8	16	1	8					9	24
10:00	3		3						6		**22:00**	2		2						4	
10:15	2		1						3		**22:15**	2		5						7	
10:30	2		3						5		**22:30**	4		4						8	
10:45	2	9	4	11					6	20	**22:45**	3	11	3	14					6	25
11:00	3		4						7		**23:00**	1		2						3	
11:15	2		1						3		**23:15**	1		9						10	
11:30	3		6						9		**23:30**	2		1						3	
11:45	4	12	5	16					9	28	**23:45**	1	5	1	13					2	18
TOTALS		104		112						**216**	**TOTALS**		187		176						**363**
SPLIT %		48.1%		51.9%						**37.3%**	**SPLIT %**		51.5%		48.5%						**62.7%**

DAILY TOTALS	NB	SB	EB	WB	Total
	291	288	0	0	579

AM Peak Hour	05:15	07:00			**11:45**	**PM Peak Hour**	14:45	14:45			**14:45**
AM Pk Volume	30	23			**40**	**PM Pk Volume**	28	34			**62**
Pk Hr Factor	0.577	0.821			**0.769**	**Pk Hr Factor**	0.875	0.531			**0.646**
7 - 9 Volume	13	37	0	0	**50**	**4 - 6 Volume**	34	24	0	0	**58**
7 - 9 Peak Hour	07:15	07:00			**07:15**	**4 - 6 Peak Hour**	16:30	16:00			**16:30**
7 - 9 Pk Volume	9	23	0	0	**31**	**4 - 6 Pk Volume**	21	15	0	0	**36**
Pk Hr Factor	0.750	0.821	0.000	0.000	**0.861**	**Pk Hr Factor**	0.750	0.750	0.000	0.000	**0.900**

National Data & Surveying Services

Intersection Turning Movement Count

Location: Crestwood Rd & I-8 WB ramps
City: Campo
Control: 1-Way Stop(WB)

Project ID: 18-04266-004
Date: 9/13/2018

Total

NS/EW Streets:	Crestwood Rd				Crestwood Rd				I-8 WB ramps				I-8 WB ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	11	3	0	0	0	2	3	0	0	0	0	0	7	0	0	0	26
7:15 AM	23	1	0	0	0	2	1	0	0	0	0	0	9	0	1	0	37
7:30 AM	11	7	0	0	0	4	0	0	0	0	0	0	7	0	0	0	29
7:45 AM	20	7	0	0	0	3	0	0	0	0	0	0	3	0	0	0	33
8:00 AM	20	2	0	0	0	4	2	0	0	0	0	0	5	0	0	0	33
8:15 AM	14	3	0	0	0	1	0	0	0	0	0	0	7	0	0	0	25
8:30 AM	24	5	0	0	0	5	0	0	0	0	0	0	7	0	0	0	41
8:45 AM	11	5	0	0	0	2	0	0	0	0	0	0	13	0	0	0	31
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	134	33	0	0	0	23	6	0	0	0	0	0	58	0	1	0	255
APPROACH %'s :	80.24%	19.76%	0.00%	0.00%	0.00%	79.31%	20.69%	0.00%					98.31%	0.00%	1.69%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	74	17	0	0	0	13	3	0	0	0	0	0	24	0	1	0	132
PEAK HR FACTOR :	0.804	0.607	0.000	0.000	0.000	0.813	0.375	0.000	0.000	0.000	0.000	0.000	0.667	0.000	0.250	0.000	0.892
	0.843				0.667								0.625				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	12	4	0	0	0	1	1	0	0	0	0	0	8	1	0	0	27
4:15 PM	26	5	0	0	0	3	1	0	0	0	0	0	11	1	0	0	47
4:30 PM	19	6	0	0	0	2	3	0	0	0	0	0	7	3	1	0	41
4:45 PM	13	2	0	0	0	2	5	0	0	0	0	0	5	0	1	0	28
5:00 PM	10	3	0	0	0	1	2	0	0	0	0	0	10	0	0	0	26
5:15 PM	11	7	0	0	0	2	0	0	0	0	0	0	13	0	1	0	34
5:30 PM	10	4	0	0	0	2	1	0	0	0	0	0	12	0	0	0	29
5:45 PM	16	6	0	0	0	4	0	0	0	0	0	0	10	0	0	0	36
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	117	37	0	0	0	17	13	0	0	0	0	0	76	5	3	0	268
APPROACH %'s :	75.97%	24.03%	0.00%	0.00%	0.00%	56.67%	43.33%	0.00%					90.48%	5.95%	3.57%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	70	17	0	0	0	8	10	0	0	0	0	0	31	5	2	0	143
PEAK HR FACTOR :	0.673	0.708	0.000	0.000	0.000	0.667	0.500	0.000	0.000	0.000	0.000	0.000	0.705	0.417	0.500	0.000	0.761
	0.702				0.643								0.792				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Crestwood Rd & I-8 WB ramps
City: Campo
Control: 1-Way Stop(WB)

Project ID: 18-04266-004
Date: 9/13/2018

Cars

NS/EW Streets:	Crestwood Rd				Crestwood Rd				I-8 WB ramps				I-8 WB ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	10	3	0	0	0	2	3	0	0	0	0	0	5	0	0	0	23
7:15 AM	18	1	0	0	0	2	1	0	0	0	0	0	6	0	1	0	29
7:30 AM	10	7	0	0	0	4	0	0	0	0	0	0	7	0	0	0	28
7:45 AM	17	6	0	0	0	3	0	0	0	0	0	0	3	0	0	0	29
8:00 AM	17	1	0	0	0	4	2	0	0	0	0	0	4	0	0	0	28
8:15 AM	13	3	0	0	0	1	0	0	0	0	0	0	5	0	0	0	22
8:30 AM	20	5	0	0	0	5	0	0	0	0	0	0	5	0	0	0	35
8:45 AM	10	5	0	0	0	2	0	0	0	0	0	0	10	0	0	0	27
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	115	31	0	0	0	23	6	0	0	0	0	0	45	0	1	0	221
APPROACH %'s :	78.77%	21.23%	0.00%	0.00%	0.00%	79.31%	20.69%	0.00%					97.83%	0.00%	2.17%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	62	15	0	0	0	13	3	0	0	0	0	0	20	0	1	0	114
PEAK HR FACTOR :	0.86	0.536	0.000	0.000	0.000	0.813	0.375	0.000	0.000	0.000	0.000	0.000	0.714	0.000	0.250	0.000	0.983
	0.837				0.667								0.750				

NS/EW Streets:	Crestwood Rd				Crestwood Rd				I-8 WB ramps				I-8 WB ramps				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	10	4	0	0	0	1	1	0	0	0	0	0	6	1	0	0	23
4:15 PM	23	5	0	0	0	2	1	0	0	0	0	0	10	0	0	0	41
4:30 PM	18	5	0	0	0	2	3	0	0	0	0	0	6	3	1	0	38
4:45 PM	13	2	0	0	0	2	4	0	0	0	0	0	3	0	1	0	25
5:00 PM	9	3	0	0	0	1	2	0	0	0	0	0	5	0	0	0	20
5:15 PM	10	6	0	0	0	2	0	0	0	0	0	0	7	0	1	0	26
5:30 PM	9	4	0	0	0	2	0	0	0	0	0	0	9	0	0	0	24
5:45 PM	13	6	0	0	0	4	0	0	0	0	0	0	7	0	0	0	30
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	105	35	0	0	0	16	11	0	0	0	0	0	53	4	3	0	227
APPROACH %'s :	75.00%	25.00%	0.00%	0.00%	0.00%	59.26%	40.74%	0.00%					88.33%	6.67%	5.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	64	16	0	0	0	7	9	0	0	0	0	0	25	4	2	0	127
PEAK HR FACTOR :	0.70	0.800	0.000	0.000	0.000	0.875	0.563	0.000	0.000	0.000	0.000	0.000	0.625	0.333	0.500	0.000	0.774
	0.714				0.667								0.775				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Crestwood Rd & I-8 WB ramps
City: Campo
Control: 1-Way Stop(WB)

Project ID: 18-04266-004
Date: 9/13/2018

2axle

NS/EW Streets:	Crestwood Rd				Crestwood Rd				I-8 WB ramps				I-8 WB ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	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	2	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	2	0	0	0	0	0	0	0	0	0	0	3	0	0	0	7
APPROACH %'s :	50.00%	50.00%	0.00%	0.00%									100.00%	0.00%	0.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	2	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	6
PEAK HR FACTOR :	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.500
	0.333												0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
4:30 PM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3
5:30 PM	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	5	2	0	0	0	1	2	0	0	0	0	0	2	0	0	0	12
APPROACH %'s :	71.43%	28.57%	0.00%	0.00%	0.00%	33.33%	66.67%	0.00%					100.00%	0.00%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	4	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	7
PEAK HR FACTOR :	0.50	0.250	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.583
	0.625				0.500												

National Data & Surveying Services

Intersection Turning Movement Count

Location: Crestwood Rd & I-8 WB ramps
City: Campo
Control: 1-Way Stop(WB)

Project ID: 18-04266-004
Date: 9/13/2018

3axle+

NS/EW Streets:	Crestwood Rd				Crestwood Rd				I-8 WB ramps				I-8 WB ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3
7:15 AM	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	6
7:30 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4
8:15 AM	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3
8:30 AM	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5
8:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	17	0	0	0	0	0	0	0	0	0	0	0	10	0	0	0	27
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%									100.00%	0.00%	0.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	10	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	12
PEAK HR FACTOR :	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500
	0.500												0.500				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3
4:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
5:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	6
5:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3
5:45 PM	3	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	6
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	7	0	0	0	0	0	0	0	0	0	0	0	21	1	0	0	29
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%									95.45%	4.55%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	2	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	9
PEAK HR FACTOR :	0.50	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.250	0.000	0.000	0.750
	0.500												0.875				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Crestwood Rd & I-8 EB ramps
City: Campo
Control: 1-Way Stop(EB)

Project ID: 18-04266-005
Date: 9/13/2018

Total

NS/EW Streets:	Crestwood Rd				Crestwood Rd				I-8 EB ramps				I-8 EB ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	1 NT	0 NR	0 NU	1 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	17	6	0	0	10	0	0	0	1	6	0	0	0	0	0	40
7:15 AM	0	10	8	0	1	6	0	0	1	0	11	0	0	0	0	0	37
7:30 AM	0	27	6	0	0	10	0	0	0	1	10	0	0	0	0	0	54
7:45 AM	0	20	9	0	0	11	0	0	3	0	18	0	0	0	0	0	61
8:00 AM	0	19	7	0	0	12	0	0	2	0	8	0	0	0	0	0	48
8:15 AM	0	22	7	0	0	9	0	0	1	1	9	0	0	0	0	0	49
8:30 AM	0	19	9	0	0	8	0	0	1	0	10	0	0	0	0	0	47
8:45 AM	0	24	4	0	0	13	0	0	0	0	6	0	0	0	0	0	47
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	158	56	0	1	79	0	0	8	3	78	0	0	0	0	0	383
APPROACH %'s :	0.00%	73.83%	26.17%	0.00%	1.25%	98.75%	0.00%	0.00%	8.99%	3.37%	87.64%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	88	29	0	0	42	0	0	6	2	45	0	0	0	0	0	212
PEAK HR FACTOR :	0.000	0.815	0.806	0.000	0.000	0.875	0.000	0.000	0.500	0.500	0.625	0.000	0.000	0.000	0.000	0.000	0.869
		0.886				0.875				0.631							

NS/EW Streets:	Crestwood Rd				Crestwood Rd				I-8 EB ramps				I-8 EB ramps				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	1 NT	0 NR	0 NU	1 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	0	20	9	0	0	9	0	0	4	0	24	0	0	0	0	0	66
4:15 PM	0	18	14	0	0	11	0	0	1	0	31	0	0	0	0	0	75
4:30 PM	0	26	15	0	1	12	0	0	3	0	30	0	0	0	0	0	87
4:45 PM	0	23	8	0	0	8	0	0	0	0	19	0	0	0	0	0	58
5:00 PM	0	15	6	0	0	6	0	0	0	0	26	0	0	0	0	0	53
5:15 PM	0	11	10	0	0	12	0	0	1	0	32	0	0	0	0	0	66
5:30 PM	0	19	13	0	0	19	0	0	1	0	25	0	0	0	0	0	77
5:45 PM	0	12	10	0	0	14	0	0	1	0	26	0	0	0	0	0	63
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	144	85	0	1	91	0	0	11	0	213	0	0	0	0	0	545
APPROACH %'s :	0.00%	62.88%	37.12%	0.00%	1.09%	98.91%	0.00%	0.00%	4.91%	0.00%	95.09%	0.00%					
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	87	46	0	1	40	0	0	8	0	104	0	0	0	0	0	286
PEAK HR FACTOR :	0.000	0.837	0.767	0.000	0.250	0.833	0.000	0.000	0.500	0.000	0.839	0.000	0.000	0.000	0.000	0.000	0.822
		0.811				0.788				0.848							

National Data & Surveying Services

Intersection Turning Movement Count

Location: Crestwood Rd & I-8 EB ramps
City: Campo
Control: 1-Way Stop(EB)

Project ID: 18-04266-005
Date: 9/13/2018

Cars

NS/EW Streets:	Crestwood Rd				Crestwood Rd				I-8 EB ramps				I-8 EB ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	16	6	0	0	9	0	0	0	1	6	0	0	0	0	0	38
7:15 AM	0	8	6	0	1	5	0	0	1	0	8	0	0	0	0	0	29
7:30 AM	0	23	6	0	0	7	0	0	0	1	10	0	0	0	0	0	47
7:45 AM	0	19	7	0	0	10	0	0	3	0	13	0	0	0	0	0	52
8:00 AM	0	15	3	0	0	11	0	0	2	0	7	0	0	0	0	0	38
8:15 AM	0	18	6	0	0	6	0	0	1	1	7	0	0	0	0	0	39
8:30 AM	0	17	5	0	0	8	0	0	1	0	10	0	0	0	0	0	41
8:45 AM	0	21	4	0	0	10	0	0	0	0	5	0	0	0	0	0	40
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	137	43	0	1	66	0	0	8	3	66	0	0	0	0	0	324
APPROACH %'s :	0.00%	76.11%	23.89%	0.00%	1.49%	98.51%	0.00%	0.00%	10.39%	3.90%	85.71%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	75	22	0	0	34	0	0	6	2	37	0	0	0	0	0	176
PEAK HR FACTOR :	0.00	0.815	0.786	0.000	0.000	0.773	0.000	0.000	0.500	0.500	0.712	0.000	0.000	0.000	0.000	0.000	0.846
		0.836				0.773				0.703							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	19	7	0	0	6	0	0	3	0	22	0	0	0	0	0	57
4:15 PM	0	14	12	0	0	9	0	0	1	0	28	0	0	0	0	0	64
4:30 PM	0	25	15	0	1	10	0	0	2	0	30	0	0	0	0	0	83
4:45 PM	0	21	7	0	0	7	0	0	0	0	18	0	0	0	0	0	53
5:00 PM	0	15	6	0	0	3	0	0	0	0	25	0	0	0	0	0	49
5:15 PM	0	10	9	0	0	7	0	0	1	0	31	0	0	0	0	0	58
5:30 PM	0	17	13	0	0	13	0	0	0	0	22	0	0	0	0	0	65
5:45 PM	0	12	9	0	0	12	0	0	1	0	25	0	0	0	0	0	59
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	133	78	0	1	67	0	0	8	0	201	0	0	0	0	0	488
APPROACH %'s :	0.00%	63.03%	36.97%	0.00%	1.47%	98.53%	0.00%	0.00%	3.83%	0.00%	96.17%	0.00%					
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	79	41	0	1	32	0	0	6	0	98	0	0	0	0	0	257
PEAK HR FACTOR :	0.00	0.790	0.683	0.000	0.250	0.800	0.000	0.000	0.500	0.000	0.817	0.000	0.000	0.000	0.000	0.000	0.774
		0.750				0.750				0.813							

National Data & Surveying Services

Intersection Turning Movement Count

Location: Crestwood Rd & I-8 EB ramps
City: Campo
Control: 1-Way Stop(EB)

Project ID: 18-04266-005
Date: 9/13/2018

2axle

NS/EW Streets:	Crestwood Rd				Crestwood Rd				I-8 EB ramps				I-8 EB ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	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	1	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	3
8:00 AM	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	5
8:15 AM	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	3
8:30 AM	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
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4	3	0	0	3	0	0	0	0	4	0	0	0	0	0	14
APPROACH %'s :	0.00%	57.14%	42.86%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	4	3	0	0	3	0	0	0	0	3	0	0	0	0	0	13
PEAK HR FACTOR :	0.000	0.333	0.375	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.650
		0.350				0.375				0.375							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3
4:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	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
5:30 PM	0	1	0	0	0	2	0	0	1	0	0	0	0	0	0	0	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	6	0	0	0	3	0	0	1	0	1	0	0	0	0	0	11
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	50.00%	0.00%	50.00%	0.00%					
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	5	0	0	0	1	0	0	0	0	1	0	0	0	0	0	7
PEAK HR FACTOR :	0.00	0.625	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.583
		0.625				0.250				0.250							

National Data & Surveying Services

Intersection Turning Movement Count

Location: Crestwood Rd & I-8 EB ramps
City: Campo
Control: 1-Way Stop(EB)

Project ID: 18-04266-005
Date: 9/13/2018

3axle+

NS/EW Streets:	Crestwood Rd				Crestwood Rd				I-8 EB ramps				I-8 EB ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	2	2	0	0	1	0	0	0	0	2	0	0	0	0	0	7
7:30 AM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
7:45 AM	0	1	1	0	0	1	0	0	0	0	3	0	0	0	0	0	6
8:00 AM	0	1	2	0	0	1	0	0	0	0	1	0	0	0	0	0	5
8:15 AM	0	3	1	0	0	2	0	0	0	0	1	0	0	0	0	0	7
8:30 AM	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	6
8:45 AM	0	3	0	0	0	3	0	0	0	0	1	0	0	0	0	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	17	10	0	0	10	0	0	0	0	8	0	0	0	0	0	45
APPROACH %'s :	0.00%	62.96%	37.04%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	9	4	0	0	5	0	0	0	0	5	0	0	0	0	0	23
PEAK HR FACTOR :	0.000	0.563	0.500	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.821
		0.813				0.625				0.417							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	1	2	0	0	3	0	0	1	0	2	0	0	0	0	0	9
4:15 PM	0	2	2	0	0	2	0	0	0	0	2	0	0	0	0	0	8
4:30 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	2
4:45 PM	0	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	3
5:00 PM	0	0	0	0	0	3	0	0	0	0	1	0	0	0	0	0	4
5:15 PM	0	1	1	0	0	5	0	0	0	0	1	0	0	0	0	0	8
5:30 PM	0	1	0	0	0	4	0	0	0	0	3	0	0	0	0	0	8
5:45 PM	0	0	1	0	0	2	0	0	0	0	1	0	0	0	0	0	4
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	5	7	0	0	21	0	0	2	0	11	0	0	0	0	0	46
APPROACH %'s :	0.00%	41.67%	58.33%	0.00%	0.00%	100.00%	0.00%	0.00%	15.38%	0.00%	84.62%	0.00%					
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	3	5	0	0	7	0	0	2	0	5	0	0	0	0	0	22
PEAK HR FACTOR :	0.00	0.375	0.625	0.000	0.000	0.583	0.000	0.000	0.500	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.611
		0.500				0.583				0.583							

National Data & Surveying Services

Intersection Turning Movement Count

Location: Crestwood Rd & Old Hwy 80
City: Campo
Control: 1-Way Stop(EB)

Project ID: 18-04266-006
Date: 9/13/2018

Total

NS/EW Streets:	Crestwood Rd				Crestwood Rd				Old Hwy 80				Old Hwy 80				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	9	23	0	0	0	14	0	0	1	0	0	0	0	0	0	0	47
7:15 AM	4	20	0	0	0	18	0	0	0	0	3	0	0	0	0	0	45
7:30 AM	1	27	0	0	0	23	2	0	1	0	1	0	0	0	0	0	55
7:45 AM	1	29	0	0	0	24	1	0	1	0	3	0	0	0	0	0	59
8:00 AM	3	26	0	0	0	18	1	0	1	0	3	0	0	0	0	0	52
8:15 AM	5	26	0	0	0	16	1	0	2	0	2	0	0	0	0	0	52
8:30 AM	0	23	0	0	0	19	0	0	4	0	4	0	0	0	0	0	50
8:45 AM	0	27	0	0	0	17	2	0	2	0	4	0	0	0	0	0	52
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	23	201	0	0	0	149	7	0	12	0	20	0	0	0	0	0	412
APPROACH %'s :	10.27%	89.73%	0.00%	0.00%	0.00%	95.51%	4.49%	0.00%	37.50%	0.00%	62.50%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	10	108	0	0	0	81	5	0	5	0	9	0	0	0	0	0	218
PEAK HR FACTOR :	0.500	0.931	0.000	0.000	0.000	0.844	0.625	0.000	0.625	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.924
		0.952				0.860				0.875							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	2	25	0	0	0	31	1	0	0	0	1	0	0	0	0	0	60
4:15 PM	5	33	0	0	0	42	0	0	2	0	3	0	0	0	0	0	85
4:30 PM	1	43	0	0	0	38	2	0	0	0	6	0	0	0	0	0	90
4:45 PM	3	29	0	0	0	31	0	0	0	0	2	0	0	0	0	0	65
5:00 PM	2	17	0	0	0	32	0	0	1	0	4	0	0	0	0	0	56
5:15 PM	1	23	0	0	0	41	2	0	1	0	3	0	0	0	0	0	71
5:30 PM	4	28	0	0	0	43	2	0	1	0	3	0	0	0	0	0	81
5:45 PM	3	24	0	0	0	38	0	0	1	0	1	0	0	0	0	0	67
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	21	222	0	0	0	296	7	0	6	0	23	0	0	0	0	0	575
APPROACH %'s :	8.64%	91.36%	0.00%	0.00%	0.00%	97.69%	2.31%	0.00%	20.69%	0.00%	79.31%	0.00%					
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	11	130	0	0	0	142	3	0	2	0	12	0	0	0	0	0	300
PEAK HR FACTOR :	0.550	0.756	0.000	0.000	0.000	0.845	0.375	0.000	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.833
		0.801				0.863				0.583							

National Data & Surveying Services

Intersection Turning Movement Count

Location: Crestwood Rd & Old Hwy 80
City: Campo
Control: 1-Way Stop(EB)

Project ID: 18-04266-006
Date: 9/13/2018

Cars

NS/EW Streets:	Crestwood Rd				Crestwood Rd				Old Hwy 80				Old Hwy 80				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	9	22	0	0	0	13	0	0	1	0	0	0	0	0	0	0	45
7:15 AM	4	15	0	0	0	14	0	0	0	0	3	0	0	0	0	0	36
7:30 AM	1	23	0	0	0	18	2	0	1	0	1	0	0	0	0	0	46
7:45 AM	0	26	0	0	0	19	1	0	1	0	1	0	0	0	0	0	48
8:00 AM	3	18	0	0	0	16	1	0	1	0	2	0	0	0	0	0	41
8:15 AM	4	21	0	0	0	11	1	0	2	0	2	0	0	0	0	0	41
8:30 AM	0	18	0	0	0	18	0	0	4	0	4	0	0	0	0	0	44
8:45 AM	0	24	0	0	0	15	2	0	2	0	4	0	0	0	0	0	47
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	21	167	0	0	0	124	7	0	12	0	17	0	0	0	0	0	348
APPROACH %'s :	11.17%	88.83%	0.00%	0.00%	0.00%	94.66%	5.34%	0.00%	41.38%	0.00%	58.62%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	8	88	0	0	0	64	5	0	5	0	6	0	0	0	0	0	176
PEAK HR FACTOR :	0.50	0.846	0.000	0.000	0.000	0.842	0.625	0.000	0.625	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.917
	0.923				0.863				0.688								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	2	22	0	0	0	27	1	0	0	0	1	0	0	0	0	0	53
4:15 PM	5	29	0	0	0	38	0	0	2	0	3	0	0	0	0	0	77
4:30 PM	1	40	0	0	0	37	1	0	0	0	6	0	0	0	0	0	85
4:45 PM	3	27	0	0	0	28	0	0	0	0	2	0	0	0	0	0	60
5:00 PM	2	17	0	0	0	27	0	0	1	0	4	0	0	0	0	0	51
5:15 PM	1	21	0	0	0	35	2	0	1	0	3	0	0	0	0	0	63
5:30 PM	4	26	0	0	0	35	2	0	1	0	3	0	0	0	0	0	71
5:45 PM	3	22	0	0	0	34	0	0	1	0	1	0	0	0	0	0	61
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	21	204	0	0	0	261	6	0	6	0	23	0	0	0	0	0	521
APPROACH %'s :	9.33%	90.67%	0.00%	0.00%	0.00%	97.75%	2.25%	0.00%	20.69%	0.00%	79.31%	0.00%					
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	11	118	0	0	0	130	2	0	2	0	12	0	0	0	0	0	275
PEAK HR FACTOR :	0.55	0.738	0.000	0.000	0.000	0.855	0.500	0.000	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.809
	0.787				0.868				0.583								

National Data & Surveying Services

Intersection Turning Movement Count

Location: Crestwood Rd & Old Hwy 80
City: Campo
Control: 1-Way Stop(EB)

Project ID: 18-04266-006
Date: 9/13/2018

2axle

NS/EW Streets:	Crestwood Rd				Crestwood Rd				Old Hwy 80				Old Hwy 80				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	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	0	0	0	0	1
7:30 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
7:45 AM	1	1	0	0	0	2	0	0	0	0	1	0	0	0	0	0	5
8:00 AM	0	4	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5
8:15 AM	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
8:30 AM	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
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	7	0	0	0	7	0	0	0	0	2	0	0	0	0	0	18
APPROACH %'s :	22.22%	77.78%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	2	7	0	0	0	6	0	0	0	0	2	0	0	0	0	0	17
PEAK HR FACTOR :	0.500	0.438	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.850
		0.563				0.750				0.500							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
4:30 PM	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	6	0	0	0	3	1	0	0	0	0	0	0	0	0	0	10
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	75.00%	25.00%	0.00%									
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	5	0	0	0	1	1	0	0	0	0	0	0	0	0	0	7
PEAK HR FACTOR :	0.00	0.625	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.583
		0.625				0.500											

National Data & Surveying Services

Intersection Turning Movement Count

Location: Crestwood Rd & Old Hwy 80
City: Campo
Control: 1-Way Stop(EB)

Project ID: 18-04266-006
Date: 9/13/2018

3axle+

NS/EW Streets:	Crestwood Rd				Crestwood Rd				Old Hwy 80				Old Hwy 80				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
7:30 AM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6
7:45 AM	0	2	0	0	0	3	0	0	0	0	1	0	0	0	0	0	6
8:00 AM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6
8:15 AM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	7
8:30 AM	0	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6
8:45 AM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	27	0	0	0	18	0	0	0	0	1	0	0	0	0	0	46
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	**07:30 AM - 08:30 AM**																TOTAL
PEAK HR VOL :	0	13	0	0	0	11	0	0	0	0	1	0	0	0	0	0	25
PEAK HR FACTOR :	0.000	0.813	0.000	0.000	0.000	0.917	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.893
		0.813				0.917				0.250							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	7
4:15 PM	0	2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	5
4:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
5:00 PM	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5
5:15 PM	0	2	0	0	0	5	0	0	0	0	0	0	0	0	0	0	7
5:30 PM	0	1	0	0	0	7	0	0	0	0	0	0	0	0	0	0	8
5:45 PM	0	2	0	0	0	4	0	0	0	0	0	0	0	0	0	0	6
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	12	0	0	0	32	0	0	0	0	0	0	0	0	0	0	44
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	**04:00 PM - 05:00 PM**																TOTAL
PEAK HR VOL :	0	7	0	0	0	11	0	0	0	0	0	0	0	0	0	0	18
PEAK HR FACTOR :	0.00	0.583	0.000	0.000	0.000	0.688	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.643
		0.583				0.688											

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Hwy 80 & Church Rd/Golden Acorn Way
City: Campo
Control: 2-Way Stop(EB/WB)

Project ID: 18-04266-001
Date: 9/13/2018

Total

NS/EW Streets:	Old Hwy 80				Old Hwy 80				Church Rd/Golden Acorn Way				Church Rd/Golden Acorn Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0.5	0.5	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	18	1	0	9	4	0	0	3	4	1	0	3	1	9	0	53
7:15 AM	0	10	2	0	11	10	1	0	0	2	2	0	1	1	11	0	51
7:30 AM	0	20	0	0	13	3	0	0	1	0	0	0	1	1	12	0	51
7:45 AM	2	12	4	0	13	13	7	0	5	4	1	0	2	2	11	1	77
8:00 AM	2	10	1	0	8	8	3	0	2	2	2	0	2	4	14	0	58
8:15 AM	3	21	1	0	7	12	0	0	4	2	2	0	3	2	11	0	68
8:30 AM	0	14	4	0	11	11	1	0	0	1	1	0	0	2	8	0	53
8:45 AM	0	19	1	0	7	13	1	0	2	0	1	0	2	1	9	0	56
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	7	124	14	0	79	74	13	0	17	15	10	0	14	14	85	1	467
APPROACH %'s :	4.83%	85.52%	9.66%	0.00%	47.59%	44.58%	7.83%	0.00%	40.48%	35.71%	23.81%	0.00%	12.28%	12.28%	74.56%	0.88%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	7	57	10	0	39	44	11	0	11	9	6	0	7	10	44	1	256
PEAK HR FACTOR :	0.583	0.679	0.625	0.000	0.750	0.846	0.393	0.000	0.550	0.563	0.750	0.000	0.583	0.625	0.786	0.250	0.831
	0.740				0.712				0.650				0.775				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0.5	0.5	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	2	12	4	0	18	16	0	0	0	3	1	0	2	4	19	0	81
4:15 PM	6	9	4	0	19	24	3	0	3	1	2	0	4	1	22	0	98
4:30 PM	2	11	6	0	21	23	3	0	5	2	1	0	2	1	25	0	102
4:45 PM	1	11	0	0	15	8	5	0	4	2	2	0	5	1	19	0	73
5:00 PM	0	2	2	0	9	23	4	0	5	2	1	0	4	2	16	0	70
5:15 PM	1	4	5	0	19	22	3	0	3	0	1	0	5	2	14	0	79
5:30 PM	0	10	6	0	16	23	3	0	3	1	3	0	4	3	21	0	93
5:45 PM	1	8	7	0	19	22	3	0	1	0	3	0	6	0	14	0	84
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	13	67	34	0	136	161	24	0	24	11	14	0	32	14	150	0	680
APPROACH %'s :	11.40%	58.77%	29.82%	0.00%	42.37%	50.16%	7.48%	0.00%	48.98%	22.45%	28.57%	0.00%	16.33%	7.14%	76.53%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	11	43	14	0	73	71	11	0	12	8	6	0	13	7	85	0	354
PEAK HR FACTOR :	0.458	0.896	0.583	0.000	0.869	0.740	0.550	0.000	0.600	0.667	0.750	0.000	0.650	0.438	0.850	0.000	0.868
	0.895				0.824				0.813				0.938				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Hwy 80 & Church Rd/Golden Acorn Way
City: Campo
Control: 2-Way Stop(EB/WB)

Project ID: 18-04266-001
Date: 9/13/2018

Cars

NS/EW Streets:	Old Hwy 80				Old Hwy 80				Church Rd/Golden Acorn Way				Church Rd/Golden Acorn Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0.5	0.5	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	16	1	0	9	3	0	0	3	4	1	0	3	1	9	0	50
7:15 AM	0	6	2	0	10	7	1	0	0	2	2	0	1	1	11	0	43
7:30 AM	0	16	0	0	11	2	0	0	1	0	0	0	1	1	12	0	44
7:45 AM	2	9	4	0	13	8	5	0	5	4	1	0	2	2	11	1	67
8:00 AM	2	6	1	0	8	5	3	0	1	2	2	0	2	4	11	0	47
8:15 AM	3	15	1	0	7	7	0	0	3	2	2	0	3	2	10	0	55
8:30 AM	0	9	4	0	11	9	1	0	0	1	1	0	0	2	8	0	46
8:45 AM	0	16	1	0	7	10	1	0	2	0	0	0	2	1	9	0	49
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	7	93	14	0	76	51	11	0	15	15	9	0	14	14	81	1	401
APPROACH %'s :	6.14%	81.58%	12.28%	0.00%	55.07%	36.96%	7.97%	0.00%	38.46%	38.46%	23.08%	0.00%	12.73%	12.73%	73.64%	0.91%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	7	39	10	0	39	29	9	0	9	9	6	0	7	10	40	1	215
PEAK HR FACTOR :	0.58	0.650	0.625	0.000	0.750	0.806	0.450	0.000	0.450	0.563	0.750	0.000	0.583	0.625	0.909	0.250	0.802
	0.737				0.740				0.600				0.853				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0.5	0.5	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	2	10	4	0	18	10	0	0	0	3	1	0	2	4	19	0	73
4:15 PM	5	5	4	0	19	19	3	0	3	1	2	0	3	1	21	0	86
4:30 PM	2	10	6	0	21	22	3	0	4	2	1	0	2	1	25	0	99
4:45 PM	1	8	0	0	14	7	5	0	4	2	2	0	4	1	19	0	67
5:00 PM	0	1	2	0	9	19	4	0	5	2	1	0	4	2	16	0	65
5:15 PM	1	2	5	0	19	17	3	0	3	0	1	0	5	2	14	0	72
5:30 PM	0	8	6	0	14	17	3	0	3	1	3	0	3	3	21	0	82
5:45 PM	1	7	7	0	19	18	3	0	1	0	3	0	6	0	14	0	79
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	12	51	34	0	133	129	24	0	23	11	14	0	29	14	149	0	623
APPROACH %'s :	12.37%	52.58%	35.05%	0.00%	46.50%	45.10%	8.39%	0.00%	47.92%	22.92%	29.17%	0.00%	15.10%	7.29%	77.60%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	10	33	14	0	72	58	11	0	11	8	6	0	11	7	84	0	325
PEAK HR FACTOR :	0.50	0.825	0.583	0.000	0.857	0.659	0.550	0.000	0.688	0.667	0.750	0.000	0.688	0.438	0.840	0.000	0.821
	0.792				0.766				0.781				0.911				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Hwy 80 & Church Rd/Golden Acorn Way
City: Campo
Control: 2-Way Stop(EB/WB)

Project ID: 18-04266-001
Date: 9/13/2018

2axle

NS/EW Streets:	Old Hwy 80				Old Hwy 80				Church Rd/Golden Acorn Way				Church Rd/Golden Acorn Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0.5	0.5	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	1	0	0	0	2	1	0	0	0	0	0	0	0	0	0	4
8:00 AM	0	1	0	0	0	1	0	0	1	0	0	0	0	0	3	0	6
8:15 AM	0	1	0	0	0	2	0	0	1	0	0	0	0	0	1	0	5
8:30 AM	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	1	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3	0	0	3	5	1	0	2	0	1	0	0	0	4	0	19
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	33.33%	55.56%	11.11%	0.00%	66.67%	0.00%	33.33%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	3	0	0	0	5	1	0	2	0	0	0	0	0	4	0	15
PEAK HR FACTOR :	0.000	0.750	0.000	0.000	0.000	0.625	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.333	0.000	0.625
	0.750				0.500				0.500				0.333				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0.5	0.5	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	1	0	1	0	4
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
4:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	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
5:30 PM	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	4	0	0	1	2	0	0	1	0	0	0	1	0	1	0	10
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	33.33%	66.67%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	50.00%	0.00%	50.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	3	0	0	0	1	0	0	1	0	0	0	1	0	1	0	7
PEAK HR FACTOR :	0.00	0.375	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.438
	0.375				0.250				0.250				0.250				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Hwy 80 & Church Rd/Golden Acorn Way
City: Campo
Control: 2-Way Stop(EB/WB)

Project ID: 18-04266-001
Date: 9/13/2018

3axle+

NS/EW Streets:	Old Hwy 80				Old Hwy 80				Church Rd/Golden Acorn Way				Church Rd/Golden Acorn Way				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0.5	0.5	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
7:15 AM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	7
7:30 AM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
7:45 AM	0	2	0	0	0	3	1	0	0	0	0	0	0	0	0	0	6
8:00 AM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
8:15 AM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	8
8:30 AM	0	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	7
8:45 AM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	28	0	0	0	18	1	0	0	0	0	0	0	0	0	0	47
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	94.74%	5.26%	0.00%									
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	15	0	0	0	10	1	0	0	0	0	0	0	0	0	0	26
PEAK HR FACTOR :	0.000	0.750	0.000	0.000	0.000	0.833	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.813
		0.750				0.688											

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0.5	0.5	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	2	0	0	0	6	0	0	0	0	0	0	0	0	0	0	8
4:15 PM	1	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	8
4:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	1	0	0	1	1	0	0	0	0	0	0	1	0	0	0	4
5:00 PM	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	5
5:15 PM	0	2	0	0	0	5	0	0	0	0	0	0	0	0	0	0	7
5:30 PM	0	1	0	0	1	5	0	0	0	0	0	0	1	0	0	0	8
5:45 PM	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	5
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	12	0	0	2	30	0	0	0	0	0	0	2	0	0	0	47
APPROACH %'s :	7.69%	92.31%	0.00%	0.00%	6.25%	93.75%	0.00%	0.00%					100.00%	0.00%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	1	7	0	0	1	12	0	0	0	0	0	0	1	0	0	0	22
PEAK HR FACTOR :	0.25	0.583	0.000	0.000	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.688
		0.500				0.542								0.250			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Hwy 80 & Live Oak Trail
City: Campo
Control: 1-Way Stop(WB)

Project ID: 18-04266-002
Date: 9/13/2018

Total

NS/EW Streets:	Old Hwy 80				Old Hwy 80				Live Oak Trail				Live Oak Trail				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	14	1	0	2	2	0	1	0	0	0	0	0	0	3	0	23
7:15 AM	0	9	1	0	4	5	0	2	0	0	0	0	4	0	2	0	27
7:30 AM	0	10	2	0	1	4	0	0	0	0	0	0	2	0	2	0	21
7:45 AM	0	8	4	0	1	1	0	1	0	0	0	0	1	0	4	0	20
8:00 AM	0	11	1	0	2	7	0	0	0	0	0	0	0	0	0	1	22
8:15 AM	0	10	0	0	3	9	0	0	0	0	0	0	0	0	4	0	26
8:30 AM	0	9	1	0	2	7	0	0	0	0	0	0	2	0	2	0	23
8:45 AM	0	12	2	0	0	14	0	1	0	0	0	0	5	0	3	0	37
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	83	12	0	15	49	0	5	0	0	0	0	14	0	20	1	199
APPROACH %'s :	0.00%	87.37%	12.63%	0.00%	21.74%	71.01%	0.00%	7.25%					40.00%	0.00%	57.14%	2.86%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	42	4	0	7	37	0	1	0	0	0	0	7	0	9	1	108
PEAK HR FACTOR :	0.000	0.875	0.500	0.000	0.583	0.661	0.000	0.250	0.000	0.000	0.000	0.000	0.350	0.000	0.563	0.250	0.730
		0.821				0.750								0.531			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	8	4	0	5	7	0	0	0	0	0	0	1	0	0	0	25
4:15 PM	0	10	1	0	4	17	0	0	0	0	0	0	3	0	4	0	39
4:30 PM	0	8	4	0	4	13	0	0	0	0	0	0	2	0	4	0	35
4:45 PM	0	5	1	0	7	13	0	0	0	0	0	0	5	0	3	0	34
5:00 PM	0	2	4	0	2	16	0	0	0	0	0	0	7	0	1	0	32
5:15 PM	0	5	5	0	6	19	0	0	0	0	0	0	5	0	2	0	42
5:30 PM	0	6	5	0	7	21	0	0	0	0	0	0	5	0	6	0	50
5:45 PM	0	10	1	0	6	15	0	0	0	0	0	0	2	0	3	0	37
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	54	25	0	41	121	0	0	0	0	0	0	30	0	23	0	294
APPROACH %'s :	0.00%	68.35%	31.65%	0.00%	25.31%	74.69%	0.00%	0.00%					56.60%	0.00%	43.40%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	23	15	0	21	71	0	0	0	0	0	0	19	0	12	0	161
PEAK HR FACTOR :	0.000	0.575	0.750	0.000	0.750	0.845	0.000	0.000	0.000	0.000	0.000	0.000	0.679	0.000	0.500	0.000	0.805
		0.864				0.821								0.705			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Hwy 80 & Live Oak Trail
City: Campo
Control: 1-Way Stop(WB)

Project ID: 18-04266-002
Date: 9/13/2018

Cars

NS/EW Streets:	Old Hwy 80				Old Hwy 80				Live Oak Trail				Live Oak Trail				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	14	1	0	2	2	0	1	0	0	0	0	0	0	3	0	23
7:15 AM	0	9	1	0	3	5	0	2	0	0	0	0	4	0	2	0	26
7:30 AM	0	9	2	0	1	4	0	0	0	0	0	0	2	0	2	0	20
7:45 AM	0	8	4	0	1	1	0	1	0	0	0	0	1	0	4	0	20
8:00 AM	0	10	1	0	2	5	0	0	0	0	0	0	0	0	0	1	19
8:15 AM	0	10	0	0	2	8	0	0	0	0	0	0	0	0	4	0	24
8:30 AM	0	9	1	0	2	6	0	0	0	0	0	0	1	0	2	0	21
8:45 AM	0	12	2	0	0	14	0	1	0	0	0	0	4	0	3	0	36
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	81	12	0	13	45	0	5	0	0	0	0	12	0	20	1	189
APPROACH %'s :	0.00%	87.10%	12.90%	0.00%	20.63%	71.43%	0.00%	7.94%					36.36%	0.00%	60.61%	3.03%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	41	4	0	6	33	0	1	0	0	0	0	5	0	9	1	100
PEAK HR FACTOR :	0.00	0.854	0.500	0.000	0.750	0.589	0.000	0.250	0.000	0.000	0.000	0.000	0.313	0.000	0.563	0.250	0.694
		0.804				0.667								0.536			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	8	4	0	5	6	0	0	0	0	0	0	1	0	0	0	24
4:15 PM	0	8	1	0	4	16	0	0	0	0	0	0	3	0	4	0	36
4:30 PM	0	7	4	0	4	12	0	0	0	0	0	0	2	0	4	0	33
4:45 PM	0	4	1	0	7	13	0	0	0	0	0	0	5	0	3	0	33
5:00 PM	0	2	4	0	2	16	0	0	0	0	0	0	7	0	1	0	32
5:15 PM	0	5	5	0	6	19	0	0	0	0	0	0	5	0	2	0	42
5:30 PM	0	6	5	0	7	21	0	0	0	0	0	0	5	0	6	0	50
5:45 PM	0	10	1	0	6	15	0	0	0	0	0	0	2	0	3	0	37
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	50	25	0	41	118	0	0	0	0	0	0	30	0	23	0	287
APPROACH %'s :	0.00%	66.67%	33.33%	0.00%	25.79%	74.21%	0.00%	0.00%					56.60%	0.00%	43.40%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	23	15	0	21	71	0	0	0	0	0	0	19	0	12	0	161
PEAK HR FACTOR :	0.00	0.575	0.750	0.000	0.750	0.845	0.000	0.000	0.000	0.000	0.000	0.000	0.679	0.000	0.500	0.000	0.805
		0.864				0.821								0.705			

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Hwy 80 & Live Oak Trail
City: Campo
Control: 1-Way Stop(WB)

Project ID: 18-04266-002
Date: 9/13/2018

2axle

NS/EW Streets:	Old Hwy 80				Old Hwy 80				Live Oak Trail				Live Oak Trail				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2	0	0	1	3	0	0	0	0	0	0	1	0	0	0	7
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	25.00%	75.00%	0.00%	0.00%					100.00%	0.00%	0.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	1	0	0	0	3	0	0	0	0	0	0	1	0	0	0	5
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.625
		0.250				0.750								0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	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
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Old Hwy 80 & Live Oak Trail
City: Campo
Control: 1-Way Stop(WB)

Project ID: 18-04266-002
Date: 9/13/2018

3axle+

NS/EW Streets:	Old Hwy 80				Old Hwy 80				Live Oak Trail				Live Oak Trail				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	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
7:30 AM	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
8:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	3
APPROACH %'s :					50.00%	50.00%	0.00%	0.00%					100.00%	0.00%	0.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	3
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.750
					0.500								0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	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	0	0	0	0
4:45 PM	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
5:15 PM	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
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%													
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Church Rd/BIA Route 10 & Campo Rd/SR-94
City: Campo
Control: 1-Way Stop(SB)

Project ID: 18-04266-003
Date: 9/13/2018

Total

NS/EW Streets:	Church Rd/BIA Route 10				Church Rd/BIA Route 10				Campo Rd/SR-94				Campo Rd/SR-94				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0.5	0.5	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	1	0	5	0	0	0	0	1	3	0	10
7:15 AM	0	0	0	0	0	0	4	0	1	3	0	0	0	6	0	0	14
7:30 AM	0	0	0	0	0	0	3	0	1	3	0	0	0	8	7	0	22
7:45 AM	0	0	0	0	1	0	1	0	3	6	0	0	0	4	7	0	22
8:00 AM	0	0	0	0	3	0	2	0	2	3	0	0	0	1	4	0	15
8:15 AM	0	0	0	0	1	0	3	0	4	1	0	0	0	5	2	0	16
8:30 AM	0	0	0	0	1	0	2	0	7	8	0	0	0	6	0	0	24
8:45 AM	0	0	0	0	1	0	1	0	4	3	0	0	0	1	3	0	13
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	7	0	17	0	27	27	0	0	0	32	26	0	136
APPROACH %'s :					29.17%	0.00%	70.83%	0.00%	50.00%	50.00%	0.00%	0.00%	0.00%	55.17%	44.83%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	6	0	8	0	16	18	0	0	0	16	13	0	77
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.500	0.000	0.667	0.000	0.571	0.563	0.000	0.000	0.000	0.667	0.464	0.000	0.802
					0.700				0.567				0.659				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0.5	0.5	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	4	0	3	0	5	9	0	0	0	6	2	0	29
4:15 PM	0	0	0	0	3	0	4	0	4	5	0	0	0	5	1	0	22
4:30 PM	0	0	0	0	1	0	8	0	1	3	0	0	0	3	4	0	20
4:45 PM	0	0	0	0	3	0	8	0	5	2	0	0	0	3	1	0	22
5:00 PM	0	0	0	0	2	0	6	0	0	4	0	0	0	1	4	0	17
5:15 PM	0	0	0	0	3	0	2	0	0	9	0	0	0	3	2	0	19
5:30 PM	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
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	16	0	31	0	15	32	0	0	0	21	14	0	129
APPROACH %'s :					34.04%	0.00%	65.96%	0.00%	31.91%	68.09%	0.00%	0.00%	0.00%	60.00%	40.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	11	0	23	0	15	19	0	0	0	17	8	0	93
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.688	0.000	0.719	0.000	0.750	0.528	0.000	0.000	0.000	0.708	0.500	0.000	0.802
					0.773				0.607				0.781				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Church Rd/BIA Route 10 & Campo Rd/SR-94
City: Campo
Control: 1-Way Stop(SB)

Project ID: 18-04266-003
Date: 9/13/2018

Cars

NS/EW Streets:	Church Rd/BIA Route 10				Church Rd/BIA Route 10				Campo Rd/SR-94				Campo Rd/SR-94				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0.5	0.5	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	1	0	5	0	0	0	0	1	3	0	10
7:15 AM	0	0	0	0	0	0	4	0	1	2	0	0	0	5	0	0	12
7:30 AM	0	0	0	0	0	0	3	0	1	3	0	0	0	8	7	0	22
7:45 AM	0	0	0	0	1	0	1	0	3	4	0	0	0	4	7	0	20
8:00 AM	0	0	0	0	2	0	2	0	2	2	0	0	0	1	3	0	12
8:15 AM	0	0	0	0	1	0	3	0	4	1	0	0	0	3	2	0	14
8:30 AM	0	0	0	0	1	0	2	0	7	3	0	0	0	5	0	0	18
8:45 AM	0	0	0	0	1	0	1	0	4	1	0	0	0	1	2	0	10
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	6	0	17	0	27	16	0	0	0	28	24	0	118
APPROACH %'s :					26.09%	0.00%	73.91%	0.00%	62.79%	37.21%	0.00%	0.00%	0.00%	53.85%	46.15%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	5	0	8	0	16	10	0	0	0	13	12	0	64
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.625	0.000	0.667	0.000	0.571	0.625	0.000	0.000	0.000	0.650	0.429	0.000	0.800
					0.813				0.650				0.568				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0.5	0.5	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	4	0	3	0	5	7	0	0	0	5	2	0	26
4:15 PM	0	0	0	0	3	0	4	0	4	4	0	0	0	4	0	0	19
4:30 PM	0	0	0	0	1	0	7	0	1	3	0	0	0	3	4	0	19
4:45 PM	0	0	0	0	3	0	8	0	5	2	0	0	0	2	1	0	21
5:00 PM	0	0	0	0	2	0	6	0	0	4	0	0	0	1	4	0	17
5:15 PM	0	0	0	0	3	0	2	0	0	9	0	0	0	3	2	0	19
5:30 PM	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
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	16	0	30	0	15	29	0	0	0	18	13	0	121
APPROACH %'s :					34.78%	0.00%	65.22%	0.00%	34.09%	65.91%	0.00%	0.00%	0.00%	58.06%	41.94%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	11	0	22	0	15	16	0	0	0	14	7	0	85
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.688	0.000	0.688	0.000	0.750	0.571	0.000	0.000	0.000	0.700	0.438	0.000	0.817
					0.750				0.646				0.750				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Church Rd/BIA Route 10 & Campo Rd/SR-94
City: Campo
Control: 1-Way Stop(SB)

Project ID: 18-04266-003
Date: 9/13/2018

2axle

NS/EW Streets:	Church Rd/BIA Route 10				Church Rd/BIA Route 10				Campo Rd/SR-94				Campo Rd/SR-94				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0.5	0.5	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	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	1	0	0	0	0	0	0	1
7:30 AM	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	1	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	4	0	0	0	2	2	0	8
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	50.00%	50.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1	0	5
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.500	0.250	0.000	0.625
									0.500				0.750				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0.5	0.5	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2
4:30 PM	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
5:00 PM	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
5:30 PM	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
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	2	0	0	0	1	1	0	4
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	50.00%	50.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	2	0	0	0	1	1	0	4
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.250	0.250	0.000	0.500
									0.500				0.500				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Church Rd/BIA Route 10 & Campo Rd/SR-94
City: Campo
Control: 1-Way Stop(SB)

Project ID: 18-04266-003
Date: 9/13/2018

3axle+

NS/EW Streets:	Church Rd/BIA Route 10				Church Rd/BIA Route 10				Campo Rd/SR-94				Campo Rd/SR-94				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0.5	0.5	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	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	1	0	0	1
7:30 AM	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	1	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	0	0	0	0	7	0	0	0	2	0	0	10
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:45 AM - 08:45 AM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	0	0	0	6	0	0	0	1	0	0	8
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.250	0.000	0.000	0.500
					0.250				0.375				0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0.5	0.5	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:00 PM	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
5:30 PM	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
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	1	0	0	1	0	0	0	2	0	0	4
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	1	0	0	1	0	0	0	2	0	0	4
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250	0.000	0.000	0.000	0.500	0.000	0.000	1.000
					0.250				0.250				0.500				

Existing AM - Truck Percentage Calculations														
			Movement											PHF
Int. ID	N/S Street Name	E/W Street Name	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	PHF
1	Crestwood Road	I-8 WB Ramps													
		PV	62	15	0	0	13	3	0	0	0	20	0	1	0.983
		MT	2	2	0	0	0	0	0	0	0	2	0	0	0.500
		HT	10	0	0	0	0	0	0	0	0	2	0	0	0.500
		Truck %	16.2%	11.8%	N/A	N/A	0.0%	0.0%	N/A	N/A	N/A	16.7%	N/A	0.0%	
		HT only %	13.5%	0.0%	N/A	N/A	0.0%	0.0%	N/A	N/A	N/A	8.3%	N/A	0.0%	
		Total	**74**	**17**	**0**	**0**	**13**	**3**	**0**	**0**	**0**	**24**	**0**	**1**	**0.892**
2	Crestwood Road	I-8 EB Ramps													
		PV	0	75	22	0	34	0	6	2	37	0	0	0	0.846
		MT	0	4	3	0	3	0	0	0	3	0	0	0	0.650
		HT	0	9	4	0	5	0	0	0	5	0	0	0	0.821
		Truck %	N/A	14.8%	24.1%	N/A	19.0%	N/A	0.0%	0.0%	17.8%	N/A	N/A	N/A	
		HT only %	N/A	10.2%	13.8%	N/A	11.9%	N/A	0.0%	0.0%	11.1%	N/A	N/A	N/A	
		Total	**0**	**88**	**29**	**0**	**42**	**0**	**6**	**2**	**45**	**0**	**0**	**0**	**0.869**
3	Crestwood Road	Old Highway 80													
		PV	8	88	0	0	64	5	5	0	6	0	0	0	0.917
		MT	2	7	0	0	6	0	0	0	2	0	0	0	0.850
		HT	0	13	0	0	11	0	0	0	1	0	0	0	0.893
		Truck %	20.0%	18.5%	N/A	N/A	21.0%	0.0%	0.0%	N/A	33.3%	N/A	N/A	N/A	
		HT only %	0.0%	12.0%	N/A	N/A	13.6%	0.0%	0.0%	N/A	11.1%	N/A	N/A	N/A	
		Total	**10**	**108**	**0**	**0**	**81**	**5**	**5**	**0**	**9**	**0**	**0**	**0**	**0.924**
4	Old Highway 80	Church Road-Golden Acorn Casino Dwy													
		PV	7	39	10	39	29	9	9	9	6	8	10	40	0.802
		MT	0	3	0	0	5	1	2	0	0	0	0	4	0.625
		HT	0	15	0	0	10	1	0	0	0	0	0	0	0.812
		Truck %	0.0%	31.6%	0.0%	0.0%	34.1%	18.2%	18.2%	0.0%	0.0%	0.0%	0.0%	9.1%	
		HT only %	0.0%	26.3%	0.0%	0.0%	22.7%	9.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
		Total	**7**	**57**	**10**	**39**	**44**	**11**	**11**	**9**	**6**	**8**	**10**	**44**	**0.831**
5	Old Highway 80	Live Oak Trail													
		PV	0	41	4	7	33	0	0	0	0	6	0	9	0.694
		MT	0	1	0	0	3	0	0	0	0	1	0	0	0.625
		HT	0	0	0	1	1	0	0	0	0	1	0	0	0.750
		Truck %	N/A	2.4%	0.0%	12.5%	10.8%	N/A	N/A	N/A	N/A	25.0%	N/A	0.0%	
		HT only %	N/A	0.0%	0.0%	12.5%	2.7%	N/A	N/A	N/A	N/A	12.5%	N/A	0.0%	
		Total	**0**	**42**	**4**	**8**	**37**	**0**	**0**	**0**	**0**	**8**	**0**	**9**	**0.730**
6	Campo Road (SR-94)	Church Road - BIA Route 10													
		PV	0	0	0	5	0	8	16	10	0	0	13	12	0.800
		MT	0	0	0	0	0	0	0	2	0	0	2	1	0.625
		HT	0	0	0	1	0	0	0	6	0	0	1	0	0.500
		Truck %	N/A	N/A	N/A	16.7%	N/A	0.0%	0.0%	44.4%	N/A	N/A	18.8%	7.7%	
		HT only %	N/A	N/A	N/A	16.7%	N/A	0.0%	0.0%	33.3%	N/A	N/A	6.3%	0.0%	
		Total	**0**	**0**	**0**	**6**	**0**	**8**	**16**	**18**	**0**	**0**	**16**	**13**	**0.802**

Source: National Data & Surveying Services (NDS), 2018

Existing PM - Truck Percentage Calculations														
			Movement											PHF
Int. ID	N/S Street Name	E/W Street Name	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	PHF
1	Crestwood Road	I-8 WB Ramps													
		PV	64	16	0	0	7	9	0	0	0	25	4	2	0.774
		MT	4	1	0	0	1	1	0	0	0	0	0	0	0.583
		HT	2	0	0	0	0	0	0	0	0	6	1	0	0.750
		Truck %	8.6%	5.9%	N/A	N/A	12.5%	10.0%	N/A	N/A	N/A	19.4%	20.0%	0.0%	
		HT only %	2.9%	0.0%	N/A	N/A	0.0%	0.0%	N/A	N/A	N/A	19.4%	20.0%	0.0%	
		Total	**70**	**17**	**0**	**0**	**8**	**10**	**0**	**0**	**0**	**31**	**5**	**2**	**0.761**
2	Crestwood Road	I-8 EB Ramps													
		PV	0	79	41	1	32	0	6	0	98	0	0	0	0.774
		MT	0	5	0	0	1	0	0	0	1	0	0	0	0.583
		HT	0	3	5	0	7	0	2	0	5	0	0	0	0.611
		Truck %	N/A	9.2%	10.9%	0.0%	20.0%	N/A	25.0%	N/A	5.8%	N/A	N/A	N/A	
		HT only %	N/A	3.4%	10.9%	0.0%	17.5%	N/A	25.0%	N/A	4.8%	N/A	N/A	N/A	
		Total	**0**	**87**	**46**	**1**	**40**	**0**	**8**	**0**	**104**	**0**	**0**	**0**	**0.822**
3	Crestwood Road	Old Highway 80													
		PV	11	118	0	0	130	2	2	0	12	0	0	0	0.809
		MT	0	5	0	0	1	1	0	0	0	0	0	0	0.583
		HT	0	7	0	0	11	0	0	0	0	0	0	0	0.643
		Truck %	0.0%	9.2%	N/A	N/A	8.5%	33.3%	0.0%	N/A	0.0%	N/A	N/A	N/A	
		HT only %	0.0%	5.4%	N/A	N/A	7.7%	0.0%	0.0%	N/A	0.0%	N/A	N/A	N/A	
		Total	**11**	**130**	**0**	**0**	**142**	**3**	**2**	**0**	**12**	**0**	**0**	**0**	**0.833**
4	Old Highway 80	Church Road-Golden Acorn Casino Dwy													
		PV	10	33	14	72	58	11	11	8	6	11	7	84	0.821
		MT	0	3	0	0	1	0	1	0	0	1	0	1	0.438
		HT	1	7	0	1	12	0	0	0	0	1	0	0	0.688
		Truck %	9.1%	23.3%	0.0%	1.4%	18.3%	0.0%	8.3%	0.0%	0.0%	15.4%	0.0%	1.2%	
		HT only %	9.1%	16.3%	0.0%	1.4%	16.9%	0.0%	0.0%	0.0%	0.0%	7.7%	0.0%	0.0%	
		Total	**11**	**43**	**14**	**73**	**71**	**11**	**12**	**8**	**6**	**13**	**7**	**85**	**0.868**
5	Old Highway 80	Live Oak Trail													
		PV	0	23	15	21	71	0	0	0	0	19	0	12	0.805
		MT	0	0	0	0	0	0	0	0	0	0	0	0	0.000
		HT	0	0	0	0	0	0	0	0	0	0	0	0	0.000
		Truck %	N/A	0.0%	0.0%	0.0%	0.0%	N/A	N/A	N/A	N/A	0.0%	N/A	0.0%	
		HT only %	N/A	0.0%	0.0%	0.0%	0.0%	N/A	N/A	N/A	N/A	0.0%	N/A	0.0%	
		Total	**0**	**23**	**15**	**21**	**71**	**0**	**0**	**0**	**0**	**19**	**0**	**12**	**0.805**
6	Campo Road (SR-94)	Church Road - BIA Route 10													
		PV	0	0	0	11	0	22	15	16	0	0	14	1	0.817
		MT	0	0	0	0	0	0	0	2	0	0	1	1	0.500
		HT	0	0	0	0	0	1	0	1	0	0	2	0	1.000
		Truck %	N/A	N/A	N/A	0.0%	N/A	4.3%	0.0%	15.8%	N/A	N/A	17.6%	50.0%	
		HT only %	N/A	N/A	N/A	0.0%	N/A	4.3%	0.0%	5.3%	N/A	N/A	11.8%	0.0%	
		Total	**0**	**0**	**0**	**11**	**0**	**23**	**15**	**19**	**0**	**0**	**17**	**2**	**0.802**

Source: National Data & Surveying Services (NDS), 2018

National Data & Surveying Services

Intersection Turning Movement Count

Location: Ribbonwood Rd & I-8 WB Ramps
City: Boulevard
Control: 1-Way Stop (WB)

Project ID: 18-04268-001
Date: 7/19/2018

Total

NS/EW Streets:	Ribbonwood Rd				Ribbonwood Rd				I-8 WB Ramps				I-8 WB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	8	4	0	0	0	2	10	0	0	0	0	0	3	0	0	0	27
7:15 AM	10	1	0	0	0	4	3	0	0	0	0	0	4	1	2	0	25
7:30 AM	11	1	0	0	0	1	1	0	0	0	0	0	2	0	0	0	16
7:45 AM	7	3	0	0	0	4	3	0	0	0	0	0	4	0	0	0	21
8:00 AM	7	2	0	0	0	0	2	0	0	0	0	0	4	1	0	0	16
8:15 AM	6	1	0	0	0	0	2	0	0	0	0	0	3	0	0	0	12
8:30 AM	6	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	9
8:45 AM	5	5	0	0	0	3	2	0	0	0	0	0	1	0	1	0	17
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	60	18	0	0	0	15	24	0	0	0	0	0	21	2	3	0	143
APPROACH %'s :	76.92%	23.08%	0.00%	0.00%	0.00%	38.46%	61.54%	0.00%					80.77%	7.69%	11.54%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	36	9	0	0	0	11	17	0	0	0	0	0	13	1	2	0	89
PEAK HR FACTOR :	0.818	0.563	0.000	0.000	0.000	0.688	0.425	0.000	0.000	0.000	0.000	0.000	0.813	0.250	0.250	0.000	0.824
	0.938				0.583								0.571				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	0	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	3	9	0	0	0	1	3	0	0	0	0	0	2	1	0	0	19
4:15 PM	5	1	0	0	0	2	2	0	0	0	0	0	2	0	0	0	12
4:30 PM	5	3	0	0	0	1	3	0	0	0	0	0	3	1	0	0	16
4:45 PM	4	1	0	0	0	1	2	0	0	0	0	0	2	0	1	0	11
5:00 PM	4	4	0	0	0	1	0	0	0	0	0	0	6	0	1	0	16
5:15 PM	2	2	0	0	0	1	2	0	0	0	0	0	3	1	0	0	11
5:30 PM	3	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	7
5:45 PM	1	6	0	0	0	1	0	0	0	0	0	0	3	0	3	0	14
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	27	28	0	0	0	8	12	0	0	0	0	0	23	3	5	0	106
APPROACH %'s :	49.09%	50.91%	0.00%	0.00%	0.00%	40.00%	60.00%	0.00%					74.19%	9.68%	16.13%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	17	14	0	0	0	5	10	0	0	0	0	0	9	2	1	0	58
PEAK HR FACTOR :	0.850	0.389	0.000	0.000	0.000	0.625	0.833	0.000	0.000	0.000	0.000	0.000	0.750	0.500	0.250	0.000	0.763
	0.646				0.938								0.750				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Ribbonwood Rd & I-8 EB Ramps
City: Boulevard
Control: 1-Way Stop (EB)

Project ID: 18-04268-002
Date: 7/19/2018

Total

NS/EW Streets:	Ribbonwood Rd				Ribbonwood Rd				I-8 EB Ramps				I-8 EB Ramps				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	9	1	0	2	3	0	0	2	0	6	0	0	0	0	0	23
7:15 AM	0	10	2	0	0	3	0	0	1	0	4	0	0	0	0	0	20
7:30 AM	0	7	2	0	0	3	0	0	0	0	2	0	0	0	0	0	14
7:45 AM	0	2	1	0	1	5	0	0	4	0	2	0	0	0	0	0	15
8:00 AM	0	10	3	0	1	1	0	0	2	0	1	0	0	0	0	0	18
8:15 AM	0	7	3	0	1	1	0	0	1	0	4	0	0	0	0	0	17
8:30 AM	0	10	1	0	0	5	0	0	2	0	2	0	0	0	0	0	20
8:45 AM	0	7	9	0	1	5	0	0	1	0	4	0	0	0	0	0	27
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	62	22	0	6	26	0	0	13	0	25	0	0	0	0	0	154
APPROACH %'s :	0.00%	73.81%	26.19%	0.00%	18.75%	81.25%	0.00%	0.00%	34.21%	0.00%	65.79%	0.00%					
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	34	16	0	3	12	0	0	6	0	11	0	0	0	0	0	82
PEAK HR FACTOR :	0.000	0.850	0.444	0.000	0.750	0.600	0.000	0.000	0.750	0.000	0.688	0.000	0.000	0.000	0.000	0.000	0.759
		0.781				0.625				0.850							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	6	1	0	1	2	0	0	5	0	4	0	0	0	0	0	19
4:15 PM	0	6	2	0	2	2	0	0	1	0	3	0	0	0	0	0	16
4:30 PM	0	5	3	0	3	3	0	0	3	0	11	0	0	0	0	0	28
4:45 PM	0	5	1	0	0	2	0	0	0	0	12	0	0	0	0	0	20
5:00 PM	0	4	1	0	0	8	0	0	6	0	7	0	0	0	0	0	26
5:15 PM	0	2	1	0	0	3	0	0	1	0	3	0	0	0	0	0	10
5:30 PM	0	6	5	0	0	2	0	0	1	0	3	0	0	0	0	0	17
5:45 PM	0	2	1	0	0	6	0	0	4	1	6	0	0	0	0	0	20
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	36	15	0	6	28	0	0	21	1	49	0	0	0	0	0	156
APPROACH %'s :	0.00%	70.59%	29.41%	0.00%	17.65%	82.35%	0.00%	0.00%	29.58%	1.41%	69.01%	0.00%					
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	20	7	0	5	15	0	0	10	0	33	0	0	0	0	0	90
PEAK HR FACTOR :	0.000	0.833	0.583	0.000	0.417	0.469	0.000	0.000	0.417	0.000	0.688	0.000	0.000	0.000	0.000	0.000	0.804
		0.844				0.625				0.768							

APPENDIX B

Synchro Intersection Analysis Worksheets

Existing Conditions

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	24	0	1	74	17	0	0	13	3
Future Vol, veh/h	0	0	0	24	0	1	74	17	0	0	13	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	320	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	16	0	0	16	11	0	0	0	0
Mvmt Flow	0	0	0	27	0	1	83	19	0	0	15	3

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	202	203	19	18	0	-	-	-	0
Stage 1	185	185	-	-	-	-	-	-	-
Stage 2	17	18	-	-	-	-	-	-	-
Critical Hdwy	6.56	6.5	6.2	4.26	-	-	-	-	-
Critical Hdwy Stg 1	5.56	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.56	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.644	4	3.3	2.344	-	-	-	-	-
Pot Cap-1 Maneuver	756	697	1065	1512	-	0	0	-	-
Stage 1	814	751	-	-	-	0	0	-	-
Stage 2	971	884	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	714	0	1065	1512	-	-	-	-	-
Mov Cap-2 Maneuver	714	0	-	-	-	-	-	-	-
Stage 1	769	0	-	-	-	-	-	-	-
Stage 2	971	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	6.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1512	-	714	1065	-	-
HCM Lane V/C Ratio	0.055	-	0.038	0.001	-	-
HCM Control Delay (s)	7.5	-	10.2	8.4	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	31	5	2	70	17	0	0	8	10
Future Vol, veh/h	0	0	0	31	5	2	70	17	0	0	8	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	320	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	19	20	0	8	5	0	0	12	10
Mvmt Flow	0	0	0	41	7	3	92	22	0	0	11	13

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	224	230	22	24	0	-	-	-	0
Stage 1	206	206	-	-	-	-	-	-	-
Stage 2	18	24	-	-	-	-	-	-	-
Critical Hdwy	6.59	6.7	6.2	4.18	-	-	-	-	-
Critical Hdwy Stg 1	5.59	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.59	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.671	4.18	3.3	2.272	-	-	-	-	-
Pot Cap-1 Maneuver	728	640	1061	1553	-	0	0	-	-
Stage 1	790	699	-	-	-	0	0	-	-
Stage 2	962	841	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	685	0	1061	1553	-	-	-	-	-
Mov Cap-2 Maneuver	685	0	-	-	-	-	-	-	-
Stage 1	743	0	-	-	-	-	-	-	-
Stage 2	962	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1553	-	685	1061	-	-
HCM Lane V/C Ratio	0.059	-	0.06	0.009	-	-
HCM Control Delay (s)	7.5	-	10.6	8.4	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	0	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	2	45	0	0	0	0	88	29	0	42	0
Future Vol, veh/h	6	2	45	0	0	0	0	88	29	0	42	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	15	-	-	-	-	-	-	145	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	17	0	0	0	0	14	24	0	19	0
Mvmt Flow	7	2	52	0	0	0	0	101	33	0	48	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	166	182	48	-	0	0	134	0	0
Stage 1	48	48	-	-	-	-	-	-	-
Stage 2	118	134	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.37	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.453	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	829	716	980	0	-	-	1463	-	0
Stage 1	980	859	-	0	-	-	-	-	0
Stage 2	912	789	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	829	0	980	-	-	-	1463	-	-
Mov Cap-2 Maneuver	829	0	-	-	-	-	-	-	-
Stage 1	980	0	-	-	-	-	-	-	-
Stage 2	912	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	829	980	1463	-
HCM Lane V/C Ratio	-	-	0.011	0.053	-	-
HCM Control Delay (s)	-	-	9.4	8.9	0	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0.2	0	-

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	8	0	104	0	0	0	0	87	46	1	40	0
Future Vol, veh/h	8	0	104	0	0	0	0	87	46	1	40	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	15	-	-	-	-	-	-	145	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	25	0	5	0	0	0	0	9	10	0	20	0
Mvmt Flow	10	0	127	0	0	0	0	106	56	1	49	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	185	213	49	-	0	0	162	0	0
Stage 1	51	51	-	-	-	-	-	-	-
Stage 2	134	162	-	-	-	-	-	-	-
Critical Hdwy	6.65	6.5	6.25	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.65	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.65	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.725	4	3.345	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	755	688	1011	0	-	-	1429	-	0
Stage 1	916	856	-	0	-	-	-	-	0
Stage 2	839	768	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	754	0	1011	-	-	-	1429	-	-
Mov Cap-2 Maneuver	754	0	-	-	-	-	-	-	-
Stage 1	915	0	-	-	-	-	-	-	-
Stage 2	839	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	754	1011	1429	-
HCM Lane V/C Ratio	-	-	0.013	0.125	0.001	-
HCM Control Delay (s)	-	-	9.8	9.1	7.5	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0.4	0	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	9	10	108	81	5
Future Vol, veh/h	5	9	10	108	81	5
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	33	20	18	21	0
Mvmt Flow	5	10	11	117	88	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	230	91	93	0	-	0
Stage 1	91	-	-	-	-	-
Stage 2	139	-	-	-	-	-
Critical Hdwy	6.4	6.53	4.3	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.597	2.38	-	-	-
Pot Cap-1 Maneuver	763	888	1396	-	-	-
Stage 1	938	-	-	-	-	-
Stage 2	893	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	757	888	1396	-	-	-
Mov Cap-2 Maneuver	757	-	-	-	-	-
Stage 1	930	-	-	-	-	-
Stage 2	893	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1396	-	836	-	-
HCM Lane V/C Ratio	0.008	-	0.018	-	-
HCM Control Delay (s)	7.6	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	12	11	130	142	3
Future Vol, veh/h	2	12	11	130	142	3
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	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	9	8	33
Mvmt Flow	2	14	13	157	171	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	356	173	175	0	-	0
Stage 1	173	-	-	-	-	-
Stage 2	183	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	646	876	1414	-	-	-
Stage 1	862	-	-	-	-	-
Stage 2	853	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	640	876	1414	-	-	-
Mov Cap-2 Maneuver	640	-	-	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	853	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1414	-	832	-	-
HCM Lane V/C Ratio	0.009	-	0.02	-	-
HCM Control Delay (s)	7.6	0	9.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	9	6	8	10	44	7	57	10	39	44	11
Future Vol, veh/h	11	9	6	8	10	44	7	57	10	39	44	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	-	-	10	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	9	0	31	0	0	34	18
Mvmt Flow	13	11	7	10	12	53	8	69	12	47	53	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	278	251	60	254	251	75	66	0	0	81	0	0
Stage 1	154	154	-	91	91	-	-	-	-	-	-	-
Stage 2	124	97	-	163	160	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.29	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.381	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	678	656	1011	703	656	967	1549	-	-	1529	-	-
Stage 1	853	774	-	921	823	-	-	-	-	-	-	-
Stage 2	885	819	-	844	769	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	614	632	1011	669	632	967	1549	-	-	1529	-	-
Mov Cap-2 Maneuver	614	632	-	669	632	-	-	-	-	-	-	-
Stage 1	849	749	-	916	819	-	-	-	-	-	-	-
Stage 2	820	815	-	799	744	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.4	9.4	0.7	3.1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1549	-	-	622	1011	648	967	1529	-	-
HCM Lane V/C Ratio	0.005	-	-	0.039	0.007	0.033	0.055	0.031	-	-
HCM Control Delay (s)	7.3	0	-	11	8.6	10.7	8.9	7.4	0	-
HCM Lane LOS	A	A	-	B	A	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.1	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	8	6	13	7	85	11	43	14	73	71	11
Future Vol, veh/h	12	8	6	13	7	85	11	43	14	73	71	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	-	-	10	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	8	0	0	15	0	1	9	23	0	1	18	0
Mvmt Flow	14	9	7	15	8	98	13	49	16	84	82	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	393	348	89	348	346	57	95	0	0	65	0	0
Stage 1	257	257	-	83	83	-	-	-	-	-	-	-
Stage 2	136	91	-	265	263	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.5	6.2	7.25	6.5	6.21	4.19	-	-	4.11	-	-
Critical Hdwy Stg 1	6.18	5.5	-	6.25	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.5	-	6.25	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4	3.3	3.635	4	3.309	2.281	-	-	2.209	-	-
Pot Cap-1 Maneuver	556	579	975	583	580	1012	1456	-	-	1544	-	-
Stage 1	734	699	-	894	830	-	-	-	-	-	-	-
Stage 2	853	823	-	713	694	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	472	541	975	543	542	1012	1456	-	-	1544	-	-
Mov Cap-2 Maneuver	472	541	-	543	542	-	-	-	-	-	-	-
Stage 1	727	659	-	886	823	-	-	-	-	-	-	-
Stage 2	756	816	-	658	654	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	9.5	1.2	3.5
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1456	-	-	497	975	543	1012	1544	-	-
HCM Lane V/C Ratio	0.009	-	-	0.046	0.007	0.042	0.097	0.054	-	-
HCM Control Delay (s)	7.5	0	-	12.6	8.7	11.9	8.9	7.5	0	-
HCM Lane LOS	A	A	-	B	A	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0.1	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	9	42	4	8	37
Future Vol, veh/h	8	9	42	4	8	37
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	73	73	73	73	73	73
Heavy Vehicles, %	25	0	0	0	12	10
Mvmt Flow	11	12	58	5	11	51

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	134	61	0	0	63	0
Stage 1	61	-	-	-	-	-
Stage 2	73	-	-	-	-	-
Critical Hdwy	6.65	6.2	-	-	4.22	-
Critical Hdwy Stg 1	5.65	-	-	-	-	-
Critical Hdwy Stg 2	5.65	-	-	-	-	-
Follow-up Hdwy	3.725	3.3	-	-	2.308	-
Pot Cap-1 Maneuver	808	1010	-	-	1478	-
Stage 1	906	-	-	-	-	-
Stage 2	895	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	802	1010	-	-	1478	-
Mov Cap-2 Maneuver	802	-	-	-	-	-
Stage 1	899	-	-	-	-	-
Stage 2	895	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	1.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	900	1478	-
HCM Lane V/C Ratio	-	-	0.026	0.007	-
HCM Control Delay (s)	-	-	9.1	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	12	23	15	21	71
Future Vol, veh/h	19	12	23	15	21	71
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	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	23	15	28	19	26	88

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	178	38	0	0	47	0
Stage 1	38	-	-	-	-	-
Stage 2	140	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	816	1040	-	-	1573	-
Stage 1	990	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	802	1040	-	-	1573	-
Mov Cap-2 Maneuver	802	-	-	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	892	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	1.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	880	1573	-
HCM Lane V/C Ratio	-	-	0.043	0.016	-
HCM Control Delay (s)	-	-	9.3	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↰	↱
Traffic Vol, veh/h	16	18	0	0	16	13	0	0	0	6	0	8
Future Vol, veh/h	16	18	0	0	16	13	0	0	0	6	0	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	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	44	0	0	18	7	0	0	0	16	0	0
Mvmt Flow	20	23	0	0	20	16	0	0	0	8	0	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	36	0	0	23	0	0	96	99	23	91	91	28
Stage 1	-	-	-	-	-	-	63	63	-	28	28	-
Stage 2	-	-	-	-	-	-	33	36	-	63	63	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.26	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.26	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.26	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.644	4	3.3
Pot Cap-1 Maneuver	1588	-	-	1605	-	-	891	795	1060	861	803	1053
Stage 1	-	-	-	-	-	-	953	846	-	954	876	-
Stage 2	-	-	-	-	-	-	988	869	-	914	846	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1588	-	-	1605	-	-	874	785	1060	852	793	1053
Mov Cap-2 Maneuver	-	-	-	-	-	-	874	785	-	852	793	-
Stage 1	-	-	-	-	-	-	941	835	-	942	876	-
Stage 2	-	-	-	-	-	-	979	869	-	902	835	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.4	0	0	8.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	1588	-	-	1605	-	-	852	1053
HCM Lane V/C Ratio	-	0.013	-	-	-	-	-	0.009	0.009
HCM Control Delay (s)	0	7.3	0	-	0	-	-	9.3	8.5
HCM Lane LOS	A	A	A	-	A	-	-	A	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0	0

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	19	0	0	17	2	0	0	0	11	0	23
Future Vol, veh/h	15	19	0	0	17	2	0	0	0	11	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	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	15	0	0	17	50	0	0	0	0	0	4
Mvmt Flow	19	24	0	0	21	3	0	0	0	14	0	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	24	0	0	24	0	0	99	86	24	85	85	23
Stage 1	-	-	-	-	-	-	62	62	-	23	23	-
Stage 2	-	-	-	-	-	-	37	24	-	62	62	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.336
Pot Cap-1 Maneuver	1604	-	-	1604	-	-	888	808	1058	906	809	1048
Stage 1	-	-	-	-	-	-	954	847	-	1000	880	-
Stage 2	-	-	-	-	-	-	984	879	-	954	847	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1604	-	-	1604	-	-	856	798	1058	898	799	1048
Mov Cap-2 Maneuver	-	-	-	-	-	-	856	798	-	898	799	-
Stage 1	-	-	-	-	-	-	943	837	-	988	880	-
Stage 2	-	-	-	-	-	-	957	879	-	943	837	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.2	0	0	8.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	1604	-	-	1604	-	-	898	1048
HCM Lane V/C Ratio	-	0.012	-	-	-	-	-	0.015	0.027
HCM Control Delay (s)	0	7.3	0	-	0	-	-	9.1	8.5
HCM Lane LOS	A	A	A	-	A	-	-	A	A
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0	0.1

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	13	1	2	36	9	0	0	11	17
Future Vol, veh/h	0	0	0	13	1	2	36	9	0	0	11	17
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	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	16	1	2	44	11	0	0	13	21

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	123	133	11	34	0	-	-	-	0
Stage 1	99	99	-	-	-	-	-	-	-
Stage 2	24	34	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	872	758	1070	1578	-	0	0	-	-
Stage 1	925	813	-	-	-	0	0	-	-
Stage 2	999	867	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	848	0	1070	1578	-	-	-	-	-
Mov Cap-2 Maneuver	848	0	-	-	-	-	-	-	-
Stage 1	899	0	-	-	-	-	-	-	-
Stage 2	999	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	5.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1578	-	848	1070	-	-
HCM Lane V/C Ratio	0.028	-	0.019	0.003	-	-
HCM Control Delay (s)	7.3	0	9.3	8.4	-	-
HCM Lane LOS	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	13	2	1	17	14	0	0	7	10
Future Vol, veh/h	0	0	0	13	2	1	17	14	0	0	7	10
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	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	17	3	1	22	18	0	0	9	13

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	78	84	18	22	0	-	-	-	0
Stage 1	62	62	-	-	-	-	-	-	-
Stage 2	16	22	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	925	806	1061	1593	-	0	0	-	-
Stage 1	961	843	-	-	-	0	0	-	-
Stage 2	1007	877	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	912	0	1061	1593	-	-	-	-	-
Mov Cap-2 Maneuver	912	0	-	-	-	-	-	-	-
Stage 1	948	0	-	-	-	-	-	-	-
Stage 2	1007	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1593	-	912	1061	-	-
HCM Lane V/C Ratio	0.014	-	0.019	0.004	-	-
HCM Control Delay (s)	7.3	0	9	8.4	-	-
HCM Lane LOS	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	0	11	0	0	0	0	39	16	5	19	0
Future Vol, veh/h	6	0	11	0	0	0	0	39	16	5	19	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	0	14	0	0	0	0	51	21	7	25	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	101	111	25	-	0	0	72	0	0
Stage 1	39	39	-	-	-	-	-	-	-
Stage 2	62	72	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	898	779	1051	0	-	-	1528	-	0
Stage 1	983	862	-	0	-	-	-	-	0
Stage 2	961	835	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	894	0	1051	-	-	-	1528	-	-
Mov Cap-2 Maneuver	894	0	-	-	-	-	-	-	-
Stage 1	978	0	-	-	-	-	-	-	-
Stage 2	961	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	1.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	894	1051	1528	-
HCM Lane V/C Ratio	-	-	0.009	0.014	0.004	-
HCM Control Delay (s)	-	-	9.1	8.5	7.4	0
HCM Lane LOS	-	-	A	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	0	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	0	33	0	0	0	0	21	7	5	15	0
Future Vol, veh/h	10	0	33	0	0	0	0	21	7	5	15	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	0	41	0	0	0	0	26	9	6	19	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	62	66	19	-	0	0	35	0	0
Stage 1	31	31	-	-	-	-	-	-	-
Stage 2	31	35	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	944	825	1059	0	-	-	1576	-	0
Stage 1	992	869	-	0	-	-	-	-	0
Stage 2	992	866	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	940	0	1059	-	-	-	1576	-	-
Mov Cap-2 Maneuver	940	0	-	-	-	-	-	-	-
Stage 1	988	0	-	-	-	-	-	-	-
Stage 2	992	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.6	0	1.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	940	1059	1576	-
HCM Lane V/C Ratio	-	-	0.013	0.039	0.004	-
HCM Control Delay (s)	-	-	8.9	8.5	7.3	0
HCM Lane LOS	-	-	A	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0.1	0	-

Campo Wind and Boulder Brush Peak Analysis

Existing plus Project Conditions

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	26	0	1	77	48	0	0	13	3
Future Vol, veh/h	0	0	0	26	0	1	77	48	0	0	13	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	320	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	23	0	0	19	4	0	0	0	0
Mvmt Flow	0	0	0	29	0	1	87	54	0	0	15	3

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	245	246	54	18	0	-	-	-	0
Stage 1	228	228	-	-	-	-	-	-	-
Stage 2	17	18	-	-	-	-	-	-	-
Critical Hdwy	6.63	6.5	6.2	4.29	-	-	-	-	-
Critical Hdwy Stg 1	5.63	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.63	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.707	4	3.3	2.371	-	-	-	-	-
Pot Cap-1 Maneuver	700	660	1019	1495	-	0	0	-	-
Stage 1	763	719	-	-	-	0	0	-	-
Stage 2	954	884	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	659	0	1019	1495	-	-	-	-	-
Mov Cap-2 Maneuver	659	0	-	-	-	-	-	-	-
Stage 1	719	0	-	-	-	-	-	-	-
Stage 2	954	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	4.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1495	-	659	1019	-	-
HCM Lane V/C Ratio	0.058	-	0.044	0.001	-	-
HCM Control Delay (s)	7.6	-	10.7	8.5	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	33	5	2	307	17	0	0	35	43
Future Vol, veh/h	0	0	0	33	5	2	307	17	0	0	35	43
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	320	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	24	20	0	2	5	0	0	2	2
Mvmt Flow	0	0	0	43	7	3	404	22	0	0	46	57

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	905	933	22	103	0	-	-	-	0
Stage 1	830	830	-	-	-	-	-	-	-
Stage 2	75	103	-	-	-	-	-	-	-
Critical Hdwy	6.64	6.7	6.2	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.64	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.64	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.716	4.18	3.3	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	281	248	1061	1489	-	0	0	-	-
Stage 1	393	361	-	-	-	0	0	-	-
Stage 2	895	776	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	205	0	1061	1489	-	-	-	-	-
Mov Cap-2 Maneuver	205	0	-	-	-	-	-	-	-
Stage 1	286	0	-	-	-	-	-	-	-
Stage 2	895	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	23.9	7.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1489	-	205	1061	-	-
HCM Lane V/C Ratio	0.271	-	0.212	0.009	-	-
HCM Control Delay (s)	8.3	-	27.2	8.4	-	-
HCM Lane LOS	A	-	D	A	-	-
HCM 95th %tile Q(veh)	1.1	-	0.8	0	-	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	2	165	0	0	0	0	105	31	0	44	0
Future Vol, veh/h	23	2	165	0	0	0	0	105	31	0	44	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	15	-	-	-	-	-	-	145	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	6	0	0	0	0	15	29	0	22	0
Mvmt Flow	26	2	190	0	0	0	0	121	36	0	51	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	190	208	51	-	0	0	157	0	0
Stage 1	51	51	-	-	-	-	-	-	-
Stage 2	139	157	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.26	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.354	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	804	692	1006	0	-	-	1435	-	0
Stage 1	977	856	-	0	-	-	-	-	0
Stage 2	893	772	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	804	0	1006	-	-	-	1435	-	-
Mov Cap-2 Maneuver	804	0	-	-	-	-	-	-	-
Stage 1	977	0	-	-	-	-	-	-	-
Stage 2	893	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	804	1006	1435	-
HCM Lane V/C Ratio	-	-	0.036	0.189	-	-
HCM Control Delay (s)	-	-	9.6	9.4	0	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.7	0	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	0	107	0	0	0	0	324	48	1	69	0
Future Vol, veh/h	8	0	107	0	0	0	0	324	48	1	69	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	15	-	-	-	-	-	-	145	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	25	0	8	0	0	0	0	3	14	0	14	0
Mvmt Flow	10	0	130	0	0	0	0	395	59	1	84	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	511	540	84	-	0	0	454	0	0
Stage 1	86	86	-	-	-	-	-	-	-
Stage 2	425	454	-	-	-	-	-	-	-
Critical Hdwy	6.65	6.5	6.28	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.65	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.65	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.725	4	3.372	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	484	451	959	0	-	-	1117	-	0
Stage 1	883	827	-	0	-	-	-	-	0
Stage 2	613	573	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	484	0	959	-	-	-	1117	-	-
Mov Cap-2 Maneuver	484	0	-	-	-	-	-	-	-
Stage 1	882	0	-	-	-	-	-	-	-
Stage 2	613	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	484	959	1117	-
HCM Lane V/C Ratio	-	-	0.02	0.136	0.001	-
HCM Control Delay (s)	-	-	12.6	9.3	8.2	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.5	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	9	10	126	202	5
Future Vol, veh/h	5	9	10	126	202	5
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	33	20	19	10	0
Mvmt Flow	5	10	11	137	220	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	382	223	225	0	-	0
Stage 1	223	-	-	-	-	-
Stage 2	159	-	-	-	-	-
Critical Hdwy	6.4	6.53	4.3	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.597	2.38	-	-	-
Pot Cap-1 Maneuver	624	745	1244	-	-	-
Stage 1	819	-	-	-	-	-
Stage 2	875	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	618	745	1244	-	-	-
Mov Cap-2 Maneuver	618	-	-	-	-	-
Stage 1	811	-	-	-	-	-
Stage 2	875	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1244	-	694	-	-
HCM Lane V/C Ratio	0.009	-	0.022	-	-
HCM Control Delay (s)	7.9	0	10.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	12	11	368	173	3
Future Vol, veh/h	2	12	11	368	173	3
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	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	4	9	33
Mvmt Flow	2	14	13	443	208	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	679	210	212	0	-	0
Stage 1	210	-	-	-	-	-
Stage 2	469	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	420	835	1370	-	-	-
Stage 1	830	-	-	-	-	-
Stage 2	634	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	415	835	1370	-	-	-
Mov Cap-2 Maneuver	415	-	-	-	-	-
Stage 1	819	-	-	-	-	-
Stage 2	634	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1370	-	730	-	-
HCM Lane V/C Ratio	0.01	-	0.023	-	-
HCM Control Delay (s)	7.7	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	9	6	8	10	44	7	58	10	39	62	116
Future Vol, veh/h	29	9	6	8	10	44	7	58	10	39	62	116
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	-	-	10	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	20	0	0	0	0	9	0	32	0	0	25	5
Mvmt Flow	35	11	7	10	12	53	8	70	12	47	75	140

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	364	337	145	340	401	76	215	0	0	82	0	0
Stage 1	239	239	-	92	92	-	-	-	-	-	-	-
Stage 2	125	98	-	248	309	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.2	7.1	6.5	6.29	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.3	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.3	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.68	4	3.3	3.5	4	3.381	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	560	587	908	618	541	966	1367	-	-	1528	-	-
Stage 1	726	711	-	920	823	-	-	-	-	-	-	-
Stage 2	837	818	-	760	663	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	503	562	908	585	518	966	1367	-	-	1528	-	-
Mov Cap-2 Maneuver	503	562	-	585	518	-	-	-	-	-	-	-
Stage 1	722	685	-	914	818	-	-	-	-	-	-	-
Stage 2	775	813	-	715	639	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	9.8	0.7	1.3
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1367	-	-	516	908	546	966	1528	-	-
HCM Lane V/C Ratio	0.006	-	-	0.089	0.008	0.04	0.055	0.031	-	-
HCM Control Delay (s)	7.7	0	-	12.7	9	11.9	8.9	7.4	0	-
HCM Lane LOS	A	A	-	B	A	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0	0.1	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	11.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	217	8	6	13	7	85	11	77	14	73	72	42
Future Vol, veh/h	217	8	6	13	7	85	11	77	14	73	72	42
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	-	-	10	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	0	0	15	0	1	9	14	0	1	19	9
Mvmt Flow	249	9	7	15	8	98	13	89	16	84	83	48

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	451	406	107	406	422	97	131	0	0	105	0	0
Stage 1	275	275	-	123	123	-	-	-	-	-	-	-
Stage 2	176	131	-	283	299	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.5	6.2	7.25	6.5	6.21	4.19	-	-	4.11	-	-
Critical Hdwy Stg 1	6.12	5.5	-	6.25	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.5	-	6.25	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4	3.3	3.635	4	3.309	2.281	-	-	2.209	-	-
Pot Cap-1 Maneuver	519	537	953	533	526	962	1412	-	-	1493	-	-
Stage 1	731	686	-	851	798	-	-	-	-	-	-	-
Stage 2	826	792	-	697	670	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	436	499	953	494	489	962	1412	-	-	1493	-	-
Mov Cap-2 Maneuver	436	499	-	494	489	-	-	-	-	-	-	-
Stage 1	724	644	-	842	790	-	-	-	-	-	-	-
Stage 2	727	784	-	640	629	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	24	9.9	0.8	2.9
HCM LOS	C	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1412	-	-	438	953	492	962	1493	-	-
HCM Lane V/C Ratio	0.009	-	-	0.59	0.007	0.047	0.102	0.056	-	-
HCM Control Delay (s)	7.6	0	-	24.4	8.8	12.7	9.2	7.6	0	-
HCM Lane LOS	A	A	-	C	A	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	3.7	0	0.1	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	10	42	18	26	37
Future Vol, veh/h	8	10	42	18	26	37
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	73	73	73	73	73	73
Heavy Vehicles, %	25	10	2	0	7	10
Mvmt Flow	11	14	58	25	36	51

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	194	71	0	0	83	0
Stage 1	71	-	-	-	-	-
Stage 2	123	-	-	-	-	-
Critical Hdwy	6.65	6.3	-	-	4.17	-
Critical Hdwy Stg 1	5.65	-	-	-	-	-
Critical Hdwy Stg 2	5.65	-	-	-	-	-
Follow-up Hdwy	3.725	3.39	-	-	2.263	-
Pot Cap-1 Maneuver	745	970	-	-	1483	-
Stage 1	897	-	-	-	-	-
Stage 2	849	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	726	970	-	-	1483	-
Mov Cap-2 Maneuver	726	-	-	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	849	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	3.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	844	1483	-
HCM Lane V/C Ratio	-	-	0.029	0.024	-
HCM Control Delay (s)	-	-	9.4	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	46	46	23	15	22	71
Future Vol, veh/h	46	46	23	15	22	71
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	81	81	81	81	81	81
Heavy Vehicles, %	0	2	0	0	4	0
Mvmt Flow	57	57	28	19	27	88

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	180	38	0	0	47	0
Stage 1	38	-	-	-	-	-
Stage 2	142	-	-	-	-	-
Critical Hdwy	6.4	6.22	-	-	4.14	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-	2.236	-
Pot Cap-1 Maneuver	814	1034	-	-	1548	-
Stage 1	990	-	-	-	-	-
Stage 2	890	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	799	1034	-	-	1548	-
Mov Cap-2 Maneuver	799	-	-	-	-	-
Stage 1	972	-	-	-	-	-
Stage 2	890	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	1.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	901	1548	-
HCM Lane V/C Ratio	-	-	0.126	0.018	-
HCM Control Delay (s)	-	-	9.6	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	18	0	42	16	67	0	2	0	6	53	8
Future Vol, veh/h	16	18	0	42	16	67	0	2	0	6	53	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	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	44	0	0	18	1	0	100	0	16	3	0
Mvmt Flow	20	23	0	53	20	84	0	3	0	8	66	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	104	0	0	23	0	0	269	273	23	233	231	62
Stage 1	-	-	-	-	-	-	63	63	-	168	168	-
Stage 2	-	-	-	-	-	-	206	210	-	65	63	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	7.5	6.2	7.26	6.53	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	6.5	-	6.26	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	6.5	-	6.26	5.53	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.9	3.3	3.644	4.027	3.3
Pot Cap-1 Maneuver	1500	-	-	1605	-	-	688	498	1060	693	667	1009
Stage 1	-	-	-	-	-	-	953	684	-	802	758	-
Stage 2	-	-	-	-	-	-	801	578	-	912	840	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1500	-	-	1605	-	-	604	474	1060	665	634	1009
Mov Cap-2 Maneuver	-	-	-	-	-	-	604	474	-	665	634	-
Stage 1	-	-	-	-	-	-	940	674	-	791	731	-
Stage 2	-	-	-	-	-	-	696	558	-	896	828	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.5	2.5	12.6	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	474	1500	-	-	1605	-	-	637	1009
HCM Lane V/C Ratio	0.005	0.013	-	-	0.033	-	-	0.116	0.01
HCM Control Delay (s)	12.6	7.4	0	-	7.3	0	-	11.4	8.6
HCM Lane LOS	B	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0	0	-	-	0.1	-	-	0.4	0

Intersection	
Int Delay, s/veh	10

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	19	0	0	17	2	0	104	83	119	2	23
Future Vol, veh/h	15	19	0	0	17	2	0	104	83	119	2	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	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	15	0	0	17	50	0	1	0	0	100	4
Mvmt Flow	19	24	0	0	21	3	0	130	104	149	3	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	24	0	0	24	0	0	101	86	24	202	85	23
Stage 1	-	-	-	-	-	-	62	62	-	23	23	-
Stage 2	-	-	-	-	-	-	39	24	-	179	62	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.51	6.2	7.1	7.5	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.51	-	6.1	6.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.51	-	6.1	6.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.009	3.3	3.5	4.9	3.336
Pot Cap-1 Maneuver	1604	-	-	1604	-	-	885	806	1058	761	652	1048
Stage 1	-	-	-	-	-	-	954	845	-	1000	716	-
Stage 2	-	-	-	-	-	-	981	877	-	827	685	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1604	-	-	1604	-	-	850	796	1058	595	644	1048
Mov Cap-2 Maneuver	-	-	-	-	-	-	850	796	-	595	644	-
Stage 1	-	-	-	-	-	-	943	835	-	988	716	-
Stage 2	-	-	-	-	-	-	951	877	-	622	677	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.2	0	10.4	12.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	894	1604	-	-	1604	-	-	596	1048
HCM Lane V/C Ratio	0.261	0.012	-	-	-	-	-	0.254	0.027
HCM Control Delay (s)	10.4	7.3	0	-	0	-	-	13.1	8.5
HCM Lane LOS	B	A	A	-	A	-	-	B	A
HCM 95th %tile Q(veh)	1	0	-	-	0	-	-	1	0.1

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	13	1	2	36	16	0	0	11	17
Future Vol, veh/h	0	0	0	13	1	2	36	16	0	0	11	17
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	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	16	1	2	44	20	0	0	13	21

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	132	142	20	34	0	-	-	-	0
Stage 1	108	108	-	-	-	-	-	-	-
Stage 2	24	34	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	862	749	1058	1578	-	0	0	-	-
Stage 1	916	806	-	-	-	0	0	-	-
Stage 2	999	867	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	838	0	1058	1578	-	-	-	-	-
Mov Cap-2 Maneuver	838	0	-	-	-	-	-	-	-
Stage 1	890	0	-	-	-	-	-	-	-
Stage 2	999	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	5.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1578	-	838	1058	-	-
HCM Lane V/C Ratio	0.028	-	0.019	0.003	-	-
HCM Control Delay (s)	7.3	0	9.4	8.4	-	-
HCM Lane LOS	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	13	2	1	17	14	0	0	13	17
Future Vol, veh/h	0	0	0	13	2	1	17	14	0	0	13	17
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	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	17	3	1	22	18	0	0	17	22

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	90	101	18	39	0	-	-	-	0	
Stage 1	62	62	-	-	-	-	-	-	-	
Stage 2	28	39	-	-	-	-	-	-	-	
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-	
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-	
Pot Cap-1 Maneuver	910	789	1061	1571	-	0	0	-	-	
Stage 1	961	843	-	-	-	0	0	-	-	
Stage 2	995	862	-	-	-	0	0	-	-	
Platoon blocked, %					-			-	-	
Mov Cap-1 Maneuver	897	0	1061	1571	-	-	-	-	-	
Mov Cap-2 Maneuver	897	0	-	-	-	-	-	-	-	
Stage 1	948	0	-	-	-	-	-	-	-	
Stage 2	995	0	-	-	-	-	-	-	-	

Approach	WB	NB	SB
HCM Control Delay, s	9	4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1571	-	897	1061	-	-
HCM Lane V/C Ratio	0.014	-	0.019	0.004	-	-
HCM Control Delay (s)	7.3	0	9.1	8.4	-	-
HCM Lane LOS	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	0	11	0	0	0	0	42	16	5	19	0
Future Vol, veh/h	10	0	11	0	0	0	0	42	16	5	19	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	0	14	0	0	0	0	55	21	7	25	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	105	115	25	-	0	0	76	0	0
Stage 1	39	39	-	-	-	-	-	-	-
Stage 2	66	76	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	893	775	1051	0	-	-	1523	-	0
Stage 1	983	862	-	0	-	-	-	-	0
Stage 2	957	832	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	889	0	1051	-	-	-	1523	-	-
Mov Cap-2 Maneuver	889	0	-	-	-	-	-	-	-
Stage 1	978	0	-	-	-	-	-	-	-
Stage 2	957	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0	1.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	889	1051	1523	-
HCM Lane V/C Ratio	-	-	0.015	0.014	0.004	-
HCM Control Delay (s)	-	-	9.1	8.5	7.4	0
HCM Lane LOS	-	-	A	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	0	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	0	33	0	0	0	0	21	7	5	21	0
Future Vol, veh/h	10	0	33	0	0	0	0	21	7	5	21	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	0	41	0	0	0	0	26	9	6	26	0

Major/Minor	Minor2					Major1			Major2		
Conflicting Flow All	69	73	26			-	0	0	35	0	0
Stage 1	38	38	-			-	-	-	-	-	-
Stage 2	31	35	-			-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22			-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-			-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318			-	-	-	2.218	-	-
Pot Cap-1 Maneuver	936	817	1050			0	-	-	1576	-	0
Stage 1	984	863	-			0	-	-	-	-	0
Stage 2	992	866	-			0	-	-	-	-	0
Platoon blocked, %							-	-		-	
Mov Cap-1 Maneuver	932	0	1050			-	-	-	1576	-	-
Mov Cap-2 Maneuver	932	0	-			-	-	-	-	-	-
Stage 1	980	0	-			-	-	-	-	-	-
Stage 2	992	0	-			-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	0	1.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	932	1050	1576	-
HCM Lane V/C Ratio	-	-	0.013	0.039	0.004	-
HCM Control Delay (s)	-	-	8.9	8.6	7.3	0
HCM Lane LOS	-	-	A	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0.1	0	-

Existing plus Project plus Cumulative Projects Conditions

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	27	0	1	78	48	0	0	13	3
Future Vol, veh/h	0	0	0	27	0	1	78	48	0	0	13	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	320	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	22	0	0	19	4	0	0	0	0
Mvmt Flow	0	0	0	30	0	1	88	54	0	0	15	3

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	247	248	54	18	0	-	-	-	0
Stage 1	230	230	-	-	-	-	-	-	-
Stage 2	17	18	-	-	-	-	-	-	-
Critical Hdwy	6.62	6.5	6.2	4.29	-	-	-	-	-
Critical Hdwy Stg 1	5.62	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.62	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.698	4	3.3	2.371	-	-	-	-	-
Pot Cap-1 Maneuver	700	658	1019	1495	-	0	0	-	-
Stage 1	763	718	-	-	-	0	0	-	-
Stage 2	956	884	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	659	0	1019	1495	-	-	-	-	-
Mov Cap-2 Maneuver	659	0	-	-	-	-	-	-	-
Stage 1	718	0	-	-	-	-	-	-	-
Stage 2	956	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	4.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1495	-	659	1019	-	-
HCM Lane V/C Ratio	0.059	-	0.046	0.001	-	-
HCM Control Delay (s)	7.6	-	10.7	8.5	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	8.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	35	5	2	308	17	0	0	35	43
Future Vol, veh/h	0	0	0	35	5	2	308	17	0	0	35	43
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	320	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	22	20	0	2	5	0	0	2	2
Mvmt Flow	0	0	0	46	7	3	405	22	0	0	46	57

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	907	935	22	103	0	-	-	-	0	
Stage 1	832	832	-	-	-	-	-	-	-	
Stage 2	75	103	-	-	-	-	-	-	-	
Critical Hdwy	6.62	6.7	6.2	4.12	-	-	-	-	-	
Critical Hdwy Stg 1	5.62	5.7	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	5.62	5.7	-	-	-	-	-	-	-	
Follow-up Hdwy	3.698	4.18	3.3	2.218	-	-	-	-	-	
Pot Cap-1 Maneuver	282	248	1061	1489	-	0	0	-	-	
Stage 1	395	360	-	-	-	0	0	-	-	
Stage 2	900	776	-	-	-	0	0	-	-	
Platoon blocked, %					-			-	-	
Mov Cap-1 Maneuver	205	0	1061	1489	-	-	-	-	-	
Mov Cap-2 Maneuver	205	0	-	-	-	-	-	-	-	
Stage 1	288	0	-	-	-	-	-	-	-	
Stage 2	900	0	-	-	-	-	-	-	-	

Approach	WB	NB	SB
HCM Control Delay, s	24.4	7.9	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1489	-	205	1061	-	-
HCM Lane V/C Ratio	0.272	-	0.225	0.009	-	-
HCM Control Delay (s)	8.3	-	27.6	8.4	-	-
HCM Lane LOS	A	-	D	A	-	-
HCM 95th %tile Q(veh)	1.1	-	0.8	0	-	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	2	166	0	0	0	0	107	33	0	46	0
Future Vol, veh/h	23	2	166	0	0	0	0	107	33	0	46	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	15	-	-	-	-	-	-	145	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	6	0	0	0	0	15	27	0	21	0
Mvmt Flow	26	2	191	0	0	0	0	123	38	0	53	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	195	214	53	-	0	0	161	0	0
Stage 1	53	53	-	-	-	-	-	-	-
Stage 2	142	161	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.26	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.354	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	798	687	1003	0	-	-	1430	-	0
Stage 1	975	855	-	0	-	-	-	-	0
Stage 2	890	769	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	798	0	1003	-	-	-	1430	-	-
Mov Cap-2 Maneuver	798	0	-	-	-	-	-	-	-
Stage 1	975	0	-	-	-	-	-	-	-
Stage 2	890	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	798	1003	1430	-
HCM Lane V/C Ratio	-	-	0.036	0.19	-	-
HCM Control Delay (s)	-	-	9.7	9.4	0	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.7	0	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	0	109	0	0	0	0	326	51	1	71	0
Future Vol, veh/h	8	0	109	0	0	0	0	326	51	1	71	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	15	-	-	-	-	-	-	145	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	25	0	8	0	0	0	0	3	13	0	14	0
Mvmt Flow	10	0	133	0	0	0	0	398	62	1	87	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	518	549	87	-	0	0	460	0	0
Stage 1	89	89	-	-	-	-	-	-	-
Stage 2	429	460	-	-	-	-	-	-	-
Critical Hdwy	6.65	6.5	6.28	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.65	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.65	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.725	4	3.372	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	480	446	955	0	-	-	1112	-	0
Stage 1	880	825	-	0	-	-	-	-	0
Stage 2	610	569	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	480	0	955	-	-	-	1112	-	-
Mov Cap-2 Maneuver	480	0	-	-	-	-	-	-	-
Stage 1	879	0	-	-	-	-	-	-	-
Stage 2	610	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	0	0.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	480	955	1112	-
HCM Lane V/C Ratio	-	-	0.02	0.139	0.001	-
HCM Control Delay (s)	-	-	12.7	9.4	8.2	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.5	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	9	10	129	205	5
Future Vol, veh/h	5	9	10	129	205	5
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	33	20	18	10	0
Mvmt Flow	5	10	11	140	223	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	388	226	228	0	-	0
Stage 1	226	-	-	-	-	-
Stage 2	162	-	-	-	-	-
Critical Hdwy	6.4	6.53	4.3	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.597	2.38	-	-	-
Pot Cap-1 Maneuver	619	742	1241	-	-	-
Stage 1	816	-	-	-	-	-
Stage 2	872	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	613	742	1241	-	-	-
Mov Cap-2 Maneuver	613	-	-	-	-	-
Stage 1	808	-	-	-	-	-
Stage 2	872	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1241	-	690	-	-
HCM Lane V/C Ratio	0.009	-	0.022	-	-
HCM Control Delay (s)	7.9	0	10.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	12	11	373	177	3
Future Vol, veh/h	2	12	11	373	177	3
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	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	4	9	33
Mvmt Flow	2	14	13	449	213	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	690	215	217	0	-	0
Stage 1	215	-	-	-	-	-
Stage 2	475	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	414	830	1365	-	-	-
Stage 1	826	-	-	-	-	-
Stage 2	630	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	409	830	1365	-	-	-
Mov Cap-2 Maneuver	409	-	-	-	-	-
Stage 1	815	-	-	-	-	-
Stage 2	630	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1365	-	724	-	-
HCM Lane V/C Ratio	0.01	-	0.023	-	-
HCM Control Delay (s)	7.7	0	10.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	9	6	8	10	46	7	59	10	41	63	116
Future Vol, veh/h	29	9	6	8	10	46	7	59	10	41	63	116
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	-	-	10	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	20	0	0	0	0	8	0	32	0	0	25	5
Mvmt Flow	35	11	7	10	12	55	8	71	12	49	76	140

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	371	343	146	346	407	77	216	0	0	83	0	0
Stage 1	244	244	-	93	93	-	-	-	-	-	-	-
Stage 2	127	99	-	253	314	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.2	7.1	6.5	6.28	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.3	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.3	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.68	4	3.3	3.5	4	3.372	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	554	583	906	612	537	967	1366	-	-	1527	-	-
Stage 1	721	708	-	919	822	-	-	-	-	-	-	-
Stage 2	835	817	-	756	660	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	496	558	906	578	514	967	1366	-	-	1527	-	-
Mov Cap-2 Maneuver	496	558	-	578	514	-	-	-	-	-	-	-
Stage 1	717	682	-	913	817	-	-	-	-	-	-	-
Stage 2	771	812	-	711	636	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	9.7	0.7	1.4
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1366	-	-	509	906	541	967	1527	-	-
HCM Lane V/C Ratio	0.006	-	-	0.09	0.008	0.04	0.057	0.032	-	-
HCM Control Delay (s)	7.7	0	-	12.8	9	11.9	8.9	7.4	0	-
HCM Lane LOS	A	A	-	B	A	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0	0.1	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	11.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	217	8	6	13	7	89	11	78	14	75	73	42
Future Vol, veh/h	217	8	6	13	7	89	11	78	14	75	73	42
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	-	-	10	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	0	0	15	0	1	9	14	0	1	19	9
Mvmt Flow	249	9	7	15	8	102	13	90	16	86	84	48

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	459	412	108	412	428	98	132	0	0	106	0	0
Stage 1	280	280	-	124	124	-	-	-	-	-	-	-
Stage 2	179	132	-	288	304	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.5	6.2	7.25	6.5	6.21	4.19	-	-	4.11	-	-
Critical Hdwy Stg 1	6.12	5.5	-	6.25	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.5	-	6.25	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4	3.3	3.635	4	3.309	2.281	-	-	2.209	-	-
Pot Cap-1 Maneuver	512	533	951	528	522	961	1411	-	-	1491	-	-
Stage 1	727	683	-	850	797	-	-	-	-	-	-	-
Stage 2	823	791	-	692	667	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	427	495	951	488	484	961	1411	-	-	1491	-	-
Mov Cap-2 Maneuver	427	495	-	488	484	-	-	-	-	-	-	-
Stage 1	720	640	-	842	789	-	-	-	-	-	-	-
Stage 2	721	783	-	634	625	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	24.9	9.9	0.8	3
HCM LOS	C	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1411	-	-	429	951	487	961	1491	-	-
HCM Lane V/C Ratio	0.009	-	-	0.603	0.007	0.047	0.106	0.058	-	-
HCM Control Delay (s)	7.6	0	-	25.3	8.8	12.8	9.2	7.6	0	-
HCM Lane LOS	A	A	-	D	A	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	3.9	0	0.1	0.4	0.2	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	10	43	18	26	38
Future Vol, veh/h	8	10	43	18	26	38
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	73	73	73	73	73	73
Heavy Vehicles, %	25	10	2	0	7	10
Mvmt Flow	11	14	59	25	36	52

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	196	72	0	0	84	0
Stage 1	72	-	-	-	-	-
Stage 2	124	-	-	-	-	-
Critical Hdwy	6.65	6.3	-	-	4.17	-
Critical Hdwy Stg 1	5.65	-	-	-	-	-
Critical Hdwy Stg 2	5.65	-	-	-	-	-
Follow-up Hdwy	3.725	3.39	-	-	2.263	-
Pot Cap-1 Maneuver	743	968	-	-	1482	-
Stage 1	896	-	-	-	-	-
Stage 2	848	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	724	968	-	-	1482	-
Mov Cap-2 Maneuver	724	-	-	-	-	-
Stage 1	874	-	-	-	-	-
Stage 2	848	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	842	1482	-
HCM Lane V/C Ratio	-	-	0.029	0.024	-
HCM Control Delay (s)	-	-	9.4	7.5	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-

Intersection	
Int Delay, s/veh	4.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	46	46	23	15	22	72
Future Vol, veh/h	46	46	23	15	22	72
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	81	81	81	81	81	81
Heavy Vehicles, %	0	2	0	0	4	0
Mvmt Flow	57	57	28	19	27	89

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	181	38	0	0	47	0
Stage 1	38	-	-	-	-	-
Stage 2	143	-	-	-	-	-
Critical Hdwy	6.4	6.22	-	-	4.14	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	-	-	2.236	-
Pot Cap-1 Maneuver	813	1034	-	-	1548	-
Stage 1	990	-	-	-	-	-
Stage 2	889	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	798	1034	-	-	1548	-
Mov Cap-2 Maneuver	798	-	-	-	-	-
Stage 1	972	-	-	-	-	-
Stage 2	889	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	1.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	901	1548	-
HCM Lane V/C Ratio	-	-	0.126	0.018	-
HCM Control Delay (s)	-	-	9.6	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.1	-

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	19	0	42	17	67	0	2	0	6	53	8
Future Vol, veh/h	16	19	0	42	17	67	0	2	0	6	53	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	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	42	0	0	17	1	0	100	0	16	3	0
Mvmt Flow	20	24	0	53	21	84	0	3	0	8	66	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	24	0	0	271	275	24	235	233	63
Stage 1	-	-	-	-	-	-	64	64	-	169	169	-
Stage 2	-	-	-	-	-	-	207	211	-	66	64	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	7.5	6.2	7.26	6.53	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	6.5	-	6.26	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	6.5	-	6.26	5.53	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.9	3.3	3.644	4.027	3.3
Pot Cap-1 Maneuver	1499	-	-	1604	-	-	686	497	1058	691	665	1007
Stage 1	-	-	-	-	-	-	952	683	-	801	757	-
Stage 2	-	-	-	-	-	-	800	577	-	911	840	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1499	-	-	1604	-	-	602	473	1058	663	632	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	602	473	-	663	632	-
Stage 1	-	-	-	-	-	-	939	673	-	790	731	-
Stage 2	-	-	-	-	-	-	695	557	-	895	828	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.4	2.4	12.7	11.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	473	1499	-	-	1604	-	-	635	1007
HCM Lane V/C Ratio	0.005	0.013	-	-	0.033	-	-	0.116	0.01
HCM Control Delay (s)	12.7	7.4	0	-	7.3	0	-	11.4	8.6
HCM Lane LOS	B	A	A	-	A	A	-	B	A
HCM 95th %tile Q(veh)	0	0	-	-	0.1	-	-	0.4	0

Intersection	
Int Delay, s/veh	10

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	20	0	0	18	2	0	104	83	119	2	23
Future Vol, veh/h	15	20	0	0	18	2	0	104	83	119	2	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	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	15	0	0	16	50	0	1	0	0	100	4
Mvmt Flow	19	25	0	0	23	3	0	130	104	149	3	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	26	0	0	25	0	0	104	89	25	205	88	25
Stage 1	-	-	-	-	-	-	63	63	-	25	25	-
Stage 2	-	-	-	-	-	-	41	26	-	180	63	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.51	6.2	7.1	7.5	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.51	-	6.1	6.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.51	-	6.1	6.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.009	3.3	3.5	4.9	3.336
Pot Cap-1 Maneuver	1601	-	-	1603	-	-	881	803	1057	757	649	1045
Stage 1	-	-	-	-	-	-	953	844	-	998	714	-
Stage 2	-	-	-	-	-	-	979	875	-	826	684	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1601	-	-	1603	-	-	847	793	1057	591	641	1045
Mov Cap-2 Maneuver	-	-	-	-	-	-	847	793	-	591	641	-
Stage 1	-	-	-	-	-	-	942	834	-	986	714	-
Stage 2	-	-	-	-	-	-	949	875	-	621	676	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.1	0	10.5	12.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	892	1601	-	-	1603	-	-	592	1045
HCM Lane V/C Ratio	0.262	0.012	-	-	-	-	-	0.255	0.028
HCM Control Delay (s)	10.5	7.3	0	-	0	-	-	13.2	8.5
HCM Lane LOS	B	A	A	-	A	-	-	B	A
HCM 95th %tile Q(veh)	1.1	0	-	-	0	-	-	1	0.1

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	13	1	19	37	360	0	0	25	28
Future Vol, veh/h	0	0	0	13	1	19	37	360	0	0	25	28
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	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	16	1	23	45	439	0	0	30	34

Major/Minor	Minor1		Major1			Major2			
Conflicting Flow All	576	593	439	64	0	-	-	-	0
Stage 1	529	529	-	-	-	-	-	-	-
Stage 2	47	64	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	479	418	618	1538	-	0	0	-	-
Stage 1	591	527	-	-	-	0	0	-	-
Stage 2	975	842	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	460	0	618	1538	-	-	-	-	-
Mov Cap-2 Maneuver	460	0	-	-	-	-	-	-	-
Stage 1	568	0	-	-	-	-	-	-	-
Stage 2	975	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1538	-	460	618	-	-
HCM Lane V/C Ratio	0.029	-	0.034	0.039	-	-
HCM Control Delay (s)	7.4	0	13.1	11.1	-	-
HCM Lane LOS	A	A	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	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	0	0	0	13	2	8	17	36	0	0	179	212
Future Vol, veh/h	0	0	0	13	2	8	17	36	0	0	179	212
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	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	17	3	11	22	47	0	0	236	279

Major/Minor	Minor1		Major1		Major2				
Conflicting Flow All	467	606	47	515	0	-	-	-	0
Stage 1	91	91	-	-	-	-	-	-	-
Stage 2	376	515	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	554	411	1022	1051	-	0	0	-	-
Stage 1	933	820	-	-	-	0	0	-	-
Stage 2	694	535	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	542	0	1022	1051	-	-	-	-	-
Mov Cap-2 Maneuver	542	0	-	-	-	-	-	-	-
Stage 1	913	0	-	-	-	-	-	-	-
Stage 2	694	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	2.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1051	-	542	1022	-	-
HCM Lane V/C Ratio	0.021	-	0.032	0.013	-	-
HCM Control Delay (s)	8.5	0	11.9	8.6	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	205	0	11	0	0	0	0	192	16	11	27	0
Future Vol, veh/h	205	0	11	0	0	0	0	192	16	11	27	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	270	0	14	0	0	0	0	253	21	14	36	0

Major/Minor	Minor2					Major1			Major2		
Conflicting Flow All	328	338	36			-	0	0	274	0	0
Stage 1	64	64	-			-	-	-	-	-	-
Stage 2	264	274	-			-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22			-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-			-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318			-	-	-	2.218	-	-
Pot Cap-1 Maneuver	666	583	1037			0	-	-	1289	-	0
Stage 1	959	842	-			0	-	-	-	-	0
Stage 2	780	683	-			0	-	-	-	-	0
Platoon blocked, %							-	-		-	
Mov Cap-1 Maneuver	659	0	1037			-	-	-	1289	-	-
Mov Cap-2 Maneuver	659	0	-			-	-	-	-	-	-
Stage 1	948	0	-			-	-	-	-	-	-
Stage 2	780	0	-			-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.9	0	2.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	659	1037	1289	-
HCM Lane V/C Ratio	-	-	0.409	0.014	0.011	-
HCM Control Delay (s)	-	-	14.2	8.5	7.8	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	2	0	0	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	23	0	34	0	0	0	0	29	7	22	170	0
Future Vol, veh/h	23	0	34	0	0	0	0	29	7	22	170	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	0	43	0	0	0	0	36	9	28	213	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	310	314	213	-	0	0	45	0	0
Stage 1	269	269	-	-	-	-	-	-	-
Stage 2	41	45	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	682	601	827	0	-	-	1563	-	0
Stage 1	776	687	-	0	-	-	-	-	0
Stage 2	981	857	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	668	0	827	-	-	-	1563	-	-
Mov Cap-2 Maneuver	668	0	-	-	-	-	-	-	-
Stage 1	760	0	-	-	-	-	-	-	-
Stage 2	981	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	668	827	1563	-
HCM Lane V/C Ratio	-	-	0.043	0.051	0.018	-
HCM Control Delay (s)	-	-	10.6	9.6	7.3	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.2	0.1	-

Boulder Brush Peak Analysis

Existing plus Project Conditions

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	25	0	1	75	21	0	0	13	3
Future Vol, veh/h	0	0	0	25	0	1	75	21	0	0	13	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	320	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	20	0	0	17	9	0	0	0	0
Mvmt Flow	0	0	0	28	0	1	84	24	0	0	15	3

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	209	210	24	18	0	-	-	-	0
Stage 1	192	192	-	-	-	-	-	-	-
Stage 2	17	18	-	-	-	-	-	-	-
Critical Hdwy	6.6	6.5	6.2	4.27	-	-	-	-	-
Critical Hdwy Stg 1	5.6	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.6	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.68	4	3.3	2.353	-	-	-	-	-
Pot Cap-1 Maneuver	741	691	1058	1506	-	0	0	-	-
Stage 1	799	745	-	-	-	0	0	-	-
Stage 2	961	884	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	700	0	1058	1506	-	-	-	-	-
Mov Cap-2 Maneuver	700	0	-	-	-	-	-	-	-
Stage 1	754	0	-	-	-	-	-	-	-
Stage 2	961	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	5.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1506	-	700	1058	-	-
HCM Lane V/C Ratio	0.056	-	0.04	0.001	-	-
HCM Control Delay (s)	7.5	-	10.4	8.4	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	32	5	2	99	17	0	0	11	14
Future Vol, veh/h	0	0	0	32	5	2	99	17	0	0	11	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	-	-	-	50	-	-	320	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	21	20	0	7	5	0	0	9	7
Mvmt Flow	0	0	0	42	7	3	130	22	0	0	14	18

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	305	314	22	32	0	-	-	-	0
Stage 1	282	282	-	-	-	-	-	-	-
Stage 2	23	32	-	-	-	-	-	-	-
Critical Hdwy	6.61	6.7	6.2	4.17	-	-	-	-	-
Critical Hdwy Stg 1	5.61	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.61	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.689	4.18	3.3	2.263	-	-	-	-	-
Pot Cap-1 Maneuver	649	573	1061	1548	-	0	0	-	-
Stage 1	724	646	-	-	-	0	0	-	-
Stage 2	953	834	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	594	0	1061	1548	-	-	-	-	-
Mov Cap-2 Maneuver	594	0	-	-	-	-	-	-	-
Stage 1	663	0	-	-	-	-	-	-	-
Stage 2	953	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	6.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1548	-	594	1061	-	-
HCM Lane V/C Ratio	0.084	-	0.071	0.009	-	-
HCM Control Delay (s)	7.5	-	11.5	8.4	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.2	0	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	2	60	0	0	0	0	91	30	0	43	0
Future Vol, veh/h	8	2	60	0	0	0	0	91	30	0	43	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	15	-	-	-	-	-	-	145	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	15	0	0	0	0	15	26	0	20	0
Mvmt Flow	9	2	69	0	0	0	0	105	34	0	49	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	171	188	49	-	0	0	139	0	0
Stage 1	49	49	-	-	-	-	-	-	-
Stage 2	122	139	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.35	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.435	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	824	710	984	0	-	-	1457	-	0
Stage 1	979	858	-	0	-	-	-	-	0
Stage 2	908	785	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	824	0	984	-	-	-	1457	-	-
Mov Cap-2 Maneuver	824	0	-	-	-	-	-	-	-
Stage 1	979	0	-	-	-	-	-	-	-
Stage 2	908	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	824	984	1457	-
HCM Lane V/C Ratio	-	-	0.014	0.07	-	-
HCM Control Delay (s)	-	-	9.4	8.9	0	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0.2	0	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	0	105	0	0	0	0	116	47	1	44	0
Future Vol, veh/h	8	0	105	0	0	0	0	116	47	1	44	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	15	-	-	-	-	-	-	145	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	25	0	6	0	0	0	0	7	12	0	20	0
Mvmt Flow	10	0	128	0	0	0	0	141	57	1	54	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	226	254	54	-	0	0	198	0	0
Stage 1	56	56	-	-	-	-	-	-	-
Stage 2	170	198	-	-	-	-	-	-	-
Critical Hdwy	6.65	6.5	6.26	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.65	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.65	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.725	4	3.354	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	714	653	1002	0	-	-	1387	-	0
Stage 1	911	852	-	0	-	-	-	-	0
Stage 2	807	741	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	713	0	1002	-	-	-	1387	-	-
Mov Cap-2 Maneuver	713	0	-	-	-	-	-	-	-
Stage 1	910	0	-	-	-	-	-	-	-
Stage 2	807	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	713	1002	1387	-
HCM Lane V/C Ratio	-	-	0.014	0.128	0.001	-
HCM Control Delay (s)	-	-	10.1	9.1	7.6	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0.4	0	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	9	10	112	97	5
Future Vol, veh/h	5	9	10	112	97	5
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	33	20	19	19	0
Mvmt Flow	5	10	11	122	105	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	252	108	110	0	-	0
Stage 1	108	-	-	-	-	-
Stage 2	144	-	-	-	-	-
Critical Hdwy	6.4	6.53	4.3	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.597	2.38	-	-	-
Pot Cap-1 Maneuver	741	868	1375	-	-	-
Stage 1	921	-	-	-	-	-
Stage 2	888	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	734	868	1375	-	-	-
Mov Cap-2 Maneuver	734	-	-	-	-	-
Stage 1	913	-	-	-	-	-
Stage 2	888	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1375	-	815	-	-
HCM Lane V/C Ratio	0.008	-	0.019	-	-
HCM Control Delay (s)	7.6	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	12	11	160	147	3
Future Vol, veh/h	2	12	11	160	147	3
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	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	8	9	33
Mvmt Flow	2	14	13	193	177	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	398	179	181	0	-	0
Stage 1	179	-	-	-	-	-
Stage 2	219	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	611	869	1407	-	-	-
Stage 1	857	-	-	-	-	-
Stage 2	822	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	605	869	1407	-	-	-
Mov Cap-2 Maneuver	605	-	-	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	822	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1407	-	818	-	-
HCM Lane V/C Ratio	0.009	-	0.021	-	-
HCM Control Delay (s)	7.6	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	9	6	8	10	44	7	57	10	39	46	25
Future Vol, veh/h	15	9	6	8	10	44	7	57	10	39	46	25
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	-	-	10	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	26	0	0	0	0	9	0	31	0	0	32	16
Mvmt Flow	18	11	7	10	12	53	8	69	12	47	55	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	288	261	70	264	270	75	85	0	0	81	0	0
Stage 1	164	164	-	91	91	-	-	-	-	-	-	-
Stage 2	124	97	-	173	179	-	-	-	-	-	-	-
Critical Hdwy	7.36	6.5	6.2	7.1	6.5	6.29	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.36	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.36	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.734	4	3.3	3.5	4	3.381	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	619	647	998	693	640	967	1524	-	-	1529	-	-
Stage 1	785	766	-	921	823	-	-	-	-	-	-	-
Stage 2	825	819	-	834	755	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	560	622	998	659	616	967	1524	-	-	1529	-	-
Mov Cap-2 Maneuver	560	622	-	659	616	-	-	-	-	-	-	-
Stage 1	780	741	-	915	818	-	-	-	-	-	-	-
Stage 2	764	814	-	790	731	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	9.5	0.7	2.6
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1524	-	-	582	998	634	967	1529	-	-
HCM Lane V/C Ratio	0.006	-	-	0.05	0.007	0.034	0.055	0.031	-	-
HCM Control Delay (s)	7.4	0	-	11.5	8.6	10.9	8.9	7.4	0	-
HCM Lane LOS	A	A	-	B	A	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0.1	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	8	6	13	7	85	11	47	14	73	71	16
Future Vol, veh/h	38	8	6	13	7	85	11	47	14	73	71	16
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	-	-	10	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	7	0	0	15	0	1	9	21	0	1	18	12
Mvmt Flow	44	9	7	15	8	98	13	54	16	84	82	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	400	355	91	355	356	62	100	0	0	70	0	0
Stage 1	259	259	-	88	88	-	-	-	-	-	-	-
Stage 2	141	96	-	267	268	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.5	6.2	7.25	6.5	6.21	4.19	-	-	4.11	-	-
Critical Hdwy Stg 1	6.17	5.5	-	6.25	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.5	-	6.25	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4	3.3	3.635	4	3.309	2.281	-	-	2.209	-	-
Pot Cap-1 Maneuver	552	574	972	577	573	1006	1450	-	-	1537	-	-
Stage 1	735	697	-	888	826	-	-	-	-	-	-	-
Stage 2	850	819	-	711	691	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	468	536	972	537	535	1006	1450	-	-	1537	-	-
Mov Cap-2 Maneuver	468	536	-	537	535	-	-	-	-	-	-	-
Stage 1	728	657	-	880	819	-	-	-	-	-	-	-
Stage 2	753	812	-	656	651	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.9	9.6	1.1	3.4
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1450	-	-	479	972	536	1006	1537	-	-
HCM Lane V/C Ratio	0.009	-	-	0.11	0.007	0.043	0.097	0.055	-	-
HCM Control Delay (s)	7.5	0	-	13.4	8.7	12	9	7.5	0	-
HCM Lane LOS	A	A	-	B	A	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0	0.1	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	9	42	6	10	37
Future Vol, veh/h	8	9	42	6	10	37
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	73	73	73	73	73	73
Heavy Vehicles, %	25	0	2	0	10	10
Mvmt Flow	11	12	58	8	14	51

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	141	62	0	0	66	0
Stage 1	62	-	-	-	-	-
Stage 2	79	-	-	-	-	-
Critical Hdwy	6.65	6.2	-	-	4.2	-
Critical Hdwy Stg 1	5.65	-	-	-	-	-
Critical Hdwy Stg 2	5.65	-	-	-	-	-
Follow-up Hdwy	3.725	3.3	-	-	2.29	-
Pot Cap-1 Maneuver	800	1009	-	-	1486	-
Stage 1	905	-	-	-	-	-
Stage 2	889	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	792	1009	-	-	1486	-
Mov Cap-2 Maneuver	792	-	-	-	-	-
Stage 1	896	-	-	-	-	-
Stage 2	889	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	1.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	894	1486	-
HCM Lane V/C Ratio	-	-	0.026	0.009	-
HCM Control Delay (s)	-	-	9.1	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	22	16	23	15	21	71
Future Vol, veh/h	22	16	23	15	21	71
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	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	27	20	28	19	26	88

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	178	38	0	0	47	0
Stage 1	38	-	-	-	-	-
Stage 2	140	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	816	1040	-	-	1573	-
Stage 1	990	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	802	1040	-	-	1573	-
Mov Cap-2 Maneuver	802	-	-	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	892	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	1.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	888	1573	-
HCM Lane V/C Ratio	-	-	0.053	0.016	-
HCM Control Delay (s)	-	-	9.3	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	18	0	5	16	20	0	1	0	6	7	8
Future Vol, veh/h	16	18	0	5	16	20	0	1	0	6	7	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	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	44	0	0	18	5	0	100	0	16	14	0
Mvmt Flow	20	23	0	6	20	25	0	1	0	8	9	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	45	0	0	23	0	0	117	120	23	109	108	33
Stage 1	-	-	-	-	-	-	63	63	-	45	45	-
Stage 2	-	-	-	-	-	-	54	57	-	64	63	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	7.5	6.2	7.26	6.64	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	6.5	-	6.26	5.64	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	6.5	-	6.26	5.64	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.9	3.3	3.644	4.126	3.3
Pot Cap-1 Maneuver	1576	-	-	1605	-	-	864	620	1060	838	760	1046
Stage 1	-	-	-	-	-	-	953	684	-	935	834	-
Stage 2	-	-	-	-	-	-	963	689	-	913	819	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1576	-	-	1605	-	-	837	609	1060	826	747	1046
Mov Cap-2 Maneuver	-	-	-	-	-	-	837	609	-	826	747	-
Stage 1	-	-	-	-	-	-	941	675	-	923	831	-
Stage 2	-	-	-	-	-	-	940	686	-	899	808	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.4	0.9	10.9	9.2
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	609	1576	-	-	1605	-	-	781	1046
HCM Lane V/C Ratio	0.002	0.013	-	-	0.004	-	-	0.021	0.01
HCM Control Delay (s)	10.9	7.3	0	-	7.3	0	-	9.7	8.5
HCM Lane LOS	B	A	A	-	A	A	-	A	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1	0

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	19	0	0	17	2	0	13	10	24	1	23
Future Vol, veh/h	15	19	0	0	17	2	0	13	10	24	1	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	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	15	0	0	17	50	0	7	0	0	100	4
Mvmt Flow	19	24	0	0	21	3	0	16	13	30	1	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	24	0	0	24	0	0	100	86	24	100	85	23
Stage 1	-	-	-	-	-	-	62	62	-	23	23	-
Stage 2	-	-	-	-	-	-	38	24	-	77	62	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.57	6.2	7.1	7.5	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.57	-	6.1	6.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.57	-	6.1	6.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.063	3.3	3.5	4.9	3.336
Pot Cap-1 Maneuver	1604	-	-	1604	-	-	886	795	1058	886	652	1048
Stage 1	-	-	-	-	-	-	954	833	-	1000	716	-
Stage 2	-	-	-	-	-	-	982	865	-	937	685	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1604	-	-	1604	-	-	852	785	1058	854	644	1048
Mov Cap-2 Maneuver	-	-	-	-	-	-	852	785	-	854	644	-
Stage 1	-	-	-	-	-	-	943	823	-	988	716	-
Stage 2	-	-	-	-	-	-	953	865	-	897	677	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.2	0	9.2	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	884	1604	-	-	1604	-	-	843	1048
HCM Lane V/C Ratio	0.033	0.012	-	-	-	-	-	0.037	0.027
HCM Control Delay (s)	9.2	7.3	0	-	0	-	-	9.4	8.5
HCM Lane LOS	A	A	A	-	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	13	1	3	36	101	0	0	12	18
Future Vol, veh/h	0	0	0	13	1	3	36	101	0	0	12	18
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	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	16	1	4	44	123	0	0	15	22

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	237	248	123	37	0	-	-	-	0
Stage 1	211	211	-	-	-	-	-	-	-
Stage 2	26	37	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	751	655	928	1574	-	0	0	-	-
Stage 1	824	728	-	-	-	0	0	-	-
Stage 2	997	864	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	728	0	928	1574	-	-	-	-	-
Mov Cap-2 Maneuver	728	0	-	-	-	-	-	-	-
Stage 1	799	0	-	-	-	-	-	-	-
Stage 2	997	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	1.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1574	-	728	928	-	-
HCM Lane V/C Ratio	0.028	-	0.022	0.005	-	-
HCM Control Delay (s)	7.4	0	10.1	8.9	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	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	0	0	0	9	2	2	17	15	0	0	88	111
Future Vol, veh/h	0	0	0	9	2	2	17	15	0	0	88	111
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	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	12	3	3	22	20	0	0	116	146

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	253	326	20	262	0	-	-	-	0
Stage 1	64	64	-	-	-	-	-	-	-
Stage 2	189	262	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	736	592	1058	1302	-	0	0	-	-
Stage 1	959	842	-	-	-	0	0	-	-
Stage 2	843	691	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	723	0	1058	1302	-	-	-	-	-
Mov Cap-2 Maneuver	723	0	-	-	-	-	-	-	-
Stage 1	943	0	-	-	-	-	-	-	-
Stage 2	843	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	4.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1302	-	723	1058	-	-
HCM Lane V/C Ratio	0.017	-	0.016	0.005	-	-
HCM Control Delay (s)	7.8	0	10.1	8.4	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	57	0	11	0	0	0	0	75	16	4	12	0
Future Vol, veh/h	57	0	11	0	0	0	0	75	16	4	12	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	75	0	14	0	0	0	0	99	21	5	16	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	136	146	16	-	0	0	120	0	0
Stage 1	26	26	-	-	-	-	-	-	-
Stage 2	110	120	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	857	745	1063	0	-	-	1468	-	0
Stage 1	997	874	-	0	-	-	-	-	0
Stage 2	915	796	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	854	0	1063	-	-	-	1468	-	-
Mov Cap-2 Maneuver	854	0	-	-	-	-	-	-	-
Stage 1	994	0	-	-	-	-	-	-	-
Stage 2	915	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0	1.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	854	1063	1468	-
HCM Lane V/C Ratio	-	-	0.088	0.014	0.004	-
HCM Control Delay (s)	-	-	9.6	8.4	7.5	0
HCM Lane LOS	-	-	A	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	0	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	0	33	0	0	0	0	20	7	6	97	0
Future Vol, veh/h	11	0	33	0	0	0	0	20	7	6	97	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	0	41	0	0	0	0	25	9	8	121	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	167	171	121	-	0	0	34	0	0
Stage 1	137	137	-	-	-	-	-	-	-
Stage 2	30	34	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	823	722	930	0	-	-	1578	-	0
Stage 1	890	783	-	0	-	-	-	-	0
Stage 2	993	867	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	819	0	930	-	-	-	1578	-	-
Mov Cap-2 Maneuver	819	0	-	-	-	-	-	-	-
Stage 1	886	0	-	-	-	-	-	-	-
Stage 2	993	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	0	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	819	930	1578	-
HCM Lane V/C Ratio	-	-	0.017	0.044	0.005	-
HCM Control Delay (s)	-	-	9.5	9.1	7.3	0
HCM Lane LOS	-	-	A	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	0	-

Existing plus Project plus Cumulative Projects Conditions

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	26	0	1	76	21	0	0	13	3
Future Vol, veh/h	0	0	0	26	0	1	76	21	0	0	13	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	50	-	-	320	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	19	0	0	17	9	0	0	0	0
Mvmt Flow	0	0	0	29	0	1	85	24	0	0	15	3

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	211	212	24	18	0	-	-	-	0
Stage 1	194	194	-	-	-	-	-	-	-
Stage 2	17	18	-	-	-	-	-	-	-
Critical Hdwy	6.59	6.5	6.2	4.27	-	-	-	-	-
Critical Hdwy Stg 1	5.59	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.59	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.671	4	3.3	2.353	-	-	-	-	-
Pot Cap-1 Maneuver	741	689	1058	1506	-	0	0	-	-
Stage 1	800	744	-	-	-	0	0	-	-
Stage 2	963	884	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	700	0	1058	1506	-	-	-	-	-
Mov Cap-2 Maneuver	700	0	-	-	-	-	-	-	-
Stage 1	755	0	-	-	-	-	-	-	-
Stage 2	963	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	5.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1506	-	700	1058	-	-
HCM Lane V/C Ratio	0.057	-	0.042	0.001	-	-
HCM Control Delay (s)	7.5	-	10.4	8.4	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	34	5	2	100	17	0	0	11	14
Future Vol, veh/h	0	0	0	34	5	2	100	17	0	0	11	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	-	-	-	50	-	-	320	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	20	20	0	7	5	0	0	9	7
Mvmt Flow	0	0	0	45	7	3	132	22	0	0	14	18

Major/Minor	Minor1		Major1			Major2			
Conflicting Flow All	309	318	22	32	0	-	-	-	0
Stage 1	286	286	-	-	-	-	-	-	-
Stage 2	23	32	-	-	-	-	-	-	-
Critical Hdwy	6.6	6.7	6.2	4.17	-	-	-	-	-
Critical Hdwy Stg 1	5.6	5.7	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.6	5.7	-	-	-	-	-	-	-
Follow-up Hdwy	3.68	4.18	3.3	2.263	-	-	-	-	-
Pot Cap-1 Maneuver	647	570	1061	1548	-	0	0	-	-
Stage 1	723	644	-	-	-	0	0	-	-
Stage 2	955	834	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	592	0	1061	1548	-	-	-	-	-
Mov Cap-2 Maneuver	592	0	-	-	-	-	-	-	-
Stage 1	662	0	-	-	-	-	-	-	-
Stage 2	955	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	6.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1548	-	592	1061	-	-
HCM Lane V/C Ratio	0.085	-	0.076	0.009	-	-
HCM Control Delay (s)	7.5	-	11.6	8.4	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.2	0	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	2	61	0	0	0	0	93	32	0	45	0
Future Vol, veh/h	8	2	61	0	0	0	0	93	32	0	45	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	15	-	-	-	-	-	-	145	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	14	0	0	0	0	15	25	0	20	0
Mvmt Flow	9	2	70	0	0	0	0	107	37	0	52	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	178	196	52	-	0	0	144	0	0
Stage 1	52	52	-	-	-	-	-	-	-
Stage 2	126	144	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.34	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.426	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	816	703	983	0	-	-	1451	-	0
Stage 1	976	856	-	0	-	-	-	-	0
Stage 2	905	782	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	816	0	983	-	-	-	1451	-	-
Mov Cap-2 Maneuver	816	0	-	-	-	-	-	-	-
Stage 1	976	0	-	-	-	-	-	-	-
Stage 2	905	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	816	983	1451	-
HCM Lane V/C Ratio	-	-	0.014	0.071	-	-
HCM Control Delay (s)	-	-	9.5	8.9	0	-
HCM Lane LOS	-	-	A	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0.2	0	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	0	107	0	0	0	0	118	50	1	46	0
Future Vol, veh/h	8	0	107	0	0	0	0	118	50	1	46	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	15	-	-	-	-	-	-	145	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	25	0	6	0	0	0	0	7	12	0	19	0
Mvmt Flow	10	0	130	0	0	0	0	144	61	1	56	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	233	263	56	-	0	0	205	0	0
Stage 1	58	58	-	-	-	-	-	-	-
Stage 2	175	205	-	-	-	-	-	-	-
Critical Hdwy	6.65	6.5	6.26	-	-	-	4.1	-	-
Critical Hdwy Stg 1	5.65	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.65	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.725	4	3.354	-	-	-	2.2	-	-
Pot Cap-1 Maneuver	707	646	999	0	-	-	1378	-	0
Stage 1	909	851	-	0	-	-	-	-	0
Stage 2	803	736	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	706	0	999	-	-	-	1378	-	-
Mov Cap-2 Maneuver	706	0	-	-	-	-	-	-	-
Stage 1	908	0	-	-	-	-	-	-	-
Stage 2	803	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.2	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	706	999	1378	-
HCM Lane V/C Ratio	-	-	0.014	0.131	0.001	-
HCM Control Delay (s)	-	-	10.2	9.1	7.6	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0.4	0	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	9	10	115	100	5
Future Vol, veh/h	5	9	10	115	100	5
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	33	20	19	19	0
Mvmt Flow	5	10	11	125	109	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	259	112	114	0	-	0
Stage 1	112	-	-	-	-	-
Stage 2	147	-	-	-	-	-
Critical Hdwy	6.4	6.53	4.3	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.597	2.38	-	-	-
Pot Cap-1 Maneuver	734	863	1370	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	885	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	727	863	1370	-	-	-
Mov Cap-2 Maneuver	727	-	-	-	-	-
Stage 1	910	-	-	-	-	-
Stage 2	885	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1370	-	809	-	-
HCM Lane V/C Ratio	0.008	-	0.019	-	-
HCM Control Delay (s)	7.6	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	12	11	165	151	3
Future Vol, veh/h	2	12	11	165	151	3
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	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	8	9	33
Mvmt Flow	2	14	13	199	182	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	409	184	186	0	-	0
Stage 1	184	-	-	-	-	-
Stage 2	225	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	602	864	1401	-	-	-
Stage 1	852	-	-	-	-	-
Stage 2	817	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	596	864	1401	-	-	-
Mov Cap-2 Maneuver	596	-	-	-	-	-
Stage 1	843	-	-	-	-	-
Stage 2	817	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1401	-	812	-	-
HCM Lane V/C Ratio	0.009	-	0.021	-	-
HCM Control Delay (s)	7.6	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	9	6	8	10	46	7	58	10	41	47	25
Future Vol, veh/h	15	9	6	8	10	46	7	58	10	41	47	25
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	-	-	10	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	83	83	83	83	83	83	83	83	83
Heavy Vehicles, %	26	0	0	0	0	8	0	31	0	0	31	16
Mvmt Flow	18	11	7	10	12	55	8	70	12	49	57	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	296	268	72	271	277	76	87	0	0	82	0	0
Stage 1	170	170	-	92	92	-	-	-	-	-	-	-
Stage 2	126	98	-	179	185	-	-	-	-	-	-	-
Critical Hdwy	7.36	6.5	6.2	7.1	6.5	6.28	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.36	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.36	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.734	4	3.3	3.5	4	3.372	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	611	641	996	686	634	969	1522	-	-	1528	-	-
Stage 1	779	762	-	920	823	-	-	-	-	-	-	-
Stage 2	823	818	-	827	751	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	550	615	996	652	609	969	1522	-	-	1528	-	-
Mov Cap-2 Maneuver	550	615	-	652	609	-	-	-	-	-	-	-
Stage 1	774	736	-	914	818	-	-	-	-	-	-	-
Stage 2	760	813	-	781	725	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11	9.5	0.7	2.7
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1522	-	-	573	996	627	969	1528	-	-
HCM Lane V/C Ratio	0.006	-	-	0.05	0.007	0.035	0.057	0.032	-	-
HCM Control Delay (s)	7.4	0	-	11.6	8.6	10.9	8.9	7.4	0	-
HCM Lane LOS	A	A	-	B	A	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0.1	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	8	6	13	7	89	11	48	14	75	72	16
Future Vol, veh/h	38	8	6	13	7	89	11	48	14	75	72	16
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	-	-	10	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	7	0	0	15	0	1	9	20	0	1	18	12
Mvmt Flow	44	9	7	15	8	102	13	55	16	86	83	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	408	361	92	361	362	63	101	0	0	71	0	0
Stage 1	264	264	-	89	89	-	-	-	-	-	-	-
Stage 2	144	97	-	272	273	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.5	6.2	7.25	6.5	6.21	4.19	-	-	4.11	-	-
Critical Hdwy Stg 1	6.17	5.5	-	6.25	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.5	-	6.25	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4	3.3	3.635	4	3.309	2.281	-	-	2.209	-	-
Pot Cap-1 Maneuver	545	569	971	571	569	1004	1449	-	-	1536	-	-
Stage 1	730	694	-	887	825	-	-	-	-	-	-	-
Stage 2	847	819	-	706	688	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	459	531	971	530	531	1004	1449	-	-	1536	-	-
Mov Cap-2 Maneuver	459	531	-	530	531	-	-	-	-	-	-	-
Stage 1	723	653	-	879	818	-	-	-	-	-	-	-
Stage 2	746	812	-	650	647	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13	9.6	1.1	3.4
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1449	-	-	470	971	530	1004	1536	-	-
HCM Lane V/C Ratio	0.009	-	-	0.112	0.007	0.043	0.102	0.056	-	-
HCM Control Delay (s)	7.5	0	-	13.6	8.7	12.1	9	7.5	0	-
HCM Lane LOS	A	A	-	B	A	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0	0.1	0.3	0.2	-	-

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	9	43	6	10	38
Future Vol, veh/h	8	9	43	6	10	38
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	73	73	73	73	73	73
Heavy Vehicles, %	25	0	2	0	10	10
Mvmt Flow	11	12	59	8	14	52

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	143	63	0	0	67	0
Stage 1	63	-	-	-	-	-
Stage 2	80	-	-	-	-	-
Critical Hdwy	6.65	6.2	-	-	4.2	-
Critical Hdwy Stg 1	5.65	-	-	-	-	-
Critical Hdwy Stg 2	5.65	-	-	-	-	-
Follow-up Hdwy	3.725	3.3	-	-	2.29	-
Pot Cap-1 Maneuver	798	1007	-	-	1485	-
Stage 1	904	-	-	-	-	-
Stage 2	888	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	790	1007	-	-	1485	-
Mov Cap-2 Maneuver	790	-	-	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	888	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.1	0	1.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	892	1485	-
HCM Lane V/C Ratio	-	-	0.026	0.009	-
HCM Control Delay (s)	-	-	9.1	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	22	16	23	15	21	72
Future Vol, veh/h	22	16	23	15	21	72
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	81	81	81	81	81	81
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	27	20	28	19	26	89

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	179	38	0	0	47	0
Stage 1	38	-	-	-	-	-
Stage 2	141	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	815	1040	-	-	1573	-
Stage 1	990	-	-	-	-	-
Stage 2	891	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	801	1040	-	-	1573	-
Mov Cap-2 Maneuver	801	-	-	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	891	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	1.7
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	887	1573	-
HCM Lane V/C Ratio	-	-	0.053	0.016	-
HCM Control Delay (s)	-	-	9.3	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

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	16	19	0	5	17	20	0	1	0	6	7	8
Future Vol, veh/h	16	19	0	5	17	20	0	1	0	6	7	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	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	42	0	0	17	5	0	100	0	16	14	0
Mvmt Flow	20	24	0	6	21	25	0	1	0	8	9	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	46	0	0	24	0	0	119	122	24	111	110	34
Stage 1	-	-	-	-	-	-	64	64	-	46	46	-
Stage 2	-	-	-	-	-	-	55	58	-	65	64	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	7.5	6.2	7.26	6.64	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	6.5	-	6.26	5.64	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	6.5	-	6.26	5.64	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.9	3.3	3.644	4.126	3.3
Pot Cap-1 Maneuver	1575	-	-	1604	-	-	861	618	1058	835	758	1045
Stage 1	-	-	-	-	-	-	952	683	-	933	833	-
Stage 2	-	-	-	-	-	-	962	688	-	912	819	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1575	-	-	1604	-	-	834	607	1058	823	745	1045
Mov Cap-2 Maneuver	-	-	-	-	-	-	834	607	-	823	745	-
Stage 1	-	-	-	-	-	-	940	674	-	921	830	-
Stage 2	-	-	-	-	-	-	939	685	-	898	808	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.3	0.9	10.9	9.2
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	607	1575	-	-	1604	-	-	779	1045
HCM Lane V/C Ratio	0.002	0.013	-	-	0.004	-	-	0.021	0.01
HCM Control Delay (s)	10.9	7.3	0	-	7.3	0	-	9.7	8.5
HCM Lane LOS	B	A	A	-	A	A	-	A	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1	0

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	20	0	0	18	2	0	13	10	24	1	23
Future Vol, veh/h	15	20	0	0	18	2	0	13	10	24	1	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	25
Veh in Median Storage, #	-	0	-	-	0	-	-	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	15	0	0	16	50	0	7	0	0	100	4
Mvmt Flow	19	25	0	0	23	3	0	16	13	30	1	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	26	0	0	25	0	0	103	89	25	103	88	25
Stage 1	-	-	-	-	-	-	63	63	-	25	25	-
Stage 2	-	-	-	-	-	-	40	26	-	78	63	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.57	6.2	7.1	7.5	6.24
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.57	-	6.1	6.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.57	-	6.1	6.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.063	3.3	3.5	4.9	3.336
Pot Cap-1 Maneuver	1601	-	-	1603	-	-	882	792	1057	882	649	1045
Stage 1	-	-	-	-	-	-	953	833	-	998	714	-
Stage 2	-	-	-	-	-	-	980	864	-	936	684	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1601	-	-	1603	-	-	848	782	1057	850	641	1045
Mov Cap-2 Maneuver	-	-	-	-	-	-	848	782	-	850	641	-
Stage 1	-	-	-	-	-	-	942	823	-	986	714	-
Stage 2	-	-	-	-	-	-	951	864	-	896	676	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	3.1	0	9.2	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	882	1601	-	-	1603	-	-	839	1045
HCM Lane V/C Ratio	0.033	0.012	-	-	-	-	-	0.037	0.028
HCM Control Delay (s)	9.2	7.3	0	-	0	-	-	9.5	8.5
HCM Lane LOS	A	A	A	-	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1	0.1

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	13	1	20	37	445	0	0	26	29
Future Vol, veh/h	0	0	0	13	1	20	37	445	0	0	26	29
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	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	16	1	24	45	543	0	0	32	35

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	683	700	543	67	0	-	-	-	0
Stage 1	633	633	-	-	-	-	-	-	-
Stage 2	50	67	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	415	363	540	1535	-	0	0	-	-
Stage 1	529	473	-	-	-	0	0	-	-
Stage 2	972	839	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	398	0	540	1535	-	-	-	-	-
Mov Cap-2 Maneuver	398	0	-	-	-	-	-	-	-
Stage 1	507	0	-	-	-	-	-	-	-
Stage 2	972	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.9	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1535	-	398	540	-	-
HCM Lane V/C Ratio	0.029	-	0.04	0.047	-	-
HCM Control Delay (s)	7.4	0	14.4	12	-	-
HCM Lane LOS	A	A	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	9	2	9	17	37	0	0	254	306
Future Vol, veh/h	0	0	0	9	2	9	17	37	0	0	254	306
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	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	2	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	12	3	12	22	49	0	0	334	403

Major/Minor	Minor1		Major1		Major2				
Conflicting Flow All	629	830	49	737	0	-	-	-	0
Stage 1	93	93	-	-	-	-	-	-	-
Stage 2	536	737	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	446	306	1020	869	-	0	0	-	-
Stage 1	931	818	-	-	-	0	0	-	-
Stage 2	587	425	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	434	0	1020	869	-	-	-	-	-
Mov Cap-2 Maneuver	434	0	-	-	-	-	-	-	-
Stage 1	907	0	-	-	-	-	-	-	-
Stage 2	587	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	2.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	869	-	434	1020	-	-
HCM Lane V/C Ratio	0.026	-	0.027	0.014	-	-
HCM Control Delay (s)	9.3	0	13.5	8.6	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	0	-	-

Intersection	
Int Delay, s/veh	8.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	252	0	11	0	0	0	0	225	16	10	20	0
Future Vol, veh/h	252	0	11	0	0	0	0	225	16	10	20	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	332	0	14	0	0	0	0	296	21	13	26	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	359	369	26	-	0	0	317	0	0
Stage 1	52	52	-	-	-	-	-	-	-
Stage 2	307	317	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	640	560	1050	0	-	-	1243	-	0
Stage 1	970	852	-	0	-	-	-	-	0
Stage 2	746	654	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	633	0	1050	-	-	-	1243	-	-
Mov Cap-2 Maneuver	633	0	-	-	-	-	-	-	-
Stage 1	959	0	-	-	-	-	-	-	-
Stage 2	746	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	16.5	0	2.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	633	1050	1243	-
HCM Lane V/C Ratio	-	-	0.524	0.014	0.011	-
HCM Control Delay (s)	-	-	16.8	8.5	7.9	0
HCM Lane LOS	-	-	C	A	A	A
HCM 95th %tile Q(veh)	-	-	3.1	0	0	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	0	34	0	0	0	0	28	7	23	246	0
Future Vol, veh/h	24	0	34	0	0	0	0	28	7	23	246	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	30	0	43	0	0	0	0	35	9	29	308	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	406	410	308	-	0	0	44	0	0
Stage 1	366	366	-	-	-	-	-	-	-
Stage 2	40	44	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	601	531	732	0	-	-	1564	-	0
Stage 1	702	623	-	0	-	-	-	-	0
Stage 2	982	858	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	588	0	732	-	-	-	1564	-	-
Mov Cap-2 Maneuver	588	0	-	-	-	-	-	-	-
Stage 1	687	0	-	-	-	-	-	-	-
Stage 2	982	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.7	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	588	732	1564	-
HCM Lane V/C Ratio	-	-	0.051	0.058	0.018	-
HCM Control Delay (s)	-	-	11.5	10.2	7.3	0
HCM Lane LOS	-	-	B	B	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2	0.1	-

APPENDIX C

HCS Freeway Analysis Worksheets

									AM PEAK							PM PEAK						
DI	RTE	CO	PRE	PM	CS	LEG	YR	Dir	1 WAY PHV	% K	% D	% KD	HR	DAY	MNTH	Dir	1 WAY PHV	% K	% D	% KD	HR	DAY	MNTH
11	008	SD	R	20.04	888	B	17	W	3726	6.42	68.43	4.4	7	TUE	MAY	E	3772	7.55	58.91	4.45	16	TUE	DEC
11	008	SD	R	51.98	621	B	17	W	1191	13.18	53.46	7.04	12	MON	DEC	E	1378	14.61	55.79	8.15	14	MON	SEP
11	008	SD	R	65.90	981	A	17	W	1106	10.72	64.23	6.88	12	SAT	MAY	W	1172	13.66	53.39	7.29	14	FRI	MAY
11	008	IMP	R	10.29	993	B	17	W	1094	12.26	58.69	7.2	10	SAT	JUL	W	1266	12.4	67.16	8.33	17	SUN	NOV
11	008	IMP	R	10.29	994	A	17	W	1030	12.97	58.13	7.54	12	SAT	NOV	W	1176	12.14	70.89	8.61	18	SUN	NOV
11	008	IMP	R	23.48	624	A	17	W	1021	12.53	56.41	7.07	12	SAT	JUL	W	1152	11.38	70.03	7.97	18	SUN	NOV
04	009	SCL		0	50	A	16	N	288	13.85	64.29	8.91	12	SAT	JUN	S	337	13.27	78.56	10.42	17	SUN	JUN
04	009	SCL		7.09	170	A	16	N	533	11.65	67.21	7.83	11	SAT	DEC	N	685	15.41	65.3	10.06	14	SUN	SEP
04	009	SCL		11.45	171	B	16	N	1633	7.88	64.32	5.06	8	WED	DEC	S	1748	8.34	64.98	5.42	17	TUE	DEC
07	010	LA		18.41	456	B	15	W	1558	13.19	96.35	12.7	7	MON	DEC	E	1308	12.93	82.47	10.67	17	WED	JUL
07	010	LA		19.71	783	O	17	W	1598	12.09	96.21	11.63	7	WED	MAY	E	1312	12.02	79.42	9.55	17	THU	SEP
07	010	LA		24.31	785	A	15	W	3325	11.87	92.52	10.98	7	WED	OCT	E	2694	10.73	82.94	8.9	16	WED	SEP
07	010	LA		19.67	752	O	17	E	8064	6.33	58.28	3.69	12	FRI	MAY	E	9022	6.62	62.43	4.13	16	FRI	MAR
07	010	LA		24.32	721	A	15	E	7000	6.25	51.32	3.21	11	SAT	FEB	E	6963	6.09	52.39	3.19	17	THU	MAY
07	010	LA		30.3	429	A	17	W	8875	6.51	61.47	4	8	TUE	JAN	W	8569	7.07	54.65	3.86	14	SAT	MAY
07	010	LA		34.28	48	O	15	W	6826	5.37	72.81	3.91	5	FRI	OCT	E	6533	5.73	65.27	3.74	14	SUN	MAY
07	010	LA		47.11	54	B	16	E	9730	6.31	55.47	3.5	11	SAT	APR	E	9876	6.26	56.78	3.55	13	THU	APR
08	010	SBD		9.176	102	B	17	W	8821	6.7	51.34	3.44	7	THU	AUG	E	8580	6.39	52.34	3.34	14	SAT	FEB
08	010	SBD		31.41	150	B	17	W	7791	6.71	67.54	4.53	7	TUE	AUG	E	7116	6.82	60.72	4.14	16	THU	JUL
08	010	RIV	R	3.048	862	A	17	W	4345	6.16	66.14	4.08	6	MON	APR	W	4337	7.12	57.1	4.07	13	MON	SEP
08	010	RIV		8.205	865	B	17	E	6066	7.54	61.56	4.64	11	SAT	MAR	W	5738	8.32	52.77	4.39	13	SUN	JUN
08	010	RIV	R	19.4	808	A	17	W	5738	9.06	58.47	5.3	11	SUN	JUN	E	5183	8.52	56.22	4.79	14	FRI	APR
08	010	RIV	R	149.2	908	A	17	W	1742	9.73	63.76	6.2	10	SUN	MAR	W	1757	10.7	58.49	6.26	13	SUN	JAN
08	010	RIV	R	156.5	909	O	17	E	2686	9.4	91.33	8.58	4	MON	DEC	E	1874	10.1	59.3	5.99	15	FRI	DEC
04	012	NAP		2.3	906	B	17	W	2411	7.8	73.96	5.77	6	WED	AUG	E	1947	7.42	62.83	4.66	15	THU	APR
04	012	SOL		19.17	315	B	17	W	759	7.85	73.55	5.78	7	THU	JUL	E	850	8.53	75.83	6.47	16	THU	OCT
10	012	CAL		13.87	155	A	15	E	489	11.91	68.49	8.16	8	MON	JAN	W	431	11.62	61.84	7.19	15	TUE	JAN
04	013	ALA		4.262	27	A	15	N	2998	10.02	55.03	5.52	8	TUE	SEP	N	2653	8.78	55.61	4.88	17	TUE	SEP
04	013	ALA		13.91	240	B	15	S	1871	8.51	64.43	5.48	8	THU	SEP	S	1668	9.49	51.55	4.89	15	SAT	JUN
07	014	LA	R	26	779	A	16	S	8746	6.43	75.27	4.84	6	FRI	MAR	N	8241	6.81	67	4.56	16	TUE	MAR
07	014	LA	R	54.2	712	B	17	S	5067	4.94	91.23	4.51	4	TUE	JAN	N	5061	6.74	66.88	4.51	18	FRI	MAR
07	014	LA	R	73	63	O	15	N	1634	6.79	67.11	4.56	6	THU	OCT	S	1934	9.6	56.19	5.39	17	THU	DEC
09	014	KER	R	0	927	A	17	N	1506	6.22	68.83	4.28	5	FRI	AUG	S	1967	9.49	58.93	5.59	16	MON	SEP

DIST	RTE	RTE	CNTY	PM_PM		PM	DESCRIPTION	BACK_P	BACK_PE	BACK_A	AHEAD_PEA	AHEAD_PEAK	AHEAD_AADT
11	008		SD	T	0.407		SAN DIEGO, SUNSET CLIFFS BOULEVARD				890	13100	12500
11	008		SD	T	0.466		EB RIGHT TURN FR NIMITZ BLVD	960	14100	13500	3900	51000	48000
11	008		SD	L	1.213		MIDWAY DRIVE	3900	51000	48000	7900	116000	103000
11	008		SD	L	2.379		JCT. RTE. 5	7900	116000	103000	11200	147000	135000
11	008		SD	R	0.364		SAN DIEGO, MORENA BOULEVARD	11200	147000	135000	15000	205000	196000
11	008		SD		0.946		HOTEL CIRCLE/TAYLOR STREET	15000	205000	196000	15100	213000	201000
11	008		SD		2.230		SAN DIEGO, HOTEL CIRCLE	15100	213000	201000	17700	234000	217000
11	008		SD		2.410		SAN DIEGO, JCT. RTE. 163	17700	234000	217000	18100	240000	223000
11	008		SD		3.040		SAN DIEGO, MISSION CENTER ROAD	18100	240000	223000	19500	257000	239000
11	008		SD		3.902		SAN DIEGO, TEXAS STREET	19500	257000	239000	17300	228000	212000
11	008		SD		4.378		SAN DIEGO, JCT. RTE. 805	17300	228000	212000	18800	252000	248000
11	008		SD		5.638		JCT. RTE. 15	18800	252000	248000	17500	230000	226000
11	008		SD		6.271		SAN DIEGO, FAIRMOUNT AVENUE	17500	230000	226000	19700	254000	249000
11	008		SD		7.060		SAN DIEGO, WARING ROAD	19700	254000	249000	18100	236000	228000
11	008		SD		8.336		COLLEGE AVENUE	18100	236000	228000	16100	210000	203000
11	008		SD		9.591		LA MESA, LAKE MURRAY BOULEVARD	16100	210000	203000	16300	212000	208000
11	008		SD		10.570		FLETCHER PARKWAY	15800	205000	201000	14900	192000	190000
11	008		SD		10.967		SPRING STREET	14400	185000	183000	16200	207000	203000
11	008		SD		11.101		LA MESA, EL CAJON BOULEVARD	16200	207000	203000	15300	191000	188000
11	008		SD		11.764		JACKSON DRIVE	15300	191000	188000	15100	189000	185000
11	008		SD		12.240		LA MESA, JCT. RTE. 125 SOUTH	15100	189000	185000	19000	238000	228000
11	008		SD		12.654		LA MESA, SEVERIN/ FUERTE DRIVES	19000	238000	228000	20100	250000	239000
11	008		SD		13.658		EL CAJON, EL CAJON BOULEVARD	20100	250000	239000	14300	182000	177000
11	008		SD		14.594		WEST MAIN STREET	14300	182000	177000	13500	173000	169000
11	008		SD		15.300		EL CAJON, JOHNSON AVENUE	13500	173000	169000	11800	154000	150000
11	008		SD		15.800		EL CAJON, JCT. RTE. 67 NORTH	11800	154000	150000	9400	120000	117000
11	008		SD		16.467		EL CAJON, MOLLISON AVENUE	9400	120000	117000	8000	108000	102000
11	008		SD		17.360		EL CAJON, JCT. RTE. 54 SOUTH	8000	108000	102000	5300	70000	67000
11	008		SD		17.829		EL CAJON, EAST MAIN STREET	5300	70000	67000	14800	100000	97000
11	008		SD	R	18.727		GREENFIELD DRIVE	14800	100000	97000	6900	87000	85000
11	008		SD	R	20.041		LOS COCHES UC	6900	87000	85000	5800	81000	77000
11	008		SD	R	21.508		LOS COCHES CRK BRIDGE	5800	81000	77000	5800	81000	77000
11	008		SD	R	21.815		HARRITT ROAD / LAKE JENNINGS PARK ROAD	5800	81000	77000	5300	62000	59000
11	008		SD	R	25.685		HARBISON CANYON	5300	62000	59000	4750	56000	55000
11	008		SD	R	28.464		TAVERN ROAD	4750	56000	55000	3350	39000	38500
11	008		SD	R	31.343		WEST WILLOWS ROAD	3350	39000	38500	2350	29000	28500
11	008		SD	R	34.326		EAST WILLOWS ROAD	2350	29000	28500	2300	28000	27500
11	008		SD	R	37.831		JCT. RTE. 79 NORTH, JAPATUL VALLEY ROAD	2000	24800	24600	3000	53000	22200
11	008		SD	R	43.532		PINE VALLEY ROAD	3000	27500	24400	2400	23700	22300
11	008		SD	R	44.931		SUNRISE HIGHWAY (LUGUNA JUNCTION)	2400	23700	22300	2400	23200	21200
11	008		SD	R	51.980		CAMERON ROAD	2350	18400	16900	2450	20400	18000
11	008		SD	R	61.147	R	CRESTWOOD ROAD, RIGHT ALIGN	1200	10200	9000	1050	8500	7700
11	008		SD	R	61.183	L	CRESTWOOD ROAD UC, LEFT ALIGN	1100	9400	8100	1100	9400	8100
11	008		SD	R	65.904		JCT. RTE. 94 SOUTH	2300	19600	17100	2250	18000	16100
11	008		SD	R	73.951		CARRIZO GORGE	2250	18000	16100	1900	20000	17600
11	008		SD	R	77.576		IN KO PAH	1900	20000	17600	1900	19300	17900
11	008		SD	R	77.765	R	SAN DIEGO/IMPERIAL COUNTY LINE, RIGHT ALIGN	850	8600	8000			
11	008		SD	R	77.770	L	SAN DIEGO/IMPERIAL COUNTY LINE	850	8700	8000			

RTE	DIST	CNTY	POST MILE	LEG	DESCRIPTION	VEHICLE AADT TOTAL	TRUCK AADT TOTAL	TRUCK % TOT VEH	TRUCK By Axle 2	TRUCK By Axle 3	AADT By Axle 4	AADT By Axle 5+	TOTAL % 2	TRUCK % By Axle 3	AADT By Axle 4	AADT By Axle 5+	EAL 2-WAY (1000)	YEAR VER/ EST
8	11	SD	2.41	A	SAN DIEGO, JCT. RTE. 163	221000	6189	2.80	4833	619	149	588	78.10	10	2	10	451	83E
8	11	SD	4.378	B	SAN DIEGO, JCT. RTE. 805	210000	6720	3.20	5047	665	228	780	75.10	10	3	12	540	83E
8	11	SD	5.638	B	JCT. RTE. 15	246000	7379	3.00	4317	937	310	1815	58.50	13	4	25	909	83V
8	11	SD	5.638	A	JCT. RTE. 15	224000	7841	3.50	5018	902	353	1568	64.00	12	5	20	851	84E
8	11	SD	10.57	B	FLETCHER PARKWAY	201000	7436	3.70	4447	944	260	1785	59.80	13	4	24	897	84V
8	11	SD	10.57	A	FLETCHER PARKWAY	190000	8359	4.40	4723	1287	426	1923	56.50	15	5	23	1010	78V
8	11	SD	15.8	B	EL CAJON, JCT. RTE. 67 NORTH	148000	6956	4.70	3749	911	320	1976	53.90	13	5	28	944	78V
8	11	SD	15.8	A	EL CAJON, JCT. RTE. 67 NORTH	116000	3364	2.90	1864	380	118	1002	55.40	11	4	30	463	78V
8	11	SD	R18.727	B	GREENFIELD DR	95000	11039	11.62	8291	761	586	1401	75.11	7	5	13	930	16V
8	11	SD	R18.727	A	GREENFIELD DR	85000	5865	6.90	3091	457	141	2176	52.70	8	2	37	922	86V
8	11	SD	R37.831	B	JCT. RTE. 79 NORTH, JAPATUL VALLEY RD	24600	2952	12.00	1160	174	89	1529	39.30	6	3	52	597	86E
8	11	SD	R37.831	A	JCT. RTE. 79 NORTH, JAPATUL VALLEY RD	21600	2938	13.60	955	229	85	1669	32.50	8	3	57	643	00E
8	11	SD	R51.98	B	CAMERON RD	16900	2050	12.13	877	91	38	1044	42.78	4	2	51	405	16V
8	11	SD	R65.904	B	JCT. RTE. 94 SOUTH	17100	2375	13.89	850	109	54	1362	35.78	5	2	57	518	05V
8	11	SD	R65.904	A	JCT. RTE. 94 SOUTH	14700	2083	14.16	745	96	48	1194	35.78	5	2	57	454	05V
8	11	IMP	R10.01	B	JCT. RTE. 98	14100	2265	13.90	811	104	52	1298	35.80	5	2	57	493	05E
8	11	IMP	R10.01	A	JCT. RTE. 98	12700	1807	13.90	647	83	42	1035	35.80	5	2	57	394	05E

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing AM
Project Description	I-8: Cameron Road to Crestwood Road EB		

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	656	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	476
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Cpacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.20
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	6.7
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	A
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing PM
Project Description	I-8: Cameron Road to Crestwood Road EB		

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1089	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	790
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Cpacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.34
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	11.1
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing AM
Project Description	I-8: Crestwood Road to Ribbonwood Road EB		

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	656	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	476
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Cpacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.20
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	6.7
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	A
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing PM
Project Description	I-8: Crestwood Road to Ribbonwood Road EB		

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1089	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	790
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Cpacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.34
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	11.1
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing AM
Project Description	I-8: Ribbonwood Road to Carrizo Gorge EB		

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	617	Heavy Vehicle Adjustment Factor (f_{HV})	0.779
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	450
Total Trucks, %	14.16	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Cpacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.19
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	6.3
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	A
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing PM
Project Description	I-8: Ribbonwood Road to Carrizo Gorge EB		

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1025	Heavy Vehicle Adjustment Factor (f_{HV})	0.779
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	748
Total Trucks, %	14.16	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Cpacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.32
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	10.5
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	A
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing AM
Project Description	I-8: Cameron Road to Crestwood Road WB		

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1177	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	854
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Cpacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.37
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	12.0
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

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Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing PM
Project Description	I-8: Cameron Road to Crestwood Road WB		

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1247	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	905
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Cpacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.39
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	12.7
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

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Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing AM
Project Description	I-8: Crestwood Road to Ribbonwood Road WB		

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1177	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	854
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Cpacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.37
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	12.0
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

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Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing PM
Project Description	I-8: Crestwood Road to Ribbonwood Road WB		

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1247	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	905
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Cpacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.39
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	12.7
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing AM
Project Description	I-8: Ribbonwood Road to Carrizo Gorge WB		

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1109	Heavy Vehicle Adjustment Factor (f_{HV})	0.779
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	809
Total Trucks, %	14.16	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Cpacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.35
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	11.3
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

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Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing PM
Project Description	I-8: Ribbonwood Road to Carrizo Gorge WB		

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1174	Heavy Vehicle Adjustment Factor (f_{HV})	0.779
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	856
Total Trucks, %	14.16	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Cpacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.37
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	12.0
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

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Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Project AM
Project Description	I-8: Cameron Road to Crestwood Road EB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	793	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	576
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.25
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	8.1
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	A
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

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Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Project PM
Project Description	I-8: Cameron Road to Crestwood Road EB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1092	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	792
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.34
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	11.1
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

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Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Project AM
Project Description	I-8: Crestwood Road to Ribbonwood Road EB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	662	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	480
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.21
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	6.7
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	A
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

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Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Project PM
Project Description	I-8: Crestwood Road to Ribbonwood Road EB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1091	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	792
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.34
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	11.1
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Project AM
Project Description	I-8: Ribbonwood Road to Carrizo Gorge EB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	619	Heavy Vehicle Adjustment Factor (f_{HV})	0.779
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	452
Total Trucks, %	14.16	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.19
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	6.3
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	A
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Project PM
Project Description	I-8: Ribbonwood Road to Carrizo Gorge EB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1027	Heavy Vehicle Adjustment Factor (f_{HV})	0.779
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	749
Total Trucks, %	14.16	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.32
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	10.5
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	A
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Project AM
Project Description	I-8: Cameron Road to Crestwood Road WB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1180	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	856
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.37
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	12.0
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Project PM
Project Description	I-8: Cameron Road to Crestwood Road WB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1517	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	1101
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.47
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	15.4
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Project AM
Project Description	I-8: Crestwood Road to Ribbonwood Road WB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1179	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	856
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.37
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	12.0
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Project PM
Project Description	I-8: Crestwood Road to Ribbonwood Road WB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1249	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	906
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.39
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	12.7
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

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Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Project AM
Project Description	I-8: Ribbonwood Road to Carrizo Gorge WB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1111	Heavy Vehicle Adjustment Factor (f_{HV})	0.779
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	810
Total Trucks, %	14.16	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.35
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	11.4
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Project PM
Project Description	I-8: Ribbonwood Road to Carrizo Gorge WB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1176	Heavy Vehicle Adjustment Factor (f_{HV})	0.779
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	858
Total Trucks, %	14.16	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.37
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	12.0
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Cumulative plus Project AM
Project Description	I-8: Cameron Road to Crestwood Road EB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	858	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	622
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.27
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	8.7
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	A
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Cumulative plus Project PM
Project Description	I-8: Cameron Road to Crestwood Road EB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1201	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	872
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.38
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	12.2
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Cumulative plus Project AM
Project Description	I-8: Crestwood Road to Ribbonwood Road EB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	727	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	528
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.23
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	7.4
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	A
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Cumulative plus Project PM
Project Description	I-8: Crestwood Road to Ribbonwood Road EB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1200	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	871
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.37
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	12.2
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Cumulative plus Project AM
Project Description	I-8: Ribbonwood Road to Carrizo Gorge EB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	681	Heavy Vehicle Adjustment Factor (f_{HV})	0.779
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	496
Total Trucks, %	14.16	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.21
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	7.0
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	A
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Cumulative plus Project PM
Project Description	I-8: Ribbonwood Road to Carrizo Gorge EB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1130	Heavy Vehicle Adjustment Factor (f_{HV})	0.779
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	824
Total Trucks, %	14.16	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.35
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	11.6
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Cumulative plus Project AM
Project Description	I-8: Cameron Road to Crestwood Road WB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1298	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	942
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.41
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	13.2
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Cumulative plus Project PM
Project Description	I-8: Cameron Road to Crestwood Road WB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1642	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	1192
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.51
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.1
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	16.8
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Cumulative plus Project AM
Project Description	I-8: Crestwood Road to Ribbonwood Road WB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1297	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	941
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.41
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	13.2
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Cumulative plus Project PM
Project Description	I-8: Crestwood Road to Ribbonwood Road WB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1374	Heavy Vehicle Adjustment Factor (f_{HV})	0.783
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	997
Total Trucks, %	13.89	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.43
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	14.0
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Cumulative plus Project AM
Project Description	I-8: Ribbonwood Road to Carrizo Gorge WB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1221	Heavy Vehicle Adjustment Factor (f_{HV})	0.779
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	890
Total Trucks, %	14.16	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.38
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	12.5
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

HCS7 Basic Freeway Report

Project Information

Analyst	Amanda Meroux	Date	2/8/2019
Agency	Dudek	Analysis Year	2019
Jurisdiction	Caltrans	Time Period Analyzed	Existing plus Cumulative plus Project PM
Project Description	I-8: Ribbonwood Road to Carrizo Gorge WB	Unit	United States Customary

Geometric Data

Number of Lanes, ln	2	Terrain Type	Rolling
Segment Length (L), ft	-	Percent Grade, %	-
Measured or Base Free-Flow Speed	Base	Grade Length, mi	-
Base Free-Flow Speed (BFFS), mi/h	75.4	Total Ramp Density (TRD), ramps/mi	0.67
Lane Width, ft	12	Free-Flow Speed (FFS), mi/h	73.1
Right-Side Lateral Clearance, ft	10		

Adjustment Factors

Driver Population	Mostly Familiar	Final Speed Adjustment Factor (SAF)	0.975
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	0.968
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

Demand Volume veh/h	1294	Heavy Vehicle Adjustment Factor (f_{HV})	0.779
Peak Hour Factor	0.88	Flow Rate (V_p), pc/h/ln	944
Total Trucks, %	14.16	Capacity (c), pc/h/ln	2400
Single-Unit Trucks (SUT), %	-	Adjusted Capacity (c_{adj}), pc/h/ln	2323
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.41
Passenger Car Equivalent (E_T)	3.000		

Speed and Density

Lane Width Adjustment (f_{LW})	0.0	Average Speed (S), mi/h	71.3
Right-Side Lateral Clearance Adj. (f_{RLC})	0.0	Density (D), pc/mi/ln	13.2
Total Ramp Density Adjustment	2.3	Level of Service (LOS)	B
Adjusted Free-Flow Speed (FFS_{adj}), mi/h	71.3		

APPENDIX D

Crestwood Road and Ribbonwood Road
Undercrossing As-Built Plans

DIST.	COUNTY	ROUTE	POST MILES—TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
11	SD	8	R54.9/R61.5	151	158

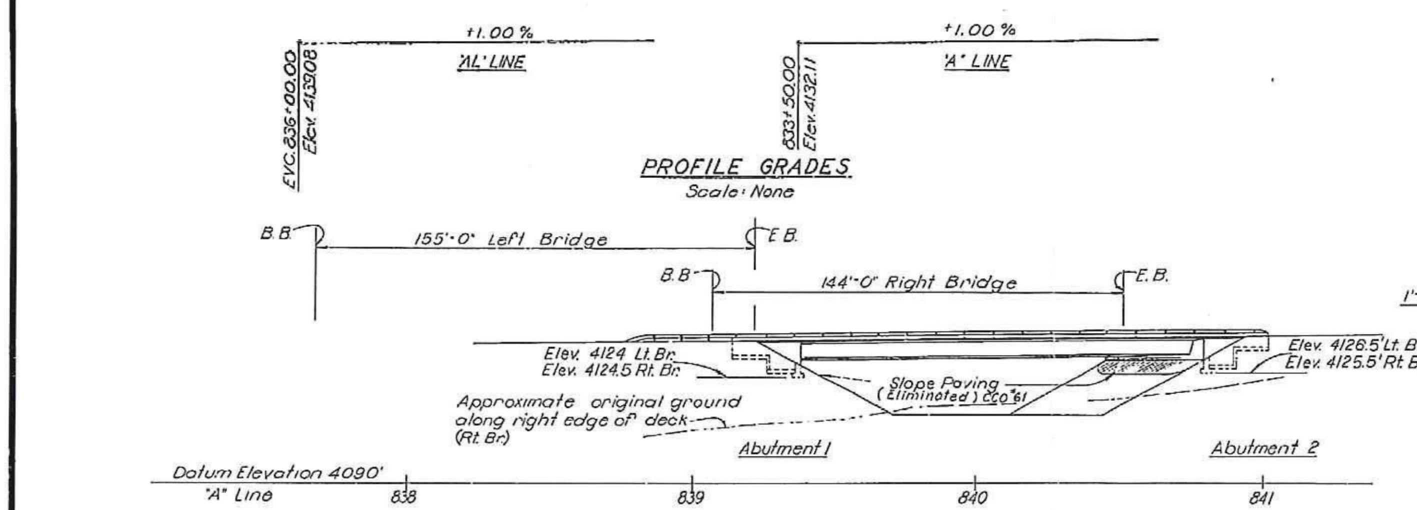
May 17, 1971

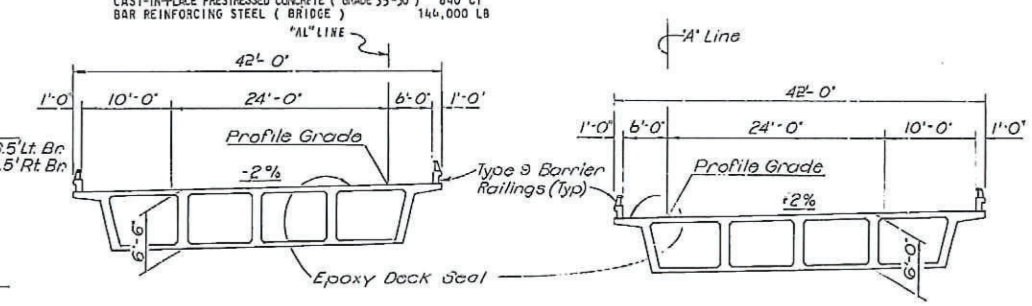
APPROXIMATE QUANTITIES

~~8" CORRUGATED STEEL PIPE~~	~~246~~ LF	0 CCO #61
PRESTRESSING CAST-IN-PLACE CONCRETE	LUMP SUM	
~~LINSEED OIL (PENETRATION TREATMENT)~~	~~17~~ GAL	0 CCO #31
SEAL BRIDGE DECK (EPOXY)	~~13,120~~ SQ FT	12,429
WATERSTOP	~~68~~ LF	81
JOINT SEAL (TYPE B1-MR 1")	~~205~~ LF	214.9 CCO #67
~~SLOPE PAVING (CONCRETE)~~	~~58~~ CY	0 CCO #61
BRIDGE APPROACH GUARD RAILING (TYPE 8)	~~294~~ LF	294.3
METAL RAILING (TYPE 9)	~~798~~ LF	797.3
~~DRAINAGE INLET (SLOPE PAVING)~~	~~8~~ EA	0. CCO #61

FINAL QUANTITIES

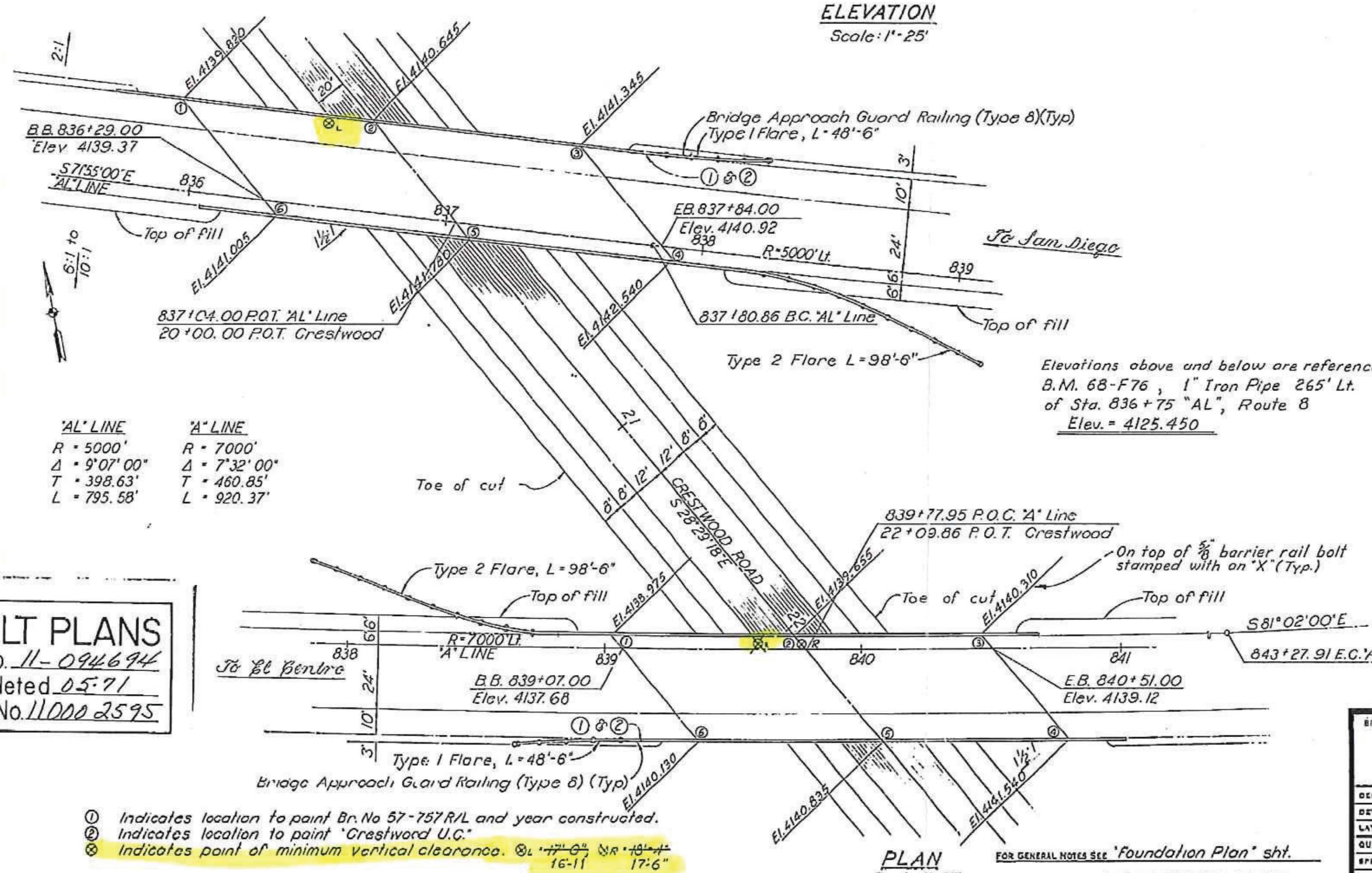
STRUCTURE EXCAVATION (BRIDGE)	675 CY
STRUCTURE BACKFILL (BRIDGE)	620 CY
STRUCTURE CONCRETE, BRIDGE FOOTING	55 CY
STRUCTURE CONCRETE, BRIDGE	235 CY
CAST-IN-PLACE PRESTRESSED CONCRETE (GRADE 35-50)	840 CY
BAR REINFORCING STEEL (BRIDGE)	144,000 LB





TYPICAL SECTIONS
Scale: 1/8" = 1'-0"

Cast-in-place, prestressed Box Girder



'AL' LINE	'A' LINE
R = 5000'	R = 7000'
Δ = 9°07'00"	Δ = 7°32'00"
T = 398.63'	T = 460.85'
L = 795.58'	L = 920.37'

Elevations above and below are referenced to: B.M. 68-F76, 1" Iron Pipe 265' Lt. of Sta. 836+75 "AL", Route 8 Elev. = 4125.450

AS BUILT
CORRECTED BY J.R. Beers
CONT. NO. 11-094694
DATE 1-9-74
PG 3-13-74

INDEX TO PLANS

SHEET NO.	TITLE
1.	General Plan
2.	Foundation Plan
3.	Abutment Details - Left Bridge
4.	Abutment Details - Right Bridge
5.	Typical Section
6.	Girder Layout
7.	Slope Paving Details - Bib Type
8.	Log of Test Borings

STANDARD PLANS - JAN 1971

A62-B.2	Exc. & Backfill - Limits of payment
B0-1,3 & 5	Bridge Details
B3-3	Retaining Wall - Type 1-A
B6-21	Joint Seal Details
B7-1	Box Girder Details
B11-36	BAGR Type 8 (Layout)
B11-37	BAGR Type 8 (Details)
B11-39	Barrier Railing Type 9
B11-43	Barrier Railing Details - Type 9 & 11
B8-5	CIP Prestressed Girder Details
B11-30	Temporary Railings

AS BUILT PLANS
Contract No. 11-094694
Date Completed 05-71
Document No. 11000 2595

① Indicates location to paint Br. No 57-757 R/L and year constructed.
② Indicates location to paint "Crestwood U.C."
⊗ Indicates point of minimum vertical clearance. ⊗L ~~17'-0"~~ 16'-11" ⊗R ~~18'-1"~~ 17'-6"

PLAN
Scale: 1" = 25'

FOR GENERAL NOTES SEE "Foundation Plan" sht.

LIVE LOADING HS20-44 AND ALTERNATIVE

151

BRIDGE DEPARTMENT ··· DESIGN SECTION ··· 14	STATE OF CALIFORNIA TRANSPORTATION AGENCY DEPARTMENT OF PUBLIC WORKS DIVISION OF HIGHWAYS
Section Supervisor / Project Designer	CRESTWOOD ROAD UNDERCROSSING
DESIGN / DETAILS / LAYOUT / QUANTITIES / SPECIFICATIONS	LOCATED APPROX. 6 1/2 M. W. of Boulevard IN SAN DIEGO COUNTY
Approval Recommended by	GENERAL PLAN
	BRIDGE NO. 57-757 R/L — POST MILE 58.8 — DRAWING NO. — SHEET 1 OF

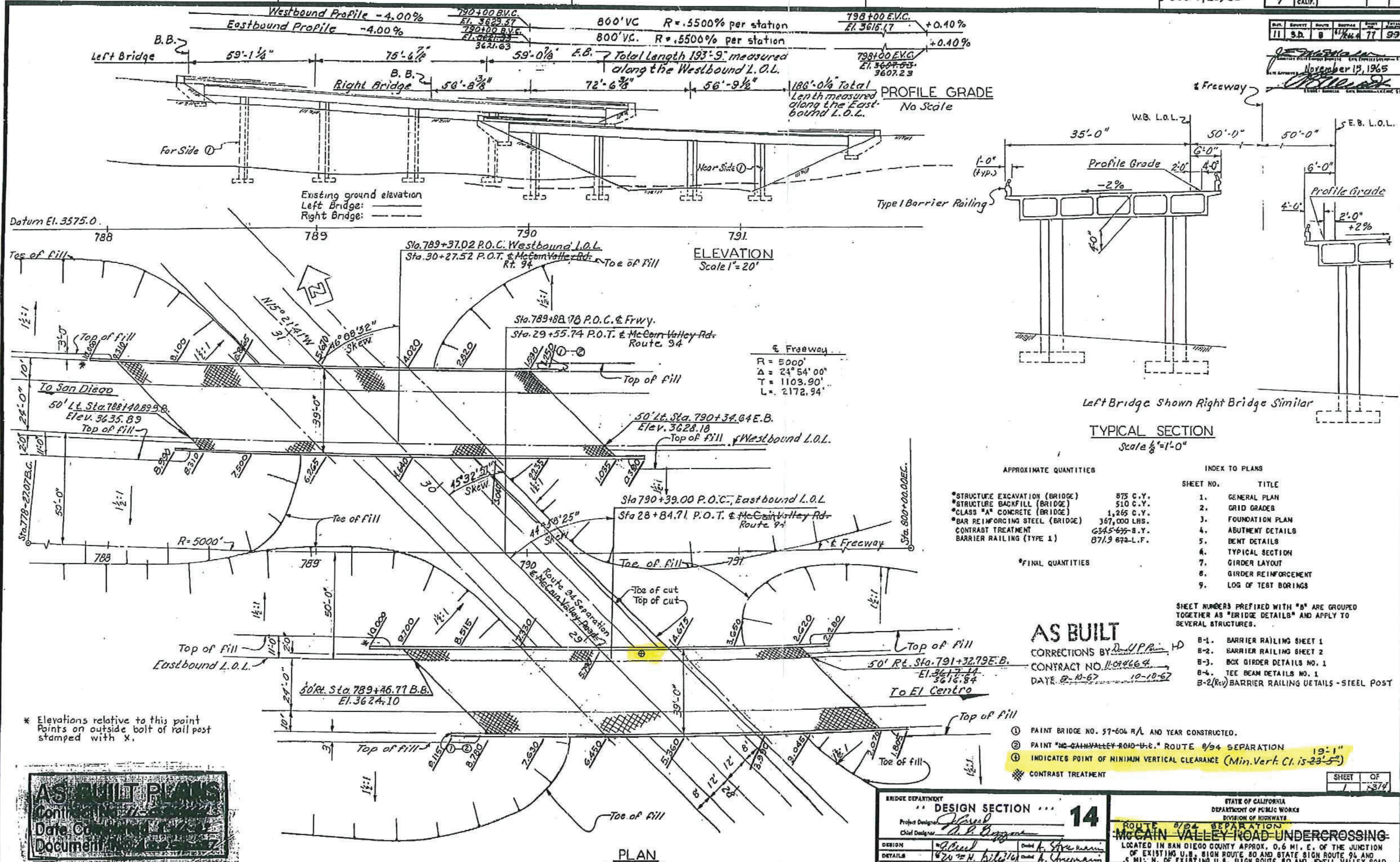
WO 094691
CU 11206

Disregard prints bearing earlier revision dates →

I HEREBY CERTIFY THAT THIS IS A TRUE AND ACCURATE COPY OF THE ABOVE DOCUMENT TAKEN UNDER MY DIRECTION AND CONTROL ON THIS DATE IN SACRAMENTO, CALIFORNIA PURSUANT TO AUTHORIZATION BY THE DIRECTOR OF TRANSPORTATION

DATE 3/27/74 James C. Court — MICROFILM SUPERVISOR

SCALE 1" = 50' — MICROFILM - STATE OF CALIFORNIA - DEPARTMENT OF PUBLIC WORKS - MICROFILM — SCALE 1" = 20'



* Elevations relative to this point. Points on outside bolt of rail post stamped with X.

AS BUILT PLANS
Contract No. ...
Date Completed ...
Document No. ...

I-008-1(29)60

FED. ROAD DIV. NO.	STATE	F. A. PROJECT NO.	SHEET NO.	TOTAL SHEETS
7	CALIF.			

DIST.	COUNTY	ROUTE	SECTION	SHEET NO.	TOTAL SHEETS
11	S.D.	8	61.1/R64.4	77	99

November 15, 1965

APPROXIMATE QUANTITIES

*STRUCTURE EXCAVATION (BRIDGE)	875 C.Y.
*STRUCTURE BACKFILL (BRIDGE)	510 C.Y.
*CLASS "A" CONCRETE (BRIDGE)	1,265 C.Y.
*BAR REINFORCING STEEL (BRIDGE)	367,000 LBS.
CONTRAST TREATMENT	6345 ~~635~~ S.Y.
BARRIER RAILING (TYPE 1)	871.9 ~~872~~ L.F.

*FINAL QUANTITIES

INDEX TO PLANS

SHEET NO.	TITLE
1.	GENERAL PLAN
2.	GRID GRADES
3.	FOUNDATION PLAN
4.	ABUTMENT DETAILS
5.	BENT DETAILS
6.	TYPICAL SECTION
7.	GIRDER LAYOUT
8.	GIRDER REINFORCEMENT
9.	LOG OF TEST BORINGS

SHEET NUMBERS PREFIXED WITH "B" ARE GROUPED TOGETHER AS "BRIDGE DETAILS" AND APPLY TO SEVERAL STRUCTURES.

B-1.	BARRIER RAILING SHEET 1
B-2.	BARRIER RAILING SHEET 2
B-3.	BOX GIRDER DETAILS NO. 1
B-4.	TEE BEAM DETAILS NO. 1
B-2(Rev)	BARRIER RAILING DETAILS - STEEL POST

AS BUILT
CORRECTIONS BY Donald P. Paine HD
CONTRACT NO. 11-094664
DATE ~~8-10-67~~ 10-10-67

① PAINT BRIDGE NO. 57-604 R/L AND YEAR CONSTRUCTED.
② PAINT "~~McCAIN VALLEY ROAD U.C.~~" ROUTE 8/94 SEPARATION
⊕ INDICATES POINT OF MINIMUM VERTICAL CLEARANCE (Min. Vert. Cl. is 19'-1" ~~23'-5"~~)
CONTRAST TREATMENT

SHEET 1 OF 374

FOR GENERAL NOTES, SEE "FOUNDATION PLAN" SHEET.
LIVE LOADING: HS20-44 AND ALTERNATIVE

BRIDGE DEPARTMENT
DESIGN SECTION 14

STATE OF CALIFORNIA
DEPARTMENT OF PUBLIC WORKS
DIVISION OF HIGHWAYS

ROUTE 8/94 SEPARATION
~~McCAIN VALLEY ROAD UNDERCROSSING~~
LOCATED IN SAN DIEGO COUNTY APPROX. 0.6 MI. E. OF THE JUNCTION OF EXISTING U.S. SIGN ROUTE 80 AND STATE SIGN ROUTE 94 AND .5 MI. N. OF EXISTING U.S. SIGN ROUTE 80 AND JEWELL VALLEY ROAD

GENERAL PLAN

SCALE AS NOTED | BRIDGE 57-604 R/L | FILE | DRAWING 57604-1

E.A. 094661
C.U. 11-206

PREL. DRAWING No. P-

77

Recvd from Caltrans 12/16.