Appendix F2: Traffic Impact Study

Appendices

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GREENBRIAR MULTIFAMILY RESIDENTIAL PROJECT
TRAFFIC IMPACT ANALYSIS
City of Brea, California



GREENBRIAR MULTIFAMILY RESIDENTIAL PROJECT
REVISED TRAFFIC IMPACT STUDY
City of Brea, California

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(Revision to the November 19, 2024 Study)

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1.0 Introduction

1.1 Purpose of Report & Study Objectives

The purpose of this traffic impact study is to evaluate the Greenbriar Multifamily Residential Project (hereinafter referred to as "project") from a traffic and circulation standpoint. Furthermore, this analysis will determine whether the proposed project will significantly impact the environment.

This traffic study has been conducted pursuant to the *City of Brea Transportation Impact Analysis (TIA) Guidelines,* dated September 2020, the *2023 Orange County Congestion Management Program Report*, dated November 2023, and the California Environmental Quality Act (CEQA) requirements.

This study has been prepared in accordance with the scope of work that has been submitted to the City of Brea, which is contained in **Appendix A**.

1.2 Site Location & Project Description

The project site is bound between Greenbriar Lane to the north, Associated Road to the east, the SR-57 Freeway to the west, and Brea Plaza to the south, in the City of Brea. The approximately 9.73-acre project site is currently occupied by 164,908 square feet (SF) of vacant office space (formerly occupied by Mercury Insurance).

The project consists of razing the existing office building, as well as the onsite parking structure to construct 180 townhome/condominium dwelling units. Access to the project is proposed to be provided via two (2) full-access unsignalized driveways located along Greenbriar Lane. The easternmost driveway is proposed to be located opposite the existing Brea Glenbrook Club driveway.

The project is planned to open in 2026 and will be evaluated in one (1) single phase.

Exhibit 1-1 shows the aerial location of the proposed project. **Exhibit 1-2** shows the preliminary site plan for the project.

Exhibit 1-1
Location Map



Legend:
= Project Site Boundary

N

Exhibit 1-2
Site Plan



N

1.3 Traffic Study Area & Analysis Scenarios

Per the *City of Brea Transportation Impact Analysis Guidelines*, dated September 2020, a Non-CEQA Transportation Assessment, which includes LOS analysis, shall be required for proposed projects when either the AM or PM peak hour trip generation on a weekday or weekend is expected to exceed 50 net new vehicle trips from the proposed development. The proposed project trip generation is discussed in detail in Section 4.1 of this report. Pursuant to those guidelines and as directed by City of Brea staff, the study area consists of the following nine (9) study intersections listed in Table 1-1 below. The jurisdiction(s) of each study intersection is also identified.

Table 1-1

Study Area Intersections

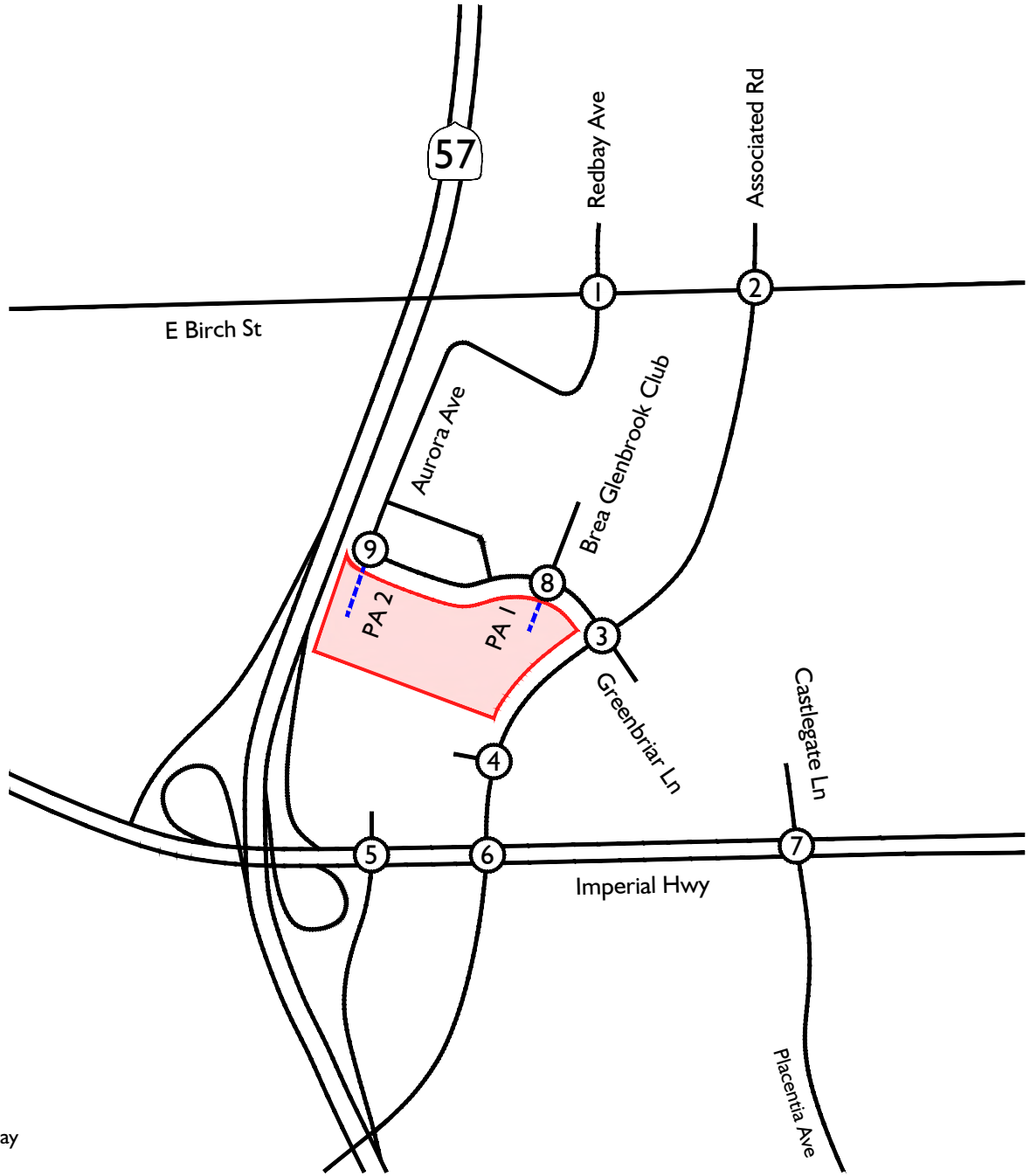
	Study Intersection	Jurisdiction[1]
1.	Redbay Avenue (N/S) at Birch Street (E/W)	City of Brea
2.	Associated Road (N/S) at Birch Street (E/W)	City of Brea
3.	Associated Road (N/S) at Greenbriar Lane (E/W)	City of Brea
4.	Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)	City of Brea
5.	SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Highway (E/W)	City of Brea; OC CMP; Caltrans
6.	Associated Road (N/S) at Imperial Highway (E/W)	City of Brea; Caltrans
7.	Castlegate Lane/Placentia Avenue (N/S) at Imperial Highway (E/W)	City of Brea; Caltrans
8.	Brea Glenbrook Club Dwy/Project Dwy No. 1 (N/S) at Greenbriar Lane (E/W)	City of Brea
9.	Project Driveway No. 2 (N/S) and Greenbriar Lane (E/W)	City of Brea

[1] OC CMP = Orange County Congestion Management Program Intersection

Exhibit 1-3 illustrates the general location of the project site and depicts the study locations and surrounding street system.

Exhibit 1-3

Study Area



Legend:

1 = Study Intersection

= Project Access Driveway

= Project Site Boundary

N

The analysis will evaluate traffic conditions for the following scenarios during the weekday AM, weekday PM, and Saturday midday peak hours:

- Existing Conditions;
- Project Opening Year (2026) Without Project Conditions; and
- Project Opening Year (2026) With Project Conditions.

According to the *City of Brea Transportation Impact Analysis Guidelines*, dated September 2020, General Plan Development scenarios are required for any project that contributes traffic to an intersection projected to have unacceptable LOS, any project that requires a General Plan Amendment, or otherwise proposes development that exceeds the land use intensity assumed for the General Plan. However, the analysis does not include General Plan Development Scenarios despite the project proposing a General Plan Amendment from General Commercial to Mixed-Use II and a Zone Change from C-G Zone to MU-II Zone. General Plan Development Scenarios are not included since the project is proposing the construction of 180 condominium/townhome dwelling units which is a less intense land use as it generates fewer trips than currently existing under the General Commercial land use designated in the General Plan.

2.0 Analysis Methodologies & Performance Criteria

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report in accordance with the City of Brea and Orange County Congestion Management Program. This section also discusses the agency-established applicable performance criteria and thresholds of significance for the study facilities.

2.1 Study Intersection Peak Hour Level of Service Analysis Methodology

The Highway Capacity Manual (HCM) and the Intersection Capacity Utilization (ICU) methodologies are two accepted methods of determining intersection level of service. The study area intersections are governed by varying jurisdictional bodies which includes the City of Brea, the Orange County Congestion Management Program, and Caltrans. Each of these jurisdictions has adopted either one or both level of service methodologies as technical guides in the evaluation of traffic operations.

The study intersections will be assessed based on the methodologies and parameters adopted by their respective jurisdictions (previously identified in Table 1-1). Performance criteria for each jurisdiction are elaborated in Section 2.2.

Int #1. Redbay Avenue (N/S) at Birch Street (E/W) – [HCM]
Int #2. Associated Road (N/S) at Birch Street (E/W) – [HCM]
Int #3. Associated Road (N/S) at Greenbriar Lane (E/W) – [HCM]
Int #4. Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W) – [HCM]
Int #5. SR-57 NB Ramps/Shopping Center Dwy 2 (N/S) at Imperial Hwy (E/W) – [HCM & ICU]
Int #6. Associated Road (N/S) at Imperial Highway (E/W) – [HCM]
Int #7. Castlegate Lane/Placentia Avenue (N/S) at Imperial Highway (E/W) – [HCM]
Int #8. Brea Glenbrook Club Dwy/Project Dwy No. 1 (N/S) at Greenbriar Lane (E/W) – [HCM]
Int #9. Project Driveway No. 2 (N/S) and Greenbriar Lane (E/W) – [HCM]

2.1.1 HCM (7th Edition) Methodology

The HCM defines level of service as a qualitative measure which describes operational conditions within a traffic stream, generally in terms of factors such as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. The criteria used to evaluate LOS (Level of Service) conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or uninterrupted.

The definitions of level of service for interrupted flow (flow regulated by the existence of traffic control devices) are:

- **LOS A** (Free Flow / Insignificant Delays) describes traffic operations in which progression is exceptionally favorable or the cycle length is extremely short. Generally, LOS A operations for signalized intersections tend to result in most vehicles arriving during the green phase and traveling through the intersection without stopping.
- **LOS B** (Stable Operation / Minimal Delays) describes traffic operations in which progression slightly diminishes but is still considered highly favorable and the cycle length is short. Vehicles stop more often causing a marginal increase in average delay.
- **LOS C** (Stable Operation / Acceptable Delays) describes traffic operations in which progression is favorable and the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Many vehicles still past through the intersection but a significant number of vehicles are stopping. Average delay is fair.
- **LOS D** (Approaching Unstable / Tolerable Delays) describes traffic operations in which progression is ineffective and/or cycle length is long. Considerable amount of vehicles stop and individual cycle failures are noticeable. Average delay is adequate.
- **LOS E** (Unstable Operation / Significant Delays) describes traffic operations in which progression is unfavorable and the cycle length is exceedingly long. Individual cycle failures are frequent. Average delay is high.
- **LOS F** (Forced Flow / Excessive Delays) describes traffic operations in which progression is extremely poor and the cycle length is extremely long. Most cycles fail to clear the queue. Average delay is vast.

  Level of service is typically dependent on the quality of traffic flow at the intersection along a roadway. The Highway Capacity Manual 7th Edition (HCM 7) expresses the level of service at an intersection in terms of delay time for various intersection approaches. The HCM 7 uses different procedures depending on the type of intersection control. The levels of service determined in this study are calculated using the HCM 7 methodology.

  For signalized intersections, average control delay per vehicle is used to determine the LOS.

  For all-way stop-controlled intersections, average control delay per vehicle is also used to determine the LOS.

  For intersections with stop control on the minor approach only, the calculation of LOS is dependent on the occurrence of gaps in the free-flow traffic movement of the major street, and the LOS is determined based on the worst stop-controlled approach from the minor street or an individual movement from the major street, whichever is worse.

Table 2-1 shows the level of service criteria based on the HCM 7 methodology.

Table 2-1
HCM Intersection LOS & Delay Ranges

LOS	Average Control Delay Per Vehicle (Seconds)	
	Signalized	Unsignalized
A	0.00 - 10.00	0.00 - 10.00
B	10.01 - 20.00	10.01 - 15.00
C	20.01 - 35.00	15.01 - 25.00
D	35.01 - 55.00	25.01 - 35.00
E	55.01 - 80.00	35.01 - 50.00
F	>80.00	>50.00

2.1.2 ICU Analysis Parameters

To calculate the ICU, the volume of traffic using the intersection is compared with the capacity of the intersection. ICU is usually expressed as a ratio. This ratio represents the portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity.

Table 2-2 shows the level of service criteria based on the ICU methodology.

Table 2-2
ICU Intersection LOS and V/C Ranges

LOS	Signalized Intersection LOS Criteria
	(V/C)
A	≤ 0.600
B	> 0.600 and ≤ 0.700
C	> 0.700 and ≤ 0.800
D	> 0.800 and ≤ 0.900
E	> 0.900 and ≤ 1.000
F	> 1.000

All intersections that are located under the jurisdiction of the Orange County Congestion Management Plan (CMP) are required to perform an LOS analysis with the ICU methodology. As such, Intersection No. 5 is the only study intersection that requires the use of the ICU methodology.

2.2 LOS Performance Criteria & Thresholds for Requiring LOS Improvements

The following criteria has been utilized for each respective jurisdiction:

2.2.1 City of Brea

As per the *City of Brea Transportation Impact Analysis (TIA) Guidelines,* dated September 2020, the HCM methodology is utilized in evaluating traffic operations for both signalized and unsignalized intersections.

The acceptable level of service for signalized and unsignalized intersections within the City of Brea is LOS D or better. An intersection shall be considered unacceptable and cause an effect on traffic operations if:

- the project causes a study intersection that currently operates at LOS D or better to degrade to LOS E or F;
- a study intersection that is already operating at LOS E and the project causes an increase in control delay of 4 or more seconds; and
- a study intersection that is already operating at LOS F and the project causes an increase in control delay of 2 or more seconds.

If a project causes an effect on traffic operations, improvements to study intersections may be required to bring back the intersection to an acceptable LOS or make other improvements to the intersection comparable to the operational deficiency. If a feasible identified improvement(s) cannot be provided as determined by the City Traffic Engineer, then contribution of fair share towards an improvement will be considered. Unsignalized intersections operating at a deficient LOS with or without project conditions shall be evaluated for the installation of a traffic signal using the traffic signal peak hour warrant and crash experience warrant per the latest version of the California Manual on Uniform Traffic Control Devices (CA MUTCD).

2.2.2 Orange County Congestion Management Program (CMP)

As per the *2023 Orange County Congestion Management Program Report*, dated November 2023, all Congestion Management Program Highway System (CMPHS) segments or intersections are evaluated by the ICU methodology.

For CMP intersections, the LOS standard must maintain a LOS "E" or better, unless the level of service from the baseline CMP dataset were lower. If a CMPHS segment or intersection does not meet the minimum LOS standard outside an infill opportunity zone, a deficiency plan must be adopted (subject to exclusions).

2.2.3 Caltrans

The *Caltrans Guide for The Preparation of Traffic Impact Studies*, dated December 2002, previously defined Caltrans' methodology and significance thresholds for evaluating traffic operations on state highway facilities. These guidelines were subsequently replaced by the *Caltrans Vehicle Miles Traveled-Focused Transportation Impact Study Guide*, dated May 2020, in response to automobile delay no longer considered as a significant impact under the California Environmental Quality Act (CEQA) and Senate Bill (SB-743). Consequently, Caltrans now primarily focuses on vehicle miles traveled (VMT) when reviewing the impact of a land use project. Additionally, the *Caltrans Local Development Review (LDR) Safety Review Practitioner's Guidance*, dated February 2024, indicates that a local agency partner must alert Caltrans about a development review, in which Caltrans will determine if a safety review is required based on the screening criteria defined in the guidelines.

Although Caltrans no longer requires an LOS analysis for review of development projects, the City of Brea still requires an LOS analysis to understand the possible influences the proposed project will have on the State Highway. As such, for the purpose of this analysis, the minimum acceptable level of service for state-controlled intersections is assumed to match the City of Brea's minimum standards (i.e., LOS D or better).

3.0 Circulation System & Existing Conditions

This section provides a discussion of existing study area conditions and traffic volumes.

3.1 Existing Traffic Controls & Intersection Geometrics

Exhibit 3-1 identifies the existing roadway conditions, number of through traffic lanes, and intersection controls for the study area roadways. The type of traffic control and number of lanes at an intersection are key inputs for the calculation of level of service.

3.2 Existing Traffic Volumes & Observations

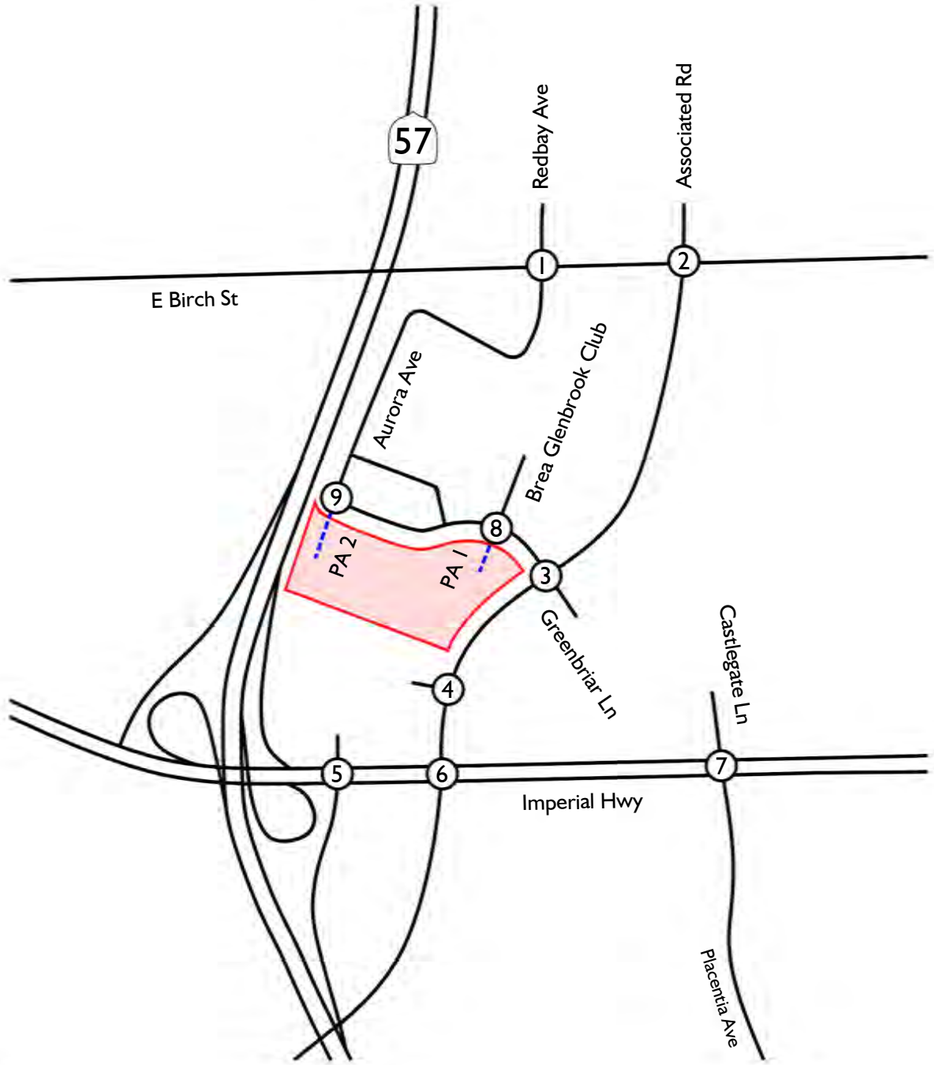
Existing conditions intersection level of service calculations are based upon manual AM and PM peak hour turning movement counts taken on Tuesday, February 13, 2024 during typical weekday conditions and on Saturday, February 10, 2024 during typical Saturday conditions. The weekday AM and PM peak hour traffic volumes were determined by counting the two-hour peak period from 7:00 AM to 9:00 AM, and from 4:00 PM to 6:00 PM, respectively, and using the highest hour within each two-hour peak period. The Saturday midday peak period was determined by collecting 24-hour roadway volumes along four (4) roadway segments located along Associated Road, Birch Street, and Imperial Highway (within the vicinity of the project site) and determining which peak period generally produced the highest volumes. The Saturday midday peak period was determined to be between 12:00 PM and 3:00 PM and the highest hour within the three-hour period was utilized.

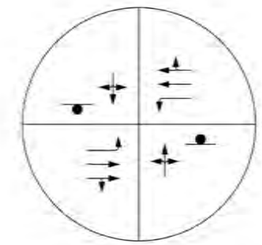
Existing traffic volumes for the Weekday Peak Hours and Saturday Midday Peak Hour are provided in **Exhibit 3-2** and **Exhibit 3-3**, respectively.

Additionally, with the construction of the project, the shared access points between both the Brea Shopping Plaza and the project site will be eliminated. Due to this elimination of the shared access between the two sites, the "With Project" traffic scenarios need to account for rerouting of any vehicles currently either cutting through the project site to/from the commercial center, or parking within the project site and walking to the commercial center. Observations were collected at the three (3) existing access points serving the prior Mercury Insurance parking lot during the same timeframes identified above.

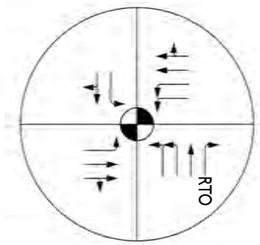
Exhibit 3-4 summarizes these existing parking lot cut-through & poaching traffic volumes at the three (3) existing access points serving the prior Mercury Insurance parking lot for weekday AM, weekday PM, and Saturday midday peak periods.

Existing Lane Geometry & Traffic Controls

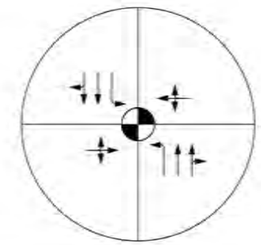




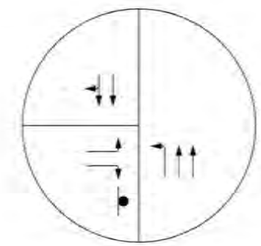
1. Redbay Avenue (N/S) & Birch Street (E/W)



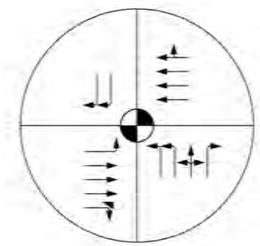
2. Associated Road (N/S) & Birch Street (E/W)



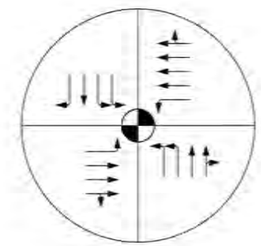
3. Associated Road (N/S) & Greenbriar Lane (E/W)



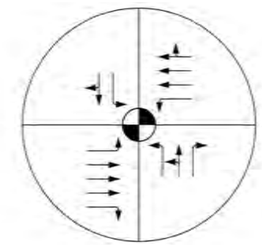
4. Associated Road (N/S) & Shopping Center Dwy No. 1 (E/W)



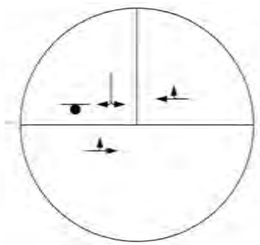
5. SR-57 NB Ramps/Shopping Center Dwy No.2 (N/S) & Imperial Highway (E/W)



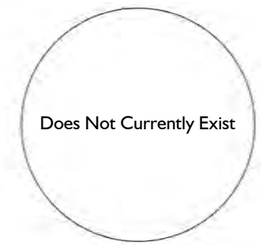
6. Associated Road (N/S) & Imperial Highway (E/W)



7. Castlegate Lane/Placentia Avenue (N/S) & Imperial Highway (E/W)



8. Brea Glenbrook Club Dwy/ Project Dwy No. 1 (N/S) & Greenbriar Lane (E/W)



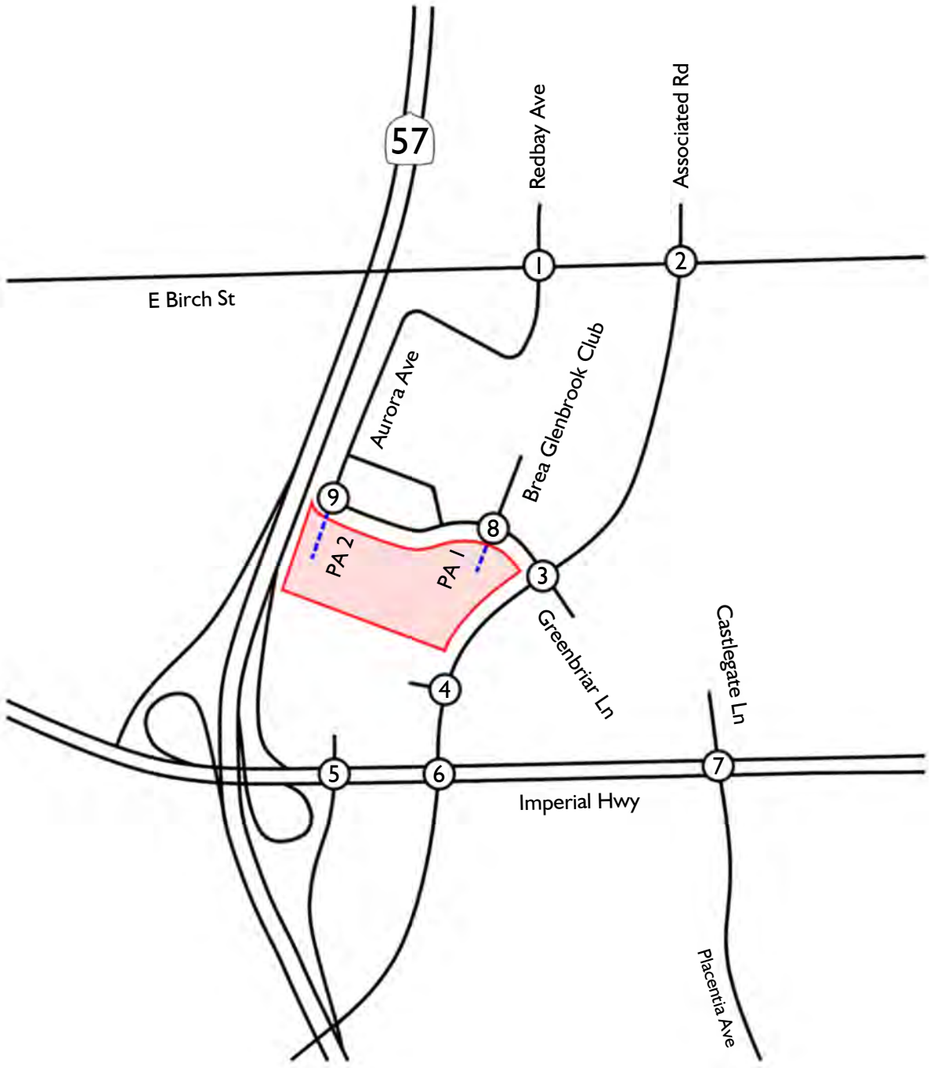
9. Project Driveway No. 2 (N/S) & Greenbriar Lane (E/W)

Legend:

- (1) = Study Intersection
- = Project Access Driveway
- = Project Site Boundary
- = Traffic Signal
- (S) = All Way Stop
- = Stop Sign
- RTO = Right Turn Overlap
- = Free Right Turn

N

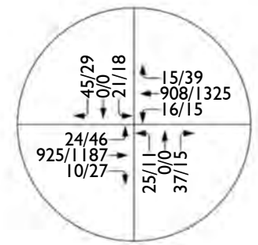
Existing Weekday Peak Hour Traffic Volumes



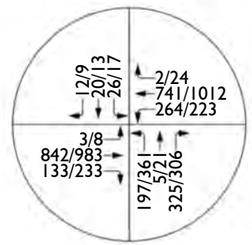
Legend:

- (1) = Study Intersection
- = Project Access Driveway
- = Project Site Boundary
- 10/20 = AM/PM Peak Hour Volumes

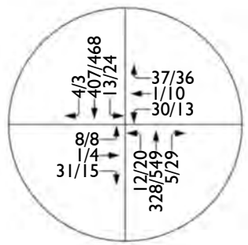
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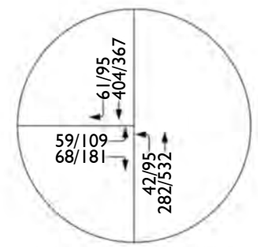
1. Redbay Avenue (N/S) & Birch Street (E/W)



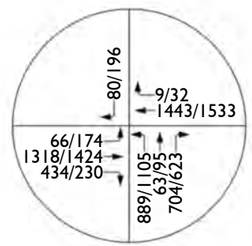
2. Associated Road (N/S) & Birch Street (E/W)



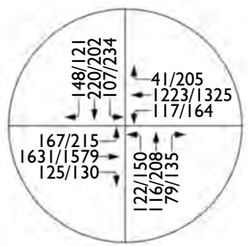
3. Associated Road (N/S) & Greenbriar Lane (E/W)



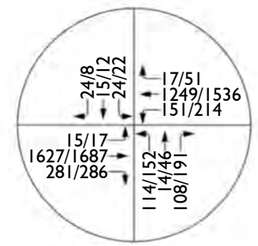
4. Associated Road (N/S) & Shopping Center Dwy No. 1 (E/W)



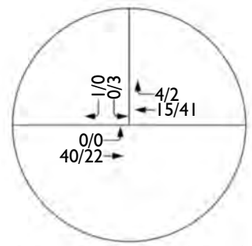
5. SR-57 NB Ramps/Shopping Center Dwy No.2 (N/S) & Imperial Highway (E/W)



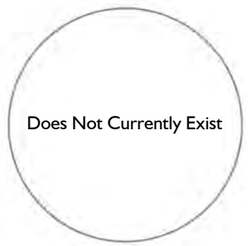
6. Associated Road (N/S) & Imperial Highway (E/W)



7. Castlegate Lane/Placentia Avenue (N/S) & Imperial Highway (E/W)

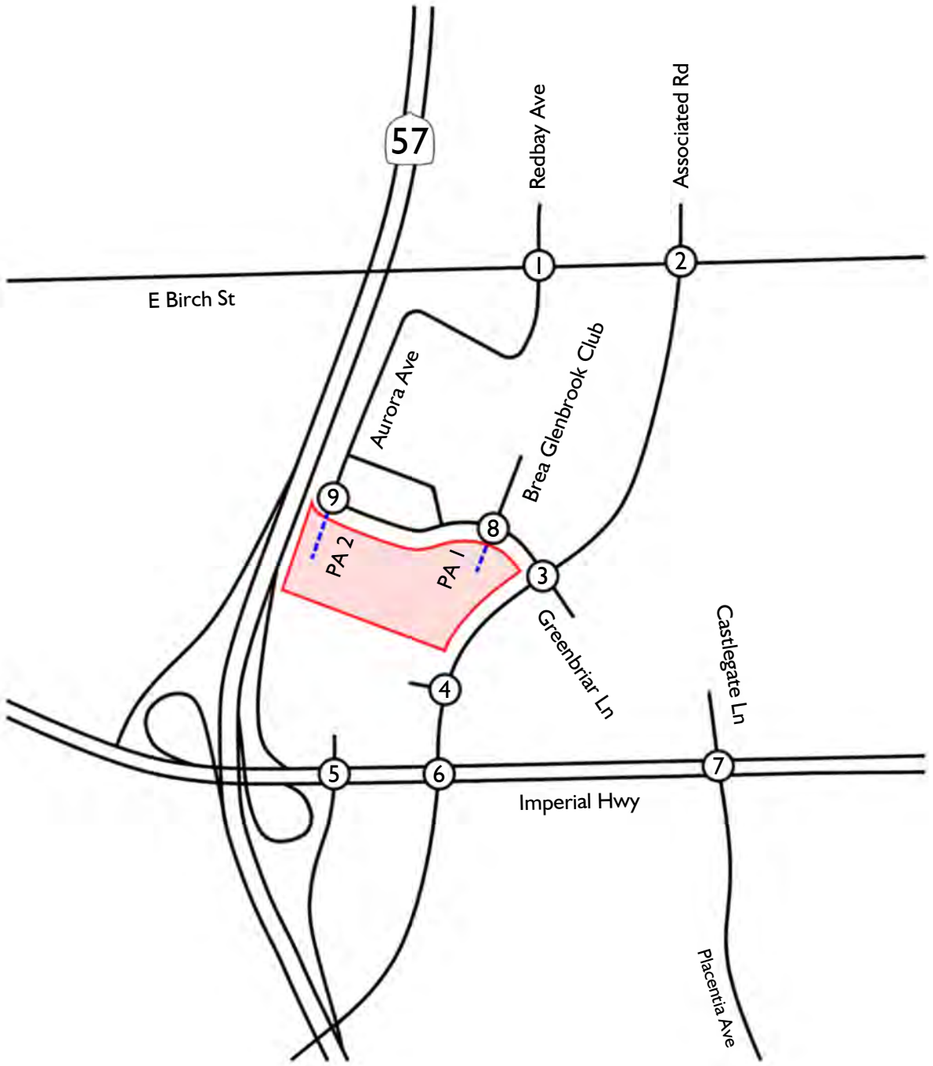


8. Brea Glenbrook Club Dwy/ Project Dwy No. 1 (N/S) & Greenbriar Lane (E/W)



9. Project Driveway No. 2 (N/S) & Greenbriar Lane (E/W)

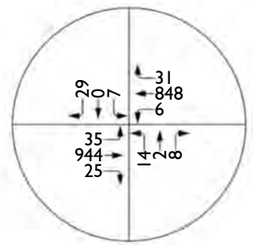
Existing Saturday Midday Peak Hour Traffic Volumes



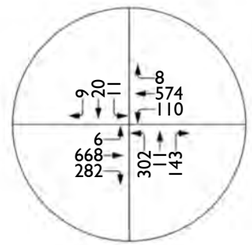
Legend:

- (1) = Study Intersection
- = Project Access Driveway
- = Project Site Boundary
- 10 = Saturday Midday Peak Hour Volumes

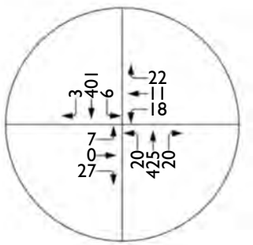
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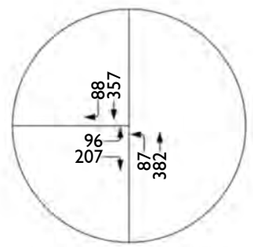
1. Redbay Avenue (N/S) & Birch Street (E/W)



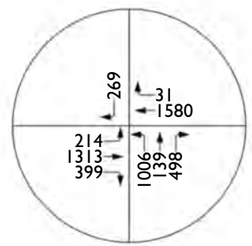
2. Associated Road (N/S) & Birch Street (E/W)



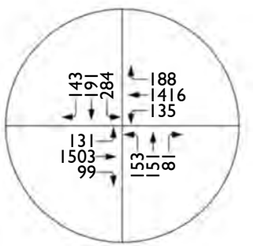
3. Associated Road (N/S) & Greenbriar Lane (E/W)



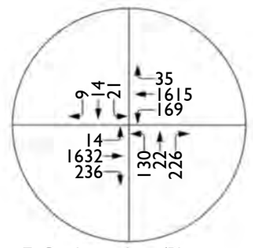
4. Associated Road (N/S) & Shopping Center Dwy No. 1 (E/W)



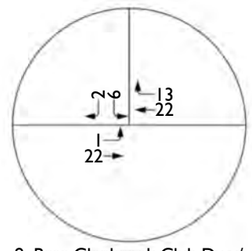
5. SR-57 NB Ramps/Shopping Center Dwy No.2 (N/S) & Imperial Highway (E/W)



6. Associated Road (N/S) & Imperial Highway (E/W)



7. Castlegate Lane/Placentia Avenue (N/S) & Imperial Highway (E/W)

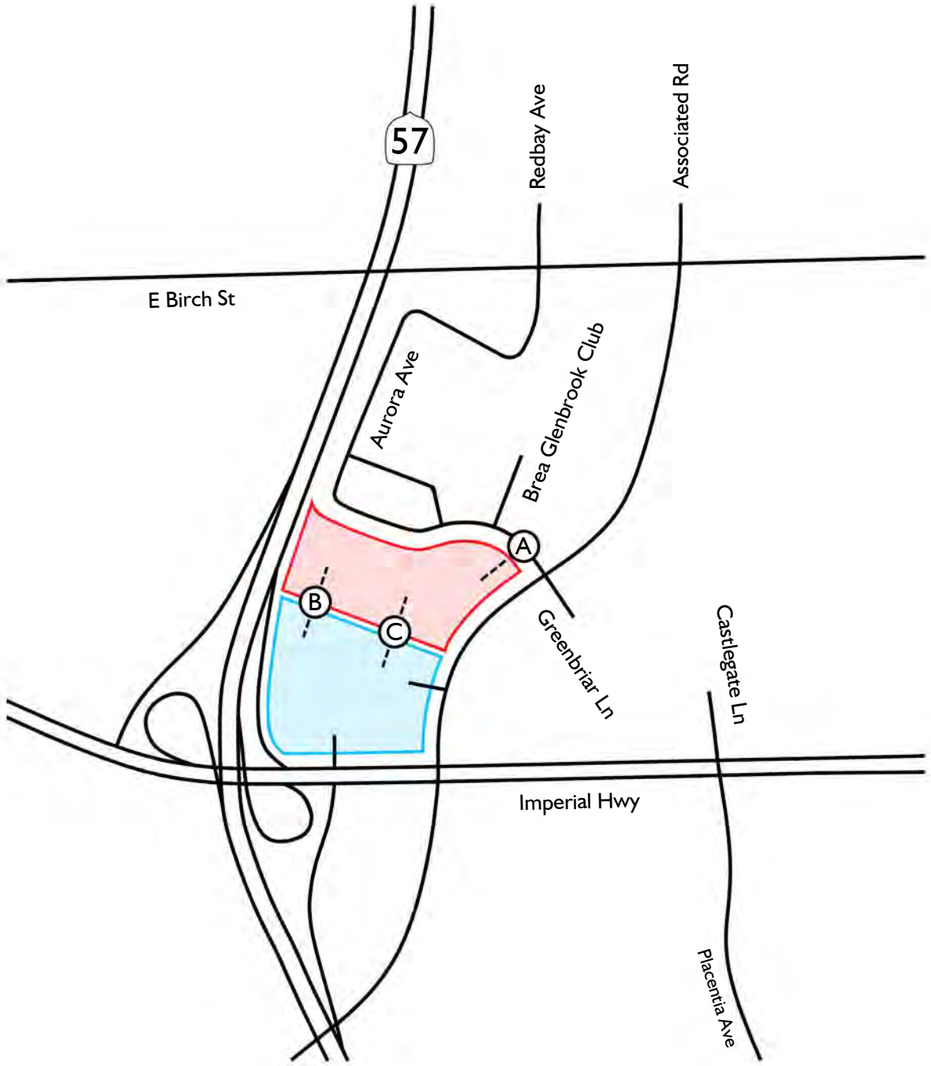


8. Brea Glenbrook Club Dwy/ Project Dwy No. 1 (N/S) & Greenbriar Lane (E/W)

Does Not Currently Exist

9. Project Driveway No. 2 (N/S) & Greenbriar Lane (E/W)

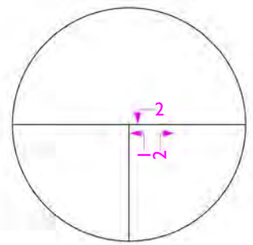
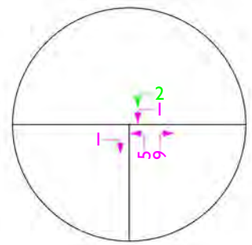
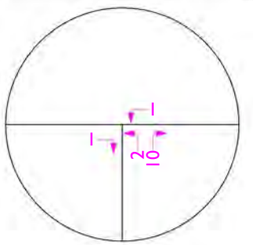
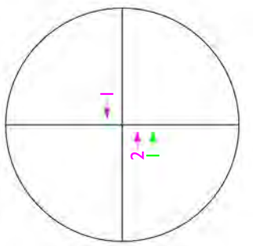
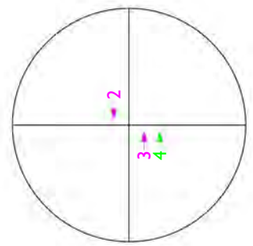
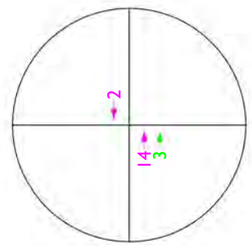
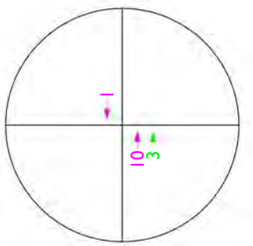
Existing Parking Lot Cut-Through Traffic Volumes



Legend:

- Ⓐ = Existing Parking Lot Driveway Intersection (To Be Removed)
- = Existing Parking Lot Driveway (To be Removed)
- = Brea Shopping Plaza Boundary
- = Project Site Boundary
- = Vehicles Parked After Entrance (Do Not Leave During Peak Hour)
- = Cut-Through Vehicles

N

	AM Peak Hour	PM Peak Hour	Saturday Midday Peak Hour
A. Parking Lot Driveway A (N/S) & Greenbriar Lane (E/W)			
B. Parking Lot Driveway B (N/S) & Shopping Plaza Aisle (E/W)			
C. Parking Lot Driveway C (N/S) & Shopping Plaza Aisle (E/W)			

Lastly, additional count data was collected at study intersections #1 & #4 (Redbay Avenue at Birch Street and Associated Road at Shopping Center Driveway No. 1) to sufficiently complete the signal warrant analyses which is later discussed in Section 6 of this report.

All traffic count worksheets are included in **Appendix B**, including the peak period intersection turning movement counts, the Saturday daily roadway segment counts utilized to determine the Saturday peak period, the existing Mercury Insurance parking lot cut-through & poaching counts, and the signal warrant counts.

3.3 City of Brea General Plan Circulation Element

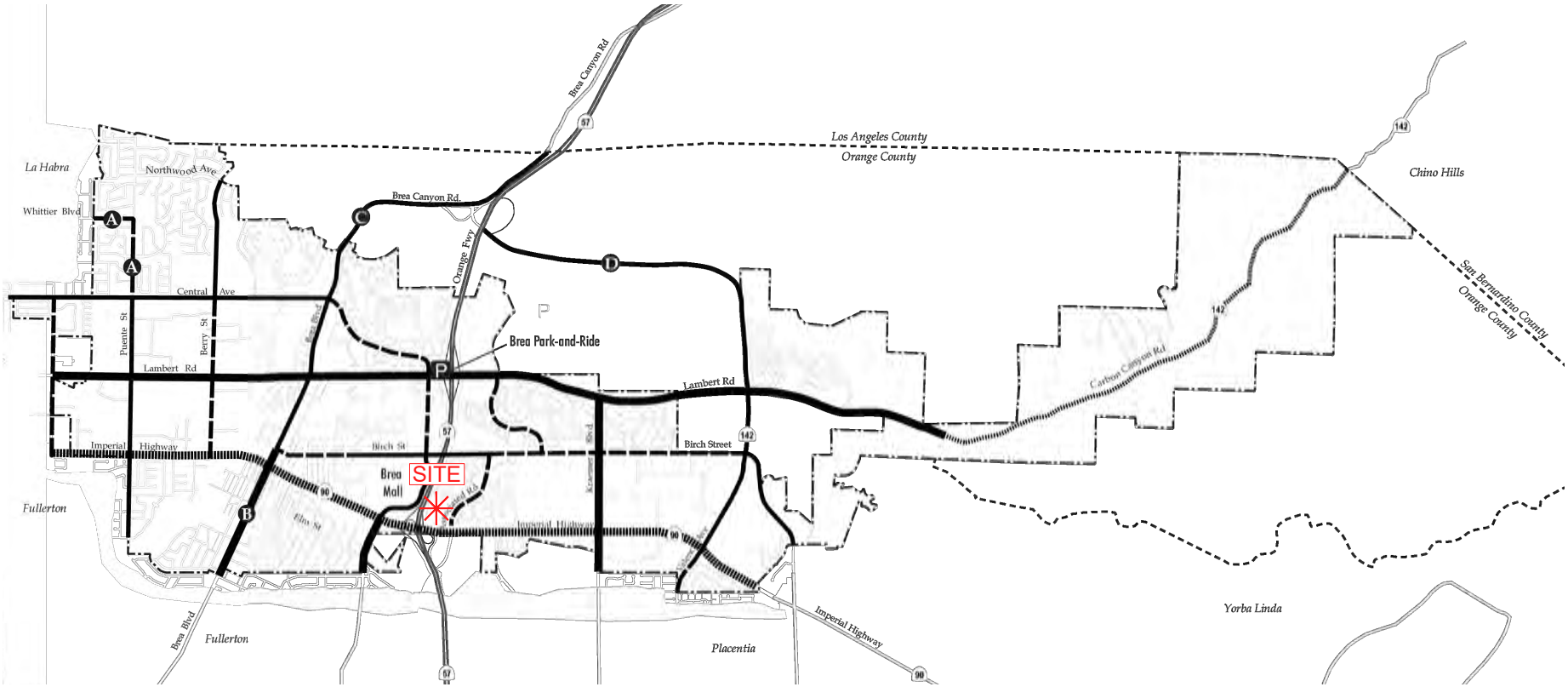
The City of Brea General Plan Master Plan of Roadways is shown on **Exhibit 3-5**. The City of Brea General Plan Typical Roadway Cross-Sections are shown on **Exhibit 3-6**.

The ultimate buildout General Plan classifications and the curb-to-curb roadway distances for the roadway segments of the study intersections that appear as a major route or is part of a highway system that serves as principal network for through traffic are as follows:

- Birch Street – Primary Arterial (Divided 4 lanes, 84 feet)
- Associated Road – Secondary Arterial (Divided 4 lanes, 64 feet)
- Imperial Highway – Smart Street (Divided 6 lanes, 84 feet)

Exhibit 3-5

City of Brea General Plan
Master Plan of Roadways



Legend:

- City Boundary
- Sphere of Influence
- ✳ = Project Site

Arterial Highways

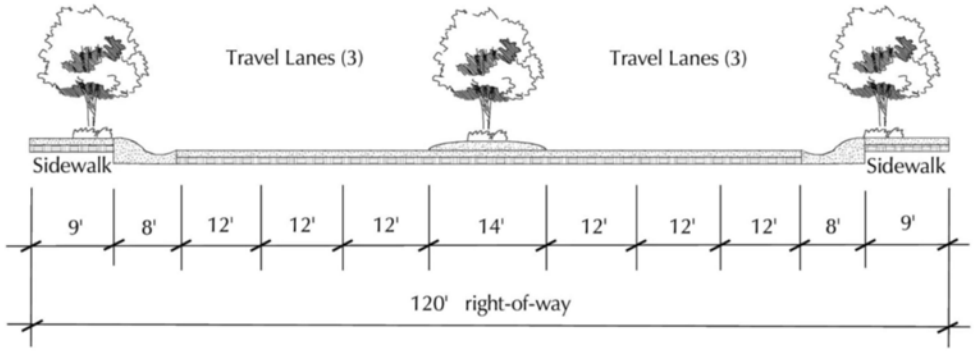
- Major Arterial
- Smart Street
- Primary Arterial
- Secondary Arterial
- Modified Secondary Arterial
- Collector/Commuter Roadway

N

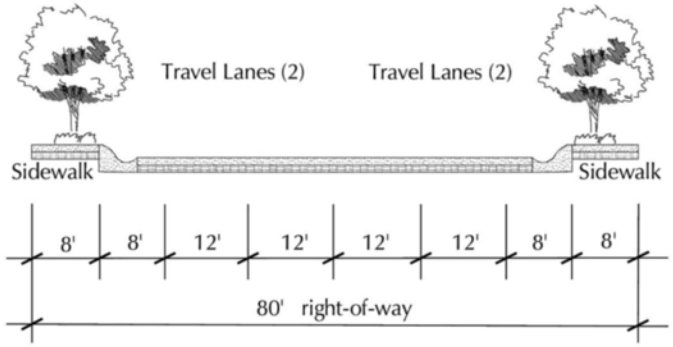
Exhibit 3-6

City of Brea General Plan
Typical Roadway Cross Sections

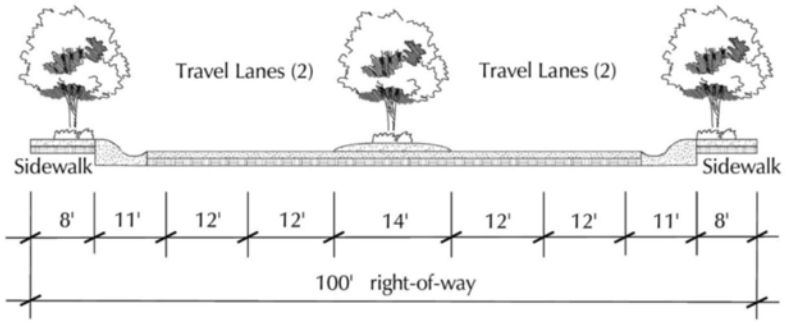
Major Arterial



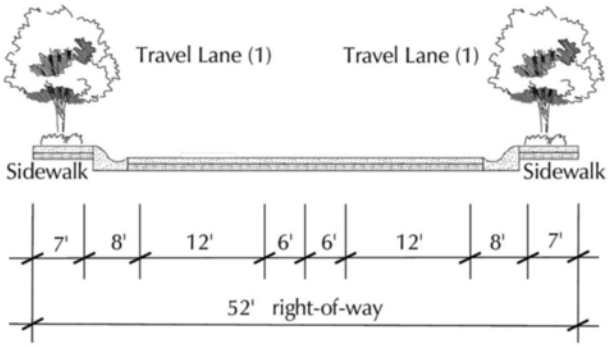
Secondary Arterial



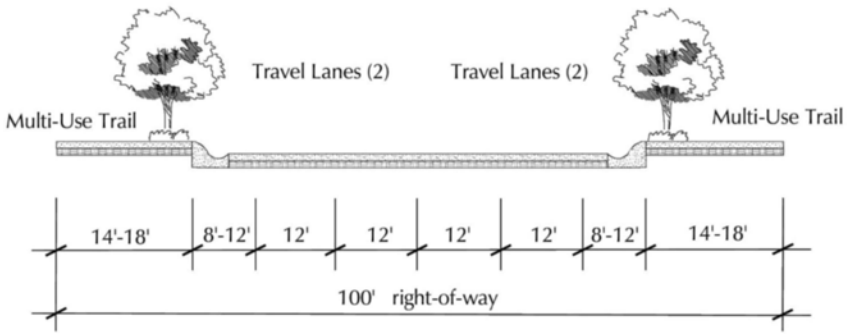
Primary Arterial



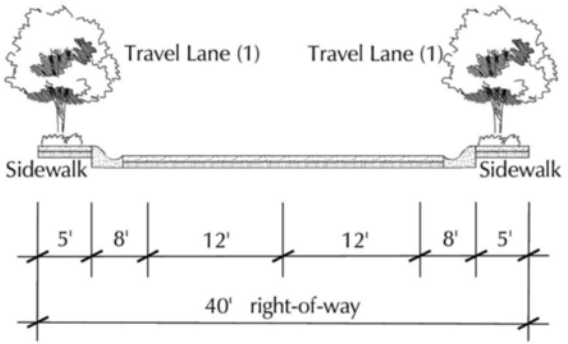
Collector Roadway (with Median Turn Lane)



Modified Secondary Arterial



Collector Roadway



4.0 Project Traffic Volumes

This section provides a discussion on methodologies utilized to derive project traffic volumes for the study area.

4.1 Project Traffic Conditions

4.1.1 Project Trip Generation

Trip generation represents the amount of traffic that is attracted and produced by a development. Typically, trip generation rates from the latest Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021) are used when calculating a proposed project's trip generation forecast. This publication provides a comprehensive evaluation of trip generation rates for a variety of land uses.

The proposed project consists of razing the existing vacant office building as well as the onsite parking garage to construct 180 single-family attached residential dwelling units. As such, ITE Land Use Code 215: Single-Family Attached Housing trip rates accurately reflect the proposed land use.

As directed by City of Brea staff, existing trip credits for the existing entitled (yet vacant) office buildings are not permitted for the Non-CEQA Transportation Assessment since the existing office site has not been fully occupied for several years. As such, the traffic study will assess the potential impact of the gross trips added by the project.

Table 4-1 shows the project trip generation rates and forecast for the Non-CEQA Transportation Assessment without trip credits. Utilizing the trip generation rates from the upper portion of Table 1, the lower portion of Table 1 shows the forecasted trip generation for the proposed land use.

As shown at the bottom of Table 1, the project is forecast to generate approximately 1,296 weekday daily trips which include approximately 86 weekday AM peak hour trips and approximately 103 weekday PM peak hour trips. Additionally, the project is forecast to generate approximately 1,577 Saturday daily trips which includes approximately 103 Saturday midday peak hour trips.

Table 4-1

Project Trip Generation Rates & Forecast[1]

For Non-CEQA Transportation Assessment (Without Trip Credit)

Land Use (ITE Code)	Quantity	Units[2]	Weekday						Daily	Saturday			Daily
			AM Peak Hour			PM Peak Hour				Midday Peak Hour			
			In	Out	Total	In	Out	Total		In	Out	Total	
Trip Generation Rates													
Single-Family Attached Housing (215)	--	DU	25%	75%	0.48	59%	41%	0.57	7.20	48%	52%	0.57	8.76
Trip Generation Forecast													
Single-Family Attached Housing (215)	180	DU	22	64	86	62	41	103	1,296	49	54	103	1,577

[1] Source: ITE Trip Generation Manual (11th Edition, 2021).
[2] DU = Dwelling Units.

4.1.2 Project Trip Distribution & Assignment

Trip distribution represents the directional orientation of traffic to and from the project site. Trip distribution is heavily influenced by the geographical location of the site, the location of residential, employment and recreational opportunities, and the proximity to the regional freeway system. The directional orientation of traffic was determined by evaluating existing and proposed land uses, highways within the community, and existing traffic volumes.

The assignment of traffic from the project site to the adjoining roadway system has been based upon the site's trip generation, trip distribution, existing and proposed arterial highways, and local street systems, which would be in place by the time of initial occupancy of the site.

Exhibit 4-1 shows the forecast project trip distribution.

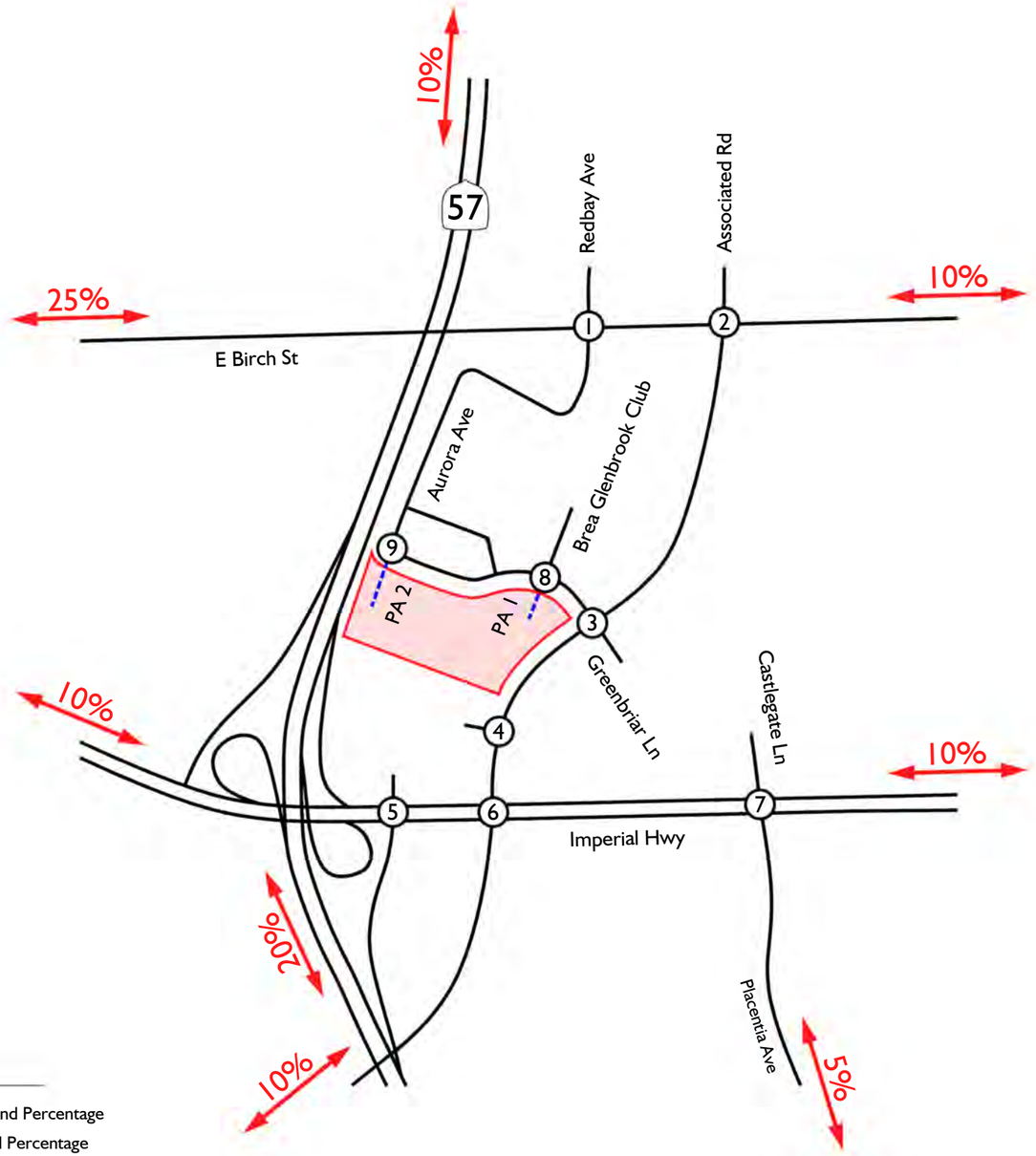
4.1.3 Project Peak Hour Traffic Volumes

With the construction of the project, the shared access points between both the Brea Shopping Plaza and the project site will be eliminated. Due to this elimination of the shared access between the two sites, the "With Project" traffic scenarios account for rerouting of any vehicles currently either cutting through the project site to/from the commercial center, or parking within the project site and walking to the commercial center.

As previously mentioned, Exhibit 3-4 (See Section 3.2 above) summarizes these existing parking lot cut-through traffic volumes at the three (3) existing access points serving the prior Mercury Insurance parking lot for weekday AM, weekday PM, and Saturday midday peak hours. **Exhibit 4-2** presents the necessary reroutes of the existing cut-through traffic volumes presented in Exhibit 3-4 after construction of the project and the elimination of the shared access points between both the Brea Shopping Plaza and the project site.

Exhibit 4-3 and **Exhibit 4-4** show the total adjusted weekday AM and PM peak hour and Saturday midday peak hour intersection turning movement volumes, respectively, which accounts for both the gross project traffic and the appropriate rerouted volumes shown in Exhibit 4-2.

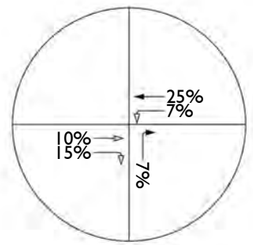
Project Trip Distribution



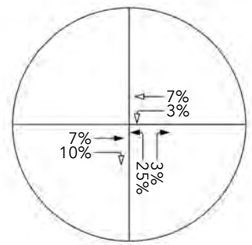
Legend:

- = Outbound Percentage
- = Inbound Percentage
- (1) = Study Intersection
- = Project Access Driveway
- = Project Site Boundary

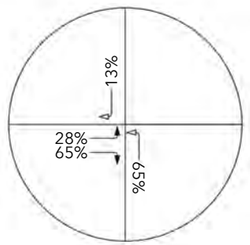
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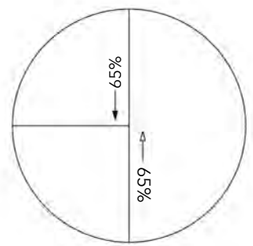
1. Redbay Avenue (N/S) & Birch Street (E/W)



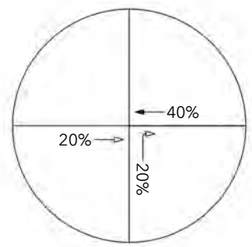
2. Associated Road (N/S) & Birch Street (E/W)



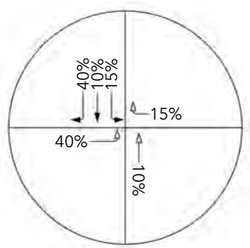
3. Associated Road (N/S) & Greenbriar Lane (E/W)



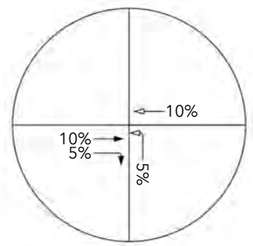
4. Associated Road (N/S) & Shopping Center Dwy No. 1 (E/W)



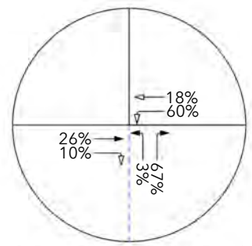
5. SR-57 NB Ramps/Shopping Center Dwy No.2 (N/S) & Imperial Highway (E/W)



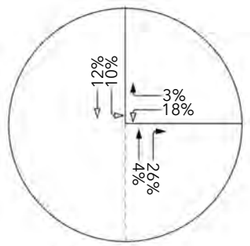
6. Associated Road (N/S) & Imperial Highway (E/W)



7. Castlegate Lane/Placentia Avenue (N/S) & Imperial Highway (E/W)

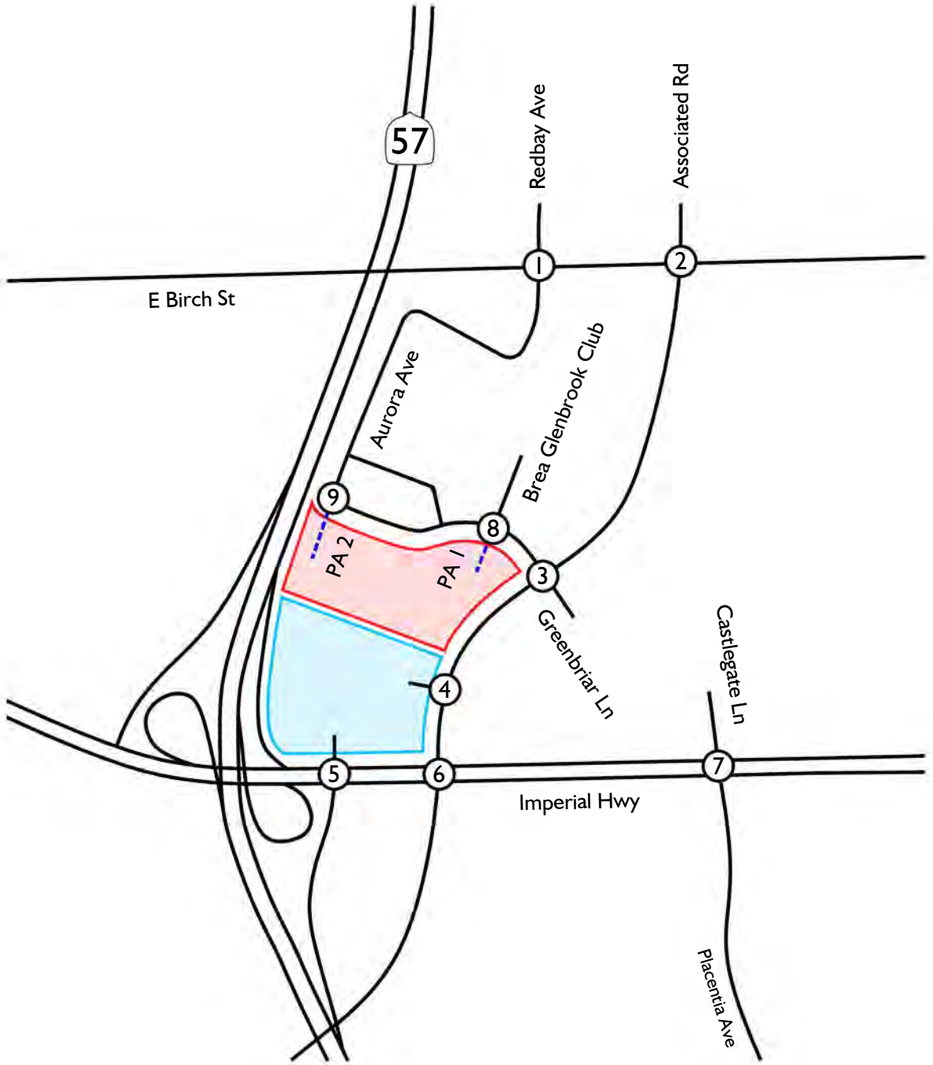


8. Brea Glenbrook Club Dwy/ Project Dwy No. 1 (N/S) & Greenbriar Lane (E/W)

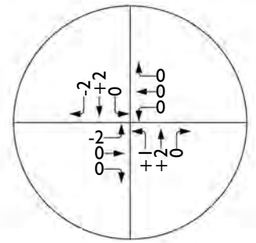


9. Project Driveway No. 2 (N/S) & Greenbriar Lane (E/W)

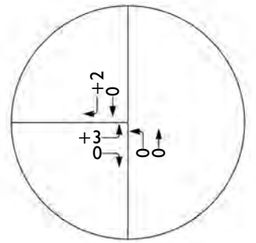
Project Volume Adjustments for Rerouted Traffic



AM Peak Hour

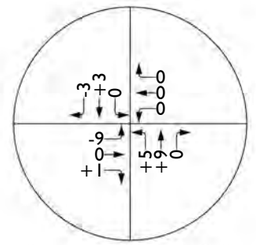


3. Associated Road (N/S) & Greenbriar Lane (E/W)

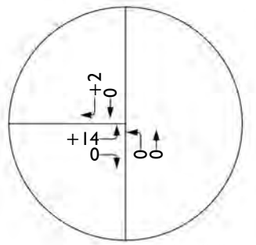


4. Associated Road (N/S) & Shopping Center Dwy No. 1 (E/W)

PM Peak Hour

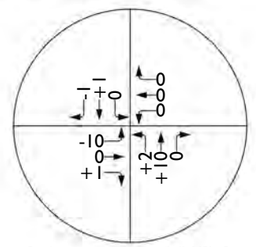


3. Associated Road (N/S) & Greenbriar Lane (E/W)

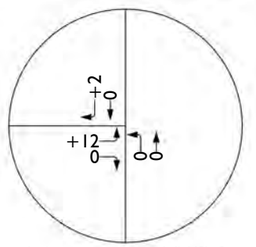


4. Associated Road (N/S) & Shopping Center Dwy No. 1 (E/W)

Saturday Midday Peak Hour



3. Associated Road (N/S) & Greenbriar Lane (E/W)



4. Associated Road (N/S) & Shopping Center Dwy No. 1 (E/W)

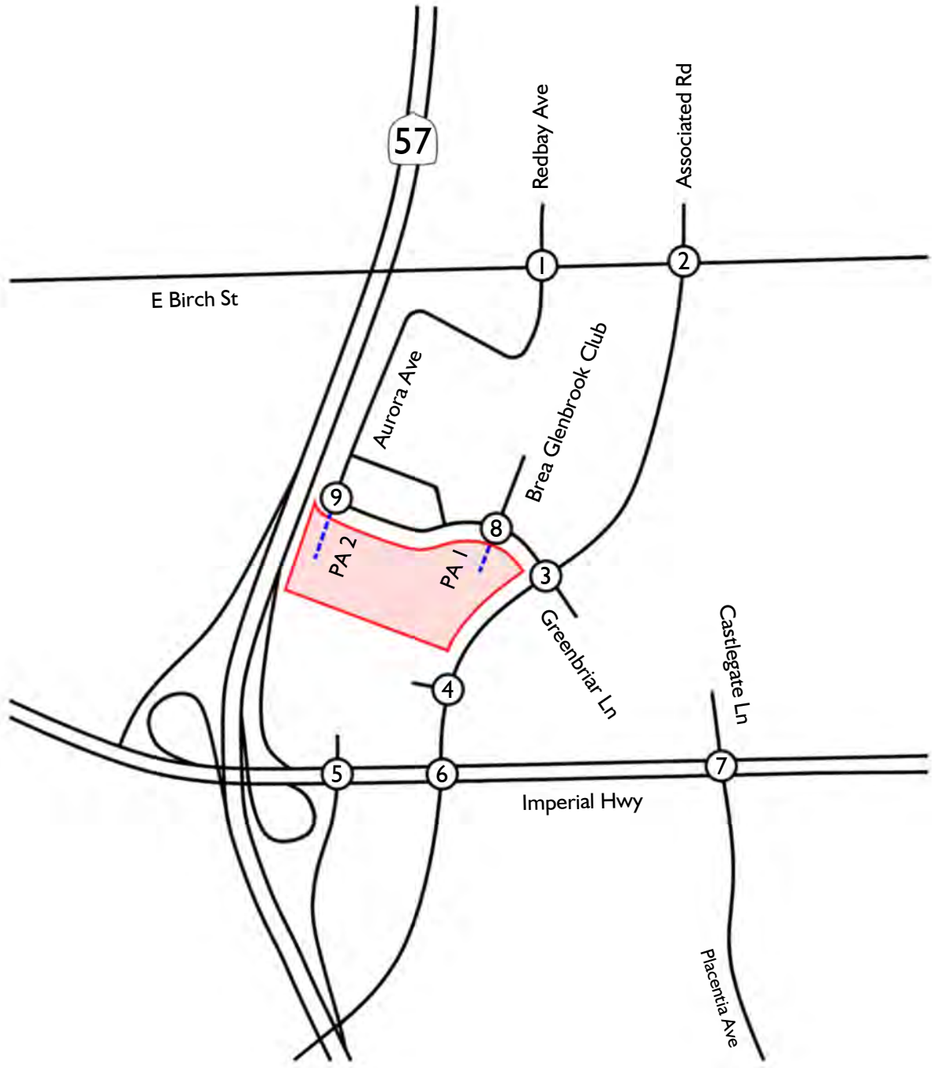
Legend:

- (1) = Study Intersection
- = Project Access Driveway
- = Brea Shopping Plaza Boundary
- = Project Site Boundary
- +/-1 = Project Volume Adjustments

N

Note: Intersections not included do not have any adjustments to the project volumes.

Weekday Peak Hour Project Traffic Volumes With Rerouted Traffic



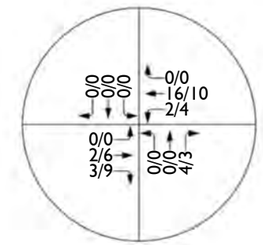
Legend:

① = Study Intersection

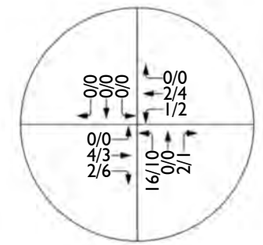
= Project Access Driveway

= Project Site Boundary

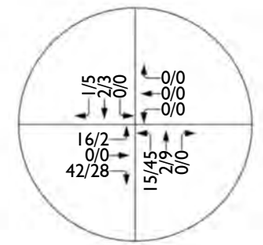
10/20 = AM/PM Peak Hour Volumes



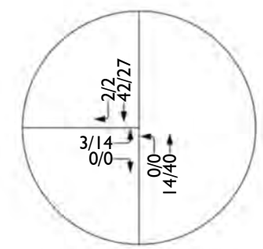
1. Redbay Avenue (N/S) & Birch Street (E/W)



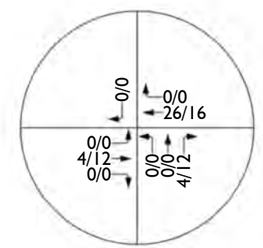
2. Associated Road (N/S) & Birch Street (E/W)



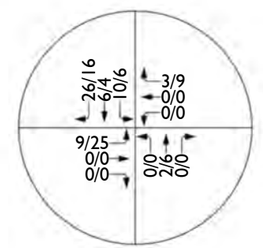
3. Associated Road (N/S) & Greenbriar Lane (E/W)



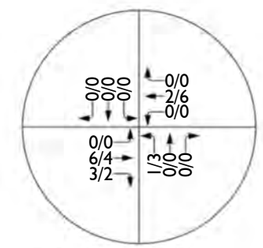
4. Associated Road (N/S) & Shopping Center Dwy No. 1 (E/W)



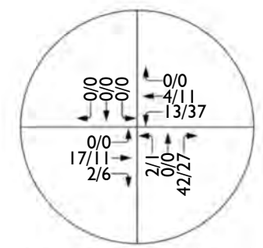
5. SR-57 NB Ramps/Shopping Center Dwy No.2 (N/S) & Imperial Highway (E/W)



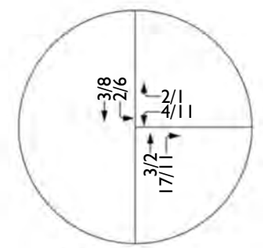
6. Associated Road (N/S) & Imperial Highway (E/W)



7. Castlegate Lane/Placentia Avenue (N/S) & Imperial Highway (E/W)



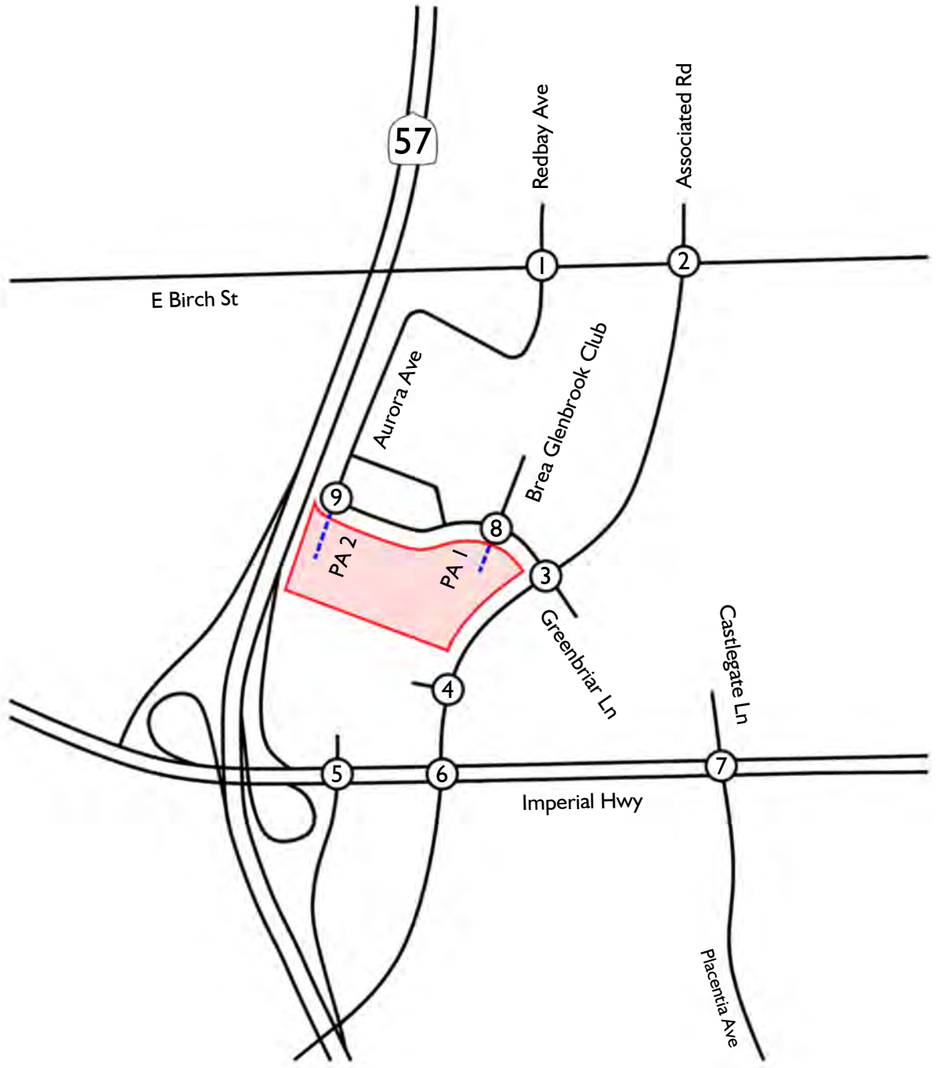
8. Brea Glenbrook Club Dwy/ Project Dwy No. 1 (N/S) & Greenbriar Lane (E/W)



9. Project Driveway No. 2 (N/S) & Greenbriar Lane (E/W)

N

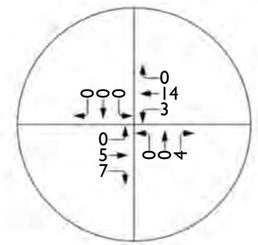
Saturday Midday Peak Hour Project Traffic Volumes With Rerouted Traffic



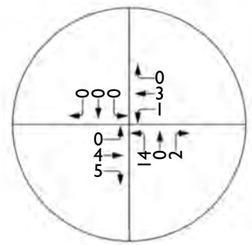
Legend:

- (1) = Study Intersection
- = Project Access Driveway
- = Project Site Boundary
- 10 = Saturday Midday Peak Hour Volumes

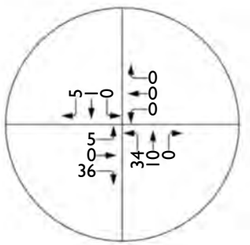
N



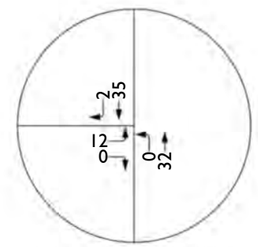
1. Redbay Avenue (N/S) & Birch Street (E/W)



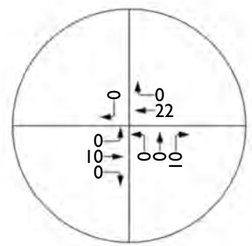
2. Associated Road (N/S) & Birch Street (E/W)



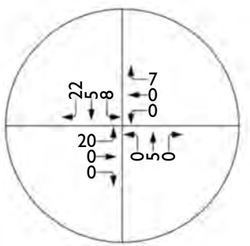
3. Associated Road (N/S) & Greenbriar Lane (E/W)



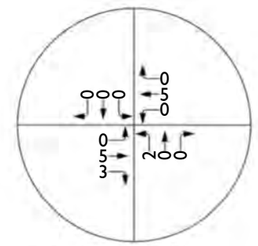
4. Associated Road (N/S) & Shopping Center Dwy No. 1 (E/W)



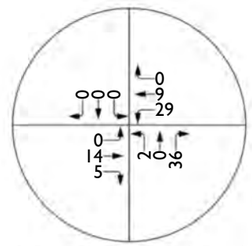
5. SR-57 NB Ramps/Shopping Center Dwy No.2 (N/S) & Imperial Highway (E/W)



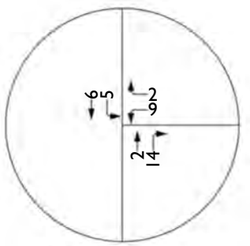
6. Associated Road (N/S) & Imperial Highway (E/W)



7. Castlegate Lane/Placentia Avenue (N/S) & Imperial Highway (E/W)



8. Brea Glenbrook Club Dwy/ Project Dwy No. 1 (N/S) & Greenbriar Lane (E/W)



9. Project Driveway No. 2 (N/S) & Greenbriar Lane (E/W)

4.2 Background Traffic

4.2.1 Method of Projection

To assess future traffic conditions, project traffic is combined with existing traffic and area-wide growth. As directed by City staff, to account for area-wide/ambient growth in the study area, a linear annual growth rate of one percent (1%) per year has been applied to the existing (2024) traffic volumes over a two-year period for project opening year 2026 conditions (2% total growth).

4.2.2 Cumulative Projects Traffic Volumes

Information on future projects in the vicinity of the study area has been provided by City of Brea staff for inclusion in this analysis and is shown in **Table 4-2**. Table 4-2 shows the land uses, and daily and peak hour trip generation for the nearby cumulative projects provided by the public agencies.

A location map of the cumulative projects is shown on **Exhibit 4-5**. Cumulative projects traffic volumes for a typical weekday and Saturday are shown on **Exhibit 4-6** and **Exhibit 4-7**, respectively.

In reality, some of the cumulative projects may be downsized or may not be developed by the project opening year (2026). In addition, many of the cumulative projects have been or will be subject to a variety of mitigation measures that will reduce the potential environmental impacts associated with those projects. However, those mitigation measures have not been taken into account in projecting the environmental impact of the related projects. Therefore, the cumulative analyses set forth below are conservative and could result in greater impacts than actually anticipated.

4.3 Project Opening Year (2026) Without Project Conditions Traffic Volumes

Project Opening Year 2026 Without Project Conditions traffic volumes consists of two (2) years of annual growth on top of existing (2024) traffic volumes at one percent (1%) per year (i.e. 2% total growth) plus traffic volumes generated by cumulative projects without rerouted traffic volumes.

Project Opening Year 2026 Without Project Conditions traffic volumes during a typical weekday and Saturday are shown in **Exhibit 4-8** and **Exhibit 4-9**, respectively.

Table 4-2

Cumulative Projects Trip Generation[1]

ID No.	Jurisdiction	Project Name / Case Number	Land Use (ITE Code[2])	Quantity	Units[3]	Weekday							Weekend			
						AM Peak Hour			PM Peak Hour			Daily	Midday Peak Hour			Daily
						In	Out	Total	In	Out	Total		In	Out	Total	
TAZ 1																
1	**City of Brea**	The Phoenix Club	High-Turnover (Sit-Down) Restaurant (932)	8.35	TSF	40	32	72	26	17	43	805	43	41	84	920
					TAZ 1 Total	**40**	**32**	**72**	**26**	**17**	**43**	**805**	**43**	**41**	**84**	**920**
TAZ 2																
2	**City of Brea**	New Industrial Building	Warehousing (150)	147.5	TSF	22	8	30	10	23	33	388	7	2	9	35
					TAZ 2 Total	**22**	**8**	**30**	**10**	**23**	**33**	**388**	**7**	**2**	**9**	**35**
TAZ 3																
3	**City of Brea**	Mercury Lane Apartments[4]	--	--	--	-2	30	28	30	9	39	545	23	22	45	533
					TAZ 3 Total	**-2**	**30**	**28**	**30**	**9**	**39**	**545**	**23**	**22**	**45**	**533**
TAZ 4																
4	**City of Brea**	Transwestern	Warehousing (150)	126.797	TSF	19	8	27	10	19	29	334	6	2	8	31
					TAZ 4 Total	**19**	**8**	**27**	**10**	**19**	**29**	**334**	**6**	**2**	**8**	**31**
TAZ 5																
5	**City of Brea**	Brea Gaslight Square Redevelopment[5]	--	--	--	64	55	119	39	34	73	872	60	57	117	1,330
					TAZ 5 Total	**64**	**55**	**119**	**39**	**34**	**73**	**872**	**60**	**57**	**117**	**1,330**
TAZ 6																
6	**City of Brea**	South Brea Townhomes	Multi-Family Housing (Low-Rise) (220)	32	DU	3	10	13	10	6	16	216	7	7	14	146
					TAZ 6 Total	**3**	**10**	**13**	**10**	**6**	**16**	**216**	**7**	**7**	**14**	**146**
TAZ 7																
7	**City of Brea**	Smart Parke Pet Daycare[6]	Day Care Center (565)	6.715	TSF	39	35	74	35	40	75	320	0	1	1	3
					TAZ 7 Total	**39**	**35**	**74**	**35**	**40**	**75**	**320**	**0**	**1**	**1**	**3**
TAZ 8																
8	**City of Brea**	Brea Mall Mixed Use Project[7]	--	--	--	165	150	315	281	143	424	4,140	172	269	441	4,031
					TAZ 8 Total	**165**	**150**	**315**	**281**	**143**	**424**	**4,140**	**172**	**269**	**441**	**4,031**
TAZ 9																
9	**City of Brea**	Brea Plaza Remodel (Buildings E-G)[8]	--	--	--	39	61	100	21	18	39	256	7	10	17	182
					TAZ 9 Total	**39**	**61**	**100**	**21**	**18**	**39**	**256**	**7**	**10**	**17**	**182**
TAZ 10																
10	**City of Brea**	Brea 265 Specific Plan[9]	--	--	--	182	452	634	542	351	893	9,351	488	470	958	11,021
					TAZ 10 Total	**182**	**452**	**634**	**542**	**351**	**893**	**9,351**	**488**	**470**	**958**	**11,021**
TAZ 11																
11	**City of Brea**	New warehouse building (Preliminary Plan Review)	Warehousing (150)	86.145	TSF	13	6	19	6	15	21	227	3	3	6	21
12	**City of Brea**	Amazon Parcel Delivery Facility[10]	High-Cube Parcel Hub Warehouse (156)	181.5	GFA	77	75	152	87	46	133	1,001	119	41	160	673
13	**City of Brea**	Light Industrial Building	General Light Industrial (110)	56	TSF	36	7	43	5	33	38	295	3	3	6	43
14	**City of Brea**	Industrial Building	Warehousing (150)	113.7	TSF	17	6	23	10	15	25	300	4	4	8	27
					TAZ 11 Total	**143**	**94**	**237**	**108**	**109**	**217**	**1,823**	**129**	**51**	**180**	**764**
TAZ 12																
15	**City of Brea**	Brea Regional Animal Hospital[11]	Animal Hospital/Veterinary Clinic (640)	5.925	TSF	14	8	22	8	13	21	127	14	8	22	91
					TAZ 12 Total	**14**	**8**	**22**	**8**	**13**	**21**	**127**	**14**	**8**	**22**	**91**
					Total Cumulative Project Developments Trip Generation	***728***	***943***	***1,671***	***1,120***	***782***	***1,902***	***19,177***	***956***	***940***	***1,896***	***19,087***

[1] Cumulative project information provided by the City of Brea staff.

[2] Source: *ITE Trip Generation Manual (11th Edition, 2021).*

[3] TSF = Thousand Square Feet; DU = Dwelling Units; GFA = Gross Floor Area.

[4] Source: *Mercury Apartments Revised Traffic Impact Analysis Report*, prepared by Linscott, Law, & Greenspan, Engineers, dated July 16, 2019.

[5] Source: *Brea Gaslight Square (PLN2022-00011) Traffic Analysis*, prepared by Urban Crossroads, dated April 5, 2023.

[6] Smart Parke Pet Daycare does not have an appropriate land use listed in the ITE Trip Generation Manual; therefore, the land use of Day Care Center is used in substitution and the quantity of pets is dvivided by three to account for less trips than a typical day care center.

[7] Source: *Brea Mall Mixed-Use Project Traffic Impact Analysis Report*, prepared by Linscott, Law, & Greenspan, Engineers, dated January 9, 2020.

[8] Source: *Brea Plaza Expansion Revised Traffic Circulation Analysis*, prepared by Linscott, Law, & Greenspan, Engineers, dated July 29, 2021.

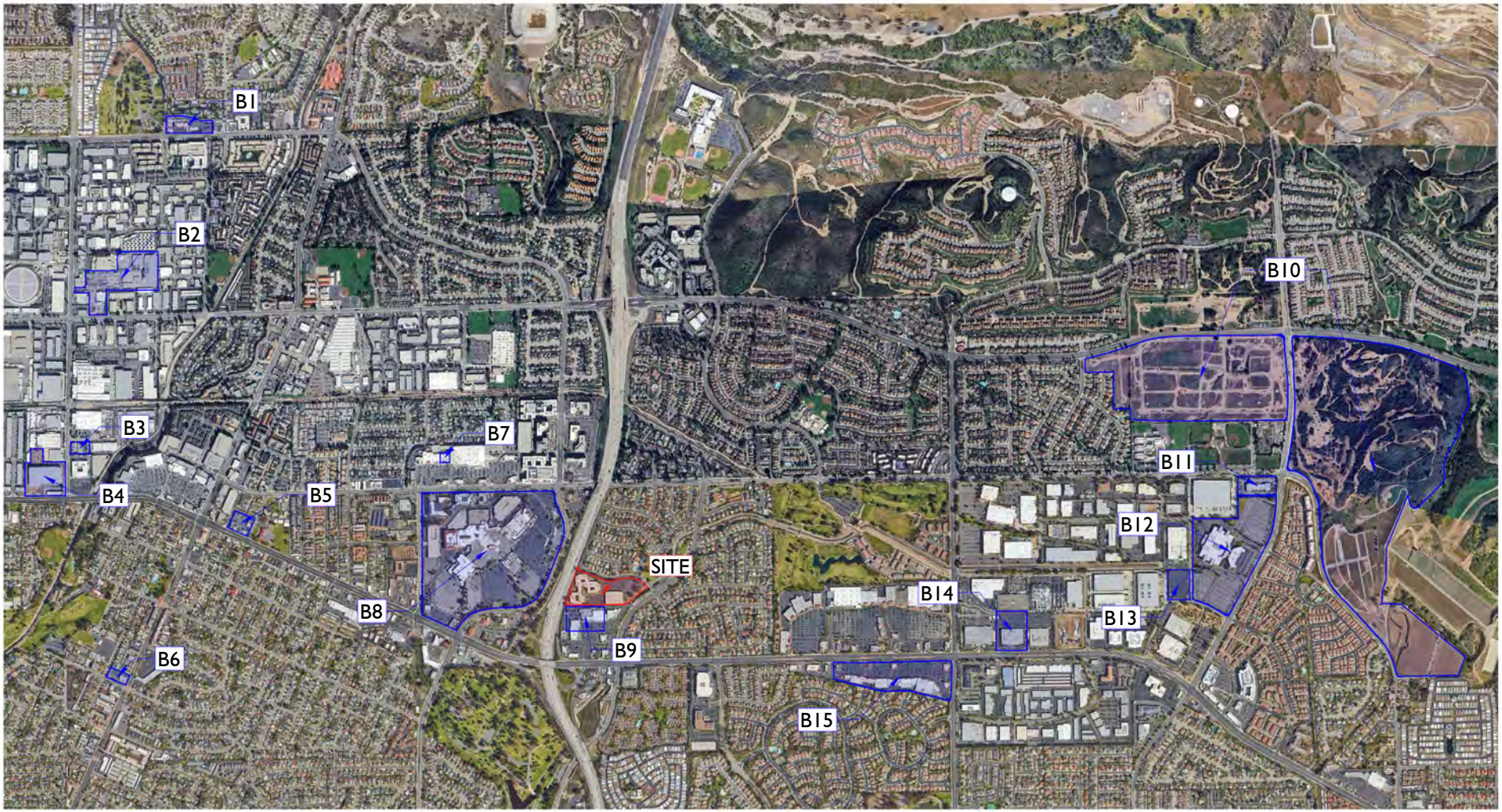
[9] Source: *Brea 265 Specific Plan Traffic Circulation Analysis*, prepared by Linscott, Law, & Greenspan, Engineers, dated February 8, 2022.

[10] The identified land use of High-Cube Parcel Warehouse from the ITE Trip Generation Manual does not provide rates for the weekend. The Amazon Parcel Delivery Facility will be in operation on the weekends; therefore, weekend rates are proportioned to a smilar land use, High-Cube Transload and Short-Term Storage Warehouse (ITE Code: 154) in substitution.

[11] The identified land use of Animal Hospital/Veterinary Clinic from the ITE Trip Generation Manual does not provide rates for the weekend. The Brea Regional Animal Hospital will be in operation on the weekends; therefore, weekend rates matched to the highest rates for the weekday in substitution.

Exhibit 4-5

Cumulative Projects Location Map



Legend:

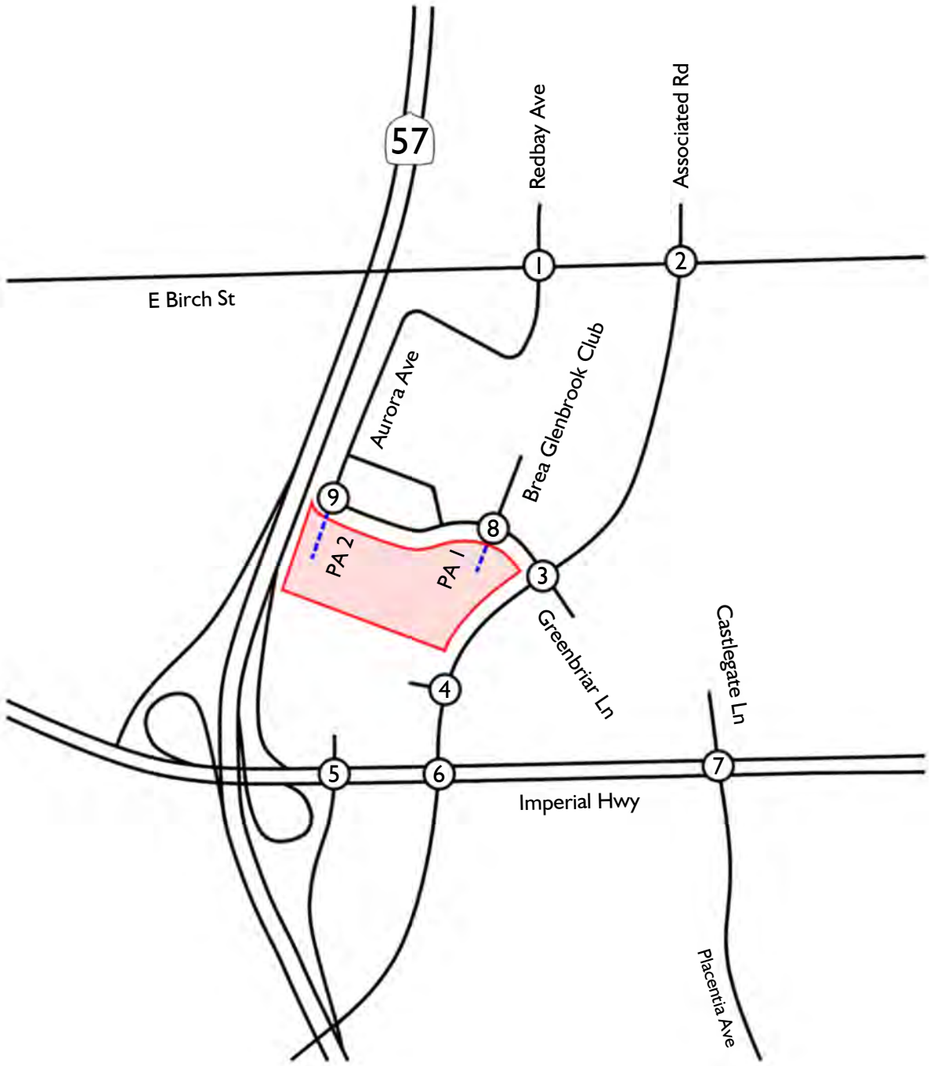
= Project Site

= City of Brea Cumulative Projects

N

Exhibit 4-6

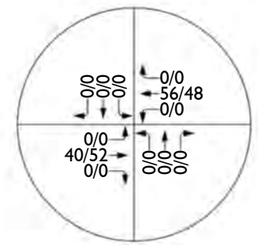
Weekday Peak Hour Cumulative Projects Traffic Volumes



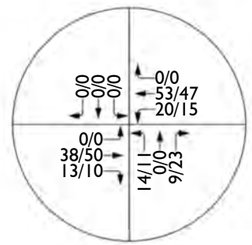
Legend:

- (1) = Study Intersection
- = Project Access Driveway
- = Project Site Boundary
- 10/20 = AM/PM Peak Hour Volumes

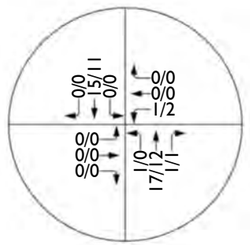
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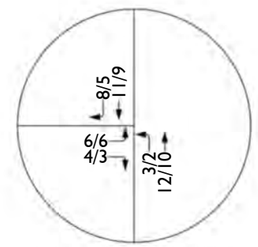
1. Redbay Avenue (N/S) & Birch Street (E/W)



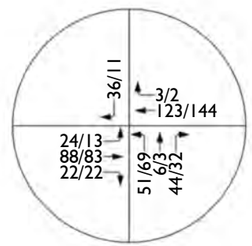
2. Associated Road (N/S) & Birch Street (E/W)



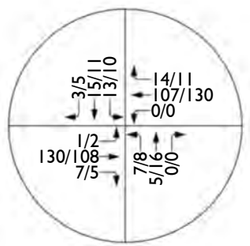
3. Associated Road (N/S) & Greenbriar Lane (E/W)



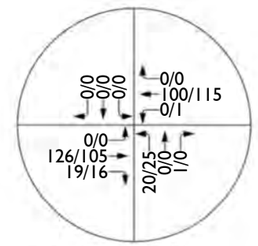
4. Associated Road (N/S) & Shopping Center Dwy No. 1 (E/W)



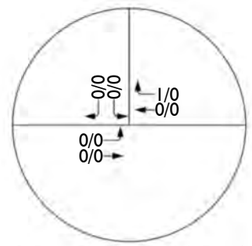
5. SR-57 NB Ramps/Shopping Center Dwy No.2 (N/S) & Imperial Highway (E/W)



6. Associated Road (N/S) & Imperial Highway (E/W)



7. Castlegate Lane/Placentia Avenue (N/S) & Imperial Highway (E/W)

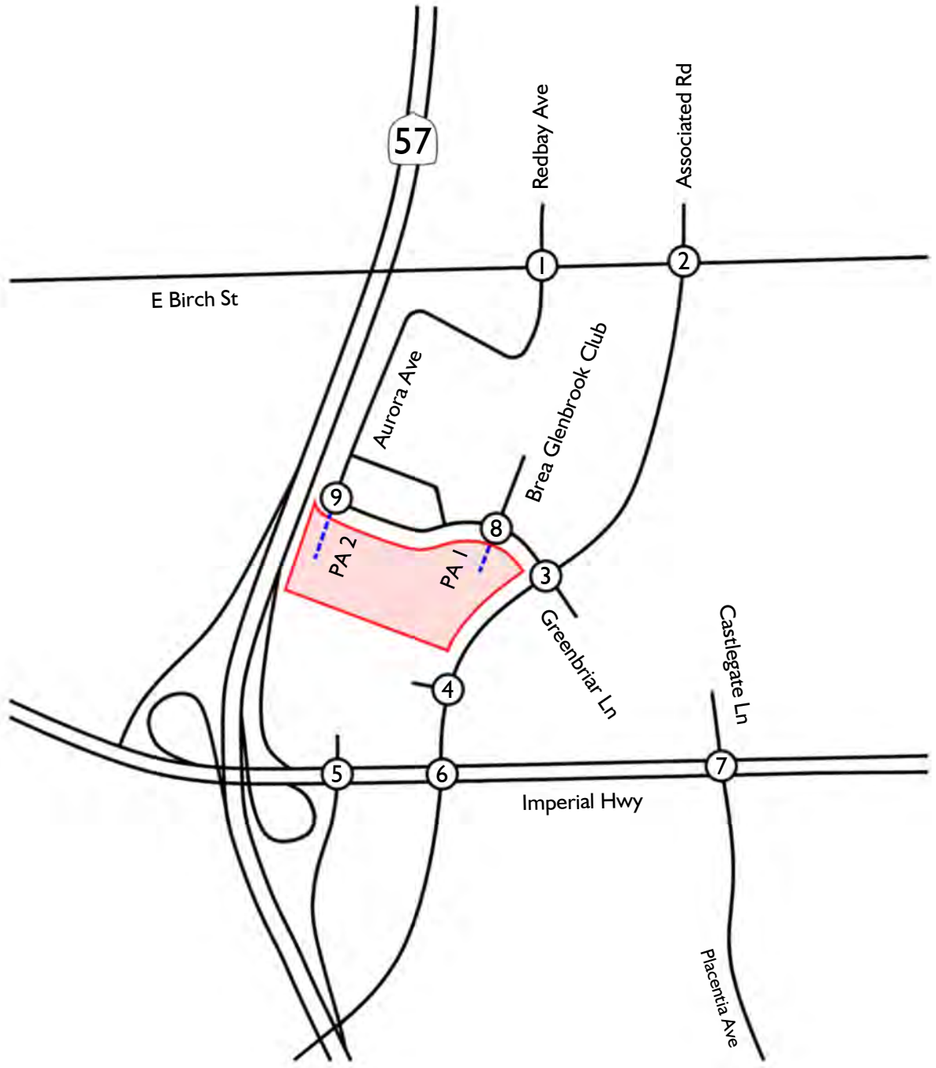


8. Brea Glenbrook Club Dwy/ Project Dwy No. 1 (N/S) & Greenbriar Lane (E/W)

Does Not Currently Exist

9. Project Driveway No. 2 (N/S) & Greenbriar Lane (E/W)

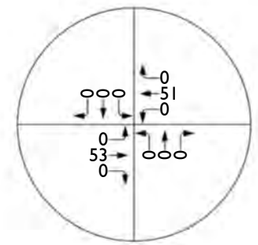
Saturday Midday Peak Hour Cumulative Projects Traffic Volumes



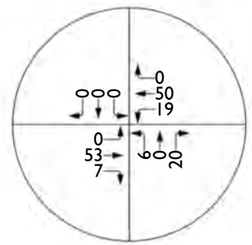
Legend:

- (1) = Study Intersection
- = Project Access Driveway
- = Project Site Boundary
- 10 = Saturday Midday Peak Hour Volumes

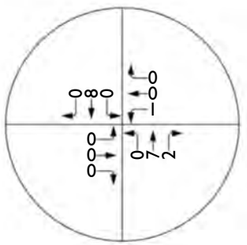
N



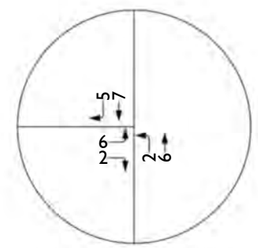
1. Redbay Avenue (N/S) & Birch Street (E/W)



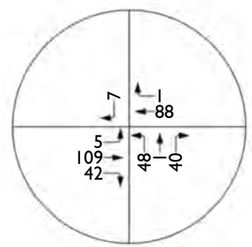
2. Associated Road (N/S) & Birch Street (E/W)



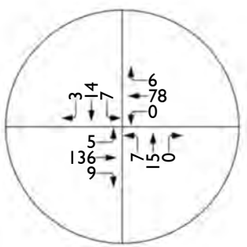
3. Associated Road (N/S) & Greenbriar Lane (E/W)



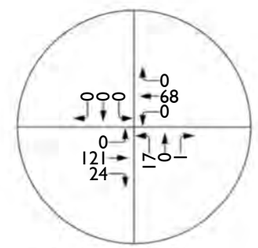
4. Associated Road (N/S) & Shopping Center Dwy No. 1 (E/W)



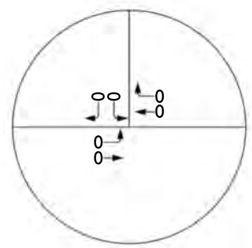
5. SR-57 NB Ramps/Shopping Center Dwy No.2 (N/S) & Imperial Highway (E/W)



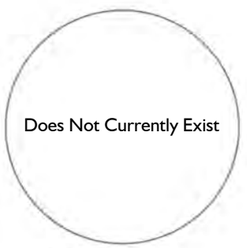
6. Associated Road (N/S) & Imperial Highway (E/W)



7. Castlegate Lane/Placentia Avenue (N/S) & Imperial Highway (E/W)



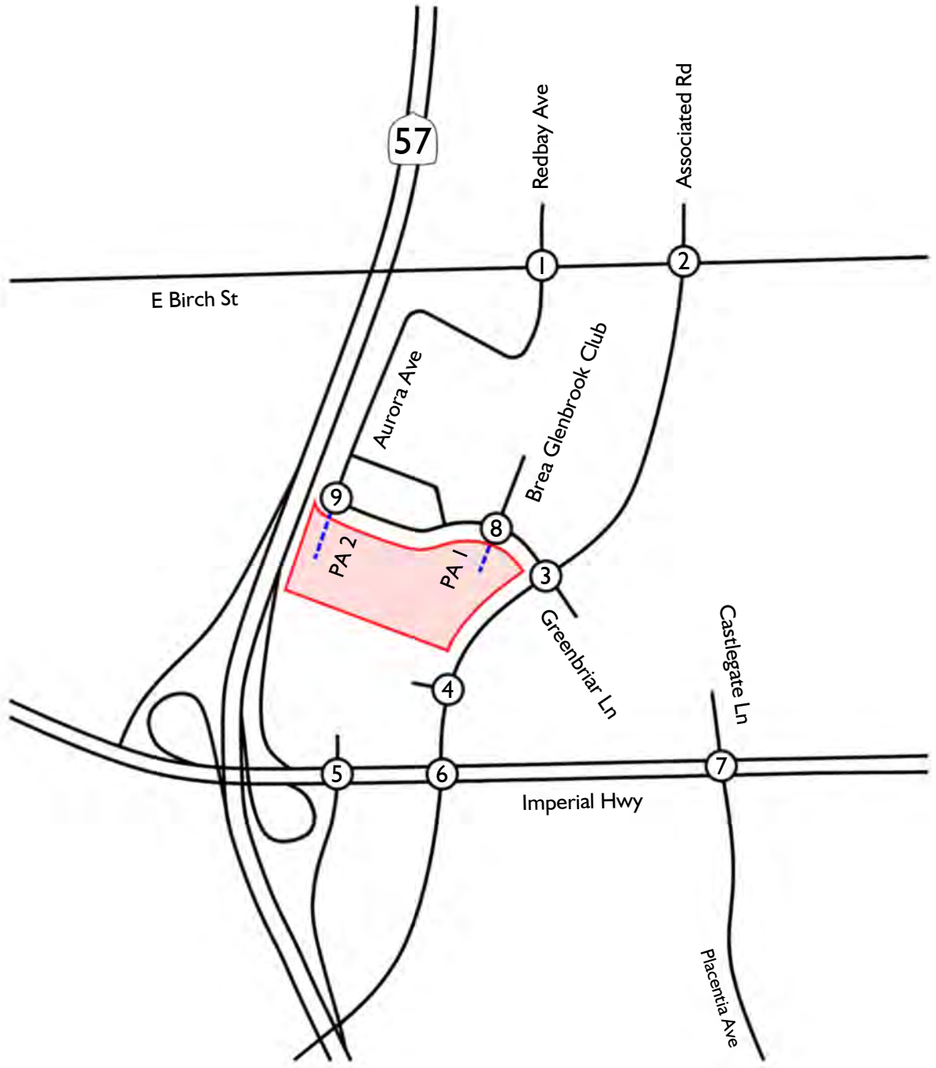
8. Brea Glenbrook Club Dwy/ Project Dwy No. 1 (N/S) & Greenbriar Lane (E/W)



9. Project Driveway No. 2 (N/S) & Greenbriar Lane (E/W)

Exhibit 4-8

Project Opening Year (2026) With 2% Ambient Growth, Cumulative Projects, & No Rerouted Traffic Without Project Conditions Traffic Volumes Weekday Peak Hours



Legend:

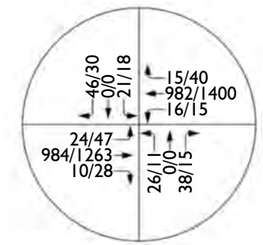
① = Study Intersection

= Project Access Driveway

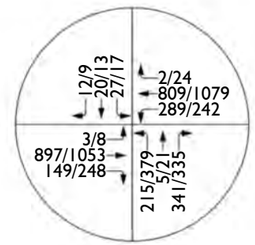
= Project Site Boundary

10/20 = AM/PM Peak Hour Volumes

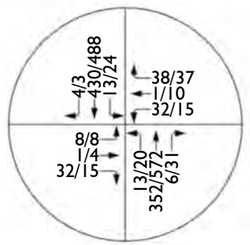
N



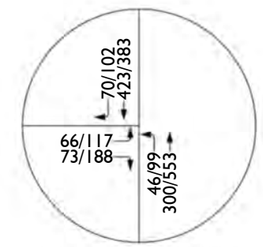
1. Redbay Avenue (N/S) & Birch Street (E/W)



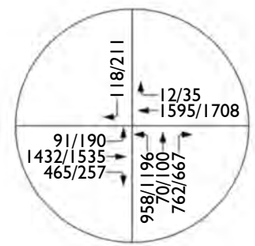
2. Associated Road (N/S) & Birch Street (E/W)



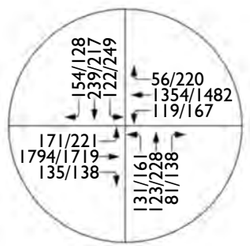
3. Associated Road (N/S) & Greenbriar Lane (E/W)



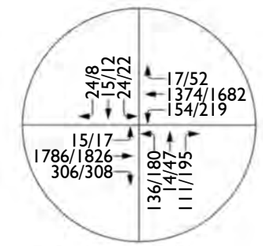
4. Associated Road (N/S) & Shopping Center Dwy No. 1 (E/W)



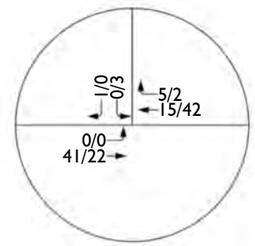
5. SR-57 NB Ramps/Shopping Center Dwy No.2 (N/S) & Imperial Highway (E/W)



6. Associated Road (N/S) & Imperial Highway (E/W)



7. Castlegate Lane/Placentia Avenue (N/S) & Imperial Highway (E/W)

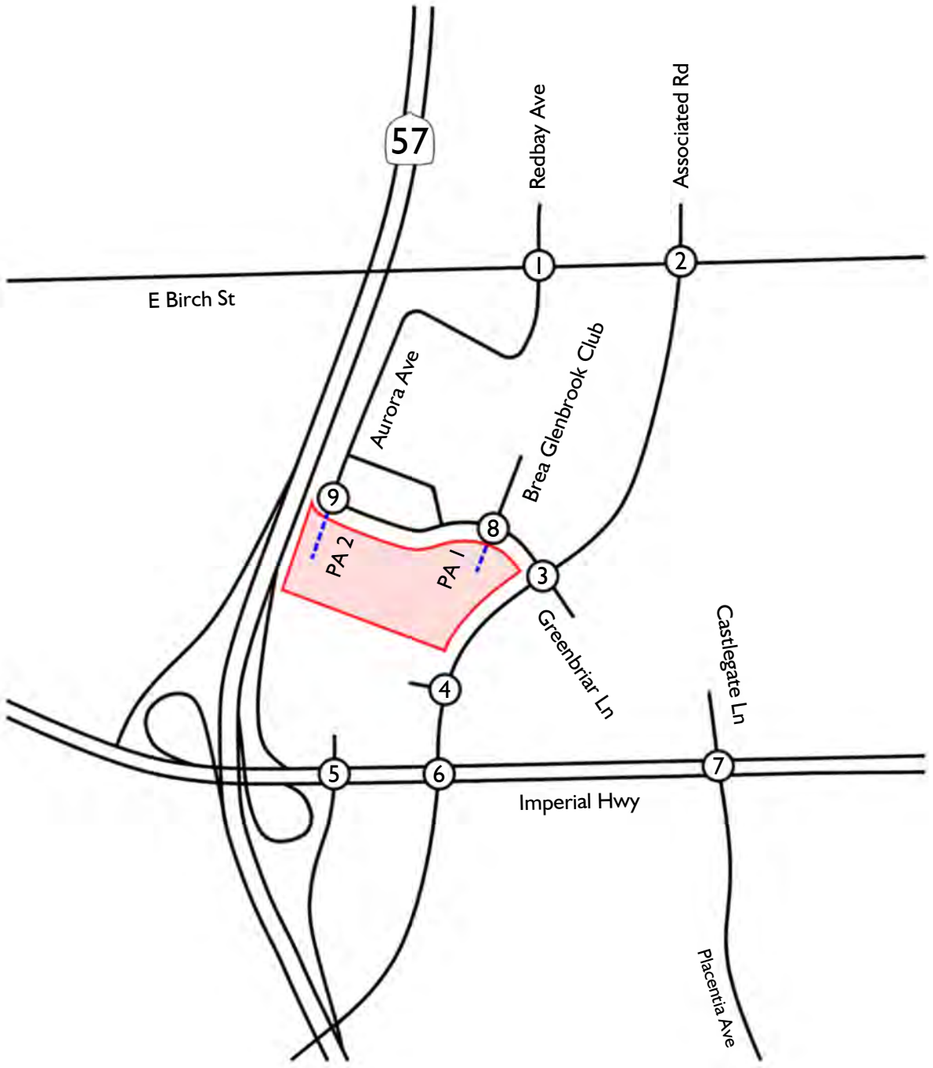


8. Brea Glenbrook Club Dwy/ Project Dwy No. 1 (N/S) & Greenbriar Lane (E/W)

Does Not Currently Exist

9. Project Driveway No. 2 (N/S) & Greenbriar Lane (E/W)

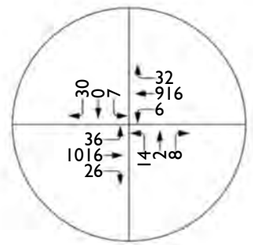
Project Opening Year (2026) With 2% Ambient Growth, Cumulative Projects, & No Rerouted Traffic
Without Project Conditions Traffic Volumes
Saturday Midday Peak Hour



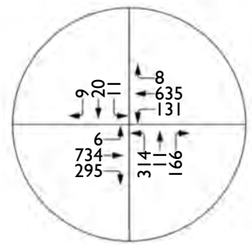
Legend:

① = Study Intersection
= Project Access Driveway
= Project Site Boundary
10 = Saturday Midday Peak Hour Volumes

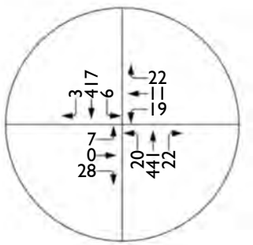
N



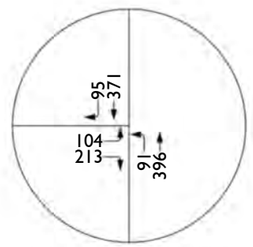
1. Redbay Avenue (N/S) & Birch Street (E/W)



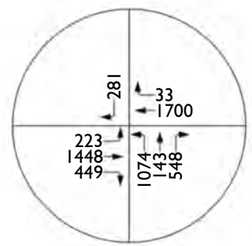
2. Associated Road (N/S) & Birch Street (E/W)



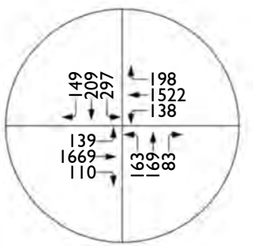
3. Associated Road (N/S) & Greenbriar Lane (E/W)



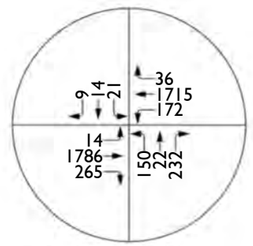
4. Associated Road (N/S) & Shopping Center Dwy No. 1 (E/W)



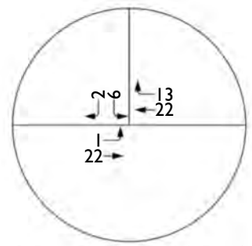
5. SR-57 NB Ramps/Shopping Center Dwy No.2 (N/S) & Imperial Highway (E/W)



6. Associated Road (N/S) & Imperial Highway (E/W)



7. Castlegate Lane/Placentia Avenue (N/S) & Imperial Highway (E/W)



8. Brea Glenbrook Club Dwy/ Project Dwy No. 1 (N/S) & Greenbriar Lane (E/W)

Does Not Currently Exist

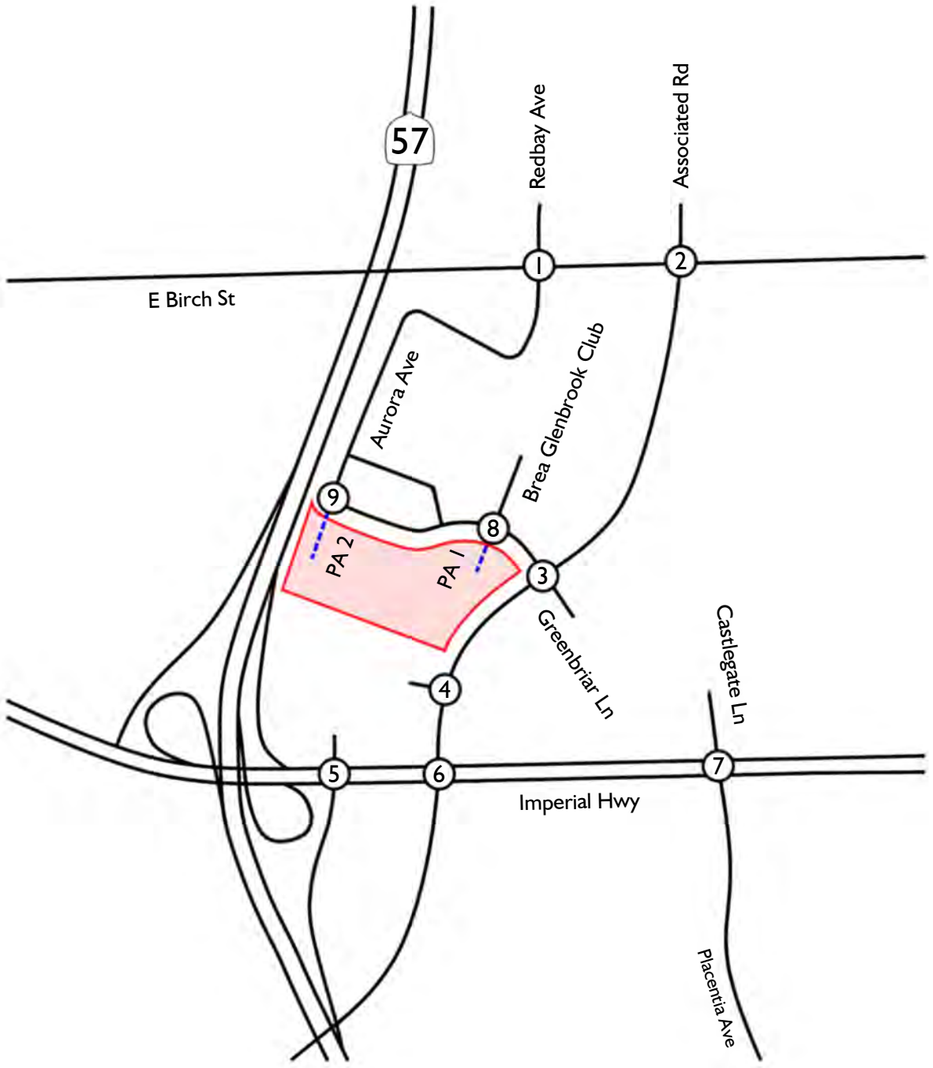
9. Project Driveway No. 2 (N/S) & Greenbriar Lane (E/W)

4.4 Project Opening Year (2026) With Project Conditions Traffic Volumes

Project Opening Year 2026 With Project Conditions traffic volumes consists of two (2) years of annual growth on top of existing (2024) traffic volumes at one percent (1%) per year (i.e. 2% total growth) plus traffic volumes generated by the proposed project, the rerouted traffic volumes, and cumulative projects.

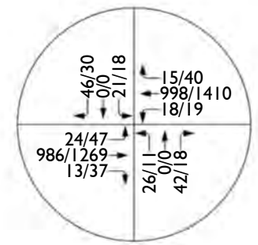
Project Opening Year 2026 With Project Conditions traffic volumes during a typical weekday and Saturday are shown in **Exhibit 4-10** and **Exhibit 4-11**, respectively.

Project Opening Year (2026) With 2% Ambient Growth, Cumulative Projects, & Rerouted Traffic With Project Conditions Traffic Volumes Weekday Peak Hours

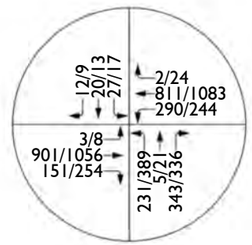


Legend:

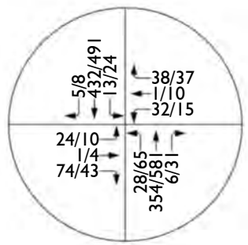
- (1) = Study Intersection
- = Project Access Driveway
- = Project Site Boundary
- 10/20 = AM/PM Peak Hour Volumes



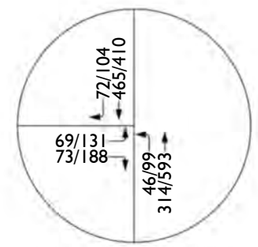
1. Redbay Avenue (N/S) & Birch Street (E/W)



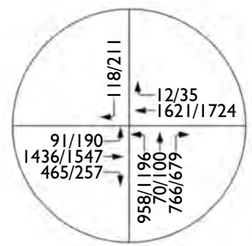
2. Associated Road (N/S) & Birch Street (E/W)



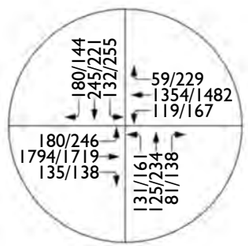
3. Associated Road (N/S) & Greenbriar Lane (E/W)



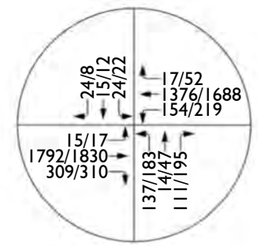
4. Associated Road (N/S) & Shopping Center Dwy No. 1 (E/W)



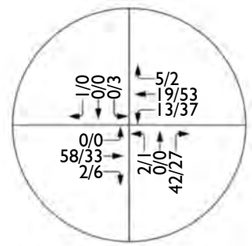
5. SR-57 NB Ramps/Shopping Center Dwy No.2 (N/S) & Imperial Highway (E/W)



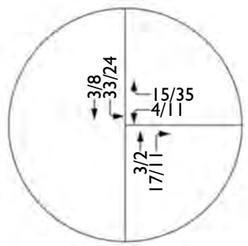
6. Associated Road (N/S) & Imperial Highway (E/W)



7. Castlegate Lane/Placentia Avenue (N/S) & Imperial Highway (E/W)



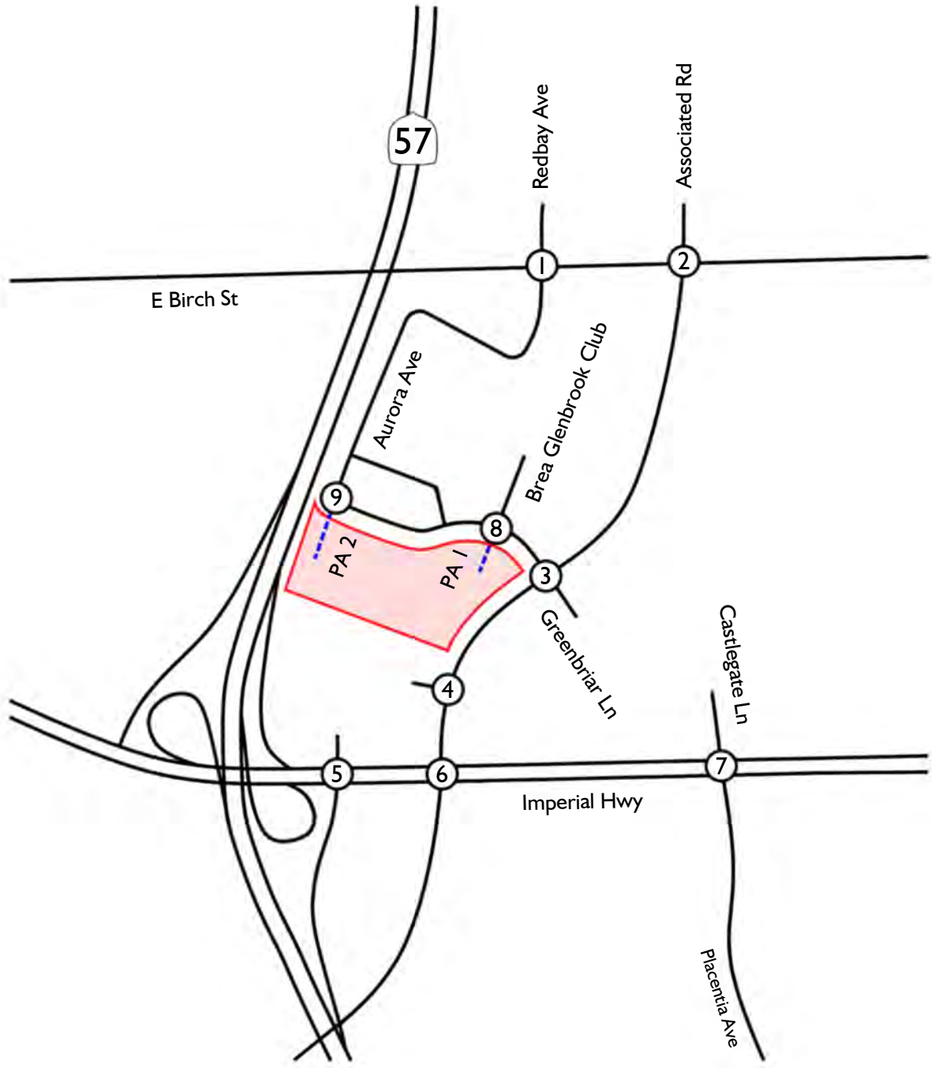
8. Brea Glenbrook Club Dwy/ Project Dwy No. 1 (N/S) & Greenbriar Lane (E/W)



9. Project Driveway No. 2 (N/S) & Greenbriar Lane (E/W)

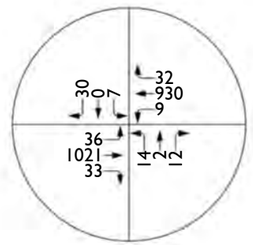
N

Project Opening Year (2026) With Ambient Growth, Cumulative Projects, & Rerouted Traffic With Project Conditions Traffic Volumes Saturday Midday Peak Hour

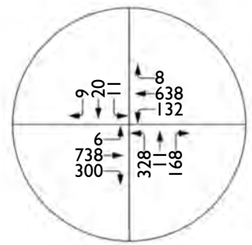


Legend:

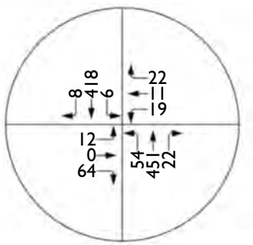
- (1) = Study Intersection
- = Project Access Driveway
- = Project Site Boundary
- 10 = Saturday Midday Peak Hour Volumes



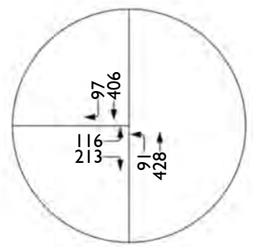
1. Redbay Avenue (N/S) & Birch Street (E/W)



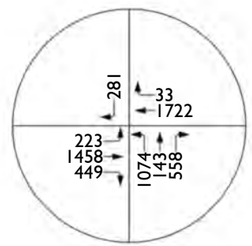
2. Associated Road (N/S) & Birch Street (E/W)



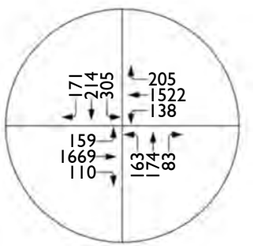
3. Associated Road (N/S) & Greenbriar Lane (E/W)



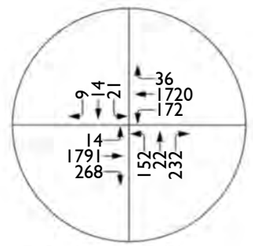
4. Associated Road (N/S) & Shopping Center Dwy No. 1 (E/W)



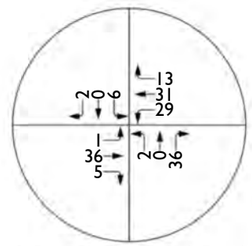
5. SR-57 NB Ramps/Shopping Center Dwy No.2 (N/S) & Imperial Highway (E/W)



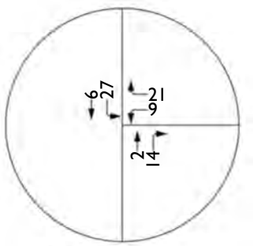
6. Associated Road (N/S) & Imperial Highway (E/W)



7. Castlegate Lane/Placentia Avenue (N/S) & Imperial Highway (E/W)



8. Brea Glenbrook Club Dwy/ Project Dwy No. 1 (N/S) & Greenbriar Lane (E/W)



9. Project Driveway No. 2 (N/S) & Greenbriar Lane (E/W)

N

5.0 Study Intersection Peak Hour LOS Analysis

This section of the report provides a discussion on the study intersection peak hour level of service (LOS) analysis and findings.

The minimum acceptable LOS thresholds for each study intersection are detailed in Section 2.2 of this report. If the LOS performance criteria outlined in Section 2.2 are met, operational improvements will be identified for the study area intersections to restore acceptable conditions.

5.1 Existing Conditions Level of Service

Existing Conditions LOS calculations for the nine (9) study intersections are reported in **Table 5-1** and are based on the weekday AM and PM and Saturday Midday peak hour existing traffic volumes shown in Exhibit 3-2 and the existing traffic controls & intersection geometrics shown in Exhibit 3-1.

As shown in Table 5-1, all nine (9) study intersections are currently operating at an acceptable LOS during the peak hours under Existing Conditions except for the following one (1) study intersection:

Deficient Intersection:

1. Redbay Avenue (N/S) at Birch Street (E/W)
    - AM Peak Hour – LOS F (124.4 seconds per vehicle)
    - PM Peak Hour – LOS F (275.2 seconds per vehicle)
    - Saturday Midday Peak Hour – LOS F (57.0 seconds per vehicle)

Detailed LOS Analysis worksheets for Existing Conditions are included in **Appendix C**.

5.2 Project Opening Year (2026) Without Project Conditions Level of Service

Project Opening Year (2026) Without Project Conditions LOS calculations for the nine (9) study intersections are reported in **Table 5-2** and are based on the Project Opening Year (2026) Without Project Conditions traffic volumes shown in Exhibit 4-8 and Exhibit 4-9 and the existing traffic controls & intersection geometrics shown in Exhibit 3-1.

As shown in Table 5-2, all nine (9) study intersections are forecasted to operate at an acceptable LOS during the peak hours under Project Opening Year (2026) Without Project Conditions except for the following one (1) study intersection:

Table 5-1
Study Intersection LOS Analysis Summary
Existing Conditions

	Study Intersection	Jurisdictions	Traffic Control[1]	Methodology	Acceptable LOS[2]	Acceptable LOS (CMP)[3]	ICU Ratio (V/C)[4,5]			Level of Service			Delay (sec/veh)[4,5]			Level of Service		
							AM	PM	SAT	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
1.	Redbay Avenue (N/S) at Birch Street (E/W)	Brea	CSS	HCM 7	D	--	--	--	--	--	--	--	**124.4**	**275.2**	**57.0**	**F**	**F**	**F**
2.	Associated Road (N/S) at Birch Street (E/W)	Brea	TS	HCM 7	D	--	--	--	--	--	--	--	38.2	41.0	37.3	D	D	D
3.	Associated Road (N/S) at Greenbriar Lane (E/W)	Brea	TS	HCM 7	D	--	--	--	--	--	--	--	6.3	4.3	4.8	A	A	A
4.	Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)	Brea	CSS	HCM 7	D	--	--	--	--	--	--	--	13.7	18.4	15.3	B	C	C
5.	SR-57 NB Ramps/Shopping Center Driveway No. 2 (N/S) at Imperial Hwy (E/W)	Brea OC CMP Caltrans	TS	ICU HCM 7	D	E	0.552	0.651	0.654	A	B	B	21.5	24.5	25.7	C	C	C
6.	Associated Road (N/S) at Imperial Highway (E/W)	Brea Caltrans	TS	HCM 7	D	E	--	--	--	--	--	--	38.8	42.5	41.4	D	D	D
7.	Castlegate Lane/Placentia Avenue (N/S) at Imperial Highway (E/W)	Brea Caltrans	TS	HCM 7	D	E	--	--	--	--	--	--	14.5	18.2	17.9	B	B	B
8.	Brea Glenbrook Club Dwy/Project Dwy No. 1 (N/S) at Greenbriar Lane (E/W)	Brea	CSS	HCM 7	D	--	--	--	--	--	--	--	8.42	8.95	8.79	*A*	*A*	*A*
9.	Project Driveway No. 2 (N/S) and Greenbriar Lane (E/W)	Brea	--	--	--	--	*Does Not Currently Exist.*											

[1] TS = Traffic Signal
AWS = All-Way Stop
CSS = Cross-Street Stop

[2] The minimum acceptable level of service for the City of Brea and the City of Fullerton is D.

[3] The minimum acceptable level of service for the Orange County Congestion Management Program and Caltrans is E.

[4] Deficient operation shown in **Bold**.

[5] HCM Analysis Software: PTV Vistro, Version 2024.
ICU Analysis Software: PTV Vistro, Version 2024.

Table 5-2
Study Intersection LOS Analysis Summary
Project Opening Year (2026) Conditions Without Project Conditions

	Study Intersection	Jurisdictions	Traffic Control[1]	Methodology	Acceptable LOS[2]	Acceptable LOS (CMP)[3]	ICU Ratio (V/C)[4,5]			Level of Service			Delay (sec/veh)[4,5]			Level of Service		
							AM	PM	SAT	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
1.	Redbay Avenue (N/S) at Birch Street (E/W)	Brea	CSS	HCM 7	D	--	--	--	--	--	--	--	**212.0**	**406.7**	**73.4**	**F**	**F**	**F**
2.	Associated Road (N/S) at Birch Street (E/W)	Brea	TS	HCM 7	D	--	--	--	--	--	--	--	38.6	41.4	38.4	D	D	D
3.	Associated Road (N/S) at Greenbriar Lane (E/W)	Brea	TS	HCM 7	D	--	--	--	--	--	--	--	6.2	4.4	4.8	A	A	A
4.	Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)	Brea	CSS	HCM 7	D	--	--	--	--	--	--	--	14.5	20.5	16.5	B	C	C
	With Improvements[6]		TS	HCM 7	D	--	--	--	--	--	--	--	10.9	15.8	17.9	B	B	B
5.	SR-57 NB Ramps/Shopping Center Driveway No. 2 (N/S) at Imperial Hwy (E/W)	Brea OC CMP Caltrans	TS	ICU HCM 7	D	E	0.603	0.707	0.696	A	C	B	24.0	24.0	24.7	C	C	C
6.	Associated Road (N/S) at Imperial Highway (E/W)	Brea Caltrans	TS	HCM 7	D	E	--	--	--	--	--	--	37.9	42.8	41.0	D	D	D
7.	Castlegate Lane/Placentia Avenue (N/S) at Imperial Highway (E/W)	Brea Caltrans	TS	HCM 7	D	E	--	--	--	--	--	--	14.8	18.8	18.5	B	B	B
8.	Brea Glenbrook Club Dwy/Project Dwy No. 1 (N/S) at Greenbriar Lane (E/W)	Brea	CSS	HCM 7	D	--	--	--	--	--	--	--	8.4	9.0	8.8	A	A	A
9.	Project Driveway No. 2 (N/S) and Greenbriar Lane (E/W)	Brea	AWS	HCM 7	D	--	*Does Not Currently Exist.*											

[1] TS = Traffic Signal
AWS = All-Way Stop
CSS = Cross-Street Stop

[2] The minimum acceptable level of service for the City of Brea and the City of Fullerton is D.

[3] The minimum acceptable level of service for the Orange County Congestion Management Program and Caltrans is E.

[4] Deficient operation shown in **Bold**.

[5] HCM Analysis Software: PTV Vistro, Version 2024.
ICU Analysis Software: PTV Vistro, Version 2024.

[6] Although the LOS is acceptable for this scenario, it does meet multiple signal warrants under existing conditions. As such, the project is only responsible for the payment of fair-share fees towards a future traffic signal which is further discussed in Section 6 of this study.

Deficient Intersection:

1. Redbay Avenue (N/S) at Birch Street (E/W)
    - AM Peak Hour – LOS F (212.0 seconds per vehicle)
    - PM Peak Hour – LOS F (406.7 seconds per vehicle)
    - Saturday Midday Peak Hour – LOS F (73.4 seconds per vehicle)

Detailed LOS Analysis worksheets for Project Opening Year (2026) Without Project Conditions are included in **Appendix D**.

5.3 Project Opening Year (2026) With Project Conditions Level of Service

Project Opening Year (2026) With Project Conditions LOS calculations for the nine (9) study intersections are reported in **Table 5-3** and are based on the Project Opening Year (2026) Without Project Conditions traffic volumes shown in Exhibit 4-10 and Exhibit 4-11.

As shown in Table 5-3, all nine (9) study intersections are forecasted to operate at an acceptable LOS during the peak hours under Project Opening Year (2026) With Project Conditions except for the following one (1) study intersection:

Deficient Intersection:

1. Redbay Avenue (N/S) at Birch Street (E/W)
    - AM Peak Hour – LOS F (228.0 seconds per vehicle)
    - PM Peak Hour – LOS F (445.9 seconds per vehicle)
    - Saturday Midday Peak Hour – LOS F (75.6 seconds per vehicle)

Detailed LOS Analysis worksheets for Project Opening Year (2026) With Project Conditions are included in **Appendix E**.

Although Intersection No. 1 (Redbay Avenue at Birch Street) is forecast to operate at an unacceptable LOS during the AM, PM, and Saturday Midday Peak Hours under Project Opening Year (2026) With Project Conditions, it should be noted that it is common for local streets that have direct access to primary arterials, such as Birch Street, to experience longer delay due to the limited gaps in traffic and the heavy volumes on the major street, especially during peak periods. Furthermore, Intersection No. 1 is currently operating at an unacceptable LOS under Existing Conditions and Project Opening Year (2026) Without Project Conditions. As such, the recommendation of improvements would only be made to offset the project's effect and since Birch Street and Redbay Avenue are built to the maximum right-of-way, there are no appropriate recommendations for the intersection (other than installing a traffic signal).

Table 5-3
Study Intersection LOS Analysis Summary
Project Opening Year (2026) Conditions With Project Conditions

	Study Intersection	Jurisdictions	Traffic Control[1]	Methodology	Acceptable LOS[2]	Acceptable LOS (CMP)[3]	ICU Ratio (V/C)[4,5]			Level of Service			Delay (sec/veh)[4,5]			Level of Service			Requires LOS Improvement?		
							AM	PM	SAT	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
1.	Redbay Avenue (N/S) at Birch Street (E/W)	Brea	CSS	HCM 7	D	--	--	--	--	--	--	--	**228.0**	**445.9**	**75.6**	**F**	**F**	**F**	YES	YES	YES
2.	Associated Road (N/S) at Birch Street (E/W)	Brea	TS	HCM 7	D	--	--	--	--	--	--	--	39.7	41.7	38.7	D	D	D	NO	NO	NO
	With Improvements [6]		TS	HCM 7	D	--	--	--	--	--	--	--	36.2	37.8	33.9	D	D	C	NO	NO	NO
3.	Associated Road (N/S) at Greenbriar Lane (E/W)	Brea	TS	HCM 7	D	--	--	--	--	--	--	--	8.4	5.1	6.2	A	A	A	NO	NO	NO
	With Improvements [6]		TS	HCM 7	D	--	--	--	--	--	--	--	8.4	5.1	6.2	A	A	A	NO	NO	NO
4.	Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)	Brea	CSS	HCM 7	D	--	--	--	--	--	--	--	15.6	25.1	18.9	C	D	C	NO	NO	NO
	With Improvements [7]		TS	HCM 7	D	--	--	--	--	--	--	--	10.7	15.5	16.9	B	B	B	NO	NO	NO
5.	SR-57 NB Ramps/Shopping Center Driveway No. 2 (N/S) at Imperial Hwy (E/W)	Brea OC CMP Caltrans	TS	ICU HCM 7	D	E	0.608	0.711	0.700	A	C	B	24.0	24.0	24.7	C	C	C	NO	NO	NO
6.	Associated Road (N/S) at Imperial Highway (E/W)	Brea Caltrans	TS	HCM 7	D	E	--	--	--	--	--	--	38.2	43.8	41.6	D	D	D	NO	NO	NO
7.	Castlegate Lane/Placentia Avenue (N/S) at Imperial Highway (E/W)	Brea Caltrans	TS	HCM 7	D	E	--	--	--	--	--	--	14.9	18.8	18.6	B	B	B	NO	NO	NO
8.	Brea Glenbrook Club Dwy/Project Dwy No. 1 (N/S) at Greenbriar Lane (E/W)	Brea	CSS	HCM 7	D	--	--	--	--	--	--	--	8.87	10.08	9.56	A	B	A	NO	NO	NO
9.	Project Driveway No. 2 (N/S) and Greenbriar Lane (E/W)	Brea	AWS	HCM 7	D	--	--	--	--	--	--	--	8.67	8.64	8.62	A	A	A	NO	NO	NO

[1] TS = Traffic Signal
AWS = All-Way Stop
CSS = Cross-Street Stop

[2] The minimum acceptable level of service for the City of Brea and the City of Fullerton is D.

[3] The minimum acceptable level of service for the Orange County Congestion Management Program and Caltrans is E.

[4] Deficient operation shown in **Bold**.

[5] HCM Analysis Software: PTV Vistro, Version 2024.
ICU Analysis Software: PTV Vistro, Version 2024.

[6] Although the LOS is acceptable for this scenario, the improvement being recommended is to improve delay for Intersection No. 1 and minimize cut-through traffic which is further discussed in Section 11 of this study.

[7] Although the LOS is acceptable for this scenario, it does meet multiple signal warrants under existing conditions. As such, the project is only responsible for the payment of fair-share fees towards a future traffic signal which is further discussed in Section 6 of this study.

However, a Signal Warrant Analysis, discussed in further detail in Section 6, was performed for Intersection No. 1 and the intersection does not satisfy the requirements under any scenario to warrant a traffic signal. Therefore, installation of a traffic signal is not being recommended for the existing deficient Intersection No. 1 as the project does not have a significant effect on the LOS of the intersection. Moreover, the signalization of the intersection may actually have a negative effect on traffic safety as it could introduce new types of crashes such as rear-ends. However, recommendations are being made to Intersection No. 2 which will have a direct benefit to the operations and safety of Intersection No. 1. This is discussed in further detail in Section 11.2 of this study.

6.0 CA MUTCD Traffic Signal Warrant Analysis

This evaluation has been conducted based on the traffic signal warrants and procedures contained in the California Manual on Uniform Traffic Control Devices (CA MUTCD), 2014 Edition, Revision 4 (March 29, 2019). A copy of the CA MUTCD traffic signal warrants criteria is provided in **Appendix F**.

The purpose of this traffic signal warrant analysis is to determine whether the following unsignalized study intersections meet the minimum requirements to warrant the recommendation of a traffic signal installation.

- **Intersection No. 1** – Redbay Avenue (N/S) at Birch Street (E/W)
- **Intersection No. 4** – Associated Road (N/S) at Shopping Center Dwy No. 1 (E/W)

Detailed MUTCD traffic signal warrant analysis worksheets are included in **Appendix G**.

6.1 Existing Conditions Traffic Signal Warrant Analysis

The following traffic signal warrant analyses were conducted under Existing (2024) Conditions for the two (2) study intersections identified above:

- Warrant 1 – Eight Hour Vehicular Volumes;
- Warrant 2 – Four Hour Vehicular Volumes;
- Warrant 3 – Peak Hour Warrant;
- Warrant 4 – Pedestrian Volumes;
- Warrant 5 – School Crossing;
- Warrant 6 – Coordinated Signal System;
- Warrant 7 – Crash Experience, and;
- Warrant 8 – Roadway Network.

The existing vehicle, pedestrian, and bicycle counts were conducted during the same timeframe identified in Section 3.2 and were previously provided in Appendix B. A summary of the weekday hourly traffic counts for Intersections No. 1 and 4 are provided in **Table 6-1** and **Table 6-2**, respectively. **Table 6-3** and **Table 6-4** show a summary of the Saturday hourly traffic counts for Intersections No. 1 and 4, respectively. The collision data shown in **Table 6-5** was sourced from the Statewide Integration Traffic Record System (SWITRS).

Table 6-1
Existing Hourly Traffic Counts
Redbay Avenue at Birch Street
Tuesday, February 13,2024

END TIME	Redbay Avenue			Birch Street			Grand Total
	NB	SB	Subtotal NB+SB	EB	WB	Subtotal EB+WB	
1:00 AM	0	1	1	38	14	52	53
2:00 AM	1	2	3	16	13	29	32
3:00 AM	0	1	1	9	8	17	18
4:00 AM	3	3	6	11	14	25	31
5:00 AM	2	5	7	46	46	92	99
6:00 AM	11	23	34	102	101	203	237
7:00 AM	22	35	57	298	225	523	580
8:00 AM	44	70	114	803	754	1,557	1,671
9:00 AM	67	58	125	913	931	1,844	1,969
10:00 AM	22	34	56	489	544	1,033	1,089
11:00 AM	23	34	57	517	524	1,041	1,098
12:00 PM	24	36	60	609	674	1,283	1,343
1:00 PM	30	30	60	786	712	1,498	1,558
2:00 PM	28	38	66	783	698	1,481	1,547
3:00 PM	35	29	64	857	823	1,680	1,744
4:00 PM	29	42	71	994	1,048	2,042	2,113
5:00 PM	29	39	68	1,104	1,151	2,255	2,323
6:00 PM	43	46	89	1,029	1,142	2,171	2,260
7:00 PM	34	31	65	852	804	1,656	1,721
8:00 PM	13	40	53	587	505	1,092	1,145
9:00 PM	17	23	40	451	304	755	795
10:00 PM	5	18	23	255	236	491	514
11:00 PM	2	10	12	139	92	231	243
12:00 AM	0	3	3	60	43	103	106
Total	***484***	***651***	***1,135***	***11,748***	***11,406***	***23,154***	***24,289***

Table 6-2
Existing Hourly Traffic Counts
Associated Road at Shopping Center Driveway No. 1
Tuesday, February 13, 2024

END TIME	Associated Road			Shopping Center Driveway No. 1			Grand Total
	NB	SB	Subtotal NB+SB	EB	WB	Subtotal EB+WB	
1:00 AM	33	21	54	3	0	3	57
2:00 AM	12	11	23	1	0	1	24
3:00 AM	8	14	22	1	0	1	23
4:00 AM	16	27	43	0	0	0	43
5:00 AM	57	67	124	2	0	2	126
6:00 AM	89	105	194	6	0	6	200
7:00 AM	205	231	436	61	0	61	497
8:00 AM	300	464	764	103	0	103	867
9:00 AM	323	450	773	135	0	135	908
10:00 AM	265	329	594	148	0	148	742
11:00 AM	269	280	549	162	0	162	711
12:00 PM	306	369	675	280	0	280	955
1:00 PM	364	429	793	354	0	354	1,147
2:00 PM	385	384	769	289	0	289	1,058
3:00 PM	469	445	914	303	0	303	1,217
4:00 PM	508	517	1,025	307	0	307	1,332
5:00 PM	566	484	1,050	265	0	265	1,315
6:00 PM	631	463	1,094	294	0	294	1,388
7:00 PM	481	407	888	298	0	298	1,186
8:00 PM	378	305	683	267	0	267	950
9:00 PM	272	216	488	180	0	180	668
10:00 PM	189	141	330	134	0	134	464
11:00 PM	95	99	194	48	0	48	242
12:00 AM	41	40	81	13	0	13	94
Total	***6,262***	***6,298***	***12,560***	***3,654***	***0***	***3,654***	***16,214***

Table 6-3
Existing Hourly Traffic Counts
Redbay Avenue at Birch Street
Saturday, February 10,2024

END TIME	Redbay Avenue			Birch Street			Grand Total
	NB	SB	Subtotal NB+SB	EB	WB	Subtotal EB+WB	
1:00 AM	5	3	8	69	40	109	117
2:00 AM	1	8	9	31	22	53	62
3:00 AM	0	4	4	22	15	37	41
4:00 AM	1	1	2	15	14	29	31
5:00 AM	0	3	3	18	26	44	47
6:00 AM	7	12	19	23	39	62	81
7:00 AM	11	16	27	79	85	164	191
8:00 AM	21	25	46	202	192	394	440
9:00 AM	30	54	84	351	327	678	762
10:00 AM	31	43	74	487	492	979	1,053
11:00 AM	27	48	75	597	792	1,389	1,464
12:00 PM	37	49	86	854	899	1,753	1,839
1:00 PM	41	43	84	852	880	1,732	1,816
2:00 PM	32	47	79	945	943	1,888	1,967
3:00 PM	22	32	54	963	814	1,777	1,831
4:00 PM	32	41	73	937	798	1,735	1,808
5:00 PM	37	47	84	822	746	1,568	1,652
6:00 PM	23	46	69	782	827	1,609	1,678
7:00 PM	24	44	68	676	624	1,300	1,368
8:00 PM	18	38	56	550	434	984	1,040
9:00 PM	15	25	40	423	306	729	769
10:00 PM	9	19	28	309	210	519	547
11:00 PM	3	12	15	203	135	338	353
12:00 AM	6	13	19	102	79	181	200
Total	***433***	***673***	***1,106***	***10,312***	***9,739***	***20,051***	***21,157***

Table 6-4
Existing Hourly Traffic Counts
Associated Road at Shopping Center Driveway No. 1
Saturday, February 10, 2024

END TIME	Associated Road			Shopping Center Driveway No. 1			Grand Total
	NB	SB	Subtotal NB+SB	EB	WB	Subtotal EB+WB	
1:00 AM	33	21	54	3	0	3	57
2:00 AM	12	11	23	1	0	1	24
3:00 AM	8	14	22	1	0	1	23
4:00 AM	16	27	43	0	0	0	43
5:00 AM	57	67	124	2	0	2	126
6:00 AM	89	105	194	6	0	6	200
7:00 AM	205	231	436	61	0	61	497
8:00 AM	300	464	764	103	0	103	867
9:00 AM	323	450	773	135	0	135	908
10:00 AM	265	329	594	148	0	148	742
11:00 AM	269	280	549	162	0	162	711
12:00 PM	306	369	675	280	0	280	955
1:00 PM	364	429	793	354	0	354	1,147
2:00 PM	385	384	769	289	0	289	1,058
3:00 PM	469	445	914	303	0	303	1,217
4:00 PM	508	517	1,025	307	0	307	1,332
5:00 PM	566	484	1,050	265	0	265	1,315
6:00 PM	631	463	1,094	294	0	294	1,388
7:00 PM	481	407	888	298	0	298	1,186
8:00 PM	378	305	683	267	0	267	950
9:00 PM	272	216	488	180	0	180	668
10:00 PM	189	141	330	134	0	134	464
11:00 PM	95	99	194	48	0	48	242
12:00 AM	41	40	81	13	0	13	94
Total	***6,262***	***6,298***	***12,560***	***3,654***	***0***	***3,654***	***16,214***

Table 6-5

Study Intersection Collision Summary[1]

2019 — 2023

Year[2]	Collision Type	Primary Collision Factor	Lighting	Roadway Surface	Control Device	Alcohol Involved?	Pedestrian or Bicycle Involved?	Total Collisions Per Year
Intersection No. 1 — Redbay Avenue (N/S) at Birch Street (E/W)								
2019	Rear End	Unsafe Speed	Daylight	Dry	Not Related	No	No	1
2021	Sideswipe	Improper Turn	Dark	Dry	Functioning	No	No	1
2022	Rear End	Unsafe Speed	Daylight	Dry	Not Related	No	No	1
2023	Hit Object	Unsafe Speed	Dark	Dry	Not Related	No	No	1
Total Reported Collisions at Intersection No. 1 Over 5 Years								**4**
Intersection No. 4 — Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)								
2019	Sideswipe	Automobile Right of Way	Daylight	Dry	Functioning	No	No	2
	Broadside	Automobile Right of Way	Daylight	Dry	Not Related	No	No	
2020	Broadside	Automobile Right of Way	Daylight	Dry	Functioning	No	No	2
	Broadside	Automobile Right of Way	Daylight	Dry	Functioning	No	No	
2021	Broadside	Automobile Right of Way	Daylight	Dry	Functioning	No	No	1
Total Reported Collisions at Intersection No. 4 Over 5 Years								**5**

[1] *Source:* Data from SWITRS & TIMS attached in Appendix H.

[2] There were zero collisions reported based on the data from SWITRS & TIMS in the year of 2020 for Intersection No. 1 and in the years 2022 and 2023 for Intersection No. 4.

As shown in **Table 6-6**, the following study intersection is expected to satisfy the following signal warrants under Existing Weekday Conditions:

Intersection No. 4:

- Warrant 1 – Eight Hour Vehicular Volumes;
- Warrant 2 – Four Hour Vehicular Volumes;
- Warrant 3 – Peak Hour Warrant.

As shown in **Table 6-7**, the following study intersection is expected to satisfy the following signal warrants under Existing Saturday Conditions:

Intersection No. 4:

- Warrant 1 – Eight Hour Vehicular Volumes;
- Warrant 2 – Four Hour Vehicular Volumes;

Intersection No.1 does not satisfy any of the signal warrants under Existing Conditions.

6.2 Project Opening Year (2026) Conditions Traffic Signal Warrant Analysis

The following traffic signal warrant analysis was conducted for Opening Year (2026) scenarios:

- Warrant 3 – Peak Hour Warrant

As shown in **Table 6-8**, Intersection No. 1 does not satisfy the peak hour signal warrant under any Opening Year (2026) scenarios. However, the following study intersection is expected to meet the peak hour signal warrant for the following scenarios:

Intersection No. 4:

- Opening Year (2026) Without Project Conditions - PM Peak Hour & Sat. Midday Peak Hour
- Opening Year (2026) With Project Conditions - PM Peak Hour & Sat. Midday Peak Hour

As shown in Table 5-2, Intersection No. 4 is currently operating and is forecasted to operate at an acceptable level of service. However, it is recommended that the city consider the installation of a traffic signal for Intersection No. 4, and the project shall only be responsible for payment of fair-share fees towards a future traffic signal since the intersection meets multiple signal warrants under existing conditions. **Exhibit 6-1** summarizes these recommendations for improvements.

Additionally, as shown in Tables 5-2 and 5-3, the signalization of Intersection No. 4 is forecasted to further improve the LOS under Project Opening Year (2026) scenarios. Detailed LOS Analysis worksheets for Project Opening Year (2026) Without Project Conditions With Improvements and Project Opening Year (2026) With Project Conditions With Improvements are included in **Appendices H** and **I**, respectively**.**

Table 6-6
CA MUTCD Traffic Signal Warrant Analysis Summary
Existing (2024) Weekday Conditions[1]

Warrants	Description	Study Intersection	
		1. Redbay Avenue at Birch Street	4. Associated Road at Shopping Center Dwy No. 1
1	8-Hour Vehicular Volume	Does Not Satisfy	**Satisfied**
2	4-Hour Vehicular Volume	Does Not Satisfy	**Satisfied**
3	Peak Hour Volume	Does Not Satisfy	**Satisfied**
4	Pedestrian Volume	Does Not Satisfy	Does Not Satisfy
5	School Crossing	Does Not Satisfy	Does Not Satisfy
6	Coordinated Signal System	Does Not Satisfy	Does Not Satisfy
7	Crash Warrant	Does Not Satisfy	Does Not Satisfy
8	Roadway Network	Does Not Satisfy	Does Not Satisfy
9	Intersection Near a Grade Crossing	Not Applicable	Not Applicable

[1] Study intersections that meet a MUTCD Traffic Signal Warrant under existing conditions are shown in **Bold**.

Table 6-7
CA MUTCD Traffic Signal Warrant Analysis Summary
Existing (2024) Saturday Conditions[1]

Warrants	Description	Study Intersection	
		1. Redbay Avenue at Birch Street	4. Associated Road at Shopping Center Dwy No. 1
1	8-Hour Vehicular Volume	Does Not Satisfy	**Satisfied**
2	4-Hour Vehicular Volume	Does Not Satisfy	**Satisfied**
3	Peak Hour Volume	Does Not Satisfy	Does Not Satisfy
4	Pedestrian Volume	Does Not Satisfy	Does Not Satisfy
5	School Crossing	Does Not Satisfy	Does Not Satisfy
6	Coordinated Signal System	Does Not Satisfy	Does Not Satisfy
7	Crash Warrant	Does Not Satisfy	Does Not Satisfy
8	Roadway Network	Does Not Satisfy	Does Not Satisfy
9	Intersection Near a Grade Crossing	Not Applicable	Not Applicable

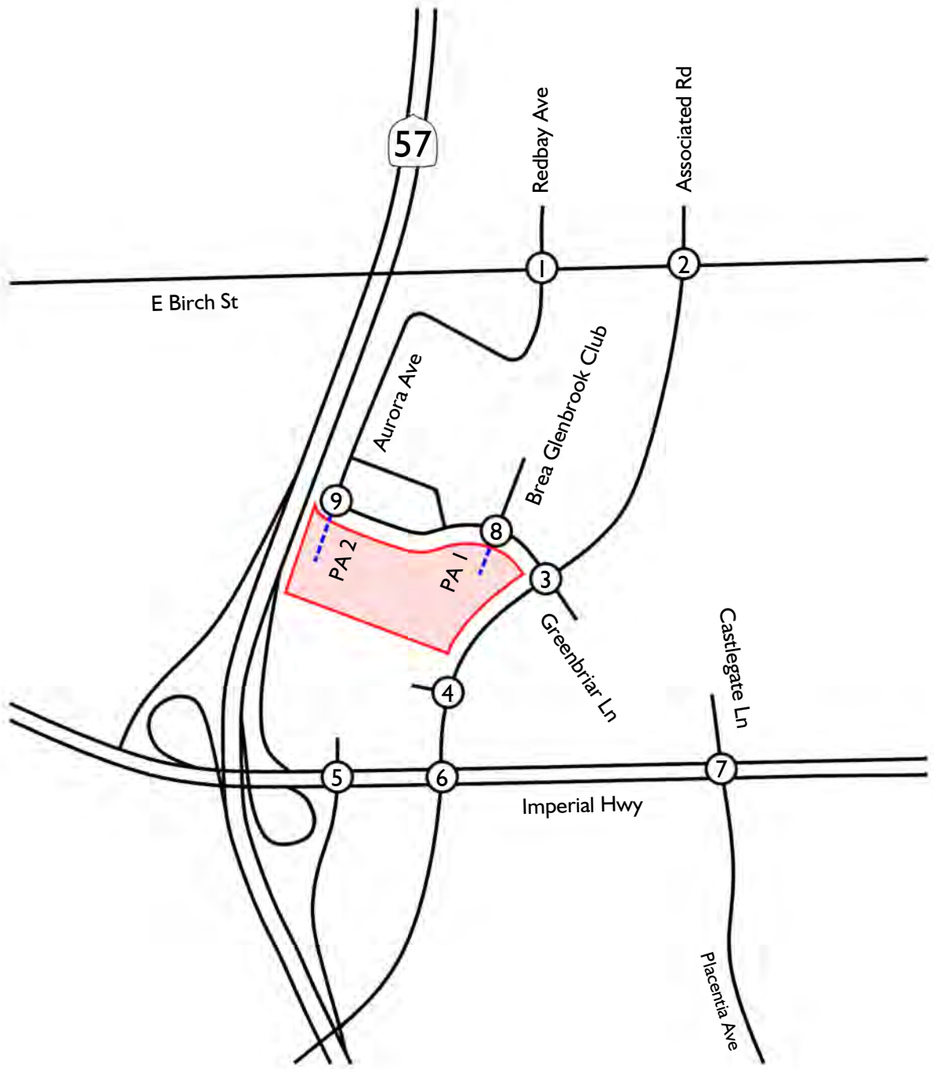
[1] Study intersections that meet a MUTCD Traffic Signal Warrant under existing conditions are shown in **Bold**.

Table 6-8
CA MUTCD Peak Hour Traffic Signal Warrant Analysis Summary
Project Opening Year (2026) Analysis Scenarios[1]

Analysis Scenario	Study Intersection					
	1. Redbay Avenue at Birch Street			4. Associated Road at Shopping Center Dwy No. 1		
	AM	PM	SAT	AM	PM	SAT
Opening Year (2026) Without Project Conditions	Does Not Satisfy	Does Not Satisfy	Does Not Satisfy	Does Not Satisfy	**Satisfied**	**Satisfied**
Opening Year (2026) With Project Conditions	Does Not Satisfy	Does Not Satisfy	Does Not Satisfy	Does Not Satisfy	**Satisfied**	**Satisfied**

[1] Study intersections that meet the MUTCD peak hour traffic signal warrant (i.e. Warrant 3) are shown in **Bold**.

Recommended Improvements



	Existing Conditions	Project Opening Year (2026) Without Project Conditions	Project Opening Year (2026) With Project Conditions
2. Associated Road (N/S) & Birch Street (E/W)	RTO	See next scenario improvements.	RTO, RTO
3. Associated Road (N/S) & Greenbriar Lane (E/W)		See next scenario improvements.	Modify Traffic Signal (i.e. 8- Phase Signal)
4. Associated Road (N/S) & Shopping Center Dwy No. 1 (E/W)			See previous scenario improvements. No additional improvements required.

Legend:

- (1) = Study Intersection
- = Project Access Driveway
- = Project Site Boundary
- = Traffic Signal
- RTO = Right-Turn Overlap
- = Recommended Improvements for Project Opening Year (2026) Without Project Conditions
- = Recommended Improvements for Project Opening Year (2026) With Project Conditions

N

7.0 Caltrans Queuing Analysis

A queuing analysis has been conducted to evaluate the queue lengths for all freeway ramp study intersections and Intersection No. 6, per the direction of City staff. The queue analysis has been performed utilizing the HCM 7 95th percentile queue evaluation methodology. Queue lengths have been reported for the following turning movements:

Intersection No. 5 – SR-57 NB Ramps/Shopping Center Dwy No. 2 at Imperial Highway

- Northbound Left-Turn
- Northbound Shared Left/Through/Right-Turn
- Northbound Right-Turn

Intersection No. 6 – Associated Road at Imperial Highway

- Southbound Dual Left-Turns
- Southbound Right-Turn
- Eastbound Left-Turn

7.1 Existing Conditions Queuing Analysis

The queuing analysis results for the analyzed turning movements under Existing Conditions are summarized in **Table 7-1**.

As shown in Table 7-1, adequate storage is provided for all reported turning movements under Existing Conditions.

7.2 Project Opening Year (2026) Without Project Conditions Queuing Analysis

The queuing analysis results for the analyzed turning movements under Project Opening Year (2026) Without Project Conditions are summarized in **Table 7-2**.

As shown in Table 7-2, adequate storage is provided for all reported turning movements under Project Opening Year (2026) Without Project Conditions.

7.3 Project Opening Year (2026) With Project Conditions Queuing Analysis

The queuing analysis results for the analyzed turning movements under Project Opening Year (2026) With Project Conditions are summarized in **Table 7-3**.

As shown in Table 7-3, adequate storage is provided for all reported turning movements under Project Opening Year (2026) With Project Conditions.

Table 7-1

Study Intersection HCM 95th Percentile Vehicular Queue Analysis Summary[1]

Existing Conditions

Intersection		Movement	Storage Length (Feet)	HCM 95th Percentile Queue Length (Feet)			Adequate Storage Provided?		
				AM	PM	SAT	AM	PM	SAT
5.	SR-57 SB Ramps/Shopping Center Driveway No. 2 (N/S) at Imperial Hwy (E/W)	Northbound Left-Turn	610	227	285	297	YES	YES	YES
		Northbound Shared Left/Through/Right-Turn	610	235	296	308	YES	YES	YES
		Northbound Right Turn	350	235	296	308	YES	YES	YES
6.	Associated Road (N/S) & Imperial Highway (E/W)	Southbound Dual Left-Turns	210	77	165	198	YES	YES	YES
		Southbound Right-Turn	210	137	111	126	YES	YES	YES
		Eastbound Left-Turn	340	233	296	192	YES	YES	YES

[1] HCM Analysis Software: Vistro, Version 2024.

Table 7-2

Study Intersection HCM 95th Percentile Vehicular Queue Analysis Summary[1]
Project Opening Year (2026) Without Project Conditions

Intersection		Movement	Storage Length (Feet)	HCM 95th Percentile Queue Length (Feet)			Adequate Storage Provided?		
				AM	PM	SAT	AM	PM	SAT
5.	SR-57 SB Ramps/Shopping Center Driveway No. 2 (N/S) at Imperial Hwy (E/W)	Northbound Left-Turn	610	294	323	335	YES	YES	YES
		Northbound Shared Left-Through-Right Turn	610	303	336	349	YES	YES	YES
		Northbound Right Turn	350	303	336	349	YES	YES	YES
6.	Associated Road (N/S) & Imperial Highway (E/W)	Southbound Dual Left-Turns	210	88	179	205	YES	YES	YES
		Southbound Right-Turn	210	152	122	140	YES	YES	YES
		Eastbound Left-Turn	340	237	318	201	YES	YES	YES

[1] HCM Analysis Software: Vistro, Version 2024.

Table 7-3

Study Intersection HCM 95th Percentile Vehicular Queue Analysis Summary[1]
Project Opening Year (2026) With Project Conditions

Intersection		Movement	Storage Length (Feet)	HCM 95th Percentile Queue Length (Feet)			Adequate Storage Provided?		
				AM	PM	SAT	AM	PM	SAT
5.	SR-57 SB Ramps/Shopping Center Driveway No. 2 (N/S) at Imperial Hwy (E/W)	Northbound Left-Turn	610	298	327	340	YES	YES	YES
		Northbound Shared Left-Through-Right Turn	610	308	340	355	YES	YES	YES
		Northbound Right Turn	350	308	340	355	YES	YES	YES[2]
6.	Associated Road (N/S) & Imperial Highway (E/W)	Southbound Dual Left-Turns	210	97	185	212	YES	YES	YES[3]
		Southbound Right-Turn	210	181	139	162	YES	YES	YES
		Eastbound Left-Turn	340	249	362	222	YES	YES[4]	YES

[1] HCM Analysis Software: Vistro, Version 2024.

[2] Although the queue exceeds the storage provided, the excess can be accommodated within the remainder of the storage provided for the northbound shared left-through-right turn (i.e., 260 feet). As such, no spill over onto the mainline is expected.

[3] The forecasted queue generated by the project (i.e., less than one vehicle) is considered a nominal increase. Adequate storage is provided under without project conditions and therefore the deficiency is not attributable to the project.

[4] Although the queue exceeds the storage provided, the excess can be accommodated within the existing 90-foot transition. As such, no spill over onto the eastbound through lanes is expected.

8.0 Site Access Analysis

This section of the report provides a qualitative analysis of various site access aspects relevant to the proposed project, including the following:

- Number of access points proposed for the project site;
- Spacing between driveways and intersections;
- Potential signalization of driveways;
- Shared access;
- Turn conflicts/restrictions;
- Sight distance;
- Driveway widths;
- Service Vehicle Access and Circulation;
- Turning Movements.

8.1 Proposed Access Points, Driveway Widths, & Turning Movements

As shown in Exhibit 1-2, access to the project is proposed to be provided via two (2) full-access unsignalized driveways located along Greenbriar Lane. Project Access Driveway No. 1, otherwise known as "A" Drive, will be the future fourth (south) leg of the existing Brea Glenbrook Club Driveway/Greenbriar Lane intersection. Project Access Driveway No. 2, otherwise known as "C" Drive, will be the future third (south) leg of the existing knuckle at Aurora Avenue and Greenbriar Lane.

Project Access Driveway No. 1 and No. 2 will have the same driveway widths and lane geometry. The driveway widths, as shown in Exhibit 1-2, will be 32' (i.e., two 16' wide lanes with a 6" curb and gutter on both sides of the driveway).

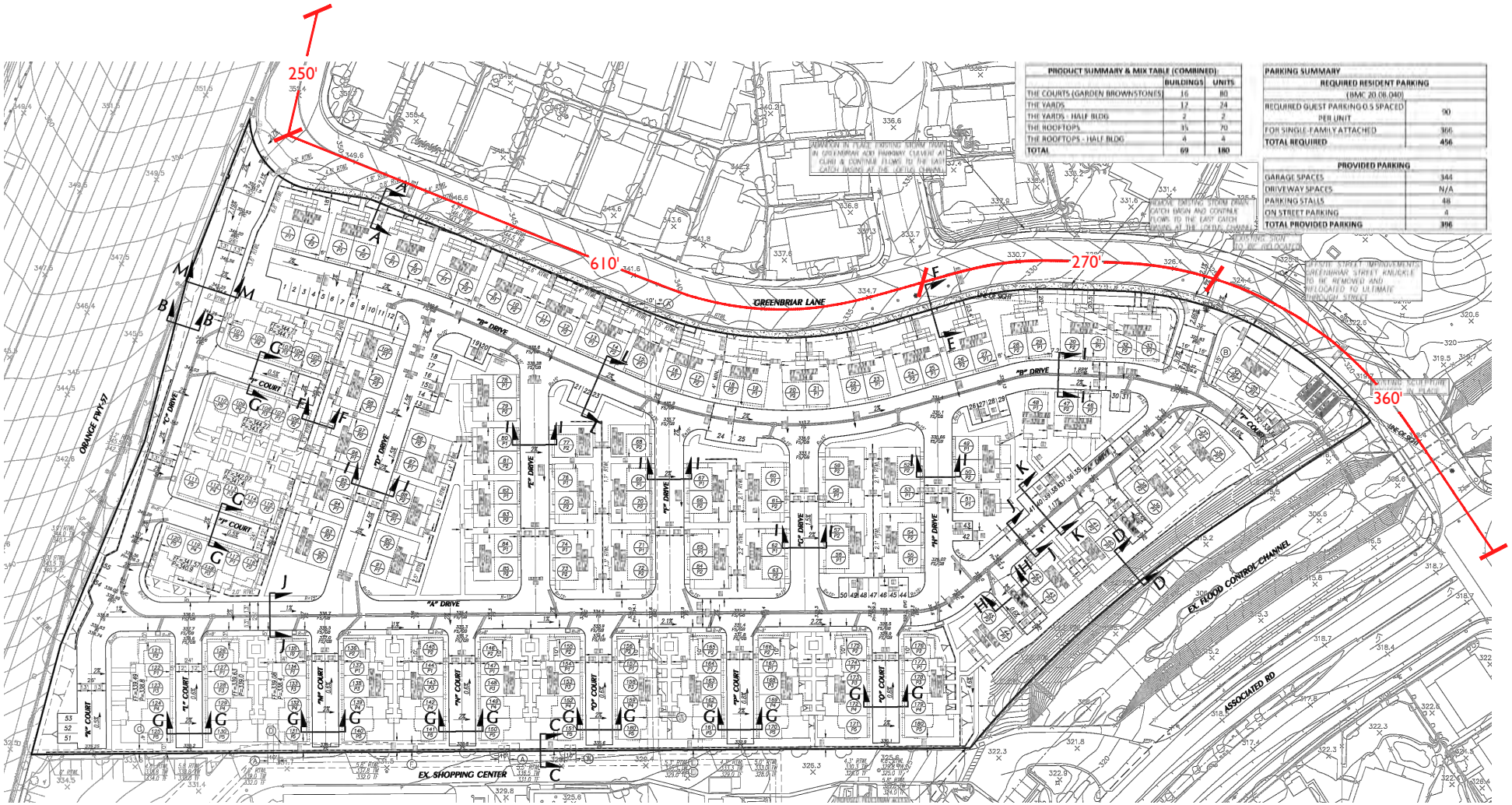
Project Access Driveway No. 1 will be considered and signed as the primary entry and exit to the project in an attempt to minimize traffic using Intersection No. 1 (Redbay Avenue and Birch Street).

8.2 Spacing between Driveways and Intersections

Exhibit 8-1 shows the distances between the two project access points (i.e., Study Intersections #8 & #9) and with adjacent intersections (e.g., Plum Avenue, Hillhaven Drive, and Associated Road).

Exhibit 8-1

Spacing Between Driveways and Intersections



N

The forecasted queues for the turning movements at the two project access points (i.e., Study Intersections #8 & #9) are previously presented in Appendix E (Project Opening Year (2026) With Project Conditions). As shown, there are no queuing deficiencies along Greenbriar Lane along the project frontage. As such, there will be adequate spacing between the driveways and adjacent intersections.

8.3 Potential Signalization of Driveways

As shown in Table 5-3, both proposed driveway intersections are operating at an acceptable LOS under Project Opening Year (2026) With Project Conditions. Intersection No. 9 is also a three-legged intersection that is planned to only have one stop control allowing for efficient circulation on the public roadway. Therefore, signalization would not be recommended since the LOS will be satisfactory with project conditions.

8.4 Shared Access

With the construction of the project, the shared access points between both the Brea Shopping Plaza and the project site will be eliminated. Due to this elimination of the shared access between the two sites, the "With Project" traffic scenarios account for the rerouting of any vehicles currently either cutting through the project site to/from the commercial center, or parking within the project site and walking to the commercial center. See Sections 3.2 and 4.1.4 for additional information.

8.5 Turn Conflicts/Restrictions

As part of the project, Greenbriar Lane will be realigned from the Brea Glenbrook Club Driveway to Associated Road. This realignment of Greenbriar Lane will eliminate an unnecessary intersection (previously serving the Mercury Insurance lot) and allow for more efficient travel along Greenbriar Lane.

Project Access Driveway No. 1, otherwise known as "A" Drive, will be the future fourth (south) leg of the existing Brea Glenbrook Club Driveway/Greenbriar Lane intersection. As such, there are no turning conflicts and neither driveway is recommended to have any access restrictions.

Additionally, based on RK's review of the site plan from an on-site circulation standpoint, there appears to be no significant conflicts between vehicles with or pedestrian/bicycles. Vehicles can navigate the site safely and efficiently.

8.6 Sight Distance

An intersection sight distance analysis has been conducted for both driveways located along Greenbriar Lane. As part of this analysis, a sight line is developed and a "limited use area" is created which designates an area between the edge of pavement and the driver's line of sight. This area prohibits obstructions to maintain adequate sight distance at the intersection.

The line of sight has been created utilizing the methodology for stopping sight distance to provide a more accurate representation of the sight distance. As such, according to the Orange County Highway Design Manual, the minimum stopping sight distance for a roadway classified as a local street is 150 feet for both horizontal and vertical curves. Additionally, per the Caltrans Highway Design Manual, the minimum stopping sight distance is based on the design speed of the major road. In which, the speed limit for Greenbriar lane is 25 mph.

Pursuant to the Caltrans Highway Design Manual, the decision point of the triangle, or driver position on the minor road, is located a minimum of 10 feet plus the shoulder width of the major but not less 15 feet back from the nearest edge of the major road traveled way. The decision point, or driver position, is located at a setback distance that drivers are assumed to be located at waiting on the minor road.

The resulting clear sight triangles and established limited use areas are shown in **Exhibit 8-2**, **Exhibit 8-3**, and **Exhibit 8-4**. The following recommendations are provided to maintain clear line of sight for driver's:

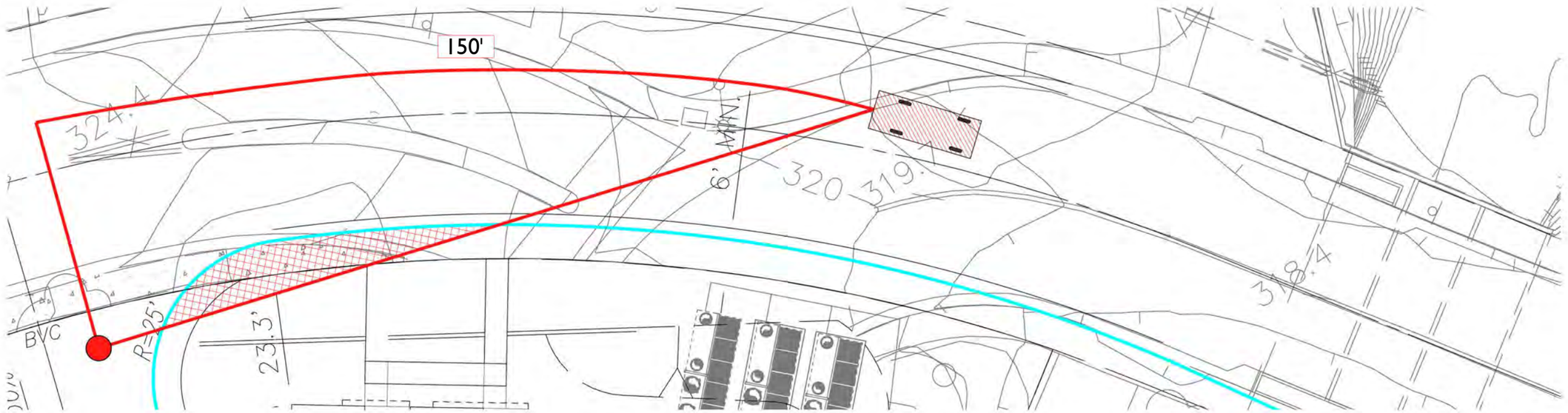
1. Trim and maintain foliage continuously within the corner sight distance limited use area up to 2.5 feet in height to remain consistent with Caltrans Highway Design Manual.

2. Any future landscaping and/or hardscapes (i.e. monument signs) should be designed such that a driver's clear line of sight is not obstructed.

8.7 Service Vehicle Access and Circulation

Service vehicles will be able to access the site via either project driveway. Adequate radii is provided at both Project Driveways No. 1 & No. 2 to facilitate waste management vehicle turning movements. Waste management vehicles can enter the site, and navigate internally, without any significant conflicts.

Intersection 8 Sight Distance Analysis
Left-Turn Maneuver Exiting Driveway



Legend:

= Driver's Eye

= Oncoming Vehicle

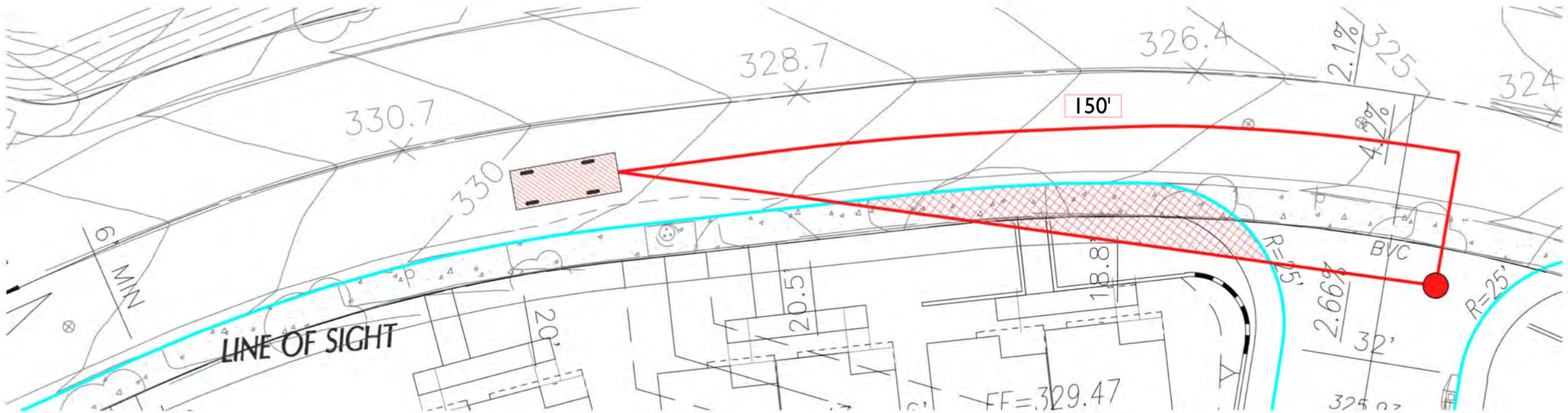
= Limited Use Area

SCALE: 1" = 20'

20 10 0 20 40

N

Intersection 8 Sight Distance Analysis
Right-Turn Maneuver Exiting Driveway



Legend:

= Driver's Eye

= Oncoming Vehicle

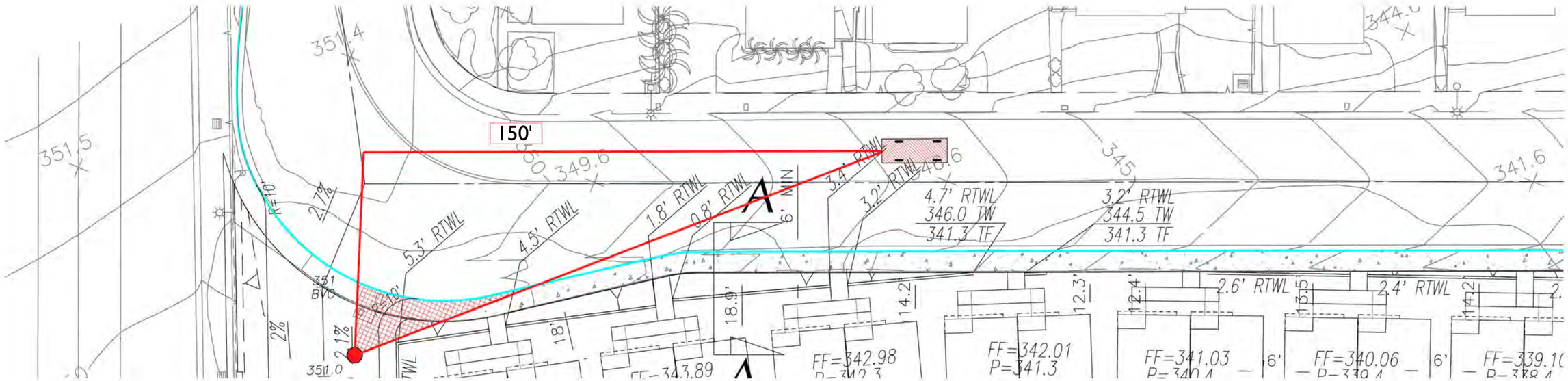
= Limited Use Area

SCALE: 1" = 20'

20 10 0 20 40

N

Intersection 9 Sight Distance Analysis
Through Movement Exiting Driveway



Legend:

= Driver's Eye

= Oncoming Vehicle

= Limited Use Area

SCALE: 1" = 30'

30 15 0 30 60

8.8 Pedestrian & Bicyclists On-Site Circulation & Off-Site Connectivity

The project will provide adequate pedestrian connections from within the site to the existing sidewalks located along the Greenbriar Lane project frontage. These existing sidewalks connect to the signalized intersection of Associate Road at Greenbriar Lane which currently provides protected pedestrian crossings on all legs. These pedestrian facilities provide safe and efficient connectivity for pedestrians to nearby adjacent land uses (most notably commercial uses to the south and residential uses to the north and east) as well as other multi-modal facilities (e.g. bus stops along Birch Street).

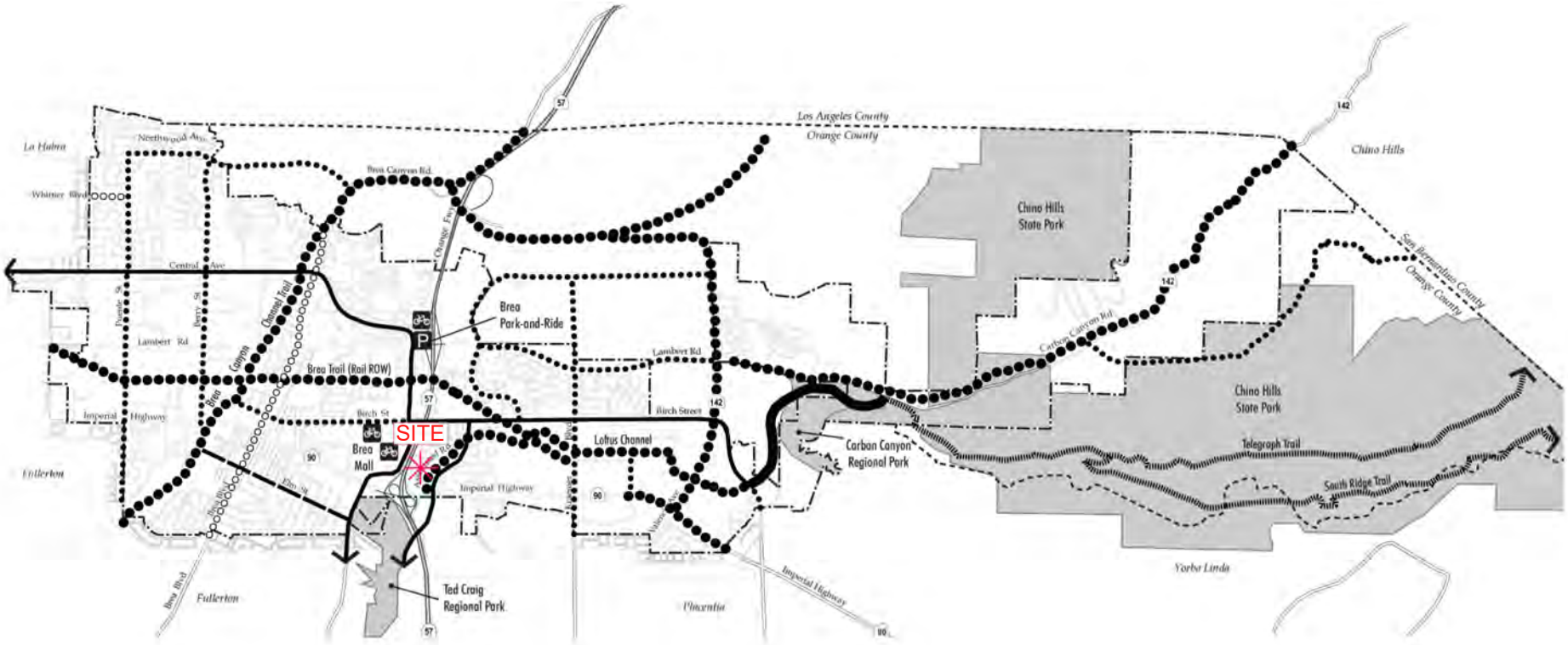
Furthermore, the project also proposes a pedestrian access point located at the southeast corner of the site which will provide direct pedestrian access to the Brea Shopping Plaza.

In addition, **Exhibit 8-6** shows the City of Brea General Plan Bike Plan. As shown, within the vicinity of the project, Associated Road and Birch Street are both identified as Class II – Bike Lanes. Project residents will be able to easily connect to these existing bicycle facilities via Greenbriar Lane or Aurora Avenue/Redbay Avenue. Lastly, the development is located within a mile of the Tracks which is identified as an east/west corridor within the City of Brea General Plan. As such, biking will be an attractive and easily accessible alternative mode of transportation for residents.

Moreover, as part of the recommendations for Intersection No. 2, the eastbound bike lane will be restriped in between the No. 2 through lane and the exclusive right-turn lane, which is further discussed in Section 11.2 of this study. This improvement will enhance safety for bicyclists at this intersection.

Exhibit 8-6

City of Brea General Plan
Bike Plan



Legend:

- City Boundary
- Sphere of Influence
- ✳ = Project Site

Bike Ways

- Bike Path (Class I)
- Bike Path (Class II)
- Bike Route (Class III)
- Off Road (Unpaved)

Bike Ways (Proposed)

- Bike Path (Class I)
- Bike Path (Class II)
- Bike Route (Class III)

N

9.0 Safety Review

This section provides a safety evaluation on the proposed project's site access provided for vehicles, emergency vehicles, bikes, and pedestrians. According to the *City of Brea Transportation Impact Analysis (TIA) Guidelines*, dated September 2020, the evaluation should consider the history and pattern of collision types to identify if any improvements could compliment or improve the safety at the study intersections.

9.1 Site Access

As discussed in Section 8, the project proposes two (2) unsignalized driveways along Greenbriar Lane. The proposed project access has been reviewed and is considered to be adequate. Service vehicles and emergency vehicles entering and exiting the project site will be able to do so comfortably, safely, and without undue congestion.

9.2 Collision History

As shown in **Table 9-1**, collision data has been reviewed for all study intersections over the course of the previous five years. The following intersections have experienced more than five collisions in the span of one year that were not due to driver impairment:

- **Intersection No. 5 –** SR-57 NB Ramps/Shopping Center Dwy No. 2 at Imperial Highway
- **Intersection No. 6** – Associated Road at Imperial Highway

Table 9-2 through **Table 9-8** show the number and type of collisions for each intersection per year.

Exhibit 9-1 through **Exhibit 9-9** show the pattern and type of collisions per year for each intersection that includes more than five collisions in a year (i.e., Intersections No. 5 & No. 6).

As a result, Intersections No. 5 and No. 6 have experienced a significant number of collisions throughout the last five (5) years. Intersection No. 5 experiences a maximum of 11 collisions in 2022 that are dispersed throughout the intersection and at most there are only two repeat collisions of the same type/movement. Intersection No. 6 experiences a maximum of 13 collisions in 2020; however, similar to Intersection No. 5, these collisions are also dispersed throughout the intersection and at most there are only two repeat collisions of the same type/movement. The most common type of collision at both Intersections No. 5 & No. 6 are rear-end collisions.

Table 9-1

Study Intersection Collision Data[1]

2019 - 2024

Intersection		All Reported Collisions						All Non-Driver Impairment Collisions					
		Year					Total	Year					Total
		2019	2020	2021	2022	2023		2019	2020	2021	2022	2023	
1.	Redbay Avenue (N/S) at Birch Street (E/W)	1	0	1	1	1	4	1	0	0	1	1	3
2.	Associated Road (N/S) at Birch Street (E/W)	7	1	4	1	2	15	5	1	3	1	2	12
3.	Associated Road (N/S) at Greenbriar Lane (E/W)	1	1	1	0	0	3	1	0	1	0	0	2
4.	Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)	2	2	1	0	0	5	2	2	1	0	0	5
5.	SR-57 NB Ramps/Shopping Center Driveway No. 2 (N/S) at Imperial Hwy (E/W)[2]	5	1	12	12	16	46	4	0	9	11	13	37
6.	Associated Road (N/S) at Imperial Highway (E/W)	7	14	8	6	4	39	7	13	8	6	4	38
7.	Castlegate Lane/Placentia Avenue (N/S) at Imperial Highway (E/W)	5	3	1	3	4	16	5	2	1	3	4	15
8.	Brea Glenbrook Club Dwy/Project Dwy No. 1 (N/S) at Greenbriar Lane (E/W)	0	0	0	0	0	0	0	0	0	0	0	0
9.	Project Driveway No. 2 (N/S) and Greenbriar Lane (E/W)	*Does Not Currently Exist.*						*Does Not Currently Exist.*					

[1] Source: Statewide Integrated Traffic Records System (SWITRS)

[2] TransportationIntegrated Mapping System (TIMS) has been sourced solely for study Intersection No. 5 between 2019 and 2020 due to the ambiguity from the SWITRS data for this intersection and time period.

Table 9-2
Intersection No. 1 Collision History (Excluding Driver Impairment Collisions)
Redbay Avenue (N/S) at Birch Street (E/W)
2019-2023

Collision Type	Year					Total
	2019	2020	2021	2022	2023	
Rear End	1	0	0	1	0	2
Hit Object	0	0	0	0	1	1
Total Collisions Per Year	**1**	**0**	**0**	**1**	**1**	**3**

Table 9-3
Intersection No. 2 Collision History (Excluding Driver Impairment Collisions)
Associated Road (N/S) at Birch Street (E/W)
2019-2023

Collision Type	Year					Total
	2019	2020	2021	2022	2023	
Rear End	2	0	2	0	1	5
Broadside	0	0	1	0	0	1
Sideswipe	1	0	0	0	1	2
Hit Object	1	1	0	1	0	3
Other	1	0	0	0	0	1
Total Collisions Per Year	**5**	**1**	**3**	**1**	**2**	**12**

Table 9-4
Intersection No. 3 Collision History (Excluding Driver Impairment Collisions)
Associated Road (N/S) at Greenbriar Lane (E/W)
2019-2023

Collision Type	Year					Total
	2019	2020	2021	2022	2023	
Rear End	1	0	0	0	0	1
Broadside	0	0	1	0	0	1
Total Collisions Per Year	**1**	**0**	**1**	**0**	**0**	**2**

Table 9-5
Intersection No. 4 Collision History (Excluding Driver Impairment Collisions)
Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)
2019-2023

Collision Type	Year					Total
	2019	2020	2021	2022	2023	
Broadside	1	2	1	0	0	4
Sideswipe	1	0	0	0	0	1
Total Collisions Per Year	**2**	**2**	**1**	**0**	**0**	**5**

Table 9-6
Intersection No. 5 Collision History (Excluding Driver Impairment Collisions)
SR-57 NB Ramps/Shopping Center Driveway No. 2 (N/S) at Imperial Hwy (E/W)
2019-2023

Collision Type	Year					Total
	2019	2020	2021	2022	2023	
Rear End	3	0	5	2	5	15
Sideswipe	0	0	4	3	2	9
Broadside	1	0	0	4	4	9
Hit Object	0	0	0	1	2	3
Auto/Ped	0	0	0	1	0	1
Total Collisions Per Year	**4**	**0**	**9**	**11**	**13**	**37**

Table 9-7
Intersection No. 6 Collision History (Excluding Driver Impairment Collisions)
Associated Road (N/S) at Imperial Highway (E/W)
2019-2023

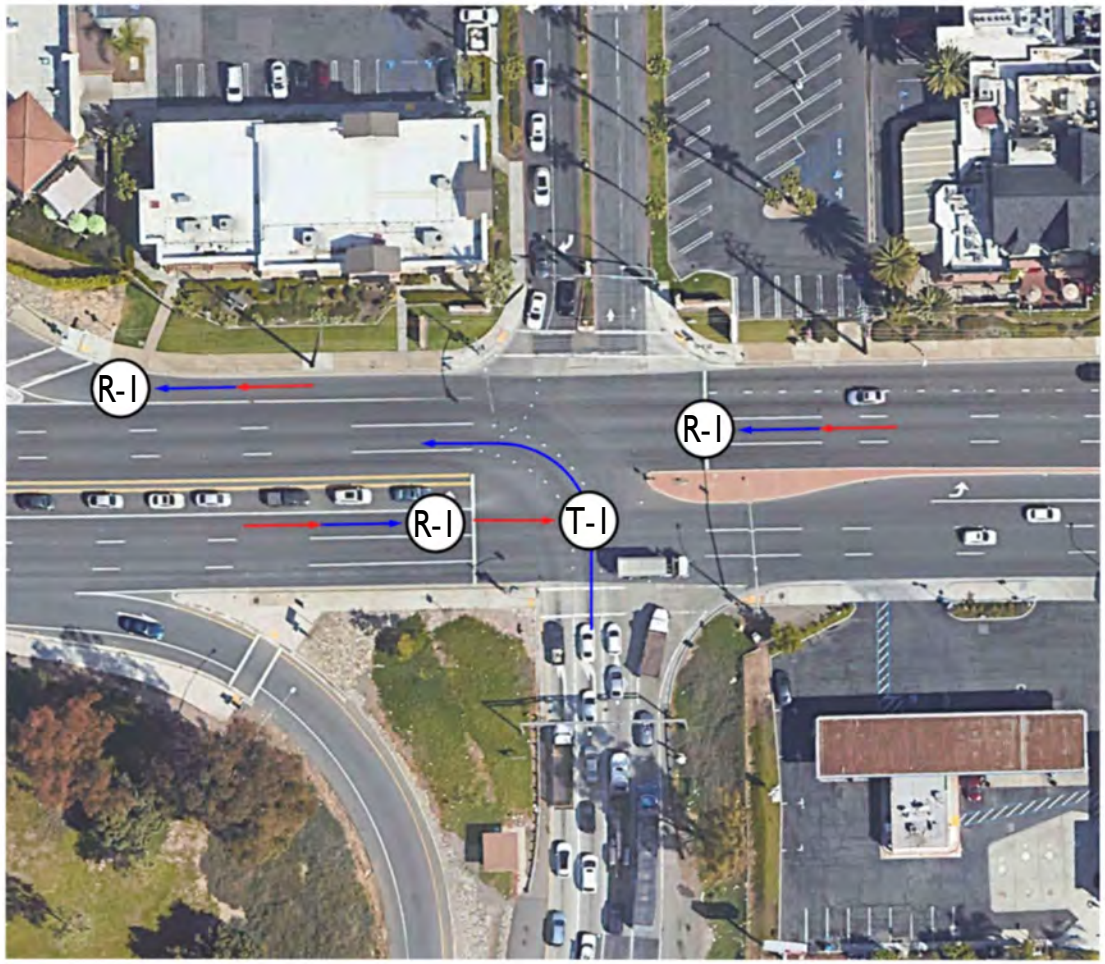
Collision Type	Year					Total
	2019	2020	2021	2022	2023	
Rear End	4	5	5	1	1	16
Sideswipe	3	5	2	2	2	14
Broadside	0	3	1	1	1	6
Auto/Ped	0	0	0	1	0	1
Head-On	0	0	0	1	0	1
Total Collisions Per Year	**7**	**13**	**8**	**6**	**4**	**38**

Table 9-8
Intersection No. 7 Collision History (Excluding Driver Impairment Collisions)
Castlegate Lane/Placentia Avenue (N/S) at Imperial Highway (E/W)
2019-2023

Collision Type	Year					Total
	2019	2020	2021	2022	2023	
Rear End	3	1	0	3	4	11
Sideswipe	1	0	1	0	0	2
Other	1	1	0	0	0	2
Total Collisions Per Year	**5**	**2**	**1**	**3**	**4**	**15**

Exhibit 9-1

2019-2020 Intersection No. 5 Collision History
SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Highway (E/W)



Legend:

(X-1) = Collision Type - Number of Incidents
→ = Driver's Movement Preceding Collison
→ = Driver's Movement Preceding Collision (At Fault)

Collision Type:

R = Rear End
T = Broadside
S = Sideswipe

N

Exhibit 9-2

2021-2022 Intersection No. 5 Collision History
SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Highway (E/W)



Legend:

(X-I) = Collision Type - Number of Incidents

= Driver's Movement Preceding Collison

= Driver's Movement Preceding Collision (At Fault)

Collision Type:

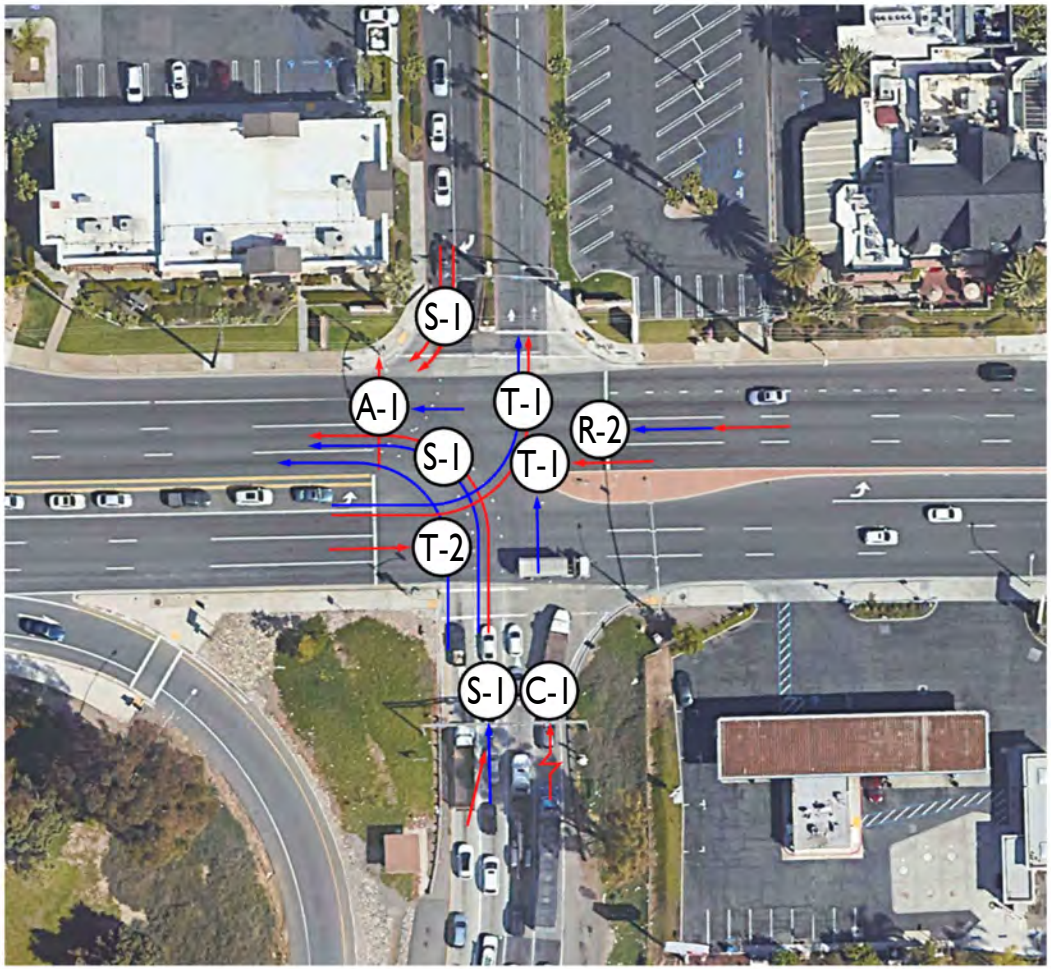
R = Rear End

S = Sideswipe

N

Exhibit 9-3

2022-2023 Intersection No. 5 Collision History
SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Highway (E/W)



Legend:

- (X-1) = Collision Type - Number of Incidents
- = Driver's Movement Preceding Collison
- = Driver's Movement Preceding Collision (At Fault)
- = Driver Ran Off Road (At Fault)
- = Pedestrian Crossing (At Fault)

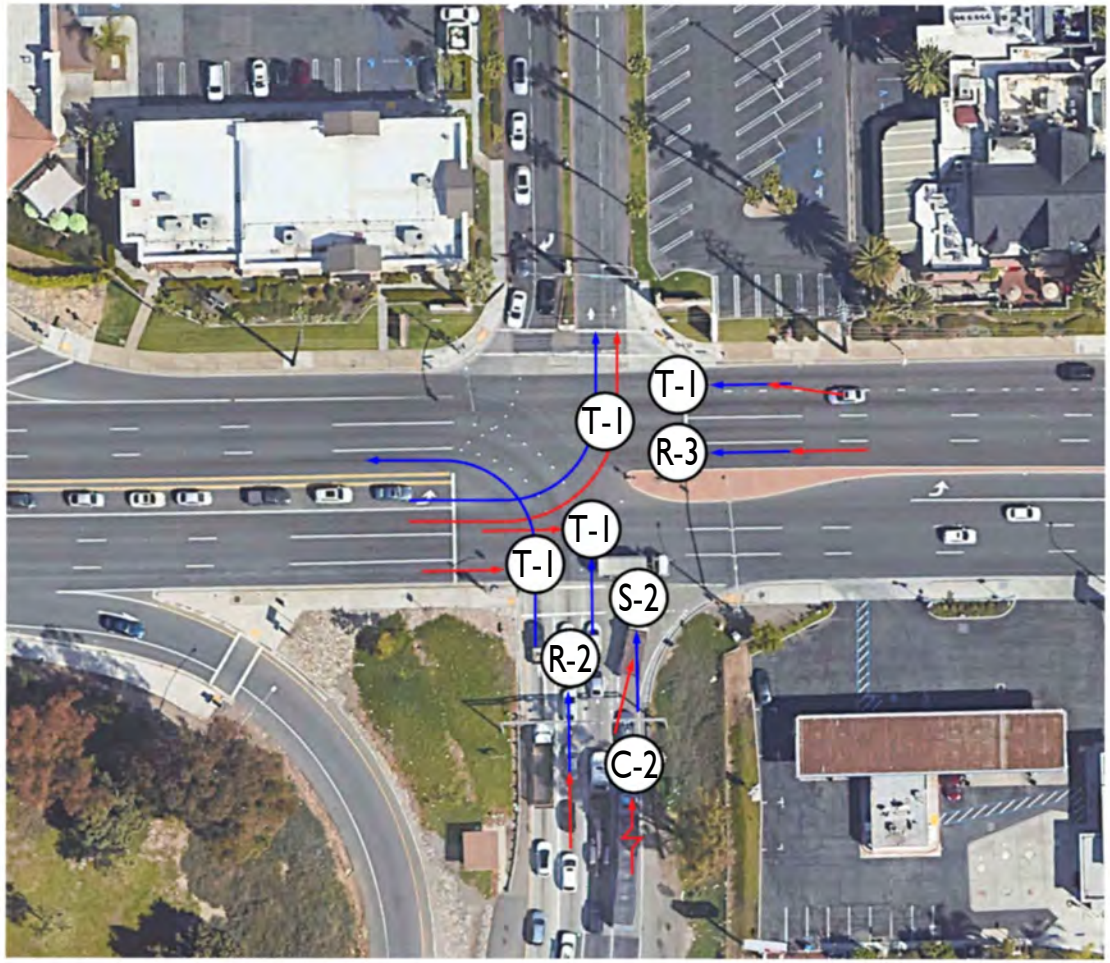
Collision Type:

- R = Rear End
- T = Broadside
- S = Sideswipe
- C = Hit-Object
- A = Auto-Pedestrian

N

Exhibit 9-4

2023-2024 Intersection No. 5 Collision History
SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Highway (E/W)



Legend:

- (X-I) = Collision Type - Number of Incidents
- = Driver's Movement Preceding Collison
- = Driver's Movement Preceding Collision (At Fault)

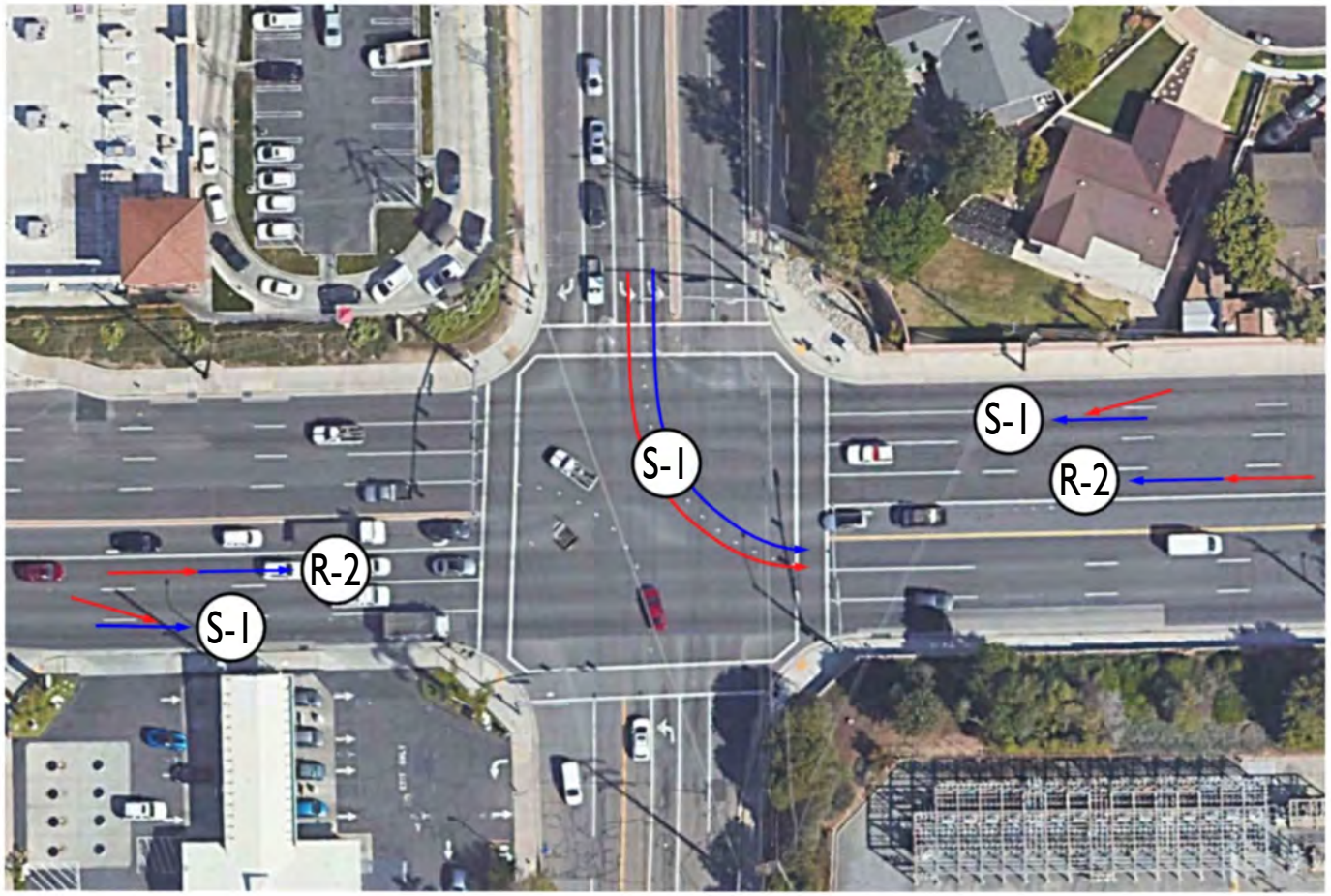
Collision Type:

- R = Rear End
- T = Broadside
- S = Sideswipe
- C = Hit Object

N

Exhibit 9-5

2019-2020 Intersection No. 6 Collision History
Associated Road (N/S) at Imperial Highway (E/W)



Legend:

- (X-I) = Collision Type - Number of Incidents
- → = Driver's Movement Preceding Collison
- → = Driver's Movement Preceding Collision (At Fault)

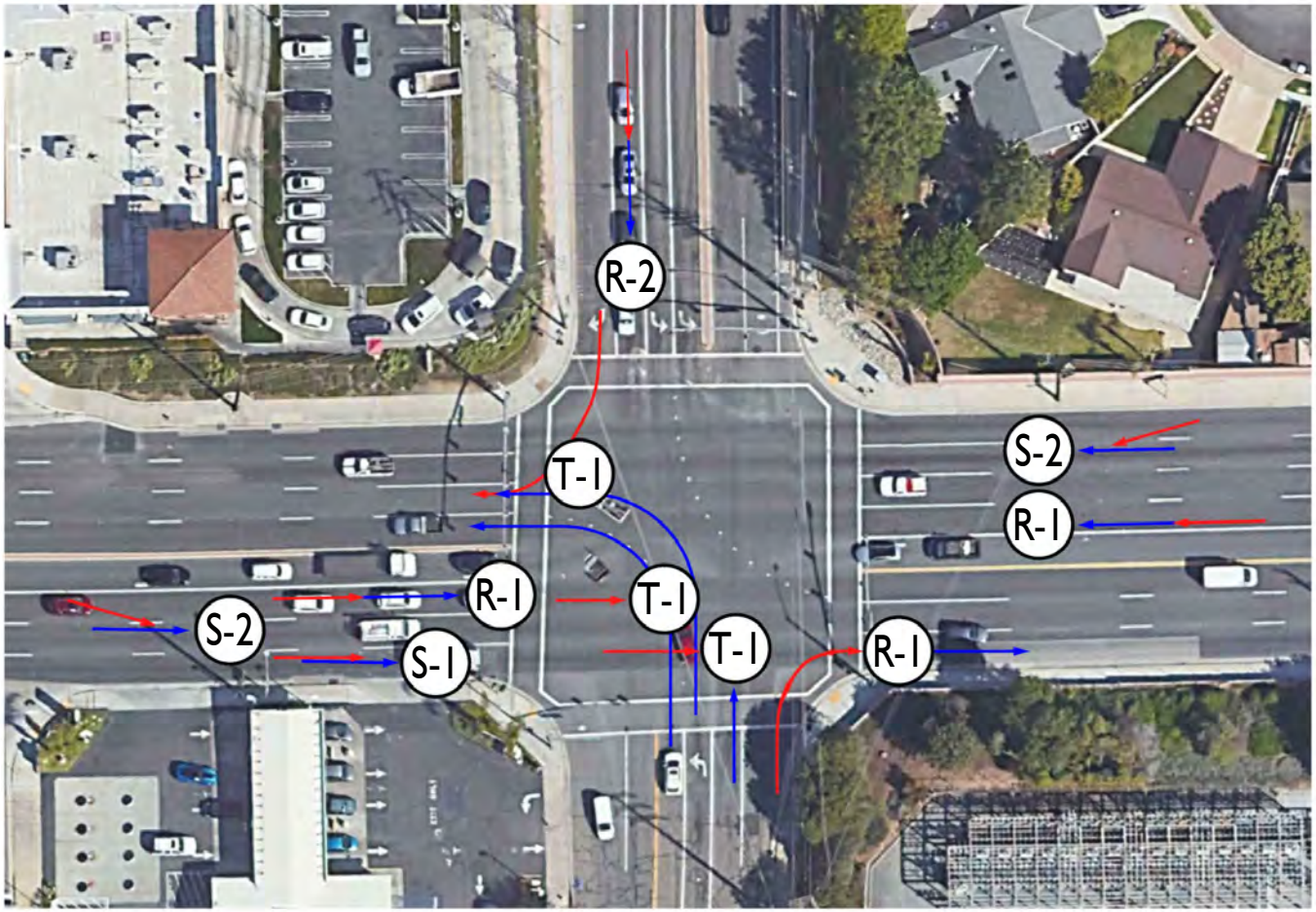
Collision Type:

- R = Rear End
- T = Broadside
- S = Sideswipe

N

Exhibit 9-6

2020-2021 Intersection No. 6 Collision History
Associated Road (N/S) at Imperial Highway (E/W)



Legend:

(X-I) = Collision Type - Number of Incidents

→ = Driver's Movement Preceding Collison

→ = Driver's Movement Preceding Collision (At Fault)

Collision Type:

R = Rear End

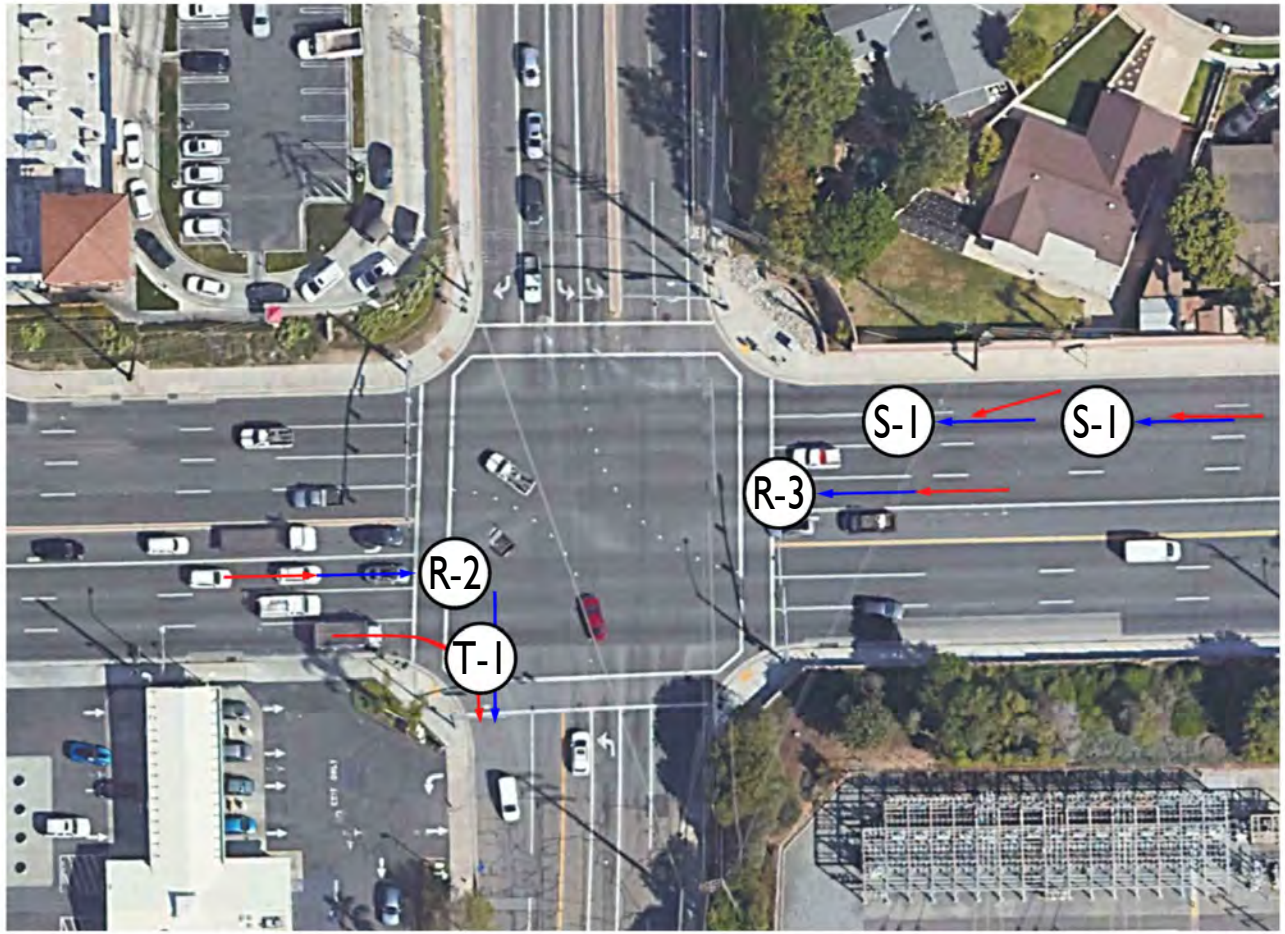
T = Broadside

S = Sideswipe

N

Exhibit 9-7

2021-2022 Intersection No. 6 Collision History
Associated Road (N/S) at Imperial Highway (E/W)



Legend:

(X-I) = Collision Type - Number of Incidents

= Driver's Movement Preceding Collison

= Driver's Movement Preceding Collision (At Fault)

Collision Type:

R = Rear End

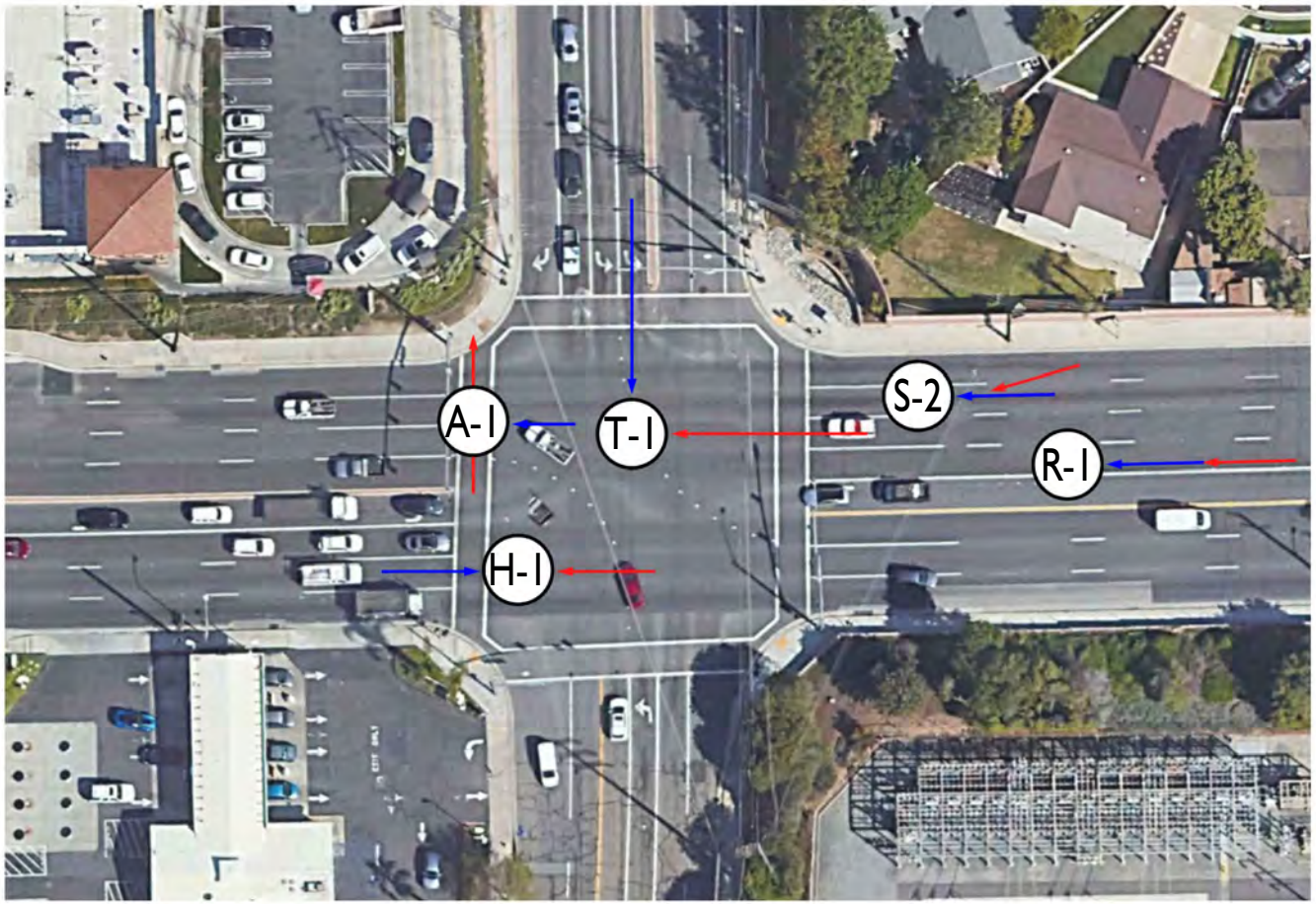
T = Broadside

S = Sideswipe

N

Exhibit 9-8

2022-2023 Intersection No. 6 Collision History
Associated Road (N/S) at Imperial Highway (E/W)



Legend:

- (X-1) = Collision Type - Number of Incidents
- → = Driver's Movement Preceding Collison
- → = Driver's Movement Preceding Collision (At Fault)
- --- = Pedestrian Crossing (At Fault)

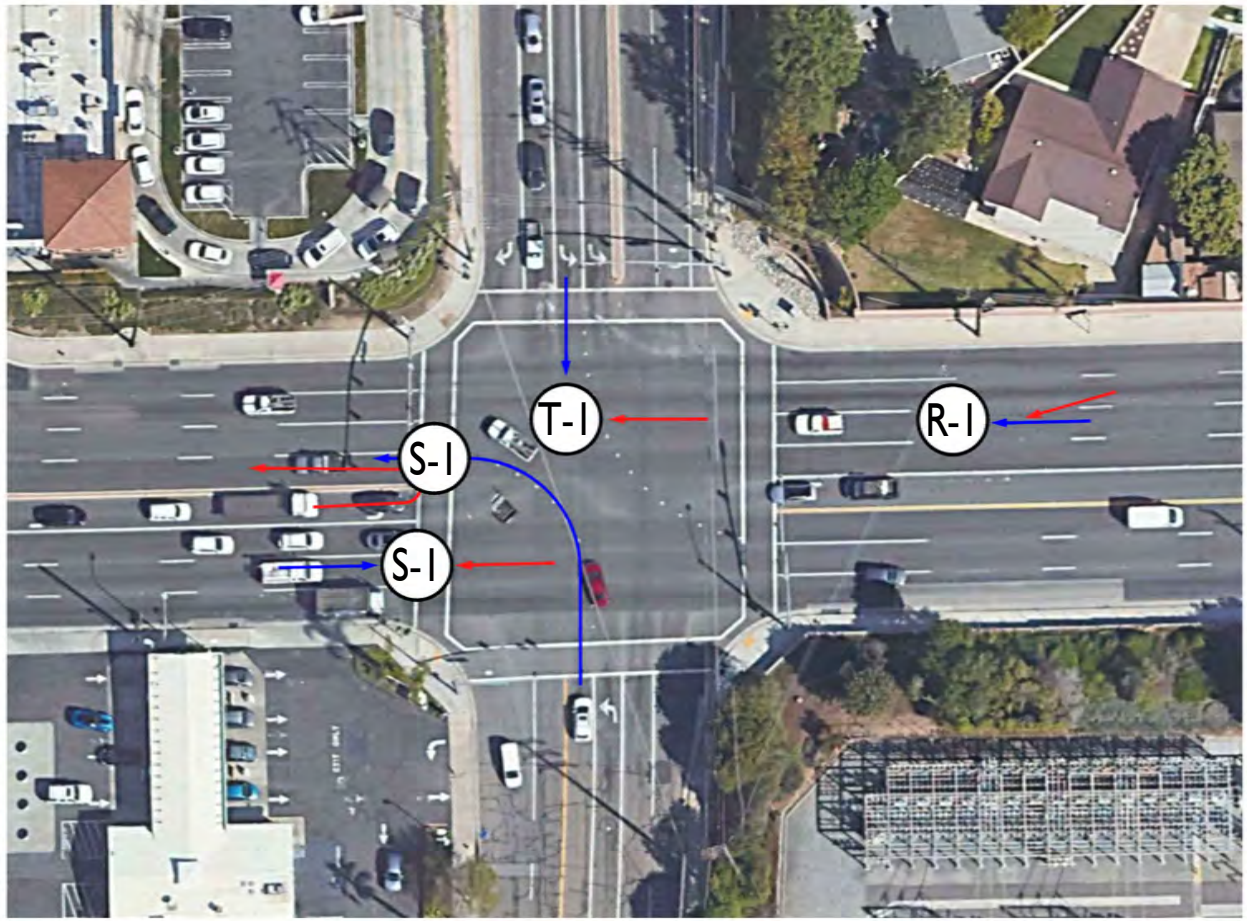
Collision Type:

- R = Rear End
- T = Broadside
- S = Sideswipe
- H = Head On
- A = Auto-Pedestrian

N

Exhibit 9-9

2023-2024 Intersection No. 6 Collision History
Associated Road (N/S) at Imperial Highway (E/W)



Legend:

- (X-I) = Collision Type - Number of Incidents
- → = Driver's Movement Preceding Collison
- → = Driver's Movement Preceding Collision (At Fault)

Collision Type:

- R = Rear End
- T = Broadside
- S = Sideswipe
- H = Head On
- A = Auto-Pedestrian

N

It is important to note that Caltrans is in the process of implementing traffic safety improvements along the SR-90 corridor (Imperial Highway) which include installing/modifying new traffic signals, constructing additional safety lighting, bringing existing curb ramps to ADA standards, installing loop detectors and traffic count stations where needed, and restripe to pre-existing configuration. As such, the elevated crash rates at Intersection No. 5 may be due to construction activities at or near the intersection which could be reduced with the safety improvements along the corridor. Additionally, it has been found that the crash rates at Intersection No. 6 have steadily decreased in recent years. Therefore, no improvements are being recommended at these intersections to address the collision history.

Collison data sourced from Statewide Integrated Traffic Records System (SWITRS) and Transportation Integrated Mapping System (TIMS) are included in **Appendix J.**

10.0 Active Transportation and Public Transit Analysis

This section provides an evaluation on the proposed project's potential impacts on pedestrian facilities and travel, bicycle facilities and travel, and public transit. According to the *City of Brea Transportation Impact Analysis (TIA) Guidelines*, dated September 2020, "A significant impact occurs if the project conflicts with the adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decreases the performance or safety of such facilities."

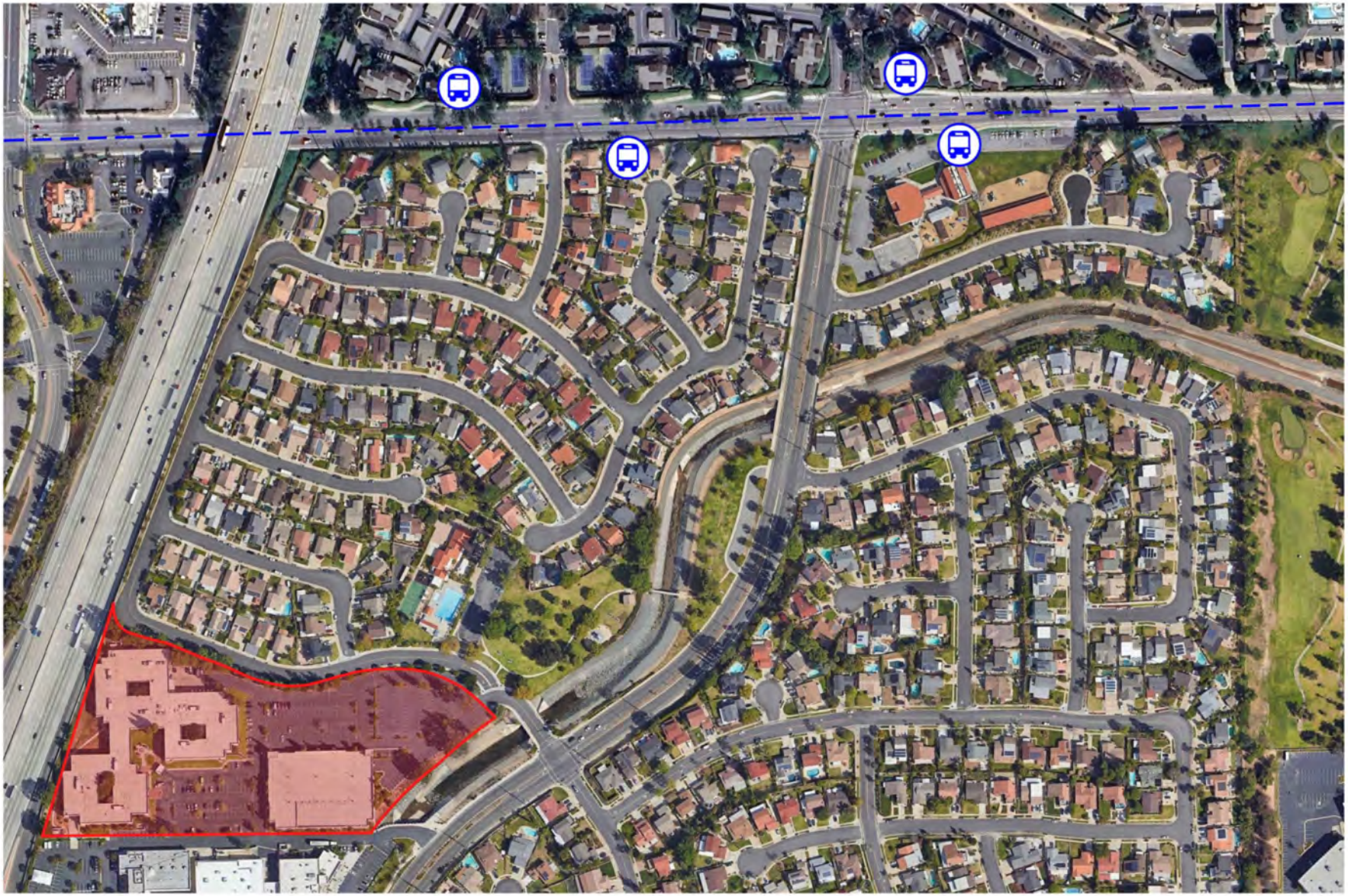
As discussed in Section 8.8, the project site is currently surrounded by local neighborhoods and a shopping center that implements pedestrian and bicyclist facilities. There is an existing sidewalk along Associated Road and Greenbriar Lane which are adjacent to the project site. The project proposes to leave the existing sidewalk as it remains. Furthermore, the project does not propose any construction of sidewalks along public roads as there are no missing sidewalks along the perimeter of the project site. Additionally, bicyclists are currently being served through bike lanes as shown in Exhibit 8-4. Greenbriar Lane is identified as a local roadway according to the City of Brea General Plan and will not implement any bike lanes. However, Greenbriar Lane may be utilized to access Class II – Bike Lanes on Associated Road and Birch Street.

Additionally, **Exhibit 10-1** shows the existing transit stops within the study area. As shown, there are four (4) bus stops within the study area that are all served by Orange County Transportation Authority (OCTA) Route 129 which runs from La Habra Circle via La Habra Blvd and Brea Blvd through the Brea Mall Area via Birch Street and Kramer Blvd to Anaheim. The two bus stops located on Birch Street, west of Associated Road are within approximately a half mile from the project site. The two bus stops located on Birch Street, east of Associated Road are approximately just over a half mile from the project site. The project will provide adequate pedestrian connections from within the site to the existing sidewalks located along the Greenbriar Lane project frontage, as previously discussed in Section 8.8. As such, residents can safely walk to/from the project site to the existing bus stops along Birch Street via Associated Road or Aurora Avenue/Redbay Avenue.

Temporary obstructions to the connectivity from Greenbriar Lane to Associated Road may occur during the construction of the realignment of Greenbriar Lane. However, these improvements are temporary and will improve overall multi-modal connectivity once Greenbriar Lane is realigned. Therefore, the project will not have a significant impact on existing or proposed public transit.

Exhibit 10-1

Transit Stops



Legend:

= Project Site Boundary

= OCTA Bus Stop (Route:129)

= Route 129

N

11.0 Residential Cut-Through Analysis

To address City staff concerns, a residential cut-through analysis was completed for two (2) neighborhoods located within close proximity of the project site. **Exhibit 11-1** shows the locations of these two neighborhoods.

Neighborhood 1 is bound between Birch Street to the north, Associated Road to the east, the SR-57 Freeway to the west, and Greenbriar Lane to the south. Primary access to Neighborhood 1 is provided via study Intersections #1 & #3. Neighborhood 2 is generally bound between Birch Street to the north, Associated Road to the west, a golf course and commercial shopping center to the east, and Imperial Highway to the south. Primary access to Neighborhood 2 is provided via study Intersections #3 & #7.

A cut-through trip is identified as a vehicle passing through each intersection (through the neighborhood) within a 5-minute span. Existing license plate surveys were collected during the same timeframes as identified in Section 3.3. The license plate surveys matched vehicles entering and exiting the neighborhoods at the following locations:

- Neighborhood 1: Between the Redbay Avenue at Birch Street intersection (i.e., Intersection No. 1) & the Associated Road at Greenbriar Lane intersection (i.e., Intersection No. 3);
- Neighborhood 2: Between the Castlegate Lane/Placentia Avenue at Imperial Highway intersection (i.e., Intersection No. 7) & the Associated Road at Greenbriar Lane intersection (i.e., Intersection No. 3).

Exhibit 11-1 shows the cut-through routes for each neighborhood.

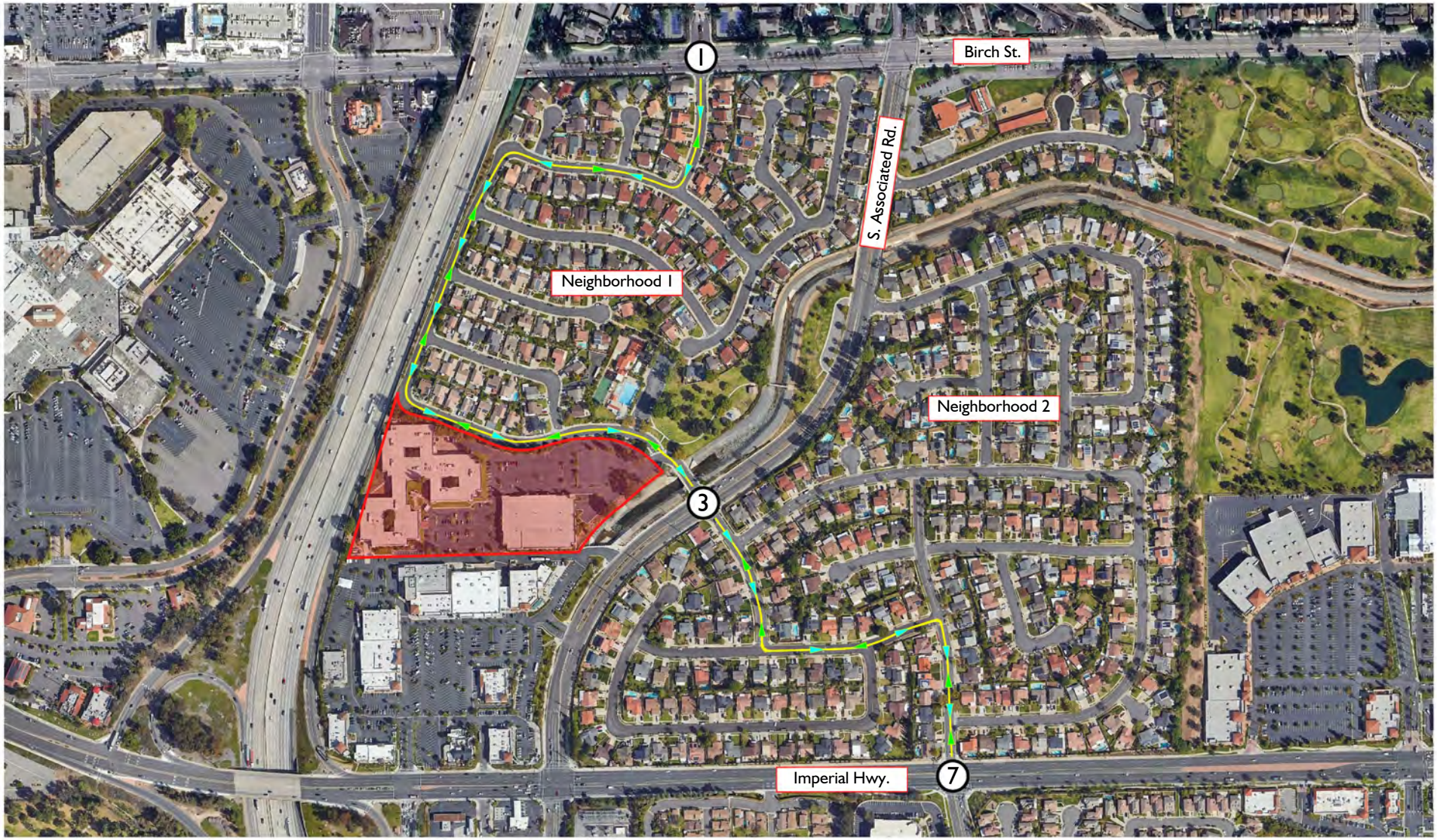
11.1 Cut-Through Analysis Results

The highest peak hour results of the residential cut-through analysis are as follows:

- Neighborhood 1:
  - AM Peak Hour: 6 total vehicles (4 northbound/2 southbound)
  - PM Peak Hour: 6 total vehicles (0 northbound/6 southbound)
  - Saturday Midday Peak Hour: 2 total vehicles (1 northbound/1 southbound)
- Neighborhood 2:
  - AM Peak Hour: 30 total vehicles (24 northbound/6 southbound)
  - PM Peak Hour: 76 total vehicles (60 northbound/16 southbound)
  - Saturday Midday Peak Hour: 71 total vehicles (53 northbound/18 southbound)

Exhibit 11-1

Cut-Through Routes



Legend:

1 = Study Intersection

= Project Site Boundary

= Cut-Through Routes (Northbound)

= Cut-Through Routes (Southbound)

N

Under existing traffic conditions, Neighborhood 1 experiences a total of 245 inbound/outbound total trips during the AM peak hour, 260 inbound/outbound total trips during the PM peak hour, and 273 inbound/outbound trips during the Saturday Midday peak hour, calculated as the sum of inbound/outbound trips at both access points. As such, based on the peak hour cut-through volumes identified above, the total amount of cut-through traffic for Neighborhoods 1 is calculated to be approximately 2%, 2%, and 0.7% for the AM, PM, and Saturday Midday peak hours, respectively.

Neighborhood 2 experiences a total of 357 inbound/outbound total trips during the AM peak hour, 469 inbound/outbound total trips during the PM peak hour, and 549 inbound/outbound trips during the Saturday Midday peak hour calculated as the sum of inbound/outbound trips at both access points. As such, based on the peak hour cut-through volumes identified above, the total amount of cut-through traffic for Neighborhood 2 is calculated to be approximately 8%, 16%, and 13% for the AM, PM, and Saturday Midday peak hours, respectively.

The neighborhood cut-through counts are contained in **Appendix K**.

11.2 Neighborhood 1 Cut-Through Recommendations

For Neighborhood 1, and as shown in Exhibit 4-1, a small portion of project traffic is anticipated to utilize Aurora Avenue/Redbay Avenue to/from Birch Street to the north (through Neighborhood 1). This equates to 9 trips in the weekday AM peak hour, 17 trips in the weekday PM peak hour, and 15 trips in the Saturday midday peak hour. However, since the project is located along Greenbriar Lane, Aurora Avenue/Redbay Avenue provides the most direct access to Birch Street. As such, these aren't actually considered cut-through trips.

Although, as an operational and safety improvement, the following recommendations are being made to encourage drivers to utilize Intersection No. 2 since Intersection No. 1 is an existing deficient intersection (i.e. LOS F) and will experience increased delay with project conditions.

Recommended Improvements:

2. Associated Road (N/S) at Birch Street (E/W)
    - Restripe the eastbound approach to provide an exclusive right-tun lane and through bike lane.
    - Modify the existing traffic signal to provide a right-turn overlap phase in the eastbound direction.

Exhibit 6-1 shows the recommended improvements for Intersection No. 2. Additionally, as shown in Table 5-3, the recommended improvements identified above reduce the delay for Intersection No. 2 under Project Opening Year (2026) With Project Conditions.

Detailed LOS Analysis worksheets for Project Opening Year (2026) With Project Conditions With Improvements are included in Appendix I.

11.3 Neighborhood 2 Cut-Through Recommendations

For Neighborhood 2, and as shown in Exhibits 4-3 and 4-4, project traffic is not anticipated to utilize Greenbriar Lane/Castlegate Lane to/from Imperial Highway. The 15% of project traffic anticipated to travel east on Imperial Highway will likely do so by traveling south on Associated Road before making a southbound left-turn onto eastbound Imperial Highway. This 15% of traffic for the outbound and inbound trips equates to 13 trips in the weekday AM peak hour, 15 trips in the weekday PM peak hour, and 15 trips in the Saturday midday peak hour. To ensure drivers from the project site will not make a cut-through trip via Neighborhood 2, the following recommendations are being made to Intersection No. 3.

Recommended Improvements:

3. Associated Road (N/S) at Greenbriar Lane (E/W)
    - Restripe the eastbound and westbound shared left/through/right-turn lane to an eastbound shared left/right-turn lane and westbound shared left/right-turn lane.
    - Modify the existing signal to a split phasing for the eastbound and westbound movements.
    - Install signage at the intersection to discourage eastbound & westbound through traffic.

Exhibit 6-1 shows the recommended improvements for Intersection No. 3. Additionally, as shown in Table 5-3, the recommended improvements identified above reduce the delay for Intersection No. 3 under Project Opening Year (2026) With Project Conditions.

Detailed LOS Analysis worksheets for Project Opening Year (2026) With Project Conditions With Improvements are included in Appendix I.

12.0 Summary of Recommendations & Fair Share Contributions

This section of the report provides a summary of all the recommendations made throughout this study and the associated fair-share contribution if applicable.

12.1 Summary of Recommendations

The following improvements have been recommended at seven (7) of the study intersections:

Recommended Improvements Based on Cut-Through Analysis:

The following improvements for Intersection No. 2 (Associated Road at Birch Street) are being recommended to minimize cut-through traffic through the neighborhood located north of the project as well as improve the operations and safety of Intersection No. 1.

- Restripe the eastbound approach to provide an exclusive right-tun lane and through bike lane.
- Modify the existing traffic signal to provide a right-turn overlap phase in the eastbound direction.

The following improvements for Intersection No. 3 (Associated Road at Greenbriar Lane) are being recommended to minimize cut-through traffic from the project to the neighborhood located east of the project.

- Restripe the eastbound and westbound shared left/through/right-turn lane to an eastbound shared left/right-turn lane and westbound shared left/right-turn lane.
- Modify the existing signal to a split phasing for the eastbound and westbound movements.
- Install signage at the intersection to discourage eastbound & westbound through traffic.

Recommendations Based on Signal Warrant Analysis:

The City should consider the installation of a traffic signal for Intersection No. 4 (Associated Road at Shopping Center Driveway No. 1) since the intersection meets multiple signal warrants under existing conditions. The project shall only be responsible to pay it's fair-share contribution toward the installation of a future traffic signal.

Recommended Improvements Based on Sight Distance Analysis:

The following improvements for Intersection No. 8 (Brea Glenbrook Club Dwy/Project Dwy No. 1 at Greenbriar Lane) and Intersection No. 9 (Project Driveway No. 2 and Greenbriar Lane) are being recommended to maintain clear line of sight for driver's exiting the project site:

- Trim and maintain foliage continuously within the corner sight distance limited use area up to 2.5 feet in height to remain consistent with Caltrans Highway Design Manual.
- Any future landscaping and/or hardscapes (i.e. monument signs) should be designed such that a driver's clear line of sight is not obstructed.

12.2 Funding Mechanisms

The project is responsible for its fair share contribution of the cost required to implement the identified improvements for Intersection No. 4. Fair-share contribution is based on project trip contribution relative to the amount of overall growth from existing traffic conditions at each impacted study area intersection.

Fair-share contribution percentages for the proposed project for Project Opening Year (2026) are provided in **Table 12-1**.

As shown in Table 12-1, the project-fair share contribution percentages for Project Opening Year (2026) With Project Conditions are as follows:

4. Associated Road (N/S) at Shopping Center Dwy No. 1(E/W)
    - 6.0% (Saturday Midday Peak Hour)

For Intersection No. 2, No. 3, No. 8, and No. 9, the project shall be 100% responsible for the costs of the improvements.

Table 12-2 summarizes the recommendations of improvements at each intersection and the respective fair-share contribution to the improvement, if applicable.

Table 12-1
Project Fair-Share Contribution Summary[1]
Project Opening Year (2026)

Intersection		Existing Conditions Traffic			Porject Opening Year (2026) With Project Conditions			Growth in Traffic			Project Traffic			Project Fair-Share[2,3]		
		AM	PM	SAT	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
4.	Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)	916	1,379	1,217	1,039	1,525	1,351	123	146	134	61	83	81	5.9%	5.4%	**6.0%**

[1] Project Fair-Share Contribution represents the project's traffic contribution at each impacted study area intersection as a percentage of the overall growth in traffic for Project Opening Year (2026) With Project scenario. This table is for informational purposes only and is not tied to any mitigation.

[2] The Project's Fair-Share Contribution is shown in **Bold**.

[3] Based on the LOS analysis, Intersection No. 4 is operating at an acceptable LOS under Existing Conditions; however, the intersection meets multiple signal warrants under existing conditions and project opening year conditions. As such, the project shall only be responsible for the project traffic volumes over the total traffic volumes in the project opening year since the intersection will meet the signal warrants without the addition of the project traffic volumes.

Table 12-2
Recommended Improvements & Project Fair-Share Contribution Summary

Study Intersection		Recommended Improvement	When is Improvement Required?	Responsibility of the Project	Project Fair-Share
2.	Associated Road (N/S) at Birch Street (E/W)	Restripe the eastbound approach to provide an exclusive right-turn lane and through bike-lane. Modify the existing signal to provide a right-turn overlap in the eastbound direction.	Project Opening Year (2026)	Construct	100%
3.	Associated Road (N/S) at Greenbriar Lane (E/W)	Restripe the eastbound and westbound shared left/through/right-turn lane to an eastbound shared left/right-turn lane and westbound shared left/right-turn lane. Modify the existing signal to a split phasing for the eastbound and westbound movements. Install signage at the intersection to discourage eastbound & westbound through traffic.	Project Opening Year (2026)	Construct	100%
4.	Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)	Install a traffic signal.	Exisiting (2024) Conditions	Fair-Share	6%
8.	Brea Glenbrook Club Dwy/Project Dwy No. 1 (N/S) at Greenbriar Lane (E/W)	Trim and maintain foliage continuously within the corner sight distance limited use area up to 2.5 feet in height to remain consistent with Caltrans Highway Design Manual. Any future landscaping and/or hardscapes (i.e. monument signs) should be designed such that a driver's clear line of sight is not obstructed.	Project Opening Year (2026)	Construct	100%
9.	Project Driveway No. 2 (N/S) and Greenbriar Lane (E/W)				

[1] For improvements where the project's responsibility has been identified as "Construct," the project is responsible for the entirety (i.e. 100%) of the identified improvement.

[2] Fair-share contribution is based on project trip contribution relative to the amount of overall growth from existing traffic conditions at each impacted study area intersection. Calculations for project fair-share contribution are provided in Table 12-1. Please note that these tables are for informational purposes only and are not tied to any mitigation.

13.0 Findings and Conclusions

13.1 Project Summary

The project site is bound between Greenbriar Lane to the north, Associated Road to the east, the SR-57 Freeway to the west, and Brea Plaza to the south, in the City of Brea. The approximately 9.73-acre project site is currently occupied by 164,908 square feet (SF) of vacant office space (formerly occupied by Mercury Insurance).

The project consists of razing the existing office building and parking structure to construct 180 townhome/condominium dwelling units. Access to the project is proposed to be provided via two (2) full-access unsignalized driveways located along Greenbriar Lane. The easternmost driveway is proposed to be located opposite of the existing Brea Glenbrook Club driveway.

The proposed project is forecast to generate approximately 1,296 gross weekday daily trips which include approximately 86 gross weekday AM peak hour trips and approximately 103 gross weekday PM peak hour trips. Additionally, the project is forecast to generate approximately 1,577 gross Saturday daily trips which includes approximately 103 gross Saturday midday peak hour trips.

13.2 Traffic Study Area & Analysis Scenarios

The study area included in this analysis has been determined based on existing and future transportation facilities within the vicinity of the site where the project may contribute a significant amount of traffic.

Per the *City of Brea Transportation Impact Analysis Guidelines*, dated September 2020, a Non-CEQA Transportation Assessment, which includes LOS analysis, shall be required for proposed projects when either the AM or PM peak hour trip generation on a weekday or weekend is expected to exceed 50 net new vehicle trips from the proposed development. As such, the study area consists of nine (9) intersections.

The analysis evaluates traffic conditions of the study area under the following scenarios during the weekday AM (7:00 AM to 9:00 AM), weekday PM (4:00 PM to 6:00 PM), and Saturday midday (12:00 PM to 3:00 PM) peak periods:

- Existing Conditions;
- Project Opening Year (2026) Without Project Conditions; and
- Project Opening Year (2026) With Project Conditions.

According to the *City of Brea Transportation Impact Analysis Guidelines*, dated September 2020, General Plan Development scenarios are required for any project that contributes traffic to an intersection projected to have unacceptable LOS, any project that requires a General Plan Amendment, or otherwise proposes development that exceeds the land use intensity assumed for the General Plan. However, the analysis does not include General Plan Development Scenarios despite the project proposing a General Plan Amendment from General Commercial to Mixed-Use II and a Zone Change from C-G Zone to MU-II Zone. General Plan Development Scenarios are not included since the project is proposing the construction of 180 condominium/townhome dwelling units which is a less intense land use as it generates fewer trips than currently existing under the General Commercial land use designated in the General Plan.

13.3 Study Intersection LOS Summary

The intersection level of service analysis has been performed at the nine (9) study intersections within the vicinity of the site where the project may contribute a significant amount of traffic. Project deficiencies have been evaluated within the study area based on peak hour level of service performance criteria and threshold of significance.

The following study intersection has been determined to operate deficiently under all analysis scenarios:

- Intersection No. 1 – Redbay Avenue (N/S) at Birch Street (E/W)

Although Intersection No. 1 (Redbay Avenue at Birch Street) is forecast to operate at an unacceptable LOS during the AM, PM, and Saturday Midday Peak Hours under Project Opening Year (2026) With Project Conditions, it should be noted that it is common for local streets that have direct access to primary arterials, such as Birch Street, to experience longer delay due to the limited gaps in traffic and the heavy volumes on the major street, especially during peak periods. Furthermore, Intersection No. 1 is currently operating at an unacceptable LOS under Existing Conditions and Project Opening Year (2026) Without Project Conditions. Additionally, a Signal Warrant Analysis, discussed in further detail in Section 6, was performed for Intersection No. 1 and the intersection does not satisfy the requirements under any scenario to warrant a traffic signal. Therefore, installation of a traffic signal is not being recommended for the existing deficient Intersection No. 1 as the project does not have a significant effect on the LOS of the intersection. Moreover, the signalization of the intersection may actually have a negative effect on traffic safety as it could introduce new types of crashes such as rear-ends. However, recommendations are being made to Intersection No. 2 which will have a direct benefit to the operations and safety of Intersection No. 1. This is discussed in further detail in Section 11.2 of this study.

13.4 CA MUTCD Warrant Analysis Summary

The following intersections have been evaluated for signalization based on all signal warrants and procedures contained in the CA MUTCD under Existing Conditions:

- **Intersection No. 1** – Redbay Avenue (N/S) at Birch Street (E/W)
- **Intersection No. 4** – Associated Road (N/S) at Shopping Center Dwy No. 1 (E/W)

Intersection No. 4 is the only intersection expected to satisfy the following warrants under Existing Conditions:

- Warrant 1 – Eight Hour Vehicular Volumes (Weekday and Saturday);
- Warrant 2 – Four Hour Vehicular Volumes (Weekday and Saturday);
- Warrant 3 – Peak Hour Warrant (Weekday).

Additional peak hour warrant analyses were conducted under project opening year scenarios for the same identified intersections. Intersection No. 4 meets the peak hour signal warrant under Opening Year (2026) Without Project Conditions for the PM and Saturday Midday peak hours and Opening Year (2026) With Project Conditions PM and Saturday Midday peak hours. Intersection No. 1 does not meet the peak hour signal warrant under any project scenarios.

As a result, signalization is being recommended for Intersection No. 4 and is subject to a fair-share contribution of approximately 6%.

13.5 Intersection Queuing Analysis Summary

A queuing analysis has been conducted to evaluate the queue lengths of turn pockets serving the SR-57 NB off ramp (i.e. Intersection No. 5) along Imperial Highway and turn pockets of Intersection No. 6 directly affected from project traffic. This analysis aims to determine the potential for traffic overflow from turn pockets, considering its impact on the freeway facility, through lanes, and adjacent intersections. As such, adequate storage is provided for all reported turning movements under all scenarios.

13.6 Site Access Analysis

The following summarizes the qualitative analysis conducted on several site access aspects:

Proposed Access Points

Access to the project is proposed to be provided via two (2) full-access unsignalized driveways located along Greenbriar Lane. Project Access Driveway No. 1, otherwise known as "A" Drive, will be the future fourth (south) leg of the existing Brea Glenbrook Club Driveway/Greenbriar Lane intersection. Project Access Driveway No. 2, otherwise known as "C" Drive, will be the future third (south) leg of the existing knuckle at Aurora Avenue and Greenbriar Lane.

Spacing between driveways and intersections

The project access driveway locations are located along Greenbriar Lane have been reviewed for adequate spacing. As such, there are no queuing deficiencies along Greenbriar Lane along the project frontage. Therefore, there will be adequate spacing between the driveways and adjacent intersections.

Potential signalization of driveways

Signalization is not recommended for the proposed driveway as the LOS will remain satisfactory with project conditions.

Shared Access

With the construction of the project, the shared access points between both the Brea Shopping Plaza and the project site will be eliminated. Due to this elimination of the shared access between the two sites, the "With Project" traffic scenarios account for the rerouting of any vehicles currently either cutting through the project site to/from the commercial center, or parking within the project site and walking to the commercial center.

Turn Conflicts/Restrictions

As part of the project, Greenbriar Lane will be realigned from the Brea Glenbrook Club Driveway to Associated Road to allow for more efficient travel along Greenbriar Lane. Additionally, there appears to be no significant conflicts between vehicles or pedestrian/bicycles for on site circulation.

Adequate sight distance

An intersection sight distance analysis has been conducted for both driveways located along Greenbriar Lane. As part of this analysis, a sight line is developed and a "limited use area" is created which designates an area between the edge of pavement and the driver's line of sight. This area prohibits obstructions to maintain adequate sight distance at the intersection.

The following recommendations are provided to maintain clear line of sight for driver's:

- Trim and maintain foliage continuously within the corner sight distance limited use area up to 2.5 feet in height to remain consistent with Caltrans Highway Design Manual.
- Any future landscaping and/or hardscapes (i.e., monument signs) should be designed such that a driver's clear line of sight is not obstructed.

The project shall be 100% responsible for the costs of these improvements at Intersections No. 8 and No. 9.

Service Vehicle Access and Circulation

The radius for both proposed project driveways has been reviewed and service vehicles will be able to access the site via either project driveway with adequate distance for turning movements throughout the project site.

Pedestrian & Bicyclists On-Site Circulation & Off-Site Connectivity

The project will provide adequate pedestrian connections from within the site to the existing sidewalks located along the Greenbriar Lane frontage. These existing sidewalks connect to the signalized intersection of Associated Road and Greenbriar Lane which currently provides protected pedestrian crossings on all legs. These pedestrian facilities provide safe and efficient connectivity for pedestrians to nearby adjacent land uses (e.g., commercial, residential, office uses) as well as other multi-modal facilities (e.g. bus stops along Birch Street). Furthermore, the project also proposes a pedestrian access point located at the southeast corner of the site which will provide direct pedestrian access to the Brea Shopping Plaza. In addition, there are Class II – Bike Lanes along Associated Road and Birch Street and the development is located within a mile of The Tracks which is identified as an east/west corridor. Project residents will be able to easily connect to these existing bicycle facilities via Greenbriar Lane or Aurora Avenue/Redbay Avenue. As such, biking will be an attractive easily accessible alternative mode of transportation for residents. Moreover, as part of the recommendations for Intersection No. 2, the eastbound bike lane will be restriped in between the No. 2 through lane and the exclusive right-turn lane, which will enhance safety for bicyclists at this intersection.

13.7 Safety Review

The proposed project access has been reviewed and is considered to be adequate. Service vehicles and emergency vehicles entering and exiting the project site will be able to do so comfortably, safely, and without undue congestion.

Furthermore, collision data has been reviewed for all study intersections over the course of the previous five years. The following intersections have experienced more than five correctable collisions in the span of one year that were not due to driver impairment:

- **Intersection No. 5 –** SR-57 NB Ramps/Shopping Center Dwy No. 2 at Imperial Highway
- **Intersection No. 6** – Associated Road at Imperial Highway

Although Intersection No. 5 experiences a maximum of 11 collisions in 2022, these collisions are dispersed throughout the intersection and at most there are only two repeat collisions of the same type/movement. Intersection No. 6 experiences a maximum of 13 collisions in 2020; however, similar to Intersection No. 5, these collisions are also dispersed throughout the intersection and at most there are only two repeat collisions of the same type/movement. The most common type of collision at both Intersections No. 5 & No. 6 are rear-end collisions.

13.8 Active Transportation and Public Transit Analysis

The project site is currently surrounded by local neighborhoods and a shopping center that implements pedestrian and bicyclist facilities. The project proposes to leave the existing sidewalk as it remains. Additionally, bicyclists are currently being served through bike lanes and Greenbriar Lane may be utilized to access Class II – Bike Lanes on Associated Road and Birch Street.

Furthermore, there are four (4) bus stops within the study area that are all served by Orange County Transportation Authority (OCTA) Route 129 which runs from La Habra Circle via La Habra Blvd and Brea Blvd through the Brea Mall Area via Birch Street and Kramer Blvd to Anaheim. The two bus stops located on Birch Street, west of Associated Road are within approximately a half-mile from the project site. The two bus stops located on Birch Street, east of Associated Road are approximately just over a half-mile from the project site. The project will provide adequate pedestrian connections from within the site to the existing sidewalks located along the Greenbriar Lane project frontage. As such, residents can safely walk to/from the project site to the existing bus stops along Birch Street via Associated Road or Aurora Avenue/Redbay Avenue.

Temporary obstructions to the connectivity from Greenbriar Lane to Associated Road may occur during the construction of the realignment of Greenbriar Lane. However, these improvements are

temporary and will improve overall multi-modal connectivity once Greenbriar Lane is realigned. Therefore, the project will not have a significant impact on existing or proposed public transit.

13.9 Residential Cut-Through Analysis

To address City staff concerns, a residential cut-through analysis was completed for two (2) neighborhoods located within close proximity of the project site. Neighborhood 1 is bound between Birch Street to the north, Associated Road to the east, the SR-57 Freeway to the west, and Greenbriar Lane to the south. Primary access to Neighborhood 1 is provided via study Intersections #1 & #3. Neighborhood 2 is generally bound between Birch Street to the north, Associated Road to the west, a golf course and commercial shopping center to the east, and Imperial Highway to the south. Primary access to Neighborhood 2 is provided via study Intersections #3 & #7.

Neighborhood 1 experiences a total of 245 inbound/outbound total trips during the AM peak hour, 260 inbound/outbound total trips during the PM peak hour, and 273 inbound/outbound trips during the Saturday Midday peak hour, calculated as the sum of inbound/outbound trips at both access points. As such, based on the peak hour cut-through volumes identified above, the maximum amount of cut-through traffic for Neighborhoods 1 is calculated to be approximately 2% for the AM and PM peak hours.

Neighborhood 2 experiences a total of 357 inbound/outbound total trips during the AM peak hour, 469 inbound/outbound total trips during the PM peak hour, and 549 inbound/outbound trips during the Saturday Midday peak hour calculated as the sum of inbound/outbound trips at both access points. As such, based on the peak hour cut-through volumes identified above, the maximum amount of cut-through traffic for Neighborhood 2 is calculated to be approximately 16% for the PM peak hour.

For Neighborhood 1, a small portion of project traffic is anticipated to utilize Aurora Avenue/Redbay Avenue to/from Birch Street to the north (through Neighborhood 1). However, since the project is located along Greenbriar Lane, Aurora Avenue/Redbay Avenue provides the most direct access to Birch Street. As such, these aren't actually considered cut-through trips.

Although, as previously discussed, Intersection No. 1 is an existing deficient intersection (i.e. LOS F) and will experience increased delay with project conditions. As such, the following recommendations are being made to encourage drivers to utilize Intersection No. 2:

Recommended Improvements:

2. Associated Road (N/S) at Birch Street (E/W)
    - Restripe the eastbound approach to provide an exclusive right-tun lane and through bike lane.
    - Modify the existing traffic signal to provide a right-turn overlap phase in the eastbound direction.

For Neighborhood 2, project traffic is not anticipated to utilize Greenbriar Lane/Castlegate Lane to/from Imperial Highway. The 15% of project anticipated to travel east on Imperial Highway will do so by traveling south on Associated Road before making a southbound left-turn onto eastbound Imperial Highway. To ensure drivers will not make a cut-through trip, the following recommendations are being made to Intersection No. 3.

Recommended Improvements:

3. Associated Road (N/S) at Greenbriar Lane (E/W)
    - Restripe the eastbound and westbound shared left/through/right-turn lane to an eastbound shared left/right-turn lane and westbound shared left/right-turn lane.
    - Modify the existing signal to a split phasing for the eastbound and westbound movements.
    - Install signage at the intersection to discourage eastbound & westbound through traffic.

The project shall be 100% responsible for the costs of these improvements at Intersection No. 3 (i.e. Associated Road at Greenbriar Lane) since the purpose is to restrict project traffic from cut-through movements.

Appendices

Appendix A

Scope of Work

MERCURY SITE RESIDENTIAL PROJECT
Traffic Impact Study
Revised Scope of Work

August 15, 2024

The following Revised Scope of Work provides information on the proposed project, summarizes the analysis scope, parameters, and assumptions for review and approval, and also includes a request for information on items related to the study.

A. Project Description: The proposed Mercury Site Residential Project (hereinafter referred to as project) is bound between Greenbriar Lane to the north, Associated Road to the east, the SR-57 Freeway to the west, and Brea Plaza to the south, in the City of Brea. The approximately 9.73-acre project site is currently occupied by 164,908 square feet (SF) of vacant office space.

The project consists of razing the existing office buildings, as well as the onsite parking garage, and constructing 180 townhome/condominium dwelling units. Access to the project is proposed to be provided via two (2) full-access unsignalized driveways located along Greenbriar Lane.

The project is planned to open in 2026 and will be evaluated in one (1) single phase.

Exhibit A shows the aerial location of the proposed project. **Exhibit B** shows the preliminary site plan for the project.

B. Project Trip Generation: Trip generation represents the amount of traffic that is attracted and produced by a development.

Trip generation is typically estimated based on the trip generation rates from the latest *Institute of Transportation Engineers (ITE) Trip Generation Manual*. The latest and most recent version (11th Edition, 2021) of the ITE Manual has been utilized for this trip generation analysis. This publication provides a comprehensive evaluation of trip generation rates for a variety of land uses.

The proposed project consists of razing the existing vacant office building as well as the onsite parking garage and constructing 180 single-family attached residential dwelling units.

As directed by City of Brea staff, existing trip credits for the existing entitled (yet vacant) office buildings are not permitted for the Non-CEQA Transportation Assessment since the existing office site has not been fully occupied for several years. As such, the traffic study will assess the potential impact of the gross trips added by the project.

Table 1 shows the project trip generation rates and forecast for the Non-CEQA Transportation Assessment without trip credits. Utilizing the trip generation rates from the upper portion of Table 1, the lower portion of Table 1 shows the forecasted trip generation for the proposed land use.

As shown at the bottom of Table 1, the project is forecast to generate approximately 1,296 weekday daily trips which include approximately 86 weekday AM peak hour trips and approximately 103 weekday PM peak hour trips. Additionally, the project is forecast to generate approximately 1,577 Saturday daily trips which includes approximately 103 Saturday midday peak hour trips.

C. Study Intersections: Per the *City of Brea Transportation Impact Analysis Guidelines*, dated September 2020, a Non-CEQA Transportation Assessment, which includes LOS analysis, shall be required for proposed projects when either the AM or PM peak hour trip generation on a weekday or weekend is expected to exceed 50 net new vehicle trips from the proposed development. However, as directed by City of Brea staff, the analysis will evaluate the following nine (9) study intersections:

1. Redbay Avenue at Birch Street [Brea];
2. Associated Road at Birch Street [Brea];
3. Associated Road at Greenbriar Lane [Brea];
4. Associated Road at Shopping Center Driveway No. 1 [Brea];
5. SR-57 NB Ramps/Shopping Center Dwy No. 2 at Imperial Hwy [OC CMP/Caltrans];
6. Associated Road at Imperial Highway [Brea/Fullerton];
7. Castlegate Lane/Placentia Avenue at Imperial Highway [Brea];

Table 1

Project Trip Generation Rates & Forecast[1]

For Non-CEQA Transportation Assessment (Without Trip Credit)

Land Use (ITE Code)	Quantity	Units[2]	Weekday						Daily	Saturday			Daily
			AM Peak Hour			PM Peak Hour				Midday Peak Hour			
			In	Out	Total	In	Out	Total		In	Out	Total	
Trip Generation Rates													
Single-Family Attached Housing (215)	--	DU	25%	75%	0.48	59%	41%	0.57	7.20	48%	52%	0.57	8.76
Trip Generation Forecast													
Single-Family Attached Housing (215)	180	DU	22	64	86	62	41	103	1,296	49	54	103	1,577

[1] Source: ITE Trip Generation Manual (11th Edition, 2021).

[2] DU = Dwelling Units.

8. Brea Glenbrook Club Dwy/Project Dwy No. 1 at Greenbriar Lane [Brea]; and
9. Project Driveway No. 2 at Greenbriar Lane [Brea].

Exhibit C illustrates the project's study area.

D. Project Trip Distribution: Exhibit D-1 and **Exhibit D-2** show the outbound and inbound trip distribution pattern for the proposed project, respectively.

E. Analysis Scenarios: The analysis will evaluate traffic conditions for the following scenarios during the weekday AM, weekday PM, and Saturday midday peak hours:

- Existing Conditions;
- Project Opening Year (2026) Without Project Conditions; and
- Project Opening Year (2026) With Project Conditions.

According to the *City of Brea Transportation Impact Analysis Guidelines*, dated September 2020, General Plan Development scenarios are required for any project that contributes traffic to an intersection projected to have unacceptable LOS, any project that requires a General Plan Amendment, or otherwise proposes development that exceeds the land use intensity assumed for the General Plan. However, the analysis does not include General Plan Development Scenarios despite the project proposing a General Plan Amendment from General Commercial to Mixed-Use II and a Zone Change from C-G Zone to MU-II Zone. General Plan Development Scenarios are not included since the project is proposing the construction of 180 condominium/townhome dwelling units which is a less intense land use as it generates fewer trips than currently existing under the General Commercial land use designated in the General Plan.

F. Traffic Analysis Parameters: The analysis will utilize the following parameters:

- Vistro analysis software and the latest edition of the Highway Capacity methodology. The intersection Capacity Utilization (ICU) methodology will also be utilized for any study intersections that are CMP-designated locations.
- Optimized signal timing (i.e., splits). Existing cycle length and pedestrian timing parameters will be utilized.

- Analysis parameters as detailed in the *City of Brea Transportation Impact Analysis Guidelines, dated September 2020*.

G. Existing Traffic Counts: The analysis will utilize new traffic counts to be collected in February 2024. The counts will not be collected by vehicle classification.

- Weekday AM peak period counts will be collected during one typical weekday from 7:00 AM to 9:00 AM.
- Weekday PM peak period counts will be collected during one typical weekday from 4:00 PM to 6:00 PM.
- Saturday midday peak period counts will be collected during one typical Saturday during a 2-3 hour timeframe. The 2-3 hour timeframe will be determined based on a review of Saturday 24-hour roadway counts that are being collected at select locations within the confines of the study area.

In addition to the intersection counts, RK will also collect existing counts at the current Mercury Insurance parking lot entrances. Currently, the Mercury Insurance complex and the shopping center are interconnected and share parking and access driveways. The proposed project will eliminate that shared access between the two properties, forcing a reroute of a portion of the exiting shopping center traffic. The "With Project" traffic scenarios will account for this partial shift of existing traffic due to the elimination of the interconnection. These counts will be collected for the same timeframes identified above for the intersection counts.

H. Forecast Opening Year (2026) Conditions Traffic Volumes: Opening Year (2026) background traffic volumes will be derived by applying an annual growth rate of one percent (1%) per year to existing traffic volumes (i.e., 2% total growth) and adding traffic from any cumulative developments located within one mile of the project site.

I. Performance Criteria: Per the City's General Plan Circulation Element and Growth Management Element requirements, a volume/capacity ratio of 0.90 (Level of Service D) shall be the lowest acceptable LOS at intersections.

J. Threshold for Requiring LOS Improvements: An intersection shall be considered unacceptable and cause an effect on traffic operations if:

- the project causes a study intersection that currently operates at LOS D or better to degrade to LOS E or F;
- a study intersection that is already operating at LOS E and the project causes an increase in control delay of 4 or more seconds; and
- a study intersection that is already operating at LOS F and the project causes an increase in control delay of 2 or more seconds.

If a project causes an effect on traffic operations, improvements to study intersections may be required to bring back the intersection to an acceptable LOS or make other improvements to the intersection comparable to the operational deficiency. If a feasible identified improvement(s) cannot be provided as determined by the City Traffic Engineer, then contribution of fair share towards an improvement will be considered. Unsignalized intersections operating at a deficient LOS with or without project conditions shall be evaluated for the installation of a traffic signal using the traffic signal peak hour warrant and crash experience warrant per the latest version of the California Manual on Uniform Traffic Control Devices (CA MUTCD).

K. Site Access Analysis: The traffic impact study will include a site access analysis which will consist of the following:

- Number of access points proposed for the project site.
- Spacing between driveways and intersections.
- Potential signalization of driveways.
- Shared access.
- Turn conflicts/restrictions.
- Sight distance.
- Driveway widths.
- Any other operational characteristics as directed by the City Traffic Engineer.
- Service Vehicle Access and Circulation.
- Turning Movements.

L. Signal Warrant Analysis: RK will prepare a signal warrant analysis for the intersections of Associated Road at Shopping Center Driveway No. 1 (i.e., Intersection No. 4) and Redbay Avenue at Birch Street (i.e., Intersection No. 1).

M. Cut-Through Analysis/License Plate Survey: RK will collect license plate surveys for the same timeframes identified above in Section G and conduct a cut-through analysis for the following areas:

- Between the Castlegate Lane/Placentia Avenue at Imperial Highway intersection (i.e., Intersection No. 7) & the Associated Road at Greenbriar Lane intersection (i.e., Intersection No. 3). A cut-through trip is identified as a vehicle passing through each intersection (through the neighborhood) within a 5-minute span.
- Between the Redbay Avenue at Birch Street intersection (i.e., Intersection No. 1) & the Associated Road at Greenbriar Lane intersection (i.e., Intersection No. 3). A cut-through trip is identified as a vehicle passing through each intersection (through the neighborhood) within a 5-minute span.

N. Safety Review: RK will prepare a Safety Review, consistent with page 15 of the *City of Brea Transportation Impact Analysis Guidelines,* dated September 2020.

O. Active Transportation and Public Transit Analysis: RK will prepare a Active Transportation and Public Transit Analysis, consistent with page 24 of the *City of Brea Transportation Impact Analysis Guidelines,* dated September 2020.

P. Caltrans Off-Ramp Queuing Analysis: RK will calculate the 95th percentile off-ramp queues for Study Intersection #5 (i.e., SR-57 Northbound Off-Ramp) and Study Intersection #6 to assess if they extend back from the intersection to the mainline.

Q. VMT Analysis: RK will prepare a VMT screening assessment consistent with the *City of Brea Transportation Impact Analysis Guidelines,* dated September 2020, under a standalone report from the Non-CEQA Transportation Assessment.

R. Request for Information: Please provide information on the following for use in the traffic study:

- Information on cumulative projects within one-mile of the project site that need to be included in the traffic analysis (location, land use type(s), and land use quantities);
- Existing signal timing plans for all signalized study intersections; and
- Information on future roadway and circulation system modifications/improvements that are planned within the study area and would potentially affect the analysis; and
- Collision statistics for all study intersections, as specified on page 15 of the City's TIA Guidelines.

If you have any questions, or would like further review, please call us at (949) 474-0809.

Sincerely,

RK ENGINEERING GROUP, INC.

Justin Tucker, P.E., T.E.
Associate Principal

Attachments

Attachments

Exhibit A

Location Map



Legend:

= Project Site Boundary

N

Exhibit B

Site Plan

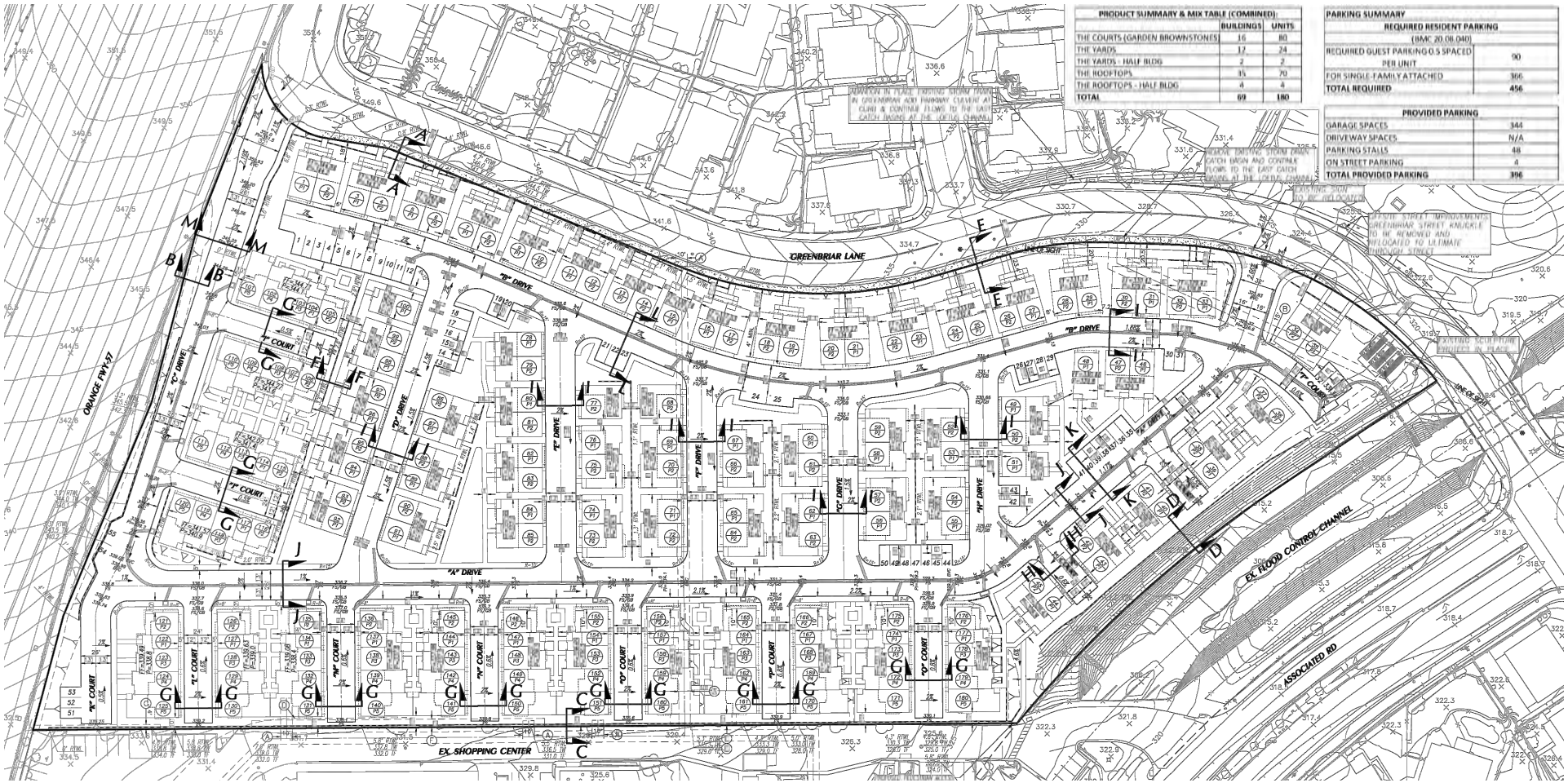
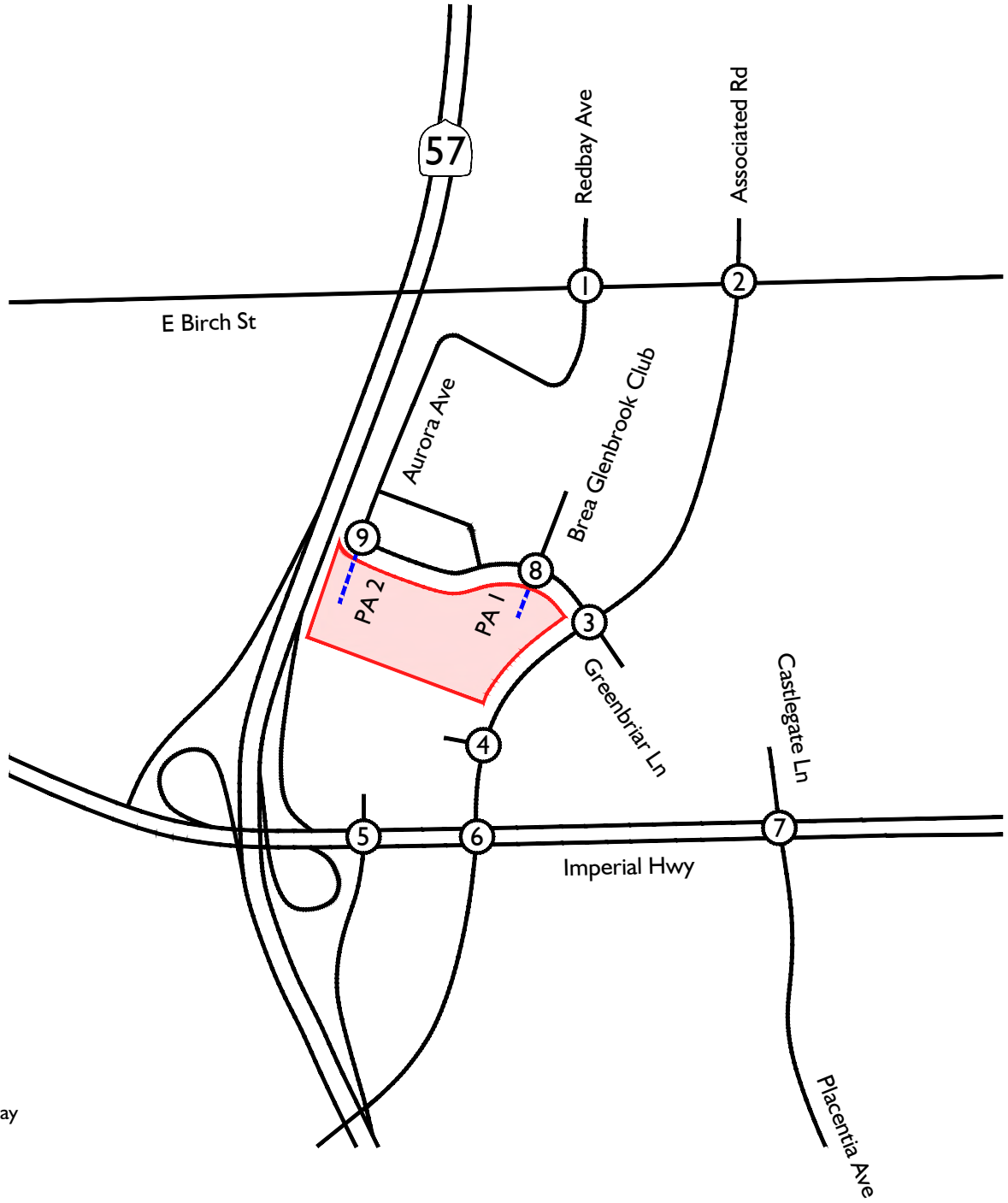


Exhibit C

Study Area



Legend:

1 = Study Intersection

= Project Access Driveway

= Project Site Boundary

N

Exhibit D-1

Outbound Project Trip Distribution

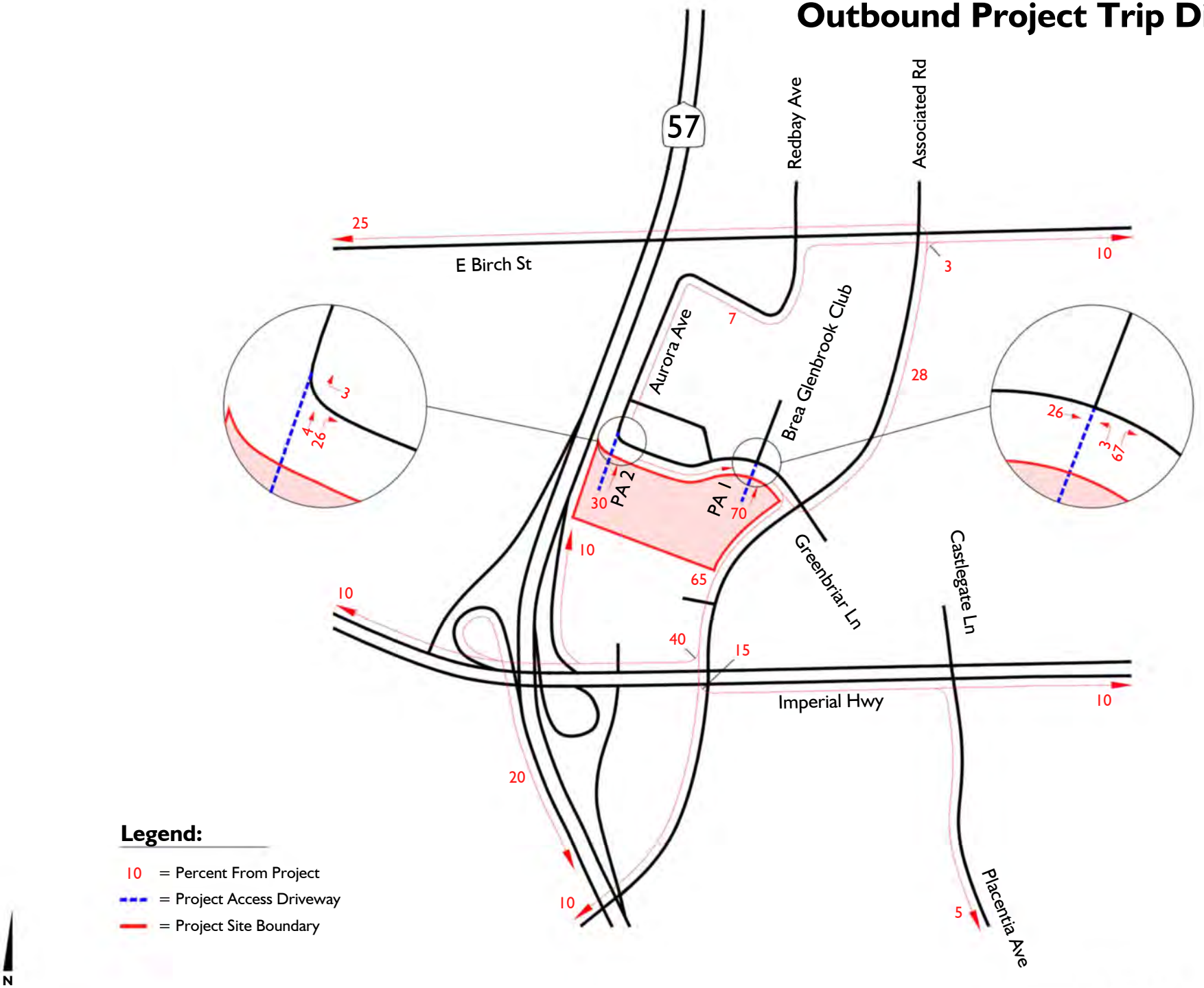
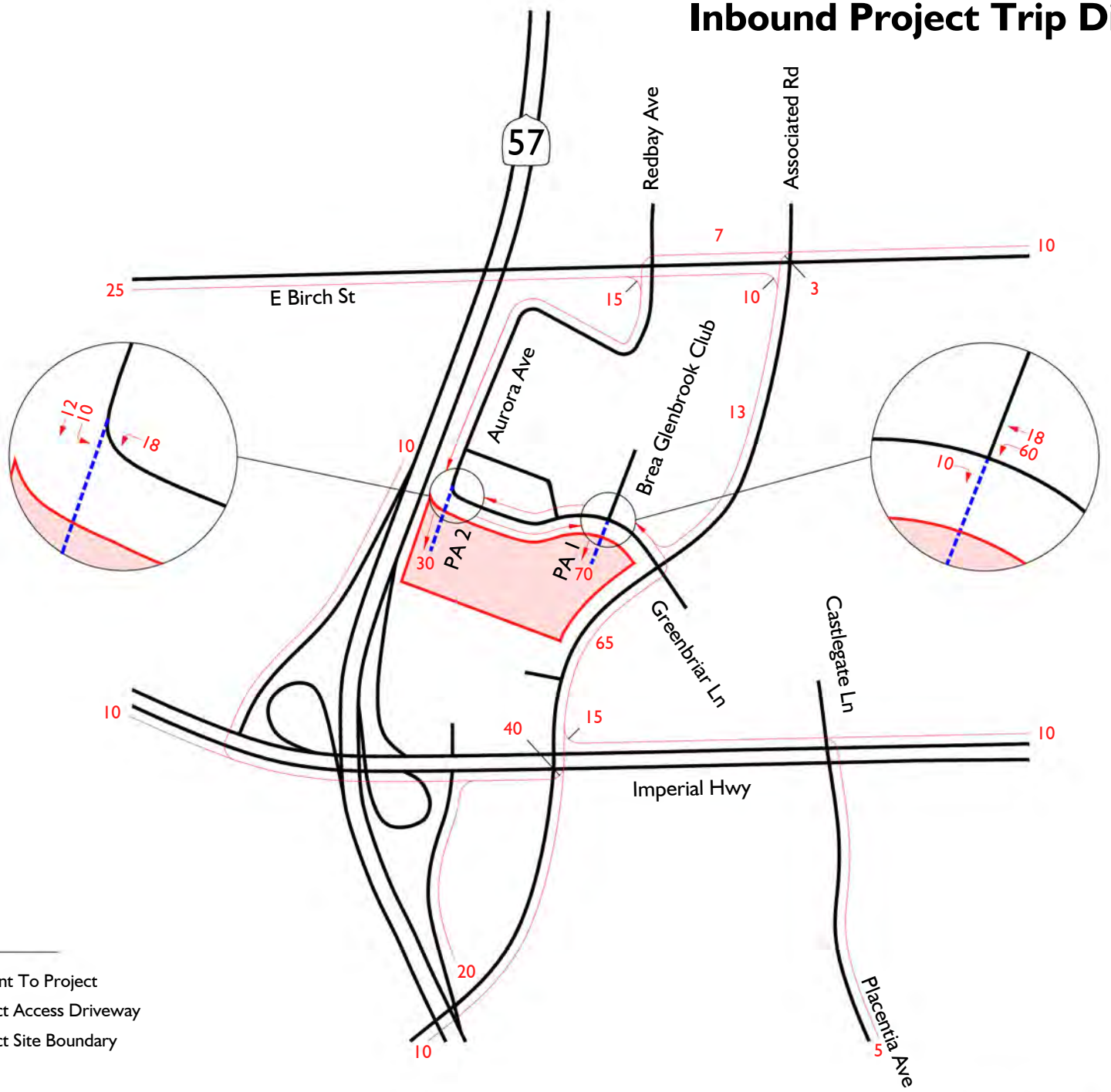


Exhibit D-2

Inbound Project Trip Distribution



Legend:

10 = Percent To Project

= Project Access Driveway

= Project Site Boundary

N

Appendix B

Existing Count Data

Appendix B-I

Existing Traffic Count Worksheets

RK19750.1
JN: 2827-2023-05

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

City of Brea
N/S: Redbay Avenue
E/W: Birch Street
Weather: Clear

File Name : 01_BRE_Red_Birch AM
Site Code : 10524132
Start Date : 2/13/2024
Page No : 1

Groups Printed- Total Volume

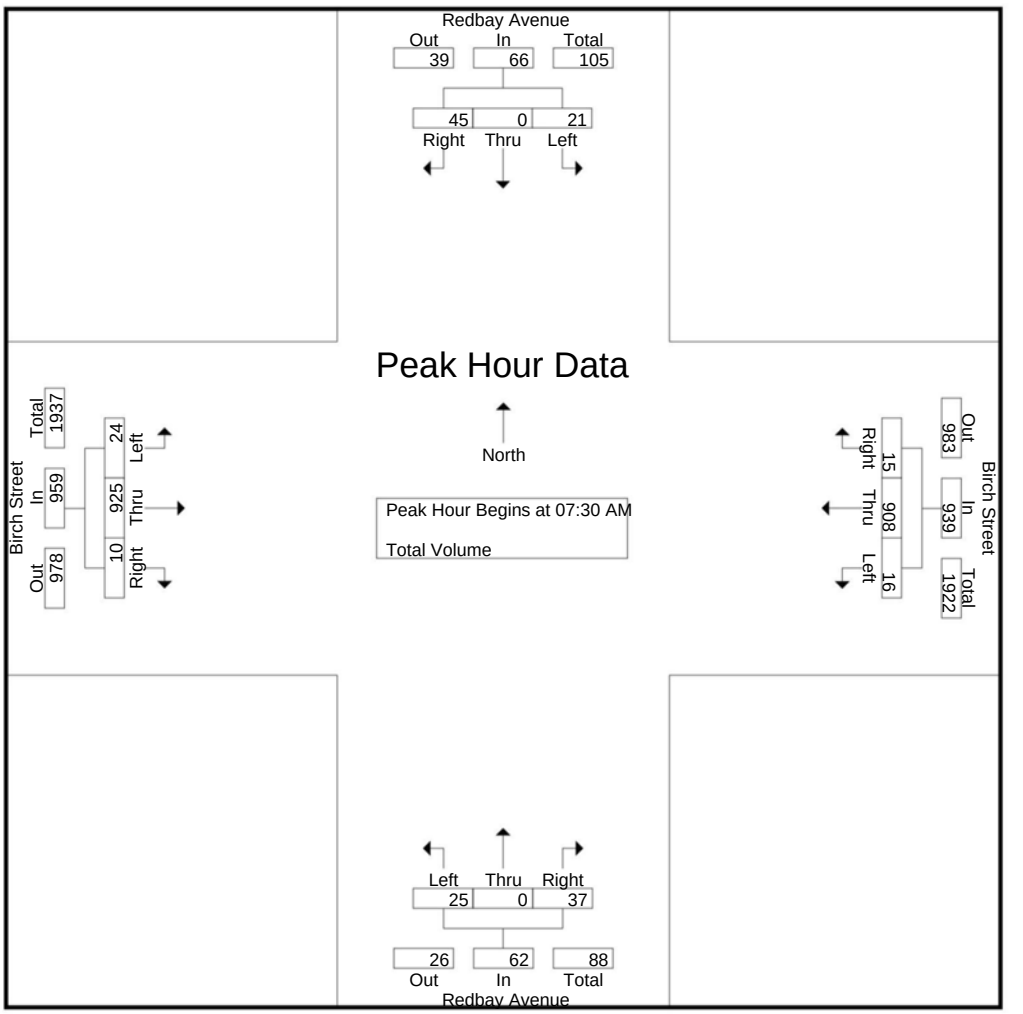
	Redbay Avenue Southbound				Birch Street Westbound				Redbay Avenue Northbound				Birch Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	6	0	16	22	1	94	2	97	1	0	5	6	2	175	1	178	303
07:15 AM	5	0	10	15	0	155	5	160	3	0	8	11	4	164	2	170	356
07:30 AM	7	0	13	20	1	214	3	218	7	0	5	12	6	206	3	215	465
07:45 AM	4	0	11	15	3	242	3	248	9	0	3	12	7	220	2	229	504
Total	22	0	50	72	5	705	13	723	20	0	21	41	19	765	8	792	1628
08:00 AM	7	0	12	19	5	251	5	261	6	0	15	21	6	306	2	314	615
08:15 AM	3	0	9	12	7	201	4	212	3	0	14	17	5	193	3	201	442
08:30 AM	6	0	12	18	6	204	10	220	7	0	16	23	5	175	3	183	444
08:45 AM	3	0	12	15	5	183	5	193	4	0	3	7	2	171	5	178	393
Total	19	0	45	64	23	839	24	886	20	0	48	68	18	845	13	876	1894
Grand Total	41	0	95	136	28	1544	37	1609	40	0	69	109	37	1610	21	1668	3522
Apprch %	30.1	0	69.9		1.7	96	2.3		36.7	0	63.3		2.2	96.5	1.3		
Total %	1.2	0	2.7	3.9	0.8	43.8	1.1	45.7	1.1	0	2	3.1	1.1	45.7	0.6	47.4	

	Redbay Avenue Southbound				Birch Street Westbound				Redbay Avenue Northbound				Birch Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**7**	0	**13**	**20**	1	214	3	218	7	0	5	12	6	206	**3**	215	465
07:45 AM	4	0	11	15	3	242	3	248	**9**	0	3	12	**7**	220	2	229	504
08:00 AM	7	0	12	19	5	**251**	**5**	**261**	6	0	**15**	**21**	6	**306**	2	**314**	**615**
08:15 AM	3	0	9	12	**7**	201	4	212	3	0	14	17	5	193	3	201	442
Total Volume	21	0	45	66	16	908	15	939	25	0	37	62	24	925	10	959	2026
% App. Total	31.8	0	68.2		1.7	96.7	1.6		40.3	0	59.7		2.5	96.5	1		
PHF	.750	.000	.865	.825	.571	.904	.750	.899	.694	.000	.617	.738	.857	.756	.833	.764	.824

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City of Brea
N/S: Redbay Avenue
E/W: Birch Street
Weather: Clear

File Name : 01_BRE_Red_Birch AM
Site Code : 10524132
Start Date : 2/13/2024
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:45 AM				07:45 AM				07:30 AM			
+0 mins.	6	0	**16**	**22**	3	242	3	248	**9**	0	3	12	6	206	**3**	215
+15 mins.	5	0	10	15	5	**251**	5	**261**	6	0	15	21	**7**	220	2	229
+30 mins.	**7**	0	13	20	**7**	201	4	212	3	0	14	17	6	**306**	2	**314**
+45 mins.	4	0	11	15	6	204	**10**	220	7	0	**16**	**23**	5	193	3	201
Total Volume	22	0	50	72	21	898	22	941	25	0	48	73	24	925	10	959
% App. Total	30.6	0	69.4		2.2	95.4	2.3		34.2	0	65.8		2.5	96.5	1	
PHF	.786	.000	.781	.818	.750	.894	.550	.901	.694	.000	.750	.793	.857	.756	.833	.764

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City of Brea
N/S: Redbay Avenue
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File Name : 01_BRE_Red_Birch PM
Site Code : 10524132
Start Date : 2/13/2024
Page No : 1

Groups Printed- Total Volume

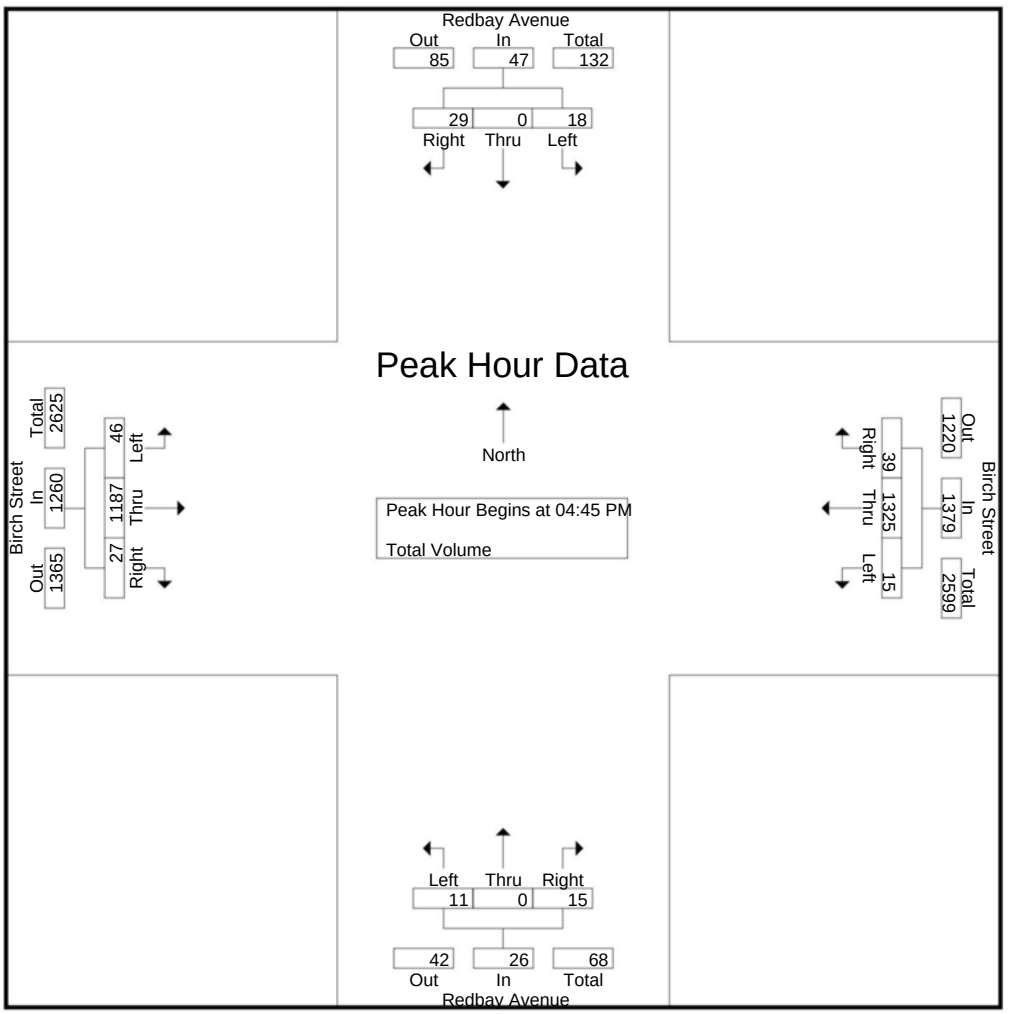
	Redbay Avenue Southbound				Birch Street Westbound				Redbay Avenue Northbound				Birch Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	0	7	11	7	283	10	300	5	0	6	11	5	265	6	276	598
04:15 PM	1	0	5	6	6	294	7	307	6	0	4	10	6	325	6	337	660
04:30 PM	2	0	8	10	7	300	8	315	1	0	8	9	8	298	8	314	648
04:45 PM	4	0	7	11	1	315	11	327	3	0	2	5	11	272	6	289	632
Total	11	0	27	38	21	1192	36	1249	15	0	20	35	30	1160	26	1216	2538
05:00 PM	5	0	8	13	2	329	8	339	1	0	5	6	8	301	10	319	677
05:15 PM	2	0	7	9	6	359	11	376	5	0	4	9	18	310	8	336	730
05:30 PM	7	0	7	14	6	322	9	337	2	0	4	6	9	304	3	316	673
05:45 PM	3	0	2	5	1	256	10	267	1	0	8	9	11	279	8	298	579
Total	17	0	24	41	15	1266	38	1319	9	0	21	30	46	1194	29	1269	2659
Grand Total	28	0	51	79	36	2458	74	2568	24	0	41	65	76	2354	55	2485	5197
Apprch %	35.4	0	64.6		1.4	95.7	2.9		36.9	0	63.1		3.1	94.7	2.2		
Total %	0.5	0	1	1.5	0.7	47.3	1.4	49.4	0.5	0	0.8	1.3	1.5	45.3	1.1	47.8	

	Redbay Avenue Southbound				Birch Street Westbound				Redbay Avenue Northbound				Birch Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	4	0	7	11	1	315	**11**	327	3	0	2	5	11	272	6	289	632
05:00 PM	5	0	**8**	13	2	329	8	339	1	0	**5**	6	8	301	**10**	319	677
05:15 PM	2	0	7	9	**6**	**359**	11	**376**	**5**	0	4	**9**	**18**	**310**	8	**336**	**730**
05:30 PM	**7**	0	7	**14**	6	322	9	337	2	0	4	6	9	304	3	316	673
Total Volume	18	0	29	47	15	1325	39	1379	11	0	15	26	46	1187	27	1260	2712
% App. Total	38.3	0	61.7		1.1	96.1	2.8		42.3	0	57.7		3.7	94.2	2.1		
PHF	.643	.000	.906	.839	.625	.923	.886	.917	.550	.000	.750	.722	.639	.957	.675	.938	.929

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File Name : 01_BRE_Red_Birch PM
Site Code : 10524132
Start Date : 2/13/2024
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:00 PM				05:00 PM			
+0 mins.	4	0	7	11	1	315	**11**	327	5	0	6	**11**	8	301	**10**	319
+15 mins.	5	0	**8**	13	2	329	8	339	**6**	0	4	10	**18**	**310**	8	**336**
+30 mins.	2	0	7	9	**6**	**359**	11	**376**	1	0	**8**	9	9	304	3	316
+45 mins.	**7**	0	7	**14**	6	322	9	337	3	0	2	5	11	279	8	298
Total Volume	18	0	29	47	15	1325	39	1379	15	0	20	35	46	1194	29	1269
% App. Total	38.3	0	61.7		1.1	96.1	2.8		42.9	0	57.1		3.6	94.1	2.3	
PHF	.643	.000	.906	.839	.625	.923	.886	.917	.625	.000	.625	.795	.639	.963	.725	.944

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City of Brea
N/S: Redbay Avenue
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Weather: Clear

File Name : 01_BRE_Red_Birch SAT
Site Code : 10524132
Start Date : 2/10/2024
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Groups Printed- Total Volume

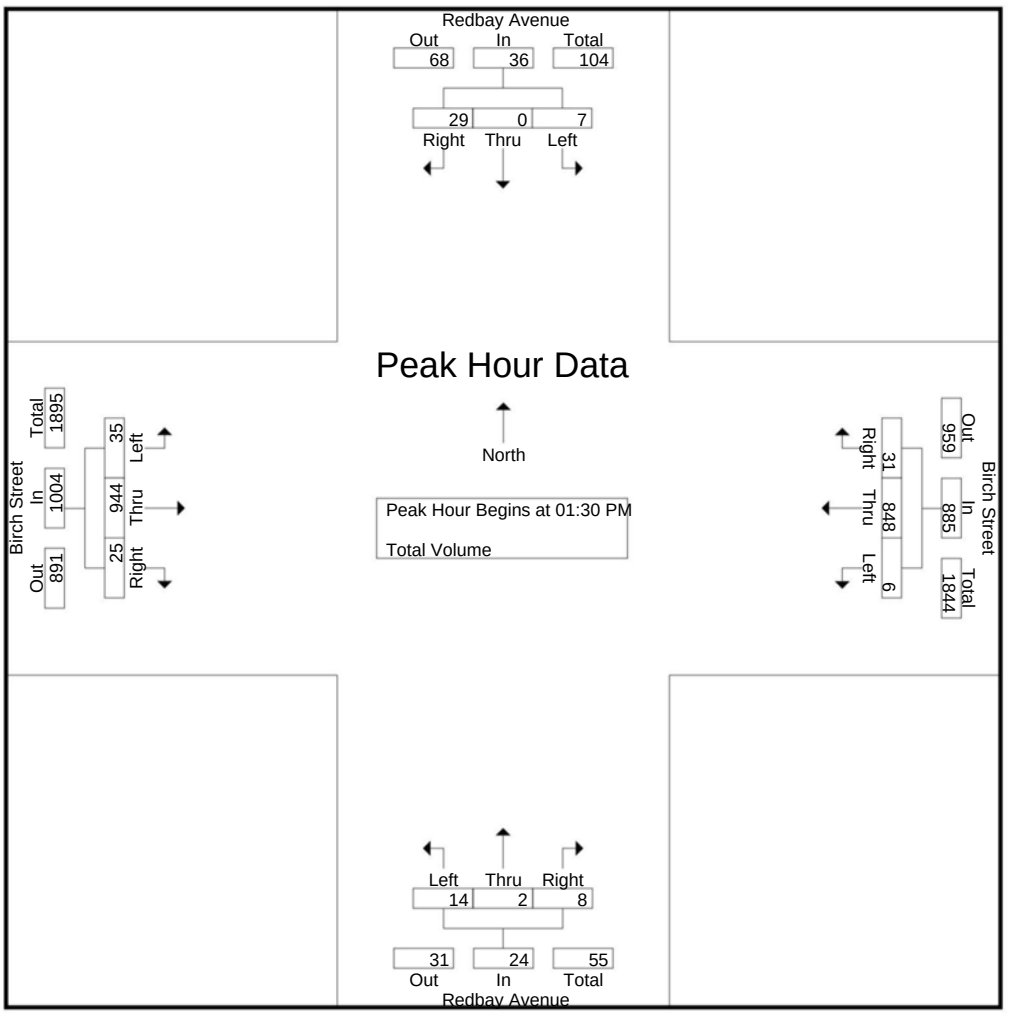
	Redbay Avenue Southbound				Birch Street Westbound				Redbay Avenue Northbound				Birch Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	7	0	5	12	1	214	4	219	7	0	3	10	13	226	8	247	488
12:15 PM	2	0	8	10	4	207	7	218	7	0	1	8	7	225	3	235	471
12:30 PM	3	0	5	8	4	192	8	204	5	0	1	6	4	193	6	203	421
12:45 PM	5	0	6	11	1	236	8	245	4	1	1	6	3	233	2	238	500
Total	17	0	24	41	10	849	27	886	23	1	6	30	27	877	19	923	1880
01:00 PM	0	0	12	12	2	219	6	227	2	0	3	5	6	249	7	262	506
01:15 PM	4	0	11	15	1	209	7	217	7	0	2	9	7	230	3	240	481
01:30 PM	0	0	5	5	1	201	8	210	2	0	3	5	3	231	1	235	455
01:45 PM	5	0	7	12	3	207	6	216	3	0	3	6	10	237	9	256	490
Total	9	0	35	44	7	836	27	870	14	0	11	25	26	947	20	993	1932
02:00 PM	1	0	12	13	1	224	6	231	4	2	1	7	10	248	4	262	513
02:15 PM	1	0	5	6	1	216	11	228	5	0	1	6	12	228	11	251	491
02:30 PM	4	0	9	13	2	199	6	207	2	0	2	4	13	203	5	221	445
02:45 PM	3	0	9	12	0	193	7	200	5	0	3	8	5	235	4	244	464
Total	9	0	35	44	4	832	30	866	16	2	7	25	40	914	24	978	1913
Grand Total	35	0	94	129	21	2517	84	2622	53	3	24	80	93	2738	63	2894	5725
Apprch %	27.1	0	72.9		0.8	96	3.2		66.2	3.8	30		3.2	94.6	2.2		
Total %	0.6	0	1.6	2.3	0.4	44	1.5	45.8	0.9	0.1	0.4	1.4	1.6	47.8	1.1	50.6	

	Redbay Avenue Southbound				Birch Street Westbound				Redbay Avenue Northbound				Birch Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:30 PM																	
01:30 PM	0	0	5	5	1	201	8	210	2	0	**3**	5	3	231	1	235	455
01:45 PM	**5**	0	7	12	**3**	207	6	216	3	0	3	6	10	237	9	256	490
02:00 PM	1	0	**12**	**13**	1	**224**	6	**231**	4	**2**	1	**7**	10	**248**	4	**262**	**513**
02:15 PM	1	0	5	6	1	216	**11**	228	**5**	0	1	6	**12**	228	**11**	251	491
Total Volume	7	0	29	36	6	848	31	885	14	2	8	24	35	944	25	1004	1949
% App. Total	19.4	0	80.6		0.7	95.8	3.5		58.3	8.3	33.3		3.5	94	2.5		
PHF	.350	.000	.604	.692	.500	.946	.705	.958	.700	.250	.667	.857	.729	.952	.568	.958	.950

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File Name : 01_BRE_Red_Birch SAT
Site Code : 10524132
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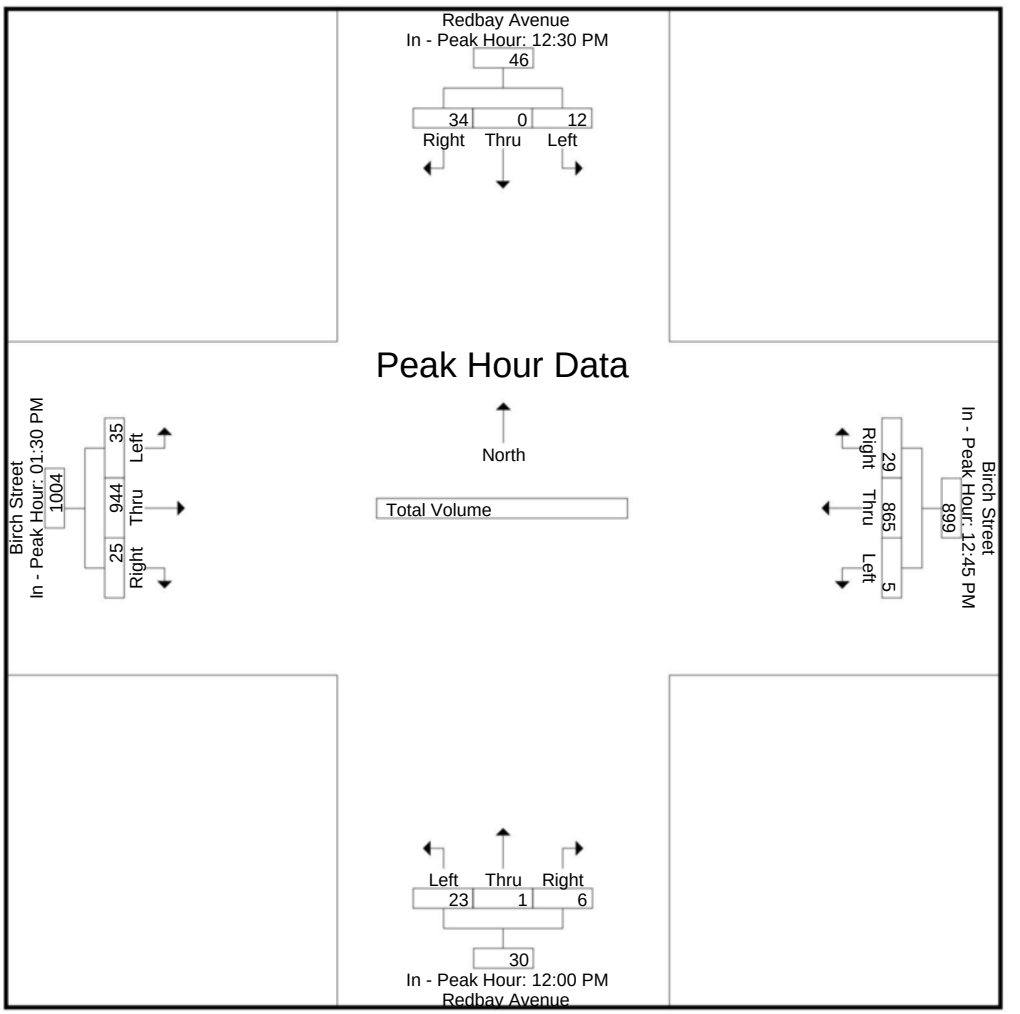
Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:30 PM				12:45 PM				12:00 PM				01:30 PM			
+0 mins.	3	0	5	8	1	**236**	**8**	**245**	**7**	0	**3**	**10**	3	231	1	235
+15 mins.	**5**	0	6	11	**2**	219	6	227	7	0	1	8	10	237	9	256
+30 mins.	0	0	**12**	12	1	209	7	217	5	0	1	6	10	**248**	4	**262**
+45 mins.	4	0	11	**15**	1	201	8	210	4	**1**	1	6	**12**	228	**11**	251
Total Volume	12	0	34	46	5	865	29	899	23	1	6	30	35	944	25	1004
% App. Total	26.1	0	73.9		0.6	96.2	3.2		76.7	3.3	20		3.5	94	2.5	
PHF	.600	.000	.708	.767	.625	.916	.906	.917	.821	.250	.500	.750	.729	.952	.568	.958

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N/S: Redbay Avenue
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Weather: Clear

File Name : 01_BRE_Red_Birch SAT
Site Code : 10524132
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City of Brea
N/S: Associated Road
E/W: Birch Street
Weather: Clear

File Name : 02_BRE_Asd_Birch AM
Site Code : 10524132
Start Date : 2/13/2024
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Groups Printed- Total Volume

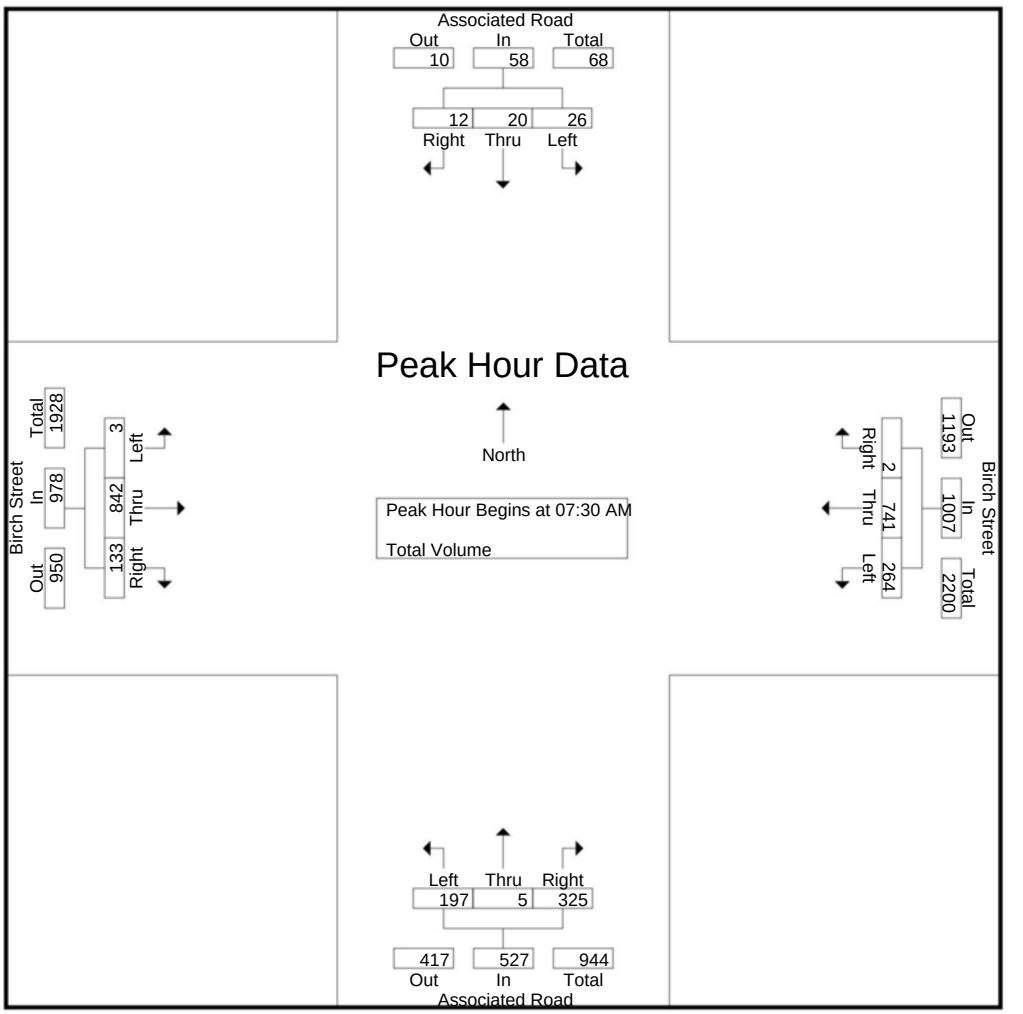
	Associated Road Southbound				Birch Street Westbound				Associated Road Northbound				Birch Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	9	13	4	26	75	82	1	158	25	1	58	84	1	154	28	183	451
07:15 AM	7	5	4	16	52	131	1	184	25	1	65	91	0	169	11	180	471
07:30 AM	5	3	3	11	86	194	2	282	26	0	60	86	1	168	33	202	581
07:45 AM	7	6	5	18	72	201	0	273	55	1	77	133	0	202	25	227	651
Total	28	27	16	71	285	608	4	897	131	3	260	394	2	693	97	792	2154
08:00 AM	5	5	2	12	60	177	0	237	62	1	112	175	2	273	48	323	747
08:15 AM	9	6	2	17	46	169	0	215	54	3	76	133	0	199	27	226	591
08:30 AM	10	2	2	14	79	185	4	268	26	1	58	85	2	156	30	188	555
08:45 AM	4	6	0	10	62	140	0	202	49	1	63	113	0	129	47	176	501
Total	28	19	6	53	247	671	4	922	191	6	309	506	4	757	152	913	2394
Grand Total	56	46	22	124	532	1279	8	1819	322	9	569	900	6	1450	249	1705	4548
Apprch %	45.2	37.1	17.7		29.2	70.3	0.4		35.8	1	63.2		0.4	85	14.6		
Total %	1.2	1	0.5	2.7	11.7	28.1	0.2	40	7.1	0.2	12.5	19.8	0.1	31.9	5.5	37.5	

	Associated Road Southbound				Birch Street Westbound				Associated Road Northbound				Birch Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	5	3	3	11	**86**	194	**2**	**282**	26	0	60	86	1	168	33	202	581
07:45 AM	7	**6**	**5**	**18**	72	**201**	0	273	55	1	77	133	0	202	25	227	651
08:00 AM	5	5	2	12	60	177	0	237	**62**	1	**112**	**175**	**2**	**273**	**48**	**323**	**747**
08:15 AM	**9**	6	2	17	46	169	0	215	54	**3**	76	133	0	199	27	226	591
Total Volume	26	20	12	58	264	741	2	1007	197	5	325	527	3	842	133	978	2570
% App. Total	44.8	34.5	20.7		26.2	73.6	0.2		37.4	0.9	61.7		0.3	86.1	13.6		
PHF	.722	.833	.600	.806	.767	.922	.250	.893	.794	.417	.725	.753	.375	.771	.693	.757	.860

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City of Brea
N/S: Associated Road
E/W: Birch Street
Weather: Clear

File Name : 02_BRE_Asd_Birch AM
Site Code : 10524132
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	**9**	**13**	4	**26**	**86**	194	**2**	**282**	26	0	60	86	1	168	33	202
+15 mins.	7	5	4	16	72	**201**	0	273	55	1	77	133	0	202	25	227
+30 mins.	5	3	3	11	60	177	0	237	**62**	1	**112**	**175**	**2**	**273**	**48**	**323**
+45 mins.	7	6	**5**	18	46	169	0	215	54	**3**	76	133	0	199	27	226
Total Volume	28	27	16	71	264	741	2	1007	197	5	325	527	3	842	133	978
% App. Total	39.4	38	22.5		26.2	73.6	0.2		37.4	0.9	61.7		0.3	86.1	13.6	
PHF	.778	.519	.800	.683	.767	.922	.250	.893	.794	.417	.725	.753	.375	.771	.693	.757

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File Name : 02_BRE_Asd_Birch PM
Site Code : 10524132
Start Date : 2/13/2024
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Groups Printed- Total Volume

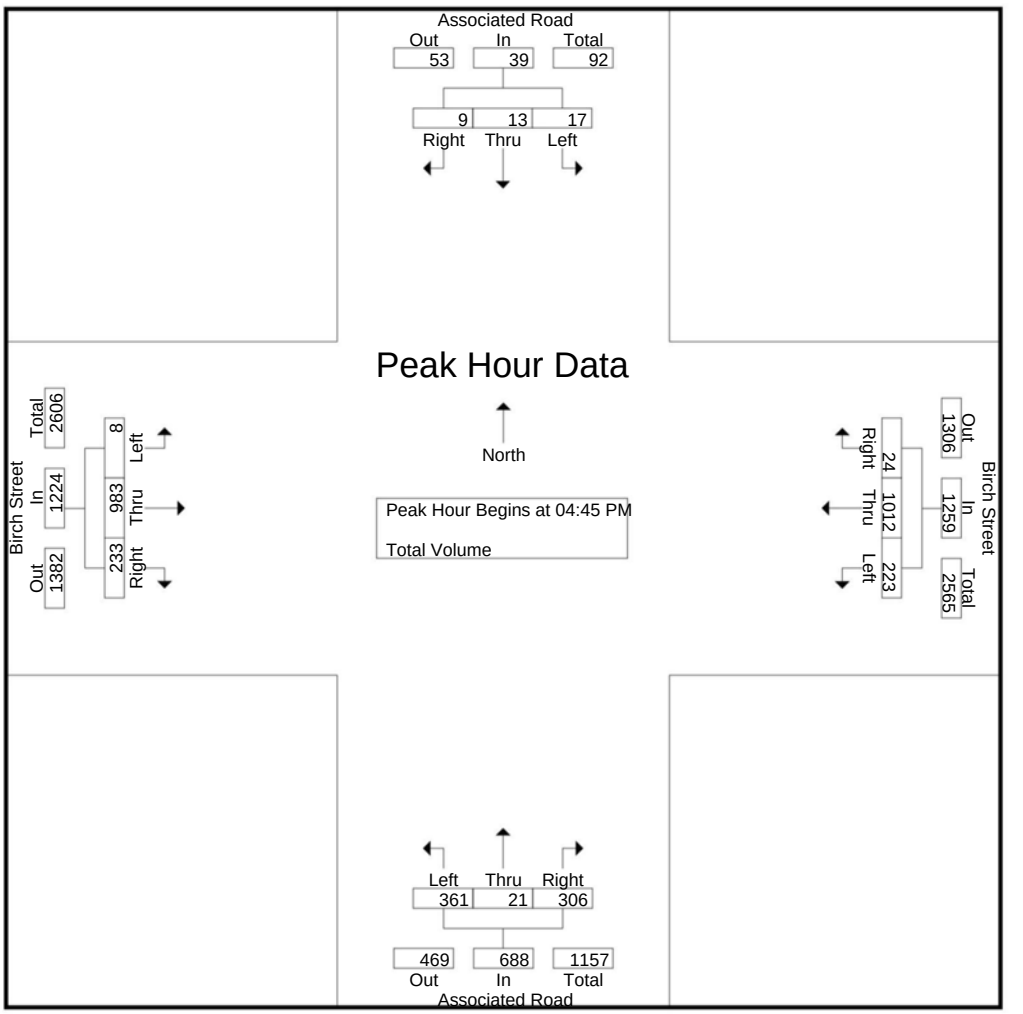
	Associated Road Southbound				Birch Street Westbound				Associated Road Northbound				Birch Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	3	1	1	5	56	208	4	268	91	5	70	166	2	238	55	295	734
04:15 PM	4	3	2	9	41	199	5	245	104	6	62	172	3	236	76	315	741
04:30 PM	4	1	1	6	72	245	4	321	78	6	56	140	3	237	73	313	780
04:45 PM	3	2	1	6	57	243	5	305	89	7	75	171	1	220	51	272	754
Total	14	7	5	26	226	895	18	1139	362	24	263	649	9	931	255	1195	3009
05:00 PM	6	3	4	13	57	254	5	316	89	6	76	171	3	260	64	327	827
05:15 PM	3	4	0	7	62	269	6	337	99	4	83	186	3	238	60	301	831
05:30 PM	5	4	4	13	47	246	8	301	84	4	72	160	1	265	58	324	798
05:45 PM	0	1	4	5	62	167	2	231	100	5	71	176	2	224	50	276	688
Total	14	12	12	38	228	936	21	1185	372	19	302	693	9	987	232	1228	3144
Grand Total	28	19	17	64	454	1831	39	2324	734	43	565	1342	18	1918	487	2423	6153
Apprch %	43.8	29.7	26.6		19.5	78.8	1.7		54.7	3.2	42.1		0.7	79.2	20.1		
Total %	0.5	0.3	0.3	1	7.4	29.8	0.6	37.8	11.9	0.7	9.2	21.8	0.3	31.2	7.9	39.4	

	Associated Road Southbound				Birch Street Westbound				Associated Road Northbound				Birch Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	3	2	1	6	57	243	5	305	89	**7**	75	171	1	220	51	272	754
05:00 PM	**6**	3	**4**	**13**	57	254	5	316	89	6	76	171	**3**	260	**64**	**327**	827
05:15 PM	3	**4**	0	7	**62**	**269**	6	**337**	**99**	4	**83**	**186**	3	238	60	301	**831**
05:30 PM	5	4	4	13	47	246	**8**	301	84	4	72	160	1	**265**	58	324	798
Total Volume	17	13	9	39	223	1012	24	1259	361	21	306	688	8	983	233	1224	3210
% App. Total	43.6	33.3	23.1		17.7	80.4	1.9		52.5	3.1	44.5		0.7	80.3	19		
PHF	.708	.813	.563	.750	.899	.941	.750	.934	.912	.750	.922	.925	.667	.927	.910	.936	.966

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City of Brea
N/S: Associated Road
E/W: Birch Street
Weather: Clear

File Name : 02_BRE_Asd_Birch PM
Site Code : 10524132
Start Date : 2/13/2024
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:30 PM				05:00 PM				05:00 PM			
+0 mins.	3	2	1	6	**72**	245	4	321	89	**6**	76	171	**3**	260	**64**	**327**
+15 mins.	**6**	3	**4**	**13**	57	243	5	305	99	4	**83**	**186**	3	238	60	301
+30 mins.	3	**4**	0	7	57	254	5	316	84	4	72	160	1	**265**	58	324
+45 mins.	5	4	4	13	62	**269**	**6**	**337**	**100**	5	71	176	2	224	50	276
Total Volume	17	13	9	39	248	1011	20	1279	372	19	302	693	9	987	232	1228
% App. Total	43.6	33.3	23.1		19.4	79	1.6		53.7	2.7	43.6		0.7	80.4	18.9	
PHF	.708	.813	.563	.750	.861	.940	.833	.949	.930	.792	.910	.931	.750	.931	.906	.939

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City of Brea
N/S: Associated Road
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Weather: Clear

File Name : 02_BRE_Asd_Birch SAT
Site Code : 10524132
Start Date : 2/10/2024
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Groups Printed- Total Volume

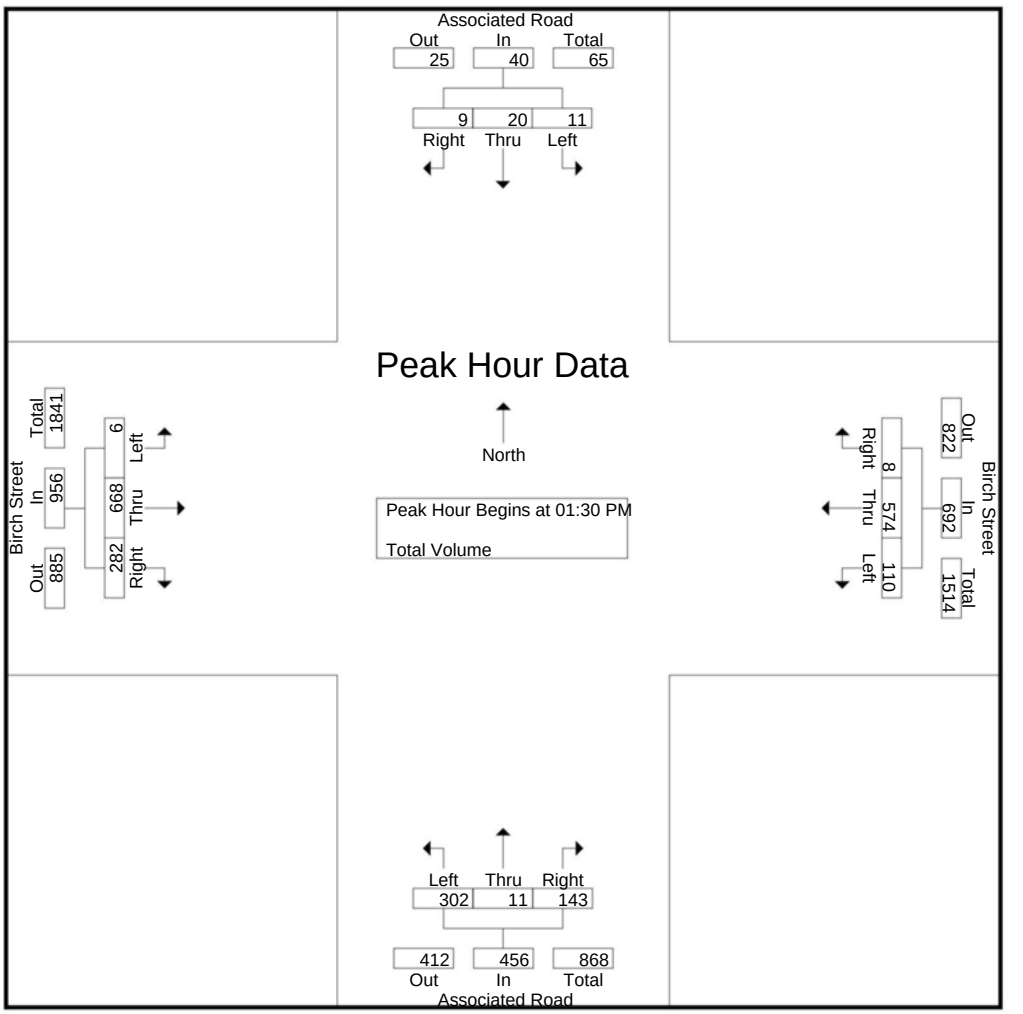
	Associated Road Southbound				Birch Street Westbound				Associated Road Northbound				Birch Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	2	6	1	9	35	146	3	184	63	1	23	87	3	171	64	238	518
12:15 PM	4	4	5	13	29	153	1	183	61	1	31	93	0	157	70	227	516
12:30 PM	5	4	4	13	30	135	0	165	70	5	25	100	1	134	60	195	473
12:45 PM	4	5	1	10	36	170	3	209	65	1	30	96	1	152	84	237	552
Total	15	19	11	45	130	604	7	741	259	8	109	376	5	614	278	897	2059
01:00 PM	6	4	2	12	32	154	1	187	65	3	25	93	1	183	68	252	544
01:15 PM	1	2	1	4	25	140	2	167	74	5	37	116	1	167	67	235	522
01:30 PM	4	3	1	8	29	135	2	166	76	3	33	112	2	167	62	231	517
01:45 PM	3	7	2	12	29	140	1	170	75	1	36	112	1	169	74	244	538
Total	14	16	6	36	115	569	6	690	290	12	131	433	5	686	271	962	2121
02:00 PM	3	5	4	12	26	150	4	180	78	3	26	107	1	179	73	253	552
02:15 PM	1	5	2	8	26	149	1	176	73	4	48	125	2	153	73	228	537
02:30 PM	7	2	4	13	24	131	2	157	72	8	25	105	2	139	65	206	481
02:45 PM	5	3	6	14	27	133	2	162	59	2	31	92	3	179	60	242	510
Total	16	15	16	47	103	563	9	675	282	17	130	429	8	650	271	929	2080
Grand Total	45	50	33	128	348	1736	22	2106	831	37	370	1238	18	1950	820	2788	6260
Apprch %	35.2	39.1	25.8		16.5	82.4	1		67.1	3	29.9		0.6	69.9	29.4		
Total %	0.7	0.8	0.5	2	5.6	27.7	0.4	33.6	13.3	0.6	5.9	19.8	0.3	31.2	13.1	44.5	

	Associated Road Southbound				Birch Street Westbound				Associated Road Northbound				Birch Street Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:30 PM																	
01:30 PM	**4**	3	1	8	**29**	135	2	166	76	3	33	112	**2**	167	62	231	517
01:45 PM	3	**7**	2	**12**	29	140	1	170	75	1	36	112	1	169	**74**	244	538
02:00 PM	3	5	**4**	12	26	**150**	**4**	**180**	**78**	3	26	107	1	**179**	73	**253**	**552**
02:15 PM	1	5	2	8	26	149	1	176	73	**4**	**48**	**125**	2	153	73	228	537
Total Volume	11	20	9	40	110	574	8	692	302	11	143	456	6	668	282	956	2144
% App. Total	27.5	50	22.5		15.9	82.9	1.2		66.2	2.4	31.4		0.6	69.9	29.5		
PHF	.688	.714	.563	.833	.948	.957	.500	.961	.968	.688	.745	.912	.750	.933	.953	.945	.971

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City of Brea
N/S: Associated Road
E/W: Birch Street
Weather: Clear

File Name : 02_BRE_Asd_Birch SAT
Site Code : 10524132
Start Date : 2/10/2024
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Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:15 PM				12:15 PM				01:30 PM				01:15 PM			
+0 mins.	4	4	**5**	**13**	29	153	1	183	76	3	33	112	1	167	67	235
+15 mins.	5	4	4	13	30	135	0	165	75	1	36	112	**2**	167	62	231
+30 mins.	4	**5**	1	10	**36**	**170**	**3**	**209**	**78**	3	26	107	1	169	**74**	244
+45 mins.	**6**	4	2	12	32	154	1	187	73	**4**	**48**	**125**	1	**179**	73	**253**
Total Volume	19	17	12	48	127	612	5	744	302	11	143	456	5	682	276	963
% App. Total	39.6	35.4	25		17.1	82.3	0.7		66.2	2.4	31.4		0.5	70.8	28.7	
PHF	.792	.850	.600	.923	.882	.900	.417	.890	.968	.688	.745	.912	.625	.953	.932	.952

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City of Brea
N/S: Associated Road
E/W: Greenbrair Lane
Weather: Clear

File Name : 03_BRE_Asd_Green AM
Site Code : 10524132
Start Date : 2/13/2024
Page No : 1

Groups Printed- Total Volume

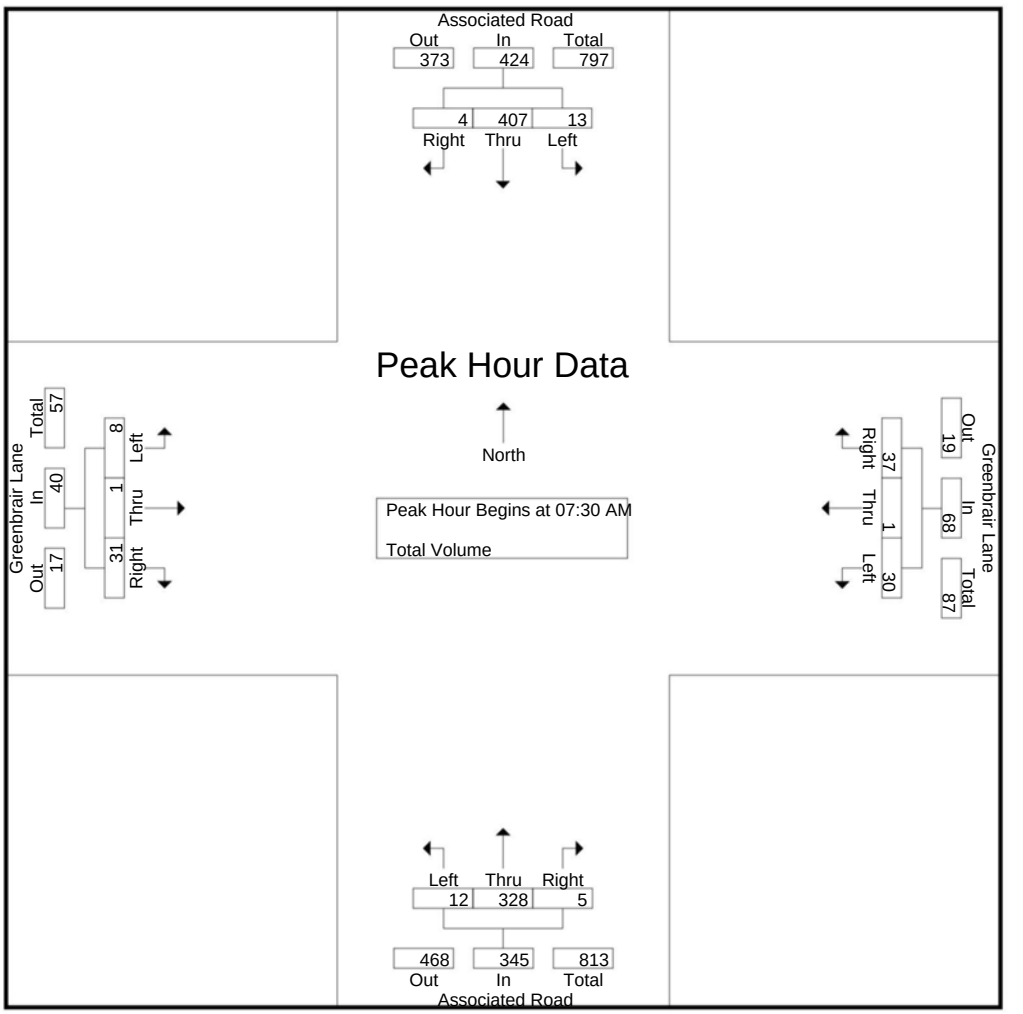
	Associated Road Southbound				Greenbrair Lane Westbound				Associated Road Northbound				Greenbrair Lane Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	119	0	120	13	0	4	17	3	65	2	70	1	0	10	11	218
07:15 AM	1	68	2	71	8	1	2	11	1	73	2	76	3	0	4	7	165
07:30 AM	4	117	1	122	10	0	8	18	6	67	2	75	2	1	12	15	230
07:45 AM	2	100	2	104	10	1	11	22	2	85	1	88	2	0	6	8	222
Total	8	404	5	417	41	2	25	68	12	290	7	309	8	1	32	41	835
08:00 AM	3	105	1	109	4	0	11	15	3	98	1	102	2	0	8	10	236
08:15 AM	4	85	0	89	6	0	7	13	1	78	1	80	2	0	5	7	189
08:30 AM	6	107	1	114	8	1	12	21	2	55	1	58	0	1	4	5	198
08:45 AM	7	110	0	117	6	0	9	15	7	76	5	88	3	1	9	13	233
Total	20	407	2	429	24	1	39	64	13	307	8	328	7	2	26	35	856
Grand Total	28	811	7	846	65	3	64	132	25	597	15	637	15	3	58	76	1691
Apprch %	3.3	95.9	0.8		49.2	2.3	48.5		3.9	93.7	2.4		19.7	3.9	76.3		
Total %	1.7	48	0.4	50	3.8	0.2	3.8	7.8	1.5	35.3	0.9	37.7	0.9	0.2	3.4	4.5	

	Associated Road Southbound				Greenbrair Lane Westbound				Associated Road Northbound				Greenbrair Lane Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**4**	**117**	1	**122**	**10**	0	8	18	**6**	67	**2**	75	**2**	**1**	**12**	**15**	230
07:45 AM	2	100	**2**	104	10	**1**	**11**	**22**	2	85	1	88	2	0	6	8	222
08:00 AM	3	105	1	109	4	0	11	15	3	**98**	1	**102**	2	0	8	10	**236**
08:15 AM	4	85	0	89	6	0	7	13	1	78	1	80	2	0	5	7	189
Total Volume	13	407	4	424	30	1	37	68	12	328	5	345	8	1	31	40	877
% App. Total	3.1	96	0.9		44.1	1.5	54.4		3.5	95.1	1.4		20	2.5	77.5		
PHF	.813	.870	.500	.869	.750	.250	.841	.773	.500	.837	.625	.846	1.00	.250	.646	.667	.929

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City of Brea
N/S: Associated Road
E/W: Greenbrair Lane
Weather: Clear

File Name : 03_BRE_Asd_Green AM
Site Code : 10524132
Start Date : 2/13/2024
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:45 AM				07:30 AM				07:00 AM			
+0 mins.	3	105	**1**	109	**10**	**1**	11	**22**	**6**	67	**2**	75	1	0	10	11
+15 mins.	4	85	0	89	4	0	11	15	2	85	1	88	**3**	0	4	7
+30 mins.	6	107	1	114	6	0	7	13	3	**98**	1	**102**	2	**1**	**12**	**15**
+45 mins.	**7**	**110**	0	**117**	8	1	**12**	21	1	78	1	80	2	0	6	8
Total Volume	20	407	2	429	28	2	41	71	12	328	5	345	8	1	32	41
% App. Total	4.7	94.9	0.5		39.4	2.8	57.7		3.5	95.1	1.4		19.5	2.4	78	
PHF	.714	.925	.500	.917	.700	.500	.854	.807	.500	.837	.625	.846	.667	.250	.667	.683

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Site Code : 10524132
Start Date : 2/13/2024
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Groups Printed- Total Volume

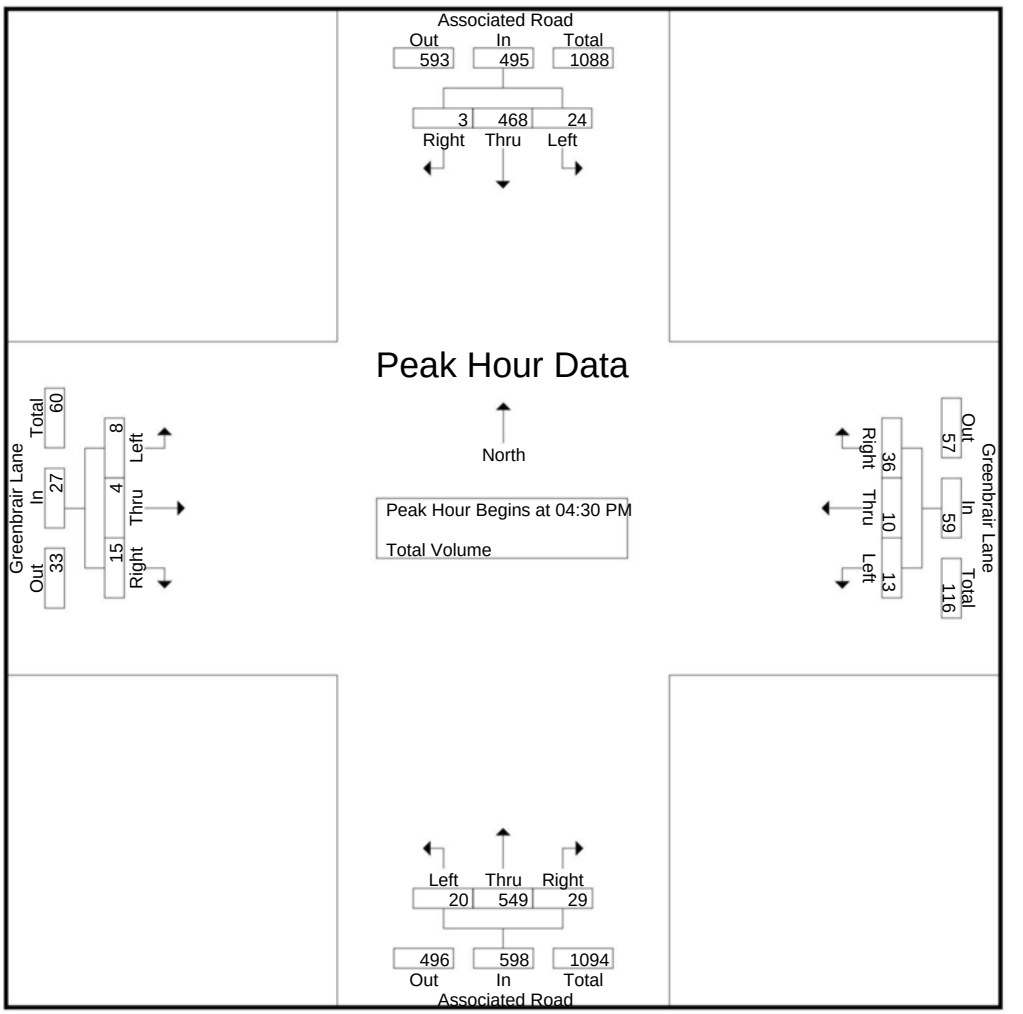
	Associated Road Southbound				Greenbrair Lane Westbound				Associated Road Northbound				Greenbrair Lane Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	102	2	108	3	2	12	17	6	122	1	129	3	1	5	9	263
04:15 PM	1	107	0	108	6	0	8	14	9	130	6	145	3	0	3	6	273
04:30 PM	6	134	0	140	8	8	8	24	10	125	5	140	2	2	6	10	314
04:45 PM	5	104	1	110	1	0	7	8	7	130	7	144	3	1	4	8	270
Total	16	447	3	466	18	10	35	63	32	507	19	558	11	4	18	33	1120
05:00 PM	6	118	1	125	3	0	14	17	1	144	9	154	3	1	4	8	304
05:15 PM	7	112	1	120	1	2	7	10	2	150	8	160	0	0	1	1	291
05:30 PM	4	107	0	111	2	3	9	14	7	152	6	165	2	0	3	5	295
05:45 PM	2	105	1	108	5	3	8	16	6	151	5	162	1	0	2	3	289
Total	19	442	3	464	11	8	38	57	16	597	28	641	6	1	10	17	1179
Grand Total	35	889	6	930	29	18	73	120	48	1104	47	1199	17	5	28	50	2299
Apprch %	3.8	95.6	0.6		24.2	15	60.8		4	92.1	3.9		34	10	56		
Total %	1.5	38.7	0.3	40.5	1.3	0.8	3.2	5.2	2.1	48	2	52.2	0.7	0.2	1.2	2.2	

	Associated Road Southbound				Greenbrair Lane Westbound				Associated Road Northbound				Greenbrair Lane Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	6	**134**	0	**140**	**8**	**8**	8	**24**	**10**	125	5	140	2	**2**	**6**	**10**	**314**
04:45 PM	5	104	**1**	110	1	0	7	8	7	130	7	144	**3**	1	4	8	270
05:00 PM	6	118	1	125	3	0	**14**	17	1	144	**9**	154	3	1	4	8	304
05:15 PM	**7**	112	1	120	1	2	7	10	2	**150**	8	**160**	0	0	1	1	291
Total Volume	24	468	3	495	13	10	36	59	20	549	29	598	8	4	15	27	1179
% App. Total	4.8	94.5	0.6		22	16.9	61		3.3	91.8	4.8		29.6	14.8	55.6		
PHF	.857	.873	.750	.884	.406	.313	.643	.615	.500	.915	.806	.934	.667	.500	.625	.675	.939

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City of Brea
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Weather: Clear

File Name : 03_BRE_Asd_Green PM
Site Code : 10524132
Start Date : 2/13/2024
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				04:00 PM				05:00 PM				04:00 PM			
+0 mins.	6	**134**	0	**140**	3	2	**12**	17	1	144	**9**	154	**3**	1	5	9
+15 mins.	5	104	**1**	110	6	0	8	14	2	150	8	160	3	0	3	6
+30 mins.	6	118	1	125	**8**	**8**	8	**24**	**7**	**152**	6	**165**	2	**2**	**6**	**10**
+45 mins.	**7**	112	1	120	1	0	7	8	6	151	5	162	3	1	4	8
Total Volume	24	468	3	495	18	10	35	63	16	597	28	641	11	4	18	33
% App. Total	4.8	94.5	0.6		28.6	15.9	55.6		2.5	93.1	4.4		33.3	12.1	54.5	
PHF	.857	.873	.750	.884	.563	.313	.729	.656	.571	.982	.778	.971	.917	.500	.750	.825

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File Name : 03_BRE_Asd_Green SAT
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Groups Printed- Total Volume

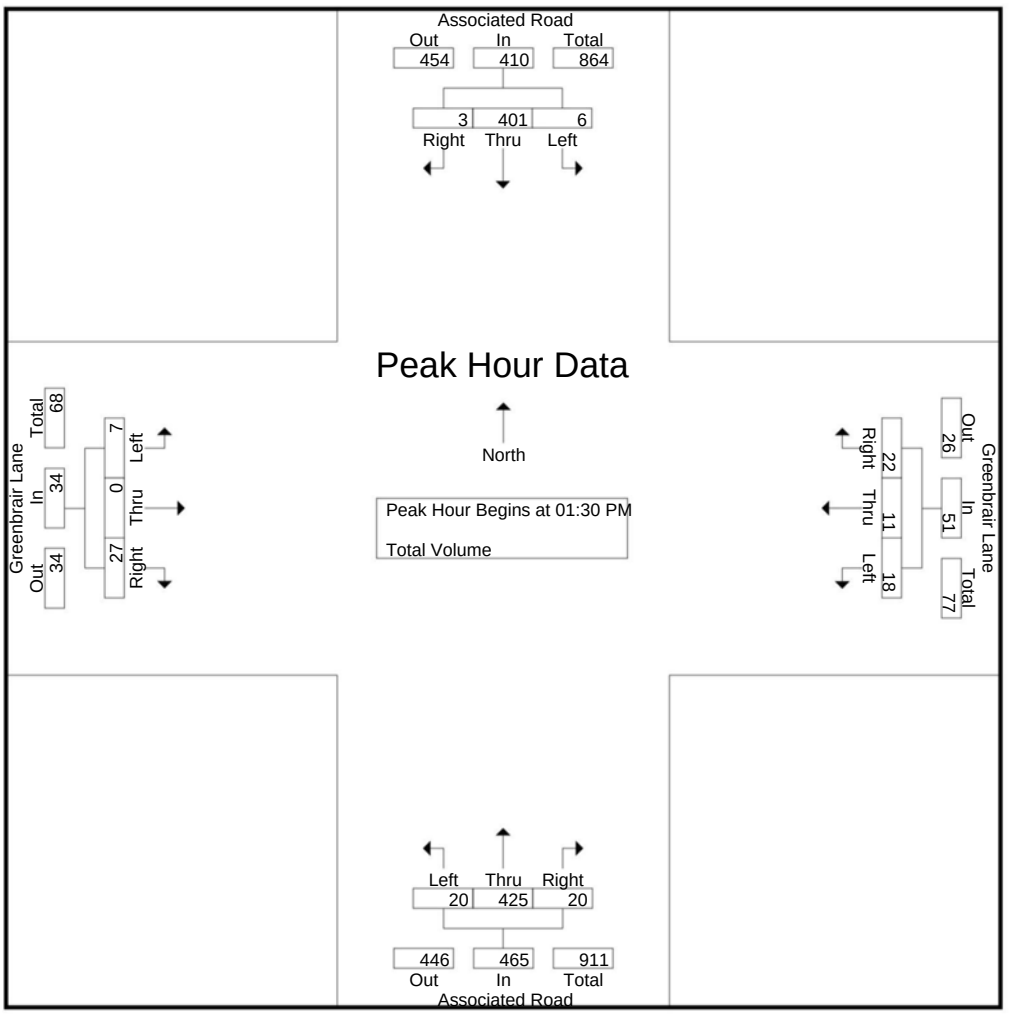
	Associated Road Southbound				Greenbrair Lane Westbound				Associated Road Northbound				Greenbrair Lane Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	4	104	0	108	10	1	5	16	1	80	4	85	0	0	4	4	213
12:15 PM	3	93	0	96	5	5	4	14	2	91	8	101	0	0	6	6	217
12:30 PM	4	89	4	97	8	0	8	16	9	93	3	105	3	0	2	5	223
12:45 PM	7	109	2	118	4	1	4	9	7	92	3	102	2	1	4	7	236
Total	18	395	6	419	27	7	21	55	19	356	18	393	5	1	16	22	889
01:00 PM	2	99	1	102	9	1	6	16	1	91	4	96	4	1	7	12	226
01:15 PM	2	87	1	90	7	0	6	13	2	104	6	112	2	2	4	8	223
01:30 PM	0	98	0	98	4	2	6	12	6	105	4	115	2	0	7	9	234
01:45 PM	0	111	1	112	2	4	5	11	2	103	4	109	2	0	7	9	241
Total	4	395	3	402	22	7	23	52	11	403	18	432	10	3	25	38	924
02:00 PM	2	98	2	102	6	4	7	17	7	104	7	118	2	0	4	6	243
02:15 PM	4	94	0	98	6	1	4	11	5	113	5	123	1	0	9	10	242
02:30 PM	4	93	1	98	1	0	4	5	3	92	7	102	0	0	3	3	208
02:45 PM	1	85	1	87	3	0	4	7	3	84	5	92	0	0	2	2	188
Total	11	370	4	385	16	5	19	40	18	393	24	435	3	0	18	21	881
Grand Total	33	1160	13	1206	65	19	63	147	48	1152	60	1260	18	4	59	81	2694
Apprch %	2.7	96.2	1.1		44.2	12.9	42.9		3.8	91.4	4.8		22.2	4.9	72.8		
Total %	1.2	43.1	0.5	44.8	2.4	0.7	2.3	5.5	1.8	42.8	2.2	46.8	0.7	0.1	2.2	3	

	Associated Road Southbound				Greenbrair Lane Westbound				Associated Road Northbound				Greenbrair Lane Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:30 PM																	
01:30 PM	0	98	0	98	4	2	6	12	6	105	4	115	**2**	0	7	9	234
01:45 PM	0	**111**	1	**112**	2	**4**	5	11	2	103	4	109	2	0	7	9	241
02:00 PM	2	98	**2**	102	**6**	4	**7**	**17**	**7**	104	**7**	118	2	0	4	6	**243**
02:15 PM	**4**	94	0	98	6	1	4	11	5	**113**	5	**123**	1	0	**9**	**10**	242
Total Volume	6	401	3	410	18	11	22	51	20	425	20	465	7	0	27	34	960
% App. Total	1.5	97.8	0.7		35.3	21.6	43.1		4.3	91.4	4.3		20.6	0	79.4		
PHF	.375	.903	.375	.915	.750	.688	.786	.750	.714	.940	.714	.945	.875	.000	.750	.850	.988

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City of Brea
N/S: Associated Road
E/W: Greenbrair Lane
Weather: Clear

File Name : 03_BRE_Asd_Green SAT
Site Code : 10524132
Start Date : 2/10/2024
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Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:00 PM				12:00 PM				01:30 PM				01:00 PM			
+0 mins.	4	104	0	108	**10**	1	5	**16**	6	105	4	115	**4**	1	**7**	**12**
+15 mins.	3	93	0	96	5	**5**	4	14	2	103	4	109	2	**2**	4	8
+30 mins.	4	89	**4**	97	8	0	**8**	16	**7**	104	**7**	118	2	0	7	9
+45 mins.	**7**	**109**	2	**118**	4	1	4	9	5	**113**	5	**123**	2	0	7	9
Total Volume	18	395	6	419	27	7	21	55	20	425	20	465	10	3	25	38
% App. Total	4.3	94.3	1.4		49.1	12.7	38.2		4.3	91.4	4.3		26.3	7.9	65.8	
PHF	.643	.906	.375	.888	.675	.350	.656	.859	.714	.940	.714	.945	.625	.375	.893	.792

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City of Brea
N/S: Associated Road
E/W: Driveway
Weather: Clear

File Name : 04_BRE_Asd_DW AM
Site Code : 10524132
Start Date : 2/13/2024
Page No : 1

Groups Printed- Total Volume

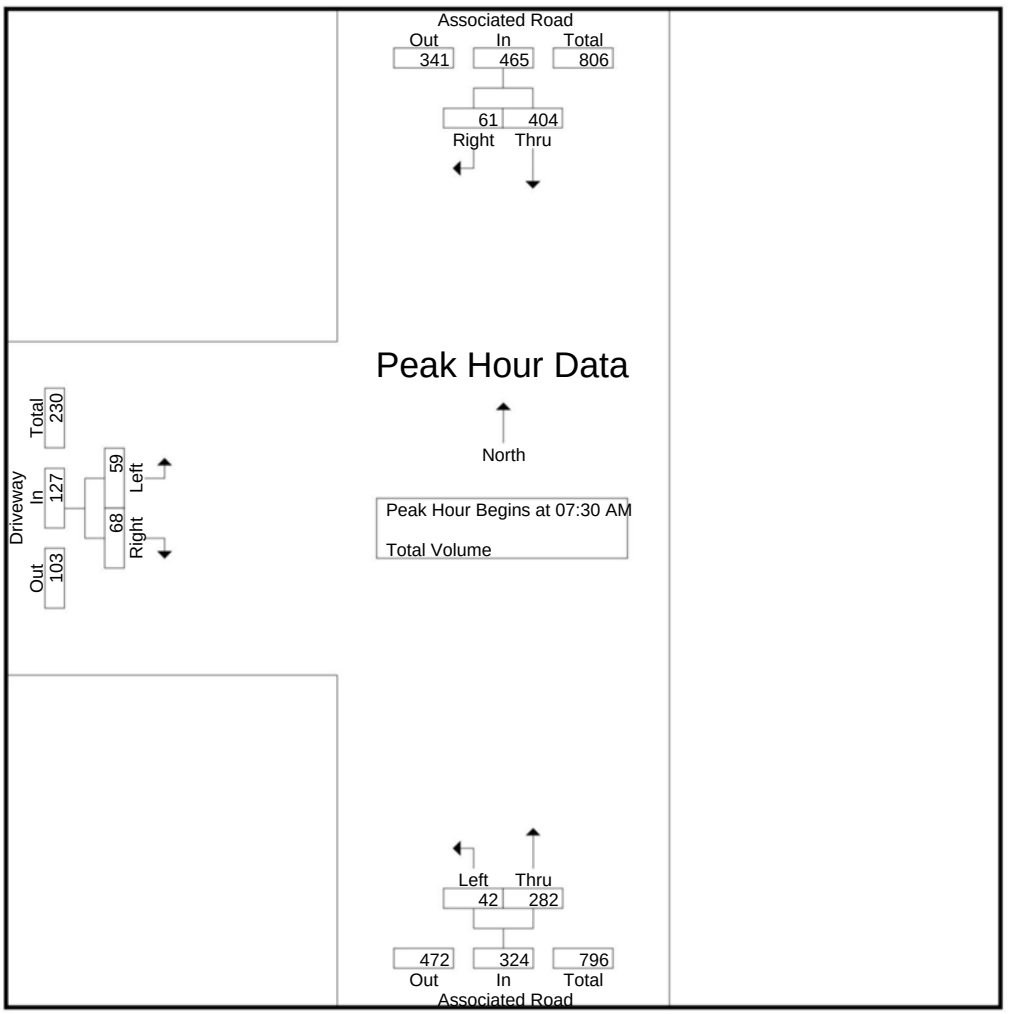
	Associated Road Southbound			Associated Road Northbound			Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
07:00 AM	122	18	140	11	59	70	9	15	24	234
07:15 AM	69	9	78	8	70	78	10	8	18	174
07:30 AM	116	19	135	5	60	65	12	17	29	229
07:45 AM	105	12	117	12	73	85	15	17	32	234
Total	412	58	470	36	262	298	46	57	103	871
08:00 AM	102	16	118	10	84	94	17	18	35	247
08:15 AM	81	14	95	15	65	80	15	16	31	206
08:30 AM	96	16	112	12	46	58	13	20	33	203
08:45 AM	104	21	125	12	77	89	10	28	38	252
Total	383	67	450	49	272	321	55	82	137	908
Grand Total	795	125	920	85	534	619	101	139	240	1779
Apprch %	86.4	13.6		13.7	86.3		42.1	57.9		
Total %	44.7	7	51.7	4.8	30	34.8	5.7	7.8	13.5	

	Associated Road Southbound			Associated Road Northbound			Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	**116**	**19**	**135**	5	60	65	12	17	29	229
07:45 AM	105	12	117	12	73	85	15	17	32	234
08:00 AM	102	16	118	10	**84**	**94**	**17**	**18**	**35**	**247**
08:15 AM	81	14	95	**15**	65	80	15	16	31	206
Total Volume	404	61	465	42	282	324	59	68	127	916
% App. Total	86.9	13.1		13	87		46.5	53.5		
PHF	.871	.803	.861	.700	.839	.862	.868	.944	.907	.927

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City of Brea
N/S: Associated Road
E/W: Driveway
Weather: Clear

File Name : 04_BRE_Asd_DW AM
Site Code : 10524132
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:30 AM			08:00 AM		
+0 mins.	**122**	18	**140**	5	60	65	**17**	18	35
+15 mins.	69	9	78	12	73	85	15	16	31
+30 mins.	116	**19**	135	10	**84**	**94**	13	20	33
+45 mins.	105	12	117	**15**	65	80	10	**28**	**38**
Total Volume	412	58	470	42	282	324	55	82	137
% App. Total	87.7	12.3		13	87		40.1	59.9	
PHF	.844	.763	.839	.700	.839	.862	.809	.732	.901

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City of Brea
N/S: Associated Road
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File Name : 04_BRE_Asd_DW PM
Site Code : 10524132
Start Date : 2/13/2024
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Groups Printed- Total Volume

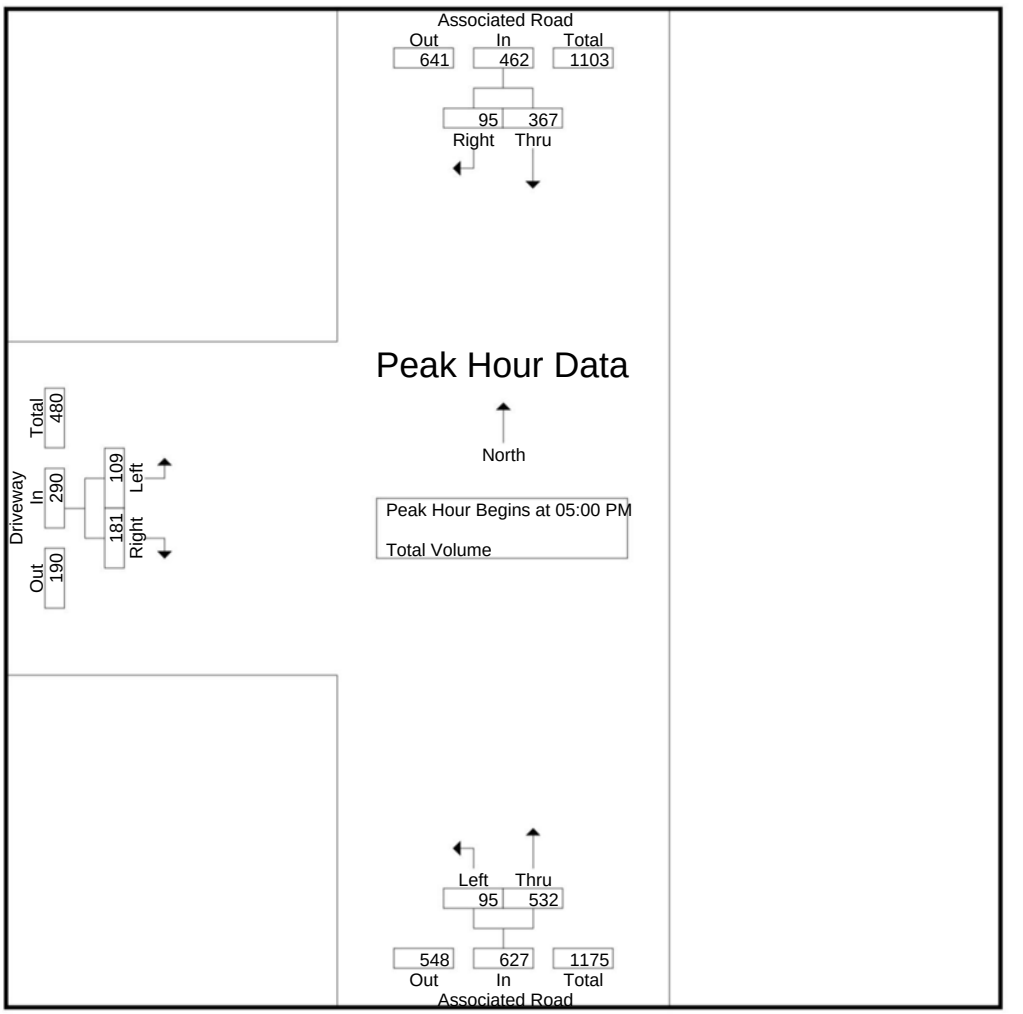
	Associated Road Southbound			Associated Road Northbound			Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
04:00 PM	96	11	107	33	109	142	20	50	70	319
04:15 PM	97	24	121	15	128	143	20	42	62	326
04:30 PM	120	18	138	24	116	140	23	40	63	341
04:45 PM	89	26	115	24	118	142	27	46	73	330
Total	402	79	481	96	471	567	90	178	268	1316
05:00 PM	109	17	126	25	131	156	25	49	74	356
05:15 PM	88	23	111	27	129	156	29	46	75	342
05:30 PM	93	21	114	19	138	157	32	44	76	347
05:45 PM	77	34	111	24	134	158	23	42	65	334
Total	367	95	462	95	532	627	109	181	290	1379
Grand Total	769	174	943	191	1003	1194	199	359	558	2695
Apprch %	81.5	18.5		16	84		35.7	64.3		
Total %	28.5	6.5	35	7.1	37.2	44.3	7.4	13.3	20.7	

	Associated Road Southbound			Associated Road Northbound			Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 05:00 PM										
05:00 PM	**109**	17	**126**	25	131	156	25	**49**	74	**356**
05:15 PM	88	23	111	**27**	129	156	29	46	75	342
05:30 PM	93	21	114	19	**138**	157	**32**	44	**76**	347
05:45 PM	77	**34**	111	24	134	**158**	23	42	65	334
Total Volume	367	95	462	95	532	627	109	181	290	1379
% App. Total	79.4	20.6		15.2	84.8		37.6	62.4		
PHF	.842	.699	.917	.880	.964	.992	.852	.923	.954	.968

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City of Brea
N/S: Associated Road
E/W: Driveway
Weather: Clear

File Name : 04_BRE_Asd_DW PM
Site Code : 10524132
Start Date : 2/13/2024
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			05:00 PM			04:45 PM		
+0 mins.	97	24	121	25	131	156	27	46	73
+15 mins.	**120**	18	**138**	**27**	129	156	25	**49**	74
+30 mins.	89	**26**	115	19	**138**	157	29	46	75
+45 mins.	109	17	126	24	134	**158**	**32**	44	**76**
Total Volume	415	85	500	95	532	627	113	185	298
% App. Total	83	17		15.2	84.8		37.9	62.1	
PHF	.865	.817	.906	.880	.964	.992	.883	.944	.980

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City of Brea
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Weather: Clear

File Name : 04_BRE_Asd_DW SAT
Site Code : 10524132
Start Date : 2/10/2024
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Groups Printed- Total Volume

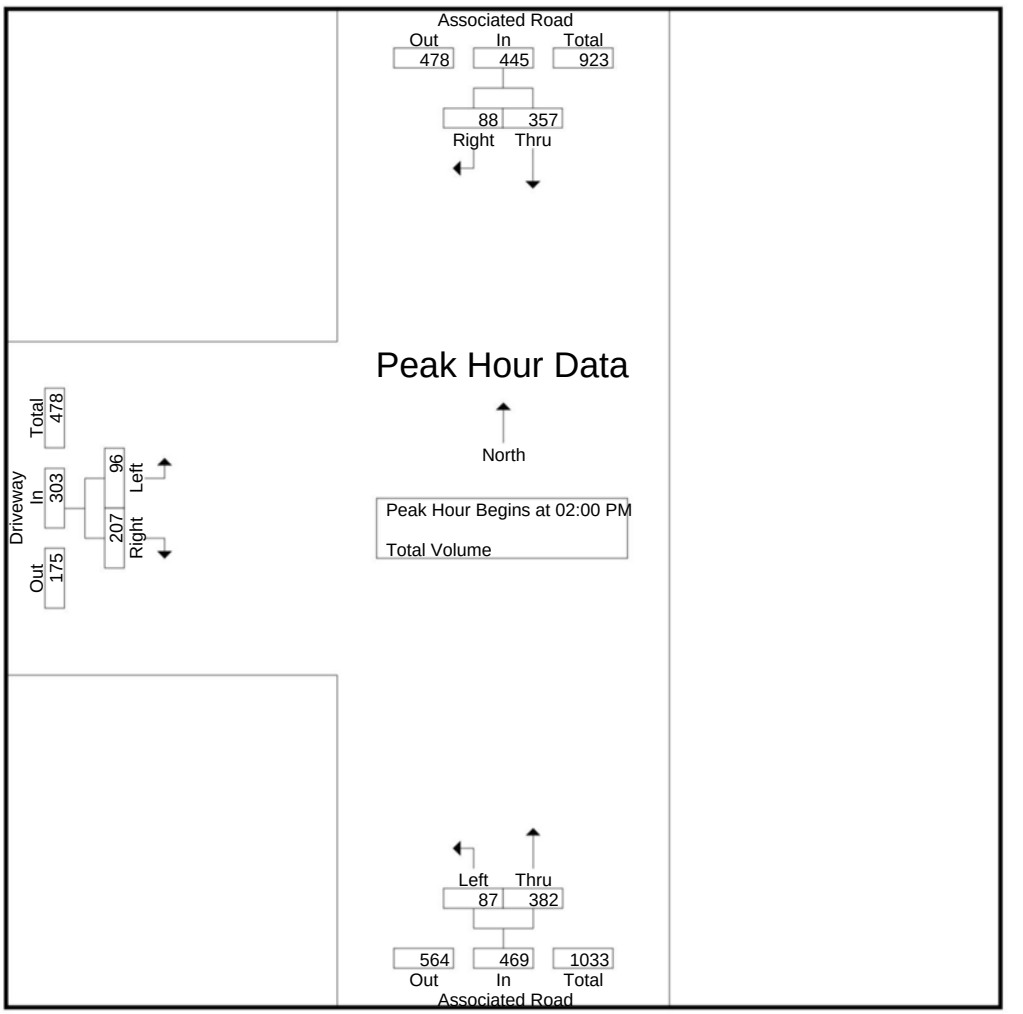
	Associated Road Southbound			Associated Road Northbound			Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
12:00 PM	71	38	109	30	68	98	34	39	73	280
12:15 PM	74	35	109	21	64	85	43	61	104	298
12:30 PM	77	33	110	20	77	97	34	43	77	284
12:45 PM	75	26	101	18	66	84	46	54	100	285
Total	297	132	429	89	275	364	157	197	354	1147
01:00 PM	69	25	94	24	61	85	23	40	63	242
01:15 PM	72	27	99	24	84	108	25	52	77	284
01:30 PM	84	21	105	20	67	87	27	51	78	270
01:45 PM	64	22	86	24	81	105	24	47	71	262
Total	289	95	384	92	293	385	99	190	289	1058
02:00 PM	89	25	114	19	76	95	16	60	76	285
02:15 PM	107	25	132	19	83	102	21	49	70	304
02:30 PM	87	23	110	23	118	141	28	41	69	320
02:45 PM	74	15	89	26	105	131	31	57	88	308
Total	357	88	445	87	382	469	96	207	303	1217
Grand Total	943	315	1258	268	950	1218	352	594	946	3422
Apprch %	75	25		22	78		37.2	62.8		
Total %	27.6	9.2	36.8	7.8	27.8	35.6	10.3	17.4	27.6	

	Associated Road Southbound			Associated Road Northbound			Driveway Eastbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 02:00 PM										
02:00 PM	89	**25**	114	19	76	95	16	**60**	76	285
02:15 PM	**107**	25	**132**	19	83	102	21	49	70	304
02:30 PM	87	23	110	23	**118**	**141**	28	41	69	**320**
02:45 PM	74	15	89	**26**	105	131	**31**	57	**88**	308
Total Volume	357	88	445	87	382	469	96	207	303	1217
% App. Total	80.2	19.8		18.6	81.4		31.7	68.3		
PHF	.834	.880	.843	.837	.809	.832	.774	.863	.861	.951

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City of Brea
N/S: Associated Road
E/W: Driveway
Weather: Clear

File Name : 04_BRE_Asd_DW SAT
Site Code : 10524132
Start Date : 2/10/2024
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Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	02:00 PM			02:00 PM			12:00 PM		
+0 mins.	89	**25**	114	19	76	95	34	39	73
+15 mins.	**107**	25	**132**	19	83	102	43	**61**	**104**
+30 mins.	87	23	110	23	**118**	**141**	34	43	77
+45 mins.	74	15	89	**26**	105	131	**46**	54	100
Total Volume	357	88	445	87	382	469	157	197	354
% App. Total	80.2	19.8		18.6	81.4		44.4	55.6	
PHF	.834	.880	.843	.837	.809	.832	.853	.807	.851

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City of Brea
N/S: SR-57 Northbound Off Ramp
E/W: Imperial Highway
Weather: Clear

File Name : 05_BRE_57N Off_Imp AM
Site Code : 10524132
Start Date : 2/13/2024
Page No : 1

Groups Printed- Total Volume

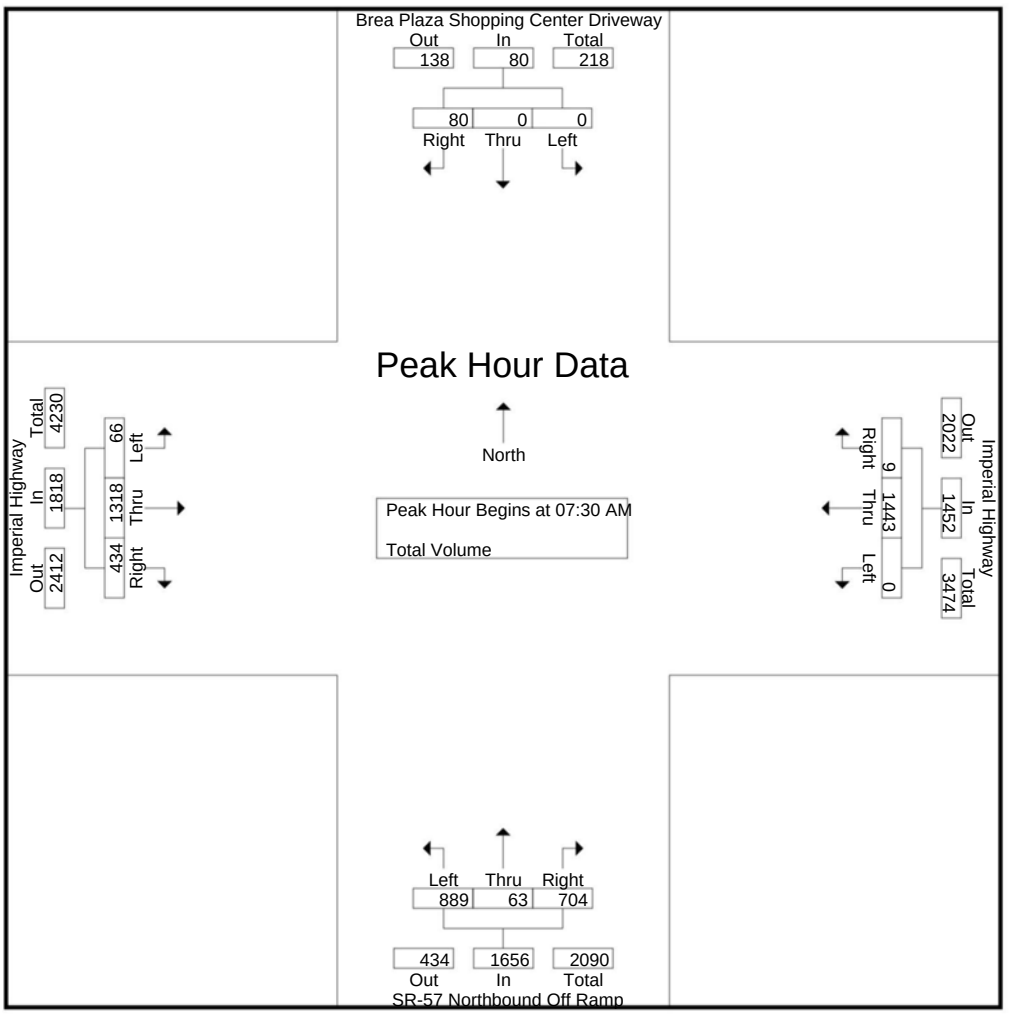
	Brea Plaza Shopping Center Driveway Southbound				Imperial Highway Westbound				SR-57 Northbound Off Ramp Northbound				Imperial Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	17	17	0	261	1	262	159	7	163	329	12	249	120	381	989
07:15 AM	0	0	21	21	0	288	3	291	184	13	148	345	15	329	144	488	1145
07:30 AM	0	0	19	19	0	367	1	368	228	12	176	416	14	332	109	455	1258
07:45 AM	0	0	13	13	0	372	2	374	282	21	183	486	18	358	99	475	1348
Total	0	0	70	70	0	1288	7	1295	853	53	670	1576	59	1268	472	1799	4740
08:00 AM	0	0	29	29	0	325	5	330	201	20	172	393	11	319	104	434	1186
08:15 AM	0	0	19	19	0	379	1	380	178	10	173	361	23	309	122	454	1214
08:30 AM	1	0	26	27	0	325	3	328	217	13	193	423	18	304	102	424	1202
08:45 AM	0	0	19	19	0	353	5	358	239	21	210	470	23	275	116	414	1261
Total	1	0	93	94	0	1382	14	1396	835	64	748	1647	75	1207	444	1726	4863
Grand Total	1	0	163	164	0	2670	21	2691	1688	117	1418	3223	134	2475	916	3525	9603
Apprch %	0.6	0	99.4		0	99.2	0.8		52.4	3.6	44		3.8	70.2	26		
Total %	0	0	1.7	1.7	0	27.8	0.2	28	17.6	1.2	14.8	33.6	1.4	25.8	9.5	36.7	

	Brea Plaza Shopping Center Driveway Southbound				Imperial Highway Westbound				SR-57 Northbound Off Ramp Northbound				Imperial Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	19	19	0	367	1	368	228	12	176	416	14	332	109	455	1258
07:45 AM	0	0	13	13	0	372	2	374	**282**	**21**	**183**	**486**	18	**358**	99	**475**	**1348**
08:00 AM	0	0	**29**	**29**	0	325	**5**	330	201	20	172	393	11	319	104	434	1186
08:15 AM	0	0	19	19	0	**379**	1	**380**	178	10	173	361	**23**	309	**122**	454	1214
Total Volume	0	0	80	80	0	1443	9	1452	889	63	704	1656	66	1318	434	1818	5006
% App. Total	0	0	100		0	99.4	0.6		53.7	3.8	42.5		3.6	72.5	23.9		
PHF	.000	.000	.690	.690	.000	.952	.450	.955	.788	.750	.962	.852	.717	.920	.889	.957	.928

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City of Brea
N/S: SR-57 Northbound Off Ramp
E/W: Imperial Highway
Weather: Clear

File Name : 05_BRE_57N Off_Imp AM
Site Code : 10524132
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:30 AM				07:45 AM				07:15 AM			
+0 mins.	0	0	**29**	**29**	0	367	1	368	**282**	**21**	183	**486**	15	329	**144**	**488**
+15 mins.	0	0	19	19	0	372	2	374	201	20	172	393	14	332	109	455
+30 mins.	**1**	0	26	27	0	325	**5**	330	178	10	173	361	**18**	**358**	99	475
+45 mins.	0	0	19	19	0	**379**	1	**380**	217	13	**193**	423	11	319	104	434
Total Volume	1	0	93	94	0	1443	9	1452	878	64	721	1663	58	1338	456	1852
% App. Total	1.1	0	98.9		0	99.4	0.6		52.8	3.8	43.4		3.1	72.2	24.6	
PHF	.250	.000	.802	.810	.000	.952	.450	.955	.778	.762	.934	.855	.806	.934	.792	.949

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City of Brea
N/S: SR-57 Northbound Off Ramp
E/W: Imperial Highway
Weather: Clear

File Name : 05_BRE_57N Off_Imp PM
Site Code : 10524132
Start Date : 2/13/2024
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Groups Printed- Total Volume

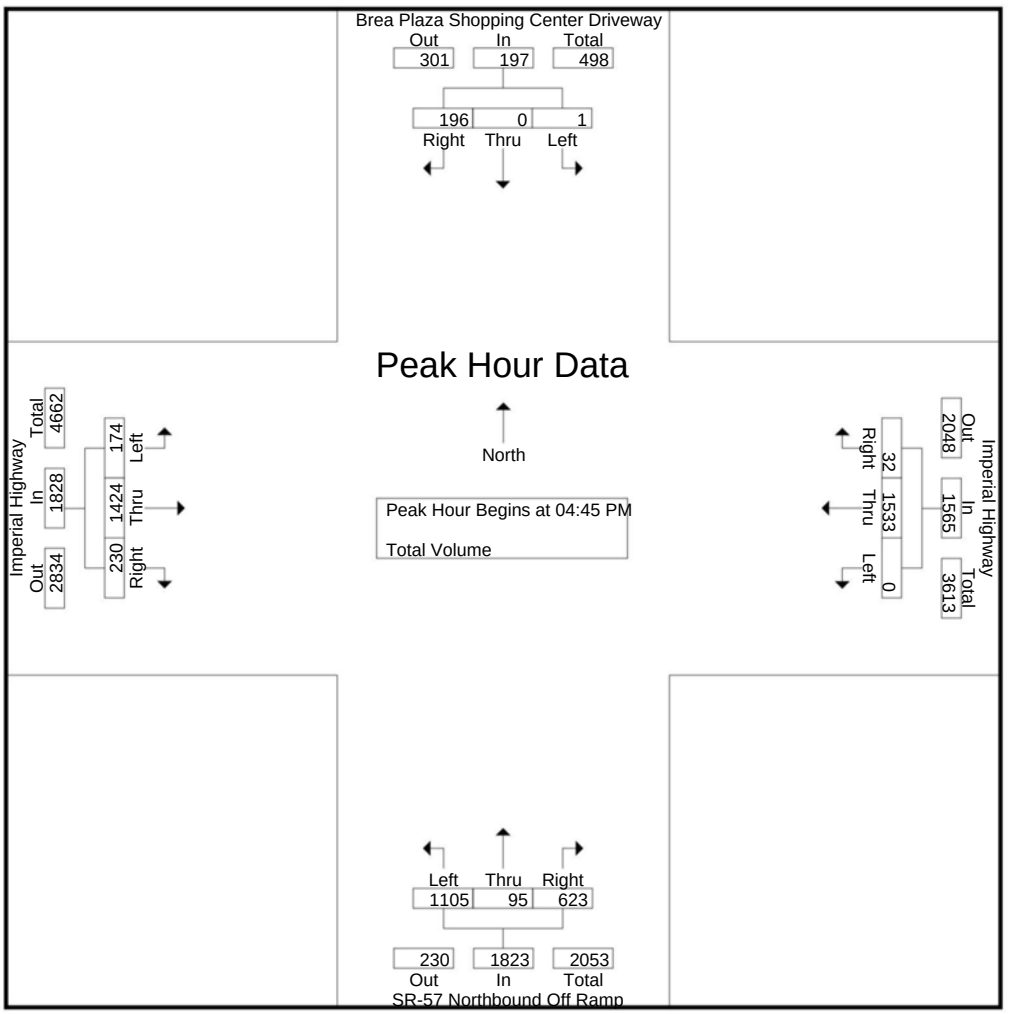
	Brea Plaza Shopping Center Driveway Southbound				Imperial Highway Westbound				SR-57 Northbound Off Ramp Northbound				Imperial Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	57	57	0	373	9	382	243	24	151	418	37	349	71	457	1314
04:15 PM	0	0	53	53	0	375	8	383	283	25	129	437	43	424	55	522	1395
04:30 PM	0	0	36	36	0	365	9	374	294	23	114	431	30	361	44	435	1276
04:45 PM	0	0	37	37	0	368	10	378	268	29	168	465	42	375	61	478	1358
Total	0	0	183	183	0	1481	36	1517	1088	101	562	1751	152	1509	231	1892	5343
05:00 PM	0	0	51	51	0	364	9	373	271	24	166	461	44	324	56	424	1309
05:15 PM	0	0	58	58	0	404	5	409	301	27	149	477	32	356	48	436	1380
05:30 PM	1	0	50	51	0	397	8	405	265	15	140	420	56	369	65	490	1366
05:45 PM	0	0	37	37	0	352	14	366	274	14	146	434	45	374	53	472	1309
Total	1	0	196	197	0	1517	36	1553	1111	80	601	1792	177	1423	222	1822	5364
Grand Total	1	0	379	380	0	2998	72	3070	2199	181	1163	3543	329	2932	453	3714	10707
Apprch %	0.3	0	99.7		0	97.7	2.3		62.1	5.1	32.8		8.9	78.9	12.2		
Total %	0	0	3.5	3.5	0	28	0.7	28.7	20.5	1.7	10.9	33.1	3.1	27.4	4.2	34.7	

	Brea Plaza Shopping Center Driveway Southbound				Imperial Highway Westbound				SR-57 Northbound Off Ramp Northbound				Imperial Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	37	37	0	368	**10**	378	268	**29**	**168**	465	42	**375**	61	478	1358
05:00 PM	0	0	51	51	0	364	9	373	271	24	166	461	44	324	56	424	1309
05:15 PM	0	0	**58**	**58**	0	**404**	5	**409**	**301**	27	149	**477**	32	356	48	436	**1380**
05:30 PM	**1**	0	50	51	0	397	8	405	265	15	140	420	**56**	369	**65**	**490**	1366
Total Volume	1	0	196	197	0	1533	32	1565	1105	95	623	1823	174	1424	230	1828	5413
% App. Total	0.5	0	99.5		0	98	2		60.6	5.2	34.2		9.5	77.9	12.6		
PHF	.250	.000	.845	.849	.000	.949	.800	.957	.918	.819	.927	.955	.777	.949	.885	.933	.981

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City of Brea
N/S: SR-57 Northbound Off Ramp
E/W: Imperial Highway
Weather: Clear

File Name : 05_BRE_57N Off_Imp PM
Site Code : 10524132
Start Date : 2/13/2024
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:45 PM				04:30 PM				04:00 PM			
+0 mins.	0	0	37	37	0	368	**10**	378	294	23	114	431	37	349	**71**	457
+15 mins.	0	0	51	51	0	364	9	373	268	**29**	**168**	465	**43**	**424**	55	**522**
+30 mins.	0	0	**58**	**58**	0	**404**	5	**409**	271	24	166	461	30	361	44	435
+45 mins.	**1**	0	50	51	0	397	8	405	**301**	27	149	**477**	42	375	61	478
Total Volume	1	0	196	197	0	1533	32	1565	1134	103	597	1834	152	1509	231	1892
% App. Total	0.5	0	99.5		0	98	2		61.8	5.6	32.6		8	79.8	12.2	
PHF	.250	.000	.845	.849	.000	.949	.800	.957	.942	.888	.888	.961	.884	.890	.813	.906

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File Name : 05_BRE_57N Off_Imp SAT
Site Code : 10524132
Start Date : 2/10/2024
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Groups Printed- Total Volume

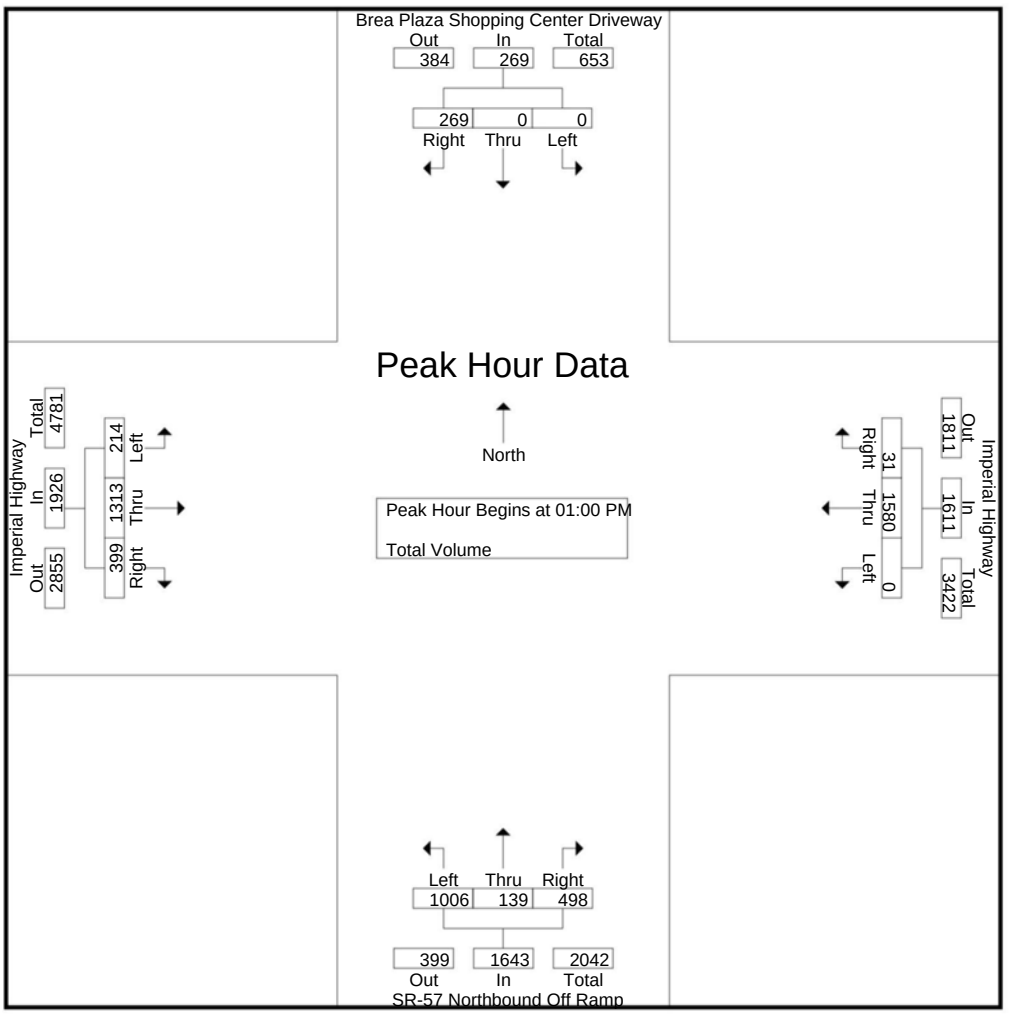
	Brea Plaza Shopping Center Driveway Southbound				Imperial Highway Westbound				SR-57 Northbound Off Ramp Northbound				Imperial Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	0	0	62	62	0	394	15	409	227	32	107	366	51	297	120	468	1305
12:15 PM	0	0	67	67	0	362	10	372	255	31	130	416	69	338	93	500	1355
12:30 PM	0	0	63	63	0	370	12	382	262	37	137	436	59	325	82	466	1347
12:45 PM	0	0	62	62	0	405	18	423	275	27	92	394	36	315	74	425	1304
Total	0	0	254	254	0	1531	55	1586	1019	127	466	1612	215	1275	369	1859	5311
01:00 PM	0	0	63	63	0	421	6	427	264	40	127	431	66	337	112	515	1436
01:15 PM	0	0	70	70	0	389	7	396	235	32	137	404	55	312	106	473	1343
01:30 PM	0	0	66	66	0	392	7	399	255	34	109	398	48	325	105	478	1341
01:45 PM	0	0	70	70	0	378	11	389	252	33	125	410	45	339	76	460	1329
Total	0	0	269	269	0	1580	31	1611	1006	139	498	1643	214	1313	399	1926	5449
02:00 PM	0	0	59	59	0	328	10	338	210	25	122	357	57	281	86	424	1178
02:15 PM	0	0	62	62	0	321	6	327	254	20	124	398	52	307	71	430	1217
02:30 PM	0	0	67	67	0	338	15	353	250	28	118	396	48	318	91	457	1273
02:45 PM	0	0	72	72	0	326	9	335	277	39	123	439	42	284	65	391	1237
Total	0	0	260	260	0	1313	40	1353	991	112	487	1590	199	1190	313	1702	4905
Grand Total	0	0	783	783	0	4424	126	4550	3016	378	1451	4845	628	3778	1081	5487	15665
Apprch %	0	0	100		0	97.2	2.8		62.2	7.8	29.9		11.4	68.9	19.7		
Total %	0	0	5	5	0	28.2	0.8	29	19.3	2.4	9.3	30.9	4	24.1	6.9	35	

	Brea Plaza Shopping Center Driveway Southbound				Imperial Highway Westbound				SR-57 Northbound Off Ramp Northbound				Imperial Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	0	0	63	63	0	**421**	6	**427**	**264**	**40**	127	**431**	**66**	337	**112**	**515**	**1436**
01:15 PM	0	0	**70**	**70**	0	389	7	396	235	32	**137**	404	55	312	106	473	1343
01:30 PM	0	0	66	66	0	392	7	399	255	34	109	398	48	325	105	478	1341
01:45 PM	0	0	70	70	0	378	**11**	389	252	33	125	410	45	**339**	76	460	1329
Total Volume	0	0	269	269	0	1580	31	1611	1006	139	498	1643	214	1313	399	1926	5449
% App. Total	0	0	100		0	98.1	1.9		61.2	8.5	30.3		11.1	68.2	20.7		
PHF	.000	.000	.961	.961	.000	.938	.705	.943	.953	.869	.909	.953	.811	.968	.891	.935	.949

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City of Brea
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E/W: Imperial Highway
Weather: Clear

File Name : 05_BRE_57N Off_Imp SAT
Site Code : 10524132
Start Date : 2/10/2024



Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:00 PM				12:45 PM				12:15 PM				01:00 PM			
+0 mins.	0	0	63	63	0	405	**18**	423	255	31	130	416	**66**	337	**112**	**515**
+15 mins.	0	0	**70**	**70**	0	**421**	6	**427**	262	37	**137**	**436**	55	312	106	473
+30 mins.	0	0	66	66	0	389	7	396	**275**	27	92	394	48	325	105	478
+45 mins.	0	0	70	70	0	392	7	399	264	**40**	127	431	45	**339**	76	460
Total Volume	0	0	269	269	0	1607	38	1645	1056	135	486	1677	214	1313	399	1926
% App. Total	0	0	100		0	97.7	2.3		63	8.1	29		11.1	68.2	20.7	
PHF	.000	.000	.961	.961	.000	.954	.528	.963	.960	.844	.887	.962	.811	.968	.891	.935

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City of Brea
N/S: Associated Road
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Weather: Clear

File Name : 06_BRE_Asd_Imp AM
Site Code : 10524132
Start Date : 2/13/2024
Page No : 1

Groups Printed- Total Volume

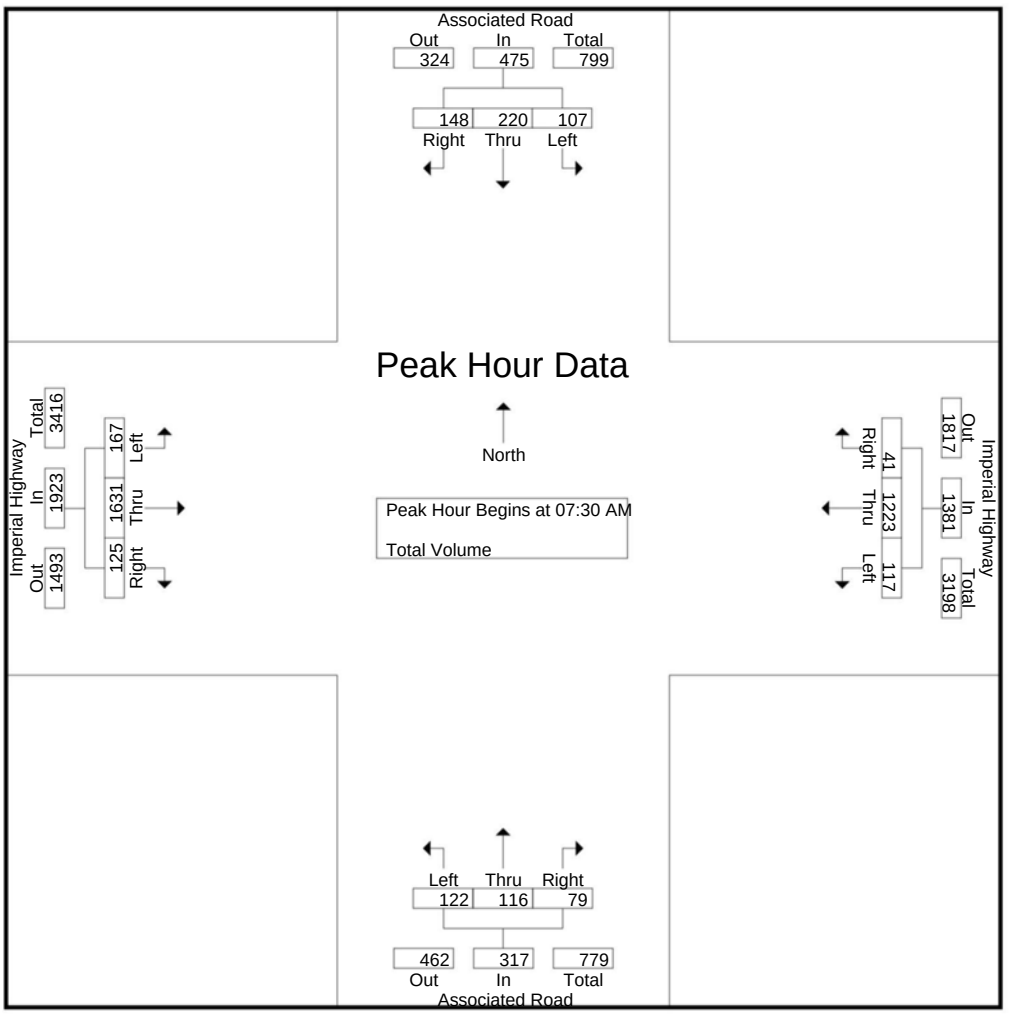
	Associated Road Southbound				Imperial Highway Westbound				Associated Road Northbound				Imperial Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	21	76	31	128	21	211	16	248	27	13	13	53	39	309	23	371	800
07:15 AM	16	53	15	84	18	263	8	289	25	29	18	72	42	378	32	452	897
07:30 AM	21	61	39	121	29	291	7	327	35	29	15	79	30	408	39	477	1004
07:45 AM	32	60	37	129	34	305	7	346	32	25	18	75	52	423	25	500	1050
Total	90	250	122	462	102	1070	38	1210	119	96	64	279	163	1518	119	1800	3751
08:00 AM	31	52	35	118	22	315	14	351	24	36	32	92	44	401	33	478	1039
08:15 AM	23	47	37	107	32	312	13	357	31	26	14	71	41	399	28	468	1003
08:30 AM	32	49	34	115	16	270	14	300	30	22	28	80	23	434	21	478	973
08:45 AM	42	62	28	132	12	295	20	327	21	21	20	62	53	397	15	465	986
Total	128	210	134	472	82	1192	61	1335	106	105	94	305	161	1631	97	1889	4001
Grand Total	218	460	256	934	184	2262	99	2545	225	201	158	584	324	3149	216	3689	7752
Apprch %	23.3	49.3	27.4		7.2	88.9	3.9		38.5	34.4	27.1		8.8	85.4	5.9		
Total %	2.8	5.9	3.3	12	2.4	29.2	1.3	32.8	2.9	2.6	2	7.5	4.2	40.6	2.8	47.6	

	Associated Road Southbound				Imperial Highway Westbound				Associated Road Northbound				Imperial Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	21	**61**	**39**	121	29	291	7	327	**35**	29	15	79	30	408	**39**	477	1004
07:45 AM	**32**	60	37	**129**	**34**	305	7	346	32	25	18	75	**52**	**423**	25	**500**	**1050**
08:00 AM	31	52	35	118	22	**315**	**14**	351	24	**36**	**32**	**92**	44	401	33	478	1039
08:15 AM	23	47	37	107	32	312	13	**357**	31	26	14	71	41	399	28	468	1003
Total Volume	107	220	148	475	117	1223	41	1381	122	116	79	317	167	1631	125	1923	4096
% App. Total	22.5	46.3	31.2		8.5	88.6	3		38.5	36.6	24.9		8.7	84.8	6.5		
PHF	.836	.902	.949	.921	.860	.971	.732	.967	.871	.806	.617	.861	.803	.964	.801	.962	.975

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File Name : 06_BRE_Asd_Imp AM
Site Code : 10524132
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:15 AM				07:45 AM			
+0 mins.	21	**61**	**39**	121	29	291	7	327	25	29	18	72	**52**	423	25	**500**
+15 mins.	**32**	60	37	**129**	**34**	305	7	346	**35**	29	15	79	44	401	**33**	478
+30 mins.	31	52	35	118	22	**315**	**14**	351	32	25	18	75	41	399	28	468
+45 mins.	23	47	37	107	32	312	13	**357**	24	**36**	**32**	**92**	23	**434**	21	478
Total Volume	107	220	148	475	117	1223	41	1381	116	119	83	318	160	1657	107	1924
% App. Total	22.5	46.3	31.2		8.5	88.6	3		36.5	37.4	26.1		8.3	86.1	5.6	
PHF	.836	.902	.949	.921	.860	.971	.732	.967	.829	.826	.648	.864	.769	.954	.811	.962

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Site Code : 10524132
Start Date : 2/13/2024
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Groups Printed- Total Volume

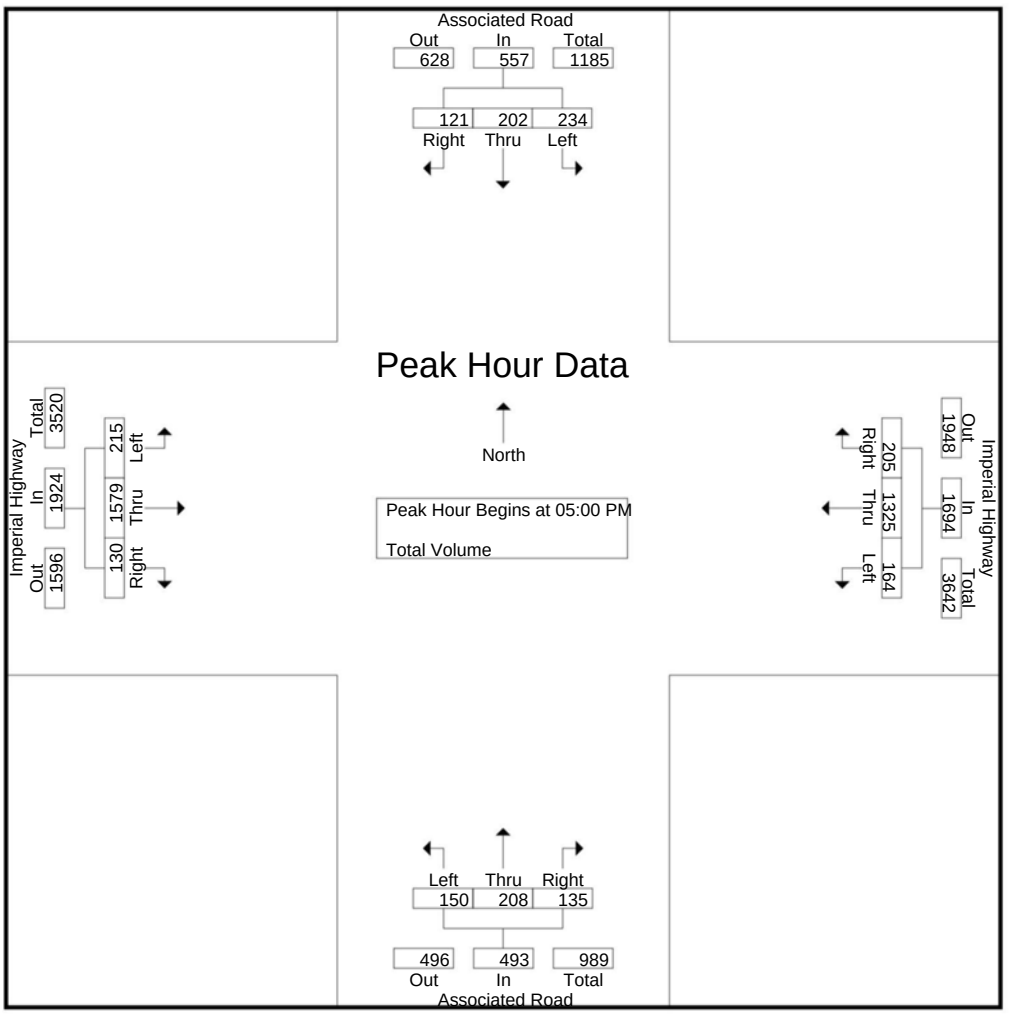
	Associated Road Southbound				Imperial Highway Westbound				Associated Road Northbound				Imperial Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	55	56	32	143	38	347	42	427	35	57	26	118	45	393	24	462	1150
04:15 PM	63	52	22	137	39	324	51	414	30	46	30	106	47	446	25	518	1175
04:30 PM	61	69	39	169	34	319	56	409	23	40	28	91	46	390	32	468	1137
04:45 PM	52	47	30	129	41	323	55	419	35	37	13	85	50	451	33	534	1167
Total	231	224	123	578	152	1313	204	1669	123	180	97	400	188	1680	114	1982	4629
05:00 PM	69	58	34	161	49	324	47	420	34	49	33	116	54	373	23	450	1147
05:15 PM	62	48	27	137	33	333	53	419	46	58	29	133	52	402	32	486	1175
05:30 PM	48	60	33	141	38	347	55	440	43	53	38	134	47	376	34	457	1172
05:45 PM	55	36	27	118	44	321	50	415	27	48	35	110	62	428	41	531	1174
Total	234	202	121	557	164	1325	205	1694	150	208	135	493	215	1579	130	1924	4668
Grand Total	465	426	244	1135	316	2638	409	3363	273	388	232	893	403	3259	244	3906	9297
Apprch %	41	37.5	21.5		9.4	78.4	12.2		30.6	43.4	26		10.3	83.4	6.2		
Total %	5	4.6	2.6	12.2	3.4	28.4	4.4	36.2	2.9	4.2	2.5	9.6	4.3	35.1	2.6	42	

	Associated Road Southbound				Imperial Highway Westbound				Associated Road Northbound				Imperial Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**69**	58	**34**	**161**	**49**	324	47	420	34	49	33	116	54	373	23	450	1147
05:15 PM	62	48	27	137	33	333	53	419	**46**	**58**	29	133	52	402	32	486	**1175**
05:30 PM	48	**60**	33	141	38	**347**	**55**	**440**	43	53	**38**	**134**	47	376	34	457	1172
05:45 PM	55	36	27	118	44	321	50	415	27	48	35	110	**62**	**428**	**41**	**531**	1174
Total Volume	234	202	121	557	164	1325	205	1694	150	208	135	493	215	1579	130	1924	4668
% App. Total	42	36.3	21.7		9.7	78.2	12.1		30.4	42.2	27.4		11.2	82.1	6.8		
PHF	.848	.842	.890	.865	.837	.955	.932	.963	.815	.897	.888	.920	.867	.922	.793	.906	.993

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Site Code : 10524132
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM				04:45 PM				05:00 PM				04:00 PM			
+0 mins.	63	52	22	137	41	323	**55**	419	34	49	33	116	45	393	24	462
+15 mins.	61	**69**	**39**	**169**	**49**	324	47	420	**46**	**58**	29	133	47	446	25	518
+30 mins.	52	47	30	129	33	333	53	419	43	53	**38**	**134**	46	390	32	468
+45 mins.	**69**	58	34	161	38	**347**	55	**440**	27	48	35	110	**50**	**451**	**33**	**534**
Total Volume	245	226	125	596	161	1327	210	1698	150	208	135	493	188	1680	114	1982
% App. Total	41.1	37.9	21		9.5	78.2	12.4		30.4	42.2	27.4		9.5	84.8	5.8	
PHF	.888	.819	.801	.882	.821	.956	.955	.965	.815	.897	.888	.920	.940	.931	.864	.928

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Groups Printed- Total Volume

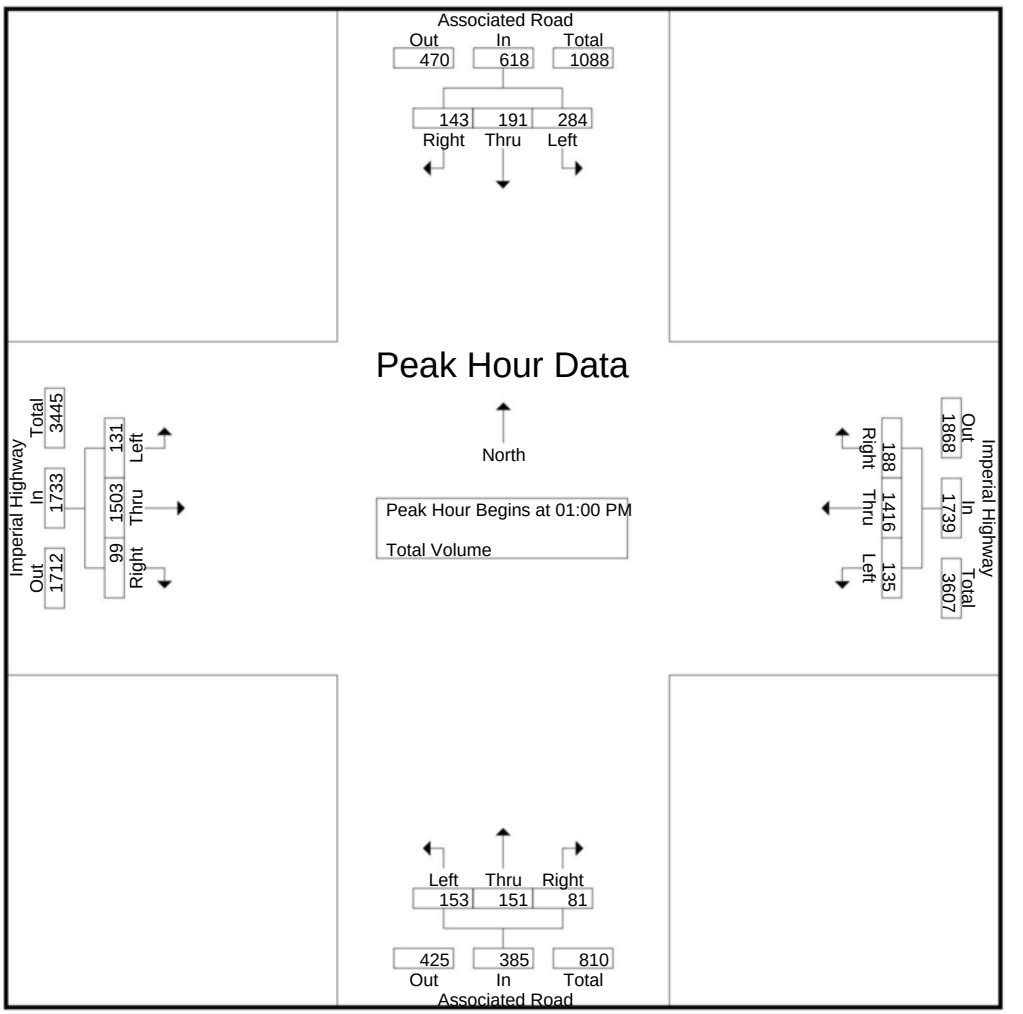
	Associated Road Southbound				Imperial Highway Westbound				Associated Road Northbound				Imperial Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	77	52	40	169	25	363	37	425	34	45	28	107	22	353	14	389	1090
12:15 PM	70	40	31	141	37	319	50	406	47	30	22	99	33	391	24	448	1094
12:30 PM	62	32	42	136	28	319	46	393	31	35	26	92	30	402	29	461	1082
12:45 PM	76	47	33	156	29	371	46	446	31	31	22	84	30	337	20	387	1073
Total	285	171	146	602	119	1372	179	1670	143	141	98	382	115	1483	87	1685	4339
01:00 PM	73	40	43	156	45	363	50	458	38	25	14	77	27	367	29	423	1114
01:15 PM	59	52	30	141	38	338	44	420	40	44	24	108	33	377	26	436	1105
01:30 PM	75	49	32	156	32	362	45	439	37	46	22	105	34	366	25	425	1125
01:45 PM	77	50	38	165	20	353	49	422	38	36	21	95	37	393	19	449	1131
Total	284	191	143	618	135	1416	188	1739	153	151	81	385	131	1503	99	1733	4475
02:00 PM	71	49	27	147	38	328	46	412	30	28	12	70	43	313	29	385	1014
02:15 PM	70	61	36	167	33	257	40	330	41	29	21	91	48	344	28	420	1008
02:30 PM	65	38	30	133	30	313	53	396	39	25	18	82	33	370	20	423	1034
02:45 PM	53	47	39	139	26	283	39	348	35	36	23	94	39	350	14	403	984
Total	259	195	132	586	127	1181	178	1486	145	118	74	337	163	1377	91	1631	4040
Grand Total	828	557	421	1806	381	3969	545	4895	441	410	253	1104	409	4363	277	5049	12854
Apprch %	45.8	30.8	23.3		7.8	81.1	11.1		39.9	37.1	22.9		8.1	86.4	5.5		
Total %	6.4	4.3	3.3	14.1	3	30.9	4.2	38.1	3.4	3.2	2	8.6	3.2	33.9	2.2	39.3	

	Associated Road Southbound				Imperial Highway Westbound				Associated Road Northbound				Imperial Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	73	40	**43**	156	**45**	**363**	**50**	**458**	38	25	14	77	27	367	**29**	423	1114
01:15 PM	59	**52**	30	141	38	338	44	420	**40**	44	**24**	**108**	33	377	26	436	1105
01:30 PM	75	49	32	156	32	362	45	439	37	**46**	22	105	34	366	25	425	1125
01:45 PM	**77**	50	38	**165**	20	353	49	422	38	36	21	95	**37**	**393**	19	**449**	**1131**
Total Volume	284	191	143	618	135	1416	188	1739	153	151	81	385	131	1503	99	1733	4475
% App. Total	46	30.9	23.1		7.8	81.4	10.8		39.7	39.2	21		7.6	86.7	5.7		
PHF	.922	.918	.831	.936	.750	.975	.940	.949	.956	.821	.844	.891	.885	.956	.853	.965	.989

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City of Brea
N/S: Associated Road
E/W: Imperial Highway
Weather: Clear

File Name : 06_BRE_Asd_Imp SAT
Site Code : 10524132
Start Date : 2/10/2024
Page No : 2



Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:30 PM				12:45 PM				01:00 PM				01:00 PM			
+0 mins.	75	49	32	156	29	**371**	46	446	38	25	14	77	27	367	**29**	423
+15 mins.	**77**	50	**38**	165	**45**	363	**50**	**458**	**40**	44	**24**	**108**	33	377	26	436
+30 mins.	71	49	27	147	38	338	44	420	37	**46**	22	105	34	366	25	425
+45 mins.	70	**61**	36	**167**	32	362	45	439	38	36	21	95	**37**	**393**	19	**449**
Total Volume	293	209	133	635	144	1434	185	1763	153	151	81	385	131	1503	99	1733
% App. Total	46.1	32.9	20.9		8.2	81.3	10.5		39.7	39.2	21		7.6	86.7	5.7	
PHF	.951	.857	.875	.951	.800	.966	.925	.962	.956	.821	.844	.891	.885	.956	.853	.965

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City of Brea
N/S: Castlegate Lane/Placentia Avenue
E/W: Imperial Highway
Weather: Clear

File Name : 07_BRE_Cast_Imp AM
Site Code : 10524132
Start Date : 2/13/2024
Page No : 1

Groups Printed- Total Volume

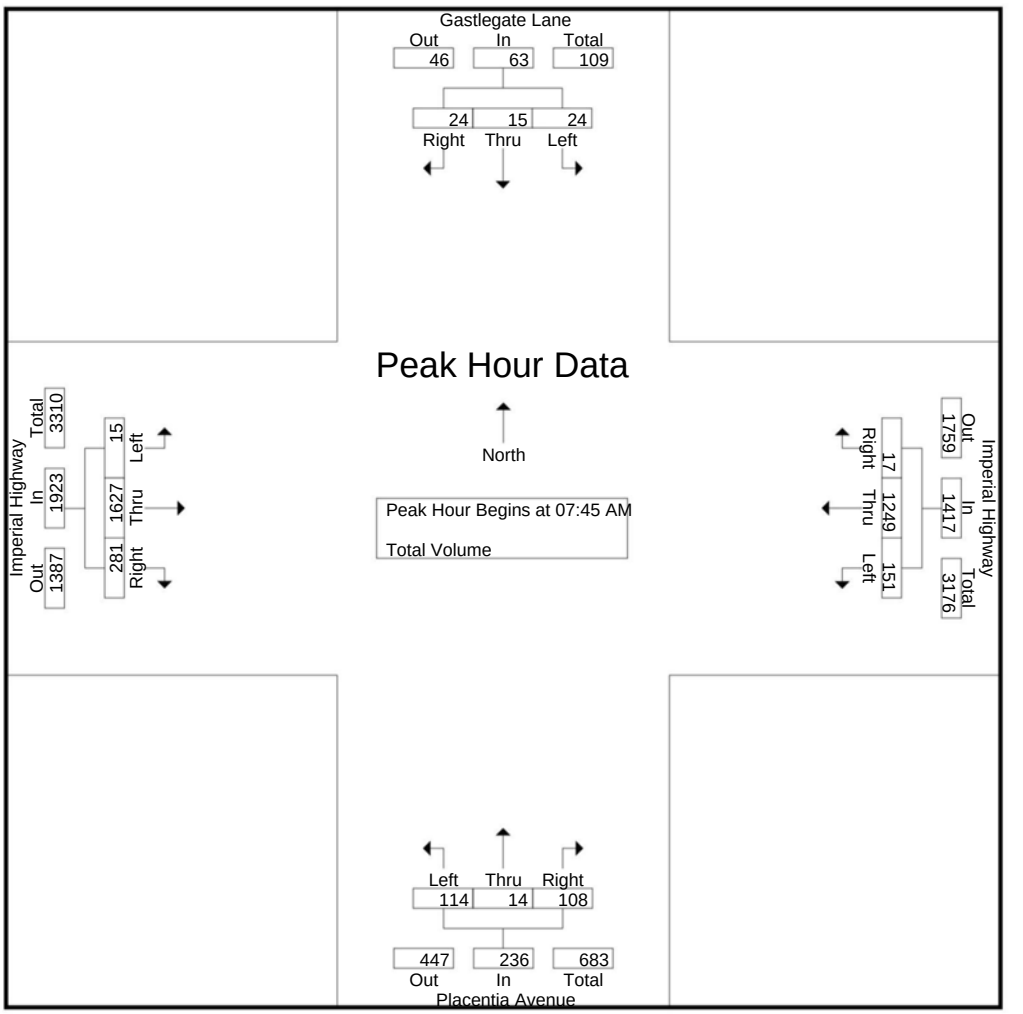
	Gastlegate Lane Southbound				Imperial Highway Westbound				Placentia Avenue Northbound				Imperial Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	5	5	11	17	219	3	239	27	3	20	50	1	324	41	366	666
07:15 AM	3	3	3	9	14	268	0	282	25	1	19	45	0	365	42	407	743
07:30 AM	7	4	5	16	23	299	1	323	25	1	34	60	4	385	51	440	839
07:45 AM	5	5	6	16	36	324	1	361	27	5	26	58	2	423	70	495	930
Total	16	17	19	52	90	1110	5	1205	104	10	99	213	7	1497	204	1708	3178
08:00 AM	6	5	7	18	33	329	3	365	20	6	33	59	4	397	78	479	921
08:15 AM	8	3	4	15	48	328	6	382	32	1	21	54	4	382	66	452	903
08:30 AM	5	2	7	14	34	268	7	309	35	2	28	65	5	425	67	497	885
08:45 AM	3	6	7	16	31	298	6	335	49	2	28	79	5	435	55	495	925
Total	22	16	25	63	146	1223	22	1391	136	11	110	257	18	1639	266	1923	3634
Grand Total	38	33	44	115	236	2333	27	2596	240	21	209	470	25	3136	470	3631	6812
Apprch %	33	28.7	38.3		9.1	89.9	1		51.1	4.5	44.5		0.7	86.4	12.9		
Total %	0.6	0.5	0.6	1.7	3.5	34.2	0.4	38.1	3.5	0.3	3.1	6.9	0.4	46	6.9	53.3	

	Gastlegate Lane Southbound				Imperial Highway Westbound				Placentia Avenue Northbound				Imperial Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	5	**5**	6	16	36	324	1	361	27	5	26	58	2	423	70	495	**930**
08:00 AM	6	5	**7**	**18**	33	**329**	3	365	20	**6**	**33**	59	4	397	**78**	479	921
08:15 AM	**8**	3	4	15	**48**	328	6	**382**	32	1	21	54	4	382	66	452	903
08:30 AM	5	2	7	14	34	268	**7**	309	**35**	2	28	**65**	**5**	**425**	67	**497**	885
Total Volume	24	15	24	63	151	1249	17	1417	114	14	108	236	15	1627	281	1923	3639
% App. Total	38.1	23.8	38.1		10.7	88.1	1.2		48.3	5.9	45.8		0.8	84.6	14.6		
PHF	.750	.750	.857	.875	.786	.949	.607	.927	.814	.583	.818	.908	.750	.957	.901	.967	.978

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City of Brea
N/S: Castlegate Lane/Placentia Avenue
E/W: Imperial Highway
Weather: Clear

File Name : 07_BRE_Cast_Imp AM
Site Code : 10524132
Start Date : 2/13/2024
Page No : 2



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

	07:30 AM				07:30 AM				08:00 AM				07:45 AM			
+0 mins.	7	4	5	16	23	299	1	323	20	**6**	**33**	59	2	423	70	495
+15 mins.	5	**5**	6	16	36	324	1	361	32	1	21	54	4	397	**78**	479
+30 mins.	6	5	**7**	**18**	33	**329**	3	365	35	2	28	65	4	382	66	452
+45 mins.	**8**	3	4	15	**48**	328	**6**	**382**	**49**	2	28	**79**	**5**	**425**	67	**497**
Total Volume	26	17	22	65	140	1280	11	1431	136	11	110	257	15	1627	281	1923
% App. Total	40	26.2	33.8		9.8	89.4	0.8		52.9	4.3	42.8		0.8	84.6	14.6	
PHF	.813	.850	.786	.903	.729	.973	.458	.937	.694	.458	.833	.813	.750	.957	.901	.967

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City of Brea
N/S: Castlegate Lane/Placentia Avenue
E/W: Imperial Highway
Weather: Clear

File Name : 07_BRE_Cast_Imp PM
Site Code : 10524132
Start Date : 2/13/2024
Page No : 1

Groups Printed- Total Volume

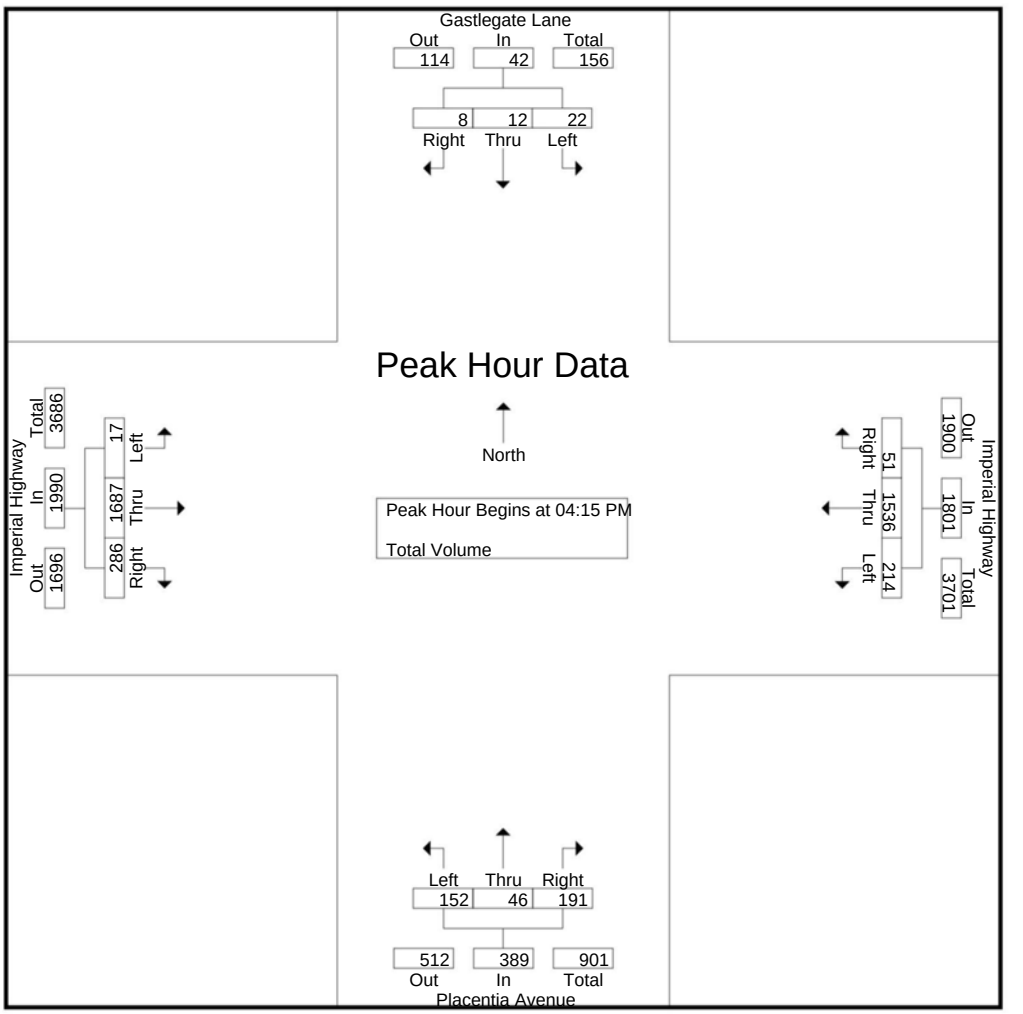
	Gastlegate Lane Southbound				Imperial Highway Westbound				Placentia Avenue Northbound				Imperial Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	5	8	3	16	60	403	11	474	29	5	64	98	4	384	70	458	1046
04:15 PM	7	3	2	12	64	377	9	450	34	19	40	93	4	431	76	511	1066
04:30 PM	3	2	4	9	52	394	20	466	34	11	45	90	4	396	69	469	1034
04:45 PM	9	6	0	15	45	384	4	433	42	9	47	98	5	442	78	525	1071
Total	24	19	9	52	221	1558	44	1823	139	44	196	379	17	1653	293	1963	4217
05:00 PM	3	1	2	6	53	381	18	452	42	7	59	108	4	418	63	485	1051
05:15 PM	7	2	1	10	47	396	17	460	30	5	58	93	2	434	62	498	1061
05:30 PM	4	5	1	10	53	400	7	460	35	7	56	98	1	405	62	468	1036
05:45 PM	3	2	3	8	43	358	16	417	47	6	42	95	8	439	70	517	1037
Total	17	10	7	34	196	1535	58	1789	154	25	215	394	15	1696	257	1968	4185
Grand Total	41	29	16	86	417	3093	102	3612	293	69	411	773	32	3349	550	3931	8402
Apprch %	47.7	33.7	18.6		11.5	85.6	2.8		37.9	8.9	53.2		0.8	85.2	14		
Total %	0.5	0.3	0.2	1	5	36.8	1.2	43	3.5	0.8	4.9	9.2	0.4	39.9	6.5	46.8	

	Gastlegate Lane Southbound				Imperial Highway Westbound				Placentia Avenue Northbound				Imperial Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	7	3	2	12	**64**	377	9	450	34	**19**	40	93	4	431	76	511	1066
04:30 PM	3	2	**4**	9	52	**394**	**20**	**466**	34	11	45	90	4	396	69	469	1034
04:45 PM	**9**	**6**	0	**15**	45	384	4	433	**42**	9	47	98	**5**	**442**	**78**	**525**	**1071**
05:00 PM	3	1	2	6	53	381	18	452	42	7	**59**	**108**	4	418	63	485	1051
Total Volume	22	12	8	42	214	1536	51	1801	152	46	191	389	17	1687	286	1990	4222
% App. Total	52.4	28.6	19		11.9	85.3	2.8		39.1	11.8	49.1		0.9	84.8	14.4		
PHF	.611	.500	.500	.700	.836	.975	.638	.966	.905	.605	.809	.900	.850	.954	.917	.948	.986

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City of Brea
N/S: Castlegate Lane/Placentia Avenue
E/W: Imperial Highway
Weather: Clear

File Name : 07_BRE_Cast_Imp PM
Site Code : 10524132
Start Date : 2/13/2024
Page No : 2



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

	04:00 PM				04:00 PM				04:45 PM				04:15 PM			
+0 mins.	5	**8**	3	**16**	60	**403**	11	**474**	**42**	**9**	47	98	4	431	76	511
+15 mins.	7	3	2	12	**64**	377	9	450	42	7	**59**	**108**	4	396	69	469
+30 mins.	3	2	**4**	9	52	394	**20**	466	30	5	58	93	**5**	**442**	**78**	**525**
+45 mins.	**9**	6	0	15	45	384	4	433	35	7	56	98	4	418	63	485
Total Volume	24	19	9	52	221	1558	44	1823	149	28	220	397	17	1687	286	1990
% App. Total	46.2	36.5	17.3		12.1	85.5	2.4		37.5	7.1	55.4		0.9	84.8	14.4	
PHF	.667	.594	.563	.813	.863	.967	.550	.961	.887	.778	.932	.919	.850	.954	.917	.948

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City of Brea
N/S: Castlegate Lane/Placentia Avenue
E/W: Imperial Highway
Weather: Clear

File Name : 07_BRE_Cast_Imp SAT
Site Code : 10524132
Start Date : 2/10/2024
Page No : 1

Groups Printed- Total Volume

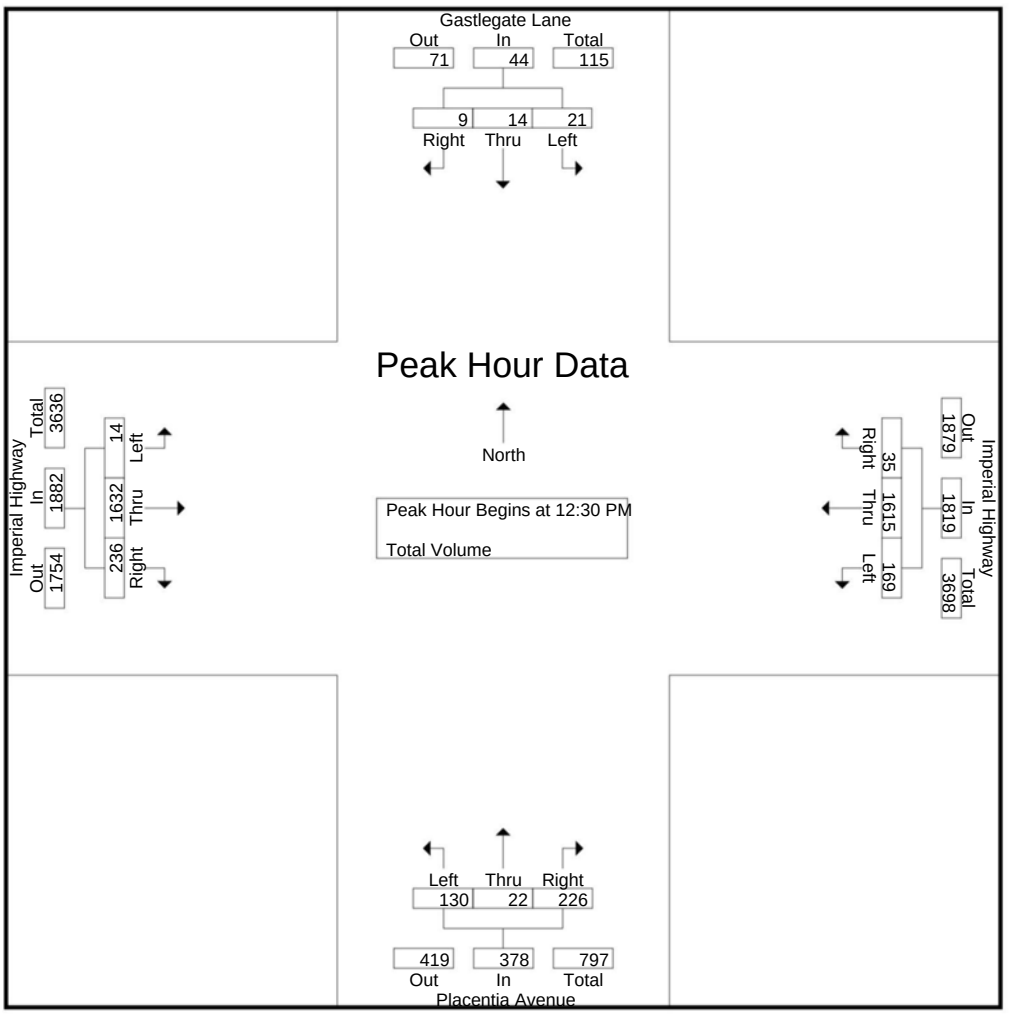
	Gastlegate Lane Southbound				Imperial Highway Westbound				Placentia Avenue Northbound				Imperial Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	3	5	1	9	51	409	9	469	32	1	50	83	1	428	58	487	1048
12:15 PM	10	4	3	17	41	381	10	432	40	6	38	84	3	417	65	485	1018
12:30 PM	3	4	3	10	45	372	10	427	33	8	60	101	8	416	73	497	1035
12:45 PM	3	3	4	10	42	413	8	463	33	6	51	90	2	391	57	450	1013
Total	19	16	11	46	179	1575	37	1791	138	21	199	358	14	1652	253	1919	4114
01:00 PM	4	2	1	7	37	425	10	472	26	3	52	81	2	403	56	461	1021
01:15 PM	11	5	1	17	45	405	7	457	38	5	63	106	2	422	50	474	1054
01:30 PM	3	3	0	6	49	397	7	453	28	4	51	83	5	400	46	451	993
01:45 PM	4	2	6	12	42	373	10	425	43	5	46	94	6	440	46	492	1023
Total	22	12	8	42	173	1600	34	1807	135	17	212	364	15	1665	198	1878	4091
02:00 PM	4	3	2	9	52	385	9	446	29	6	52	87	2	360	44	406	948
02:15 PM	7	8	1	16	42	311	5	358	35	2	56	93	6	382	51	439	906
02:30 PM	3	0	0	3	48	362	3	413	46	5	62	113	3	393	47	443	972
02:45 PM	4	5	6	15	54	350	14	418	27	7	45	79	7	397	40	444	956
Total	18	16	9	43	196	1408	31	1635	137	20	215	372	18	1532	182	1732	3782
Grand Total	59	44	28	131	548	4583	102	5233	410	58	626	1094	47	4849	633	5529	11987
Apprch %	45	33.6	21.4		10.5	87.6	1.9		37.5	5.3	57.2		0.9	87.7	11.4		
Total %	0.5	0.4	0.2	1.1	4.6	38.2	0.9	43.7	3.4	0.5	5.2	9.1	0.4	40.5	5.3	46.1	

	Gastlegate Lane Southbound				Imperial Highway Westbound				Placentia Avenue Northbound				Imperial Highway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:30 PM																	
12:30 PM	3	4	3	10	**45**	372	**10**	427	33	**8**	60	101	**8**	416	**73**	**497**	1035
12:45 PM	3	3	**4**	10	42	413	8	463	33	6	51	90	2	391	57	450	1013
01:00 PM	4	2	1	7	37	**425**	10	**472**	26	3	52	81	2	403	56	461	1021
01:15 PM	**11**	**5**	1	**17**	45	405	7	457	**38**	5	**63**	**106**	2	**422**	50	474	**1054**
Total Volume	21	14	9	44	169	1615	35	1819	130	22	226	378	14	1632	236	1882	4123
% App. Total	47.7	31.8	20.5		9.3	88.8	1.9		34.4	5.8	59.8		0.7	86.7	12.5		
PHF	.477	.700	.563	.647	.939	.950	.875	.963	.855	.688	.897	.892	.438	.967	.808	.947	.978

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City of Brea
N/S: Castlegate Lane/Placentia Avenue
E/W: Imperial Highway
Weather: Clear

File Name : 07_BRE_Cast_Imp SAT
Site Code : 10524132
Start Date : 2/10/2024
Page No : 2



Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	12:00 PM				12:45 PM				01:45 PM				12:00 PM			
+0 mins.	3	**5**	1	9	42	413	8	463	43	5	46	94	1	**428**	58	487
+15 mins.	**10**	4	3	**17**	37	**425**	**10**	**472**	29	**6**	52	87	3	417	65	485
+30 mins.	3	4	3	10	45	405	7	457	35	2	56	93	**8**	416	**73**	**497**
+45 mins.	3	3	**4**	10	**49**	397	7	453	**46**	5	**62**	**113**	2	391	57	450
Total Volume	19	16	11	46	173	1640	32	1845	153	18	216	387	14	1652	253	1919
% App. Total	41.3	34.8	23.9		9.4	88.9	1.7		39.5	4.7	55.8		0.7	86.1	13.2	
PHF	.475	.800	.688	.676	.883	.965	.800	.977	.832	.750	.871	.856	.438	.965	.866	.965

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City of Brea
N/S: Driveway
E/W: Greenbrair Lane
Weather: Clear

File Name : 08_BRE_DW_Green AM
Site Code : 10524132
Start Date : 2/13/2024
Page No : 1

Groups Printed- Total Volume

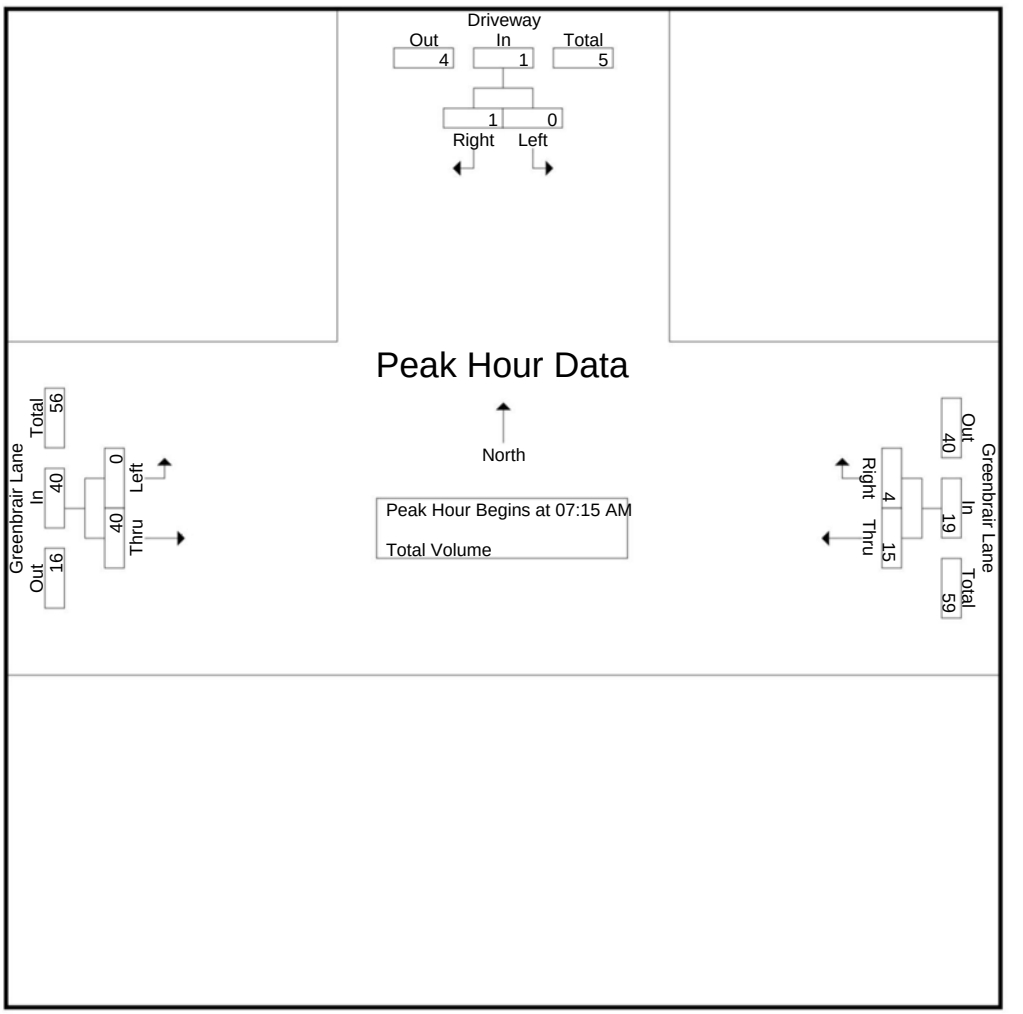
	Driveway Southbound			Greenbrair Lane Westbound			Greenbrair Lane Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	0	0	1	0	1	0	11	11	12
07:15 AM	0	0	0	4	1	5	0	8	8	13
07:30 AM	0	0	0	4	1	5	0	15	15	20
07:45 AM	0	1	1	3	1	4	0	7	7	12
Total	0	1	1	12	3	15	0	41	41	57
08:00 AM	0	0	0	4	1	5	0	10	10	15
08:15 AM	2	0	2	0	1	1	0	4	4	7
08:30 AM	0	0	0	3	1	4	0	4	4	8
08:45 AM	2	0	2	5	1	6	0	10	10	18
Total	4	0	4	12	4	16	0	28	28	48
Grand Total	4	1	5	24	7	31	0	69	69	105
Apprch %	80	20		77.4	22.6		0	100		
Total %	3.8	1	4.8	22.9	6.7	29.5	0	65.7	65.7	

	Driveway Southbound			Greenbrair Lane Westbound			Greenbrair Lane Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	**4**	**1**	**5**	0	8	8	13
07:30 AM	0	0	0	4	1	5	0	**15**	**15**	**20**
07:45 AM	0	**1**	**1**	3	1	4	0	7	7	12
08:00 AM	0	0	0	4	1	5	0	10	10	15
Total Volume	0	1	1	15	4	19	0	40	40	60
% App. Total	0	100		78.9	21.1		0	100		
PHF	.000	.250	.250	.938	1.00	.950	.000	.667	.667	.750

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City of Brea
N/S: Driveway
E/W: Greenbrair Lane
Weather: Clear

File Name : 08_BRE_DW_Green AM
Site Code : 10524132
Start Date : 2/13/2024
Page No : 2



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

	08:00 AM			07:15 AM			07:00 AM		
+0 mins.	0	0	0	**4**	**1**	**5**	0	11	11
+15 mins.	**2**	0	**2**	4	1	5	0	8	8
+30 mins.	0	0	0	3	1	4	0	**15**	**15**
+45 mins.	2	0	2	4	1	5	0	7	7
Total Volume	4	0	4	15	4	19	0	41	41
% App. Total	100	0		78.9	21.1		0	100	
PHF	.500	.000	.500	.938	1.000	.950	.000	.683	.683

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

City of Brea
N/S: Driveway
E/W: Greenbrair Lane
Weather: Clear

File Name : 08_BRE_DW_Green PM
Site Code : 10524132
Start Date : 2/13/2024
Page No : 1

Groups Printed- Total Volume

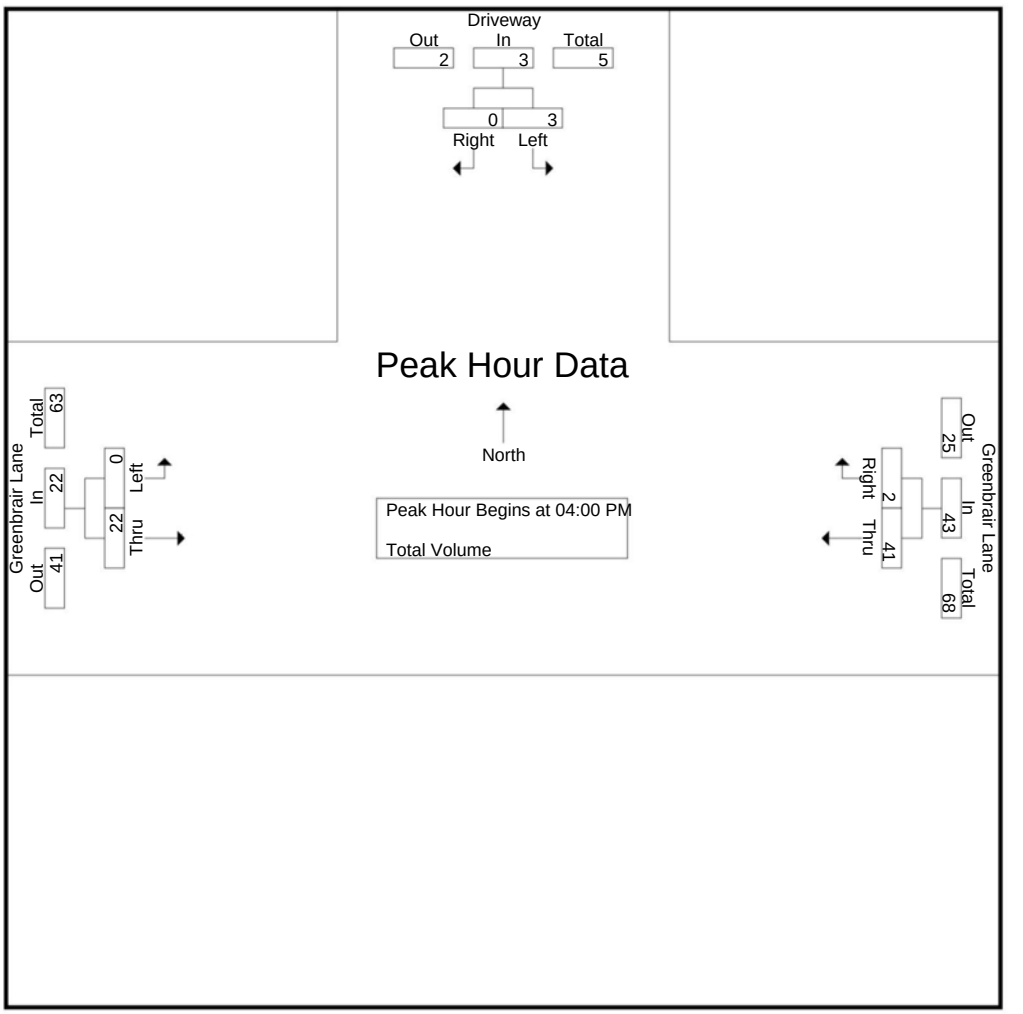
	Driveway Southbound			Greenbrair Lane Westbound			Greenbrair Lane Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	0	0	0	9	0	9	0	7	7	16
04:15 PM	0	0	0	8	0	8	0	4	4	12
04:30 PM	2	0	2	16	2	18	0	7	7	27
04:45 PM	1	0	1	8	0	8	0	4	4	13
Total	3	0	3	41	2	43	0	22	22	68
05:00 PM	0	0	0	1	0	1	0	5	5	6
05:15 PM	0	1	1	5	1	6	0	1	1	8
05:30 PM	0	0	0	8	0	8	0	4	4	12
05:45 PM	0	0	0	12	0	12	0	2	2	14
Total	0	1	1	26	1	27	0	12	12	40
Grand Total	3	1	4	67	3	70	0	34	34	108
Apprch %	75	25		95.7	4.3		0	100		
Total %	2.8	0.9	3.7	62	2.8	64.8	0	31.5	31.5	

	Driveway Southbound			Greenbrair Lane Westbound			Greenbrair Lane Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	9	0	9	0	**7**	**7**	16
04:15 PM	0	0	0	8	0	8	0	4	4	12
04:30 PM	**2**	0	**2**	**16**	**2**	**18**	0	7	7	**27**
04:45 PM	1	0	1	8	0	8	0	4	4	13
Total Volume	3	0	3	41	2	43	0	22	22	68
% App. Total	100	0		95.3	4.7		0	100		
PHF	.375	.000	.375	.641	.250	.597	.000	.786	.786	.630

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

City of Brea
N/S: Driveway
E/W: Greenbrair Lane
Weather: Clear

File Name : 08_BRE_DW_Green PM
Site Code : 10524132
Start Date : 2/13/2024
Page No : 2



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

	04:30 PM			04:00 PM			04:00 PM		
+0 mins.	**2**	0	**2**	9	0	9	0	**7**	**7**
+15 mins.	1	0	1	8	0	8	0	4	4
+30 mins.	0	0	0	**16**	**2**	**18**	0	7	7
+45 mins.	0	**1**	1	8	0	8	0	4	4
Total Volume	3	1	4	41	2	43	0	22	22
% App. Total	75	25		95.3	4.7		0	100	
PHF	.375	.250	.500	.641	.250	.597	.000	.786	.786

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City of Brea
N/S: Driveway
E/W: Greenbrair Lane
Weather: Clear

File Name : 08_BRE_DW_Green SAT
Site Code : 10524132
Start Date : 2/10/2024
Page No : 1

Groups Printed- Total Volume

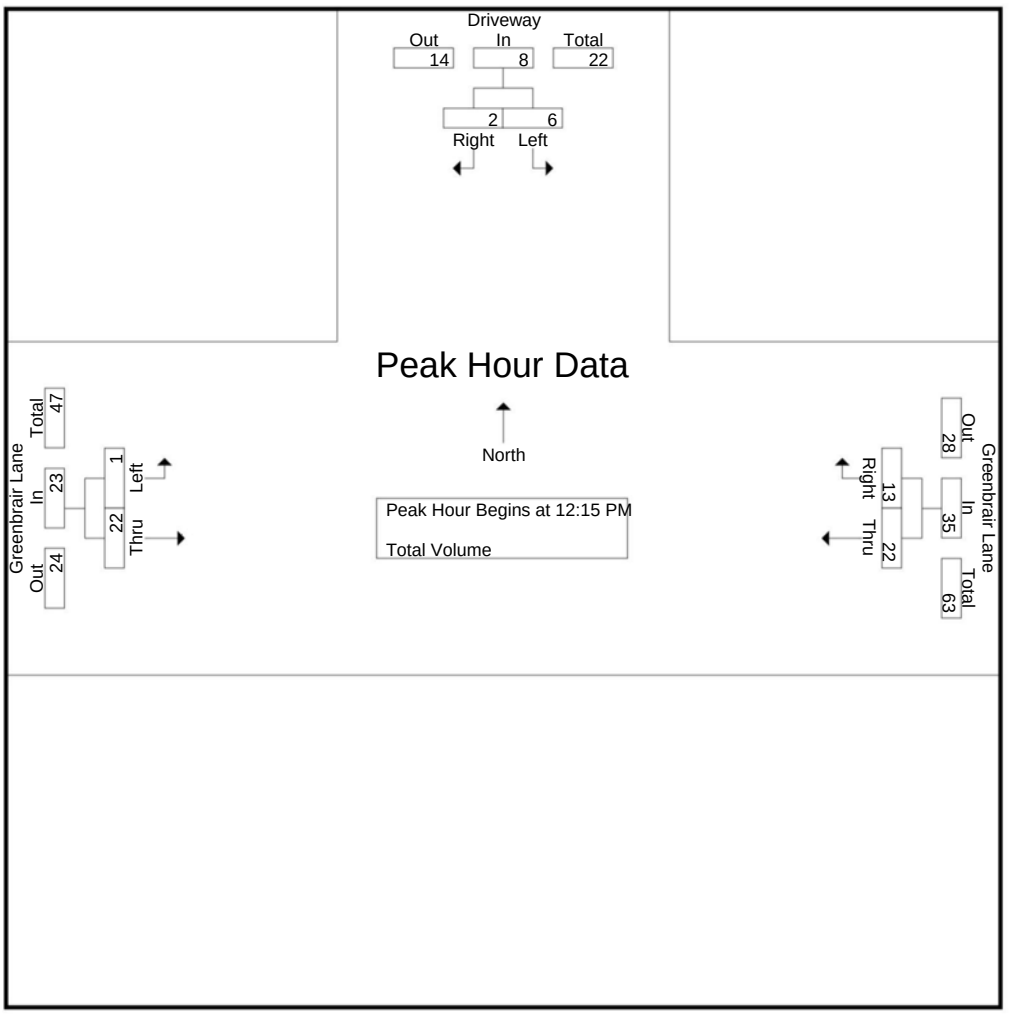
	Driveway Southbound			Greenbrair Lane Westbound			Greenbrair Lane Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
12:00 PM	0	0	0	1	2	3	0	4	4	7
12:15 PM	0	0	0	6	1	7	0	6	6	13
12:30 PM	1	0	1	7	8	15	0	2	2	18
12:45 PM	4	1	5	7	3	10	0	4	4	19
Total	5	1	6	21	14	35	0	16	16	57
01:00 PM	1	1	2	2	1	3	1	10	11	16
01:15 PM	2	0	2	2	1	3	0	4	4	9
01:30 PM	0	0	0	7	1	8	0	6	6	14
01:45 PM	3	0	3	4	2	6	1	6	7	16
Total	6	1	7	15	5	20	2	26	28	55
02:00 PM	3	2	5	7	4	11	0	1	1	17
02:15 PM	5	0	5	8	0	8	0	5	5	18
02:30 PM	0	0	0	2	1	3	0	3	3	6
02:45 PM	1	0	1	3	1	4	0	1	1	6
Total	9	2	11	20	6	26	0	10	10	47
Grand Total	20	4	24	56	25	81	2	52	54	159
Apprch %	83.3	16.7		69.1	30.9		3.7	96.3		
Total %	12.6	2.5	15.1	35.2	15.7	50.9	1.3	32.7	34	

	Driveway Southbound			Greenbrair Lane Westbound			Greenbrair Lane Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 12:15 PM										
12:15 PM	0	0	0	6	1	7	0	6	6	13
12:30 PM	1	0	1	**7**	**8**	**15**	0	2	2	18
12:45 PM	**4**	**1**	**5**	7	3	10	0	4	4	**19**
01:00 PM	1	1	2	2	1	3	**1**	**10**	**11**	16
Total Volume	6	2	8	22	13	35	1	22	23	66
% App. Total	75	25		62.9	37.1		4.3	95.7		
PHF	.375	.500	.400	.786	.406	.583	.250	.550	.523	.868

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

City of Brea
N/S: Driveway
E/W: Greenbrair Lane
Weather: Clear

File Name : 08_BRE_DW_Green SAT
Site Code : 10524132
Start Date : 2/10/2024
Page No : 2



Peak Hour Analysis From 12:00 PM to 02:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	01:30 PM			12:00 PM			01:00 PM		
+0 mins.	0	0	0	1	2	3	**1**	**10**	**11**
+15 mins.	3	0	3	6	1	7	0	4	4
+30 mins.	3	**2**	**5**	**7**	**8**	**15**	0	6	6
+45 mins.	**5**	0	5	7	3	10	1	6	7
Total Volume	11	2	13	21	14	35	2	26	28
% App. Total	84.6	15.4		60	40		7.1	92.9	
PHF	.550	.250	.650	.750	.438	.583	.500	.650	.636

Appendix B-II

Saturday Daily Roadway Segment Counts

RK19750.1
JN: 2827-2023-05

Counts Unlimited, Inc.

PO Box 1178
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Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Brea
N/S: Associated Road
E/W: Shopping Center Driveway
24 Hour Entering Volume Count

BRE006EWS
Site Code: 105-24132

Start Time	2/10/24 Sat	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon	Morning	Afternoon
12:00		3	95			0	0				
12:15		0	95			0	0				
12:30		0	99			0	0				
12:45		1	107	4	396	0	0	0	0	4	396
01:00		0	97			0	0				
01:15		1	105			0	0				
01:30		2	**115**			0	0				
01:45		0	**89**	3	406	0	0	0	0	3	406
02:00		0	**109**			0	0				
02:15		1	**114**			0	0				
02:30		0	80			0	0				
02:45		1	84	2	387	0	0	0	0	2	387
03:00		0	100			0	0				
03:15		0	80			0	0				
03:30		0	99			0	0				
03:45		2	112	2	391	0	0	0	0	2	391
04:00		1	90			0	0				
04:15		0	89			0	0				
04:30		0	88			0	0				
04:45		1	98	2	365	0	0	0	0	2	365
05:00		2	96			0	0				
05:15		1	92			0	0				
05:30		1	95			0	0				
05:45		3	85	7	368	0	0	0	0	7	368
06:00		7	91			0	0				
06:15		2	84			0	0				
06:30		6	87			0	0				
06:45		11	98	26	360	0	0	0	0	26	360
07:00		10	85			0	0				
07:15		10	79			0	0				
07:30		19	64			0	0				
07:45		29	55	68	283	0	0	0	0	68	283
08:00		20	46			0	0				
08:15		28	52			0	0				
08:30		29	46			0	0				
08:45		28	41	105	185	0	0	0	0	105	185
09:00		41	47			0	0				
09:15		50	35			0	0				
09:30		55	18			0	0				
09:45		53	28	199	128	0	0	0	0	199	128
10:00		54	21			0	0				
10:15		53	14			0	0				
10:30		**80**	13			0	0				
10:45		**80**	11	267	59	0	0	0	0	267	59
11:00		**59**	8			0	0				
11:15		**80**	6			0	0				
11:30		74	5			0	0				
11:45		73	2	286	21	0	0	0	0	286	21
Total		971	3349	971	3349	0	0	0	0	971	3349
Combined Total		4320		4320		0		0		4320	
AM Peak	-	10:30	-	-	-	-	-	-	-	-	-
Vol.	-	299	-	-	-	-	-	-	-	-	-
P.H.F.		0.934									
PM Peak	-	-	01:30	-	-	-	-	-	-	-	-
Vol.	-	-	427	-	-	-	-	-	-	-	-
P.H.F.			0.928								
Percentage		22.5%	77.5%			0.0%	0.0%				
ADT/AADT		ADT 4,320		AADT 4,320							

Counts Unlimited, Inc.

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Phone: (951) 268-6268
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City of Brea
N/S: Associated Road
E/W: Shopping Center Driveway
24 Hour Entering Volume Count

BRE006NSS
Site Code: 105-24132

Start Time	2/10/24 Sat	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		25	107			17	119				
12:15		13	109			5	110				
12:30		20	111			11	95				
12:45		16	103	74	430	5	113	38	437	112	867
01:00		11	112			6	118				
01:15		6	120			5	95				
01:30		8	122			6	**107**				
01:45		9	118	34	472	6	**120**	23	440	57	912
02:00		13	121			3	**108**				
02:15		9	115			2	**109**				
02:30		4	113			0	102				
02:45		5	113	31	462	8	88	13	407	44	869
03:00		7	81			5	103				
03:15		6	113			4	90				
03:30		5	113			4	97				
03:45		7	113	25	420	1	95	14	385	39	805
04:00		4	**125**			2	94				
04:15		3	**115**			4	105				
04:30		4	**135**			12	104				
04:45		5	**123**	16	498	9	104	27	407	43	905
05:00		5	119			7	96				
05:15		5	101			8	101				
05:30		7	126			15	84				
05:45		14	97	31	443	16	81	46	362	77	805
06:00		13	84			19	81				
06:15		9	85			14	106				
06:30		20	99			19	92				
06:45		24	66	66	334	21	70	73	349	139	683
07:00		18	78			30	65				
07:15		31	69			28	54				
07:30		29	46			42	64				
07:45		29	50	107	243	56	54	156	237	263	480
08:00		50	47			40	50				
08:15		48	43			48	57				
08:30		40	72			65	36				
08:45		54	46	192	208	73	30	226	173	418	381
09:00		45	45			77	38				
09:15		67	47			68	26				
09:30		54	38			81	26				
09:45		85	36	251	166	81	26	307	116	558	282
10:00		73	37			101	25				
10:15		80	28			83	22				
10:30		110	23			105	18				
10:45		107	28	370	116	83	18	372	83	742	199
11:00		**93**	27			**97**	9				
11:15		**95**	24			**96**	11				
11:30		**125**	16			**99**	10				
11:45		**112**	13	425	80	**123**	6	415	36	840	116
Total		1622	3872	1622	3872	1710	3432	1710	3432	3332	7304
Combined Total		5494		5494		5142		5142		10636	
AM Peak	-	11:00	-	-	-	11:00	-	-	-	-	-
Vol.	-	425	-	-	-	415	-	-	-	-	-
P.H.F.		0.850				0.843					
PM Peak	-	-	04:00	-	-	-	01:30	-	-	-	-
Vol.	-	-	498	-	-	-	444	-	-	-	-
P.H.F.			0.922				0.925				
Percentage		29.5%	70.5%			33.3%	66.7%				
ADT/AADT		ADT 10,636		AADT 10,636							

Counts Unlimited, Inc.

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City of Brea
Associated Road
N/ Imperial Highway
24 Hour Directional Volume Count

BRE003
Site Code: 105-24132

Start Time	2/10/24 Sat	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		25	107			21	168				
12:15		13	109			6	139				
12:30		20	111			11	137				
12:45		16	103	74	430	6	158	44	602	118	1032
01:00		11	112			6	160				
01:15		6	120			6	135				
01:30		8	122			8	**178**				
01:45		9	118	34	472	6	**157**	26	630	60	1102
02:00		13	121			4	**154**				
02:15		9	115			2	**151**				
02:30		4	113			0	137				
02:45		5	113	31	462	9	139	15	581	46	1043
03:00		7	81			5	156				
03:15		6	113			4	122				
03:30		5	113			4	137				
03:45		7	113	25	420	2	154	15	569	40	989
04:00		4	**125**			4	138				
04:15		3	**115**			2	145				
04:30		4	**135**			11	140				
04:45		5	**123**	16	498	8	141	25	564	41	1062
05:00		5	119			9	130				
05:15		5	101			8	130				
05:30		7	126			16	116				
05:45		14	97	31	443	11	116	44	492	75	935
06:00		13	84			20	115				
06:15		9	85			13	128				
06:30		20	99			21	119				
06:45		24	66	66	334	23	119	77	481	143	815
07:00		18	78			28	103				
07:15		31	69			29	99				
07:30		29	46			43	83				
07:45		29	50	107	243	63	80	163	365	270	608
08:00		50	47			49	66				
08:15		48	43			54	71				
08:30		40	72			67	63				
08:45		54	46	192	208	77	50	247	250	439	458
09:00		45	45			89	60				
09:15		67	47			77	43				
09:30		54	38			83	36				
09:45		85	36	251	166	94	43	343	182	594	348
10:00		73	37			122	31				
10:15		80	28			100	29				
10:30		110	23			137	26				
10:45		107	28	370	116	133	22	492	108	862	224
11:00		**93**	27			**114**	17				
11:15		**95**	24			**124**	16				
11:30		**125**	16			**131**	11				
11:45		**112**	13	425	80	**141**	9	510	53	935	133
Total		1622	3872	1622	3872	2001	4877	2001	4877	3623	8749
Combined Total		5494		5494		6878		6878		12372	
AM Peak	-	11:00	-	-	-	11:00	-	-	-	-	-
Vol.	-	425	-	-	-	510	-	-	-	-	-
P.H.F.		0.850				0.904					
PM Peak	-	-	04:00	-	-	-	01:30	-	-	-	-
Vol.	-	-	498	-	-	-	640	-	-	-	-
P.H.F.			0.922				0.899				
Percentage		29.5%	70.5%			29.1%	70.9%				
ADT/AADT		ADT 12,372		AADT 12,372							

Counts Unlimited, Inc.

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City of Brea
Associated Road
S/ Birch Street
24 Hour Directional Volume Count

BRE002
Site Code: 105-24132

Start Time	2/10/24 Sat	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		20	89			14	**105**				
12:15		8	93			5	**104**				
12:30		20	101			12	**95**				
12:45		14	96	62	379	4	**124**	35	428	97	807
01:00		9	94			5	103				
01:15		6	116			6	92				
01:30		6	111			7	94				
01:45		6	112	27	433	1	110	19	399	46	832
02:00		13	106			2	104				
02:15		7	124			3	103				
02:30		3	104			1	91				
02:45		5	90	28	424	9	90	15	388	43	812
03:00		6	80			4	99				
03:15		7	93			4	89				
03:30		3	123			4	90				
03:45		7	**108**	23	404	1	101	13	379	36	783
04:00		3	**124**			4	94				
04:15		3	**98**			3	97				
04:30		1	**144**			13	105				
04:45		5	93	12	459	5	91	25	387	37	846
05:00		1	134			4	96				
05:15		4	100			4	92				
05:30		5	119			11	79				
05:45		16	78	26	431	10	80	29	347	55	778
06:00		6	106			19	85				
06:15		7	91			9	93				
06:30		17	96			17	78				
06:45		24	79	54	372	21	67	66	323	120	695
07:00		21	70			25	60				
07:15		22	68			27	50				
07:30		27	50			30	66				
07:45		36	48	106	236	53	49	135	225	241	461
08:00		30	40			44	51				
08:15		46	44			39	57				
08:30		35	65			52	31				
08:45		51	48	162	197	62	25	197	164	359	361
09:00		39	53			69	33				
09:15		68	35			53	22				
09:30		68	34			78	25				
09:45		73	35	248	157	79	22	279	102	527	259
10:00		71	38			85	21				
10:15		81	31			86	26				
10:30		99	20			85	17				
10:45		**91**	27	342	116	89	17	345	81	687	197
11:00		**77**	21			**82**	11				
11:15		**90**	20			**104**	11				
11:30		**100**	17			**95**	9				
11:45		88	10	355	68	**122**	8	403	39	758	107
Total		1445	3676	1445	3676	1561	3262	1561	3262	3006	6938
Combined Total		5121		5121		4823		4823		9944	
AM Peak	-	10:45	-	-	-	11:00	-	-	-	-	-
Vol.	-	358	-	-	-	403	-	-	-	-	-
P.H.F.		0.895				0.826					
PM Peak	-	-	03:45	-	-	-	12:00	-	-	-	-
Vol.	-	-	474	-	-	-	428	-	-	-	-
P.H.F.			0.823				0.863				
Percentage		28.2%	71.8%			32.4%	67.6%				
ADT/AADT		ADT 9,944		AADT 9,944							

Counts Unlimited, Inc.

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City of Brea
Birch Street
W/ Associated Road
24 Hour Directional Volume Count

BRE001
Site Code: 105-24132

Start Time	2/10/24 Sat	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		17	237			19	212				
12:15		22	227			10	**217**				
12:30		10	197			14	**208**				
12:45		11	236	60	897	10	**236**	53	873	113	1770
01:00		10	250			5	**225**				
01:15		8	**234**			4	213				
01:30		9	**232**			4	209				
01:45		10	**244**	37	960	6	215	19	862	56	1822
02:00		1	**252**			12	233				
02:15		5	226			2	227				
02:30		1	208			4	202				
02:45		2	240	9	926	2	198	20	860	29	1786
03:00		4	235			2	187				
03:15		1	230			3	199				
03:30		4	223			6	211				
03:45		4	232	13	920	12	206	23	803	36	1723
04:00		4	201			3	211				
04:15		4	228			1	195				
04:30		6	209			6	241				
04:45		8	215	22	853	6	209	16	856	38	1709
05:00		4	198			7	225				
05:15		5	266			5	197				
05:30		6	200			5	237				
05:45		10	183	25	847	20	211	37	870	62	1717
06:00		19	177			12	187				
06:15		14	203			13	187				
06:30		26	153			18	173				
06:45		34	157	93	690	29	129	72	676	165	1366
07:00		37	138			28	130				
07:15		37	131			34	82				
07:30		43	117			35	82				
07:45		68	111	185	497	70	90	167	384	352	881
08:00		59	123			49	76				
08:15		74	116			83	81				
08:30		79	98			80	78				
08:45		106	94	318	431	110	69	322	304	640	735
09:00		90	81			108	58				
09:15		105	69			123	52				
09:30		125	67			138	48				
09:45		134	50	454	267	171	41	540	199	994	466
10:00		135	59			152	49				
10:15		140	60			177	40				
10:30		172	49			182	30				
10:45		174	47	621	215	219	25	730	144	1351	359
11:00		**180**	25			**219**	23				
11:15		**210**	26			**190**	19				
11:30		**183**	17			**218**	16				
11:45		**226**	19	799	87	**228**	16	855	74	1654	161
Total		2636	7590	2636	7590	2854	6905	2854	6905	5490	14495
Combined Total		10226		10226		9759		9759		19985	
AM Peak	-	11:00	-	-	-	11:00	-	-	-	-	-
Vol.	-	799	-	-	-	855	-	-	-	-	-
P.H.F.		0.884				0.938					
PM Peak	-	-	01:15	-	-	-	00:15	-	-	-	-
Vol.	-	-	962	-	-	-	886	-	-	-	-
P.H.F.			0.954				0.939				
Percentage		25.8%	74.2%			29.2%	70.8%				
ADT/AADT		ADT 19,985		AADT 19,985							

Counts Unlimited, Inc.

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City of Brea
Imperial Highway
Just E/ State Route 57 Northbound Off Ramp
24 Hour Directional Volume Count

BRE004
Site Code: 105-24132

Start Time	2/10/24 Sat	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		72	404			54	409				
12:15		54	468			41	372				
12:30		85	462			41	382				
12:45		59	407	270	1741	29	**423**	165	1586	435	3327
01:00		62	**464**			25	**427**				
01:15		34	**449**			29	**396**				
01:30		40	**434**			38	**399**				
01:45		49	**464**	185	1811	27	389	119	1611	304	3422
02:00		40	403			27	338				
02:15		35	431			26	327				
02:30		25	436			20	353				
02:45		19	407	119	1677	21	335	94	1353	213	3030
03:00		26	418			12	424				
03:15		23	446			16	377				
03:30		19	384			19	369				
03:45		39	443	107	1691	34	342	81	1512	188	3203
04:00		17	397			11	340				
04:15		31	418			23	331				
04:30		43	408			28	363				
04:45		63	405	154	1628	27	341	89	1375	243	3003
05:00		46	365			34	341				
05:15		44	412			35	371				
05:30		56	367			41	387				
05:45		114	367	260	1511	50	387	160	1486	420	2997
06:00		63	364			67	343				
06:15		68	378			66	376				
06:30		109	315			90	334				
06:45		154	337	394	1394	92	306	315	1359	709	2753
07:00		115	321			109	288				
07:15		152	319			142	273				
07:30		194	246			168	265				
07:45		249	263	710	1149	174	243	593	1069	1303	2218
08:00		203	248			177	273				
08:15		235	217			182	252				
08:30		249	241			247	220				
08:45		330	206	1017	912	270	217	876	962	1893	1874
09:00		275	210			269	189				
09:15		332	190			300	197				
09:30		311	182			308	145				
09:45		338	175	1256	757	327	157	1204	688	2460	1445
10:00		344	135			359	140				
10:15		378	139			393	133				
10:30		397	130			385	121				
10:45		407	120	1526	524	**386**	107	1523	501	3049	1025
11:00		**378**	120			**411**	95				
11:15		**376**	114			**408**	73				
11:30		**416**	74			**404**	65				
11:45		**463**	67	1633	375	381	42	1604	275	3237	650
Total		7631	15170	7631	15170	6823	13777	6823	13777	14454	28947
Combined Total		22801		22801		20600		20600		43401	
AM Peak	-	11:00	-	-	-	10:45	-	-	-	-	-
Vol.	-	1633	-	-	-	1609	-	-	-	-	-
P.H.F.		0.882				0.979					
PM Peak	-	-	01:00	-	-	-	00:45	-	-	-	-
Vol.	-	-	1811	-	-	-	1645	-	-	-	-
P.H.F.			0.976				0.963				
Percentage		33.5%	66.5%			33.1%	66.9%				
ADT/AADT		ADT 43,401		AADT 43,401							

Counts Unlimited, Inc.

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City of Brea
N/S: Redbay Avenue
E/W: Birch Street
24 Hour Entering Volume Count

BRE005EWS
Site Code: 105-24132

Start Time	2/10/24 Sat	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		22	202			9	201				
12:15		11	233			8	223				
12:30		20	221			13	210				
12:45		16	196	69	852	10	246	40	880	109	1732
01:00		4	243			7	218				
01:15		11	239			5	**236**				
01:30		7	**224**			7	**241**				
01:45		9	**239**	31	945	3	**248**	22	943	53	1888
02:00		7	**247**			4	**222**				
02:15		5	**258**			4	210				
02:30		5	222			5	187				
02:45		5	236	22	963	2	195	15	814	37	1777
03:00		4	229			4	187				
03:15		2	247			3	209				
03:30		5	229			4	193				
03:45		4	232	15	937	3	209	14	798	29	1735
04:00		2	190			5	164				
04:15		1	214			6	168				
04:30		1	205			6	179				
04:45		14	213	18	822	9	235	26	746	44	1568
05:00		4	232			8	199				
05:15		4	197			6	221				
05:30		11	170			10	191				
05:45		4	183	23	782	15	216	39	827	62	1609
06:00		14	171			13	183				
06:15		9	180			23	173				
06:30		27	159			20	151				
06:45		29	166	79	676	29	117	85	624	164	1300
07:00		27	176			24	117				
07:15		46	132			31	126				
07:30		54	119			50	95				
07:45		75	123	202	550	87	96	192	434	394	984
08:00		82	133			63	83				
08:15		94	122			88	82				
08:30		75	97			83	68				
08:45		100	71	351	423	93	73	327	306	678	729
09:00		111	96			105	65				
09:15		99	93			111	53				
09:30		129	72			105	46				
09:45		148	48	487	309	171	46	492	210	979	519
10:00		144	46			174	36				
10:15		149	66			188	37				
10:30		141	46			214	34				
10:45		163	45	597	203	216	28	792	135	1389	338
11:00		**197**	31			**192**	25				
11:15		**197**	29			**222**	20				
11:30		**236**	29			**231**	22				
11:45		**224**	13	854	102	**254**	12	899	79	1753	181
Total		2748	7564	2748	7564	2943	6796	2943	6796	5691	14360
Combined Total		10312		10312		9739		9739		20051	
AM Peak	-	11:00	-	-	-	11:00	-	-	-	-	-
Vol.	-	854	-	-	-	899	-	-	-	-	-
P.H.F.		0.905				0.885					
PM Peak	-	-	01:30	-	-	-	01:15	-	-	-	-
Vol.	-	-	968	-	-	-	947	-	-	-	-
P.H.F.			0.938				0.955				
Percentage		26.6%	73.4%			30.2%	69.8%				
ADT/AADT		ADT 20,051		AADT 20,051							

Counts Unlimited, Inc.

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City of Brea
N/S: Redbay Avenue
E/W: Birch Street
24 Hour Entering Volume Count

BRE005NSS
Site Code: 105-24132

Start Time	2/10/24 Sat	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	**13**			2	17				
12:15		3	**9**			0	7				
12:30		2	**5**			1	14				
12:45		0	**14**	5	41	0	5	3	43	8	84
01:00		1	9			3	15				
01:15		0	9			1	11				
01:30		0	8			4	10				
01:45		0	6	1	32	0	11	8	47	9	79
02:00		0	8			1	6				
02:15		0	3			1	9				
02:30		0	6			0	8				
02:45		0	5	0	22	2	9	4	32	4	54
03:00		0	10			1	5				
03:15		0	5			0	10				
03:30		0	7			0	**12**				
03:45		1	10	1	32	0	**14**	1	41	2	73
04:00		0	6			0	**13**				
04:15		0	11			0	**12**				
04:30		0	7			1	11				
04:45		0	13	0	37	2	11	3	47	3	84
05:00		1	4			2	10				
05:15		1	6			1	8				
05:30		2	8			1	13				
05:45		3	5	7	23	8	15	12	46	19	69
06:00		4	7			3	10				
06:15		1	3			5	13				
06:30		3	7			5	9				
06:45		3	7	11	24	3	12	16	44	27	68
07:00		4	4			4	11				
07:15		3	4			10	8				
07:30		7	5			4	9				
07:45		7	5	21	18	7	10	25	38	46	56
08:00		12	3			13	3				
08:15		3	8			21	6				
08:30		4	1			7	6				
08:45		11	3	30	15	13	10	54	25	84	40
09:00		11	1			14	4				
09:15		8	5			6	7				
09:30		5	2			12	4				
09:45		7	1	31	9	11	4	43	19	74	28
10:00		7	1			8	2				
10:15		10	2			**14**	4				
10:30		8	0			**13**	4				
10:45		2	0	27	3	**13**	2	48	12	75	15
11:00		**9**	3			**18**	10				
11:15		**12**	1			13	2				
11:30		**8**	1			10	1				
11:45		**8**	1	37	6	8	0	49	13	86	19
Total		171	262	171	262	266	407	266	407	437	669
Combined Total		433		433		673		673		1106	
AM Peak	-	11:00	-	-	-	10:15	-	-	-	-	-
Vol.	-	37	-	-	-	58	-	-	-	-	-
P.H.F.		0.771				0.806					
PM Peak	-	-	12:00	-	-	-	03:30	-	-	-	-
Vol.	-	-	41	-	-	-	51	-	-	-	-
P.H.F.			0.732				0.911				
Percentage		39.5%	60.5%			39.5%	60.5%				
ADT/AADT		ADT 1,106		AADT 1,106							

Appendix B-III

Existing Mercury Insurance Parking Lot Cut-Through & Poaching Counts

RK19750.1
JN: 2827-2023-05

Brea - Vehicle Tracking Study
Location: City of Brea
Date: 2/13/2023
Mercury Parking Lot - Entrance 1
Greenbriar / Associated
7:00 AM - 9:00 AM

Time	Enter at Origin: Mercury Parking Lot - Entrance 1 SB Entering	Destination:	Notes
7:04:59	Enter MPL 1 - Greenbriar/Associated	Parked North side of Mercury Building	Work Van
7:12:21	Enter MPL 1 - Greenbriar/Associated	Parked North side of Mercury Building	Box Truck
7:20:48	Enter MPL 1 - Greenbriar/Aurora	Exited Mercury Parking Lot 3	Cut-through
7:34:32	Enter MPL 1 - Greenbriar/Aurora	Exited Mercury Parking Lot 3	Cut-through
8:56:26	Enter MPL 1 - Greenbriar/Associated	Parked North side of Mercury Building	3-Axle Box Truck

Counts Unlimited, Inc.
25286 Jaclyn Avenue
Moreno Valley, CA 92557
951-485-7934

Brea - Vehicle Tracking Study
Location: City of Brea
Date: 2/13/2023
Mercury Parking Lot - Entrance 1
Greenbriar / Associated
4:00 PM to 6:00 PM

Time	Enter at Origin: Mercury Parking Lot - Entrance 1 SB Entering	Destination:	Notes
16:13:06	Enter MPL 1 - Greenbriar/Associated	Parked North side of Mercury Building	
16:19:10	Enter MPL 1 - Greenbriar/Aurora	Exited Mercury Parking Lot 3	Cut-through
16:23:52	Enter MPL 1 - Greenbriar/Associated	Parked North side of Mercury Building	
16:43:42	Enter MPL 1 - Greenbriar/Associated	Parked North side of Mercury Building	3-Axle Box Truck
17:13:47	Enter MPL 1 - Greenbriar/Associated	Exited Mercury Parking Lot 3	Cut-through

Counts Unlimited, Inc.
25286 Jaclyn Avenue
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951-485-7934

Brea - Vehicle Tracking Study
Location: City of Brea
Date: 2/10/2023
Mercury Parking Lot - Entrance 1
Greenbriar / Associated
12:00 PM to 3:00 PM

Time	Enter at Origin: Mercury Parking Lot - Entrance 1 SB Entering	Destination:	Notes
12:50:34	Enter MPL 1 - Greenbriar/Associated	Exited Mercury Parking Lot 3	Cut-through
13:04:39	Enter MPL 1 - Greenbriar/Aurora	Exited Mercury Parking Lot 2	Cut-through
13:50:35	Enter MPL 1 - Greenbriar/Associated	Parked Main side of Mercury Building	Appeared to be security guard for Mercury building

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Brea - Vehicle Tracking Study
Location: City of Brea
Date: 2/13/2023
Mercury Parking Lot - Entrance 2
West Internal Driveway
7:00 AM to 9:00 AM

Time	Enter at Origin: Mercury Parking Lot - Entrance 2	Destination:	Notes
7:13:40	Entered MPL 2	Parked Main side of Mercury Building	Went into Mercury building
7:20:14	Entered MPL 2	Parked Main side of Mercury Building	Went into Mercury building
7:27:43	Entered MPL 2	Parked Main side of Mercury Building	Went into Mercury building
8:12:28	Entered MPL 2	Parked Main side of Mercury Building	Went into Mercury building

Counts Unlimited, Inc.
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951-485-7934

Brea - Vehicle Tracking Study
Location: City of Brea
Date: 2/13/2023
Mercury Parking Lot - Entrance 2
West Internal Driveway
4:00 PM to 6:00 PM

Time	Enter at Origin: Mercury Parking Lot - Entrance 2	Destination:	Notes
	NO ACTIVITY		

Counts Unlimited, Inc.
25286 Jaclyn Avenue
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951-485-7934

Brea - Vehicle Tracking Study
Location: City of Brea
Date: 2/10/2023
Mercury Parking Lot - Entrance 2
West Internal Driveway
12:00 PM to 3:00 PM

Time	Enter at Origin: Mercury Parking Lot - Entrance 2	Destination:	Notes
12:02:35	Entered MPL 2	Parked Main side of Mercury Building	Walked across the street to shopping center
13:27:44	Entered MPL 2	Exited MPL 1 - Greenbriar/Associated	Cut-through
13:30:55	Entered MPL 2	Parked Main side of Mercury Building	Sat in car for 30 mintues, did not exit
13:36:08	Entered MPL 2	Exited MPL 3	Turned around
13:42:59	Entered MPL 2	Parked Main side of Mercury Building	Went into Mercury building
14:00:26	Entered MPL 2	Exited MPL 1 - Greenbriar/Associated	Cut-through
14:27:23	Entered MPL 2	Parked Main side of Mercury Building	Construction crew for parking lot
14:33:33	Entered MPL 2	Exited MPL 3	Construction crew for parking lot

Counts Unlimited, Inc.
25286 Jaclyn Avenue
Moreno Valley, CA 92557
951-485-7934

Brea - Vehicle Tracking Study
Location: City of Brea
Date: 2/13/2023
Mercury Parking Lot - Entrance 3
East Internal Driveway
7:00 AM to 9:00 AM

Time	**Enter at Origin:** Mercury Parking Lot - Entrance 3	**Destination:**	**Notes**
7:21:08	Entered MPL 3	Parked at parking structure in front of Mercury Building	
7:23:14	Entered MPL 3	Parked Main side of Mercury Building	Went into Mercury building
7:25:54	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	Cut-through
7:43:32	Entered MPL 3	Parked North side of Mercury Building	
7:51:21	Entered MPL 3	Exited MPL 1 - Greenbriar/Aurora	Cut-through
7:55:15	Entered MPL 3	Parked North side of Mercury Building	
8:30:44	Entered MPL 3	Parked at parking structure in front of Mercury Building	
8:35:24	Entered MPL 3	Parked Main side of Mercury Building	Went into Mercury building
8:46:43	Entered MPL 3	Parked North side of Mercury Building	Box Truck
8:52:35	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	Cut-through

Counts Unlimited, Inc.
25286 Jaclyn Avenue
Moreno Valley, CA 92557
951-485-7934

Brea - Vehicle Tracking Study
Location: City of Brea
Date: 2/13/2023
Mercury Parking Lot - Entrance 3
East Internal Driveway
4:00 PM to 6:00 PM

Time	**Enter at Origin:** Mercury Parking Lot - Entrance 3	**Destination:**	**Notes**
16:07:17	Entered MPL 3	Parked Main side of Mercury Building	
16:18:04	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	
16:24:43	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	
16:39:03	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	
16:40:07	Entered MPL 3	Exited MPL 1 - Greenbriar/Aurora	
16:49:39	Entered MPL 3	Exited Mercury Parking Lot 2	
16:51:12	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	
17:01:21	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	
17:03:33	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	
17:12:26	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	
17:14:24	Entered MPL 3	Exited MPL 1 - Greenbriar/Aurora	
17:29:31	Entered MPL 3	Parked North side of Mercury Building	
17:32:37	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	
17:42:31	Entered MPL 3	Parked North side of Mercury Building	
17:44:31	Entered MPL 3	Exited MPL 1 - Greenbriar/Aurora	
17:45:36	Entered MPL 3	Exited MPL 1 - Greenbriar/Aurora	
17:45:39	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	
17:45:54	Entered MPL 3	Exited MPL 1 - Greenbriar/Aurora	

Counts Unlimited, Inc.
25286 Jaclyn Avenue
Moreno Valley, CA 92557
951-485-7934

Brea - Vehicle Tracking Study
Location: City of Brea
Date: 2/10/2023
Mercury Parking Lot - Entrance 3
East Internal Driveway
12:00 PM to 3:00 PM

Time	Enter at Origin: Mercury Parking Lot - Entrance 3	Destination:	Notes
12:03:01	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	
12:29:33	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	
12:31:07	Entered MPL 3	Exited MPL 1 - Greenbriar/Aurora	
12:32:51	Entered MPL 3	Exited MPL 1 - Greenbriar/Aurora	
12:35:49	Entered MPL 3	Exited MPL 2	
12:39:33	Entered MPL 3	Parked Main side of Mercury Building	Walked to shopping center
12:55:05	Entered MPL 3	Parked Main side of Mercury Building	Walked to shopping center
12:55:31	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	
12:58:10	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	
13:10:41	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	
13:35:29	Entered MPL 3	Parked Main side of Mercury Building	Construction on parking lot
13:36:41	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	
13:41:50	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	
14:12:41	Entered MPL 3	Exited MPL 1 - Greenbriar/Associated	
14:24:40	Entered MPL 3	Parked North side of Mercury Building	
14:29:42	Entered MPL 3	Exited MPL 2	
14:30:44	Entered MPL 3	Parked Main side of Mercury Building	Construction on parking lot
14:48:41	Entered MPL 3	Exited MPL 2	

Counts Unlimited, Inc.
25286 Jaclyn Avenue
Moreno Valley, CA 92557
951-485-7934

Appendix B-IV

Signal Warrant Counts

RK19750.1
JN: 2827-2023-05

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Brea
N/S: Associated Road
E/W: Shopping Center Driveway
24 Hour Entering Volume Count

BRE006EW
Site Code: 105-24132

Start Time	2/13/24 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon	Morning	Afternoon
12:00		2	**73**			0	0				
12:15		1	**104**			0	0				
12:30		0	**77**			0	0				
12:45		0	**100**	3	354	0	0	0	0	3	354
01:00		0	63			0	0				
01:15		0	77			0	0				
01:30		0	78			0	0				
01:45		1	71	1	289	0	0	0	0	1	289
02:00		0	76			0	0				
02:15		0	70			0	0				
02:30		1	69			0	0				
02:45		0	88	1	303	0	0	0	0	1	303
03:00		0	64			0	0				
03:15		0	79			0	0				
03:30		0	81			0	0				
03:45		0	83	0	307	0	0	0	0	0	307
04:00		0	69			0	0				
04:15		0	62			0	0				
04:30		2	63			0	0				
04:45		0	71	2	265	0	0	0	0	2	265
05:00		1	76			0	0				
05:15		3	74			0	0				
05:30		1	77			0	0				
05:45		1	67	6	294	0	0	0	0	6	294
06:00		7	63			0	0				
06:15		14	80			0	0				
06:30		17	90			0	0				
06:45		23	65	61	298	0	0	0	0	61	298
07:00		25	72			0	0				
07:15		17	67			0	0				
07:30		28	68			0	0				
07:45		33	60	103	267	0	0	0	0	103	267
08:00		34	55			0	0				
08:15		31	46			0	0				
08:30		33	38			0	0				
08:45		37	41	135	180	0	0	0	0	135	180
09:00		28	43			0	0				
09:15		51	39			0	0				
09:30		40	26			0	0				
09:45		29	26	148	134	0	0	0	0	148	134
10:00		34	18			0	0				
10:15		47	17			0	0				
10:30		45	5			0	0				
10:45		36	8	162	48	0	0	0	0	162	48
11:00		**52**	4			0	0				
11:15		**58**	3			0	0				
11:30		**77**	4			0	0				
11:45		**93**	2	280	13	0	0	0	0	280	13
Total		902	2752	902	2752	0	0	0	0	902	2752
Combined Total		3654		3654		0		0		3654	
AM Peak	-	11:00	-	-	-	-	-	-	-	-	-
Vol.	-	280	-	-	-	-	-	-	-	-	-
P.H.F.		0.753									
PM Peak	-	-	12:00	-	-	-	-	-	-	-	-
Vol.	-	-	354	-	-	-	-	-	-	-	-
P.H.F.			0.851								
Percentage		24.7%	75.3%			0.0%	0.0%				
ADT/AADT		ADT 3,654		AADT 3,654							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Brea
N/S: Associated Road
E/W: Shopping Center Driveway
24 Hour Entering Volume Count

BRE006NS
Site Code: 105-24132

Start Time	2/13/24 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		8	98			3	109				
12:15		9	85			6	109				
12:30		7	97			3	110				
12:45		9	84	33	364	9	101	21	429	54	793
01:00		3	85			2	94				
01:15		3	108			2	99				
01:30		2	87			3	105				
01:45		4	105	12	385	4	86	11	384	23	769
02:00		3	95			0	114				
02:15		2	102			2	132				
02:30		1	141			2	110				
02:45		2	131	8	469	10	89	14	445	22	914
03:00		2	130			4	**129**				
03:15		4	116			8	**126**				
03:30		5	126			6	**138**				
03:45		5	136	16	508	9	**124**	27	517	43	1025
04:00		6	142			8	108				
04:15		6	143			12	121				
04:30		17	139			26	140				
04:45		28	142	57	566	21	115	67	484	124	1050
05:00		15	**157**			17	126				
05:15		14	**158**			29	110				
05:30		19	**158**			23	115				
05:45		41	**158**	89	631	36	112	105	463	194	1094
06:00		36	130			43	114				
06:15		48	112			50	118				
06:30		55	134			62	87				
06:45		66	105	205	481	76	88	231	407	436	888
07:00		70	115			**140**	77				
07:15		78	111			**78**	90				
07:30		**67**	84			**133**	71				
07:45		**85**	68	300	378	**113**	67	464	305	764	683
08:00		**94**	62			118	76				
08:15		**80**	79			95	42				
08:30		60	63			111	53				
08:45		89	68	323	272	126	45	450	216	773	488
09:00		66	48			77	43				
09:15		67	49			78	35				
09:30		73	46			95	28				
09:45		59	46	265	189	79	35	329	141	594	330
10:00		66	24			65	35				
10:15		68	23			70	29				
10:30		64	32			71	25				
10:45		71	16	269	95	74	10	280	99	549	194
11:00		75	19			89	8				
11:15		66	2			74	11				
11:30		84	9			109	14				
11:45		81	11	306	41	97	7	369	40	675	81
Total		1883	4379	1883	4379	2368	3930	2368	3930	4251	8309
Combined Total		6262		6262		6298		6298		12560	
AM Peak	-	07:30	-	-	-	07:00	-	-	-	-	-
Vol.	-	326	-	-	-	464	-	-	-	-	-
P.H.F.		0.867				0.829					
PM Peak	-	-	05:00	-	-	-	03:00	-	-	-	-
Vol.	-	-	631	-	-	-	517	-	-	-	-
P.H.F.			0.998				0.937				
Percentage		30.1%	69.9%			37.6%	62.4%				
ADT/AADT		ADT 12,560		AADT 12,560							

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
email: counts@countsunlimited.com

City of Brea
N/S: Redbay Avenue
E/W: Birch Street
24 Hour Entering Volume Count

BRE005EW
Site Code: 105-24132

Start Time	2/13/24 Tue	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		11	197			3	203				
12:15		13	184			6	164				
12:30		11	216			2	182				
12:45		3	189	38	786	3	163	14	712	52	1498
01:00		4	199			5	182				
01:15		5	183			4	180				
01:30		3	207			2	151				
01:45		4	194	16	783	2	185	13	698	29	1481
02:00		2	202			2	164				
02:15		4	203			1	219				
02:30		3	228			3	221				
02:45		0	224	9	857	2	219	8	823	17	1680
03:00		2	288			3	241				
03:15		0	226			2	268				
03:30		5	244			5	266				
03:45		4	236	11	994	4	273	14	1048	25	2042
04:00		6	**284**			9	293				
04:15		9	**280**			6	269				
04:30		12	**248**			12	**302**				
04:45		19	**292**	46	1104	19	**287**	46	1151	92	2255
05:00		14	258			17	**317**				
05:15		14	281			15	**317**				
05:30		32	262			33	257				
05:45		42	228	102	1029	36	251	101	1142	203	2171
06:00		50	232			42	229				
06:15		58	212			34	222				
06:30		71	211			53	182				
06:45		119	197	298	852	96	171	225	804	523	1656
07:00		184	161			130	178				
07:15		176	166			156	129				
07:30		**212**	144			194	92				
07:45		**231**	116	803	587	**274**	106	754	505	1557	1092
08:00		**295**	154			**247**	101				
08:15		**248**	118			**218**	75				
08:30		196	89			**251**	63				
08:45		174	90	913	451	215	65	931	304	1844	755
09:00		135	80			146	93				
09:15		115	72			145	57				
09:30		119	63			121	49				
09:45		120	40	489	255	132	37	544	236	1033	491
10:00		110	47			127	31				
10:15		120	32			122	29				
10:30		148	32			131	19				
10:45		139	28	517	139	144	13	524	92	1041	231
11:00		114	18			152	18				
11:15		140	8			166	9				
11:30		170	20			163	12				
11:45		185	14	609	60	193	4	674	43	1283	103
Total		3851	7897	3851	7897	3848	7558	3848	7558	7699	15455
Combined Total		11748		11748		11406		11406		23154	
AM Peak	-	07:30	-	-	-	07:45	-	-	-	-	-
Vol.	-	986	-	-	-	990	-	-	-	-	-
P.H.F.		0.836				0.903					
PM Peak	-	-	04:00	-	-	-	04:30	-	-	-	-
Vol.	-	-	1104	-	-	-	1223	-	-	-	-
P.H.F.			0.945				0.965				
Percentage		32.8%	67.2%			33.7%	66.3%				
ADT/AADT		ADT 23,154		AADT 23,154							

Counts Unlimited, Inc.

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City of Brea
N/S: Redbay Avenue
E/W: Birch Street
24 Hour Entering Volume Count

BRE005NS
Site Code: 105-24132

Start Time	2/13/24 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	8			1	4				
12:15		0	8			0	7				
12:30		0	5			0	12				
12:45		0	9	0	30	0	7	1	30	1	60
01:00		0	9			0	11				
01:15		0	7			0	9				
01:30		1	3			1	9				
01:45		0	9	1	28	1	9	2	38	3	66
02:00		0	10			1	9				
02:15		0	7			0	5				
02:30		0	13			0	6				
02:45		0	5	0	35	0	9	1	29	1	64
03:00		1	6			0	9				
03:15		1	3			1	10				
03:30		0	10			0	10				
03:45		1	10	3	29	2	13	3	42	6	71
04:00		0	6			0	12				
04:15		0	7			1	7				
04:30		1	9			1	9				
04:45		1	7	2	29	3	**11**	5	39	7	68
05:00		3	10			1	**12**				
05:15		1	7			7	**14**				
05:30		3	**11**			9	**10**				
05:45		4	**15**	11	43	6	10	23	46	34	89
06:00		5	**9**			7	4				
06:15		4	**10**			10	9				
06:30		7	8			9	9				
06:45		6	7	22	34	9	9	35	31	57	65
07:00		9	2			**19**	14				
07:15		9	5			**22**	12				
07:30		12	4			**14**	9				
07:45		**14**	2	44	13	**15**	5	70	40	114	53
08:00		**19**	3			15	6				
08:15		**15**	6			14	4				
08:30		**19**	2			15	3				
08:45		14	6	67	17	14	10	58	23	125	40
09:00		4	0			8	2				
09:15		6	1			10	7				
09:30		9	2			9	4				
09:45		3	2	22	5	7	5	34	18	56	23
10:00		7	2			14	3				
10:15		7	0			7	3				
10:30		6	0			5	4				
10:45		3	0	23	2	8	0	34	10	57	12
11:00		5	0			6	2				
11:15		4	0			15	1				
11:30		8	0			9	0				
11:45		7	0	24	0	6	0	36	3	60	3
Total		219	265	219	265	302	349	302	349	521	614
Combined Total		484		484		651		651		1135	
AM Peak	-	07:45	-	-	-	07:00	-	-	-	-	-
Vol.	-	67	-	-	-	70	-	-	-	-	-
P.H.F.		0.882				0.795					
PM Peak	-	-	05:30	-	-	-	04:45	-	-	-	-
Vol.	-	-	45	-	-	-	47	-	-	-	-
P.H.F.			0.750				0.839				
Percentage		45.2%	54.8%			46.4%	53.6%				
ADT/AADT		ADT 1,135		AADT 1,135							

Appendix C

Intersection Analysis Worksheets
Existing Conditions

RK19750.1
JN: 2827-2023-05

Intersection Level Of Service Report
Intersection 1: Redbay Avenue (N/S) at Birch Street (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	170.4
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.704

Intersection Setup

Name	Redbay Avenue			Redbay Avenue			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	140.00	100.00	100.00	155.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Redbay Avenue			Redbay Avenue			Birch Street			Birch Street		
Base Volume Input [veh/h]	25	0	37	21	0	45	24	925	10	16	908	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	25	0	37	21	0	45	24	925	10	16	908	15
Peak Hour Factor	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	0	11	6	0	14	7	281	3	5	275	5
Total Analysis Volume [veh/h]	30	0	45	25	0	55	29	1123	12	19	1102	18
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.70	0.00	0.10	0.57	0.00	0.12	0.05	0.01	0.00	0.03	0.01	0.00
d_M, Delay for Movement [s/veh]	170.38	195.07	93.66	135.62	162.78	61.76	11.10	0.00	0.00	11.08	0.00	0.00
Movement LOS	F	F	F	F	F	F	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	4.26	4.26	4.26	3.62	3.62	3.62	0.15	0.00	0.00	0.10	0.00	0.00
95th-Percentile Queue Length [ft/ln]	106.51	106.51	106.51	90.62	90.62	90.62	3.68	0.00	0.00	2.40	0.00	0.00
d_A, Approach Delay [s/veh]	124.35			84.84			0.28			0.18		
Approach LOS	F			F			A			A		
d_I, Intersection Delay [s/veh]	6.77											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: Associated Road (N/S) at Birch Street (E/W)

Control Type:	Signalized	Delay (sec / veh):	38.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.662

Intersection Setup

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	225.00	100.00	230.00	100.00	100.00	100.00	150.00	100.00	100.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Base Volume Input [veh/h]	197	5	325	26	20	12	3	842	133	264	741	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	197	5	325	26	20	12	3	842	133	264	741	2
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	57	1	94	8	6	3	1	245	39	77	215	1
Total Analysis Volume [veh/h]	229	6	378	30	23	14	3	979	155	307	862	2
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Maximum Green [s]	6	6	6	0	6	0	6	6	0	6	6	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	24	0	24	0	0	26	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	13	48	48	0	35	0	10	52	0	15	57	0
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	6	0	6	0	6	6	0	6	6	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No	No		No		No	No		No	No	
Maximum Recall	No	No	No		No		No	No		No	No	
Pedestrian Recall	No	No	No		No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	54	69	41	41	1	38	38	11	49	49
g / C, Green / Cycle	0.08	0.47	0.60	0.35	0.35	0.01	0.33	0.33	0.10	0.42	0.42
(v / s)_i Volume / Saturation Flow Rate	0.07	0.00	0.20	0.02	0.02	0.00	0.31	0.29	0.09	0.23	0.23
s, saturation flow rate [veh/h]	3500	1900	1900	1800	1900	1800	1900	1900	3500	1900	1900
c, Capacity [veh/h]	274	887	1135	658	672	11	633	633	335	803	803
d1, Uniform Delay [s]	52.27	16.40	11.64	24.42	24.49	56.88	36.81	36.09	51.55	24.82	24.81
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.11	0.27	0.24	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.64	0.01	0.79	0.13	0.16	12.13	12.52	8.35	10.10	0.56	0.56
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.84	0.01	0.33	0.05	0.06	0.27	0.92	0.87	0.92	0.54	0.54
d, Delay for Lane Group [s/veh]	58.91	16.41	12.43	24.55	24.64	69.01	49.33	44.44	61.65	25.38	25.37
Lane Group LOS	E	B	B	C	C	E	D	D	E	C	C
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.45	0.09	4.74	0.57	0.71	0.12	17.02	15.33	4.73	8.44	8.43
50th-Percentile Queue Length [ft/ln]	86.28	2.15	118.57	14.31	17.69	3.07	425.57	383.32	118.27	210.98	210.77
95th-Percentile Queue Length [veh/ln]	6.21	0.15	8.31	1.03	1.27	0.22	23.79	21.75	8.30	13.20	13.19
95th-Percentile Queue Length [ft/ln]	155.30	3.86	207.86	25.76	31.84	5.52	594.73	543.86	207.44	330.09	329.81

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	58.91	16.41	12.43	24.55	24.64	24.64	69.01	47.34	44.44	61.65	25.38	25.37
Movement LOS	E	B	B	C	C	C	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	29.84			24.60			47.00			34.89		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	38.23											
Intersection LOS	D											
Intersection V/C	0.662											

Emissions

Vehicle Miles Traveled [mph]	14.96	0.39	24.69	1.17	1.45	0.16	30.26	28.87	25.79	36.30	36.27
Stops [stops/h]	216.07	2.69	148.47	17.92	22.15	3.84	532.89	479.98	296.18	264.19	263.92
Fuel consumption [US gal/h]	5.40	0.06	3.30	0.27	0.34	0.10	13.49	11.96	8.42	6.76	6.75
CO [g/h]	377.70	4.23	230.61	18.97	23.46	6.66	942.80	836.33	588.39	472.60	472.14
NOx [g/h]	73.49	0.82	44.87	3.69	4.57	1.30	183.43	162.72	114.48	91.95	91.86
VOC [g/h]	87.54	0.98	53.45	4.40	5.44	1.54	218.50	193.83	136.37	109.53	109.42

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	47.03	47.03	47.03	47.03
l_p,int, Pedestrian LOS Score for Intersectio	2.702	1.973	3.011	3.131
Crosswalk LOS	B	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	765	539	835	922
d_b, Bicycle Delay [s]	21.92	30.68	19.52	16.71
l_b,int, Bicycle LOS Score for Intersection	2.571	1.670	2.498	2.526
Bicycle LOS	B	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Associated Road (N/S) at Greenbriar Lane (E/W)

Control Type:	Signalized	Delay (sec / veh):	6.3
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.170

Intersection Setup

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	110.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Base Volume Input [veh/h]	12	328	5	13	407	4	8	1	31	30	1	37
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	328	5	13	407	4	8	1	31	30	1	37
Peak Hour Factor	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	88	1	3	110	1	2	0	8	8	0	10
Total Analysis Volume [veh/h]	13	353	5	14	438	4	9	1	33	32	1	40
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing (Basic)

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	26	0	0	26	0	0	56	0	0	56	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	13	0	0	12	0	0	24	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	30	0	0	30	0	0	60	0	0	60	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	6	0	0	6	0	0	6	0	0	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Calculated Cycle Length [s]	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	77	77	77	77	77	77	5	5
g / C, Green / Cycle	0.85	0.85	0.85	0.85	0.85	0.85	0.06	0.06
(v / s)_i Volume / Saturation Flow Rate	0.01	0.09	0.09	0.01	0.12	0.12	0.02	0.04
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1900	1900	1900
c, Capacity [veh/h]	1520	1621	1621	1529	1621	1621	159	168
d1, Uniform Delay [s]	0.98	1.07	1.07	0.98	1.10	1.10	40.84	41.52
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.01	0.14	0.14	0.01	0.18	0.18	0.91	1.77
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.01	0.11	0.11	0.01	0.14	0.14	0.27	0.43
d, Delay for Lane Group [s/veh]	0.99	1.21	1.21	0.99	1.28	1.28	41.75	43.28
Lane Group LOS	A	A	A	A	A	A	D	D
Critical Lane Group	No	No	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.01	0.12	0.12	0.01	0.16	0.16	0.96	1.67
50th-Percentile Queue Length [ft/ln]	0.21	3.09	3.08	0.22	3.92	3.91	24.01	41.76
95th-Percentile Queue Length [veh/ln]	0.02	0.22	0.22	0.02	0.28	0.28	1.73	3.01
95th-Percentile Queue Length [ft/ln]	0.38	5.56	5.54	0.40	7.05	7.03	43.21	75.17

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.99	1.21	1.21	0.99	1.28	1.28	41.75	41.75	41.75	43.28	43.28	43.28
Movement LOS	A	A	A	A	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	1.20			1.27			41.75			43.28		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	6.34											
Intersection LOS	A											
Intersection V/C	0.170											

Emissions

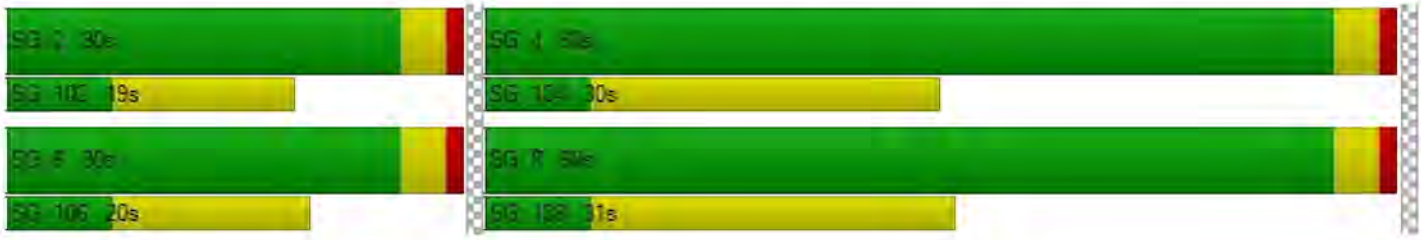
Vehicle Miles Traveled [mph]	0.45	6.15	6.14	0.45	7.09	7.07	0.82	1.72
Stops [stops/h]	0.33	4.94	4.93	0.36	6.27	6.25	38.41	66.81
Fuel consumption [US gal/h]	0.02	0.31	0.31	0.02	0.37	0.37	0.55	0.98
CO [g/h]	1.53	21.90	21.83	1.57	26.07	26.01	38.42	68.28
NOx [g/h]	0.30	4.26	4.25	0.31	5.07	5.06	7.48	13.28
VOC [g/h]	0.35	5.07	5.06	0.36	6.04	6.03	8.90	15.82

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersectio	2.572	2.535	1.758	1.772
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	578	578	1244	1244
d_b, Bicycle Delay [s]	22.76	22.76	6.42	6.42
l_b,int, Bicycle LOS Score for Intersection	1.866	1.936	1.631	1.680
Bicycle LOS	A	A	A	A

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	17.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.182

Intersection Setup

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	88.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Base Volume Input [veh/h]	42	282	404	61	59	68
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	282	404	61	59	68
Peak Hour Factor	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	76	109	16	16	18
Total Analysis Volume [veh/h]	45	304	436	66	64	73
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.00	0.00	0.00	0.18	0.10
d_M, Delay for Movement [s/veh]	8.55	0.00	0.00	0.00	17.49	10.33
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.13	0.00	0.00	0.00	0.65	0.32
95th-Percentile Queue Length [ft/ln]	3.33	0.00	0.00	0.00	16.37	8.07
d_A, Approach Delay [s/veh]	1.10		0.00		13.67	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.29					
Intersection LOS	C					

Intersection Level Of Service Report

Intersection 5: SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Hwy (E/W)

Control Type:	Signalized	Delay (sec / veh):	21.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.577

Intersection Setup

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	100.00	250.00	100.00	100.00	145.00	288.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Base Volume Input [veh/h]	889	63	704	0	0	80	66	1318	434	0	1443	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	889	63	704	0	0	80	66	1318	434	0	1443	9
Peak Hour Factor	0.9280	0.9280	0.9280	1.0000	1.0000	0.9280	0.9280	0.9280	0.9280	1.0000	0.9280	0.9280
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	239	17	190	0	0	22	18	355	117	0	389	2
Total Analysis Volume [veh/h]	958	68	759	0	0	86	71	1420	468	0	1555	10
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Split	Split	Split	Permiss	Permiss	Overlap	Protecte	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	2	3	8	0	0	4	0
Auxiliary Signal Groups						2,3						
Maximum Green [s]	0	26	0	0	0	12	14	44	0	0	26	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	0	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	21	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No				No		No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	33	0	0	0	94	10	57	0	0	47	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	6	0	0	0	6	6	6	0	0	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No				No	No	No			No	
Maximum Recall		No				No	No	No			No	
Pedestrian Recall		No				No	No	No			No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	R	L	C	C	C
C, Calculated Cycle Length [s]	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	48	48	48	5	5	34	25	25
g / C, Green / Cycle	0.54	0.54	0.54	0.06	0.06	0.37	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.25	0.24	0.24	0.02	0.04	0.25	0.21	0.21
s, saturation flow rate [veh/h]	3500	1900	1900	3500	1800	5700	5700	1900
c, Capacity [veh/h]	1880	1021	1021	195	100	2131	1560	520
d1, Uniform Delay [s]	12.87	12.65	12.65	41.14	41.77	23.49	29.89	29.89
k, delay calibration	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.84	1.40	1.40	1.56	8.81	0.36	0.75	2.23
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.44	0.44	0.44	0.71	0.67	0.75	0.75
d, Delay for Lane Group [s/veh]	13.71	14.05	14.05	42.70	50.58	23.86	30.64	32.12
Lane Group LOS	B	B	B	D	D	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.30	5.54	5.54	0.96	1.71	7.57	7.20	7.41
50th-Percentile Queue Length [ft/ln]	132.57	138.59	138.59	23.90	42.76	189.13	179.93	185.26
95th-Percentile Queue Length [veh/ln]	9.08	9.40	9.40	1.72	3.08	12.08	11.60	11.87
95th-Percentile Queue Length [ft/ln]	226.99	235.12	235.12	43.02	76.96	301.90	289.93	296.87

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	13.73	14.05	14.05	0.00	0.00	42.70	50.58	23.86	0.00	0.00	31.00	32.12
Movement LOS	B	B	B			D	D	C			C	C
d_A, Approach Delay [s/veh]	13.88			42.70			19.46			31.01		
Approach LOS	B			D			B			C		
d_I, Intersection Delay [s/veh]	21.52											
Intersection LOS	C											
Intersection V/C	0.577											

Emissions

Vehicle Miles Traveled [mph]	76.79	39.54	39.54	4.29	6.63	132.54	40.18	13.39
Stops [stops/h]	424.24	221.74	221.74	76.49	68.41	907.83	863.67	296.41
Fuel consumption [US gal/h]	7.96	4.15	4.15	1.35	2.00	25.27	21.92	7.56
CO [g/h]	556.30	289.93	289.93	94.12	140.00	1766.21	1532.39	528.14
NOx [g/h]	108.24	56.41	56.41	18.31	27.24	343.64	298.15	102.76
VOC [g/h]	128.93	67.19	67.19	21.81	32.45	409.34	355.15	122.40

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersectio	2.647	2.188	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	644	133	1178	956
d_b, Bicycle Delay [s]	20.67	39.20	7.61	12.27
l_b,int, Bicycle LOS Score for Intersection	4.505	1.560	2.380	2.205
Bicycle LOS	E	A	B	B

Sequence

Ring 1	-	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Hwy (E/W)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.552

Intersection Setup

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	100.00	250.00	100.00	100.00	145.00	288.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Base Volume Input [veh/h]	889	63	704	0	0	80	66	1318	434	0	1443	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	889	63	704	0	0	80	66	1318	434	0	1443	9
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	222	16	176	0	0	20	17	330	109	0	361	2
Total Analysis Volume [veh/h]	889	63	704	0	0	80	66	1318	434	0	1443	9
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Overlap	Protecte	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	2	3	8	0	0	4	0
Auxiliary Signal Groups						2						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.17	0.23	0.23	0.00	0.00	0.02	0.04	0.26	0.00	0.00	0.21	0.21
Intersection LOS	A											
Intersection V/C	0.552											

Intersection Level Of Service Report
Intersection 6: Associated Road (N/S) at Imperial Highway (E/W)

Control Type:	Signalized	Delay (sec / veh):	38.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.624

Intersection Setup

Name	Associated Road			Associated Road			Imperial Highway			Imperial Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	270.00	100.00	100.00	210.00	100.00	210.00	340.00	100.00	100.00	195.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Imperial Highway			Imperial Highway		
Base Volume Input [veh/h]	122	116	79	107	220	148	167	1631	125	117	1223	41
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	122	116	79	107	220	148	167	1631	125	117	1223	41
Peak Hour Factor	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	30	20	27	56	38	43	418	32	30	314	11
Total Analysis Volume [veh/h]	125	119	81	110	226	152	171	1673	128	120	1254	42
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	25	0	0	25	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	10	39	0	10	39	0	25	57	0	14	46	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Calculated Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	45	45	6	45	45	13	44	44	10	40	40
g / C, Green / Cycle	0.05	0.37	0.37	0.05	0.37	0.37	0.11	0.36	0.36	0.08	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.04	0.05	0.05	0.03	0.12	0.08	0.10	0.31	0.32	0.07	0.17	0.18
s, saturation flow rate [veh/h]	3500	1900	1900	3500	1900	1900	1800	3800	1900	1800	5700	1900
c, Capacity [veh/h]	175	710	710	171	708	708	202	1381	690	146	1891	630
d1, Uniform Delay [s]	56.16	24.90	24.79	56.05	26.82	25.69	52.22	35.46	35.74	54.31	32.17	32.69
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.26	0.24	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.33	0.43	0.40	4.03	1.19	0.69	9.23	1.75	8.54	21.71	0.21	0.73
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.71	0.15	0.14	0.64	0.32	0.21	0.84	0.86	0.88	0.82	0.50	0.54
d, Delay for Lane Group [s/veh]	61.49	25.34	25.19	60.08	28.01	26.38	61.46	37.21	44.28	76.01	32.38	33.43
Lane Group LOS	E	C	C	E	C	C	E	D	D	E	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.97	2.01	1.85	1.71	4.74	3.04	5.48	15.90	17.60	4.39	7.25	8.05
50th-Percentile Queue Length [ft/ln]	49.14	50.36	46.29	42.66	118.56	76.01	137.06	397.58	440.03	109.70	181.33	201.18
95th-Percentile Queue Length [veh/ln]	3.54	3.63	3.33	3.07	8.31	5.47	9.32	22.44	24.48	7.82	11.67	12.70
95th-Percentile Queue Length [ft/ln]	88.46	90.65	83.32	76.80	207.84	136.82	233.06	561.09	612.03	195.58	291.76	317.49

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	61.49	25.32	25.19	60.08	28.01	26.38	61.46	39.23	44.28	76.01	32.63	33.43
Movement LOS	E	C	C	E	C	C	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	39.20			34.73			41.49			36.33		
Approach LOS	D			C			D			D		
d_I, Intersection Delay [s/veh]	38.79											
Intersection LOS	D											
Intersection V/C	0.624											

Emissions

Vehicle Miles Traveled [mph]	9.73	8.09	7.47	7.14	14.67	9.87	10.17	71.03	36.13	7.36	58.46	21.04
Stops [stops/h]	117.95	60.43	55.54	102.39	142.27	91.22	164.47	954.20	528.03	131.64	652.80	241.42
Fuel consumption [US gal/h]	3.07	1.42	1.31	2.61	3.21	2.07	4.12	20.96	11.95	3.41	14.79	5.46
CO [g/h]	214.66	99.22	91.25	182.20	224.48	144.38	287.88	1464.84	835.50	238.56	1033.52	381.53
NOx [g/h]	41.77	19.31	17.75	35.45	43.68	28.09	56.01	285.01	162.56	46.41	201.09	74.23
VOC [g/h]	49.75	23.00	21.15	42.23	52.03	33.46	66.72	339.49	193.63	55.29	239.53	88.42

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersectio	2.640	2.644	3.308	3.272
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	583	883	700
d_b, Bicycle Delay [s]	30.10	30.10	18.70	25.35
l_b,int, Bicycle LOS Score for Intersection	1.828	2.365	2.644	2.144
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 7: Castlegate Lane/Placentia Avenue (N/S) at Imperial Highway (E/W)

Control Type:	Signalized	Delay (sec / veh):	14.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.549

Intersection Setup

Name	Placentia Avenue			Castlegate Lane			Imperial Highway			Imperial Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	200.00	100.00	100.00	88.00	100.00	100.00	140.00	100.00	198.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Placentia Avenue			Castlegate Lane			Imperial Highway			Imperial Highway		
Base Volume Input [veh/h]	114	14	108	24	15	24	15	1627	281	151	1249	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	114	14	108	24	15	24	15	1627	281	151	1249	17
Peak Hour Factor	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	29	4	28	6	4	6	4	416	72	39	319	4
Total Analysis Volume [veh/h]	117	14	110	25	15	25	15	1664	287	154	1277	17
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	30	0	0	0	0	0	19	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	41	0	0	10	0	11	30	0	14	33	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Calculated Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	8	8	5	5	2	56	56	10	64	64
g / C, Green / Cycle	0.08	0.08	0.08	0.05	0.05	0.02	0.59	0.59	0.11	0.68	0.68
(v / s)_i Volume / Saturation Flow Rate	0.04	0.03	0.06	0.01	0.02	0.01	0.29	0.15	0.09	0.22	0.23
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1800	5700	1900	1800	3800	1900
c, Capacity [veh/h]	151	160	160	93	98	38	3359	1120	192	2564	1282
d1, Uniform Delay [s]	41.35	41.28	42.30	43.30	43.62	45.92	11.32	9.44	41.48	6.47	6.55
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.93	1.69	5.19	1.52	2.67	6.73	0.52	0.55	7.66	0.35	0.74
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.41	0.69	0.27	0.41	0.40	0.50	0.26	0.80	0.33	0.35
d, Delay for Lane Group [s/veh]	43.28	42.97	47.49	44.82	46.29	52.65	11.84	9.99	49.14	6.82	7.29
Lane Group LOS	D	D	D	D	D	D	B	A	D	A	A
Critical Lane Group	No	No	Yes	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.54	1.54	2.74	0.59	0.96	0.41	6.03	2.70	3.82	2.99	3.29
50th-Percentile Queue Length [ft/ln]	38.46	38.52	68.58	14.73	23.98	10.26	150.78	67.61	95.42	74.72	82.27
95th-Percentile Queue Length [veh/ln]	2.77	2.77	4.94	1.06	1.73	0.74	10.06	4.87	6.87	5.38	5.92
95th-Percentile Queue Length [ft/ln]	69.23	69.34	123.45	26.51	43.16	18.47	251.47	121.70	171.76	134.50	148.09

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.14	42.97	47.49	44.82	46.29	46.29	52.65	11.84	9.99	49.14	6.98	7.29
Movement LOS	D	D	D	D	D	D	D	B	A	D	A	A
d_A, Approach Delay [s/veh]	45.12			45.73			11.88			11.47		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	14.47											
Intersection LOS	B											
Intersection V/C	0.549											

Emissions

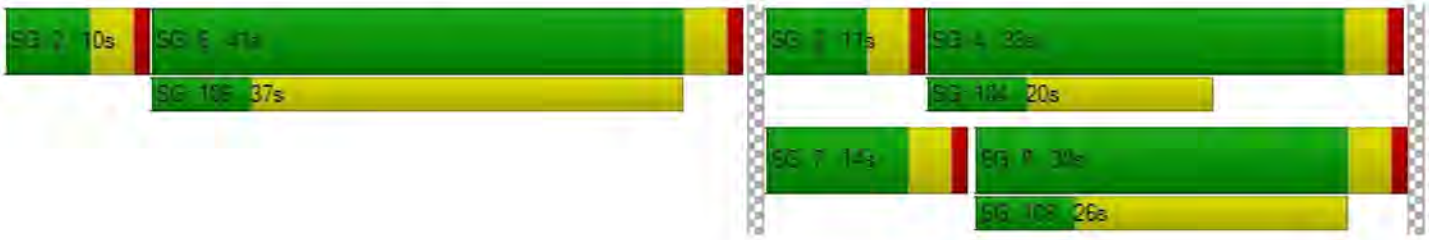
Vehicle Miles Traveled [mph]	3.73	3.76	6.29	1.22	1.95	0.80	88.35	15.24	11.58	63.96	33.37
Stops [stops/h]	58.30	58.39	103.96	22.32	36.35	15.56	685.64	102.48	144.64	226.52	124.71
Fuel consumption [US gal/h]	0.97	0.97	1.74	0.49	0.80	0.34	13.91	2.14	3.38	5.70	3.08
CO [g/h]	67.53	67.66	121.95	34.33	56.19	23.91	972.35	149.32	235.96	398.18	215.21
NOx [g/h]	13.14	13.16	23.73	6.68	10.93	4.65	189.18	29.05	45.91	77.47	41.87
VOC [g/h]	15.65	15.68	28.26	7.96	13.02	5.54	225.35	34.61	54.69	92.28	49.88

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	37.14	37.14	0.00	37.14
l_p,int, Pedestrian LOS Score for Intersectio	2.275	1.991	0.000	3.199
Crosswalk LOS	B	A	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	779	126	547	611
d_b, Bicycle Delay [s]	17.71	41.69	25.06	22.93
l_b,int, Bicycle LOS Score for Intersection	1.957	1.667	2.641	2.356
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 8: Brea Glenbrook Club Dwy/Project Dwy No. 1 (N/S) at Greenbriar Lane (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	8.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.001

Intersection Setup

Name	Brea Glenbrook Club Dwy		Greenbriar Lane		Greenbriar Lane	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Brea Glenbrook Club Dwy		Greenbriar Lane		Greenbriar Lane	
Base Volume Input [veh/h]	0	1	0	40	15	4
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	0	40	15	4
Peak Hour Factor	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	13	5	1
Total Analysis Volume [veh/h]	0	1	0	53	20	5
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.88	8.42	7.26	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.07	0.07	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.42		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.11					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 1: Redbay Avenue (N/S) at Birch Street (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	381.0
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.952

Intersection Setup

Name	Redbay Avenue			Redbay Avenue			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	140.00	100.00	100.00	155.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Redbay Avenue			Redbay Avenue			Birch Street			Birch Street		
Base Volume Input [veh/h]	11	0	15	18	0	29	46	1187	27	15	1325	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	0	15	18	0	29	46	1187	27	15	1325	39
Peak Hour Factor	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	4	5	0	8	12	319	7	4	357	10
Total Analysis Volume [veh/h]	12	0	16	19	0	31	50	1278	29	16	1426	42
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.55	0.00	0.04	0.95	0.00	0.09	0.11	0.01	0.00	0.03	0.01	0.00
d_M, Delay for Movement [s/veh]	245.65	346.34	89.98	380.96	463.07	210.45	13.87	0.00	0.00	12.07	0.00	0.00
Movement LOS	F	F	F	F	F	F	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	2.24	2.24	2.24	4.45	4.45	4.45	0.37	0.00	0.00	0.09	0.00	0.00
95th-Percentile Queue Length [ft/ln]	55.90	55.90	55.90	111.14	111.14	111.14	9.18	0.00	0.00	2.35	0.00	0.00
d_A, Approach Delay [s/veh]	156.69			275.24			0.51			0.13		
Approach LOS	F			F			A			A		
d_I, Intersection Delay [s/veh]	6.52											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: Associated Road (N/S) at Birch Street (E/W)

Control Type:	Signalized	Delay (sec / veh):	41.0
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.645

Intersection Setup

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	225.00	100.00	230.00	100.00	100.00	100.00	150.00	100.00	100.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Base Volume Input [veh/h]	361	21	306	17	13	9	8	983	233	223	1012	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	361	21	306	17	13	9	8	983	233	223	1012	24
Peak Hour Factor	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	93	5	79	4	3	2	2	254	60	58	262	6
Total Analysis Volume [veh/h]	374	22	317	18	13	9	8	1018	241	231	1048	25
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Maximum Green [s]	6	6	6	0	6	0	6	6	0	6	6	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	24	0	24	0	0	26	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	18	53	53	0	35	0	19	54	0	13	48	0
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	6	0	6	0	6	6	0	6	6	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No	No		No		No	No		No	No	
Maximum Recall	No	No	No		No		No	No		No	No	
Pedestrian Recall	No	No	No		No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	55	68	37	37	1	44	44	9	52	52
g / C, Green / Cycle	0.12	0.46	0.57	0.31	0.31	0.01	0.37	0.37	0.08	0.43	0.43
(v / s)_i Volume / Saturation Flow Rate	0.11	0.01	0.17	0.01	0.01	0.00	0.34	0.32	0.07	0.28	0.28
s, saturation flow rate [veh/h]	3500	1900	1900	1800	1900	1800	1900	1900	3500	1900	1900
c, Capacity [veh/h]	408	871	1077	573	586	23	696	696	263	815	815
d1, Uniform Delay [s]	52.42	17.80	13.51	28.98	29.02	58.76	36.57	35.47	54.97	27.31	27.23
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.11	0.33	0.30	0.11	0.17	0.16
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.48	0.05	0.70	0.10	0.12	9.08	15.63	9.32	9.27	1.41	1.35
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.92	0.03	0.29	0.03	0.04	0.35	0.93	0.88	0.88	0.66	0.66
d, Delay for Lane Group [s/veh]	60.89	17.85	14.21	29.08	29.14	67.84	52.20	44.80	64.24	28.72	28.58
Lane Group LOS	E	B	B	C	C	E	D	D	E	C	C
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	5.95	0.34	4.43	0.39	0.47	0.29	20.32	17.58	3.71	11.93	11.80
50th-Percentile Queue Length [ft/ln]	148.67	8.51	110.78	9.67	11.83	7.33	507.94	439.50	92.75	298.33	295.09
95th-Percentile Queue Length [veh/ln]	9.95	0.61	7.88	0.70	0.85	0.53	27.71	24.46	6.68	17.60	17.44
95th-Percentile Queue Length [ft/ln]	248.65	15.32	197.09	17.41	21.30	13.19	692.75	611.41	166.95	439.97	435.95

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	60.89	17.85	14.21	29.08	29.14	29.14	67.84	49.52	44.80	64.24	28.65	28.58
Movement LOS	E	B	B	C	C	C	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	38.81			29.11			48.73			34.95		
Approach LOS	D			C			D			C		
d_I, Intersection Delay [s/veh]	40.96											
Intersection LOS	D											
Intersection V/C	0.645											

Emissions

Vehicle Miles Traveled [mph]	24.42	1.44	20.70	0.70	0.86	0.42	33.83	31.82	19.40	45.23	44.90	
Stops [stops/h]	356.81	10.21	132.94	11.61	14.20	8.79	609.53	527.40	222.61	358.00	354.11	
Fuel consumption [US gal/h]	9.01	0.23	2.96	0.18	0.22	0.23	15.63	13.21	6.45	9.15	9.05	
CO [g/h]	630.08	16.20	207.18	12.77	15.63	16.36	1092.55	923.39	451.01	639.45	632.67	
NOx [g/h]	122.59	3.15	40.31	2.49	3.04	3.18	212.57	179.66	87.75	124.41	123.09	
VOC [g/h]	146.03	3.75	48.02	2.96	3.62	3.79	253.21	214.00	104.53	148.20	146.63	

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersectio	2.726	1.980	3.124	3.140
Crosswalk LOS	B	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	817	517	833	733
d_b, Bicycle Delay [s]	21.00	33.00	20.42	24.07
l_b,int, Bicycle LOS Score for Intersection	2.736	1.626	2.605	2.635
Bicycle LOS	B	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Associated Road (N/S) at Greenbriar Lane (E/W)

Control Type:	Signalized	Delay (sec / veh):	4.3
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.227

Intersection Setup

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	110.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Base Volume Input [veh/h]	20	549	29	24	468	3	8	4	15	13	10	36
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	549	29	24	468	3	8	4	15	13	10	36
Peak Hour Factor	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	146	8	6	125	1	2	1	4	3	3	10
Total Analysis Volume [veh/h]	21	585	31	26	498	3	9	4	16	14	11	38
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	42	0	0	42	0	0	40	0	0	40	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	13	0	0	12	0	0	24	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	31	0	0	31	0	0	59	0	0	59	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	6	0	0	6	0	0	6	0	0	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Calculated Cycle Length [s]	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	77	77	77	77	77	77	5	5
g / C, Green / Cycle	0.86	0.86	0.86	0.86	0.86	0.86	0.05	0.05
(v / s)_i Volume / Saturation Flow Rate	0.01	0.16	0.16	0.01	0.13	0.13	0.02	0.03
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1900	1900	1900
c, Capacity [veh/h]	1521	1627	1627	1509	1627	1627	157	153
d1, Uniform Delay [s]	0.94	1.11	1.11	0.95	1.07	1.07	40.80	41.56
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	0.26	0.26	0.02	0.20	0.20	0.56	1.75
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.01	0.19	0.19	0.02	0.15	0.15	0.18	0.41
d, Delay for Lane Group [s/veh]	0.96	1.38	1.37	0.97	1.28	1.27	41.37	43.31
Lane Group LOS	A	A	A	A	A	A	D	D
Critical Lane Group	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.01	0.20	0.20	0.01	0.16	0.16	0.64	1.44
50th-Percentile Queue Length [ft/ln]	0.30	5.11	5.01	0.37	3.96	3.95	16.07	36.07
95th-Percentile Queue Length [veh/ln]	0.02	0.37	0.36	0.03	0.29	0.28	1.16	2.60
95th-Percentile Queue Length [ft/ln]	0.54	9.20	9.03	0.67	7.13	7.12	28.92	64.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.96	1.37	1.37	0.97	1.28	1.27	41.37	41.37	41.37	43.31	43.31	43.31
Movement LOS	A	A	A	A	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	1.36			1.26			41.37			43.31		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	4.34											
Intersection LOS	A											
Intersection V/C	0.227											

Emissions

Vehicle Miles Traveled [mph]	0.72	10.66	10.49	0.83	8.03	8.02	0.55	1.49
Stops [stops/h]	0.48	8.18	8.02	0.60	6.34	6.33	25.71	57.71
Fuel consumption [US gal/h]	0.03	0.55	0.54	0.04	0.42	0.41	0.37	0.84
CO [g/h]	2.42	38.37	37.72	2.85	29.02	28.97	25.70	58.96
NOx [g/h]	0.47	7.47	7.34	0.56	5.65	5.64	5.00	11.47
VOC [g/h]	0.56	8.89	8.74	0.66	6.73	6.71	5.96	13.67

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersectio	2.622	2.613	1.770	1.802
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	600	1222	1222
d_b, Bicycle Delay [s]	22.05	22.05	6.81	6.81
l_b,int, Bicycle LOS Score for Intersection	2.085	1.994	1.607	1.664
Bicycle LOS	B	A	A	A

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	30.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.446

Intersection Setup

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	88.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Base Volume Input [veh/h]	95	532	367	95	109	181
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	95	532	367	95	109	181
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	137	95	25	28	47
Total Analysis Volume [veh/h]	98	550	379	98	113	187
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.01	0.00	0.00	0.45	0.25
d_M, Delay for Movement [s/veh]	8.66	0.00	0.00	0.00	30.17	11.25
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.30	0.00	0.00	0.00	2.15	0.96
95th-Percentile Queue Length [ft/ln]	7.46	0.00	0.00	0.00	53.80	24.04
d_A, Approach Delay [s/veh]	1.31		0.00		18.38	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.46					
Intersection LOS	D					

Intersection Level Of Service Report

Intersection 5: SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Hwy (E/W)

Control Type:	Signalized	Delay (sec / veh):	24.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.652

Intersection Setup

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	100.00	250.00	100.00	100.00	145.00	288.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Base Volume Input [veh/h]	1105	95	623	0	0	196	174	1424	230	0	1533	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1105	95	623	0	0	196	174	1424	230	0	1533	32
Peak Hour Factor	0.9810	0.9810	0.9810	1.0000	1.0000	0.9810	0.9810	0.9810	0.9810	1.0000	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	282	24	159	0	0	50	44	363	59	0	391	8
Total Analysis Volume [veh/h]	1126	97	635	0	0	200	177	1452	234	0	1563	33
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Split	Split	Split	Permiss	Permiss	Overlap	Protecte	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	2	3	8	0	0	4	0
Auxiliary Signal Groups						2,3						
Maximum Green [s]	0	26	0	0	0	15	14	44	0	0	26	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	0	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	21	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No				No		No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	34	0	0	0	99	25	61	0	0	36	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	6	0	0	0	6	6	6	0	0	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No				No	No	No			No	
Maximum Recall		No				No	No	No			No	
Pedestrian Recall		No				No	No	No			No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	R	L	C	C	C
C, Calculated Cycle Length [s]	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	45	45	45	12	12	42	26	26
g / C, Green / Cycle	0.48	0.48	0.48	0.12	0.12	0.44	0.27	0.27
(v / s)_i Volume / Saturation Flow Rate	0.26	0.25	0.25	0.06	0.10	0.25	0.21	0.21
s, saturation flow rate [veh/h]	3500	1900	1900	3500	1800	5700	5700	1900
c, Capacity [veh/h]	1668	906	906	436	224	2503	1554	518
d1, Uniform Delay [s]	17.62	17.30	17.30	38.62	40.38	20.05	31.82	31.82
k, delay calibration	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.30	2.14	2.14	0.76	6.13	0.21	0.83	2.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.55	0.52	0.52	0.46	0.79	0.58	0.77	0.77
d, Delay for Lane Group [s/veh]	18.92	19.44	19.44	39.37	46.51	20.26	32.65	34.28
Lane Group LOS	B	B	B	D	D	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	7.06	7.37	7.37	2.19	4.18	7.22	7.90	8.13
50th-Percentile Queue Length [ft/ln]	176.43	184.25	184.25	54.82	104.44	180.39	197.50	203.35
95th-Percentile Queue Length [veh/ln]	11.41	11.82	11.82	3.95	7.52	11.62	12.51	12.81
95th-Percentile Queue Length [ft/ln]	285.35	295.55	295.55	98.68	187.99	290.52	312.74	320.29

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	19.01	19.44	19.44	0.00	0.00	39.37	46.51	20.26	0.00	0.00	33.03	34.28
Movement LOS	B	B	B			D	D	C			C	C
d_A, Approach Delay [s/veh]	19.18			39.37			20.26			33.06		
Approach LOS	B			D			C			C		
d_I, Intersection Delay [s/veh]	24.47											
Intersection LOS	C											
Intersection V/C	0.652											

Emissions

Vehicle Miles Traveled [mph]	56.63	29.16	29.16	9.98	16.52	135.52	40.98	13.66
Stops [stops/h]	534.87	279.28	279.28	166.20	158.31	820.29	898.10	308.24
Fuel consumption [US gal/h]	8.81	4.61	4.61	2.93	4.66	23.12	23.11	7.97
CO [g/h]	615.87	322.09	322.09	204.91	325.63	1615.93	1615.50	557.27
NOx [g/h]	119.83	62.67	62.67	39.87	63.36	314.40	314.32	108.42
VOC [g/h]	142.73	74.65	74.65	47.49	75.47	374.51	374.41	129.15

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	37.14	37.14	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersectio	2.664	2.257	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	632	442	1200	674
d_b, Bicycle Delay [s]	22.24	28.82	7.60	20.89
l_b,int, Bicycle LOS Score for Intersection	4.625	1.560	2.456	2.218
Bicycle LOS	E	A	B	B

Sequence

Ring 1	-	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Hwy (E/W)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.651

Intersection Setup

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	100.00	250.00	100.00	100.00	145.00	288.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Base Volume Input [veh/h]	1105	95	623	0	0	196	174	1424	230	0	1533	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1105	95	623	0	0	196	174	1424	230	0	1533	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	276	24	156	0	0	49	44	356	58	0	383	8
Total Analysis Volume [veh/h]	1105	95	623	0	0	196	174	1424	230	0	1533	32
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	2	3	8	0	0	4	0
Auxiliary Signal Groups						2						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.22	0.25	0.25	0.00	0.00	0.06	0.10	0.28	0.12	0.00	0.22	0.22
Intersection LOS	B											
Intersection V/C	0.651											

Intersection Level Of Service Report
Intersection 6: Associated Road (N/S) at Imperial Highway (E/W)

Control Type:	Signalized	Delay (sec / veh):	42.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.646

Intersection Setup

Name	Associated Road			Associated Road			Imperial Highway			Imperial Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	270.00	100.00	100.00	210.00	100.00	210.00	340.00	100.00	100.00	195.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Imperial Highway			Imperial Highway		
Base Volume Input [veh/h]	150	208	135	234	202	121	215	1579	130	164	1325	205
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	150	208	135	234	202	121	215	1579	130	164	1325	205
Peak Hour Factor	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	52	34	59	51	30	54	398	33	41	334	52
Total Analysis Volume [veh/h]	151	209	136	236	203	122	217	1590	131	165	1334	206
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	25	0	0	25	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	13	39	0	14	40	0	25	50	0	17	42	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Calculated Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	40	40	10	43	43	16	41	41	13	37	37
g / C, Green / Cycle	0.06	0.34	0.34	0.08	0.36	0.36	0.14	0.34	0.34	0.11	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.04	0.10	0.09	0.07	0.11	0.06	0.12	0.30	0.30	0.09	0.20	0.20
s, saturation flow rate [veh/h]	3500	1900	1900	3500	1900	1900	1800	3800	1900	1800	5700	1900
c, Capacity [veh/h]	210	639	639	290	682	682	248	1296	648	192	1765	588
d1, Uniform Delay [s]	55.40	29.24	28.93	54.10	27.60	26.34	50.70	37.25	37.48	52.73	35.85	35.92
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.21	0.11	0.31	0.29	0.11	0.15
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.55	1.12	0.97	5.45	1.11	0.57	16.29	2.14	11.67	24.28	0.41	1.75
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.72	0.28	0.26	0.81	0.30	0.18	0.87	0.88	0.89	0.86	0.65	0.66
d, Delay for Lane Group [s/veh]	59.95	30.36	29.90	59.56	28.71	26.92	66.99	39.38	49.15	77.01	36.26	37.67
Lane Group LOS	E	C	C	E	C	C	E	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.34	3.97	3.53	3.67	4.30	2.46	7.40	15.60	17.63	6.10	9.54	9.85
50th-Percentile Queue Length [ft/ln]	58.57	99.23	88.21	91.63	107.56	61.39	184.92	389.95	440.67	152.44	238.43	246.30
95th-Percentile Queue Length [veh/ln]	4.22	7.14	6.35	6.60	7.70	4.42	11.86	22.08	24.51	10.15	14.60	15.00
95th-Percentile Queue Length [ft/ln]	105.43	178.61	158.78	164.94	192.61	110.50	296.43	551.88	612.80	253.68	365.05	374.99

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	59.95	30.30	29.90	59.56	28.71	26.92	66.99	42.14	49.15	77.01	36.45	37.67
Movement LOS	E	C	C	E	C	C	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	39.22			41.30			45.39			40.53		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	42.49											
Intersection LOS	D											
Intersection V/C	0.646											

Emissions

Vehicle Miles Traveled [mph]	11.75	14.13	12.71	15.32	13.18	7.92	12.91	67.94	34.45	10.12	70.70	23.76
Stops [stops/h]	140.57	119.08	105.85	219.92	129.08	73.67	221.91	935.88	528.80	182.93	858.35	295.56
Fuel consumption [US gal/h]	3.64	2.80	2.49	5.57	2.93	1.68	5.60	20.78	12.22	4.75	19.47	6.72
CO [g/h]	254.70	195.56	174.00	389.29	204.54	117.13	391.46	1452.44	854.21	331.69	1360.97	469.99
NOx [g/h]	49.56	38.05	33.85	75.74	39.80	22.79	76.16	282.59	166.20	64.53	264.80	91.44
VOC [g/h]	59.03	45.32	40.33	90.22	47.41	27.15	90.72	336.62	197.97	76.87	315.42	108.93

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersectio	2.682	2.725	3.315	3.335
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	600	767	633
d_b, Bicycle Delay [s]	30.10	29.40	22.82	28.02
l_b,int, Bicycle LOS Score for Intersection	1.969	2.485	2.626	2.263
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 7: Castlegate Lane/Placentia Avenue (N/S) at Imperial Highway (E/W)

Control Type:	Signalized	Delay (sec / veh):	18.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.643

Intersection Setup

Name	Placentia Avenue			Castlegate Lane			Imperial Highway			Imperial Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	200.00	100.00	100.00	88.00	100.00	100.00	140.00	100.00	198.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Placentia Avenue			Castlegate Lane			Imperial Highway			Imperial Highway		
Base Volume Input [veh/h]	152	46	191	22	12	8	17	1687	286	214	1536	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	152	46	191	22	12	8	17	1687	286	214	1536	51
Peak Hour Factor	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	39	12	48	6	3	2	4	428	73	54	389	13
Total Analysis Volume [veh/h]	154	47	194	22	12	8	17	1711	290	217	1558	52
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	30	0	0	0	0	0	19	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	41	0	0	10	0	10	30	0	14	34	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Calculated Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12	4	4	2	49	49	14	60	60
g / C, Green / Cycle	0.13	0.13	0.13	0.04	0.04	0.02	0.52	0.52	0.14	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate	0.06	0.05	0.10	0.01	0.01	0.01	0.30	0.15	0.12	0.28	0.29
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1800	5700	1900	1800	3800	1900
c, Capacity [veh/h]	236	249	249	76	81	42	2935	978	258	2412	1206
d1, Uniform Delay [s]	37.95	37.88	39.93	44.09	44.01	45.76	15.97	13.19	39.66	8.79	8.91
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.19	1.07	5.21	2.04	1.58	6.29	0.85	0.77	7.33	0.58	1.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.41	0.78	0.29	0.25	0.41	0.58	0.30	0.84	0.44	0.45
d, Delay for Lane Group [s/veh]	39.14	38.95	45.14	46.13	45.59	52.04	16.83	13.97	47.00	9.38	10.15
Lane Group LOS	D	D	D	D	D	D	B	B	D	A	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.21	2.25	4.74	0.53	0.48	0.46	7.93	3.44	5.28	4.82	5.26
50th-Percentile Queue Length [ft/ln]	55.31	56.27	118.57	13.30	11.97	11.45	198.37	86.12	132.00	120.50	131.54
95th-Percentile Queue Length [veh/ln]	3.98	4.05	8.31	0.96	0.86	0.82	12.55	6.20	9.05	8.42	9.02
95th-Percentile Queue Length [ft/ln]	99.56	101.28	207.86	23.93	21.54	20.61	313.87	155.02	226.21	210.51	225.59

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.08	38.95	45.14	46.13	45.59	45.59	52.04	16.83	13.97	47.00	9.62	10.15
Movement LOS	D	D	D	D	D	D	D	B	B	D	A	B
d_A, Approach Delay [s/veh]	42.04			45.88			16.71			14.08		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	18.21											
Intersection LOS	B											
Intersection V/C	0.643											

Emissions

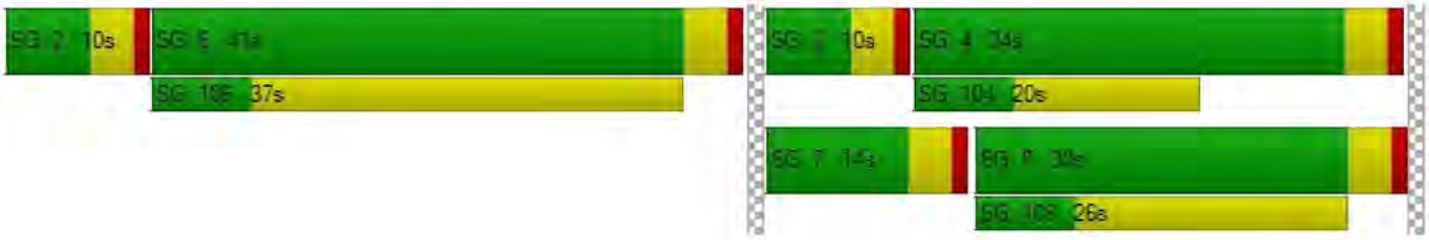
Vehicle Miles Traveled [mph]	5.69	5.81	11.09	1.08	0.98	0.90	90.84	15.40	16.32	79.82	41.27
Stops [stops/h]	83.84	85.29	179.73	20.15	18.14	17.35	902.08	130.55	200.09	365.30	199.39
Fuel consumption [US gal/h]	1.37	1.39	2.97	0.44	0.40	0.38	17.98	2.66	4.63	8.47	4.57
CO [g/h]	95.71	97.41	207.63	30.97	27.88	26.76	1256.46	185.81	323.31	592.22	319.49
NOx [g/h]	18.62	18.95	40.40	6.03	5.42	5.21	244.46	36.15	62.90	115.22	62.16
VOC [g/h]	22.18	22.58	48.12	7.18	6.46	6.20	291.20	43.06	74.93	137.25	74.04

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	37.14	37.14	0.00	37.14
l_p,int, Pedestrian LOS Score for Intersectio	2.319	2.011	0.000	3.293
Crosswalk LOS	B	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	779	126	547	632
d_b, Bicycle Delay [s]	17.71	41.69	25.06	22.24
l_b,int, Bicycle LOS Score for Intersection	2.211	1.629	2.670	2.564
Bicycle LOS	B	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Brea Glenbrook Club Dwy/Project Dwy No. 1 (N/S) at Greenbriar Lane (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	8.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

Intersection Setup

Name	Brea Glenbrook Club Dwy		Greenbriar Lane		Greenbriar Lane	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Brea Glenbrook Club Dwy		Greenbriar Lane		Greenbriar Lane	
Base Volume Input [veh/h]	3	0	0	22	41	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	0	0	22	41	2
Peak Hour Factor	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	7	14	1
Total Analysis Volume [veh/h]	4	0	0	29	55	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.95	8.58	7.33	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.33	0.33	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.95		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.39					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 1: Redbay Avenue (N/S) at Birch Street (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	84.9
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.037

Intersection Setup

Name	Redbay Avenue			Redbay Avenue			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	140.00	100.00	100.00	155.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Redbay Avenue			Redbay Avenue			Birch Street			Birch Street		
Base Volume Input [veh/h]	14	2	8	7	0	29	35	944	25	6	848	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	2	8	7	0	29	35	944	25	6	848	31
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	2	2	0	8	9	248	7	2	223	8
Total Analysis Volume [veh/h]	15	2	8	7	0	31	37	994	26	6	893	33
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.21	0.04	0.02	0.09	0.00	0.06	0.05	0.01	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	70.02	84.91	25.57	54.70	73.53	14.04	10.17	0.00	0.00	10.37	0.00	0.00
Movement LOS	F	F	D	F	F	B	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	0.98	0.98	0.98	0.51	0.51	0.51	0.16	0.00	0.00	0.03	0.00	0.00
95th-Percentile Queue Length [ft/ln]	24.55	24.55	24.55	12.86	12.86	12.86	3.98	0.00	0.00	0.67	0.00	0.00
d_A, Approach Delay [s/veh]	56.98			21.53			0.36			0.07		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	1.31											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: Associated Road (N/S) at Birch Street (E/W)

Control Type:	Signalized	Delay (sec / veh):	37.3
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.481

Intersection Setup

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	225.00	100.00	230.00	100.00	100.00	100.00	150.00	100.00	100.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Base Volume Input [veh/h]	302	11	143	11	20	9	6	668	282	110	574	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	302	11	143	11	20	9	6	668	282	110	574	8
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	78	3	37	3	5	2	2	172	73	28	148	2
Total Analysis Volume [veh/h]	311	11	147	11	21	9	6	688	290	113	591	8
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Maximum Green [s]	6	6	6	0	6	0	6	6	0	6	6	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	24	0	24	0	0	26	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	15	50	50	0	35	0	10	45	0	10	45	0
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	6	0	6	0	6	6	0	6	6	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No	No		No		No	No		No	No	
Maximum Recall	No	No	No		No		No	No		No	No	
Pedestrian Recall	No	No	No		No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	56	66	41	41	1	31	31	6	36	36
g / C, Green / Cycle	0.10	0.53	0.62	0.39	0.39	0.01	0.30	0.30	0.06	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.09	0.01	0.08	0.01	0.02	0.00	0.27	0.24	0.03	0.16	0.16
s, saturation flow rate [veh/h]	3500	1900	1900	1800	1900	1800	1900	1900	3500	1900	1900
c, Capacity [veh/h]	367	1008	1185	718	736	19	570	570	193	655	655
d1, Uniform Delay [s]	46.18	11.65	8.06	19.81	20.01	51.56	35.26	34.00	48.44	26.78	26.76
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.11	0.23	0.18	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.49	0.02	0.22	0.04	0.10	8.94	10.84	4.68	2.81	0.50	0.50
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.01	0.12	0.02	0.04	0.31	0.90	0.81	0.59	0.46	0.46
d, Delay for Lane Group [s/veh]	51.66	11.67	8.28	19.85	20.11	60.49	46.10	38.69	51.24	27.28	27.25
Lane Group LOS	D	B	A	B	C	E	D	D	D	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.17	0.12	1.29	0.18	0.48	0.20	13.61	11.07	1.48	5.63	5.60
50th-Percentile Queue Length [ft/ln]	104.15	3.00	32.18	4.40	12.11	5.00	340.25	276.76	36.90	140.72	139.99
95th-Percentile Queue Length [veh/ln]	7.50	0.22	2.32	0.32	0.87	0.36	19.66	16.53	2.66	9.52	9.48
95th-Percentile Queue Length [ft/ln]	187.47	5.40	57.92	7.92	21.80	9.00	491.50	413.18	66.43	238.00	237.01

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	51.66	11.67	8.28	19.85	20.11	20.11	60.49	44.23	38.69	51.24	27.27	27.25
Movement LOS	D	B	A	B	C	C	E	D	D	D	C	C
d_A, Approach Delay [s/veh]	37.13			20.04			42.70			31.07		
Approach LOS	D			C			D			C		
d_I, Intersection Delay [s/veh]	37.34											
Intersection LOS	D											
Intersection V/C	0.481											

Emissions

Vehicle Miles Traveled [mph]	20.31	0.72	9.60	0.43	1.17	0.31	26.83	24.17	9.49	25.21	25.10
Stops [stops/h]	285.67	4.12	44.13	6.03	16.61	6.86	466.63	379.56	101.22	192.99	191.98
Fuel consumption [US gal/h]	6.80	0.09	1.03	0.09	0.24	0.17	11.55	9.20	2.76	4.93	4.90
CO [g/h]	475.55	6.45	71.65	6.08	16.73	11.87	807.25	642.78	193.07	344.60	342.85
NOx [g/h]	92.52	1.26	13.94	1.18	3.25	2.31	157.06	125.06	37.57	67.05	66.71
VOC [g/h]	110.21	1.49	16.61	1.41	3.88	2.75	187.09	148.97	44.75	79.87	79.46

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	42.08	42.08	42.08	42.08
l_p,int, Pedestrian LOS Score for Intersectio	2.654	1.965	2.922	2.856
Crosswalk LOS	B	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	876	590	781	781
d_b, Bicycle Delay [s]	16.58	26.08	19.50	19.50
l_b,int, Bicycle LOS Score for Intersection	2.333	1.627	2.371	2.147
Bicycle LOS	B	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Associated Road (N/S) at Greenbriar Lane (E/W)

Control Type:	Signalized	Delay (sec / veh):	4.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.168

Intersection Setup

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	110.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Base Volume Input [veh/h]	20	425	20	6	401	3	7	0	27	18	11	22
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	425	20	6	401	3	7	0	27	18	11	22
Peak Hour Factor	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	108	5	2	101	1	2	0	7	5	3	6
Total Analysis Volume [veh/h]	20	430	20	6	406	3	7	0	27	18	11	22
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	42	0	0	42	0	0	40	0	0	40	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	13	0	0	12	0	0	24	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	31	0	0	31	0	0	59	0	0	59	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	6	0	0	6	0	0	6	0	0	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Calculated Cycle Length [s]	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	78	78	78	78	78	78	4	4
g / C, Green / Cycle	0.86	0.86	0.86	0.86	0.86	0.86	0.05	0.05
(v / s)_i Volume / Saturation Flow Rate	0.01	0.12	0.12	0.00	0.11	0.11	0.02	0.03
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1900	1900	1900
c, Capacity [veh/h]	1540	1636	1636	1536	1636	1636	144	150
d1, Uniform Delay [s]	0.88	0.99	0.99	0.87	0.98	0.98	41.33	41.71
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	0.18	0.17	0.00	0.16	0.16	0.84	1.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.01	0.14	0.14	0.00	0.13	0.12	0.24	0.34
d, Delay for Lane Group [s/veh]	0.90	1.17	1.16	0.88	1.13	1.13	42.17	43.05
Lane Group LOS	A	A	A	A	A	A	D	D
Critical Lane Group	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.01	0.11	0.11	0.00	0.10	0.10	0.76	1.16
50th-Percentile Queue Length [ft/ln]	0.22	2.73	2.70	0.07	2.43	2.43	19.11	29.05
95th-Percentile Queue Length [veh/ln]	0.02	0.20	0.19	0.00	0.18	0.17	1.38	2.09
95th-Percentile Queue Length [ft/ln]	0.40	4.92	4.85	0.12	4.38	4.37	34.40	52.30

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.90	1.16	1.16	0.88	1.13	1.13	42.17	42.17	42.17	43.05	43.05	43.05
Movement LOS	A	A	A	A	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	1.15			1.13			42.17			43.05		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	4.78											
Intersection LOS	A											
Intersection V/C	0.168											

Emissions

Vehicle Miles Traveled [mph]	0.69	7.77	7.68	0.19	6.56	6.55	0.65	1.20
Stops [stops/h]	0.35	4.37	4.31	0.11	3.90	3.89	30.57	46.49
Fuel consumption [US gal/h]	0.03	0.37	0.37	0.01	0.32	0.32	0.44	0.68
CO [g/h]	2.22	26.21	25.89	0.63	22.40	22.36	30.64	47.48
NOx [g/h]	0.43	5.10	5.04	0.12	4.36	4.35	5.96	9.24
VOC [g/h]	0.51	6.07	6.00	0.15	5.19	5.18	7.10	11.00

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersectio	2.564	2.537	1.770	1.754
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	600	1222	1222
d_b, Bicycle Delay [s]	22.05	22.05	6.81	6.81
l_b,int, Bicycle LOS Score for Intersection	1.947	1.902	1.616	1.644
Bicycle LOS	A	A	A	A

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	23.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.344

Intersection Setup

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	88.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Base Volume Input [veh/h]	87	382	357	88	96	207
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	87	382	357	88	96	207
Peak Hour Factor	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	100	94	23	25	54
Total Analysis Volume [veh/h]	91	402	375	93	101	218
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.08	0.00	0.00	0.00	0.34	0.28
d_M, Delay for Movement [s/veh]	8.60	0.00	0.00	0.00	23.56	11.54
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.27	0.00	0.00	0.00	1.48	1.17
95th-Percentile Queue Length [ft/ln]	6.82	0.00	0.00	0.00	37.05	29.24
d_A, Approach Delay [s/veh]	1.59		0.00		15.34	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.44					
Intersection LOS	C					

Intersection Level Of Service Report

Intersection 5: SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Hwy (E/W)

Control Type:	Signalized	Delay (sec / veh):	25.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.673

Intersection Setup

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	100.00	250.00	100.00	100.00	145.00	288.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Base Volume Input [veh/h]	1006	139	498	0	0	269	214	1313	399	0	1580	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1006	139	498	0	0	269	214	1313	399	0	1580	31
Peak Hour Factor	0.9490	0.9490	0.9490	1.0000	1.0000	0.9490	0.9490	0.9490	0.9490	1.0000	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	265	37	131	0	0	71	56	346	105	0	416	8
Total Analysis Volume [veh/h]	1060	146	525	0	0	283	226	1384	420	0	1665	33
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Split	Split	Split	Permiss	Permiss	Overlap	Protecte	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	2	3	8	0	0	4	0
Auxiliary Signal Groups						2,3						
Maximum Green [s]	0	26	0	0	0	8	14	44	0	0	26	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	0	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	21	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No				No		No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	36	0	0	0	104	31	64	0	0	33	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	6	0	0	0	6	6	6	0	0	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No				No	No	No			No	
Maximum Recall		No				No	No	No			No	
Pedestrian Recall		No				No	No	No			No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	R	L	C	C	C
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	44	44	44	15	15	48	28	28
g / C, Green / Cycle	0.44	0.44	0.44	0.15	0.15	0.48	0.28	0.28
(v / s)_i Volume / Saturation Flow Rate	0.24	0.23	0.23	0.08	0.13	0.24	0.22	0.22
s, saturation flow rate [veh/h]	3500	1900	1900	3500	1800	5700	5700	1900
c, Capacity [veh/h]	1547	840	840	539	277	2725	1619	540
d1, Uniform Delay [s]	20.59	20.25	20.25	38.93	40.92	17.99	33.00	33.00
k, delay calibration	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.13
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.42	2.32	2.32	0.79	5.79	0.15	0.88	3.08
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.55	0.52	0.52	0.53	0.82	0.51	0.79	0.79
d, Delay for Lane Group [s/veh]	22.01	22.58	22.58	39.73	46.71	18.14	33.88	36.08
Lane Group LOS	C	C	C	D	D	B	C	D
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	7.41	7.74	7.74	3.24	5.55	6.57	8.92	9.25
50th-Percentile Queue Length [ft/ln]	185.28	193.54	193.54	80.94	138.65	164.17	223.02	231.28
95th-Percentile Queue Length [veh/ln]	11.88	12.30	12.30	5.83	9.41	10.77	13.82	14.24
95th-Percentile Queue Length [ft/ln]	296.90	307.61	307.61	145.68	235.21	269.24	345.48	355.99

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	22.12	22.58	22.58	0.00	0.00	39.73	46.71	18.14	0.00	0.00	34.40	36.08
Movement LOS	C	C	C			D	D	B			C	D
d_A, Approach Delay [s/veh]	22.30			39.73			17.75			34.43		
Approach LOS	C			D			B			C		
d_I, Intersection Delay [s/veh]	25.72											
Intersection LOS	C											
Intersection V/C	0.673											

Emissions

Vehicle Miles Traveled [mph]	52.76	27.17	27.17	14.12	21.09	129.18	43.60	14.53
Stops [stops/h]	533.62	278.69	278.69	233.09	199.66	709.22	963.44	333.05
Fuel consumption [US gal/h]	8.94	4.68	4.68	4.16	5.92	20.32	25.03	8.72
CO [g/h]	624.86	326.83	326.83	290.56	413.76	1420.41	1749.51	609.26
NOx [g/h]	121.57	63.59	63.59	56.53	80.50	276.36	340.39	118.54
VOC [g/h]	144.82	75.75	75.75	67.34	95.89	329.19	405.47	141.20

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	39.61	39.61	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersectio	2.642	2.304	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	640	540	1200	580
d_b, Bicycle Delay [s]	23.12	26.65	8.00	25.21
l_b,int, Bicycle LOS Score for Intersection	4.416	1.560	2.445	2.260
Bicycle LOS	E	A	B	B

Sequence

Ring 1	-	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Hwy (E/W)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.654

Intersection Setup

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	100.00	250.00	100.00	100.00	145.00	288.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Base Volume Input [veh/h]	1006	139	498	0	0	269	214	1313	399	0	1580	31
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1006	139	498	0	0	269	214	1313	399	0	1580	31
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	252	35	125	0	0	67	54	328	100	0	395	8
Total Analysis Volume [veh/h]	1006	139	498	0	0	269	214	1313	399	0	1580	31
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	2	3	8	0	0	4	0
Auxiliary Signal Groups						2						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.20	0.23	0.23	0.00	0.00	0.08	0.13	0.26	0.21	0.00	0.23	0.23
Intersection LOS	B											
Intersection V/C	0.654											

Intersection Level Of Service Report
Intersection 6: Associated Road (N/S) at Imperial Highway (E/W)

Control Type:	Signalized	Delay (sec / veh):	41.4
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.589

Intersection Setup

Name	Associated Road			Associated Road			Imperial Highway			Imperial Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	270.00	100.00	100.00	210.00	100.00	210.00	340.00	100.00	100.00	195.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Imperial Highway			Imperial Highway		
Base Volume Input [veh/h]	153	151	81	284	191	143	131	1503	99	135	1416	188
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	153	151	81	284	191	143	131	1503	99	135	1416	188
Peak Hour Factor	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	39	38	20	72	48	36	33	380	25	34	358	48
Total Analysis Volume [veh/h]	155	153	82	287	193	145	132	1520	100	137	1432	190
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	25	0	0	25	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	16	39	0	16	39	0	20	50	0	15	45	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Calculated Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	42	42	12	47	47	11	39	39	11	39	39
g / C, Green / Cycle	0.06	0.35	0.35	0.10	0.39	0.39	0.09	0.32	0.32	0.09	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.04	0.06	0.06	0.08	0.10	0.08	0.07	0.28	0.29	0.08	0.21	0.22
s, saturation flow rate [veh/h]	3500	1900	1900	3500	1900	1900	1800	3800	1900	1800	5700	1900
c, Capacity [veh/h]	217	672	672	342	740	740	161	1233	617	163	1856	619
d1, Uniform Delay [s]	55.23	26.76	26.63	53.23	24.89	24.21	53.67	38.15	38.44	53.70	34.65	34.82
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.28	0.27	0.11	0.14
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.32	0.59	0.54	5.56	0.86	0.59	9.76	2.05	10.56	23.29	0.39	1.59
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.71	0.18	0.17	0.84	0.26	0.20	0.82	0.87	0.89	0.84	0.65	0.66
d, Delay for Lane Group [s/veh]	59.55	27.36	27.17	58.79	25.75	24.80	63.43	40.20	49.00	77.00	35.04	36.41
Lane Group LOS	E	C	C	E	C	C	E	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.40	2.49	2.28	4.44	3.83	2.79	4.29	14.70	16.53	5.06	9.87	10.31
50th-Percentile Queue Length [ft/ln]	59.91	62.13	57.09	111.11	95.65	69.72	107.17	367.43	413.36	126.39	246.75	257.84
95th-Percentile Queue Length [veh/ln]	4.31	4.47	4.11	7.90	6.89	5.02	7.68	20.98	23.20	8.74	15.02	15.58
95th-Percentile Queue Length [ft/ln]	107.84	111.84	102.76	197.54	172.17	125.50	192.06	524.61	580.07	218.58	375.56	389.51

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	59.55	27.32	27.17	58.79	25.75	24.80	63.43	42.78	49.00	77.00	35.25	36.41
Movement LOS	E	C	C	E	C	C	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	40.10			40.70			44.70			38.63		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	41.39											
Intersection LOS	D											
Intersection V/C	0.589											

Emissions

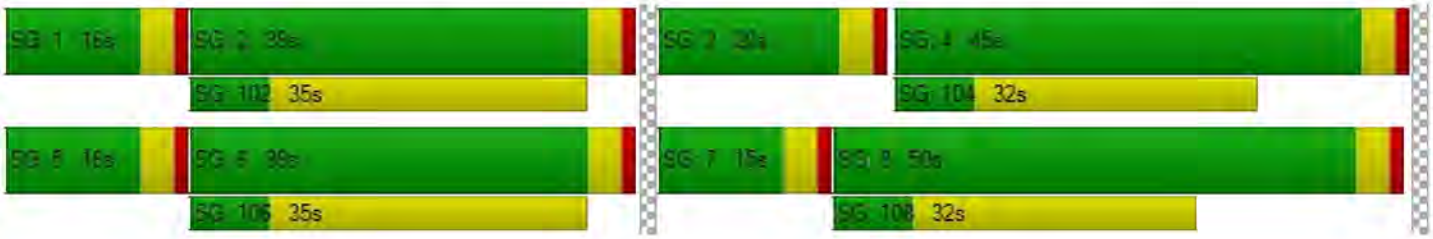
Vehicle Miles Traveled [mph]	12.06	9.50	8.78	18.63	12.53	9.41	7.85	63.85	32.53	8.40	74.27	25.23
Stops [stops/h]	143.78	74.56	68.51	266.66	114.78	83.67	128.61	881.82	496.03	151.67	888.31	309.41
Fuel consumption [US gal/h]	3.72	1.75	1.61	6.72	2.59	1.89	3.25	19.73	11.49	3.94	20.02	6.99
CO [g/h]	260.22	122.52	112.64	469.74	180.88	132.18	227.07	1379.08	803.07	275.22	1399.33	488.62
NOx [g/h]	50.63	23.84	21.91	91.39	35.19	25.72	44.18	268.32	156.25	53.55	272.26	95.07
VOC [g/h]	60.31	28.40	26.10	108.87	41.92	30.63	52.62	319.61	186.12	63.78	324.31	113.24

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersectio	2.644	2.705	3.305	3.332
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	583	767	683
d_b, Bicycle Delay [s]	30.10	30.10	22.82	26.00
l_b,int, Bicycle LOS Score for Intersection	1.881	2.591	2.523	2.285
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 7: Castlegate Lane/Placentia Avenue (N/S) at Imperial Highway (E/W)

Control Type:	Signalized	Delay (sec / veh):	17.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.628

Intersection Setup

Name	Placentia Avenue			Castlegate Lane			Imperial Highway			Imperial Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	200.00	100.00	100.00	88.00	100.00	100.00	140.00	100.00	198.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Placentia Avenue			Castlegate Lane			Imperial Highway			Imperial Highway		
Base Volume Input [veh/h]	130	22	226	21	14	9	14	1632	236	169	1615	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	130	22	226	21	14	9	14	1632	236	169	1615	35
Peak Hour Factor	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	6	58	5	4	2	4	417	60	43	413	9
Total Analysis Volume [veh/h]	133	22	231	21	14	9	14	1669	241	173	1651	36
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	30	0	0	0	0	0	19	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	41	0	0	10	0	10	30	0	14	34	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Calculated Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	14	14	4	4	2	49	49	11	59	59
g / C, Green / Cycle	0.15	0.15	0.15	0.04	0.04	0.02	0.52	0.52	0.12	0.62	0.62
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.12	0.01	0.01	0.01	0.29	0.13	0.10	0.29	0.30
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1800	5700	1900	1800	3800	1900
c, Capacity [veh/h]	270	285	285	78	83	36	2967	989	212	2350	1175
d1, Uniform Delay [s]	35.87	35.80	39.09	43.97	43.99	45.99	15.44	12.50	40.91	9.77	9.93
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.58	0.52	5.53	1.81	1.80	6.84	0.78	0.59	7.50	0.68	1.47
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.29	0.27	0.81	0.27	0.28	0.39	0.56	0.24	0.82	0.47	0.49
d, Delay for Lane Group [s/veh]	36.44	36.32	44.61	45.77	45.79	52.83	16.22	13.09	48.41	10.45	11.40
Lane Group LOS	D	D	D	D	D	D	B	B	D	B	B
Critical Lane Group	No	No	Yes	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.63	1.65	5.64	0.50	0.55	0.39	7.53	2.73	4.26	5.49	6.05
50th-Percentile Queue Length [ft/ln]	40.87	41.26	141.01	12.62	13.78	9.65	188.29	68.21	106.47	137.20	151.14
95th-Percentile Queue Length [veh/ln]	2.94	2.97	9.54	0.91	0.99	0.69	12.03	4.91	7.64	9.33	10.08
95th-Percentile Queue Length [ft/ln]	73.56	74.26	238.38	22.71	24.81	17.36	300.81	122.78	191.08	233.25	251.95

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.39	36.32	44.61	45.77	45.79	45.79	52.83	16.22	13.09	48.41	10.77	11.40
Movement LOS	D	D	D	D	D	D	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	41.31			45.78			16.09			14.28		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	17.91											
Intersection LOS	B											
Intersection V/C	0.628											

Emissions

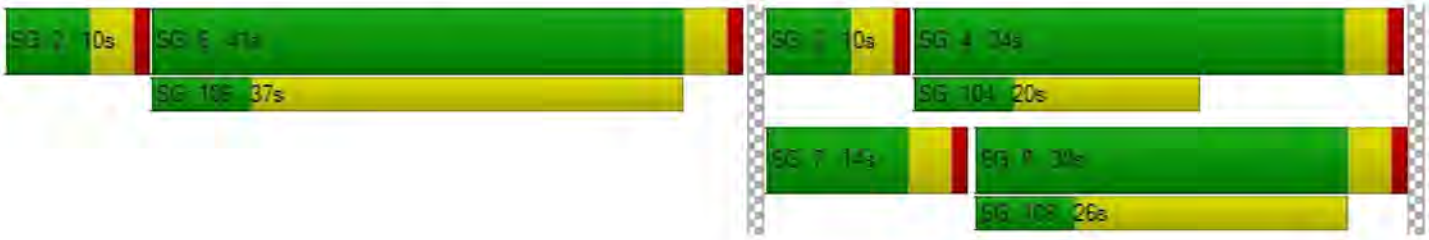
Vehicle Miles Traveled [mph]	4.40	4.46	13.21	1.03	1.12	0.74	88.61	12.80	13.01	83.48	43.40	
Stops [stops/h]	61.95	62.54	213.74	19.13	20.89	14.62	856.23	103.39	161.39	415.94	229.10	
Fuel consumption [US gal/h]	1.01	1.02	3.51	0.42	0.46	0.32	17.09	2.12	3.76	9.44	5.14	
CO [g/h]	70.37	71.09	245.42	29.38	32.14	22.42	1194.81	147.91	262.52	659.71	359.61	
NOx [g/h]	13.69	13.83	47.75	5.72	6.25	4.36	232.47	28.78	51.08	128.36	69.97	
VOC [g/h]	16.31	16.48	56.88	6.81	7.45	5.20	276.91	34.28	60.84	152.89	83.34	

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	37.14	37.14	0.00	37.14
l_p,int, Pedestrian LOS Score for Intersectio	2.299	1.993	0.000	3.298
Crosswalk LOS	B	A	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	779	126	547	632
d_b, Bicycle Delay [s]	17.71	41.69	25.06	22.24
l_b,int, Bicycle LOS Score for Intersection	2.197	1.632	2.618	2.583
Bicycle LOS	B	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 8: Brea Glenbrook Club Dwy/Project Dwy No. 1 (N/S) at Greenbriar Lane (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	8.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.009

Intersection Setup

Name	Brea Glenbrook Club Dwy		Greenbriar Lane		Greenbriar Lane	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Brea Glenbrook Club Dwy		Greenbriar Lane		Greenbriar Lane	
Base Volume Input [veh/h]	6	2	1	22	22	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	2	1	22	22	13
Peak Hour Factor	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	1	0	7	7	4
Total Analysis Volume [veh/h]	8	3	1	29	29	17
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.89	8.52	7.31	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.87	0.87	0.04	0.04	0.00	0.00
d_A, Approach Delay [s/veh]	8.79		0.24		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.20					
Intersection LOS	A					

Appendix D

Intersection Analysis Worksheets
Project Opening Year (2026)
Without Project Conditions

RK19750.1
JN: 2827-2023-05

Intersection Level Of Service Report
Intersection 1: Redbay Avenue (N/S) at Birch Street (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	269.3
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.936

Intersection Setup

Name	Redbay Avenue			Redbay Avenue			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	140.00	100.00	100.00	155.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Redbay Avenue			Redbay Avenue			Birch Street			Birch Street		
Base Volume Input [veh/h]	26	0	38	21	0	46	24	984	10	16	982	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	0	38	21	0	46	24	984	10	16	982	15
Peak Hour Factor	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	0	12	6	0	14	7	299	3	5	298	5
Total Analysis Volume [veh/h]	32	0	46	25	0	56	29	1194	12	19	1192	18
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.94	0.00	0.10	0.71	0.00	0.13	0.05	0.01	0.00	0.03	0.01	0.00
d_M, Delay for Movement [s/veh]	269.30	303.47	172.18	196.57	232.47	101.82	11.63	0.00	0.00	11.48	0.00	0.00
Movement LOS	F	F	F	F	F	F	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	5.60	5.60	5.60	4.64	4.64	4.64	0.16	0.00	0.00	0.10	0.00	0.00
95th-Percentile Queue Length [ft/ln]	139.94	139.94	139.94	116.03	116.03	116.03	3.99	0.00	0.00	2.56	0.00	0.00
d_A, Approach Delay [s/veh]	212.02			131.06			0.27			0.18		
Approach LOS	F			F			A			A		
d_I, Intersection Delay [s/veh]	10.56											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: Associated Road (N/S) at Birch Street (E/W)

Control Type:	Signalized	Delay (sec / veh):	38.6
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.705

Intersection Setup

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	225.00	100.00	230.00	100.00	100.00	100.00	150.00	100.00	100.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Base Volume Input [veh/h]	215	5	341	27	20	12	3	897	149	289	809	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	215	5	341	27	20	12	3	897	149	289	809	2
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	63	1	99	8	6	3	1	261	43	84	235	1
Total Analysis Volume [veh/h]	250	6	397	31	23	14	3	1043	173	336	941	2
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Maximum Green [s]	6	6	6	0	6	0	6	6	0	6	6	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	24	0	24	0	0	26	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	13	48	48	0	35	0	10	51	0	16	57	0
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	6	0	6	0	6	6	0	6	6	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No	No		No		No	No		No	No	
Maximum Recall	No	No	No		No		No	No		No	No	
Pedestrian Recall	No	No	No		No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	50	66	37	37	1	41	41	12	52	52
g / C, Green / Cycle	0.08	0.44	0.58	0.32	0.32	0.01	0.35	0.35	0.10	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.07	0.00	0.21	0.02	0.02	0.00	0.33	0.31	0.10	0.25	0.25
s, saturation flow rate [veh/h]	3500	1900	1900	1800	1900	1800	1900	1900	3500	1900	1900
c, Capacity [veh/h]	274	832	1096	608	617	11	672	672	365	858	858
d1, Uniform Delay [s]	52.61	18.24	13.02	26.69	26.75	56.88	35.72	34.94	51.02	22.99	22.99
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.11	0.32	0.29	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	11.49	0.02	0.93	0.16	0.19	12.13	14.81	9.95	9.66	0.55	0.55
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.91	0.01	0.36	0.05	0.06	0.27	0.93	0.88	0.92	0.55	0.55
d, Delay for Lane Group [s/veh]	64.10	18.26	13.95	26.85	26.94	69.01	50.53	44.89	60.68	23.54	23.54
Lane Group LOS	E	B	B	C	C	E	D	D	E	C	C
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	3.95	0.09	5.39	0.62	0.75	0.12	18.57	16.61	5.14	8.87	8.86
50th-Percentile Queue Length [ft/ln]	98.78	2.29	134.79	15.59	18.64	3.07	464.34	415.25	128.61	221.74	221.54
95th-Percentile Queue Length [veh/ln]	7.11	0.16	9.20	1.12	1.34	0.22	25.64	23.29	8.86	13.75	13.74
95th-Percentile Queue Length [ft/ln]	177.81	4.12	229.99	28.06	33.55	5.52	641.04	582.35	221.60	343.85	343.59

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	64.10	18.26	13.95	26.85	26.94	26.94	69.01	48.25	44.89	60.68	23.54	23.54
Movement LOS	E	B	B	C	C	C	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	33.19			26.89			47.83			33.30		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	38.64											
Intersection LOS	D											
Intersection V/C	0.705											

Emissions

Vehicle Miles Traveled [mph]	16.33	0.39	25.93	1.21	1.45	0.16	32.45	30.96	28.22	39.62	39.59
Stops [stops/h]	247.39	2.87	168.78	19.52	23.34	3.84	581.44	519.97	322.08	277.66	277.41
Fuel consumption [US gal/h]	6.28	0.06	3.71	0.30	0.36	0.10	14.74	12.95	9.12	7.07	7.06
CO [g/h]	438.66	4.51	259.59	20.89	24.99	6.66	1030.33	905.14	637.53	494.18	493.75
NOx [g/h]	85.35	0.88	50.51	4.06	4.86	1.30	200.46	176.11	124.04	96.15	96.07
VOC [g/h]	101.66	1.05	60.16	4.84	5.79	1.54	238.79	209.78	147.75	114.53	114.43

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	47.03	47.03	47.03	47.03
l_p,int, Pedestrian LOS Score for Intersectio	2.721	1.973	3.055	3.179
Crosswalk LOS	B	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	765	539	817	922
d_b, Bicycle Delay [s]	21.92	30.68	20.10	16.71
l_b,int, Bicycle LOS Score for Intersection	2.637	1.672	2.565	2.615
Bicycle LOS	B	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Associated Road (N/S) at Greenbriar Lane (E/W)

Control Type:	Signalized	Delay (sec / veh):	6.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.179

Intersection Setup

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	110.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Base Volume Input [veh/h]	13	352	6	13	430	4	8	1	32	32	1	38
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	352	6	13	430	4	8	1	32	32	1	38
Peak Hour Factor	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	95	2	3	116	1	2	0	9	9	0	10
Total Analysis Volume [veh/h]	14	379	6	14	463	4	9	1	34	34	1	41
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing (Basic)

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	42	0	0	42	0	0	40	0	0	40	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	13	0	0	12	0	0	24	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	30	0	0	30	0	0	60	0	0	60	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	6	0	0	6	0	0	6	0	0	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Calculated Cycle Length [s]	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	77	77	77	77	77	77	5	5
g / C, Green / Cycle	0.85	0.85	0.85	0.85	0.85	0.85	0.06	0.06
(v / s)_i Volume / Saturation Flow Rate	0.01	0.10	0.10	0.01	0.12	0.12	0.02	0.04
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1900	1900	1900
c, Capacity [veh/h]	1516	1619	1619	1524	1619	1619	160	170
d1, Uniform Delay [s]	0.99	1.09	1.09	0.99	1.12	1.12	40.80	41.52
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.01	0.15	0.15	0.01	0.19	0.19	0.92	1.84
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.01	0.12	0.12	0.01	0.14	0.14	0.27	0.45
d, Delay for Lane Group [s/veh]	1.00	1.24	1.24	1.00	1.31	1.31	41.72	43.36
Lane Group LOS	A	A	A	A	A	A	D	D
Critical Lane Group	No	No	No	No	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.01	0.14	0.14	0.01	0.17	0.17	0.98	1.74
50th-Percentile Queue Length [ft/ln]	0.23	3.46	3.44	0.23	4.30	4.29	24.55	43.53
95th-Percentile Queue Length [veh/ln]	0.02	0.25	0.25	0.02	0.31	0.31	1.77	3.13
95th-Percentile Queue Length [ft/ln]	0.42	6.22	6.20	0.42	7.75	7.73	44.19	78.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	1.00	1.24	1.24	1.00	1.31	1.31	41.72	41.72	41.72	43.36	43.36	43.36
Movement LOS	A	A	A	A	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	1.24			1.30			41.72			43.36		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	6.25											
Intersection LOS	A											
Intersection V/C	0.179											

Emissions

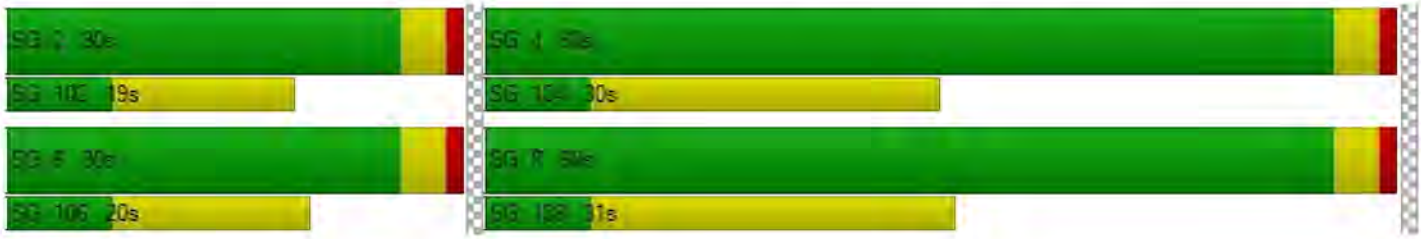
Vehicle Miles Traveled [mph]	0.48	6.62	6.60	0.45	7.49	7.47	0.84	1.80
Stops [stops/h]	0.37	5.53	5.51	0.37	6.89	6.87	39.28	69.65
Fuel consumption [US gal/h]	0.02	0.34	0.34	0.02	0.40	0.40	0.56	1.02
CO [g/h]	1.66	23.79	23.70	1.58	27.84	27.77	39.29	71.19
NOx [g/h]	0.32	4.63	4.61	0.31	5.42	5.40	7.64	13.85
VOC [g/h]	0.38	5.51	5.49	0.37	6.45	6.44	9.11	16.50

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersectio	2.590	2.549	1.760	1.774
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	578	578	1244	1244
d_b, Bicycle Delay [s]	22.76	22.76	6.42	6.42
l_b,int, Bicycle LOS Score for Intersection	1.889	1.956	1.632	1.685
Bicycle LOS	A	A	A	A

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	19.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.217

Intersection Setup

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	88.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Base Volume Input [veh/h]	46	300	423	70	66	73
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	300	423	70	66	73
Peak Hour Factor	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	81	114	19	18	20
Total Analysis Volume [veh/h]	50	324	456	76	71	79
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.00	0.00	0.22	0.11
d_M, Delay for Movement [s/veh]	8.67	0.00	0.00	0.00	19.02	10.51
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.15	0.00	0.00	0.00	0.81	0.36
95th-Percentile Queue Length [ft/ln]	3.82	0.00	0.00	0.00	20.26	9.03
d_A, Approach Delay [s/veh]	1.16		0.00		14.54	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.48					
Intersection LOS	C					

Intersection Level Of Service Report

Intersection 5: SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Hwy (E/W)

Control Type:	Signalized	Delay (sec / veh):	24.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.629

Intersection Setup

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	100.00	250.00	100.00	100.00	145.00	288.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Base Volume Input [veh/h]	958	70	762	0	0	118	91	1432	465	0	1595	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	958	70	762	0	0	118	91	1432	465	0	1595	12
Peak Hour Factor	0.9280	0.9280	0.9280	1.0000	1.0000	0.9280	0.9280	0.9280	0.9280	1.0000	0.9280	0.9280
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	258	19	205	0	0	32	25	386	125	0	430	3
Total Analysis Volume [veh/h]	1032	75	821	0	0	127	98	1543	501	0	1719	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Split	Split	Split	Permiss	Permiss	Overlap	Protecte	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	2	3	8	0	0	4	0
Auxiliary Signal Groups						2,3						
Maximum Green [s]	0	26	0	0	0	8	14	44	0	0	26	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	0	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	21	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No				No		No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	10	0	0	0	104	18	90	0	0	72	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	6	0	0	0	6	6	6	0	0	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No				No	No	No			No	
Maximum Recall		No				No	No	No			No	
Pedestrian Recall		No				No	No	No			No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	R	L	C	C	C
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	51	51	51	7	7	41	30	30
g / C, Green / Cycle	0.51	0.51	0.51	0.07	0.07	0.41	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.27	0.26	0.26	0.04	0.05	0.27	0.23	0.23
s, saturation flow rate [veh/h]	3500	1900	1900	3600	1800	5700	5700	1900
c, Capacity [veh/h]	1776	964	964	259	130	2351	1713	571
d1, Uniform Delay [s]	16.65	16.33	16.33	44.63	45.54	23.66	31.68	31.68
k, delay calibration	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.16	1.91	1.91	1.43	8.62	0.31	0.71	2.10
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.53	0.51	0.51	0.49	0.76	0.66	0.76	0.76
d, Delay for Lane Group [s/veh]	17.81	18.24	18.24	46.06	54.15	23.98	32.39	33.78
Lane Group LOS	B	B	B	D	D	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	7.31	7.61	7.61	1.56	2.59	8.92	8.89	9.11
50th-Percentile Queue Length [ft/ln]	182.69	190.15	190.15	38.98	64.75	222.98	222.22	227.73
95th-Percentile Queue Length [veh/ln]	11.74	12.13	12.13	2.81	4.66	13.82	13.78	14.06
95th-Percentile Queue Length [ft/ln]	293.52	303.22	303.22	70.16	116.55	345.43	344.46	351.48

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	17.84	18.24	18.24	0.00	0.00	46.06	54.15	23.98	0.00	0.00	32.73	33.78
Movement LOS	B	B	B			D	D	C			C	C
d_A, Approach Delay [s/veh]	18.03			46.06			20.09			32.74		
Approach LOS	B			D			C			C		
d_I, Intersection Delay [s/veh]	24.00											
Intersection LOS	C											
Intersection V/C	0.629											

Emissions

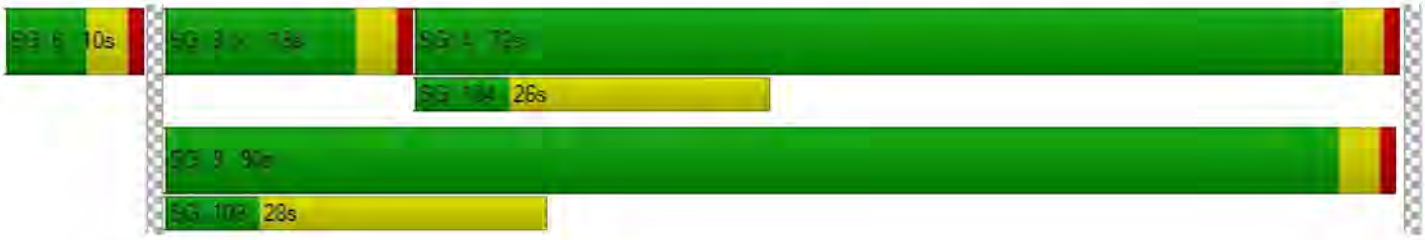
Vehicle Miles Traveled [mph]	58.76	30.26	30.26	6.34	9.15	144.02	44.47	14.82
Stops [stops/h]	526.15	273.81	273.81	112.26	93.24	963.29	960.01	327.93
Fuel consumption [US gal/h]	8.77	4.57	4.57	2.07	2.82	27.14	24.79	8.51
CO [g/h]	612.86	319.72	319.72	144.79	196.94	1896.94	1732.70	594.63
NOx [g/h]	119.24	62.21	62.21	28.17	38.32	369.08	337.12	115.69
VOC [g/h]	142.04	74.10	74.10	33.56	45.64	439.63	401.57	137.81

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	39.61	39.61	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersectio	2.681	2.212	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	120	280	1720	1360
d_b, Bicycle Delay [s]	44.18	36.98	0.98	5.12
l_b,int, Bicycle LOS Score for Intersection	4.741	1.560	2.462	2.274
Bicycle LOS	E	A	B	B

Sequence

Ring 1	-	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Hwy (E/W)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.603

Intersection Setup

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	100.00	250.00	100.00	100.00	145.00	288.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Base Volume Input [veh/h]	958	70	762	0	0	118	91	1432	465	0	1595	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	958	70	762	0	0	118	91	1432	465	0	1595	12
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	240	18	191	0	0	30	23	358	116	0	399	3
Total Analysis Volume [veh/h]	958	70	762	0	0	118	91	1432	465	0	1595	12
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Overlap	Protecte	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	2	3	8	0	0	4	0
Auxiliary Signal Groups						2						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.19	0.25	0.25	0.00	0.00	0.03	0.05	0.28	0.00	0.00	0.23	0.23
Intersection LOS	B											
Intersection V/C	0.603											

Intersection Level Of Service Report
Intersection 6: Associated Road (N/S) at Imperial Highway (E/W)

Control Type:	Signalized	Delay (sec / veh):	37.9
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.677

Intersection Setup

Name	Associated Road			Associated Road			Imperial Highway			Imperial Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	270.00	100.00	100.00	210.00	100.00	210.00	340.00	100.00	100.00	195.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Imperial Highway			Imperial Highway		
Base Volume Input [veh/h]	131	123	81	122	239	154	171	1794	135	119	1354	56
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	131	123	81	122	239	154	171	1794	135	119	1354	56
Peak Hour Factor	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	32	21	31	61	39	44	460	35	31	347	14
Total Analysis Volume [veh/h]	134	126	83	125	245	158	175	1840	138	122	1389	57
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	25	0	0	25	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	10	39	0	10	39	0	26	56	0	15	45	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Calculated Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	41	41	6	41	41	14	47	47	10	43	43
g / C, Green / Cycle	0.05	0.34	0.34	0.05	0.34	0.34	0.11	0.39	0.39	0.08	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.04	0.06	0.05	0.04	0.13	0.08	0.10	0.34	0.35	0.07	0.19	0.20
s, saturation flow rate [veh/h]	3500	1900	1900	3500	1900	1900	1800	3800	1900	1800	5700	1900
c, Capacity [veh/h]	175	646	646	175	646	646	207	1499	749	148	2062	687
d1, Uniform Delay [s]	56.31	27.73	27.59	56.16	30.01	28.51	52.06	33.58	33.96	54.20	30.05	30.57
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.32	0.21	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.82	0.56	0.51	5.33	1.69	0.90	9.13	1.74	10.42	18.86	0.20	0.70
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.77	0.17	0.16	0.71	0.38	0.24	0.85	0.87	0.89	0.82	0.52	0.55
d, Delay for Lane Group [s/veh]	63.13	28.29	28.11	61.49	31.70	29.41	61.19	35.32	44.38	73.06	30.26	31.28
Lane Group LOS	E	C	C	E	C	C	E	D	D	E	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.14	2.25	2.07	1.97	5.55	3.38	5.60	17.19	19.56	4.34	7.86	8.68
50th-Percentile Queue Length [ft/ln]	53.49	56.34	51.66	49.14	138.80	84.43	140.02	429.78	488.95	108.58	196.46	216.96
95th-Percentile Queue Length [veh/ln]	3.85	4.06	3.72	3.54	9.42	6.08	9.48	23.99	26.81	7.76	12.46	13.51
95th-Percentile Queue Length [ft/ln]	96.27	101.41	92.99	88.46	235.41	151.97	237.05	599.77	670.27	194.03	311.40	337.74

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	63.13	28.26	28.11	61.49	31.70	29.41	61.19	37.93	44.38	73.06	30.49	31.28
Movement LOS	E	C	C	E	C	C	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	41.85			38.07			40.24			33.83		
Approach LOS	D			D			D			C		
d_I, Intersection Delay [s/veh]	37.92											
Intersection LOS	D											
Intersection V/C	0.677											

Emissions

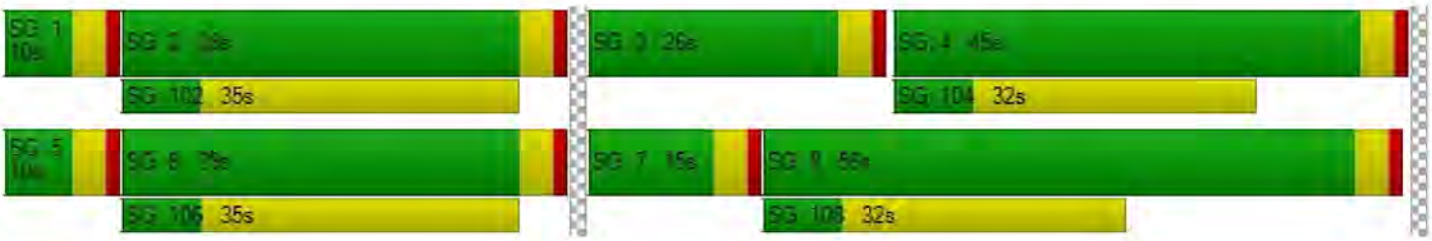
Vehicle Miles Traveled [mph]	10.43	8.46	7.80	8.12	15.91	10.26	10.41	77.89	39.79	7.48	65.31	23.38
Stops [stops/h]	128.36	67.61	62.00	117.95	166.56	101.31	168.03	1031.47	586.74	130.30	707.26	260.35
Fuel consumption [US gal/h]	3.36	1.59	1.46	3.01	3.79	2.31	4.20	22.33	13.23	3.36	15.84	5.82
CO [g/h]	234.56	111.37	102.17	210.63	264.67	161.35	293.75	1561.06	924.68	234.98	1107.42	406.92
NOx [g/h]	45.64	21.67	19.88	40.98	51.50	31.39	57.15	303.72	179.91	45.72	215.46	79.17
VOC [g/h]	54.36	25.81	23.68	48.82	61.34	37.39	68.08	361.79	214.30	54.46	256.66	94.31

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersectio	2.650	2.659	3.362	3.327
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	583	867	683
d_b, Bicycle Delay [s]	30.10	30.10	19.27	26.00
l_b,int, Bicycle LOS Score for Intersection	1.843	2.431	2.744	2.206
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 7: Castlegate Lane/Placentia Avenue (N/S) at Imperial Highway (E/W)

Control Type:	Signalized	Delay (sec / veh):	14.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.587

Intersection Setup

Name	Placentia Avenue			Castlegate Lane			Imperial Highway			Imperial Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	200.00	100.00	100.00	88.00	100.00	100.00	140.00	100.00	198.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Placentia Avenue			Castlegate Lane			Imperial Highway			Imperial Highway		
Base Volume Input [veh/h]	136	14	111	24	15	24	15	1786	306	154	1374	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	136	14	111	24	15	24	15	1786	306	154	1374	17
Peak Hour Factor	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	4	28	6	4	6	4	457	78	39	351	4
Total Analysis Volume [veh/h]	139	14	113	25	15	25	15	1826	313	157	1405	17
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	30	0	0	0	0	0	19	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	41	0	0	10	0	12	30	0	14	32	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Calculated Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	8	8	5	5	2	56	56	10	64	64
g / C, Green / Cycle	0.09	0.09	0.09	0.05	0.05	0.02	0.59	0.59	0.11	0.67	0.67
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.06	0.01	0.02	0.01	0.32	0.16	0.09	0.25	0.26
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1800	5700	1900	1800	3800	1900
c, Capacity [veh/h]	155	164	164	93	98	38	3336	1112	195	2556	1278
d1, Uniform Delay [s]	41.41	41.33	42.17	43.30	43.62	45.92	12.02	9.78	41.39	6.75	6.85
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.39	2.07	5.08	1.52	2.67	6.70	0.65	0.63	7.63	0.41	0.87
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.49	0.47	0.69	0.27	0.41	0.40	0.55	0.28	0.81	0.37	0.38
d, Delay for Lane Group [s/veh]	43.80	43.40	47.25	44.82	46.29	52.61	12.67	10.41	49.02	7.16	7.72
Lane Group LOS	D	D	D	D	D	D	B	B	D	A	A
Critical Lane Group	No	No	Yes	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.81	1.81	2.81	0.59	0.96	0.41	7.00	3.04	3.89	3.42	3.78
50th-Percentile Queue Length [ft/ln]	45.29	45.29	70.26	14.73	23.98	10.26	175.09	76.05	97.16	85.50	94.44
95th-Percentile Queue Length [veh/ln]	3.26	3.26	5.06	1.06	1.73	0.74	11.34	5.48	7.00	6.16	6.80
95th-Percentile Queue Length [ft/ln]	81.53	81.52	126.46	26.51	43.16	18.46	283.60	136.89	174.90	153.89	170.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.62	43.40	47.25	44.82	46.29	46.29	52.61	12.67	10.41	49.02	7.34	7.72
Movement LOS	D	D	D	D	D	D	D	B	B	D	A	A
d_A, Approach Delay [s/veh]	45.15			45.73			12.62			11.49		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	14.84											
Intersection LOS	B											
Intersection V/C	0.587											

Emissions

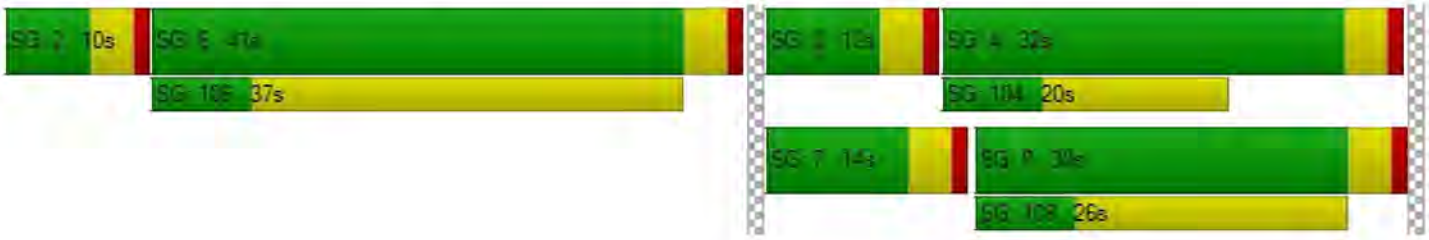
Vehicle Miles Traveled [mph]	4.36	4.39	6.46	1.22	1.95	0.80	96.95	16.62	11.81	70.27	36.68
Stops [stops/h]	68.66	68.65	106.49	22.32	36.35	15.55	796.22	115.28	147.28	259.19	143.16
Fuel consumption [US gal/h]	1.14	1.14	1.79	0.49	0.80	0.34	16.00	2.39	3.44	6.42	3.49
CO [g/h]	79.61	79.60	124.81	34.33	56.19	23.90	1118.64	167.14	240.16	449.05	243.69
NOx [g/h]	15.49	15.49	24.28	6.68	10.93	4.65	217.65	32.52	46.73	87.37	47.41
VOC [g/h]	18.45	18.45	28.93	7.96	13.02	5.54	259.26	38.74	55.66	104.07	56.48

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	37.14	37.14	0.00	37.14
l_p,int, Pedestrian LOS Score for Intersectio	2.286	1.991	0.000	3.254
Crosswalk LOS	B	A	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	779	126	547	589
d_b, Bicycle Delay [s]	17.71	41.69	25.06	23.63
l_b,int, Bicycle LOS Score for Intersection	1.999	1.667	2.744	2.428
Bicycle LOS	A	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Brea Glenbrook Club Dwy/Project Dwy No. 1 (N/S) at Greenbriar Lane (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	8.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.001

Intersection Setup

Name	Brea Glenbrook Club Dwy		Greenbriar Lane		Greenbriar Lane	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Brea Glenbrook Club Dwy		Greenbriar Lane		Greenbriar Lane	
Base Volume Input [veh/h]	0	1	0	41	15	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	1	0	41	15	5
Peak Hour Factor	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	14	5	2
Total Analysis Volume [veh/h]	0	1	0	55	20	7
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.90	8.42	7.27	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.07	0.07	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.42		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.10					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 1: Redbay Avenue (N/S) at Birch Street (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	543.7
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.208

Intersection Setup

Name	Redbay Avenue			Redbay Avenue			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	140.00	100.00	100.00	155.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Redbay Avenue			Redbay Avenue			Birch Street			Birch Street		
Base Volume Input [veh/h]	11	0	15	18	0	30	47	1263	28	15	1400	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	0	15	18	0	30	47	1263	28	15	1400	40
Peak Hour Factor	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	4	5	0	8	13	340	8	4	377	11
Total Analysis Volume [veh/h]	12	0	16	19	0	32	51	1360	30	16	1507	43
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.70	0.00	0.04	1.21	0.00	0.09	0.12	0.01	0.00	0.03	0.02	0.00
d_M, Delay for Movement [s/veh]	344.65	481.19	143.93	543.68	657.97	325.34	14.66	0.00	0.00	12.62	0.00	0.00
Movement LOS	F	F	F	F	F	F	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	2.69	2.69	2.69	5.17	5.17	5.17	0.41	0.00	0.00	0.10	0.00	0.00
95th-Percentile Queue Length [ft/ln]	67.20	67.20	67.20	129.37	129.37	129.37	10.18	0.00	0.00	2.54	0.00	0.00
d_A, Approach Delay [s/veh]	229.95			406.68			0.52			0.13		
Approach LOS	F			F			A			A		
d_I, Intersection Delay [s/veh]	9.12											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: Associated Road (N/S) at Birch Street (E/W)

Control Type:	Signalized	Delay (sec / veh):	41.4
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.693

Intersection Setup

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	225.00	100.00	230.00	100.00	100.00	100.00	150.00	100.00	100.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Base Volume Input [veh/h]	379	21	335	17	13	9	8	1053	248	242	1079	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	379	21	335	17	13	9	8	1053	248	242	1079	24
Peak Hour Factor	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	98	5	87	4	3	2	2	273	64	63	279	6
Total Analysis Volume [veh/h]	392	22	347	18	13	9	8	1090	257	251	1117	25
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Maximum Green [s]	6	6	6	0	6	0	6	6	0	6	6	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	24	0	24	0	0	26	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	19	54	54	0	35	0	19	52	0	14	47	0
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	6	0	6	0	6	6	0	6	6	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No	No		No		No	No		No	No	
Maximum Recall	No	No	No		No		No	No		No	No	
Pedestrian Recall	No	No	No		No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	52	66	33	33	1	46	46	10	55	55
g / C, Green / Cycle	0.13	0.43	0.55	0.27	0.27	0.01	0.38	0.38	0.08	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.11	0.01	0.18	0.01	0.01	0.00	0.36	0.34	0.07	0.30	0.30
s, saturation flow rate [veh/h]	3500	1900	1900	1800	1900	1800	1900	1900	3500	1900	1900
c, Capacity [veh/h]	438	823	1045	512	522	23	729	729	292	863	863
d1, Uniform Delay [s]	51.73	19.50	14.87	31.87	31.92	58.76	35.90	34.79	54.31	25.59	25.52
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.11	0.40	0.36	0.11	0.20	0.20
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.70	0.06	0.85	0.13	0.15	9.08	20.11	12.47	7.37	1.64	1.59
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.90	0.03	0.33	0.04	0.04	0.35	0.95	0.90	0.86	0.66	0.66
d, Delay for Lane Group [s/veh]	58.43	19.56	15.73	31.99	32.07	67.84	56.01	47.26	61.68	27.23	27.11
Lane Group LOS	E	B	B	C	C	E	E	D	E	C	C
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	6.11	0.36	5.20	0.41	0.50	0.29	22.59	19.48	3.95	12.38	12.26
50th-Percentile Queue Length [ft/ln]	152.70	9.00	130.01	10.23	12.52	7.33	564.70	486.92	98.68	309.45	306.44
95th-Percentile Queue Length [veh/ln]	10.16	0.65	8.94	0.74	0.90	0.53	30.38	26.71	7.11	18.15	18.00
95th-Percentile Queue Length [ft/ln]	254.03	16.20	223.51	18.42	22.54	13.19	759.56	667.86	177.63	453.69	449.99

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	58.43	19.56	15.73	31.99	32.07	32.07	67.84	52.82	47.26	61.68	27.17	27.11
Movement LOS	E	B	B	C	C	C	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	37.83			32.03			51.85			33.39		
Approach LOS	D			C			D			C		
d_I, Intersection Delay [s/veh]	41.38											
Intersection LOS	D											
Intersection V/C	0.693											

Emissions

Vehicle Miles Traveled [mph]	25.60	1.44	22.66	0.70	0.86	0.42	36.12	34.12	21.08	48.11	47.81
Stops [stops/h]	366.48	10.80	156.01	12.28	15.02	8.79	677.64	584.30	236.84	371.34	367.73
Fuel consumption [US gal/h]	9.18	0.25	3.45	0.20	0.24	0.23	17.56	14.73	6.82	9.44	9.35
CO [g/h]	641.53	17.13	241.49	13.70	16.77	16.36	1227.29	1029.39	476.54	659.90	653.66
NOx [g/h]	124.82	3.33	46.99	2.67	3.26	3.18	238.79	200.28	92.72	128.39	127.18
VOC [g/h]	148.68	3.97	55.97	3.17	3.89	3.79	284.44	238.57	110.44	152.94	151.49

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersectio	2.744	1.980	3.167	3.186
Crosswalk LOS	B	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	833	517	800	717
d_b, Bicycle Delay [s]	20.42	33.00	21.60	24.70
l_b,int, Bicycle LOS Score for Intersection	2.815	1.626	2.677	2.709
Bicycle LOS	C	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Associated Road (N/S) at Greenbriar Lane (E/W)

Control Type:	Signalized	Delay (sec / veh):	4.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.237

Intersection Setup

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	110.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Base Volume Input [veh/h]	20	572	31	24	488	3	8	4	15	15	10	37
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	572	31	24	488	3	8	4	15	15	10	37
Peak Hour Factor	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	152	8	6	130	1	2	1	4	4	3	10
Total Analysis Volume [veh/h]	21	609	33	26	520	3	9	4	16	16	11	39
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	42	0	0	42	0	0	40	0	0	40	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	13	0	0	12	0	0	24	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	30	0	0	30	0	0	60	0	0	60	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	6	0	0	6	0	0	6	0	0	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Calculated Cycle Length [s]	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	77	77	77	77	77	77	5	5
g / C, Green / Cycle	0.86	0.86	0.86	0.86	0.86	0.86	0.05	0.05
(v / s)_i Volume / Saturation Flow Rate	0.01	0.17	0.17	0.01	0.14	0.14	0.02	0.03
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1900	1900	1900
c, Capacity [veh/h]	1516	1625	1625	1503	1625	1625	159	156
d1, Uniform Delay [s]	0.96	1.14	1.14	0.96	1.10	1.10	40.72	41.54
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	0.28	0.27	0.02	0.21	0.21	0.55	1.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.01	0.20	0.20	0.02	0.16	0.16	0.18	0.42
d, Delay for Lane Group [s/veh]	0.97	1.42	1.41	0.98	1.31	1.31	41.26	43.34
Lane Group LOS	A	A	A	A	A	A	D	D
Critical Lane Group	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.01	0.23	0.22	0.02	0.17	0.17	0.64	1.51
50th-Percentile Queue Length [ft/ln]	0.31	5.63	5.52	0.39	4.36	4.35	16.04	37.80
95th-Percentile Queue Length [veh/ln]	0.02	0.41	0.40	0.03	0.31	0.31	1.15	2.72
95th-Percentile Queue Length [ft/ln]	0.56	10.14	9.94	0.70	7.85	7.84	28.87	68.04

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.97	1.41	1.41	0.98	1.31	1.31	41.26	41.26	41.26	43.34	43.34	43.34
Movement LOS	A	A	A	A	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	1.40			1.29			41.26			43.34		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	4.36											
Intersection LOS	A											
Intersection V/C	0.237											

Emissions

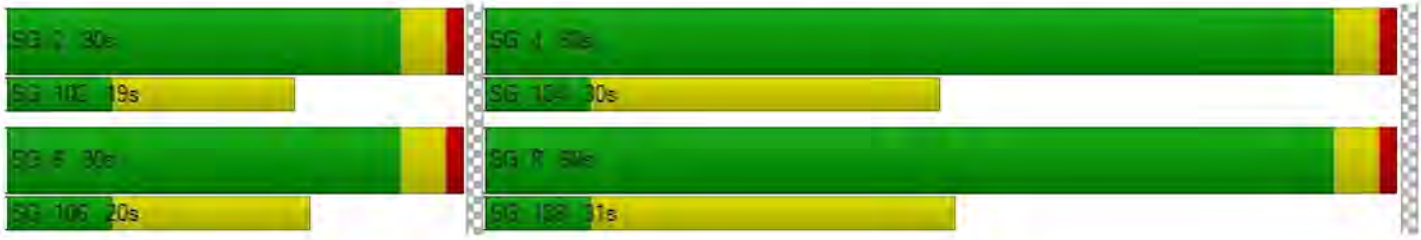
Vehicle Miles Traveled [mph]	0.72	11.11	10.93	0.83	8.39	8.37	0.55	1.56
Stops [stops/h]	0.50	9.01	8.83	0.63	6.98	6.97	25.66	60.48
Fuel consumption [US gal/h]	0.03	0.58	0.57	0.04	0.44	0.44	0.37	0.88
CO [g/h]	2.44	40.52	39.80	2.88	30.67	30.61	25.65	61.81
NOx [g/h]	0.47	7.88	7.74	0.56	5.97	5.96	4.99	12.03
VOC [g/h]	0.57	9.39	9.22	0.67	7.11	7.09	5.94	14.32

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersectio	2.638	2.626	1.770	1.804
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	578	578	1244	1244
d_b, Bicycle Delay [s]	22.76	22.76	6.42	6.42
l_b,int, Bicycle LOS Score for Intersection	2.107	2.013	1.607	1.669
Bicycle LOS	B	B	A	A

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	34.9
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.509

Intersection Setup

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	88.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Base Volume Input [veh/h]	99	553	383	102	117	188
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	99	553	383	102	117	188
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	143	99	26	30	49
Total Analysis Volume [veh/h]	102	571	396	105	121	194
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.10	0.01	0.00	0.00	0.51	0.26
d_M, Delay for Movement [s/veh]	8.76	0.00	0.00	0.00	34.89	11.47
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.32	0.00	0.00	0.00	2.64	1.03
95th-Percentile Queue Length [ft/ln]	7.97	0.00	0.00	0.00	65.91	25.82
d_A, Approach Delay [s/veh]	1.33		0.00		20.47	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.93					
Intersection LOS	D					

Intersection Level Of Service Report

Intersection 5: SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Hwy (E/W)

Control Type:	Signalized	Delay (sec / veh):	24.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.719

Intersection Setup

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	100.00	250.00	100.00	100.00	145.00	288.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Base Volume Input [veh/h]	1196	100	667	0	0	211	190	1535	257	0	1708	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1196	100	667	0	0	211	190	1535	257	0	1708	35
Peak Hour Factor	0.9810	0.9810	0.9810	1.0000	1.0000	0.9810	0.9810	0.9810	0.9810	1.0000	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	305	25	170	0	0	54	48	391	65	0	435	9
Total Analysis Volume [veh/h]	1219	102	680	0	0	215	194	1565	262	0	1741	36
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Split	Split	Split	Permiss	Permiss	Overlap	Protecte	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	2	3	8	0	0	4	0
Auxiliary Signal Groups						2,3						
Maximum Green [s]	0	26	0	0	0	8	14	44	0	0	26	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	0	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	21	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No				No		No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	34	0	0	0	94	20	56	0	0	36	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	6	0	0	0	6	6	6	0	0	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No				No	No	No			No	
Maximum Recall		No				No	No	No			No	
Pedestrian Recall		No				No	No	No			No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	R	L	C	C	C
C, Calculated Cycle Length [s]	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	39	39	39	12	12	43	27	27
g / C, Green / Cycle	0.43	0.43	0.43	0.13	0.13	0.48	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.28	0.27	0.27	0.06	0.11	0.27	0.23	0.23
s, saturation flow rate [veh/h]	3500	1900	1900	3600	1800	5700	5700	1900
c, Capacity [veh/h]	1512	821	821	479	240	2732	1719	573
d1, Uniform Delay [s]	20.22	19.82	19.82	35.96	37.90	16.82	28.65	28.65
k, delay calibration	0.50	0.50	0.50	0.11	0.14	0.11	0.11	0.15
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.20	3.49	3.49	0.66	8.07	0.19	0.77	3.20
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.65	0.62	0.62	0.45	0.81	0.57	0.78	0.78
d, Delay for Lane Group [s/veh]	22.42	23.31	23.31	36.62	45.96	17.01	29.42	31.85
Lane Group LOS	C	C	C	D	D	B	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	8.21	8.62	8.62	2.19	4.43	6.70	8.05	8.43
50th-Percentile Queue Length [ft/ln]	205.25	215.41	215.41	54.86	110.74	167.56	201.22	210.87
95th-Percentile Queue Length [veh/ln]	12.91	13.43	13.43	3.95	7.88	10.95	12.70	13.20
95th-Percentile Queue Length [ft/ln]	322.73	335.76	335.76	98.75	197.04	273.70	317.54	329.95

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	22.58	23.31	23.31	0.00	0.00	36.62	45.96	17.01	0.00	0.00	29.99	31.85
Movement LOS	C	C	C			D	D	B			C	C
d_A, Approach Delay [s/veh]	22.87			36.62			17.63			30.03		
Approach LOS	C			D			B			C		
d_I, Intersection Delay [s/veh]	23.99											
Intersection LOS	C											
Intersection V/C	0.719											

Emissions

Vehicle Miles Traveled [mph]	60.99	31.40	31.40	10.73	18.11	146.07	45.63	15.21
Stops [stops/h]	656.81	344.66	344.66	175.56	177.19	804.28	965.85	337.40
Fuel consumption [US gal/h]	10.64	5.60	5.60	3.01	5.14	22.66	24.33	8.57
CO [g/h]	743.55	391.76	391.76	210.64	359.34	1583.67	1700.92	598.88
NOx [g/h]	144.67	76.22	76.22	40.98	69.91	308.12	330.94	116.52
VOC [g/h]	172.32	90.79	90.79	48.82	83.28	367.03	394.20	138.80

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersectio	2.690	2.264	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	667	356	1156	711
d_b, Bicycle Delay [s]	20.00	30.42	8.02	18.69
l_b,int, Bicycle LOS Score for Intersection	4.861	1.560	2.527	2.293
Bicycle LOS	E	A	B	B

Sequence

Ring 1	-	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Hwy (E/W)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.707

Intersection Setup

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	100.00	250.00	100.00	100.00	145.00	288.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Base Volume Input [veh/h]	1196	100	667	0	0	211	190	1535	257	0	1708	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1196	100	667	0	0	211	190	1535	257	0	1708	35
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	299	25	167	0	0	53	48	384	64	0	427	9
Total Analysis Volume [veh/h]	1196	100	667	0	0	211	190	1535	257	0	1708	35
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	2	3	8	0	0	4	0
Auxiliary Signal Groups						2						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.23	0.27	0.27	0.00	0.00	0.06	0.11	0.30	0.14	0.00	0.25	0.25
Intersection LOS	C											
Intersection V/C	0.707											

Intersection Level Of Service Report
Intersection 6: Associated Road (N/S) at Imperial Highway (E/W)

Control Type:	Signalized	Delay (sec / veh):	42.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.692

Intersection Setup

Name	Associated Road			Associated Road			Imperial Highway			Imperial Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	270.00	100.00	100.00	210.00	100.00	210.00	340.00	100.00	100.00	195.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Imperial Highway			Imperial Highway		
Base Volume Input [veh/h]	161	228	138	249	217	128	221	1719	138	167	1482	220
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	161	228	138	249	217	128	221	1719	138	167	1482	220
Peak Hour Factor	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	57	35	63	55	32	56	433	35	42	373	55
Total Analysis Volume [veh/h]	162	230	139	251	219	129	223	1731	139	168	1492	222
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	25	0	0	25	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	11	39	0	14	42	0	22	50	0	17	45	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Calculated Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	37	37	10	40	40	17	44	44	13	40	40
g / C, Green / Cycle	0.06	0.31	0.31	0.08	0.34	0.34	0.14	0.36	0.36	0.11	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.05	0.10	0.09	0.07	0.12	0.07	0.12	0.33	0.33	0.09	0.22	0.23
s, saturation flow rate [veh/h]	3500	1900	1900	3500	1900	1900	1800	3800	1900	1800	5700	1900
c, Capacity [veh/h]	204	593	593	292	640	640	252	1381	690	195	1890	630
d1, Uniform Delay [s]	55.79	31.64	31.29	54.31	29.82	28.30	50.67	36.09	36.41	52.64	34.59	34.69
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.30	0.11	0.37	0.30	0.11	0.20
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.82	1.47	1.27	7.37	1.46	0.71	22.93	2.35	14.70	25.04	0.43	2.46
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.33	0.29	0.86	0.34	0.20	0.89	0.90	0.91	0.86	0.68	0.69
d, Delay for Lane Group [s/veh]	62.60	33.12	32.55	61.68	31.28	29.01	73.59	38.43	51.11	77.68	35.02	37.14
Lane Group LOS	E	C	C	E	C	C	E	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.58	4.48	3.98	3.98	4.90	2.72	8.06	16.91	19.73	6.24	10.53	11.01
50th-Percentile Queue Length [ft/ln]	64.39	111.96	99.42	99.45	122.47	68.01	201.39	422.74	493.25	156.09	263.13	275.28
95th-Percentile Queue Length [veh/ln]	4.64	7.95	7.16	7.16	8.53	4.90	12.71	23.65	27.01	10.34	15.85	16.45
95th-Percentile Queue Length [ft/ln]	115.91	198.73	178.95	179.01	213.22	122.41	317.76	591.34	675.36	258.54	396.14	411.33

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.60	33.03	32.55	61.68	31.28	29.01	73.59	42.04	51.11	77.68	35.32	37.14
Movement LOS	E	C	C	E	C	C	E	D	D	E	D	D
d_A, Approach Delay [s/veh]	41.93			43.53			46.00			39.32		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	42.82											
Intersection LOS	D											
Intersection V/C	0.692											

Emissions

Vehicle Miles Traveled [mph]	12.60	15.11	13.60	16.30	14.22	8.38	13.27	73.72	37.54	10.31	78.66	26.48
Stops [stops/h]	154.55	134.36	119.30	238.69	146.97	81.61	241.67	1014.58	591.90	187.31	947.26	330.34
Fuel consumption [US gal/h]	4.03	3.17	2.82	6.08	3.35	1.86	6.19	22.30	13.72	4.86	21.26	7.46
CO [g/h]	281.93	221.59	196.89	424.89	233.94	130.25	432.59	1558.68	959.08	340.04	1486.20	521.15
NOx [g/h]	54.85	43.11	38.31	82.67	45.52	25.34	84.17	303.26	186.60	66.16	289.16	101.40
VOC [g/h]	65.34	51.36	45.63	98.47	54.22	30.19	100.26	361.24	222.28	78.81	344.44	120.78

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersectio	2.696	2.743	3.369	3.390
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	633	767	683
d_b, Bicycle Delay [s]	30.10	28.02	22.82	26.00
l_b,int, Bicycle LOS Score for Intersection	1.998	2.548	2.711	2.336
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 7: Castlegate Lane/Placentia Avenue (N/S) at Imperial Highway (E/W)

Control Type:	Signalized	Delay (sec / veh):	18.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.679

Intersection Setup

Name	Placentia Avenue			Castlegate Lane			Imperial Highway			Imperial Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	200.00	100.00	100.00	88.00	100.00	100.00	140.00	100.00	198.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Placentia Avenue			Castlegate Lane			Imperial Highway			Imperial Highway		
Base Volume Input [veh/h]	180	47	195	22	12	8	17	1826	308	219	1682	52
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	180	47	195	22	12	8	17	1826	308	219	1682	52
Peak Hour Factor	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	46	12	49	6	3	2	4	463	78	56	426	13
Total Analysis Volume [veh/h]	183	48	198	22	12	8	17	1852	312	222	1706	53
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	30	0	0	0	0	0	19	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	41	0	0	10	0	10	30	0	14	34	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Calculated Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	13	13	4	4	2	48	48	14	60	60
g / C, Green / Cycle	0.13	0.13	0.13	0.04	0.04	0.02	0.51	0.51	0.15	0.63	0.63
(v / s)_i Volume / Saturation Flow Rate	0.06	0.06	0.10	0.01	0.01	0.01	0.32	0.16	0.12	0.30	0.32
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1800	5700	1900	1800	3800	1900
c, Capacity [veh/h]	241	255	255	76	81	42	2903	968	263	2401	1201
d1, Uniform Delay [s]	38.04	37.95	39.77	44.09	44.01	45.76	16.95	13.69	39.53	9.26	9.41
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.45	1.28	5.09	2.04	1.58	6.29	1.09	0.88	7.33	0.70	1.49
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.46	0.78	0.29	0.25	0.41	0.64	0.32	0.85	0.48	0.50
d, Delay for Lane Group [s/veh]	39.49	39.24	44.86	46.13	45.59	52.04	18.03	14.57	46.85	9.95	10.89
Lane Group LOS	D	D	D	D	D	D	B	B	D	A	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.56	2.60	4.83	0.53	0.48	0.46	9.07	3.82	5.40	5.53	6.07
50th-Percentile Queue Length [ft/ln]	64.12	65.04	120.66	13.30	11.97	11.45	226.81	95.54	134.90	138.23	151.87
95th-Percentile Queue Length [veh/ln]	4.62	4.68	8.43	0.96	0.86	0.82	14.01	6.88	9.21	9.39	10.12
95th-Percentile Queue Length [ft/ln]	115.42	117.08	210.73	23.93	21.54	20.61	350.30	171.97	230.14	234.64	252.93

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.39	39.24	44.86	46.13	45.59	45.59	52.04	18.03	14.57	46.85	10.25	10.89
Movement LOS	D	D	D	D	D	D	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	41.90			45.88			17.80			14.37		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	18.82											
Intersection LOS	B											
Intersection V/C	0.679											

Emissions

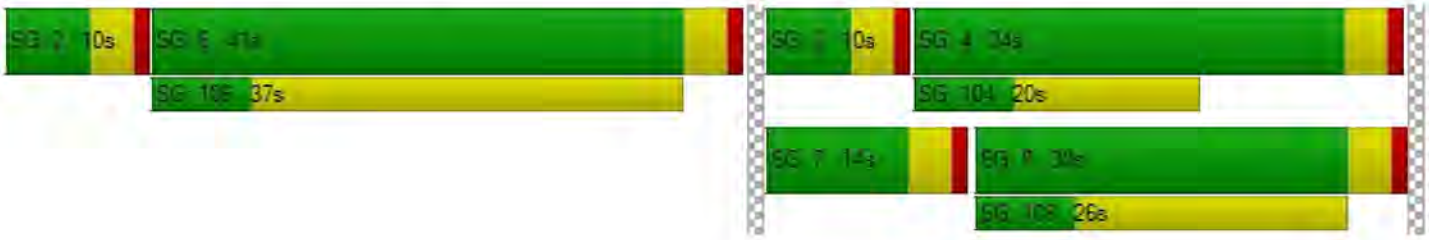
Vehicle Miles Traveled [mph]	6.54	6.67	11.32	1.08	0.98	0.90	98.33	16.56	16.70	87.14	45.15
Stops [stops/h]	97.19	98.59	182.89	20.15	18.14	17.35	1031.37	144.82	204.48	419.05	230.21
Fuel consumption [US gal/h]	1.59	1.61	3.02	0.44	0.40	0.38	20.45	2.94	4.72	9.58	5.21
CO [g/h]	110.86	112.49	210.96	30.97	27.88	26.76	1429.48	205.59	330.17	669.98	364.18
NOx [g/h]	21.57	21.89	41.04	6.03	5.42	5.21	278.13	40.00	64.24	130.35	70.86
VOC [g/h]	25.69	26.07	48.89	7.18	6.46	6.20	331.30	47.65	76.52	155.28	84.40

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	37.14	37.14	0.00	37.14
l_p,int, Pedestrian LOS Score for Intersectio	2.331	2.012	0.000	3.349
Crosswalk LOS	B	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	779	126	547	632
d_b, Bicycle Delay [s]	17.71	41.69	25.06	22.24
l_b,int, Bicycle LOS Score for Intersection	2.267	1.629	2.759	2.649
Bicycle LOS	B	A	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Brea Glenbrook Club Dwy/Project Dwy No. 1 (N/S) at Greenbriar Lane (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

Intersection Setup

Name	Brea Glenbrook Club Dwy		Greenbriar Lane		Greenbriar Lane	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Brea Glenbrook Club Dwy		Greenbriar Lane		Greenbriar Lane	
Base Volume Input [veh/h]	3	0	0	22	42	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	0	0	22	42	2
Peak Hour Factor	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	0	7	14	1
Total Analysis Volume [veh/h]	4	0	0	29	56	3
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.95	8.59	7.33	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.33	0.33	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.95		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.39					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 1: Redbay Avenue (N/S) at Birch Street (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	109.4
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.046

Intersection Setup

Name	Redbay Avenue			Redbay Avenue			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	140.00	100.00	100.00	155.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Redbay Avenue			Redbay Avenue			Birch Street			Birch Street		
Base Volume Input [veh/h]	14	2	8	7	0	30	36	1016	26	6	916	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	2	8	7	0	30	36	1016	26	6	916	32
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	2	2	0	8	9	267	7	2	241	8
Total Analysis Volume [veh/h]	15	2	8	7	0	32	38	1069	27	6	964	34
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.26	0.05	0.02	0.11	0.00	0.06	0.06	0.01	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	89.65	109.38	33.82	66.51	91.03	15.35	10.53	0.00	0.00	10.75	0.00	0.00
Movement LOS	F	F	D	F	F	C	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	1.22	1.22	1.22	0.62	0.62	0.62	0.17	0.00	0.00	0.03	0.00	0.00
95th-Percentile Queue Length [ft/ln]	30.58	30.58	30.58	15.48	15.48	15.48	4.37	0.00	0.00	0.72	0.00	0.00
d_A, Approach Delay [s/veh]	73.36			24.54			0.35			0.06		
Approach LOS	F			C			A			A		
d_I, Intersection Delay [s/veh]	1.48											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: Associated Road (N/S) at Birch Street (E/W)

Control Type:	Signalized	Delay (sec / veh):	38.4
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.514

Intersection Setup

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	225.00	100.00	230.00	100.00	100.00	100.00	150.00	100.00	100.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Base Volume Input [veh/h]	314	11	166	11	20	9	6	734	295	131	635	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	314	11	166	11	20	9	6	734	295	131	635	8
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	81	3	43	3	5	2	2	189	76	34	163	2
Total Analysis Volume [veh/h]	323	11	171	11	21	9	6	756	304	135	654	8
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Maximum Green [s]	6	6	6	0	6	0	6	6	0	6	6	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	24	0	24	0	0	26	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	16	51	51	0	35	0	10	49	0	10	49	0
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	6	0	6	0	6	6	0	6	6	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No	No		No		No	No		No	No	
Maximum Recall	No	No	No		No		No	No		No	No	
Pedestrian Recall	No	No	No		No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	57	67	41	41	1	35	35	6	40	40
g / C, Green / Cycle	0.11	0.51	0.61	0.37	0.37	0.01	0.32	0.32	0.05	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.09	0.01	0.09	0.01	0.02	0.00	0.29	0.26	0.04	0.17	0.17
s, saturation flow rate [veh/h]	3500	1900	1900	1800	1900	1800	1900	1900	3500	1900	1900
c, Capacity [veh/h]	381	978	1151	685	702	19	611	611	191	695	695
d1, Uniform Delay [s]	48.12	13.02	9.40	21.99	22.21	54.03	35.80	34.44	51.14	26.82	26.80
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.11	0.25	0.20	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.29	0.02	0.27	0.04	0.11	9.17	11.80	5.23	4.75	0.51	0.51
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.85	0.01	0.15	0.02	0.04	0.32	0.91	0.82	0.71	0.48	0.48
d, Delay for Lane Group [s/veh]	53.41	13.05	9.67	22.03	22.32	63.20	47.60	39.67	55.88	27.33	27.30
Lane Group LOS	D	B	A	C	C	E	D	D	E	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.53	0.13	1.72	0.19	0.53	0.21	15.52	12.65	1.90	6.45	6.42
50th-Percentile Queue Length [ft/ln]	113.27	3.32	43.08	4.80	13.21	5.23	387.95	316.17	47.60	161.22	160.41
95th-Percentile Queue Length [veh/ln]	8.02	0.24	3.10	0.35	0.95	0.38	21.98	18.48	3.43	10.61	10.57
95th-Percentile Queue Length [ft/ln]	200.54	5.97	77.54	8.63	23.77	9.41	549.46	461.97	85.67	265.34	264.27

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	53.41	13.05	9.67	22.03	22.32	22.32	63.20	45.51	39.67	55.88	27.32	27.30
Movement LOS	D	B	A	C	C	C	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	37.72			22.25			43.94			32.16		
Approach LOS	D			C			D			C		
d_I, Intersection Delay [s/veh]	38.37											
Intersection LOS	D											
Intersection V/C	0.514											

Emissions

Vehicle Miles Traveled [mph]	21.09	0.72	11.17	0.43	1.17	0.31	29.02	26.25	11.34	27.86	27.74
Stops [stops/h]	296.56	4.34	56.39	6.28	17.29	6.84	507.86	413.89	124.61	211.05	209.99
Fuel consumption [US gal/h]	7.18	0.10	1.29	0.09	0.26	0.17	12.70	10.11	3.47	5.42	5.40
CO [g/h]	501.83	6.82	90.21	6.49	17.85	12.09	887.77	706.66	242.77	379.12	377.26
NOx [g/h]	97.64	1.33	17.55	1.26	3.47	2.35	172.73	137.49	47.24	73.76	73.40
VOC [g/h]	116.30	1.58	20.91	1.50	4.14	2.80	205.75	163.78	56.27	87.86	87.43

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	44.55	44.55	44.55	44.55
l_p,int, Pedestrian LOS Score for Intersectio	2.672	1.968	2.963	2.901
Crosswalk LOS	B	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	855	564	818	818
d_b, Bicycle Delay [s]	18.04	28.37	19.20	19.20
l_b,int, Bicycle LOS Score for Intersection	2.393	1.627	2.439	2.217
Bicycle LOS	B	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Associated Road (N/S) at Greenbriar Lane (E/W)

Control Type:	Signalized	Delay (sec / veh):	4.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.175

Intersection Setup

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	110.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Base Volume Input [veh/h]	20	441	22	6	417	3	7	0	28	19	11	22
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	441	22	6	417	3	7	0	28	19	11	22
Peak Hour Factor	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	112	6	2	106	1	2	0	7	5	3	6
Total Analysis Volume [veh/h]	20	446	22	6	422	3	7	0	28	19	11	22
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	42	0	0	42	0	0	40	0	0	40	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	13	0	0	12	0	0	24	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	31	0	0	31	0	0	59	0	0	59	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	6	0	0	6	0	0	6	0	0	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Calculated Cycle Length [s]	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	78	78	78	78	78	78	4	4
g / C, Green / Cycle	0.86	0.86	0.86	0.86	0.86	0.86	0.05	0.05
(v / s)_i Volume / Saturation Flow Rate	0.01	0.12	0.12	0.00	0.11	0.11	0.02	0.03
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1900	1900	1900
c, Capacity [veh/h]	1537	1635	1635	1533	1635	1635	144	151
d1, Uniform Delay [s]	0.89	1.00	1.00	0.88	0.99	0.99	41.31	41.69
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	0.19	0.18	0.00	0.16	0.16	0.86	1.35
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.01	0.14	0.14	0.00	0.13	0.13	0.24	0.34
d, Delay for Lane Group [s/veh]	0.90	1.19	1.18	0.88	1.15	1.15	42.17	43.04
Lane Group LOS	A	A	A	A	A	A	D	D
Critical Lane Group	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.01	0.12	0.12	0.00	0.10	0.10	0.79	1.18
50th-Percentile Queue Length [ft/ln]	0.23	2.94	2.90	0.07	2.61	2.61	19.67	29.62
95th-Percentile Queue Length [veh/ln]	0.02	0.21	0.21	0.00	0.19	0.19	1.42	2.13
95th-Percentile Queue Length [ft/ln]	0.41	5.29	5.21	0.12	4.70	4.70	35.41	53.31

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.90	1.18	1.18	0.88	1.15	1.15	42.17	42.17	42.17	43.04	43.04	43.04
Movement LOS	A	A	A	A	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	1.17			1.15			42.17			43.04		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	4.75											
Intersection LOS	A											
Intersection V/C	0.175											

Emissions

Vehicle Miles Traveled [mph]	0.69	8.08	7.98	0.19	6.82	6.80	0.67	1.23
Stops [stops/h]	0.36	4.70	4.63	0.11	4.18	4.17	31.48	47.39
Fuel consumption [US gal/h]	0.03	0.39	0.39	0.01	0.34	0.33	0.45	0.69
CO [g/h]	2.23	27.44	27.08	0.63	23.42	23.38	31.54	48.40
NOx [g/h]	0.43	5.34	5.27	0.12	4.56	4.55	6.14	9.42
VOC [g/h]	0.52	6.36	6.28	0.15	5.43	5.42	7.31	11.22

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersectio	2.575	2.545	1.771	1.755
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	600	1222	1222
d_b, Bicycle Delay [s]	22.05	22.05	6.81	6.81
l_b,int, Bicycle LOS Score for Intersection	1.962	1.915	1.617	1.645
Bicycle LOS	A	A	A	A

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	26.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.394

Intersection Setup

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	88.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Base Volume Input [veh/h]	91	396	371	95	104	213
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	91	396	371	95	104	213
Peak Hour Factor	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	104	98	25	27	56
Total Analysis Volume [veh/h]	96	416	390	100	109	224
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.00	0.00	0.00	0.39	0.30
d_M, Delay for Movement [s/veh]	8.70	0.00	0.00	0.00	26.22	11.76
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.30	0.00	0.00	0.00	1.80	1.24
95th-Percentile Queue Length [ft/ln]	7.38	0.00	0.00	0.00	44.90	31.03
d_A, Approach Delay [s/veh]	1.63		0.00		16.49	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	4.74					
Intersection LOS	D					

Intersection Level Of Service Report

Intersection 5: SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Hwy (E/W)

Control Type:	Signalized	Delay (sec / veh):	24.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.724

Intersection Setup

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	100.00	250.00	100.00	100.00	145.00	288.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Base Volume Input [veh/h]	1074	143	548	0	0	281	223	1448	449	0	1700	33
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1074	143	548	0	0	281	223	1448	449	0	1700	33
Peak Hour Factor	0.9490	0.9490	0.9490	1.0000	1.0000	0.9490	0.9490	0.9490	0.9490	1.0000	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	283	38	144	0	0	74	59	381	118	0	448	9
Total Analysis Volume [veh/h]	1132	151	577	0	0	296	235	1526	473	0	1791	35
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Split	Split	Split	Permiss	Permiss	Overlap	Protecte	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	2	3	8	0	0	4	0
Auxiliary Signal Groups						2,3						
Maximum Green [s]	0	26	0	0	0	8	14	44	0	0	26	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	0	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	21	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No				No		No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	21	0	0	0	99	29	74	0	0	45	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	6	0	0	0	6	6	6	0	0	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No				No	No	No			No	
Maximum Recall		No				No	No	No			No	
Pedestrian Recall		No				No	No	No			No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	R	L	C	C	C
C, Calculated Cycle Length [s]	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	38	38	38	15	15	49	30	30
g / C, Green / Cycle	0.40	0.40	0.40	0.16	0.16	0.52	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.26	0.25	0.25	0.08	0.13	0.27	0.24	0.24
s, saturation flow rate [veh/h]	3500	1900	1900	3600	1800	5700	5700	1900
c, Capacity [veh/h]	1381	750	750	576	288	2970	1818	606
d1, Uniform Delay [s]	23.58	23.15	23.15	36.52	38.55	14.88	28.99	28.99
k, delay calibration	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.52	3.98	3.98	0.71	5.61	0.14	0.65	1.92
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.66	0.63	0.63	0.51	0.82	0.51	0.75	0.75
d, Delay for Lane Group [s/veh]	26.10	27.13	27.13	37.23	44.17	15.02	29.64	30.92
Lane Group LOS	C	C	C	D	D	B	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	8.59	9.03	9.03	3.17	5.42	6.20	8.63	8.85
50th-Percentile Queue Length [ft/ln]	214.77	225.69	225.69	79.26	135.54	155.03	215.77	221.14
95th-Percentile Queue Length [veh/ln]	13.40	13.96	13.96	5.71	9.24	10.29	13.45	13.72
95th-Percentile Queue Length [ft/ln]	334.95	348.88	348.88	142.66	231.01	257.13	336.23	343.08

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.29	27.13	27.13	0.00	0.00	37.23	44.17	15.02	0.00	0.00	29.94	30.92
Movement LOS	C	C	C			D	D	B			C	C
d_A, Approach Delay [s/veh]	26.62			37.23			15.06			29.96		
Approach LOS	C			D			B			C		
d_I, Intersection Delay [s/veh]	24.69											
Intersection LOS	C											
Intersection V/C	0.724											

Emissions

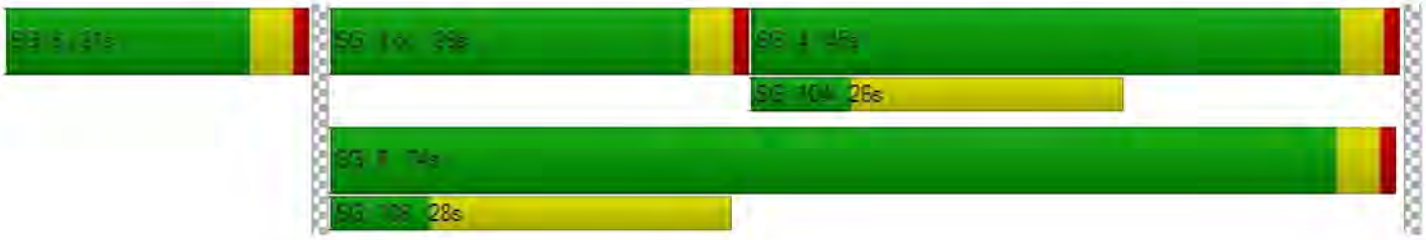
Vehicle Miles Traveled [mph]	56.69	29.19	29.19	14.77	21.93	142.43	46.89	15.63
Stops [stops/h]	651.10	342.10	342.10	240.27	205.45	704.99	981.21	335.21
Fuel consumption [US gal/h]	10.80	5.70	5.70	4.18	6.00	20.25	24.89	8.54
CO [g/h]	754.77	398.21	398.21	292.05	419.42	1415.81	1740.02	597.02
NOx [g/h]	146.85	77.48	77.48	56.82	81.60	275.47	338.55	116.16
VOC [g/h]	174.93	92.29	92.29	67.69	97.21	328.13	403.27	138.37

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	37.14	37.14	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersectio	2.665	2.308	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	358	526	1474	863
d_b, Bicycle Delay [s]	32.02	25.79	3.29	15.35
l_b,int, Bicycle LOS Score for Intersection	4.629	1.560	2.528	2.313
Bicycle LOS	E	A	B	B

Sequence

Ring 1	-	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Hwy (E/W)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.696

Intersection Setup

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	100.00	250.00	100.00	100.00	145.00	288.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Base Volume Input [veh/h]	1074	143	548	0	0	281	223	1448	449	0	1700	33
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1074	143	548	0	0	281	223	1448	449	0	1700	33
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	269	36	137	0	0	70	56	362	112	0	425	8
Total Analysis Volume [veh/h]	1074	143	548	0	0	281	223	1448	449	0	1700	33
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	2	3	8	0	0	4	0
Auxiliary Signal Groups						2						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.21	0.25	0.25	0.00	0.00	0.08	0.13	0.28	0.24	0.00	0.25	0.25
Intersection LOS	B											
Intersection V/C	0.696											

Intersection Level Of Service Report
Intersection 6: Associated Road (N/S) at Imperial Highway (E/W)

Control Type:	Signalized	Delay (sec / veh):	41.0
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.642

Intersection Setup

Name	Associated Road			Associated Road			Imperial Highway			Imperial Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	270.00	100.00	100.00	210.00	100.00	210.00	340.00	100.00	100.00	195.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Imperial Highway			Imperial Highway		
Base Volume Input [veh/h]	163	169	83	297	209	149	139	1669	110	138	1522	198
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	163	169	83	297	209	149	139	1669	110	138	1522	198
Peak Hour Factor	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	43	21	75	53	38	35	422	28	35	385	50
Total Analysis Volume [veh/h]	165	171	84	300	211	151	141	1688	111	140	1539	200
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	25	0	0	25	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	16	39	0	16	39	0	29	50	0	15	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Calculated Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	39	39	12	43	43	11	42	42	11	42	42
g / C, Green / Cycle	0.06	0.32	0.32	0.10	0.36	0.36	0.10	0.35	0.35	0.09	0.35	0.35
(v / s)_i Volume / Saturation Flow Rate	0.05	0.07	0.06	0.09	0.11	0.08	0.08	0.31	0.32	0.08	0.23	0.23
s, saturation flow rate [veh/h]	3500	1900	1900	3500	1900	1900	1800	3800	1900	1800	5700	1900
c, Capacity [veh/h]	225	612	612	350	679	679	172	1342	671	165	1990	663
d1, Uniform Delay [s]	55.12	29.65	29.48	53.16	27.86	26.90	53.24	36.58	36.93	53.68	32.92	33.11
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.34	0.28	0.11	0.18
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.54	0.81	0.74	6.09	1.19	0.76	9.18	2.20	13.52	24.95	0.37	1.89
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	0.22	0.20	0.86	0.31	0.22	0.82	0.89	0.91	0.85	0.65	0.67
d, Delay for Lane Group [s/veh]	59.65	30.46	30.22	59.25	29.05	27.66	62.42	38.78	50.45	78.63	33.29	35.00
Lane Group LOS	E	C	C	E	C	C	E	D	D	E	C	D
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.55	2.88	2.65	4.67	4.51	3.11	4.54	16.22	18.82	5.23	10.34	10.89
50th-Percentile Queue Length [ft/ln]	63.85	72.05	66.17	116.76	112.83	77.66	113.58	405.48	470.47	130.83	258.55	272.19
95th-Percentile Queue Length [veh/ln]	4.60	5.19	4.76	8.21	8.00	5.59	8.04	22.82	25.93	8.98	15.62	16.30
95th-Percentile Queue Length [ft/ln]	114.92	129.69	119.11	205.36	199.93	139.80	200.97	570.60	648.33	224.62	390.40	407.48

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	59.65	30.41	30.22	59.25	29.05	27.66	62.42	42.21	50.45	78.63	33.55	35.00
Movement LOS	E	C	C	E	C	C	E	D	D	E	C	D
d_A, Approach Delay [s/veh]	41.86			42.42			44.15			37.07		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	41.00											
Intersection LOS	D											
Intersection V/C	0.642											

Emissions

Vehicle Miles Traveled [mph]	12.84	10.31	9.53	19.48	13.70	9.80	8.39	70.86	36.18	8.59	79.61	27.06
Stops [stops/h]	153.23	86.46	79.40	280.22	135.40	93.20	136.29	973.16	564.56	156.99	930.78	326.63
Fuel consumption [US gal/h]	3.97	2.04	1.87	7.07	3.07	2.12	3.43	21.50	13.08	4.09	20.79	7.32
CO [g/h]	277.35	142.60	131.03	493.99	214.46	147.95	239.78	1502.51	914.56	285.86	1452.91	511.69
NOx [g/h]	53.96	27.75	25.49	96.11	41.73	28.79	46.65	292.33	177.94	55.62	282.68	99.56
VOC [g/h]	64.28	33.05	30.37	114.49	49.70	34.29	55.57	348.22	211.96	66.25	336.73	118.59

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersectio	2.658	2.721	3.356	3.381
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	583	767	533
d_b, Bicycle Delay [s]	30.10	30.10	22.82	32.27
l_b,int, Bicycle LOS Score for Intersection	1.906	2.652	2.627	2.335
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 7: Castlegate Lane/Placentia Avenue (N/S) at Imperial Highway (E/W)

Control Type:	Signalized	Delay (sec / veh):	18.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.667

Intersection Setup

Name	Placentia Avenue			Castlegate Lane			Imperial Highway			Imperial Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	200.00	100.00	100.00	88.00	100.00	100.00	140.00	100.00	198.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Placentia Avenue			Castlegate Lane			Imperial Highway			Imperial Highway		
Base Volume Input [veh/h]	150	22	232	21	14	9	14	1786	265	172	1715	36
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	150	22	232	21	14	9	14	1786	265	172	1715	36
Peak Hour Factor	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	38	6	59	5	4	2	4	457	68	44	438	9
Total Analysis Volume [veh/h]	153	22	237	21	14	9	14	1826	271	176	1754	37
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	30	0	0	0	0	0	19	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	41	0	0	10	0	10	30	0	14	34	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Calculated Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	4	4	2	49	49	11	58	58
g / C, Green / Cycle	0.15	0.15	0.15	0.04	0.04	0.02	0.52	0.52	0.12	0.62	0.62
(v / s)_i Volume / Saturation Flow Rate	0.05	0.05	0.12	0.01	0.01	0.01	0.32	0.14	0.10	0.31	0.32
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1800	5700	1900	1800	3800	1900
c, Capacity [veh/h]	276	292	292	78	83	36	2936	979	215	2336	1168
d1, Uniform Delay [s]	35.77	35.70	38.89	43.97	43.99	45.99	16.43	13.02	40.82	10.22	10.41
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.65	0.58	5.45	1.81	1.80	6.84	1.00	0.70	7.48	0.78	1.69
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.31	0.30	0.81	0.27	0.28	0.39	0.62	0.28	0.82	0.50	0.52
d, Delay for Lane Group [s/veh]	36.42	36.27	44.34	45.77	45.79	52.83	17.43	13.73	48.30	11.00	12.10
Lane Group LOS	D	D	D	D	D	D	B	B	D	B	B
Critical Lane Group	No	No	Yes	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.85	1.86	5.77	0.50	0.55	0.39	8.73	3.18	4.33	6.07	6.71
50th-Percentile Queue Length [ft/ln]	46.24	46.60	144.32	12.62	13.78	9.65	218.29	79.42	108.21	151.72	167.81
95th-Percentile Queue Length [veh/ln]	3.33	3.35	9.71	0.91	0.99	0.69	13.58	5.72	7.74	10.11	10.96
95th-Percentile Queue Length [ft/ln]	83.22	83.87	242.83	22.71	24.81	17.36	339.44	142.95	193.51	252.73	274.04

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.35	36.27	44.34	45.77	45.79	45.79	52.83	17.43	13.73	48.30	11.36	12.10
Movement LOS	D	D	D	D	D	D	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	40.94			45.78			17.19			14.68		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	18.54											
Intersection LOS	B											
Intersection V/C	0.667											

Emissions

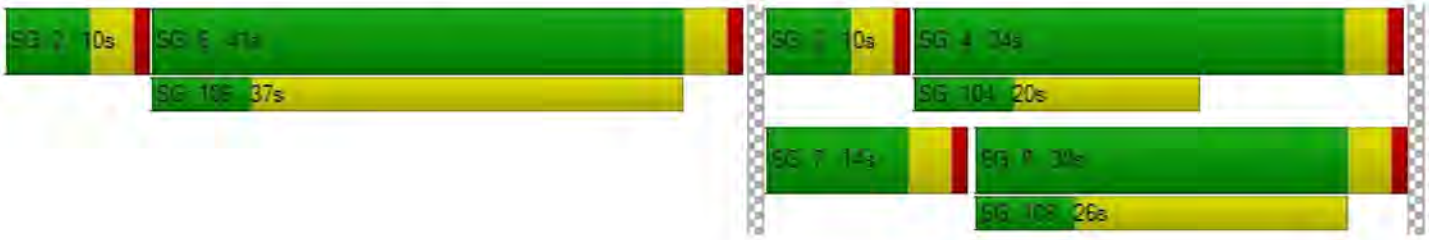
Vehicle Miles Traveled [mph]	4.97	5.03	13.55	1.03	1.12	0.74	96.95	14.39	13.24	88.60	46.10
Stops [stops/h]	70.08	70.63	218.76	19.13	20.89	14.62	992.64	120.38	164.03	459.96	254.37
Fuel consumption [US gal/h]	1.14	1.15	3.59	0.42	0.46	0.32	19.70	2.45	3.82	10.33	5.66
CO [g/h]	79.49	80.17	250.73	29.38	32.14	22.42	1377.11	171.60	266.70	721.99	395.57
NOx [g/h]	15.47	15.60	48.78	5.72	6.25	4.36	267.94	33.39	51.89	140.47	76.96
VOC [g/h]	18.42	18.58	58.11	6.81	7.45	5.20	319.16	39.77	61.81	167.33	91.68

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	37.14	37.14	0.00	37.14
l_p,int, Pedestrian LOS Score for Intersectio	2.311	1.993	0.000	3.348
Crosswalk LOS	B	A	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	779	126	547	632
d_b, Bicycle Delay [s]	17.71	41.69	25.06	22.24
l_b,int, Bicycle LOS Score for Intersection	2.239	1.632	2.721	2.641
Bicycle LOS	B	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 8: Brea Glenbrook Club Dwy/Project Dwy No. 1 (N/S) at Greenbriar Lane (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	8.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.009

Intersection Setup

Name	Brea Glenbrook Club Dwy		Greenbriar Lane		Greenbriar Lane	
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Brea Glenbrook Club Dwy		Greenbriar Lane		Greenbriar Lane	
Base Volume Input [veh/h]	6	2	1	22	22	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	2	1	22	22	13
Peak Hour Factor	0.7500	0.7500	0.7500	0.7500	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	1	0	7	7	4
Total Analysis Volume [veh/h]	8	3	1	29	29	17
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.89	8.52	7.31	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.87	0.87	0.04	0.04	0.00	0.00
d_A, Approach Delay [s/veh]	8.79		0.24		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.20					
Intersection LOS	A					

Appendix E

Intersection Analysis Worksheets
Project Opening Year (2026)
With Project Conditions

RK19750.1
JN: 2827-2023-05

Intersection Level Of Service Report
Intersection 1: Redbay Avenue (N/S) at Birch Street (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	290.6
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.978

Intersection Setup

Name	Redbay Avenue			Redbay Avenue			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	140.00	100.00	100.00	155.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Redbay Avenue			Redbay Avenue			Birch Street			Birch Street		
Base Volume Input [veh/h]	26	0	42	21	0	46	24	986	13	18	998	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	0	42	21	0	46	24	986	13	18	998	15
Peak Hour Factor	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240	0.8240
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	0	13	6	0	14	7	299	4	5	303	5
Total Analysis Volume [veh/h]	32	0	51	25	0	56	29	1197	16	22	1211	18
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.98	0.00	0.12	0.76	0.00	0.13	0.05	0.01	0.00	0.04	0.01	0.00
d_M, Delay for Movement [s/veh]	290.59	327.31	188.72	219.33	255.92	117.65	11.74	0.00	0.00	11.56	0.00	0.00
Movement LOS	F	F	F	F	F	F	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	6.04	6.04	6.04	4.94	4.94	4.94	0.16	0.00	0.00	0.12	0.00	0.00
95th-Percentile Queue Length [ft/ln]	151.09	151.09	151.09	123.39	123.39	123.39	4.06	0.00	0.00	3.00	0.00	0.00
d_A, Approach Delay [s/veh]	228.00			149.03			0.27			0.20		
Approach LOS	F			F			A			A		
d_I, Intersection Delay [s/veh]	11.89											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: Associated Road (N/S) at Birch Street (E/W)

Control Type:	Signalized	Delay (sec / veh):	39.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.709

Intersection Setup

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	225.00	100.00	230.00	100.00	100.00	100.00	150.00	100.00	100.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Base Volume Input [veh/h]	231	5	343	27	20	12	3	901	151	290	811	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	231	5	343	27	20	12	3	901	151	290	811	2
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	67	1	100	8	6	3	1	262	44	84	236	1
Total Analysis Volume [veh/h]	269	6	399	31	23	14	3	1048	176	337	943	2
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	115
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Maximum Green [s]	6	6	6	0	6	0	6	6	0	6	6	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	24	0	24	0	0	26	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	13	48	48	0	35	0	10	51	0	16	57	0
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	6	0	6	0	6	6	0	6	6	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No	No		No		No	No		No	No	
Maximum Recall	No	No	No		No		No	No		No	No	
Pedestrian Recall	No	No	No		No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	115	115	115	115	115	115	115	115	115	115	115
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	9	50	66	37	37	1	41	41	12	52	52
g / C, Green / Cycle	0.08	0.44	0.57	0.32	0.32	0.01	0.36	0.36	0.10	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.08	0.00	0.21	0.02	0.02	0.00	0.33	0.31	0.10	0.25	0.25
s, saturation flow rate [veh/h]	3500	1900	1900	1800	1900	1800	1900	1900	3500	1900	1900
c, Capacity [veh/h]	274	828	1092	604	613	11	676	676	365	862	862
d1, Uniform Delay [s]	52.92	18.37	13.16	26.85	26.91	56.88	35.61	34.82	51.04	22.84	22.83
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.11	0.32	0.29	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	21.34	0.02	0.95	0.16	0.19	12.13	14.99	10.05	9.90	0.55	0.55
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.98	0.01	0.37	0.05	0.06	0.27	0.93	0.88	0.92	0.55	0.55
d, Delay for Lane Group [s/veh]	74.26	18.39	14.11	27.01	27.10	69.01	50.61	44.87	60.94	23.38	23.38
Lane Group LOS	E	B	B	C	C	E	D	D	E	C	C
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.62	0.09	5.46	0.63	0.75	0.12	18.72	16.72	5.17	8.85	8.84
50th-Percentile Queue Length [ft/ln]	115.39	2.30	136.52	15.64	18.71	3.07	468.05	418.04	129.30	221.32	221.12
95th-Percentile Queue Length [veh/ln]	8.14	0.17	9.29	1.13	1.35	0.22	25.82	23.43	8.90	13.73	13.72
95th-Percentile Queue Length [ft/ln]	203.47	4.14	232.33	28.16	33.67	5.52	645.45	585.70	222.54	343.31	343.05

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	74.26	18.39	14.11	27.01	27.10	27.10	69.01	48.30	44.87	60.94	23.38	23.38
Movement LOS	E	B	B	C	C	C	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	38.15			27.06			47.86			33.25		
Approach LOS	D			C			D			C		
d_I, Intersection Delay [s/veh]	39.65											
Intersection LOS	D											
Intersection V/C	0.709											

Emissions

Vehicle Miles Traveled [mph]	17.57	0.39	26.06	1.21	1.45	0.16	32.67	31.16	28.31	39.70	39.67
Stops [stops/h]	288.96	2.88	170.95	19.59	23.42	3.84	586.08	523.46	323.81	277.13	276.88
Fuel consumption [US gal/h]	7.53	0.06	3.76	0.30	0.36	0.10	14.86	13.03	9.18	7.06	7.05
CO [g/h]	526.51	4.53	262.70	20.98	25.10	6.66	1038.57	910.96	641.34	493.18	492.76
NOx [g/h]	102.44	0.88	51.11	4.08	4.88	1.30	202.07	177.24	124.78	95.96	95.87
VOC [g/h]	122.02	1.05	60.88	4.86	5.82	1.54	240.70	211.12	148.64	114.30	114.20

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	47.03	47.03	47.03	47.03
l_p,int, Pedestrian LOS Score for Intersectio	2.727	1.973	3.063	3.181
Crosswalk LOS	B	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	765	539	817	922
d_b, Bicycle Delay [s]	21.92	30.68	20.10	16.71
l_b,int, Bicycle LOS Score for Intersection	2.672	1.672	2.572	2.617
Bicycle LOS	B	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Associated Road (N/S) at Greenbriar Lane (E/W)

Control Type:	Signalized	Delay (sec / veh):	8.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.198

Intersection Setup

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	110.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Base Volume Input [veh/h]	28	354	6	13	432	5	24	1	74	32	1	38
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	354	6	13	432	5	24	1	74	32	1	38
Peak Hour Factor	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	95	2	3	116	1	6	0	20	9	0	10
Total Analysis Volume [veh/h]	30	381	6	14	465	5	26	1	80	34	1	41
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing (Basic)

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	42	0	0	42	0	0	40	0	0	40	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	13	0	0	12	0	0	24	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	30	0	0	30	0	0	60	0	0	60	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	6	0	0	6	0	0	6	0	0	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Calculated Cycle Length [s]	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	75	75	75	75	75	75	7	7
g / C, Green / Cycle	0.84	0.84	0.84	0.84	0.84	0.84	0.08	0.08
(v / s)_i Volume / Saturation Flow Rate	0.02	0.10	0.10	0.01	0.12	0.12	0.06	0.04
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1900	1900	1900
c, Capacity [veh/h]	1483	1587	1587	1492	1587	1587	194	202
d1, Uniform Delay [s]	1.24	1.36	1.36	1.23	1.40	1.40	40.71	40.02
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.03	0.16	0.16	0.01	0.20	0.20	2.43	1.15
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.12	0.12	0.01	0.15	0.15	0.55	0.38
d, Delay for Lane Group [s/veh]	1.27	1.52	1.52	1.25	1.59	1.59	43.14	41.17
Lane Group LOS	A	A	A	A	A	A	D	D
Critical Lane Group	No	No	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.03	0.24	0.23	0.02	0.29	0.29	2.45	1.68
50th-Percentile Queue Length [ft/ln]	0.84	5.88	5.85	0.39	7.32	7.30	61.27	42.11
95th-Percentile Queue Length [veh/ln]	0.06	0.42	0.42	0.03	0.53	0.53	4.41	3.03
95th-Percentile Queue Length [ft/ln]	1.52	10.58	10.54	0.70	13.18	13.14	110.29	75.80

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	1.27	1.52	1.52	1.25	1.59	1.59	43.14	43.14	43.14	41.17	41.17	41.17
Movement LOS	A	A	A	A	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	1.50			1.58			43.14			41.17		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	8.43											
Intersection LOS	A											
Intersection V/C	0.198											

Emissions

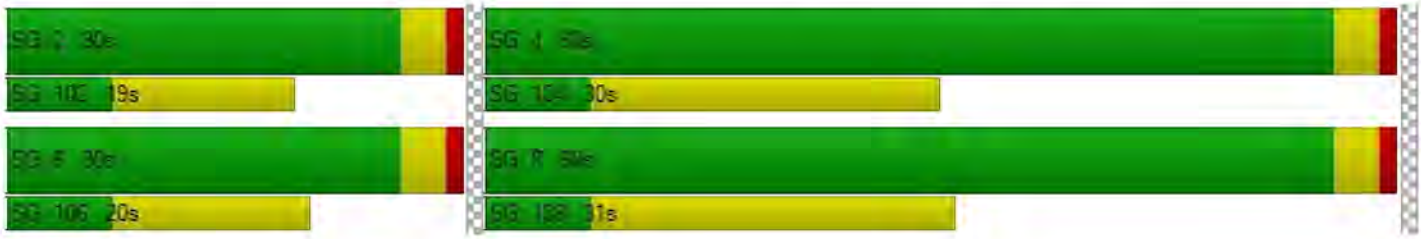
Vehicle Miles Traveled [mph]	1.03	6.66	6.63	0.45	7.54	7.52	2.05	1.80
Stops [stops/h]	1.35	9.40	9.37	0.62	11.72	11.68	98.03	67.38
Fuel consumption [US gal/h]	0.06	0.39	0.39	0.03	0.46	0.46	1.41	0.98
CO [g/h]	4.05	27.32	27.21	1.80	32.27	32.17	98.38	68.21
NOx [g/h]	0.79	5.31	5.29	0.35	6.28	6.26	19.14	13.27
VOC [g/h]	0.94	6.33	6.31	0.42	7.48	7.46	22.80	15.81

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersectio	2.607	2.579	1.815	1.774
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	578	578	1244	1244
d_b, Bicycle Delay [s]	22.76	22.76	6.42	6.42
l_b,int, Bicycle LOS Score for Intersection	1.904	1.959	1.736	1.685
Bicycle LOS	A	A	A	A

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	20.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.245

Intersection Setup

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	88.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Base Volume Input [veh/h]	46	314	465	72	69	73
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	314	465	72	69	73
Peak Hour Factor	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	85	125	19	19	20
Total Analysis Volume [veh/h]	50	339	502	78	74	79
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.00	0.01	0.00	0.25	0.11
d_M, Delay for Movement [s/veh]	8.83	0.00	0.00	0.00	20.78	10.74
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.16	0.00	0.00	0.00	0.94	0.38
95th-Percentile Queue Length [ft/ln]	3.98	0.00	0.00	0.00	23.61	9.40
d_A, Approach Delay [s/veh]	1.13		0.00		15.60	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.52					
Intersection LOS	C					

Intersection Level Of Service Report

Intersection 5: SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Hwy (E/W)

Control Type:	Signalized	Delay (sec / veh):	24.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.634

Intersection Setup

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	100.00	250.00	100.00	100.00	145.00	288.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Base Volume Input [veh/h]	958	70	766	0	0	118	91	1436	465	0	1621	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	958	70	766	0	0	118	91	1436	465	0	1621	12
Peak Hour Factor	0.9280	0.9280	0.9280	1.0000	1.0000	0.9280	0.9280	0.9280	0.9280	1.0000	0.9280	0.9280
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	258	19	206	0	0	32	25	387	125	0	437	3
Total Analysis Volume [veh/h]	1032	75	825	0	0	127	98	1547	501	0	1747	13
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Split	Split	Split	Permiss	Permiss	Overlap	Protecte	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	2	3	8	0	0	4	0
Auxiliary Signal Groups						2,3						
Maximum Green [s]	0	26	0	0	0	8	14	44	0	0	26	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	0	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	21	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No				No		No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	10	0	0	0	104	18	90	0	0	72	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	6	0	0	0	6	6	6	0	0	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No				No	No	No			No	
Maximum Recall		No				No	No	No			No	
Pedestrian Recall		No				No	No	No			No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	R	L	C	C	C
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	50	50	50	7	7	42	31	31
g / C, Green / Cycle	0.50	0.50	0.50	0.07	0.07	0.42	0.31	0.31
(v / s)_i Volume / Saturation Flow Rate	0.27	0.26	0.26	0.04	0.05	0.27	0.23	0.23
s, saturation flow rate [veh/h]	3500	1900	1900	3600	1800	5700	5700	1900
c, Capacity [veh/h]	1757	954	954	259	130	2383	1745	582
d1, Uniform Delay [s]	17.04	16.72	16.72	44.63	45.54	23.24	31.33	31.33
k, delay calibration	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.20	1.98	1.98	1.43	8.62	0.30	0.69	2.04
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.54	0.51	0.51	0.49	0.76	0.65	0.76	0.76
d, Delay for Lane Group [s/veh]	18.24	18.69	18.69	46.06	54.15	23.54	32.02	33.37
Lane Group LOS	B	B	B	D	D	C	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	7.44	7.74	7.74	1.56	2.59	8.84	8.98	9.20
50th-Percentile Queue Length [ft/ln]	185.92	193.54	193.54	38.98	64.75	220.98	224.60	230.06
95th-Percentile Queue Length [veh/ln]	11.91	12.30	12.30	2.81	4.66	13.72	13.90	14.18
95th-Percentile Queue Length [ft/ln]	297.73	307.61	307.61	70.16	116.55	342.88	347.49	354.44

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	18.27	18.69	18.69	0.00	0.00	46.06	54.15	23.54	0.00	0.00	32.35	33.37
Movement LOS	B	B	B			D	D	C			C	C
d_A, Approach Delay [s/veh]	18.47			46.06			19.77			32.36		
Approach LOS	B			D			B			C		
d_I, Intersection Delay [s/veh]	23.98											
Intersection LOS	C											
Intersection V/C	0.634											

Emissions

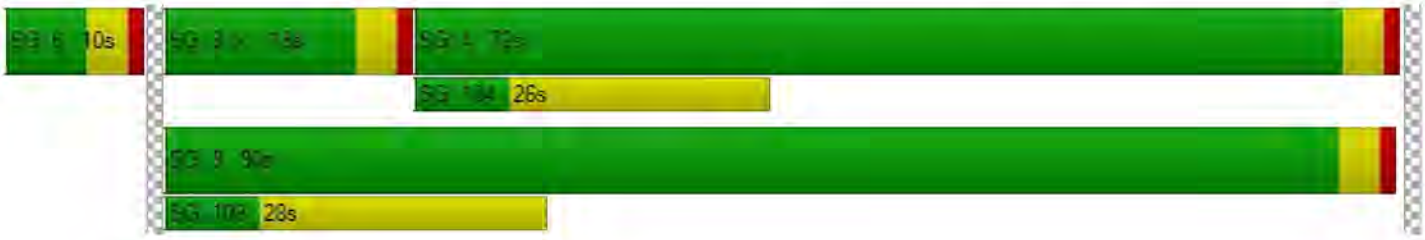
Vehicle Miles Traveled [mph]	58.88	30.32	30.32	6.34	9.15	144.39	45.19	15.06
Stops [stops/h]	535.45	278.69	278.69	112.26	93.24	954.64	970.27	331.29
Fuel consumption [US gal/h]	8.92	4.65	4.65	2.07	2.82	26.90	25.01	8.58
CO [g/h]	623.21	325.21	325.21	144.79	196.94	1880.32	1748.14	599.62
NOx [g/h]	121.25	63.27	63.27	28.17	38.32	365.84	340.12	116.66
VOC [g/h]	144.43	75.37	75.37	33.56	45.64	435.78	405.15	138.97

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	39.61	39.61	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersectio	2.681	2.212	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	120	280	1720	1360
d_b, Bicycle Delay [s]	44.18	36.98	0.98	5.12
l_b,int, Bicycle LOS Score for Intersection	4.747	1.560	2.464	2.286
Bicycle LOS	E	A	B	B

Sequence

Ring 1	-	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Hwy (E/W)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.608

Intersection Setup

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	100.00	250.00	100.00	100.00	145.00	288.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Base Volume Input [veh/h]	958	70	766	0	0	118	91	1436	465	0	1621	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	958	70	766	0	0	118	91	1436	465	0	1621	12
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	240	18	192	0	0	30	23	359	116	0	405	3
Total Analysis Volume [veh/h]	958	70	766	0	0	118	91	1436	465	0	1621	12
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Overlap	Protecte	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	2	3	8	0	0	4	0
Auxiliary Signal Groups						2						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.19	0.25	0.25	0.00	0.00	0.03	0.05	0.28	0.00	0.00	0.23	0.23
Intersection LOS	B											
Intersection V/C	0.608											

Intersection Level Of Service Report
Intersection 6: Associated Road (N/S) at Imperial Highway (E/W)

Control Type:	Signalized	Delay (sec / veh):	38.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.681

Intersection Setup

Name	Associated Road			Associated Road			Imperial Highway			Imperial Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	270.00	100.00	100.00	210.00	100.00	210.00	340.00	100.00	100.00	195.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Imperial Highway			Imperial Highway		
Base Volume Input [veh/h]	131	125	81	132	245	180	180	1794	135	119	1354	59
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	131	125	81	132	245	180	180	1794	135	119	1354	59
Peak Hour Factor	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750	0.9750
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	34	32	21	34	63	46	46	460	35	31	347	15
Total Analysis Volume [veh/h]	134	128	83	135	251	185	185	1840	138	122	1389	61
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	25	0	0	25	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	10	39	0	10	39	0	26	56	0	15	45	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Calculated Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	41	41	6	41	41	14	47	47	10	43	43
g / C, Green / Cycle	0.05	0.34	0.34	0.05	0.34	0.34	0.12	0.39	0.39	0.08	0.36	0.36
(v / s)_i Volume / Saturation Flow Rate	0.04	0.06	0.05	0.04	0.13	0.10	0.10	0.34	0.35	0.07	0.19	0.20
s, saturation flow rate [veh/h]	3500	1900	1900	3500	1900	1900	1800	3800	1900	1800	5700	1900
c, Capacity [veh/h]	175	646	646	175	646	646	217	1499	749	148	2031	677
d1, Uniform Delay [s]	56.31	27.74	27.61	56.32	30.12	28.96	51.75	33.57	33.96	54.20	30.59	31.10
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.12	0.11	0.32	0.21	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.82	0.57	0.52	7.02	1.76	1.11	10.03	1.74	10.42	18.86	0.21	0.74
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.77	0.17	0.16	0.77	0.39	0.29	0.85	0.87	0.89	0.82	0.53	0.56
d, Delay for Lane Group [s/veh]	63.13	28.31	28.13	63.34	31.88	30.08	61.77	35.31	44.38	73.06	30.80	31.84
Lane Group LOS	E	C	C	E	C	C	E	D	D	E	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.14	2.28	2.09	2.16	5.71	4.02	5.97	17.19	19.56	4.34	7.97	8.79
50th-Percentile Queue Length [ft/ln]	53.49	56.91	52.20	53.99	142.82	100.62	149.13	429.68	489.06	108.58	199.27	219.67
95th-Percentile Queue Length [veh/ln]	3.85	4.10	3.76	3.89	9.63	7.24	9.97	23.99	26.82	7.76	12.60	13.65
95th-Percentile Queue Length [ft/ln]	96.27	102.43	93.97	97.18	240.81	181.11	249.27	599.66	670.40	194.03	315.02	341.20

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	63.13	28.29	28.13	63.34	31.88	30.08	61.77	37.93	44.38	73.06	31.04	31.84
Movement LOS	E	C	C	E	C	C	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	41.78			38.73			40.38			34.33		
Approach LOS	D			D			D			C		
d_I, Intersection Delay [s/veh]	38.24											
Intersection LOS	D											
Intersection V/C	0.681											

Emissions

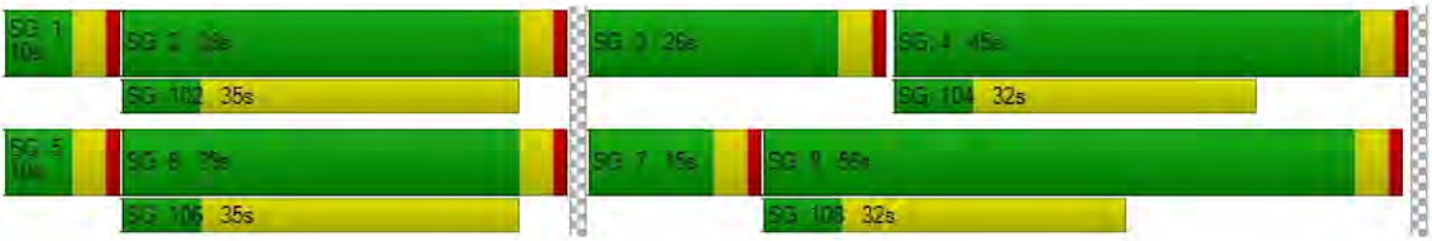
Vehicle Miles Traveled [mph]	10.43	8.54	7.88	8.77	16.30	12.01	11.01	77.89	39.80	7.48	65.52	23.42
Stops [stops/h]	128.36	68.29	62.64	129.57	171.38	120.74	178.96	1031.24	586.87	130.30	717.37	263.60
Fuel consumption [US gal/h]	3.36	1.61	1.48	3.33	3.90	2.75	4.48	22.33	13.23	3.36	16.09	5.90
CO [g/h]	234.56	112.49	103.24	232.55	272.31	192.13	312.98	1560.68	924.89	234.98	1124.63	412.57
NOx [g/h]	45.64	21.89	20.09	45.25	52.98	37.38	60.90	303.65	179.95	45.72	218.81	80.27
VOC [g/h]	54.36	26.07	23.93	53.90	63.11	44.53	72.54	361.70	214.35	54.46	260.64	95.62

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersectio	2.652	2.671	3.368	3.329
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	583	867	683
d_b, Bicycle Delay [s]	30.10	30.10	19.27	26.00
l_b,int, Bicycle LOS Score for Intersection	1.844	2.502	2.749	2.208
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 7: Castlegate Lane/Placentia Avenue (N/S) at Imperial Highway (E/W)

Control Type:	Signalized	Delay (sec / veh):	14.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.588

Intersection Setup

Name	Placentia Avenue			Castlegate Lane			Imperial Highway			Imperial Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	200.00	100.00	100.00	88.00	100.00	100.00	140.00	100.00	198.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Placentia Avenue			Castlegate Lane			Imperial Highway			Imperial Highway		
Base Volume Input [veh/h]	137	14	111	24	15	24	15	1792	309	154	1376	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	137	14	111	24	15	24	15	1792	309	154	1376	17
Peak Hour Factor	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	4	28	6	4	6	4	458	79	39	352	4
Total Analysis Volume [veh/h]	140	14	113	25	15	25	15	1832	316	157	1407	17
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	30	0	0	0	0	0	19	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	41	0	0	10	0	12	30	0	14	32	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Calculated Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	8	8	5	5	2	56	56	10	64	64
g / C, Green / Cycle	0.09	0.09	0.09	0.05	0.05	0.02	0.59	0.59	0.11	0.67	0.67
(v / s)_i Volume / Saturation Flow Rate	0.04	0.04	0.06	0.01	0.02	0.01	0.32	0.17	0.09	0.25	0.26
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1800	5700	1900	1800	3800	1900
c, Capacity [veh/h]	155	164	164	93	98	38	3336	1112	195	2556	1278
d1, Uniform Delay [s]	41.42	41.34	42.16	43.30	43.62	45.92	12.04	9.80	41.39	6.76	6.85
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.42	2.10	5.08	1.52	2.67	6.70	0.66	0.64	7.63	0.41	0.87
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.49	0.47	0.69	0.27	0.41	0.40	0.55	0.28	0.81	0.37	0.38
d, Delay for Lane Group [s/veh]	43.84	43.43	47.24	44.82	46.29	52.61	12.70	10.44	49.02	7.16	7.72
Lane Group LOS	D	D	D	D	D	D	B	B	D	A	A
Critical Lane Group	No	No	Yes	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.82	1.82	2.81	0.59	0.96	0.41	7.04	3.08	3.89	3.43	3.79
50th-Percentile Queue Length [ft/ln]	45.62	45.61	70.25	14.73	23.98	10.26	175.97	76.94	97.16	85.67	94.64
95th-Percentile Queue Length [veh/ln]	3.28	3.28	5.06	1.06	1.73	0.74	11.39	5.54	7.00	6.17	6.81
95th-Percentile Queue Length [ft/ln]	82.11	82.09	126.45	26.51	43.16	18.46	284.75	138.49	174.90	154.20	170.35

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.66	43.43	47.24	44.82	46.29	46.29	52.61	12.70	10.44	49.02	7.35	7.72
Movement LOS	D	D	D	D	D	D	D	B	B	D	A	A
d_A, Approach Delay [s/veh]	45.16			45.73			12.64			11.49		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	14.85											
Intersection LOS	B											
Intersection V/C	0.588											

Emissions

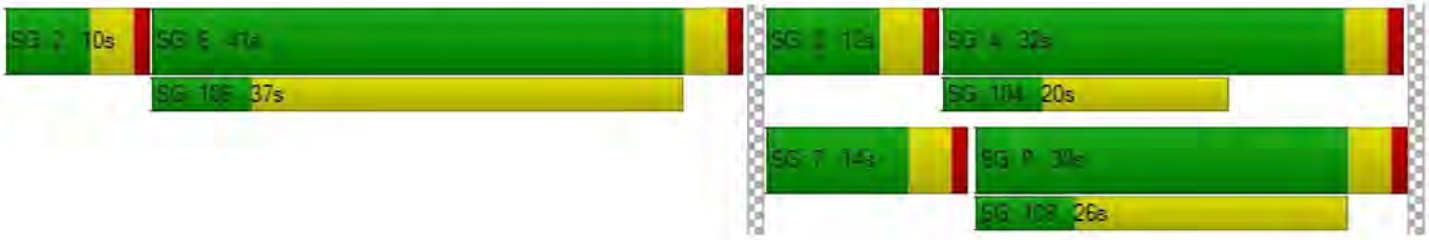
Vehicle Miles Traveled [mph]	4.39	4.42	6.46	1.22	1.95	0.80	97.27	16.78	11.81	70.37	36.73
Stops [stops/h]	69.14	69.13	106.48	22.32	36.35	15.55	800.20	116.63	147.28	259.71	143.45
Fuel consumption [US gal/h]	1.15	1.15	1.79	0.49	0.80	0.34	16.08	2.42	3.44	6.44	3.49
CO [g/h]	80.18	80.16	124.79	34.33	56.19	23.90	1123.90	169.04	240.16	449.86	244.14
NOx [g/h]	15.60	15.60	24.28	6.68	10.93	4.65	218.67	32.89	46.73	87.53	47.50
VOC [g/h]	18.58	18.58	28.92	7.96	13.02	5.54	260.47	39.18	55.66	104.26	56.58

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	37.14	37.14	0.00	37.14
l_p,int, Pedestrian LOS Score for Intersectio	2.287	1.991	0.000	3.256
Crosswalk LOS	B	A	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	779	126	547	589
d_b, Bicycle Delay [s]	17.71	41.69	25.06	23.63
l_b,int, Bicycle LOS Score for Intersection	2.000	1.667	2.749	2.429
Bicycle LOS	B	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 8: Brea Glenbrook Club Dwy/Project Dwy No. 1 (N/S) at Greenbriar Lane (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

Intersection Setup

Name	Project Driveway No. 1			Brea Glenbrook Club Dwy			Greenbriar Lane			Greenbriar Lane		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Project Driveway No. 1			Brea Glenbrook Club Dwy			Greenbriar Lane			Greenbriar Lane		
Base Volume Input [veh/h]	2	0	42	0	0	1	0	58	2	13	19	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	0	42	0	0	1	0	58	2	13	19	5
Peak Hour Factor	1.0000	1.0000	1.0000	0.7500	1.0000	0.7500	0.7500	0.7500	1.0000	1.0000	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	11	0	0	0	0	19	1	3	6	2
Total Analysis Volume [veh/h]	2	0	42	0	0	1	0	77	2	13	25	7
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
d_M, Delay for Movement [s/veh]	9.51	9.99	8.84	9.67	9.80	8.44	7.28	0.00	0.00	7.39	0.00	0.00
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.14	0.14	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.02
95th-Percentile Queue Length [ft/ln]	3.54	3.54	3.54	0.07	0.07	0.07	0.00	0.00	0.00	0.57	0.57	0.57
d_A, Approach Delay [s/veh]	8.87			8.44			0.00			2.13		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	2.93											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 9: Project Driveway No. 2 (N/S) at Greenbriar Lane (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.004

Intersection Setup

Name	Project Driveway No. 2		Aurora Avenue		Greenbriar Lane	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Driveway No. 2		Aurora Avenue		Greenbriar Lane	
Base Volume Input [veh/h]	3	17	33	3	4	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	17	33	3	4	15
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	4	8	1	1	4
Total Analysis Volume [veh/h]	3	17	33	3	4	15
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.02	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.38	8.54	0.00	0.00	7.29	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	1.53	1.53	0.00	0.00	0.20	0.20
d_A, Approach Delay [s/veh]	8.67		0.00		1.53	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.70					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 1: Redbay Avenue (N/S) at Birch Street (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	591.5
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	1.281

Intersection Setup

Name	Redbay Avenue			Redbay Avenue			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	140.00	100.00	100.00	155.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Redbay Avenue			Redbay Avenue			Birch Street			Birch Street		
Base Volume Input [veh/h]	11	0	18	18	0	30	47	1269	37	19	1410	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	11	0	18	18	0	30	47	1269	37	19	1410	40
Peak Hour Factor	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	0	5	5	0	8	13	341	10	5	379	11
Total Analysis Volume [veh/h]	12	0	19	19	0	32	51	1366	40	20	1518	43
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.74	0.00	0.05	1.28	0.00	0.09	0.12	0.01	0.00	0.04	0.02	0.00
d_M, Delay for Movement [s/veh]	366.20	511.00	153.77	591.46	714.65	359.44	14.77	0.00	0.00	12.80	0.00	0.00
Movement LOS	F	F	F	F	F	F	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	2.93	2.93	2.93	5.33	5.33	5.33	0.41	0.00	0.00	0.13	0.00	0.00
95th-Percentile Queue Length [ft/ln]	73.31	73.31	73.31	133.23	133.23	133.23	10.29	0.00	0.00	3.24	0.00	0.00
d_A, Approach Delay [s/veh]	236.00			445.88			0.52			0.16		
Approach LOS	F			F			A			A		
d_I, Intersection Delay [s/veh]	9.96											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: Associated Road (N/S) at Birch Street (E/W)

Control Type:	Signalized	Delay (sec / veh):	41.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.697

Intersection Setup

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	225.00	100.00	230.00	100.00	100.00	100.00	150.00	100.00	100.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Base Volume Input [veh/h]	389	21	336	17	13	9	8	1056	254	244	1083	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	389	21	336	17	13	9	8	1056	254	244	1083	24
Peak Hour Factor	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	101	5	87	4	3	2	2	273	66	63	280	6
Total Analysis Volume [veh/h]	403	22	348	18	13	9	8	1093	263	253	1121	25
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Maximum Green [s]	6	6	6	0	6	0	6	6	0	6	6	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	24	0	24	0	0	26	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	19	54	54	0	35	0	19	52	0	14	47	0
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	6	0	6	0	6	6	0	6	6	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No	No		No		No	No		No	No	
Maximum Recall	No	No	No		No		No	No		No	No	
Pedestrian Recall	No	No	No		No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	52	66	33	33	1	46	46	10	55	55
g / C, Green / Cycle	0.13	0.43	0.55	0.27	0.27	0.01	0.39	0.39	0.08	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.12	0.01	0.18	0.01	0.01	0.00	0.37	0.35	0.07	0.30	0.30
s, saturation flow rate [veh/h]	3500	1900	1900	1800	1900	1800	1900	1900	3500	1900	1900
c, Capacity [veh/h]	438	820	1041	509	519	23	732	732	292	867	867
d1, Uniform Delay [s]	51.92	19.63	15.01	32.03	32.08	58.76	35.82	34.69	54.35	25.45	25.38
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.11	0.41	0.37	0.11	0.20	0.20
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	8.40	0.06	0.87	0.13	0.15	9.08	20.50	12.66	7.72	1.65	1.59
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.92	0.03	0.33	0.04	0.04	0.35	0.95	0.90	0.87	0.66	0.66
d, Delay for Lane Group [s/veh]	60.31	19.69	15.87	32.16	32.24	67.84	56.32	47.35	62.07	27.10	26.98
Lane Group LOS	E	B	B	C	C	E	E	D	E	C	C
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	6.39	0.36	5.25	0.41	0.50	0.29	22.82	19.63	3.99	12.39	12.27
50th-Percentile Queue Length [ft/ln]	159.80	9.04	131.18	10.26	12.56	7.33	570.49	490.79	99.83	309.70	306.72
95th-Percentile Queue Length [veh/ln]	10.54	0.65	9.00	0.74	0.90	0.53	30.65	26.90	7.19	18.16	18.01
95th-Percentile Queue Length [ft/ln]	263.46	16.26	225.09	18.48	22.61	13.19	766.35	672.45	179.70	454.00	450.33

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	60.31	19.69	15.87	32.16	32.24	32.24	67.84	53.08	47.35	62.07	27.04	26.98
Movement LOS	E	B	B	C	C	C	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	39.15			32.20			52.06			33.37		
Approach LOS	D			C			D			C		
d_I, Intersection Delay [s/veh]	41.74											
Intersection LOS	D											
Intersection V/C	0.697											

Emissions

Vehicle Miles Traveled [mph]	26.32	1.44	22.73	0.70	0.86	0.42	36.37	34.34	21.25	48.28	47.98
Stops [stops/h]	383.52	10.84	157.41	12.32	15.07	8.79	684.59	588.95	239.59	371.64	368.06
Fuel consumption [US gal/h]	9.66	0.25	3.48	0.20	0.24	0.23	17.75	14.85	6.90	9.45	9.36
CO [g/h]	674.95	17.20	243.57	13.75	16.84	16.36	1240.83	1037.69	482.50	660.22	654.03
NOx [g/h]	131.32	3.35	47.39	2.68	3.28	3.18	241.42	201.90	93.88	128.45	127.25
VOC [g/h]	156.43	3.99	56.45	3.19	3.90	3.79	287.58	240.49	111.82	153.01	151.58

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersectio	2.749	1.980	3.173	3.189
Crosswalk LOS	B	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	833	517	800	717
d_b, Bicycle Delay [s]	20.42	33.00	21.60	24.70
l_b,int, Bicycle LOS Score for Intersection	2.835	1.626	2.685	2.714
Bicycle LOS	C	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Associated Road (N/S) at Greenbriar Lane (E/W)

Control Type:	Signalized	Delay (sec / veh):	5.1
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.240

Intersection Setup

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	110.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Base Volume Input [veh/h]	65	581	31	24	491	8	10	4	43	15	10	37
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	65	581	31	24	491	8	10	4	43	15	10	37
Peak Hour Factor	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	155	8	6	131	2	3	1	11	4	3	10
Total Analysis Volume [veh/h]	69	619	33	26	523	9	11	4	46	16	11	39
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	42	0	0	42	0	0	40	0	0	40	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	13	0	0	12	0	0	24	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	30	0	0	30	0	0	60	0	0	60	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	6	0	0	6	0	0	6	0	0	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Calculated Cycle Length [s]	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	77	77	77	77	77	77	5	5
g / C, Green / Cycle	0.86	0.86	0.86	0.86	0.86	0.86	0.05	0.05
(v / s)_i Volume / Saturation Flow Rate	0.04	0.17	0.17	0.01	0.14	0.14	0.03	0.03
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1900	1900	1900
c, Capacity [veh/h]	1515	1625	1625	1502	1625	1625	154	156
d1, Uniform Delay [s]	0.98	1.14	1.14	0.96	1.10	1.10	41.42	41.54
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.06	0.28	0.28	0.02	0.22	0.22	1.65	1.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.05	0.20	0.20	0.02	0.16	0.16	0.40	0.42
d, Delay for Lane Group [s/veh]	1.04	1.42	1.41	0.98	1.32	1.32	43.08	43.34
Lane Group LOS	A	A	A	A	A	A	D	D
Critical Lane Group	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.04	0.23	0.22	0.02	0.18	0.18	1.39	1.51
50th-Percentile Queue Length [ft/ln]	1.06	5.74	5.62	0.39	4.46	4.43	34.80	37.80
95th-Percentile Queue Length [veh/ln]	0.08	0.41	0.40	0.03	0.32	0.32	2.51	2.72
95th-Percentile Queue Length [ft/ln]	1.91	10.33	10.12	0.70	8.03	7.98	62.64	68.04

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	1.04	1.42	1.41	0.98	1.32	1.32	43.08	43.08	43.08	43.34	43.34	43.34
Movement LOS	A	A	A	A	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	1.38			1.30			43.08			43.34		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	5.13											
Intersection LOS	A											
Intersection V/C	0.240											

Emissions

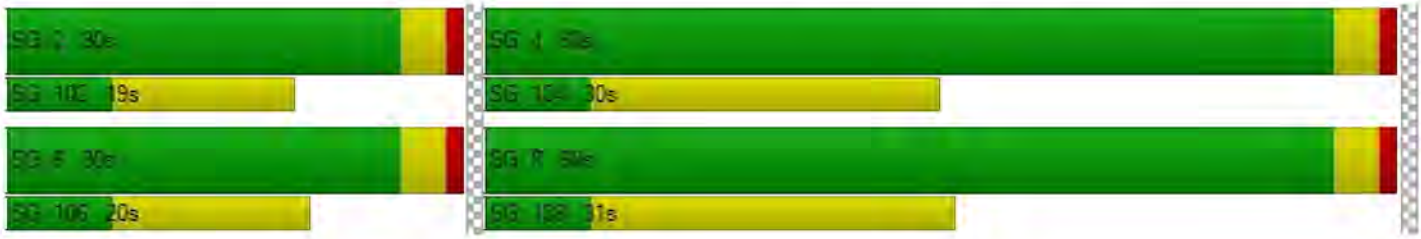
Vehicle Miles Traveled [mph]	2.37	11.29	11.10	0.83	8.54	8.50	1.17	1.56
Stops [stops/h]	1.70	9.18	9.00	0.63	7.14	7.10	55.68	60.48
Fuel consumption [US gal/h]	0.12	0.59	0.58	0.04	0.45	0.45	0.80	0.88
CO [g/h]	8.12	41.22	40.47	2.88	31.29	31.13	55.98	61.81
NOx [g/h]	1.58	8.02	7.87	0.56	6.09	6.06	10.89	12.03
VOC [g/h]	1.88	9.55	9.38	0.67	7.25	7.21	12.97	14.32

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersectio	2.662	2.634	1.873	1.804
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	578	578	1244	1244
d_b, Bicycle Delay [s]	22.76	22.76	6.42	6.42
l_b,int, Bicycle LOS Score for Intersection	2.154	2.020	1.660	1.669
Bicycle LOS	B	B	A	A

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	44.3
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.614

Intersection Setup

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	88.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Base Volume Input [veh/h]	99	593	410	104	131	188
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	99	593	410	104	131	188
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	153	106	27	34	49
Total Analysis Volume [veh/h]	102	613	424	107	135	194
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.10	0.01	0.00	0.00	0.61	0.26
d_M, Delay for Movement [s/veh]	8.87	0.00	0.00	0.00	44.34	11.67
Movement LOS	A	A	A	A	E	B
95th-Percentile Queue Length [veh/ln]	0.33	0.00	0.00	0.00	3.57	1.06
95th-Percentile Queue Length [ft/ln]	8.20	0.00	0.00	0.00	89.20	26.59
d_A, Approach Delay [s/veh]	1.27		0.00		25.08	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	5.81					
Intersection LOS	E					

Intersection Level Of Service Report

Intersection 5: SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Hwy (E/W)

Control Type:	Signalized	Delay (sec / veh):	24.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.724

Intersection Setup

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	100.00	250.00	100.00	100.00	145.00	288.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Base Volume Input [veh/h]	1196	100	679	0	0	211	190	1547	257	0	1724	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1196	100	679	0	0	211	190	1547	257	0	1724	35
Peak Hour Factor	0.9810	0.9810	0.9810	1.0000	1.0000	0.9810	0.9810	0.9810	0.9810	1.0000	0.9810	0.9810
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	305	25	173	0	0	54	48	394	65	0	439	9
Total Analysis Volume [veh/h]	1219	102	692	0	0	215	194	1577	262	0	1757	36
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Split	Split	Split	Permiss	Permiss	Overlap	Protecte	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	2	3	8	0	0	4	0
Auxiliary Signal Groups						2,3						
Maximum Green [s]	0	26	0	0	0	8	14	44	0	0	26	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	0	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	21	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No				No		No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	34	0	0	0	94	20	56	0	0	36	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	6	0	0	0	6	6	6	0	0	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No				No	No	No			No	
Maximum Recall		No				No	No	No			No	
Pedestrian Recall		No				No	No	No			No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	R	L	C	C	C
C, Calculated Cycle Length [s]	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	39	39	39	12	12	43	27	27
g / C, Green / Cycle	0.43	0.43	0.43	0.13	0.13	0.48	0.30	0.30
(v / s)_i Volume / Saturation Flow Rate	0.28	0.27	0.27	0.06	0.11	0.28	0.24	0.24
s, saturation flow rate [veh/h]	3500	1900	1900	3600	1800	5700	5700	1900
c, Capacity [veh/h]	1503	816	816	479	240	2745	1733	578
d1, Uniform Delay [s]	20.44	20.03	20.03	35.96	37.90	16.72	28.53	28.53
k, delay calibration	0.50	0.50	0.50	0.11	0.14	0.11	0.11	0.16
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.29	3.61	3.61	0.66	8.07	0.19	0.77	3.27
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.66	0.63	0.63	0.45	0.81	0.57	0.78	0.78
d, Delay for Lane Group [s/veh]	22.73	23.64	23.64	36.62	45.96	16.91	29.30	31.80
Lane Group LOS	C	C	C	D	D	B	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	8.33	8.75	8.75	2.19	4.43	6.73	8.11	8.51
50th-Percentile Queue Length [ft/ln]	208.32	218.68	218.68	54.86	110.74	168.22	202.67	212.69
95th-Percentile Queue Length [veh/ln]	13.07	13.60	13.60	3.95	7.88	10.98	12.78	13.29
95th-Percentile Queue Length [ft/ln]	326.67	339.94	339.94	98.75	197.04	274.57	319.41	332.28

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	22.89	23.64	23.64	0.00	0.00	36.62	45.96	16.91	0.00	0.00	29.89	31.80
Movement LOS	C	C	C			D	D	B			C	C
d_A, Approach Delay [s/veh]	23.19			36.62			17.54			29.93		
Approach LOS	C			D			B			C		
d_I, Intersection Delay [s/veh]	24.05											
Intersection LOS	C											
Intersection V/C	0.724											

Emissions

Vehicle Miles Traveled [mph]	61.35	31.59	31.59	10.73	18.11	147.19	46.04	15.35
Stops [stops/h]	666.61	349.88	349.88	175.56	177.19	807.44	972.82	340.31
Fuel consumption [US gal/h]	10.79	5.69	5.69	3.01	5.14	22.75	24.49	8.64
CO [g/h]	754.56	397.76	397.76	210.64	359.34	1590.23	1712.09	603.83
NOx [g/h]	146.81	77.39	77.39	40.98	69.91	309.40	333.11	117.48
VOC [g/h]	174.88	92.18	92.18	48.82	83.28	368.55	396.79	139.94

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersectio	2.692	2.264	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	667	356	1156	711
d_b, Bicycle Delay [s]	20.00	30.42	8.02	18.69
l_b,int, Bicycle LOS Score for Intersection	4.881	1.560	2.534	2.299
Bicycle LOS	E	A	B	B

Sequence

Ring 1	-	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Hwy (E/W)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.711

Intersection Setup

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	100.00	250.00	100.00	100.00	145.00	288.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Base Volume Input [veh/h]	1196	100	679	0	0	211	190	1547	257	0	1724	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1196	100	679	0	0	211	190	1547	257	0	1724	35
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	299	25	170	0	0	53	48	387	64	0	431	9
Total Analysis Volume [veh/h]	1196	100	679	0	0	211	190	1547	257	0	1724	35
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	2	3	8	0	0	4	0
Auxiliary Signal Groups						2						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.23	0.27	0.27	0.00	0.00	0.06	0.11	0.30	0.14	0.00	0.25	0.25
Intersection LOS	C											
Intersection V/C	0.711											

Intersection Level Of Service Report
Intersection 6: Associated Road (N/S) at Imperial Highway (E/W)

Control Type:	Signalized	Delay (sec / veh):	43.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.696

Intersection Setup

Name	Associated Road			Associated Road			Imperial Highway			Imperial Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	270.00	100.00	100.00	210.00	100.00	210.00	340.00	100.00	100.00	195.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Imperial Highway			Imperial Highway		
Base Volume Input [veh/h]	161	234	138	255	221	144	246	1719	138	167	1482	229
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	161	234	138	255	221	144	246	1719	138	167	1482	229
Peak Hour Factor	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930	0.9930
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	59	35	64	56	36	62	433	35	42	373	58
Total Analysis Volume [veh/h]	162	236	139	257	223	145	248	1731	139	168	1492	231
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	25	0	0	25	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	11	39	0	14	42	0	22	50	0	17	45	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Calculated Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	7	37	37	10	40	40	18	44	44	13	39	39
g / C, Green / Cycle	0.06	0.31	0.31	0.08	0.34	0.34	0.15	0.36	0.36	0.11	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.05	0.10	0.09	0.07	0.12	0.08	0.14	0.33	0.33	0.09	0.23	0.23
s, saturation flow rate [veh/h]	3500	1900	1900	3500	1900	1900	1800	3800	1900	1800	5700	1900
c, Capacity [veh/h]	204	592	592	292	640	640	270	1381	690	195	1833	611
d1, Uniform Delay [s]	55.79	31.71	31.35	54.41	29.90	28.57	50.28	36.08	36.41	52.64	35.70	35.77
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.36	0.11	0.37	0.30	0.11	0.21
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.82	1.51	1.30	8.53	1.50	0.82	30.07	2.34	14.73	25.04	0.50	3.01
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.33	0.30	0.88	0.35	0.23	0.92	0.90	0.91	0.86	0.70	0.71
d, Delay for Lane Group [s/veh]	62.60	33.22	32.64	62.94	31.39	29.39	80.35	38.41	51.13	77.68	36.20	38.78
Lane Group LOS	E	C	C	E	C	C	F	D	D	E	D	D
Critical Lane Group	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.58	4.56	4.05	4.12	5.00	3.09	9.44	16.90	19.74	6.24	10.81	11.33
50th-Percentile Queue Length [ft/ln]	64.39	113.99	101.30	103.00	125.07	77.23	236.12	422.52	493.56	156.09	270.31	283.22
95th-Percentile Queue Length [veh/ln]	4.64	8.06	7.29	7.42	8.67	5.56	14.48	23.64	27.03	10.34	16.20	16.85
95th-Percentile Queue Length [ft/ln]	115.91	201.54	182.34	185.40	216.78	139.02	362.12	591.08	675.73	258.54	405.12	421.21

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.60	33.12	32.64	62.94	31.39	29.39	80.35	42.03	51.13	77.68	36.55	38.78
Movement LOS	E	C	C	E	C	C	F	D	D	E	D	D
d_A, Approach Delay [s/veh]	41.89			43.90			47.11			40.48		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	43.76											
Intersection LOS	D											
Intersection V/C	0.696											

Emissions

Vehicle Miles Traveled [mph]	12.60	15.35	13.83	16.69	14.48	9.41	14.76	73.71	37.55	10.31	79.14	26.55
Stops [stops/h]	154.55	136.79	121.56	247.20	150.09	92.68	283.34	1014.05	592.27	187.31	973.11	339.86
Fuel consumption [US gal/h]	4.03	3.23	2.87	6.32	3.42	2.11	7.37	22.29	13.73	4.86	21.90	7.71
CO [g/h]	281.93	225.59	200.60	441.58	238.90	147.83	514.91	1557.77	959.74	340.04	1530.69	538.60
NOx [g/h]	54.85	43.89	39.03	85.92	46.48	28.76	100.18	303.09	186.73	66.16	297.82	104.79
VOC [g/h]	65.34	52.28	46.49	102.34	55.37	34.26	119.33	361.03	222.43	78.81	354.75	124.83

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersectio	2.698	2.757	3.376	3.392
Crosswalk LOS	B	C	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	633	767	683
d_b, Bicycle Delay [s]	30.10	28.02	22.82	26.00
l_b,int, Bicycle LOS Score for Intersection	2.003	2.591	2.725	2.340
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 7: Castlegate Lane/Placentia Avenue (N/S) at Imperial Highway (E/W)

Control Type:	Signalized	Delay (sec / veh):	18.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.680

Intersection Setup

Name	Placentia Avenue			Castlegate Lane			Imperial Highway			Imperial Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	200.00	100.00	100.00	88.00	100.00	100.00	140.00	100.00	198.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Placentia Avenue			Castlegate Lane			Imperial Highway			Imperial Highway		
Base Volume Input [veh/h]	183	47	195	22	12	8	17	1830	310	219	1688	52
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	183	47	195	22	12	8	17	1830	310	219	1688	52
Peak Hour Factor	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860	0.9860
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	46	12	49	6	3	2	4	464	79	56	428	13
Total Analysis Volume [veh/h]	186	48	198	22	12	8	17	1856	314	222	1712	53
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	30	0	0	0	0	0	19	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	41	0	0	10	0	10	30	0	14	34	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Calculated Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	13	13	4	4	2	48	48	14	60	60
g / C, Green / Cycle	0.13	0.13	0.13	0.04	0.04	0.02	0.51	0.51	0.15	0.63	0.63
(v / s)_i Volume / Saturation Flow Rate	0.06	0.06	0.10	0.01	0.01	0.01	0.33	0.17	0.12	0.31	0.32
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1800	5700	1900	1800	3800	1900
c, Capacity [veh/h]	241	255	255	76	81	42	2902	967	263	2401	1201
d1, Uniform Delay [s]	38.07	37.98	39.76	44.09	44.01	45.76	16.97	13.71	39.53	9.27	9.42
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.48	1.31	5.07	2.04	1.58	6.29	1.09	0.89	7.33	0.70	1.50
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.48	0.46	0.78	0.29	0.25	0.41	0.64	0.32	0.85	0.48	0.50
d, Delay for Lane Group [s/veh]	39.55	39.29	44.84	46.13	45.59	52.04	18.06	14.60	46.85	9.97	10.92
Lane Group LOS	D	D	D	D	D	D	B	B	D	A	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.60	2.64	4.83	0.53	0.48	0.46	9.10	3.85	5.40	5.56	6.11
50th-Percentile Queue Length [ft/ln]	65.04	65.95	120.63	13.30	11.97	11.45	227.60	96.30	134.90	138.95	152.71
95th-Percentile Queue Length [veh/ln]	4.68	4.75	8.43	0.96	0.86	0.82	14.05	6.93	9.21	9.42	10.16
95th-Percentile Queue Length [ft/ln]	117.07	118.71	210.69	23.93	21.54	20.61	351.31	173.35	230.14	235.61	254.04

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	39.45	39.29	44.84	46.13	45.59	45.59	52.04	18.06	14.60	46.85	10.28	10.92
Movement LOS	D	D	D	D	D	D	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	41.90			45.88			17.83			14.38		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	18.85											
Intersection LOS	B											
Intersection V/C	0.680											

Emissions

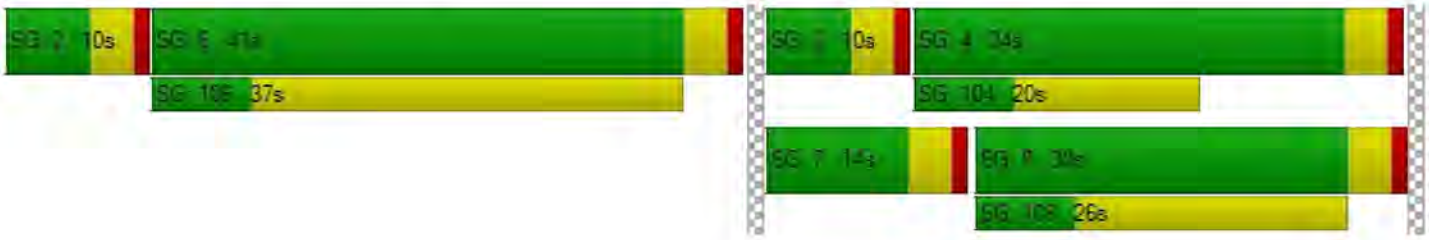
Vehicle Miles Traveled [mph]	6.63	6.76	11.32	1.08	0.98	0.90	98.54	16.67	16.70	87.44	45.31
Stops [stops/h]	98.58	99.97	182.84	20.15	18.14	17.35	1034.97	145.98	204.48	421.24	231.48
Fuel consumption [US gal/h]	1.61	1.63	3.02	0.44	0.40	0.38	20.52	2.96	4.72	9.63	5.24
CO [g/h]	112.44	114.06	210.89	30.97	27.88	26.76	1434.29	207.20	330.17	673.14	366.03
NOx [g/h]	21.88	22.19	41.03	6.03	5.42	5.21	279.06	40.31	64.24	130.97	71.22
VOC [g/h]	26.06	26.43	48.88	7.18	6.46	6.20	332.41	48.02	76.52	156.01	84.83

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	37.14	37.14	0.00	37.14
l_p,int, Pedestrian LOS Score for Intersectio	2.332	2.012	0.000	3.351
Crosswalk LOS	B	B	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	779	126	547	632
d_b, Bicycle Delay [s]	17.71	41.69	25.06	22.24
l_b,int, Bicycle LOS Score for Intersection	2.272	1.629	2.762	2.652
Bicycle LOS	B	A	C	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 8: Brea Glenbrook Club Dwy/Project Dwy No. 1 (N/S) at Greenbriar Lane (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	10.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

Intersection Setup

Name	Project Driveway No. 2			Brea Glenbrook Club Dwy			Greenbriar Lane			Greenbriar Lane		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Project Driveway No. 2			Brea Glenbrook Club Dwy			Greenbriar Lane			Greenbriar Lane		
Base Volume Input [veh/h]	1	0	27	3	0	0	0	33	6	37	53	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	0	27	3	0	0	0	33	6	37	53	2
Peak Hour Factor	1.0000	1.0000	1.0000	0.7500	1.0000	0.7500	0.7500	0.7500	1.0000	1.0000	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	7	1	0	0	0	11	2	9	18	1
Total Analysis Volume [veh/h]	1	0	27	4	0	0	0	44	6	37	71	3
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
d_M, Delay for Movement [s/veh]	9.92	10.37	8.62	10.08	10.31	8.67	7.36	0.00	0.00	7.36	0.00	0.00
Movement LOS	A	B	A	B	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.09	0.09	0.09	0.02	0.02	0.02	0.00	0.00	0.00	0.06	0.06	0.06
95th-Percentile Queue Length [ft/ln]	2.14	2.14	2.14	0.42	0.42	0.42	0.00	0.00	0.00	1.59	1.59	1.59
d_A, Approach Delay [s/veh]	8.67			10.08			0.00			2.45		
Approach LOS	A			B			A			A		
d_I, Intersection Delay [s/veh]	2.88											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 9: Project Driveway No. 2 (N/S) at Greenbriar Lane (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

Intersection Setup

Name	Project Driveway No. 2		Aurora Avenue		Greenbriar Lane	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Driveway No. 2		Aurora Avenue		Greenbriar Lane	
Base Volume Input [veh/h]	2	11	24	8	11	35
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	11	24	8	11	35
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	3	6	2	3	9
Total Analysis Volume [veh/h]	2	11	24	8	11	35
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	9.49	8.49	0.00	0.00	7.29	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	0.02	0.02
95th-Percentile Queue Length [ft/ln]	0.99	0.99	0.00	0.00	0.55	0.55
d_A, Approach Delay [s/veh]	8.64		0.00		1.74	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.12					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 1: Redbay Avenue (N/S) at Birch Street (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	161.1
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.073

Intersection Setup

Name	Redbay Avenue			Redbay Avenue			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	140.00	100.00	100.00	155.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Redbay Avenue			Redbay Avenue			Birch Street			Birch Street		
Base Volume Input [veh/h]	14	2	12	7	0	30	36	1021	33	9	930	32
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	2	12	7	0	30	36	1021	33	9	930	32
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	3	2	0	8	9	269	9	2	245	8
Total Analysis Volume [veh/h]	15	2	13	7	0	32	38	1075	35	9	979	34
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.28	0.07	0.03	0.12	0.00	0.06	0.06	0.01	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	96.63	161.09	38.13	72.17	96.36	15.91	10.61	0.00	0.00	10.85	0.00	0.00
Movement LOS	F	F	E	F	F	C	B	A	A	B	A	A
95th-Percentile Queue Length [veh/ln]	1.47	1.47	1.47	0.66	0.66	0.66	0.18	0.00	0.00	0.04	0.00	0.00
95th-Percentile Queue Length [ft/ln]	36.78	36.78	36.78	16.59	16.59	16.59	4.43	0.00	0.00	1.10	0.00	0.00
d_A, Approach Delay [s/veh]	75.58			26.01			0.35			0.10		
Approach LOS	F			D			A			A		
d_I, Intersection Delay [s/veh]	1.69											
Intersection LOS	F											

Intersection Level Of Service Report
Intersection 2: Associated Road (N/S) at Birch Street (E/W)

Control Type:	Signalized	Delay (sec / veh):	38.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.523

Intersection Setup

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	225.00	100.00	230.00	100.00	100.00	100.00	150.00	100.00	100.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Base Volume Input [veh/h]	328	11	168	11	20	9	6	738	300	132	638	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	328	11	168	11	20	9	6	738	300	132	638	8
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	84	3	43	3	5	2	2	190	77	34	164	2
Total Analysis Volume [veh/h]	338	11	173	11	21	9	6	760	309	136	657	8
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Maximum Green [s]	6	6	6	0	6	0	6	6	0	6	6	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	24	24	0	24	0	0	26	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	16	51	51	0	35	0	10	49	0	10	49	0
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	6	0	6	0	6	6	0	6	6	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No	No		No		No	No		No	No	
Maximum Recall	No	No	No		No		No	No		No	No	
Pedestrian Recall	No	No	No		No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	C	L	C	C
C, Calculated Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	56	66	40	40	1	36	36	6	41	41
g / C, Green / Cycle	0.11	0.51	0.60	0.37	0.37	0.01	0.32	0.32	0.05	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.10	0.01	0.09	0.01	0.02	0.00	0.30	0.27	0.04	0.18	0.17
s, saturation flow rate [veh/h]	3500	1900	1900	1800	1900	1800	1900	1900	3500	1900	1900
c, Capacity [veh/h]	382	973	1146	680	697	19	616	616	191	699	699
d1, Uniform Delay [s]	48.32	13.16	9.53	22.19	22.40	54.03	35.67	34.29	51.15	26.63	26.61
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.11	0.26	0.21	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.93	0.02	0.28	0.04	0.12	9.17	11.99	5.30	4.86	0.50	0.50
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.89	0.01	0.15	0.02	0.04	0.32	0.91	0.82	0.71	0.48	0.47
d, Delay for Lane Group [s/veh]	55.25	13.18	9.81	22.23	22.52	63.20	47.66	39.58	56.01	27.14	27.11
Lane Group LOS	E	B	A	C	C	E	D	D	E	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.84	0.13	1.76	0.19	0.53	0.21	15.67	12.74	1.92	6.45	6.42
50th-Percentile Queue Length [ft/ln]	120.88	3.34	44.01	4.82	13.28	5.23	391.82	318.58	48.01	161.31	160.50
95th-Percentile Queue Length [veh/ln]	8.44	0.24	3.17	0.35	0.96	0.38	22.17	18.60	3.46	10.62	10.58
95th-Percentile Queue Length [ft/ln]	211.04	6.01	79.22	8.68	23.90	9.41	554.14	464.93	86.43	265.45	264.38

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	55.25	13.18	9.81	22.23	22.52	22.52	63.20	45.55	39.58	56.01	27.12	27.11
Movement LOS	E	B	A	C	C	C	E	D	D	E	C	C
d_A, Approach Delay [s/veh]	39.30			22.44			43.93			32.03		
Approach LOS	D			C			D			C		
d_I, Intersection Delay [s/veh]	38.67											
Intersection LOS	D											
Intersection V/C	0.523											

Emissions

Vehicle Miles Traveled [mph]	22.07	0.72	11.30	0.43	1.17	0.31	29.28	26.47	11.42	27.99	27.87
Stops [stops/h]	316.49	4.37	57.61	6.31	17.38	6.84	512.93	417.04	125.71	211.16	210.10
Fuel consumption [US gal/h]	7.70	0.10	1.32	0.09	0.26	0.17	12.83	10.18	3.50	5.42	5.40
CO [g/h]	538.20	6.86	91.99	6.52	17.96	12.09	896.51	711.62	244.98	379.19	377.34
NOx [g/h]	104.71	1.34	17.90	1.27	3.49	2.35	174.43	138.45	47.66	73.78	73.42
VOC [g/h]	124.73	1.59	21.32	1.51	4.16	2.80	207.78	164.92	56.78	87.88	87.45

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	44.55	44.55	44.55	44.55
l_p,int, Pedestrian LOS Score for Intersectio	2.676	1.968	2.969	2.903
Crosswalk LOS	B	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	855	564	818	818
d_b, Bicycle Delay [s]	18.04	28.37	19.20	19.20
l_b,int, Bicycle LOS Score for Intersection	2.421	1.627	2.446	2.220
Bicycle LOS	B	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Associated Road (N/S) at Greenbriar Lane (E/W)

Control Type:	Signalized	Delay (sec / veh):	6.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.193

Intersection Setup

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	110.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Base Volume Input [veh/h]	54	451	22	6	418	8	12	0	64	19	11	22
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	451	22	6	418	8	12	0	64	19	11	22
Peak Hour Factor	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	114	6	2	106	2	3	0	16	5	3	6
Total Analysis Volume [veh/h]	55	456	22	6	423	8	12	0	65	19	11	22
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	2	0	0	8	0	0	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	42	0	0	42	0	0	40	0	0	40	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	13	0	0	12	0	0	24	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	31	0	0	31	0	0	59	0	0	59	0
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	6	0	0	6	0	0	6	0	0	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No			No			No			No	
Maximum Recall		No			No			No			No	
Pedestrian Recall		No			No			No			No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Calculated Cycle Length [s]	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	77	77	77	77	77	77	5	5
g / C, Green / Cycle	0.85	0.85	0.85	0.85	0.85	0.85	0.06	0.06
(v / s)_i Volume / Saturation Flow Rate	0.03	0.13	0.12	0.00	0.11	0.11	0.04	0.03
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1900	1900	1900
c, Capacity [veh/h]	1520	1619	1619	1515	1619	1619	159	167
d1, Uniform Delay [s]	1.02	1.13	1.13	0.99	1.11	1.11	41.52	40.96
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.04	0.19	0.19	0.00	0.17	0.17	2.29	1.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.04	0.15	0.15	0.00	0.13	0.13	0.49	0.31
d, Delay for Lane Group [s/veh]	1.06	1.32	1.32	0.99	1.28	1.28	43.81	42.01
Lane Group LOS	A	A	A	A	A	A	D	D
Critical Lane Group	No	Yes	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.04	0.18	0.18	0.00	0.16	0.16	1.78	1.17
50th-Percentile Queue Length [ft/ln]	0.94	4.49	4.42	0.10	3.97	3.94	44.44	29.14
95th-Percentile Queue Length [veh/ln]	0.07	0.32	0.32	0.01	0.29	0.28	3.20	2.10
95th-Percentile Queue Length [ft/ln]	1.70	8.08	7.96	0.18	7.14	7.10	79.99	52.45

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	1.06	1.32	1.32	0.99	1.28	1.28	43.81	43.81	43.81	42.01	42.01	42.01
Movement LOS	A	A	A	A	A	A	D	D	D	D	D	D
d_A, Approach Delay [s/veh]	1.29			1.28			43.81			42.01		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	6.19											
Intersection LOS	A											
Intersection V/C	0.193											

Emissions

Vehicle Miles Traveled [mph]	1.89	8.26	8.15	0.19	6.92	6.89	1.47	1.23
Stops [stops/h]	1.51	7.18	7.07	0.16	6.34	6.31	71.10	46.63
Fuel consumption [US gal/h]	0.09	0.43	0.43	0.01	0.37	0.36	1.03	0.68
CO [g/h]	6.60	30.13	29.72	0.68	25.63	25.51	71.68	47.43
NOx [g/h]	1.28	5.86	5.78	0.13	4.99	4.96	13.95	9.23
VOC [g/h]	1.53	6.98	6.89	0.16	5.94	5.91	16.61	10.99

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersectio	2.597	2.557	1.854	1.755
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	600	600	1222	1222
d_b, Bicycle Delay [s]	22.05	22.05	6.81	6.81
l_b,int, Bicycle LOS Score for Intersection	1.999	1.920	1.687	1.645
Bicycle LOS	A	A	A	A

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	31.6
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.480

Intersection Setup

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	88.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Base Volume Input [veh/h]	91	428	406	97	116	213
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	91	428	406	97	116	213
Peak Hour Factor	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	113	107	25	30	56
Total Analysis Volume [veh/h]	96	450	427	102	122	224
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.09	0.00	0.00	0.00	0.48	0.31
d_M, Delay for Movement [s/veh]	8.84	0.00	0.00	0.00	31.57	12.05
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.31	0.00	0.00	0.00	2.42	1.29
95th-Percentile Queue Length [ft/ln]	7.65	0.00	0.00	0.00	60.38	32.30
d_A, Approach Delay [s/veh]	1.55		0.00		18.93	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	5.21					
Intersection LOS	D					

Intersection Level Of Service Report

Intersection 5: SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Hwy (E/W)

Control Type:	Signalized	Delay (sec / veh):	24.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.729

Intersection Setup

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	100.00	250.00	100.00	100.00	145.00	288.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Base Volume Input [veh/h]	1074	143	558	0	0	281	223	1458	449	0	1722	33
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1074	143	558	0	0	281	223	1458	449	0	1722	33
Peak Hour Factor	0.9490	0.9490	0.9490	1.0000	1.0000	0.9490	0.9490	0.9490	0.9490	1.0000	0.9490	0.9490
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	283	38	147	0	0	74	59	384	118	0	454	9
Total Analysis Volume [veh/h]	1132	151	588	0	0	296	235	1536	473	0	1815	35
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Split	Split	Split	Permiss	Permiss	Overlap	Protecte	Permiss	Unsigna	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	2	3	8	0	0	4	0
Auxiliary Signal Groups						2,3						
Maximum Green [s]	0	26	0	0	0	8	14	44	0	0	26	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	1.0	1.0	1.0	0.0	0.0	1.0	0.0
Walk [s]	0	0	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	0	0	0	0	0	0	21	0	0	19	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No				No		No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	2.0	2.0	2.0	0.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	21	0	0	0	99	29	74	0	0	45	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-
Minimum Green [s]	0	6	0	0	0	6	6	6	0	0	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	3.0	3.0	3.0	0.0	0.0	3.0	0.0
Minimum Recall		No				No	No	No			No	
Maximum Recall		No				No	No	No			No	
Pedestrian Recall		No				No	No	No			No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	R	L	C	C	C
C, Calculated Cycle Length [s]	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	37	37	37	15	15	50	31	31
g / C, Green / Cycle	0.39	0.39	0.39	0.16	0.16	0.52	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.26	0.25	0.25	0.08	0.13	0.27	0.24	0.24
s, saturation flow rate [veh/h]	3500	1900	1900	3600	1800	5700	5700	1900
c, Capacity [veh/h]	1365	741	741	576	288	2996	1845	615
d1, Uniform Delay [s]	23.99	23.55	23.55	36.52	38.55	14.63	28.72	28.72
k, delay calibration	0.50	0.50	0.50	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.69	4.21	4.21	0.71	5.61	0.14	0.64	1.89
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.68	0.64	0.64	0.51	0.82	0.51	0.75	0.75
d, Delay for Lane Group [s/veh]	26.68	27.77	27.77	37.23	44.17	14.76	29.36	30.61
Lane Group LOS	C	C	C	D	D	B	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	8.76	9.21	9.21	3.17	5.42	6.17	8.70	8.92
50th-Percentile Queue Length [ft/ln]	218.96	230.23	230.23	79.26	135.54	154.26	217.59	222.93
95th-Percentile Queue Length [veh/ln]	13.61	14.19	14.19	5.71	9.24	10.24	13.54	13.81
95th-Percentile Queue Length [ft/ln]	340.30	354.65	354.65	142.66	231.01	256.11	338.54	345.36

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.87	27.77	27.77	0.00	0.00	37.23	44.17	14.76	0.00	0.00	29.65	30.61
Movement LOS	C	C	C			D	D	B			C	C
d_A, Approach Delay [s/veh]	27.23			37.23			14.89			29.67		
Approach LOS	C			D			B			C		
d_I, Intersection Delay [s/veh]	24.75											
Intersection LOS	C											
Intersection V/C	0.729											

Emissions

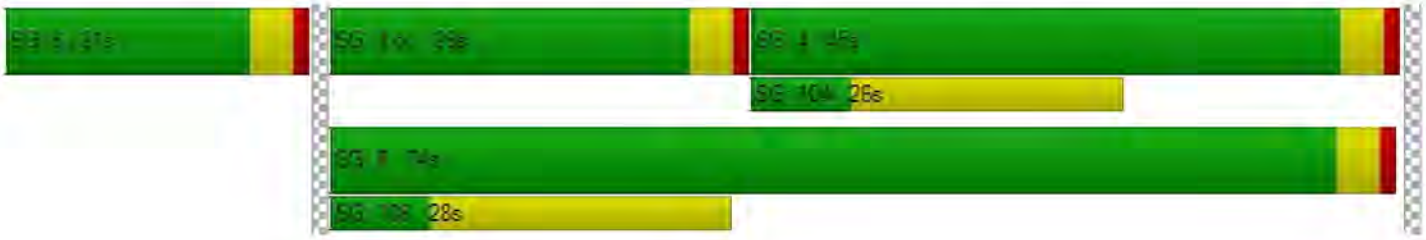
Vehicle Miles Traveled [mph]	57.02	29.36	29.36	14.77	21.93	143.36	47.50	15.83
Stops [stops/h]	663.80	348.97	348.97	240.27	205.45	701.48	989.45	337.92
Fuel consumption [US gal/h]	11.02	5.82	5.82	4.18	6.00	20.18	25.07	8.60
CO [g/h]	770.19	406.73	406.73	292.05	419.42	1410.88	1752.30	601.02
NOx [g/h]	149.85	79.14	79.14	56.82	81.60	274.51	340.93	116.94
VOC [g/h]	178.50	94.26	94.26	67.69	97.21	326.98	406.11	139.29

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	37.14	37.14	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersectio	2.667	2.308	0.000	0.000
Crosswalk LOS	B	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	358	526	1474	863
d_b, Bicycle Delay [s]	32.02	25.79	3.29	15.35
l_b,int, Bicycle LOS Score for Intersection	4.647	1.560	2.534	2.323
Bicycle LOS	E	A	B	B

Sequence

Ring 1	-	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 5: SR-57 NB Ramps/Shopping Center Dwy No. 2 (N/S) at Imperial Hwy (E/W)

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.700

Intersection Setup

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	1	1	0	0	0	0	0
Entry Pocket Length [ft]	250.00	100.00	250.00	100.00	100.00	145.00	288.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			25.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			No			No		

Volumes

Name	SR-57 NB Ramp			Shopping Center Dwy No. 2			Imperial Hwy			Imperial Hwy		
Base Volume Input [veh/h]	1074	143	558	0	0	281	223	1458	449	0	1722	33
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1074	143	558	0	0	281	223	1458	449	0	1722	33
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	269	36	140	0	0	70	56	365	112	0	431	8
Total Analysis Volume [veh/h]	1074	143	558	0	0	281	223	1458	449	0	1722	33
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Cycle Length [s]	100
Lost time [s]	5.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Overlap	Protecte	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	6	0	0	0	2	3	8	0	0	4	0
Auxiliary Signal Groups						2						
Lead / Lag	-	-	-	-	-	-	Lead	-	-	-	-	-

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.21	0.25	0.25	0.00	0.00	0.08	0.13	0.29	0.24	0.00	0.25	0.25
Intersection LOS	C											
Intersection V/C	0.700											

Intersection Level Of Service Report
Intersection 6: Associated Road (N/S) at Imperial Highway (E/W)

Control Type:	Signalized	Delay (sec / veh):	41.6
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.645

Intersection Setup

Name	Associated Road			Associated Road			Imperial Highway			Imperial Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	2	0	0	1	0	1	1	0	0	1	0	0
Entry Pocket Length [ft]	270.00	100.00	100.00	210.00	100.00	210.00	340.00	100.00	100.00	195.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Imperial Highway			Imperial Highway		
Base Volume Input [veh/h]	163	174	83	305	214	171	159	1669	110	138	1522	205
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	163	174	83	305	214	171	159	1669	110	138	1522	205
Peak Hour Factor	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890	0.9890
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	44	21	77	54	43	40	422	28	35	385	52
Total Analysis Volume [veh/h]	165	176	84	308	216	173	161	1688	111	140	1539	207
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	0	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	25	0	0	25	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	16	39	0	16	39	0	29	50	0	15	36	0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	0	6	6	0	6	6	0	6	6	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	R	L	C	C	L	C	C
C, Calculated Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8	39	39	12	43	43	13	42	42	11	41	41
g / C, Green / Cycle	0.06	0.32	0.32	0.10	0.36	0.36	0.11	0.35	0.35	0.09	0.34	0.34
(v / s)_i Volume / Saturation Flow Rate	0.05	0.07	0.07	0.09	0.11	0.09	0.09	0.31	0.32	0.08	0.23	0.23
s, saturation flow rate [veh/h]	3500	1900	1900	3500	1900	1900	1800	3800	1900	1800	5700	1900
c, Capacity [veh/h]	225	612	612	350	679	679	193	1342	671	165	1925	642
d1, Uniform Delay [s]	55.12	29.70	29.53	53.29	27.95	27.25	52.55	36.57	36.93	53.68	34.11	34.29
k, delay calibration	0.11	0.50	0.50	0.11	0.50	0.50	0.11	0.11	0.34	0.28	0.11	0.19
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.54	0.83	0.75	7.19	1.23	0.90	9.18	2.19	13.53	24.95	0.42	2.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	0.22	0.20	0.88	0.32	0.25	0.84	0.89	0.91	0.85	0.68	0.69
d, Delay for Lane Group [s/veh]	59.65	30.53	30.28	60.48	29.18	28.15	61.73	38.76	50.46	78.63	34.54	36.63
Lane Group LOS	E	C	C	E	C	C	E	D	D	E	C	D
Critical Lane Group	Yes	No	No	No	Yes	No	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	2.55	2.94	2.70	4.85	4.64	3.61	5.17	16.22	18.82	5.23	10.62	11.21
50th-Percentile Queue Length [ft/ln]	63.85	73.56	67.61	121.29	115.90	90.24	129.18	405.38	470.60	130.83	265.62	280.13
95th-Percentile Queue Length [veh/ln]	4.60	5.30	4.87	8.46	8.17	6.50	8.89	22.82	25.94	8.98	15.97	16.70
95th-Percentile Queue Length [ft/ln]	114.92	132.40	121.69	211.60	204.18	162.44	222.37	570.48	648.49	224.62	399.26	417.38

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	59.65	30.47	30.28	60.48	29.18	28.15	61.73	42.21	50.46	78.63	34.86	36.63
Movement LOS	E	C	C	E	C	C	E	D	D	E	C	D
d_A, Approach Delay [s/veh]	41.76			42.76			44.28			38.30		
Approach LOS	D			D			D			D		
d_I, Intersection Delay [s/veh]	41.58											
Intersection LOS	D											
Intersection V/C	0.645											

Emissions

Vehicle Miles Traveled [mph]	12.84	10.51	9.72	20.00	14.02	11.23	9.58	70.85	36.18	8.59	79.98	27.12
Stops [stops/h]	153.23	88.27	81.13	291.10	139.08	108.29	155.01	972.91	564.73	156.99	956.24	336.16
Fuel consumption [US gal/h]	3.97	2.08	1.92	7.37	3.15	2.46	3.89	21.49	13.09	4.09	21.42	7.57
CO [g/h]	277.35	145.57	133.86	514.91	220.26	171.76	271.79	1502.07	914.84	285.86	1497.37	529.12
NOx [g/h]	53.96	28.32	26.04	100.18	42.85	33.42	52.88	292.25	177.99	55.62	291.33	102.95
VOC [g/h]	64.28	33.74	31.02	119.34	51.05	39.81	62.99	348.12	212.02	66.25	347.03	122.63

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersectio	2.660	2.736	3.363	3.384
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	583	583	767	533
d_b, Bicycle Delay [s]	30.10	30.10	22.82	32.27
l_b,int, Bicycle LOS Score for Intersection	1.910	2.710	2.638	2.338
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 7: Castlegate Lane/Placentia Avenue (N/S) at Imperial Highway (E/W)

Control Type:	Signalized	Delay (sec / veh):	18.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.668

Intersection Setup

Name	Placentia Avenue			Castlegate Lane			Imperial Highway			Imperial Highway		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	200.00	100.00	100.00	88.00	100.00	100.00	140.00	100.00	198.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			40.00			40.00			40.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			No			Yes		

Volumes

Name	Placentia Avenue			Castlegate Lane			Imperial Highway			Imperial Highway		
Base Volume Input [veh/h]	152	22	232	21	14	9	14	1791	268	172	1720	36
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	152	22	232	21	14	9	14	1791	268	172	1720	36
Peak Hour Factor	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780	0.9780
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	39	6	59	5	4	2	4	458	69	44	440	9
Total Analysis Volume [veh/h]	155	22	237	21	14	9	14	1831	274	176	1759	37
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Split	Split	Split	Split	Split	Split	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	6	0	0	2	0	3	8	0	7	4	0
Auxiliary Signal Groups												
Maximum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0	7	0	0	0	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	30	0	0	0	0	0	19	0	0	13	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	41	0	0	10	0	10	30	0	14	34	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	6	0	6	6	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Calculated Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	15	15	15	4	4	2	49	49	11	58	58
g / C, Green / Cycle	0.15	0.15	0.15	0.04	0.04	0.02	0.52	0.52	0.12	0.62	0.62
(v / s)_i Volume / Saturation Flow Rate	0.05	0.05	0.12	0.01	0.01	0.01	0.32	0.14	0.10	0.31	0.32
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1800	5700	1900	1800	3800	1900
c, Capacity [veh/h]	276	292	292	78	83	36	2936	979	215	2336	1168
d1, Uniform Delay [s]	35.79	35.71	38.89	43.97	43.99	45.99	16.45	13.05	40.82	10.23	10.42
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.66	0.58	5.44	1.81	1.80	6.84	1.01	0.71	7.48	0.79	1.70
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.31	0.81	0.27	0.28	0.39	0.62	0.28	0.82	0.51	0.53
d, Delay for Lane Group [s/veh]	36.44	36.30	44.32	45.77	45.79	52.83	17.46	13.76	48.30	11.02	12.12
Lane Group LOS	D	D	D	D	D	D	B	B	D	B	B
Critical Lane Group	No	No	Yes	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.87	1.89	5.77	0.50	0.55	0.39	8.77	3.22	4.33	6.09	6.74
50th-Percentile Queue Length [ft/ln]	46.80	47.15	144.30	12.62	13.78	9.65	219.22	80.46	108.21	152.37	168.57
95th-Percentile Queue Length [veh/ln]	3.37	3.40	9.71	0.91	0.99	0.69	13.63	5.79	7.74	10.14	11.00
95th-Percentile Queue Length [ft/ln]	84.23	84.88	242.80	22.71	24.81	17.36	340.63	144.84	193.51	253.59	275.03

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.38	36.30	44.32	45.77	45.79	45.79	52.83	17.46	13.76	48.30	11.38	12.12
Movement LOS	D	D	D	D	D	D	D	B	B	D	B	B
d_A, Approach Delay [s/veh]	40.92			45.78			17.22			14.69		
Approach LOS	D			D			B			B		
d_I, Intersection Delay [s/veh]	18.56											
Intersection LOS	B											
Intersection V/C	0.668											

Emissions

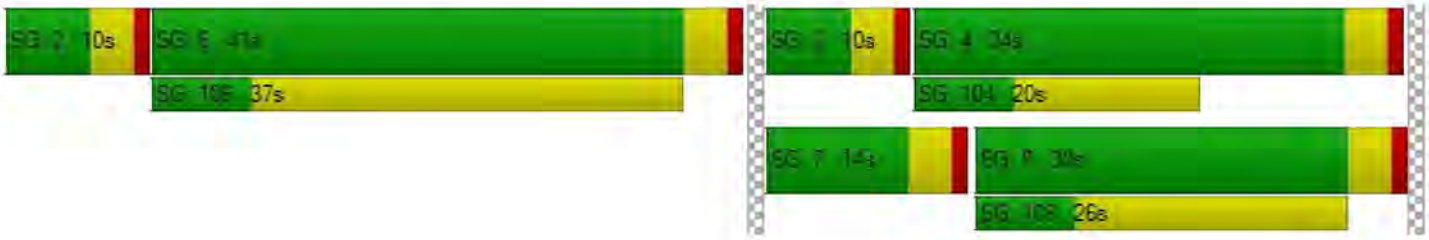
Vehicle Miles Traveled [mph]	5.03	5.09	13.55	1.03	1.12	0.74	97.21	14.55	13.24	88.85	46.23
Stops [stops/h]	70.93	71.48	218.72	19.13	20.89	14.62	996.87	121.97	164.03	461.92	255.51
Fuel consumption [US gal/h]	1.15	1.16	3.59	0.42	0.46	0.32	19.78	2.49	3.82	10.37	5.68
CO [g/h]	80.45	81.12	250.67	29.38	32.14	22.42	1382.75	173.82	266.70	724.80	397.22
NOx [g/h]	15.65	15.78	48.77	5.72	6.25	4.36	269.03	33.82	51.89	141.02	77.28
VOC [g/h]	18.64	18.80	58.10	6.81	7.45	5.20	320.47	40.28	61.81	167.98	92.06

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	37.14	37.14	0.00	37.14
l_p,int, Pedestrian LOS Score for Intersectio	2.312	1.993	0.000	3.350
Crosswalk LOS	B	A	F	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	779	126	547	632
d_b, Bicycle Delay [s]	17.71	41.69	25.06	22.24
l_b,int, Bicycle LOS Score for Intersection	2.243	1.632	2.725	2.644
Bicycle LOS	B	A	B	B

Sequence

Ring 1	2	6	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	-	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 8: Brea Glenbrook Club Dwy/Project Dwy No. 1 (N/S) at Greenbriar Lane (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.011

Intersection Setup

Name	Project Driveway No. 1			Brea Glenbrook Club Dwy			Greenbriar Lane			Greenbriar Lane		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			25.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

Volumes

Name	Project Driveway No. 1			Brea Glenbrook Club Dwy			Greenbriar Lane			Greenbriar Lane		
Base Volume Input [veh/h]	2	0	36	6	0	2	1	36	5	29	31	13
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	0	36	6	0	2	1	36	5	29	31	13
Peak Hour Factor	1.0000	1.0000	1.0000	0.7500	1.0000	0.7500	0.7500	0.7500	1.0000	1.0000	0.7500	0.7500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	0	9	2	0	1	0	12	1	7	10	4
Total Analysis Volume [veh/h]	2	0	36	8	0	3	1	48	5	29	41	17
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.04	0.01	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
d_M, Delay for Movement [s/veh]	9.73	10.21	8.68	9.92	10.10	8.60	7.33	0.00	0.00	7.36	0.00	0.00
Movement LOS	A	B	A	A	B	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.12	0.12	0.12	0.04	0.04	0.04	0.00	0.00	0.00	0.05	0.05	0.05
95th-Percentile Queue Length [ft/ln]	2.95	2.95	2.95	1.04	1.04	1.04	0.04	0.04	0.04	1.30	1.30	1.30
d_A, Approach Delay [s/veh]	8.73			9.56			0.14			2.45		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	3.46											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 9: Project Driveway No. 2 (N/S) at Greenbriar Lane (E/W)

Control Type:	Two-way stop	Delay (sec / veh):	9.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

Intersection Setup

Name	Project Driveway No. 2		Aurora Avenue		Greenbriar Lane	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name	Project Driveway No. 2		Aurora Avenue		Greenbriar Lane	
Base Volume Input [veh/h]	2	14	27	6	9	21
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	14	27	6	9	21
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	4	7	2	2	5
Total Analysis Volume [veh/h]	2	14	27	6	9	21
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	9.42	8.50	0.00	0.00	7.29	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.00	0.00	0.02	0.02
95th-Percentile Queue Length [ft/ln]	1.21	1.21	0.00	0.00	0.45	0.45
d_A, Approach Delay [s/veh]	8.62		0.00		2.19	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.58					
Intersection LOS	A					

Appendix F

CA MUTCD Traffic Signal Warrants Criteria

CHAPTER 4C. TRAFFIC CONTROL SIGNAL NEEDS STUDIES

Section 4C.01 Studies and Factors for Justifying Traffic Control Signals

Standard:

01 **An engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the location shall be performed to determine whether installation of a traffic control signal is justified at a particular location.**

01a **On State highways, the engineering study shall include consideration of a roundabout (yield control). If a roundabout is determined to provide a viable and practical solution, it shall be studied in lieu of, or in addition to a traffic control signal.**

Guidance:

01b *On local streets and highways, the engineering study should include consideration of a roundabout (yield control). If a roundabout is determined to provide a viable and practical solution, it should be studied in lieu of, or in addition to a traffic control signal.*

Support:

01c Refer to Caltrans' website (http://www.dot.ca.gov/hq/traffops/liaisons/ice.html) for more information on the Traffic Operations Policy Directive 13-02, Intersection Control Evaluation (ICE), and other resources for the evaluation of intersection traffic control strategies.

02 **The investigation of the need for a traffic control signal shall include an analysis of factors related to the existing operation and safety at the study location and the potential to improve these conditions, and the applicable factors contained in the following traffic signal warrants:**

Warrant 1, Eight-Hour Vehicular Volume
Warrant 2, Four-Hour Vehicular Volume
Warrant 3, Peak Hour
Warrant 4, Pedestrian Volume
Warrant 5, School Crossing
Warrant 6, Coordinated Signal System
Warrant 7, Crash Experience
Warrant 8, Roadway Network
Warrant 9, Intersection Near a Grade Crossing

03 **The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.**

Support:

04 Sections 8C.09 and 8C.10 contain information regarding the use of traffic control signals instead of gates and/ or flashing-light signals at highway-rail grade crossings and highway-light rail transit grade crossings, respectively.

Guidance:

05 *A traffic control signal should not be installed unless one or more of the factors described in this Chapter are met.*

06 *A traffic control signal should not be installed unless an engineering study indicates that installing a traffic control signal will improve the overall safety and/or operation of the intersection.*

07 *A traffic control signal should not be installed if it will seriously disrupt progressive traffic flow.*

08 *The study should consider the effects of the right-turn vehicles from the minor-street approaches. Engineering judgment should be used to determine what, if any, portion of the right-turn traffic is subtracted from the minor-street traffic count when evaluating the count against the signal warrants listed in Paragraph 2.*

09 *Engineering judgment should also be used in applying various traffic signal warrants to cases where approaches consist of one lane plus one left-turn or right-turn lane. The site-specific traffic characteristics should dictate whether an approach is considered as one lane or two lanes. For example, for an approach with one lane for through and right-turning traffic plus a left-turn lane, if engineering judgment indicates that it should be considered a one-lane approach because the traffic using the left-turn lane is minor, the total traffic volume approaching the intersection should be applied against the signal warrants as a one-lane approach. The*

approach should be considered two lanes if approximately half of the traffic on the approach turns left and the left-turn lane is of sufficient length to accommodate all left-turn vehicles.

10 *Similar engineering judgment and rationale should be applied to a street approach with one through/left-turn lane plus a right-turn lane. In this case, the degree of conflict of minor-street right-turn traffic with traffic on the major street should be considered. Thus, right-turn traffic should not be included in the minor-street volume if the movement enters the major street with minimal conflict. The approach should be evaluated as a one-lane approach with only the traffic volume in the through/left-turn lane considered.*

11 *At a location that is under development or construction and where it is not possible to obtain a traffic count that would represent future traffic conditions, hourly volumes should be estimated as part of an engineering study for comparison with traffic signal warrants. Except for locations where the engineering study uses the satisfaction of Warrant 8 to justify a signal, a traffic control signal installed under projected conditions should have an engineering study done within 1 year of putting the signal into stop-and-go operation to determine if the signal is justified. If not justified, the signal should be taken out of stop-and-go operation or removed.*

12 *For signal warrant analysis, a location with a wide median, even if the median width is greater than 30 feet, should be considered as one intersection.*

Option:

13 At an intersection with a high volume of left-turn traffic from the major street, the signal warrant analysis may be performed in a manner that considers the higher ~~of the major-street left-turn volumes as the "minor-street" volume and the corresponding single direction of opposing traffic on the major street as the "major-street" volume~~ volume of the major-street left-turn volumes plus the higher volume minor-street approach as the "minor street" volume and both approaches of the major street minus the higher of the major-street left-turn volume as "major street" volume.

14 For signal warrants requiring conditions to be present for a certain number of hours in order to be satisfied, any four sequential 15-minute periods may be considered as 1 hour if the separate 1-hour periods used in the warrant analysis do not overlap each other and both the major-street volume and the minor-street volume are for the same specific one-hour periods.

15 For signal warrant analysis, bicyclists may be counted as either vehicles or pedestrians.

Support:

16 When performing a signal warrant analysis, bicyclists riding in the street with other vehicular traffic are usually counted as vehicles and bicyclists who are clearly using pedestrian facilities are usually counted as pedestrians.

Option:

17 Engineering study data may include the following:

A. The number of vehicles entering the intersection in each hour from each approach during 12 hours of an average day. It is desirable that the hours selected contain the greatest percentage of the 24-hour traffic volume.
B. Vehicular volumes for each traffic movement from each approach, classified by vehicle type (heavy trucks, passenger cars and light trucks, public-transit vehicles, and, in some locations, bicycles), during each 15-minute period of the 2 hours in the morning and 2 hours in the afternoon during which total traffic entering the intersection is greatest.
C. Pedestrian volume counts on each crosswalk during the same periods as the vehicular counts in Item B and during hours of highest pedestrian volume. Where young, elderly, and/or persons with physical or visual disabilities need special consideration, the pedestrians and their crossing times may be classified by general observation.
D. Information about nearby facilities and activity centers that serve the young, elderly, and/or persons with disabilities, including requests from persons with disabilities for accessible crossing improvements at the location under study. These persons might not be adequately reflected in the pedestrian volume count if the absence of a signal restrains their mobility.
E. The posted or statutory speed limit or the 85th-percentile speed on the uncontrolled approaches to the location.
F. A condition diagram showing details of the physical layout, including such features as intersection geometrics, channelization, grades, sight-distance restrictions, transit stops and routes, parking conditions,

pavement markings, roadway lighting, driveways, nearby railroad crossings, distance to nearest traffic control signals, utility poles and fixtures, and adjacent land use.

G. A collision diagram showing crash experience by type, location, direction of movement, severity, weather, time of day, date, and day of week for at least 1 year.

18 The following data, which are desirable for a more precise understanding of the operation of the intersection, may be obtained during the periods described in Item B of Paragraph 17:

A. Vehicle-hours of stopped time delay determined separately for each approach.

B. The number and distribution of acceptable gaps in vehicular traffic on the major street for entrance from the minor street.

C. The posted or statutory speed limit or the 85th-percentile speed on controlled approaches at a point near to the intersection but unaffected by the control.

D. Pedestrian delay time for at least two 30-minute peak pedestrian delay periods of an average weekday or like periods of a Saturday or Sunday.

E. Queue length on stop-controlled approaches.

Standard:

19 **Delay, congestion, approach conditions, driver confusion, future land use or other evidence of the need for right of way assignment beyond that which could be provided by stop sign shall be demonstrated.**

Support:

20 Figure 4C–101(CA) and 4C-103(CA) are examples of warrant sheets.

Guidance:

21 *Figure 4C-103(CA) should be used only for new intersections or other locations where it is not reasonable to count actual traffic volumes.*

Section 4C.02 Warrant 1, Eight-Hour Vehicular Volume

Support:

01 The Minimum Vehicular Volume, Condition A, is intended for application at locations where a large volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

02 The Interruption of Continuous Traffic, Condition B, is intended for application at locations where Condition A is not satisfied and where the traffic volume on a major street is so heavy that traffic on a minor intersecting street suffers excessive delay or conflict in entering or crossing the major street.

03 It is intended that Warrant 1 be treated as a single warrant. If Condition A is satisfied, then Warrant 1 is satisfied and analyses of Condition B and the combination of Conditions A and B are not needed. Similarly, if Condition B is satisfied, then Warrant 1 is satisfied and an analysis of the combination of Conditions A and B is not needed.

Standard:

04 **The need for a traffic control signal shall be considered if an engineering study finds that one of the following conditions exist for each of any 8 hours of an average day:**

A. The vehicles per hour given in both of the 100 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; or

B. The vehicles per hour given in both of the 100 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

In applying each condition the major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of these 8 hours.

Option:

05 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 70 percent columns in Table 4C-1 may be used in place of the 100 percent columns.

Guidance:

06 *The combination of Conditions A and B is intended for application at locations where Condition A is not satisfied and Condition B is not satisfied and should be applied only after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.*

Standard:

07 **The need for a traffic control signal shall be considered if an engineering study finds that both of the following conditions exist for each of any 8 hours of an average day:**

A. The vehicles per hour given in both of the 80 percent columns of Condition A in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection; and

B. The vehicles per hour given in both of the 80 percent columns of Condition B in Table 4C-1 exist on the major-street and the higher-volume minor-street approaches, respectively, to the intersection.

These major-street and minor-street volumes shall be for the same 8 hours for each condition; however, the 8 hours satisfied in Condition A shall not be required to be the same 8 hours satisfied in Condition B. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

Option:

08 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 56 percent columns in Table 4C-1 may be used in place of the 80 percent columns.

Section 4C.03 Warrant 2, Four-Hour Vehicular Volume

Support:

01 The Four-Hour Vehicular Volume signal warrant conditions are intended to be applied where the volume of intersecting traffic is the principal reason to consider installing a traffic control signal.

Standard:

02 **The need for a traffic control signal shall be considered if an engineering study finds that, for each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) all fall above the applicable curve in Figure 4C-1 for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these 4 hours.**

Option:

03 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, Figure 4C-2 may be used in place of Figure 4C-1.

Section 4C.04 Warrant 3, Peak Hour

Support:

01 The Peak Hour signal warrant is intended for use at a location where traffic conditions are such that for a minimum of 1 hour of an average day, the minor-street traffic suffers undue delay when entering or crossing the major street.

Standard:

02 **This signal warrant shall be applied only in unusual cases, such as office complexes, manufacturing plants, industrial complexes, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short time.**

03 **The need for a traffic control signal shall be considered if an engineering study finds that the criteria in either of the following two categories are met:**

A. If all three of the following conditions exist for the same 1 hour (any four consecutive 15-minute periods) of an average day:

1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equals or exceeds: 4 vehicle-hours for a one-lane approach or 5 vehicle-hours for a two-lane approach; and

2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes; and

3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

B. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for 1 hour (any four consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes.

Option:

04 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, Figure 4C-4 may be used in place of Figure 4C-3 to evaluate the criteria in the second category of the Standard.

05 If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal may be operated in the flashing mode during the hours that the volume criteria of this warrant are not met.

Guidance:

06 *If this warrant is the only warrant met and a traffic control signal is justified by an engineering study, the traffic control signal should be traffic-actuated.*

Section 4C.05 Warrant 4, Pedestrian Volume

Support:

01 The Pedestrian Volume signal warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street.

Standard:

02 **The need for a traffic control signal at an intersection or midblock crossing shall be considered if an engineering study finds that one of the following criteria is met:**

A. For each of any 4 hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) all fall above the curve in Figure 4C-5; or

B. For 1 hour (any four consecutive 15-minute periods) of an average day, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding pedestrians per hour crossing the major street (total of all crossings) falls above the curve in Figure 4C-7.

Option:

03 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 35 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, Figure 4C-6 may be used in place of Figure 4C-5 to evaluate Criterion A in Paragraph 2, and Figure 4C-8 may be used in place of Figure 4C-7 to evaluate Criterion B in Paragraph 2.

Standard:

04 **The Pedestrian Volume signal warrant shall not be applied at locations where the distance to the nearest traffic control signal or STOP sign controlling the street that pedestrians desire to cross is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.**

05 **If this warrant is met and a traffic control signal is justified by an engineering study, the traffic control signal shall be equipped with pedestrian signal heads complying with the provisions set forth in Chapter 4E.**

Guidance:

06 *If this warrant is met and a traffic control signal is justified by an engineering study, then:*

A. If it is installed at an intersection or major driveway location, the traffic control signal should also control the minor-street or driveway traffic, should be traffic-actuated, and should include pedestrian detection.

B. If it is installed at a non-intersection crossing, the traffic control signal should be installed at least 100 feet from side streets or driveways that are controlled by STOP or YIELD signs, and should be pedestrian-actuated. If the traffic control signal is installed at a non-intersection crossing, at least one of the signal faces should be over the traveled way for each approach, parking and other sight obstructions should be prohibited for at least 100 feet in advance of and at least 20 feet beyond the crosswalk or site

accommodations should be made through curb extensions or other techniques to provide adequate sight distance, and the installation should include suitable standard signs and pavement markings.

C. Furthermore, if it is installed within a signal system, the traffic control signal should be coordinated.

Option:

07 The criterion for the pedestrian volume crossing the major street may be reduced as much as 50 percent if the 15th-percentile crossing speed of pedestrians is less than 3.5 feet per second.

08 A traffic control signal may not be needed at the study location if adjacent coordinated traffic control signals consistently provide gaps of adequate length for pedestrians to cross the street.

Section 4C.06 Warrant 5, School Crossing

Support:

01 The School Crossing signal warrant is intended for application where the fact that schoolchildren cross the major street is the principal reason to consider installing a traffic control signal. For the purposes of this warrant, the word "schoolchildren" includes elementary through high school students.

Standard:

02 **The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of schoolchildren at an established school crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the schoolchildren are using the crossing is less than the number of minutes in the same period (see Section 7A.03) and there are a minimum of 20 schoolchildren during the highest crossing hour.**

03 **Before a decision is made to install a traffic control signal, consideration shall be given to the implementation of other remedial measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.**

04 **The School Crossing signal warrant shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 300 feet, unless the proposed traffic control signal will not restrict the progressive movement of traffic.**

Guidance:

05 *If this warrant is met and a traffic control signal is justified by an engineering study, then:*

A. If it is installed at an intersection or major driveway location, the traffic control signal should also control the minor-street or driveway traffic, should be traffic-actuated, and should include pedestrian detection.

B. If it is installed at a non-intersection crossing, the traffic control signal should be installed at least 100 feet from side streets or driveways that are controlled by STOP or YIELD signs, and should be pedestrian-actuated. If the traffic control signal is installed at a non-intersection crossing, at least one of the signal faces should be over the traveled way for each approach, parking and other sight obstructions should be prohibited for at least 100 feet in advance of and at least 20 feet beyond the crosswalk or site accommodations should be made through curb extensions or other techniques to provide adequate sight distance, and the installation should include suitable standard signs and pavement markings.

C. Furthermore, if it is installed within a signal system, the traffic control signal should be coordinated.

Section 4C.07 Warrant 6, Coordinated Signal System

Support:

01 Progressive movement in a coordinated signal system sometimes necessitates installing traffic control signals at intersections where they would not otherwise be needed in order to maintain proper platooning of vehicles.

Standard:

02 **The need for a traffic control signal shall be considered if an engineering study finds that one of the following criteria is met:**

A. On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning.

B. On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.

Guidance:

03 *The Coordinated Signal System signal warrant should not be applied where the resultant spacing of traffic control signals would be less than 1,000 feet.*

Section 4C.08 Warrant 7, Crash Experience

Support:

01 The Crash Experience signal warrant conditions are intended for application where the severity and frequency of crashes are the principal reasons to consider installing a traffic control signal.

Standard:

02 **The need for a traffic control signal shall be considered if an engineering study finds that all of the following criteria are met:**

A. Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency; and

B. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and

C. For each of any 8 hours of an average day, the vehicles per hour (vph) given in both of the 80 percent columns of Condition A in Table 4C-1 (see Section 4C.02), or the vph in both of the 80 percent columns of Condition B in Table 4C-1 exists on the major-street and the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the Pedestrian Volume warrant. These major-street and minor-street volumes shall be for the same 8 hours. On the minor street, the higher volume shall not be required to be on the same approach during each of the 8 hours.

Option:

03 If the posted or statutory speed limit or the 85th-percentile speed on the major street exceeds 40 mph, or if the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the traffic volumes in the 56 percent columns in Table 4C-1 may be used in place of the 80 percent columns.

Section 4C.09 Warrant 8, Roadway Network

Support:

01 Installing a traffic control signal at some intersections might be justified to encourage concentration and organization of traffic flow on a roadway network.

Standard:

02 **The need for a traffic control signal shall be considered if an engineering study finds that the common intersection of two or more major routes meets one or both of the following criteria:**

A. The intersection has a total existing, or immediately projected, entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday and has 5-year projected traffic volumes, based on an engineering study, that meet one or more of Warrants 1, 2, and 3 during an average weekday; or

B. The intersection has a total existing or immediately projected entering volume of at least 1,000 vehicles per hour for each of any 5 hours of a non-normal business day (Saturday or Sunday).

03 **A major route as used in this signal warrant shall have at least one of the following characteristics:**

A. It is part of the street or highway system that serves as the principal roadway network for through traffic flow.

B. It includes rural or suburban highways outside, entering, or traversing a city.

C. It appears as a major route on an official plan, such as a major street plan in an urban area traffic and transportation study.

Section 4C.10 Warrant 9, Intersection Near a Grade Crossing

Support:

01 The Intersection Near a Grade Crossing signal warrant is intended for use at a location where none of the conditions described in the other eight traffic signal warrants are met, but the proximity to the intersection of a

grade crossing on an intersection approach controlled by a STOP or YIELD sign is the principal reason to consider installing a traffic control signal.

Guidance:

02 *This signal warrant should be applied only after adequate consideration has been given to other alternatives or after a trial of an alternative has failed to alleviate the safety concerns associated with the grade crossing. Among the alternatives that should be considered or tried are:*

A. Providing additional pavement that would enable vehicles to clear the track or that would provide space for an evasive maneuver, or

B. Reassigning the stop controls at the intersection to make the approach across the track a non-stopping approach.

Standard:

03 **The need for a traffic control signal shall be considered if an engineering study finds that both of the following criteria are met:**

A. A grade crossing exists on an approach controlled by a STOP or YIELD sign and the center of the track nearest to the intersection is within 140 feet of the stop line or yield line on the approach; and

B. During the highest traffic volume hour during which rail traffic uses the crossing, the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the minor-street approach that crosses the track (one direction only, approaching the intersection) falls above the applicable curve in Figure 4C-9 or 4C-10 for the existing combination of approach lanes over the track and the distance D, which is the clear storage distance as defined in Section 1A.13.

Guidance:

04 *The following considerations apply when plotting the traffic volume data on Figure 4C-9 or 4C-10:*

A. Figure 4C-9 should be used if there is only one lane approaching the intersection at the track crossing location and Figure 4C-10 should be used if there are two or more lanes approaching the intersection at the track crossing location.

B. After determining the actual distance D, the curve for the distance D that is nearest to the actual distance D should be used. For example, if the actual distance D is 95 feet, the plotted point should be compared to the curve for D = 90 feet.

C. If the rail traffic arrival times are unknown, the highest traffic volume hour of the day should be used.

Option:

05 The minor-street approach volume may be multiplied by up to three adjustment factors as provided in Paragraphs 6 through 8.

06 Because the curves are based on an average of four occurrences of rail traffic per day, the vehicles per hour on the minor-street approach may be multiplied by the adjustment factor shown in Table 4C-2 for the appropriate number of occurrences of rail traffic per day.

07 Because the curves are based on typical vehicle occupancy, if at least 2% of the vehicles crossing the track are buses carrying at least 20 people, the vehicles per hour on the minor-street approach may be multiplied by the adjustment factor shown in Table 4C-3 for the appropriate percentage of high-occupancy buses.

08 Because the curves are based on tractor-trailer trucks comprising 10% of the vehicles crossing the track, the vehicles per hour on the minor-street approach may be multiplied by the adjustment factor shown in Table 4C-4 for the appropriate distance and percentage of tractor-trailer trucks.

Standard:

09 **If this warrant is met and a traffic control signal at the intersection is justified by an engineering study, then:**

A. The traffic control signal shall have actuation on the minor street;

B. Preemption control shall be provided in accordance with Sections 4D.27, 8C.09, and 8C.10; and

C. The grade crossing shall have flashing-light signals (see Chapter 8C).

Guidance:

10 *If this warrant is met and a traffic control signal at the intersection is justified by an engineering study, the grade crossing should have automatic gates (see Chapter 8C).*

Section 4C.101(CA) Criterion for School Crossing Traffic Signals

01 **Standard:**

A. The signal shall be designed for full-time operation.

B. Pedestrian signal faces of the International Symbol type shall be installed at all marked crosswalks at signalized intersections along the "Suggested Route to School."

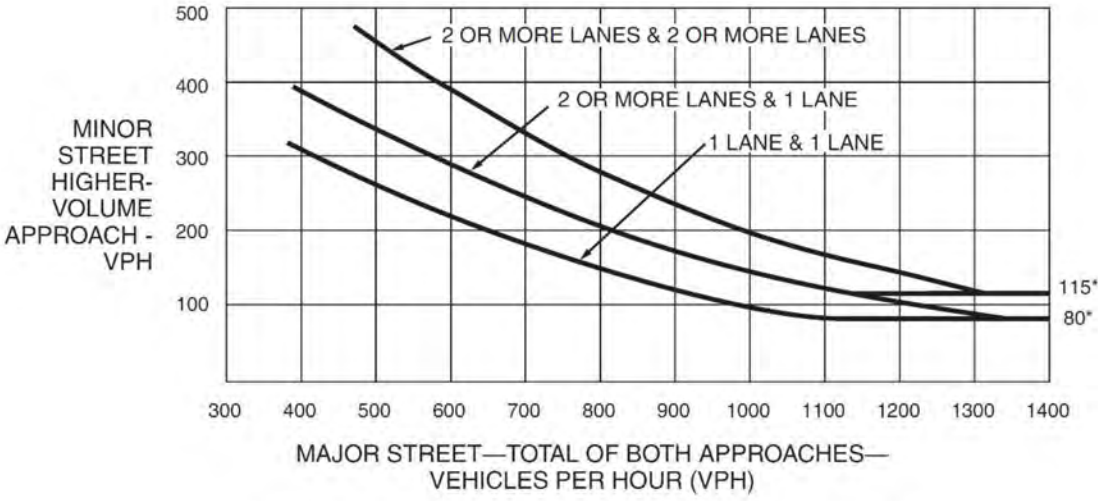
C. If an intersection is signalized under this guideline for school pedestrians, the entire intersection shall be signalized.

D. School area traffic signals shall be traffic actuated type with push buttons or other detectors for pedestrians.

Option:

02 Non-intersection school pedestrian crosswalk locations may be signalized when justified.

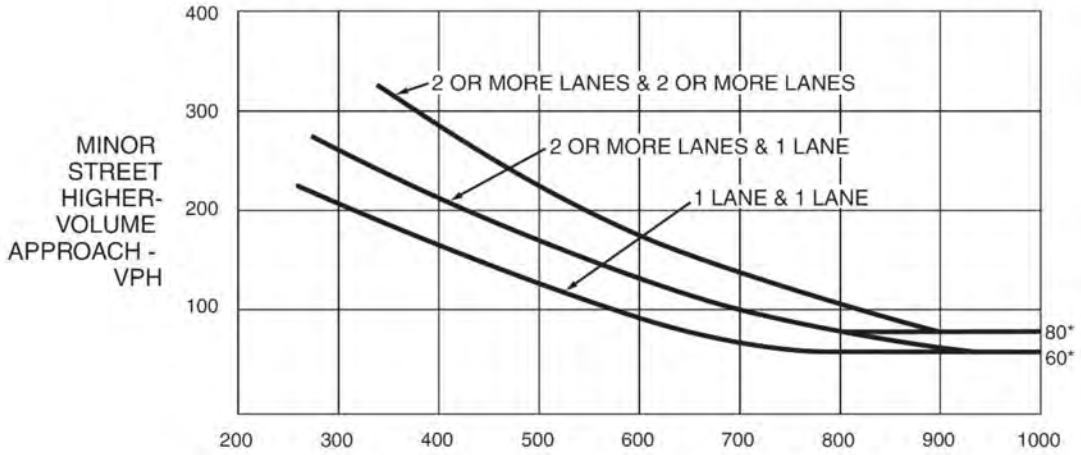
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

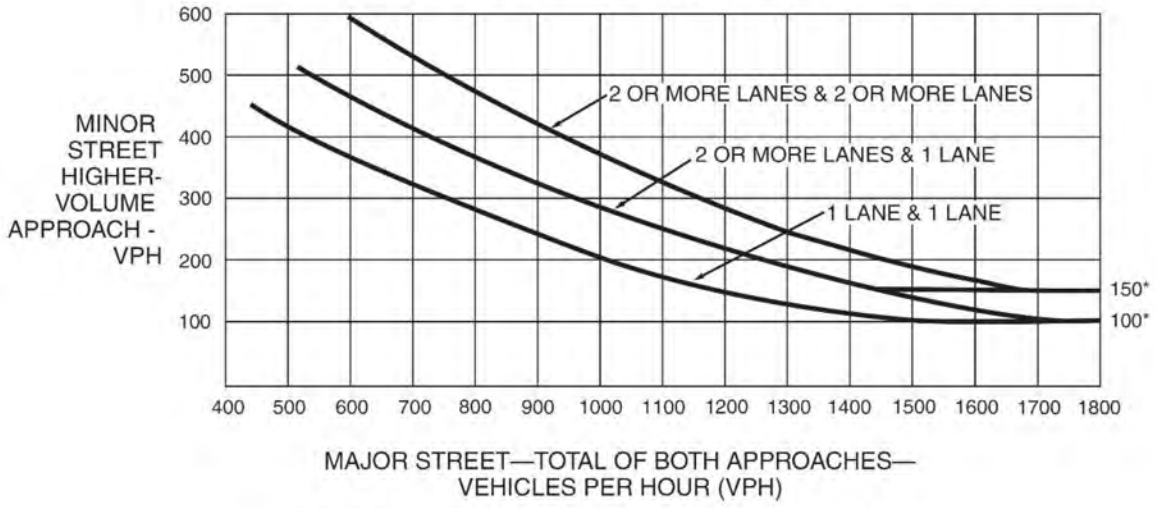
Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

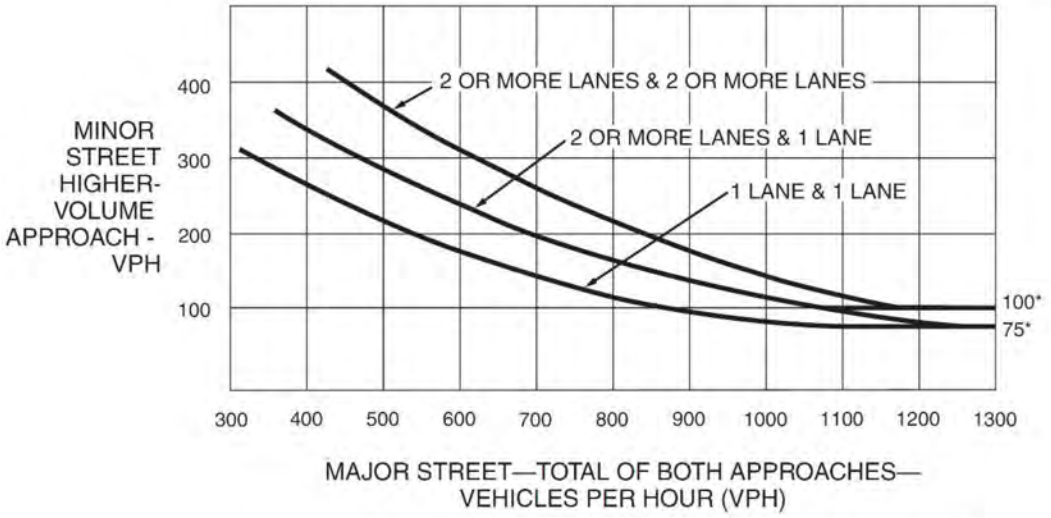
Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

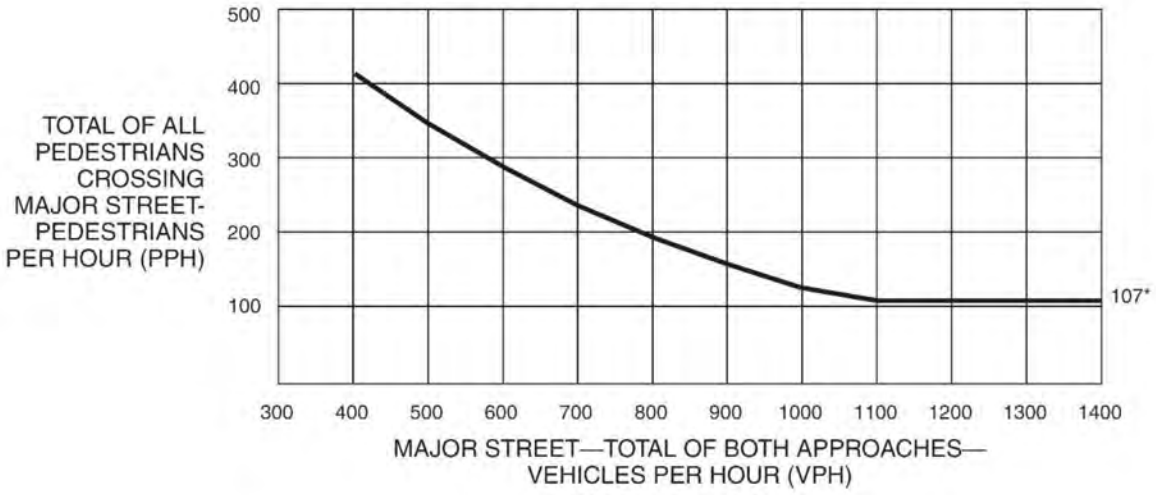
Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



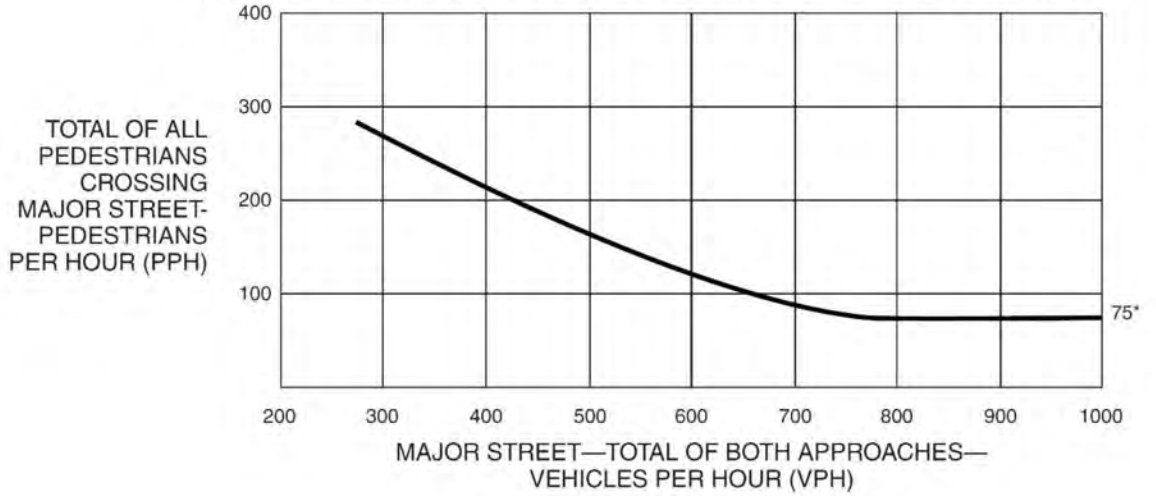
*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



*Note: 107 pph applies as the lower threshold volume.

Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)



*Note: 75 pph applies as the lower threshold volume.

Figure 4C-7. Warrant 4, Pedestrian Peak Hour



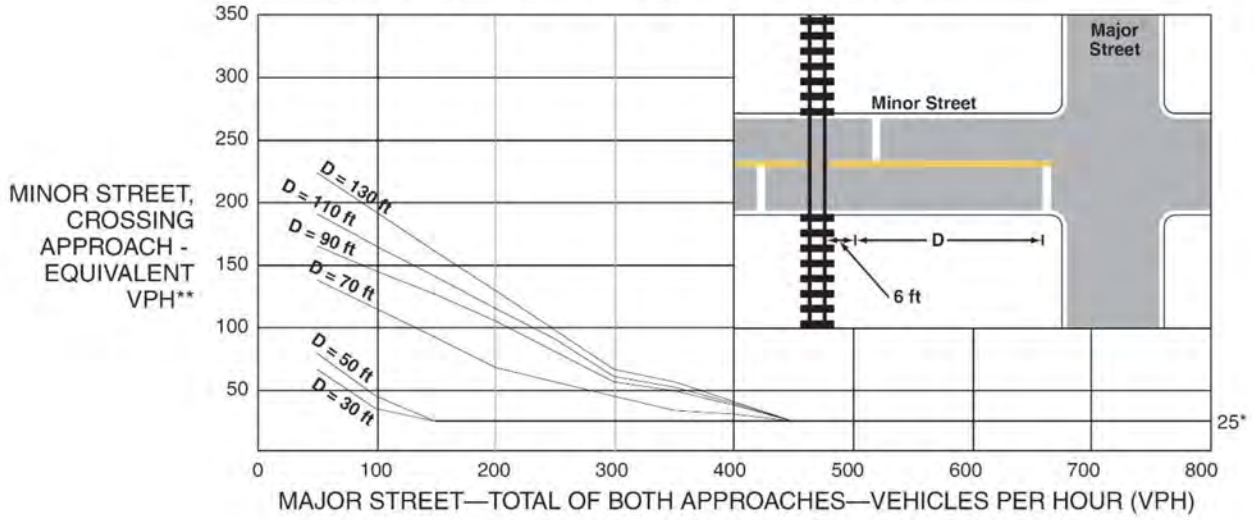
*Note: 133 pph applies as the lower threshold volume.

Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



*Note: 93 pph applies as the lower threshold volume.

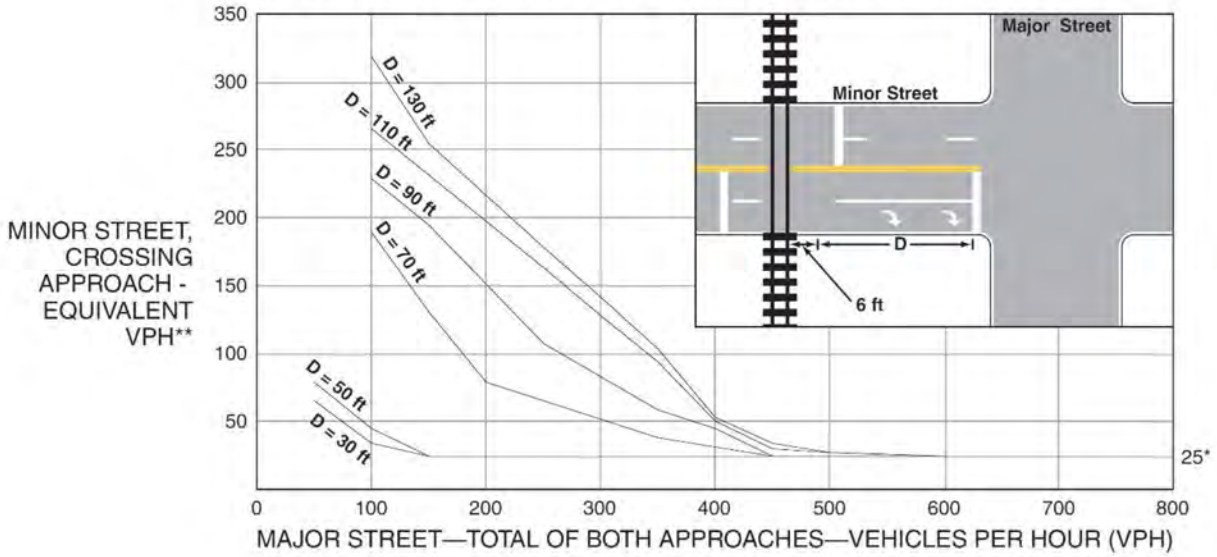
Figure 4C-9. Warrant 9, Intersection Near a Grade Crossing (One Approach Lane at the Track Crossing)



* 25 vph applies as the lower threshold volume

** VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate

Figure 4C-10. Warrant 9, Intersection Near a Grade Crossing (Two or More Approach Lanes at the Track Crossing)



* 25 vph applies as the lower threshold volume

** VPH after applying the adjustment factors in Tables 4C-2, 4C-3, and/or 4C-4, if appropriate

Appendix G

Detailed Traffic Signal Warrant Analysis Worksheets

RK19750.1
JN: 2827-2023-05

California MUTCD 2014 Edition
Traffic Signal Warrant Worksheets

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street** Number of Lanes: **2 or more**
Minor Street: **Redbay Avenue** Number of Lanes: **1**
Traffic Condition: **Existing (2024) Weekday Conditions**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Warrant 1 - Eight Hour Vehicular Volume **Warrant Satisfied? N**
(Condition A or Condition B or Combination of A and B Must Be Satisfied)

Condition A Major Street Volume(70%):	**420**	Condition B Major Street Volume(70%):	**630**
Condition A Minor Street Volume(70%):	**105**	Condition B Minor Street Volume(70%):	**53**
Condition A Major Street Volume (56%):	**336**	Condition B Major Street Volume (56%):	**504**
Condition A Minor Street Volume (56%):	**84**	Condition B Minor Street Volume (56%):	**42**

Time Period		Major Street Volume (Both Approaches)	Minor Street Volumes (Higher Approach)	Condition A Met?	Condition B Met?	Combination of Conditions A & B Met?
Hour 1	12-1	52	1	N	N	N
Hour 2	1-2	29	2	N	N	N
Hour 3	2-3	17	1	N	N	N
Hour 4	3-4	25	3	N	N	N
Hour 5	4-5	92	5	N	N	N
Hour 6	5-6	203	23	N	N	N
Hour 7	6-7	523	35	N	N	N
Hour 8	7-8	1557	70	N	Y	N
Hour 9	8-9	1844	67	N	Y	N
Hour 10	9-10	1033	34	N	N	N
Hour 11	10-11	1041	34	N	N	N
Hour 12	11-12	1283	36	N	N	N
Hour 13	12-1	1498	30	N	N	N
Hour 14	1-2	1481	38	N	N	N
Hour 15	2-3	1680	35	N	N	N
Hour 16	3-4	2042	42	N	N	N
Hour 17	4-5	2255	39	N	N	N
Hour 18	5-6	2171	46	N	N	N
Hour 19	6-7	1656	34	N	N	N
Hour 20	7-8	1092	40	N	N	N
Hour 21	8-9	755	23	N	N	N
Hour 22	9-10	491	18	N	N	N
Hour 23	10-11	231	10	N	N	N
Hour 24	11-12	103	3	N	N	N
			Satisfied?	N	N	N

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Existing (2024) Weekday Conditions**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Rural**

Volume Level Criteria:

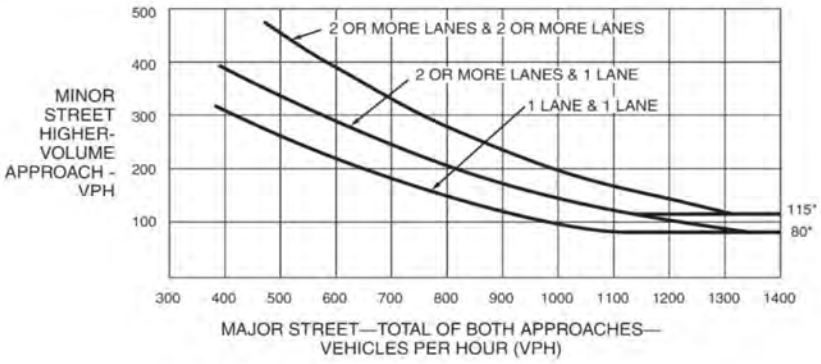
1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Warrant 2 - Four Hour Vehicular Volume — **Warrant Satisfied?** **N**

Record hourly vehicular volumes for any four hours of an average day.

	Time Period			
	Hour 8	Hour 9	Hour 16	Hour 18
Approach Lanes	7-8	8-9	3-4	5-6
Both Approaches - Major Street	1557	1844	2042	2171
Higher Approach - Minor Street	70	67	42	46

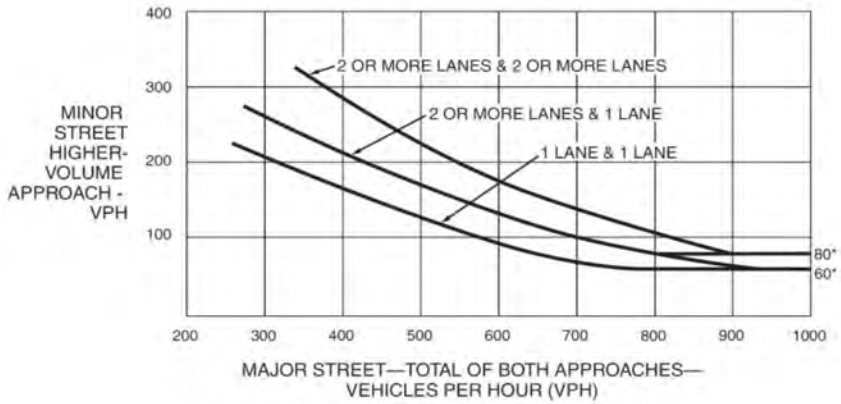
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

All plotted points falls above the applicable curve in Figure 4C-1 (Urban Areas)? **N**

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

All plotted points fall above the applicable curve in Figure 4C-2 (Rural Areas? **N**

Warrant 3 - Peak Hour — **Warrant Satisfied?** **N**
(Part A or Part B must be Satisfied)

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Existing (2024) Weekday Conditions**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Part A

Part A Satisfied? N

(All parts 1, 2, and 3 below must be satisfied the same one hour, for any four consecutive 15-minute periods)

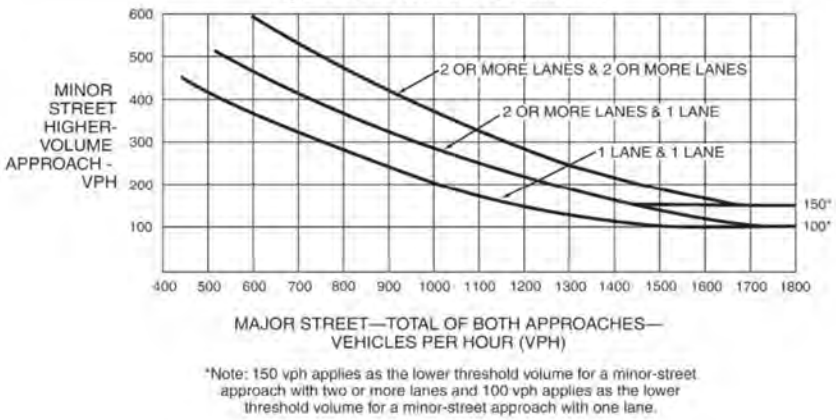
1. The total delay experienced by traffic on one minor street-approach (one-direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two lane approach; AND **N**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane or traffic of 150 vph for two moving lanes; AND **N**
3. The total entering volume serviced during the hour equals or exceeds 800vph for intersections with four or more approaches or 650 vph for intersections with three approaches. **Y**

Part B

Part B Satisfied? N

	Time Period
Approach Lanes	4:45 - 5:45
Both Approaches - Major Street	1898
Higher Approach - Minor Street	66

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-3 (Urban Areas)?

N

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Existing (2024) Weekday Conditions**

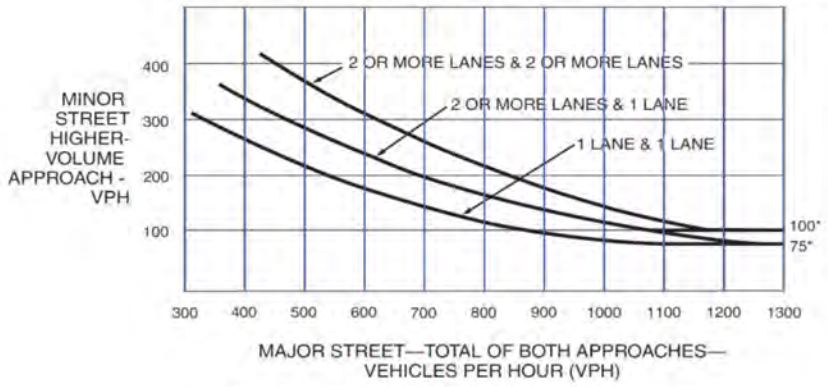
Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-4 (Rural Areas)? **N**

Warrant 4 - Pedestrian Volume
(Parts 1 and 2 Must Be Satisfied)

Warrant Satisfied? **N**

Part 1 (Part A or B Must Be Satisfied)

Part 1 Satisfied? **N**

Part A

Part A Satisfied? **N**

	Time Period			
	Hour 5	Hour 12	Hour 19	Hour 20
Approach Lanes	4-5	11-12	6-7	7-8
Vehicles Both Approaches - Major Street	92	1283	1656	1092
Pedestrians Crossing the Major Street	1	0	0	0

Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



The plotted points fall above the curve in Figure 4C-5 (Urban Areas)? **N**

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Existing (2024) Weekday Conditions**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Rural**

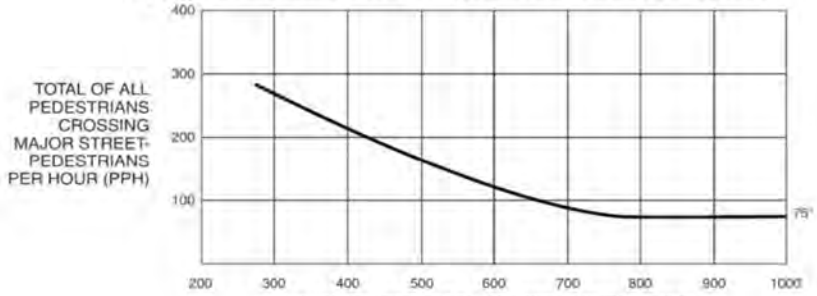
Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

VEHICLES PER HOUR (VPH)

*Note: 107 pph applies as the lower threshold volume.

Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)



*Note: 75 pph applies as the lower threshold volume.

The plotted points fall above the curve in Figure 4C-5 (Rural Areas)? **N**

Part B

Part B Satisfied? **N**

	Time Period
	Hour 19
Approach Lanes	6-7
Vehicles Both Approaches - Major Street	1656
Pedestrians Crossing the Major Street	0

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Existing (2024) Weekday Conditions**

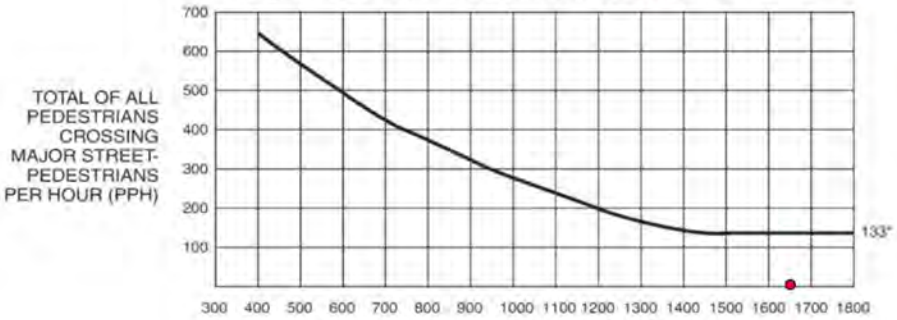
Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y** / **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000?
3. Have adequate trials of other remedial measures been performed? **Y**

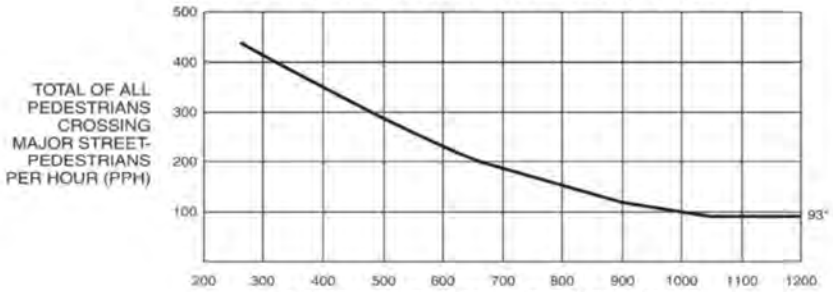
Figure 4C-7. Warrant 4, Pedestrian Peak Hour



*Note: 133 pph applies as the lower threshold volume.

The plotted points fall above the curve in Figure 4C-7 (Urban Areas)? **N**

Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



*Note: 93 pph applies as the lower threshold volume.

The plotted points fall above the curve in Figure 4C-8 (Rural Areas)? **N**

Part 2

Part 2 Satisfied? **Y**

AND, The distance to the nearest traffic signal along the major street is greater than 300 feet?	**Y**
OR, The proposed traffic signal will not restrict progressive traffic flow along the major street?	**N**

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Minor Street: **Redbay Avenue** Number of Lanes: **1**
Traffic Condition: **Existing (2024) Weekday Conditions**

Roadway Classification: **Rural**

Volume Level Criteria:
1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Warrant 5 - School Crossing **Warrant Satisfied? N**
(Parts A and B Must Be Satisfied)

Part A **Part A Satisfied? N**
Gap/Minutes and # of Children

Gaps VS Minutes	Minutes Children Using Crossing	N/A
	Number of Adequate Gaps	N/A
School Age Pedestrian Crossing Street / Hr		N/A

Gaps < Minutes? **N**
AND Children >20/Hr? **N**

AND, Consideration has been given to less restrictive remedial measures? **N**

Part B **Part B Satisfied? Y**

The distance to the nearest traffic signal along the major street is greater than 300 feet?	**Y**
OR, The proposed signal will not restrict the progressive movement of traffic?	**N**

Warrant 6 - Coordinated Signal System **Warrant Satisfied? N**
(All Parts Must Be Satisfied)

Minimum Requirements	DISTANCE TO NEAREST SIGNAL	
≥ 1000 ft	North: - - ft, South: - - ft, East: 730 ft, West: 1420 ft.	**N**
On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning?		**N**
OR, On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.		

Warrant 7 - Crash Experience Warrant **Warrant Satisfied? N**
(All Parts Must Be Satisfied)

Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency?			**N**
REQUIREMENTS	Number of crashes reported within a 12 month period susceptible to correction by a traffic signal, and involving injury or damage exceeding the requirements for a reportable crash?		**N**
5 OR MORE			
REQUIREMENTS	CONDITIONS		
ONE CONDITION SATISFIED 80%	Warrant 1, Condition A - Minimum Vehicular Volume	**N**	**N**
	OR, Warrant 1, Condition B - Interruption of Continous Traffic	**N**	
	OR, Warrant 4, Pedestrian Volume Condition Ped Vol ≥ 80% of Figure 4C-5 through Figure 4C-8	**N**	

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Major Street: **Birch Street** Number of Lanes: **2 or more**
Minor Street: **Redbay Avenue** Number of Lanes: **1**
Traffic Condition: **Existing (2024) Weekday Conditions**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Warrant 8 - Roadway Network
(All Parts Must Be Satisfied)

Warrant Satisfied? N

Minimum Volume Requirements	Entering Volumes - All Approaches		Fulfilled
1000 Veh/Hr	During Typical Weekday Peak Hour (2639) Veh/Hr and has 5-year projected traffic volumes that meet one or more of Warrants 1, 2, and 3 during an average weekday.	Y	Y
	OR During Each of any 5Hrs. Of a Sat. or Sun (1889) Veh/Hr?	Y	

CHARACTERISTICS OF MAJOR ROUTES	Major Route A	Major Route B
Hwy. System Serving as Principal Network for Through Traffic?	Y	N
Rural or Suburban Highway Outside Of, Entering, or Traversing a City?	N	N
Appears as Major Route on an Official Plan?	Y	N
Any Major Route Characteristics Met, Both Streets?		N

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Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Associated Road**
Minor Street: **Shopping Center Driveway No. 1**
Traffic Condition: **Existing (2024) Weekday Conditions**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Urban**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

Warrant 1 - Eight Hour Vehicular Volume **Warrant Satisfied? Y**
(Condition A or Condition B or Combination of A and B Must Be Satisfied)

Condition A Major Street Volume (100%):	**600**	Condition B Major Street Volume (100%):	**900**
Condition A Minor Street Volume (100%):	**150**	Condition B Minor Street Volume (100%):	**75**
Condition A Major Street Volume (80%):	**480**	Condition B Major Street Volume (80%):	**720**
Condition A Minor Street Volume (80%):	**120**	Condition B Minor Street Volume (80%):	**60**

Time Period		Major Street Volume (Both Approaches)	Minor Street Volumes (Higher Approach)	Condition A Met?	Condition B Met?	Combination of Conditions A & B Met?
Hour 1	12-1	54	3	N	N	N
Hour 2	1-2	23	1	N	N	N
Hour 3	2-3	22	1	N	N	N
Hour 4	3-4	43	0	N	N	N
Hour 5	4-5	124	2	N	N	N
Hour 6	5-6	194	6	N	N	N
Hour 7	6-7	436	61	N	N	N
Hour 8	7-8	764	103	N	N	N
Hour 9	8-9	773	135	N	N	Y
Hour 10	9-10	594	148	N	N	N
Hour 11	10-11	549	162	N	N	N
Hour 12	11-12	675	280	Y	N	N
Hour 13	12-1	793	354	Y	N	Y
Hour 14	1-2	769	289	Y	N	Y
Hour 15	2-3	914	303	Y	Y	Y
Hour 16	3-4	1025	307	Y	Y	Y
Hour 17	4-5	1050	265	Y	Y	Y
Hour 18	5-6	1094	294	Y	Y	Y
Hour 19	6-7	888	298	Y	N	Y
Hour 20	7-8	683	267	Y	N	N
Hour 21	8-9	488	180	N	N	N
Hour 22	9-10	330	134	N	N	N
Hour 23	10-11	194	48	N	N	N
Hour 24	11-12	81	13	N	N	N
			Satisfied?	Y	N	N

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Associated Road**
Minor Street: **Shopping Center Driveway No. 1**
Traffic Condition: **Existing (2024) Weekday Conditions**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Urban**

Volume Level Criteria:

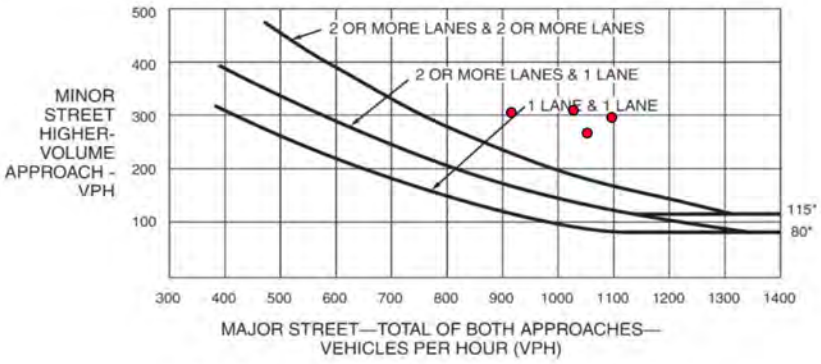
1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

Warrant 2 - Four Hour Vehicular Volume — **Warrant Satisfied?** **Y**

Record hourly vehicular volumes for any four hours of an average day.

	Time Period			
	Hour 15	Hour 16	Hour 17	Hour 18
Approach Lanes	2-3	3-4	4-5	5-6
Both Approaches - Major Street	914	1025	1050	1094
Higher Approach - Minor Street	303	307	265	294

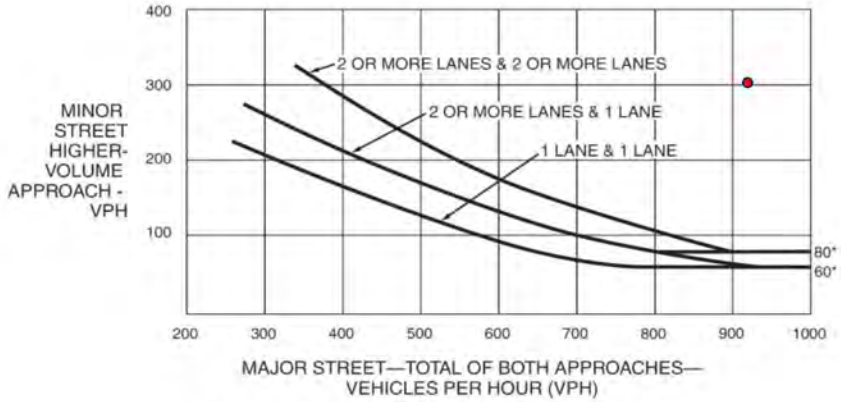
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

All plotted points falls above the applicable curve in Figure 4C-1 (Urban Areas)? **Y**

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

All plotted points fall above the applicable curve in Figure 4C-2 (Rural Areas? **N**

Warrant 3 - Peak Hour — **Warrant Satisfied?** **Y**
(Part A or Part B must be Satisfied)

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Associated Road**
Minor Street: **Shopping Center Driveway No. 1**
Traffic Condition: **Existing (2024) Weekday Conditions**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Urban**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

Part A

Part A Satisfied? N

(All parts 1, 2, and 3 below must be satisfied the same one hour, for any four consecutive 15-minute periods)

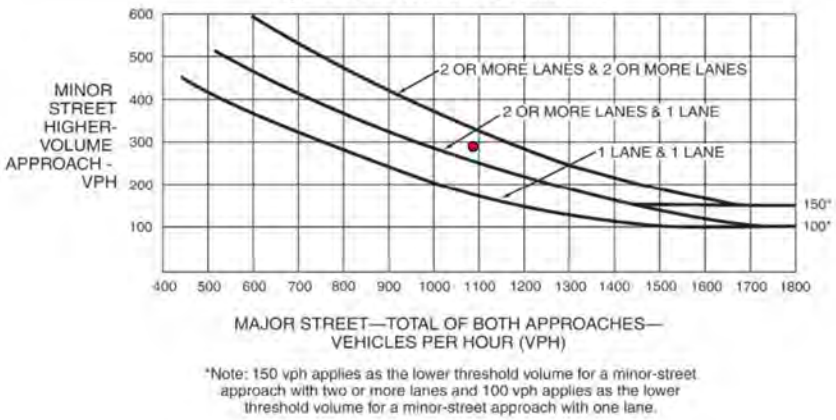
1. The total delay experienced by traffic on one minor street-approach (one-direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two lane approach; AND — **N**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane or traffic of 150 vph for two moving lanes; AND — **Y**
3. The total entering volume serviced during the hour equals or exceeds 800vph for intersections with four or more approaches or 650 vph for intersections with three approaches. — **Y**

Part B

Part B Satisfied? Y

	Time Period
Approach Lanes	5-6
Both Approaches - Major Street	1089
Higher Approach - Minor Street	290

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-3 (Urban Areas)?

Y

Jurisdiction: **Brea**

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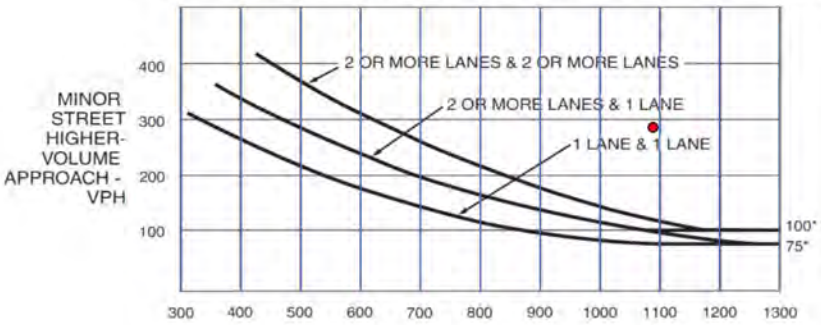
Major Street: **Associated Road** Number of Lanes: **2 or more**
Minor Street: **Shopping Center Driveway No. 1** Number of Lanes: **1**
Traffic Condition: **Existing (2024) Weekday Conditions**

Roadway Classification: **Urban**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-4 (Rural Areas)? **N**

Warrant 4 - Pedestrian Volume
(Parts 1 and 2 Must Be Satisfied)

Warrant Satisfied? **N**

Part 1 (Part A or B Must Be Satisfied)

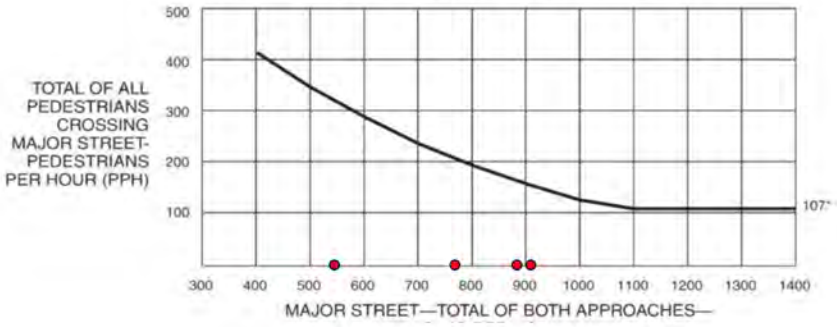
Part 1 Satisfied? **N**

Part A

Part A Satisfied? **N**

	Time Period			
	Hour 9	Hour 11	Hour 15	Hour 19
Approach Lanes	8-9	10-11	2-3	6-7
Vehicles Both Approaches - Major Street	773	549	914	888
Pedestrians Crossing the Major Street	0	0	0	0

Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



The plotted points fall above the curve in Figure 4C-5 (Urban Areas)? **N**

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Associated Road** Number of Lanes: **2 or more**
Minor Street: **Shopping Center Driveway No. 1** Number of Lanes: **1**
Traffic Condition: **Existing (2024) Weekday Conditions**

Roadway Classification: **Urban**

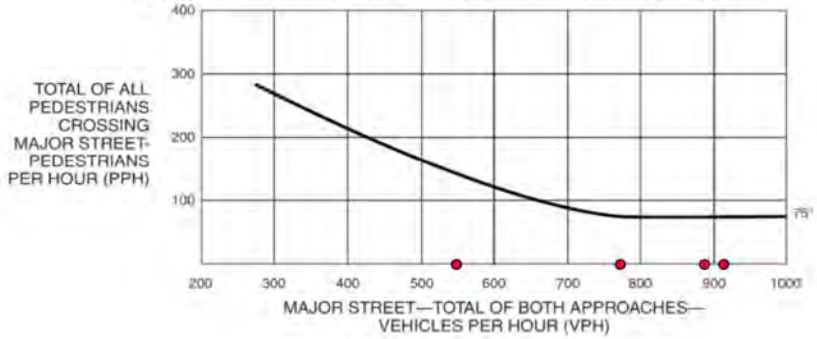
Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

VEHICLES PER HOUR (VPH)

*Note: 107 pph applies as the lower threshold volume.

Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)



*Note: 75 pph applies as the lower threshold volume.

The plotted points fall above the curve in Figure 4C-5 (Rural Areas)? **N**

Part B

Part B Satisfied? **N**

	Time Period
	Hour 18
Approach Lanes	5-6
Vehicles Both Approaches - Major Street	1094
Pedestrians Crossing the Major Street	0

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Associated Road**
Minor Street: **Shopping Center Driveway No. 1**
Traffic Condition: **Existing (2024) Weekday Conditions**

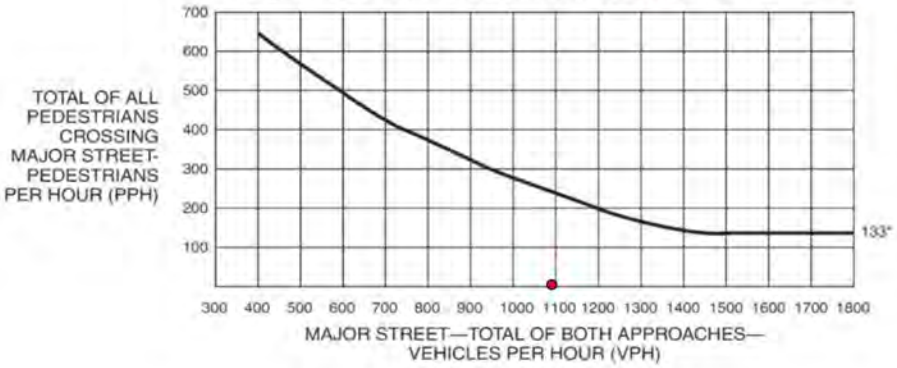
Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Urban**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

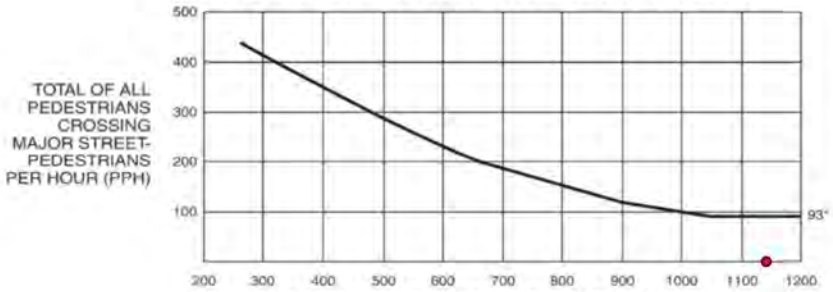
Figure 4C-7. Warrant 4, Pedestrian Peak Hour



*Note: 133 pph applies as the lower threshold volume.

The plotted points fall above the curve in Figure 4C-7 (Urban Areas)? **N**

Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



*Note: 93 pph applies as the lower threshold volume.

The plotted points fall above the curve in Figure 4C-8 (Rural Areas)? **N**

Part 2

Part 2 Satisfied? **Y**

AND, The distance to the nearest traffic signal along the major street is greater than 300 feet?	**Y**
OR, The proposed traffic signal will not restrict progressive traffic flow along the major street?	**N**

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Traffic Signal Warrant Worksheets

Jurisdiction:	**Brea**	Engineer:	**SA**	Date:	3/25/2024
		Checked by:	**JT**	Date:	3/25/2024
Major Street:	**Associated Road**	Number of Lanes:	**2 or more**	Roadway Classification	
Minor Street:	**Shopping Center Driveway No. 1**	Number of Lanes:	**1**		
Traffic Condition:	**Existing (2024) Weekday Conditions**			**Urban**	

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

Warrant 5 - School Crossing **Warrant Satisfied? N**
(Parts A and B Must Be Satisfied)

Part A **Part A Satisfied? N**
Gap/Minutes and # of Children

Gaps VS Minutes	Minutes Children Using Crossing	N/A		
	Number of Adequate Gaps	N/A	Gaps < Minutes?	N
School Age Pedestrian Crossing Street / Hr		N/A	AND Children >20/Hr?	N

AND, Consideration has been given to less restrictive remedial measures?	N

Part B **Part B Satisfied? Y**

The distance to the nearest traffic signal along the major street is greater than 300 feet?	Y
OR, The proposed signal will not restrict the progressive movement of traffic?	N

Warrant 6 - Coordinated Signal System **Warrant Satisfied? N**
(All Parts Must Be Satisfied)

Minimum Requirements	DISTANCE TO NEAREST SIGNAL	
≥ 1000 ft	North: 720 ft, South: 540 ft, East: - - ft, West: - - ft.	N
On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning?		N
OR, On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.		

Warrant 7 - Crash Experience Warrant **Warrant Satisfied? N**
(All Parts Must Be Satisfied)

Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency?			N
REQUIREMENTS	Number of crashes reported within a 12 month period susceptible to correction by a traffic signal, and involving injury or damage exceeding the requirements for a reportable crash?		N
5 OR MORE			
REQUIREMENTS	CONDITIONS		
ONE CONDITION SATISFIED 80%	Warrant 1, Condition A - Minimum Vehicular Volume	Y	Y
	OR, Warrant 1, Condition B - Interruption of Continous Traffic	N	
	OR, Warrant 4, Pedestrian Volume Condition Ped Vol ≥ 80% of Figure 4C-5 through Figure 4C-8	N	

California MUTCD 2014 Edition
Traffic Signal Warrant Worksheets

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Associated Road**
Minor Street: **Shopping Center Driveway No. 1**
Traffic Condition: **Existing (2024) Weekday Conditions**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Urban**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

Warrant 8 - Roadway Network
(All Parts Must Be Satisfied)

Warrant Satisfied? N

Minimum Volume Requirements	Entering Volumes - All Approaches		Fulfilled
1000 Veh/Hr	During Typical Weekday Peak Hour (1089) Veh/Hr and has 5-year projected traffic volumes that meet one or more of Warrants 1, 2, and 3 during an average weekday.	Y	Y
	OR During Each of any 5Hrs. Of a Sat. or Sun (914) Veh/Hr?	N	

CHARACTERISTICS OF MAJOR ROUTES	Major Route A	Major Route B
Hwy. System Serving as Principal Network for Through Traffic?	Y	N
Rural or Suburban Highway Outside Of, Entering, or Traversing a City?	N	N
Appears as Major Route on an Official Plan?	Y	N
Any Major Route Characteristics Met, Both Streets?		N

California MUTCD 2014 Edition
Traffic Signal Warrant Worksheets

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Associated Road**
Minor Street: **Shopping Center Driveway No. 1**
Traffic Condition: **Existing (2024) Saturday Conditions**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Urban**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

Warrant 1 - Eight Hour Vehicular Volume **Warrant Satisfied? Y**
(Condition A or Condition B or Combination of A and B Must Be Satisfied)

Condition A Major Street Volume (100%):	**600**	Condition B Major Street Volume (100%):	**900**
Condition A Minor Street Volume (100%):	**150**	Condition B Minor Street Volume (100%):	**75**
Condition A Major Street Volume (80%):	**480**	Condition B Major Street Volume (80%):	**720**
Condition A Minor Street Volume (80%):	**120**	Condition B Minor Street Volume (80%):	**60**

Time Period		Major Street Volume (Both Approaches)	Minor Street Volumes (Higher Approach)	Condition A Met?	Condition B Met?	Combination of Conditions A & B Met?
Hour 1	12-1	54	3	N	N	N
Hour 2	1-2	23	1	N	N	N
Hour 3	2-3	22	1	N	N	N
Hour 4	3-4	43	0	N	N	N
Hour 5	4-5	124	2	N	N	N
Hour 6	5-6	194	6	N	N	N
Hour 7	6-7	436	61	N	N	N
Hour 8	7-8	764	103	N	N	N
Hour 9	8-9	773	135	N	N	Y
Hour 10	9-10	594	148	N	N	N
Hour 11	10-11	549	162	N	N	N
Hour 12	11-12	675	280	Y	N	N
Hour 13	12-1	793	354	Y	N	Y
Hour 14	1-2	769	289	Y	N	Y
Hour 15	2-3	914	303	Y	Y	Y
Hour 16	3-4	1025	307	Y	Y	Y
Hour 17	4-5	1050	265	Y	Y	Y
Hour 18	5-6	1094	294	Y	Y	Y
Hour 19	6-7	888	298	Y	N	Y
Hour 20	7-8	683	267	Y	N	N
Hour 21	8-9	488	180	N	N	N
Hour 22	9-10	330	134	N	N	N
Hour 23	10-11	194	48	N	N	N
Hour 24	11-12	81	13	N	N	N
			Satisfied?	Y	N	N

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Associated Road**
Minor Street: **Shopping Center Driveway No. 1**
Traffic Condition: **Existing (2024) Saturday Conditions**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Urban**

Volume Level Criteria:

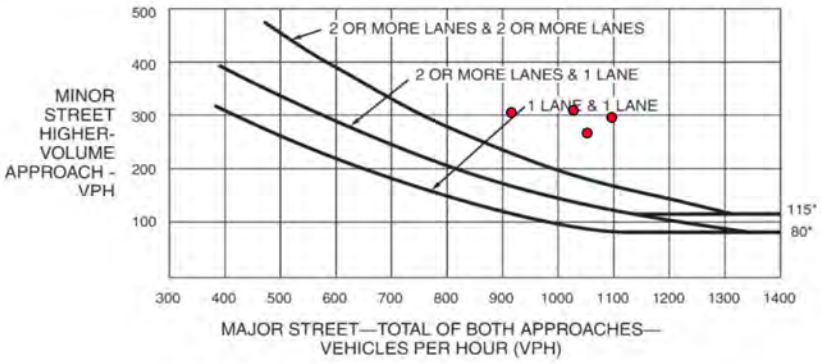
1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

Warrant 2 - Four Hour Vehicular Volume — **Warrant Satisfied?** **Y**

Record hourly vehicular volumes for any four hours of an average day.

	Time Period			
	Hour 15	Hour 16	Hour 17	Hour 18
Approach Lanes	2-3	3-4	4-5	5-6
Both Approaches - Major Street	914	1025	1050	1094
Higher Approach - Minor Street	303	307	265	294

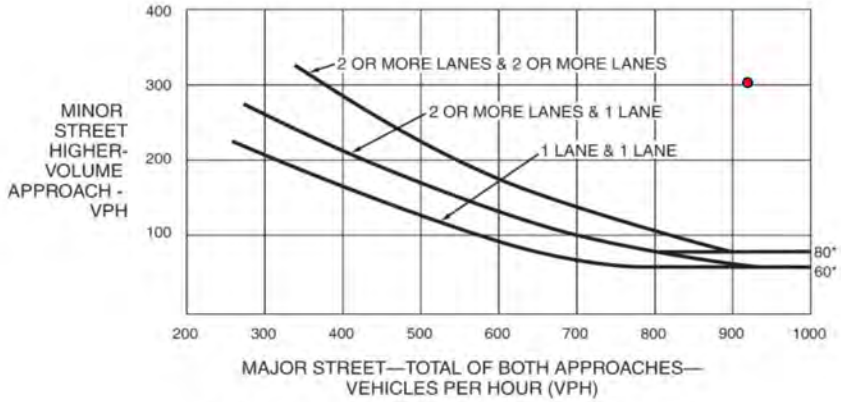
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

All plotted points falls above the applicable curve in Figure 4C-1 (Urban Areas)? **Y**

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

All plotted points fall above the applicable curve in Figure 4C-2 (Rural Areas? **N**

Warrant 3 - Peak Hour — **Warrant Satisfied?** **N**
(Part A or Part B must be Satisfied)

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Associated Road**
Minor Street: **Shopping Center Driveway No. 1**
Traffic Condition: **Existing (2024) Saturday Conditions**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Urban**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

Part A

Part A Satisfied? N

(All parts 1, 2, and 3 below must be satisfied the same one hour, for any four consecutive 15-minute periods)

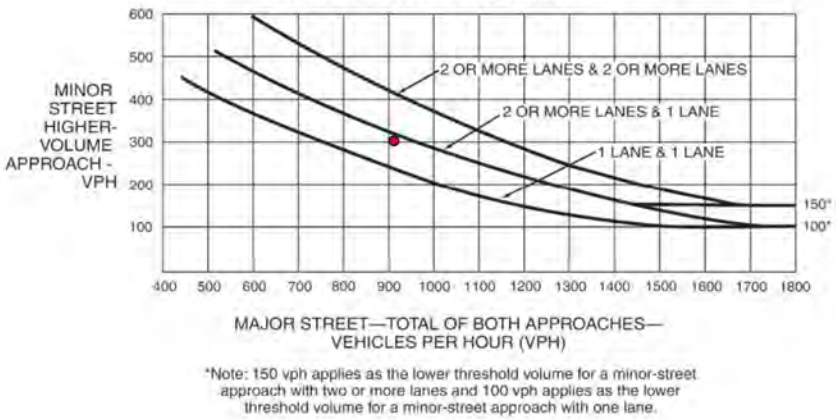
1. The total delay experienced by traffic on one minor street-approach (one-direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two lane approach; AND — **N**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane or traffic of 150 vph for two moving lanes; AND — **Y**
3. The total entering volume serviced during the hour equals or exceeds 800vph for intersections with four or more approaches or 650 vph for intersections with three approaches. — **Y**

Part B

Part B Satisfied? N

	Time Period
Approach Lanes	2-3
Both Approaches - Major Street	914
Higher Approach - Minor Street	303

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-3 (Urban Areas)?

N

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Associated Road**
Minor Street: **Shopping Center Driveway No. 1**
Traffic Condition: **Existing (2024) Saturday Conditions**

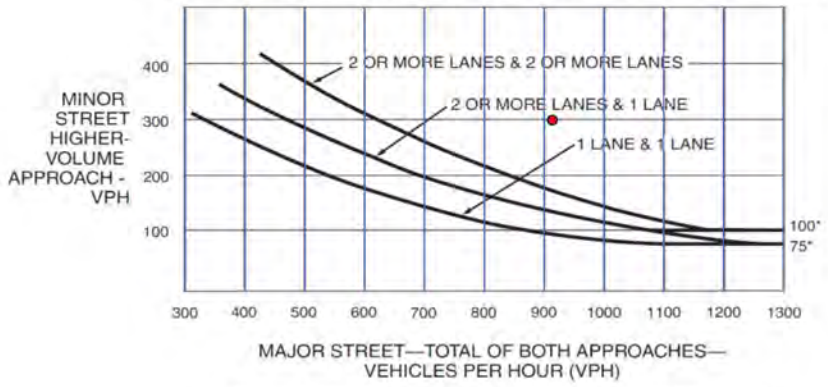
Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Urban**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-4 (Rural Areas)? **N**

Warrant 4 - Pedestrian Volume
(Parts 1 and 2 Must Be Satisified)

Warrant Satisfied? **N**

Part 1 (Part A or B Must Be Satisfied)

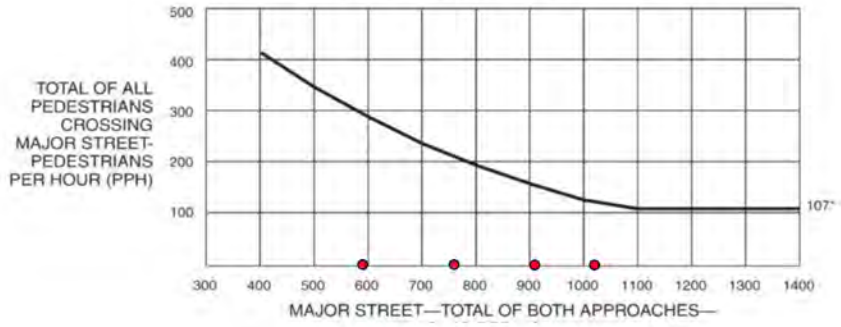
Part 1 Satisfied? **N**

Part A

Part A Satisfied? **N**

	Time Period			
	Hour 8	Hour 10	Hour 15	Hour 16
Approach Lanes	7-8	9-10	2-3	3-4
Vehicles Both Approaches - Major Street	764	594	914	1025
Pedestrians Crossing the Major Street	1	1	0	0

Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



The plotted points fall above the curve in Figure 4C-5 (Urban Areas)? **N**

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Associated Road**
Minor Street: **Shopping Center Driveway No. 1**
Traffic Condition: **Existing (2024) Saturday Conditions**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Urban**

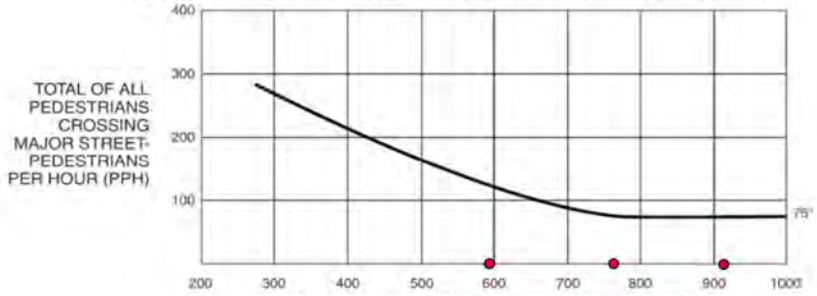
Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

VEHICLES PER HOUR (VPH)

*Note: 107 pph applies as the lower threshold volume.

Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)



*Note: 75 pph applies as the lower threshold volume.

The plotted points fall above the curve in Figure 4C-5 (Rural Areas)? **N**

Part B

Part B Satisfied? **N**

	Time Period
	Hour 15
Approach Lanes	2-3
Vehicles Both Approaches - Major Street	914
Pedestrians Crossing the Major Street	0

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Associated Road**
Minor Street: **Shopping Center Driveway No. 1**
Traffic Condition: **Existing (2024) Saturday Conditions**

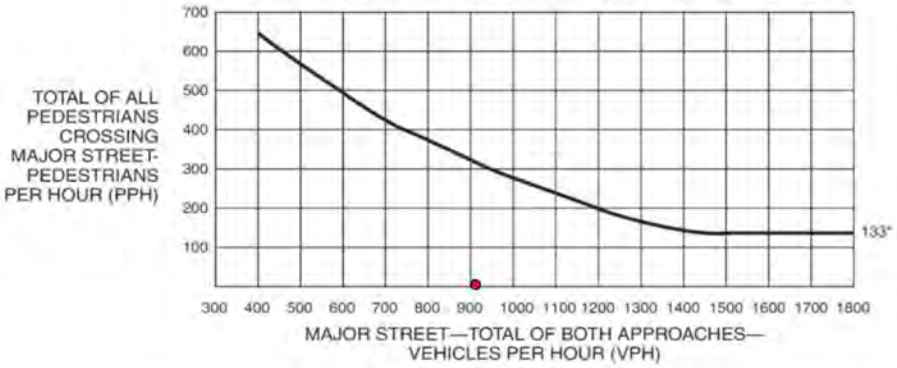
Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Urban**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

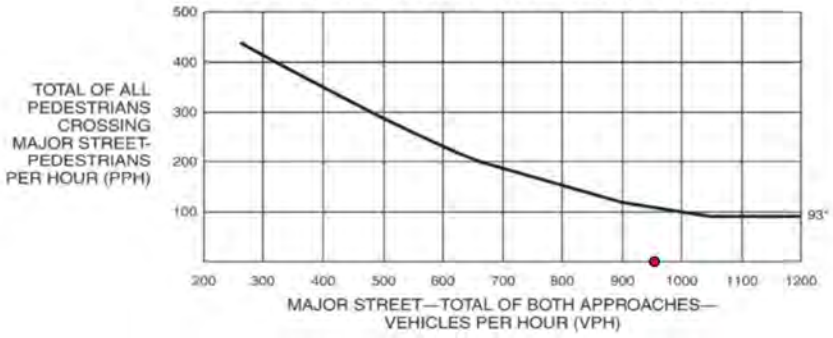
Figure 4C-7. Warrant 4, Pedestrian Peak Hour



*Note: 133 pph applies as the lower threshold volume.

The plotted points fall above the curve in Figure 4C-7 (Urban Areas)? **N**

Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



*Note: 93 pph applies as the lower threshold volume.

The plotted points fall above the curve in Figure 4C-8 (Rural Areas)? **N**

Part 2

Part 2 Satisfied? **Y**

AND, The distance to the nearest traffic signal along the major street is greater than 300 feet?	**Y**
OR, The proposed traffic signal will not restrict progressive traffic flow along the major street?	**N**

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Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Associated Road** Number of Lanes: **2 or more** Roadway Classification
Minor Street: **Shopping Center Driveway No. 1** Number of Lanes: **1**
Traffic Condition: **Existing (2024) Saturday Conditions** **Urban**

Volume Level Criteria:
1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

Warrant 5 - School Crossing **Warrant Satisfied? N**
(Parts A and B Must Be Satisfied)

Part A **Part A Satisfied? N**
Gap/Minutes and # of Children

Gaps VS Minutes	Minutes Children Using Crossing	N/A
	Number of Adequate Gaps	N/A
School Age Pedestrian Crossing Street / Hr		N/A

Gaps < Minutes? **N**
AND Children >20/Hr? **N**

AND, Consideration has been given to less restrictive remedial measures? **N**

Part B **Part B Satisfied? Y**

The distance to the nearest traffic signal along the major street is greater than 300 feet?	**Y**
OR, The proposed signal will not restrict the progressive movement of traffic?	**N**

Warrant 6 - Coordinated Signal System **Warrant Satisfied? N**
(All Parts Must Be Satisfied)

Minimum Requirements	DISTANCE TO NEAREST SIGNAL	
≥ 1000 ft	North: 720 ft, South: 540 ft, East: - - ft, West: - - ft.	**N**
On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning?		**N**
OR, On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.		

Warrant 7 - Crash Experience Warrant **Warrant Satisfied? N**
(All Parts Must Be Satisfied)

Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency?			**N**
REQUIREMENTS	Number of crashes reported within a 12 month period susceptible to correction by a traffic signal, and involving injury or damage exceeding the requirements for a reportable crash?		**N**
5 OR MORE			
REQUIREMENTS	CONDITIONS		
ONE CONDITION SATISFIED 80%	Warrant 1, Condition A - Minimum Vehicular Volume	**Y**	**Y**
	OR, Warrant 1, Condition B - Interruption of Continous Traffic	**N**	
	OR, Warrant 4, Pedestrian Volume Condition Ped Vol ≥ 80% of Figure 4C-5 through Figure 4C-8	**N**	

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Traffic Signal Warrant Worksheets

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Associated Road**
Minor Street: **Shopping Center Driveway No. 1**
Traffic Condition: **Existing (2024) Saturday Conditions**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Urban**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

Warrant 8 - Roadway Network
(All Parts Must Be Satisfied)

Warrant Satisfied? N

Minimum Volume Requirements	Entering Volumes - All Approaches		Fulfilled
1000 Veh/Hr	During Typical Weekday Peak Hour (1089) Veh/Hr and has 5-year projected traffic volumes that meet one or more of Warrants 1, 2, and 3 during an average weekday.	Y	Y
	OR During Each of any 5Hrs. Of a Sat. or Sun (914) Veh/Hr?	N	

CHARACTERISTICS OF MAJOR ROUTES	Major Route A	Major Route B
Hwy. System Serving as Principal Network for Through Traffic?	Y	N
Rural or Suburban Highway Outside Of, Entering, or Traversing a City?	N	N
Appears as Major Route on an Official Plan?	Y	N
Any Major Route Characteristics Met, Both Streets?		N

California MUTCD 2014 Edition
Traffic Signal Warrant Worksheets

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Existing (2024) Saturday Conditions**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Warrant 1 - Eight Hour Vehicular Volume **Warrant Satisfied? N**
(Condition A or Condition B or Combination of A and B Must Be Satisfied)

Condition A Major Street Volume(70%):	**420**	Condition B Major Street Volume(70%):	**630**
Condition A Minor Street Volume(70%):	**105**	Condition B Minor Street Volume(70%):	**53**
Condition A Major Street Volume (56%):	**336**	Condition B Major Street Volume (56%):	**504**
Condition A Minor Street Volume (56%):	**84**	Condition B Minor Street Volume (56%):	**42**

Time Period		Major Street Volume (Both Approaches)	Minor Street Volumes (Higher Approach)	Condition A Met?	Condition B Met?	Combination of Conditions A & B Met?
Hour 1	12-1	109	5	N	N	N
Hour 2	1-2	53	8	N	N	N
Hour 3	2-3	37	4	N	N	N
Hour 4	3-4	29	1	N	N	N
Hour 5	4-5	44	3	N	N	N
Hour 6	5-6	62	12	N	N	N
Hour 7	6-7	164	16	N	N	N
Hour 8	7-8	394	25	N	N	N
Hour 9	8-9	678	54	N	Y	N
Hour 10	9-10	979	43	N	N	N
Hour 11	10-11	1389	48	N	N	N
Hour 12	11-12	1753	49	N	N	N
Hour 13	12-1	1732	43	N	N	N
Hour 14	1-2	1888	47	N	N	N
Hour 15	2-3	1777	32	N	N	N
Hour 16	3-4	1735	41	N	N	N
Hour 17	4-5	1568	47	N	N	N
Hour 18	5-6	1609	46	N	N	N
Hour 19	6-7	1300	44	N	N	N
Hour 20	7-8	984	38	N	N	N
Hour 21	8-9	729	25	N	N	N
Hour 22	9-10	519	19	N	N	N
Hour 23	10-11	338	12	N	N	N
Hour 24	11-12	181	13	N	N	N
			Satisfied?	N	N	N

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Existing (2024) Saturday Conditions**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Rural**

Volume Level Criteria:

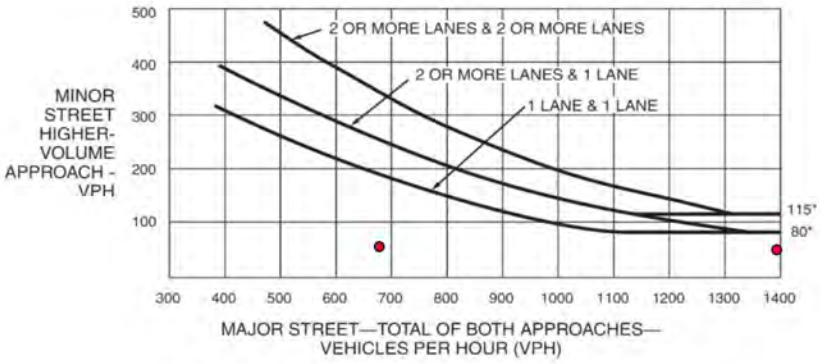
1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Warrant 2 - Four Hour Vehicular Volume — **Warrant Satisfied?** **N**

Record hourly vehicular volumes for any four hours of an average day.

	Time Period			
	Hour 9	Hour 11	Hour 12	Hour 17
Approach Lanes	8-9	10-11	11-12	4-5
Both Approaches - Major Street	678	1389	1753	1568
Higher Approach - Minor Street	54	48	49	47

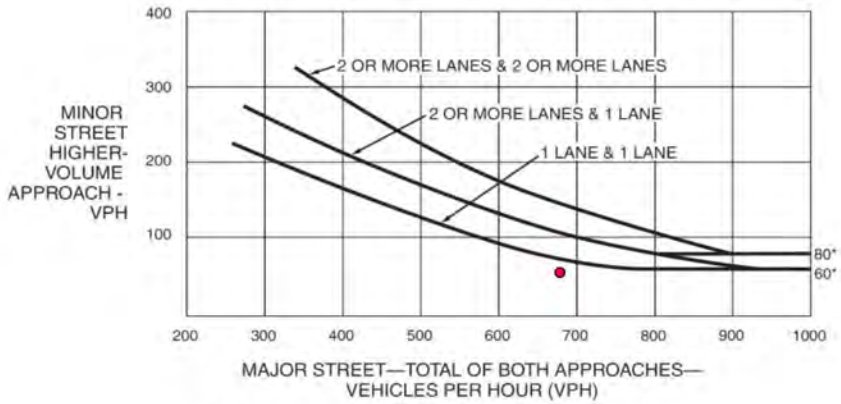
Figure 4C-1. Warrant 2, Four-Hour Vehicular Volume



*Note: 115 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor-street approach with one lane.

All plotted points falls above the applicable curve in Figure 4C-1 (Urban Areas)? **N**

Figure 4C-2. Warrant 2, Four-Hour Vehicular Volume (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 80 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 60 vph applies as the lower threshold volume for a minor-street approach with one lane.

All plotted points fall above the applicable curve in Figure 4C-2 (Rural Areas? **N**

Warrant 3 - Peak Hour — **Warrant Satisfied?** **N**
(Part A or Part B must be Satisfied)

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Traffic Signal Warrant Worksheets

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street** Number of Lanes: **2 or more**
Minor Street: **Redbay Avenue** Number of Lanes: **1**
Traffic Condition: **Existing (2024) Saturday Conditions**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Part A **Part A Satisfied? N**

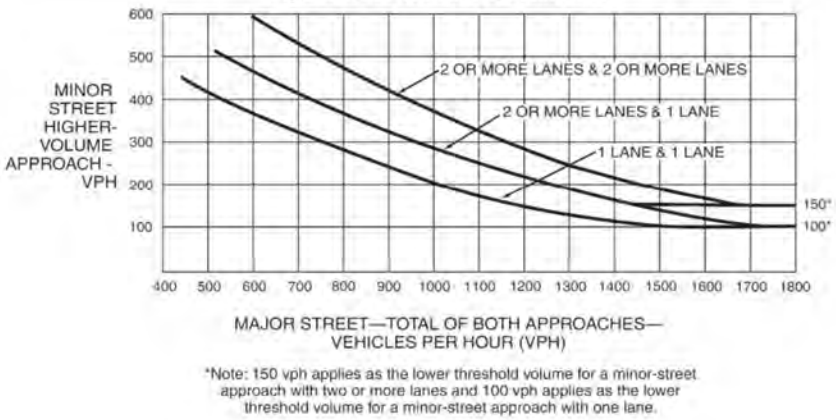
(All parts 1, 2, and 3 below must be satisfied the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street-approach (one-direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two lane approach; AND **N**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane or traffic of 150 vph for two moving lanes; AND **N**
3. The total entering volume serviced during the hour equals or exceeds 800vph for intersections with four or more approaches or 650 vph for intersections with three approaches. **Y**

Part B **Part B Satisfied? N**

	Time Period
Approach Lanes	1:30-2:30
Both Approaches - Major Street	1889
Higher Approach - Minor Street	36

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-3 (Urban Areas)?

N

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Existing (2024) Saturday Conditions**

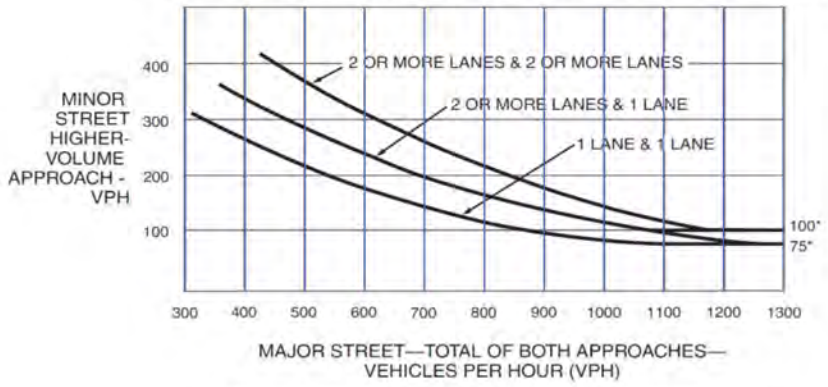
Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-4 (Rural Areas)? **N**

Warrant 4 - Pedestrian Volume
(Parts 1 and 2 Must Be Satisified)

Warrant Satisfied? **N**

Part 1 (Part A or B Must Be Satisfied)

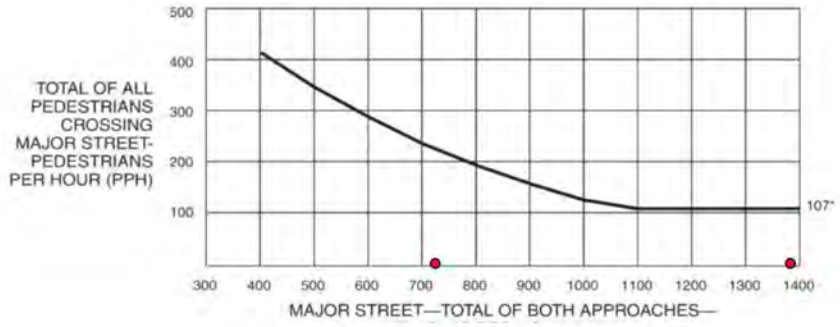
Part 1 Satisfied? **N**

Part A

Part A Satisfied? **N**

	Time Period			
	Hour 11	Hour 12	Hour 18	Hour 21
Approach Lanes	10-11	11-12	5-6	8-9
Vehicles Both Approaches - Major Street	1389	1753	1609	729
Pedestrians Crossing the Major Street	3	3	4	3

Figure 4C-5. Warrant 4, Pedestrian Four-Hour Volume



The plotted points fall above the curve in Figure 4C-5 (Urban Areas)? **N**

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Existing (2024) Saturday Conditions**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Rural**

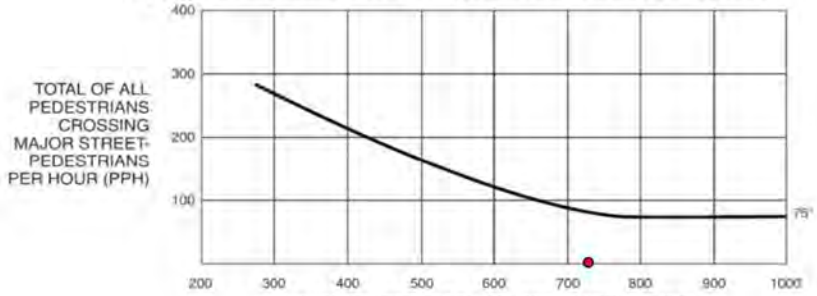
Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

VEHICLES PER HOUR (VPH)

*Note: 107 pph applies as the lower threshold volume.

Figure 4C-6. Warrant 4, Pedestrian Four-Hour Volume (70% Factor)



*Note: 75 pph applies as the lower threshold volume.

The plotted points fall above the curve in Figure 4C-5 (Rural Areas)? **N**

Part B

Part B Satisfied? **N**

	Time Period
	Hour 18
Approach Lanes	5-6
Vehicles Both Approaches - Major Street	1609
Pedestrians Crossing the Major Street	4

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Existing (2024) Saturday Conditions**

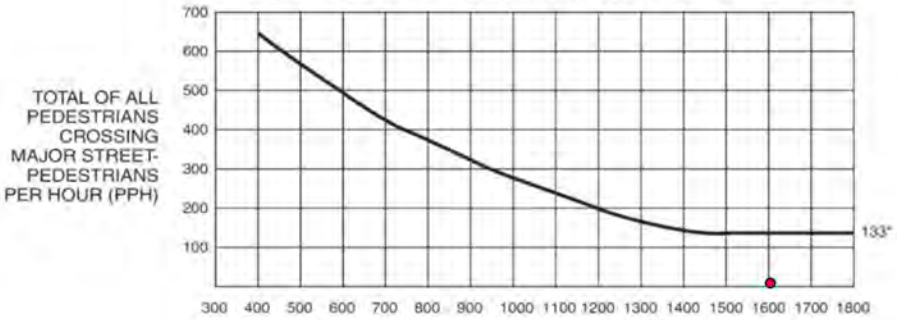
Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y** / **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000?
3. Have adequate trials of other remedial measures been performed? **Y**

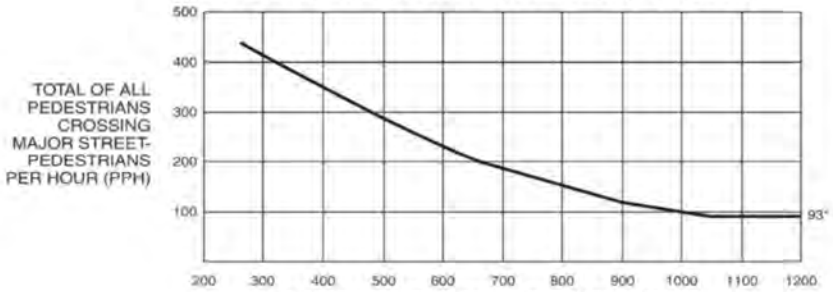
Figure 4C-7. Warrant 4, Pedestrian Peak Hour



*Note: 133 pph applies as the lower threshold volume.

The plotted points fall above the curve in Figure 4C-7 (Urban Areas)? **N**

Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)



*Note: 93 pph applies as the lower threshold volume.

The plotted points fall above the curve in Figure 4C-8 (Rural Areas)? **N**

Part 2

Part 2 Satisfied? **Y**

AND, The distance to the nearest traffic signal along the major street is greater than 300 feet?	**Y**
OR, The proposed traffic signal will not restrict progressive traffic flow along the major street?	**N**

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Traffic Signal Warrant Worksheets

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street** Number of Lanes: **2 or more** Roadway Classification
Minor Street: **Redbay Avenue** Number of Lanes: **1**
Traffic Condition: **Existing (2024) Saturday Conditions** **Rural**

Volume Level Criteria:
1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Warrant 5 - School Crossing **Warrant Satisfied? N**
(Parts A and B Must Be Satisfied)

Part A **Part A Satisfied? N**
Gap/Minutes and # of Children

Gaps VS Minutes	Minutes Children Using Crossing	N/A
	Number of Adequate Gaps	N/A
School Age Pedestrian Crossing Street / Hr		N/A

Gaps < Minutes? **N**
AND Children >20/Hr? **N**

AND, Consideration has been given to less restrictive remedial measures?	N

Part B **Part B Satisfied? Y**

The distance to the nearest traffic signal along the major street is greater than 300 feet?	Y
OR, The proposed signal will not restrict the progressive movement of traffic?	N

Warrant 6 - Coordinated Signal System **Warrant Satisfied? N**
(All Parts Must Be Satisfied)

Minimum Requirements	DISTANCE TO NEAREST SIGNAL	
≥ 1000 ft	North: -- ft, South: -- ft, East: 730 ft, West: 1420 ft.	N
On a one-way street or a street that has traffic predominantly in one direction, the adjacent traffic control signals are so far apart that they do not provide the necessary degree of vehicular platooning?		N
OR, On a two-way street, adjacent traffic control signals do not provide the necessary degree of platooning and the proposed and adjacent traffic control signals will collectively provide a progressive operation.		

Warrant 7 - Crash Experience Warrant **Warrant Satisfied? N**
(All Parts Must Be Satisfied)

Adequate trial of alternatives with satisfactory observance and enforcement has failed to reduce the crash frequency?			N
REQUIREMENTS	Number of crashes reported within a 12 month period susceptible to correction by a traffic signal, and involving injury or damage exceeding the requirements for a reportable crash?		N
5 OR MORE			
REQUIREMENTS	CONDITIONS		
ONE CONDITION SATISFIED 80%	Warrant 1, Condition A - Minimum Vehicular Volume	N	N
	OR, Warrant 1, Condition B - Interruption of Continous Traffic	N	
	OR, Warrant 4, Pedestrian Volume Condition Ped Vol ≥ 80% of Figure 4C-5 through Figure 4C-8	N	

California MUTCD 2014 Edition
Traffic Signal Warrant Worksheets

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street** Number of Lanes: **2 or more**
Minor Street: **Redbay Avenue** Number of Lanes: **1**
Traffic Condition: **Existing (2024) Saturday Conditions**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Warrant 8 - Roadway Network
(All Parts Must Be Satisfied)

Warrant Satisfied? N

Minimum Volume Requirements	Entering Volumes - All Approaches		Fulfilled
1000 Veh/Hr	During Typical Weekday Peak Hour (2639) Veh/Hr and has 5-year projected traffic volumes that meet one or more of Warrants 1, 2, and 3 during an average weekday.	Y	Y
	OR During Each of any 5Hrs. Of a Sat. or Sun (1889) Veh/Hr?	Y	

CHARACTERISTICS OF MAJOR ROUTES	Major Route A	Major Route B
Hwy. System Serving as Principal Network for Through Traffic?	Y	N
Rural or Suburban Highway Outside Of, Entering, or Traversing a City?	N	N
Appears as Major Route on an Official Plan?	Y	N
Any Major Route Characteristics Met, Both Streets?		N

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Associated Road**
Minor Street: **Shopping Center Driveway No. 1**
Traffic Condition: **Opening Year (2026) Without Project Conditions - Weekday AM Peak Hour**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Urban**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

Warrant 3 - Peak Hour
(Part A or Part B must be Satisfied)

Warrant Satisfied? **N**

Part A

Part A Satisfied? **N**

(All parts 1, 2, and 3 below must be satisfied the same one hour, for any four consecutive 15-minute periods)

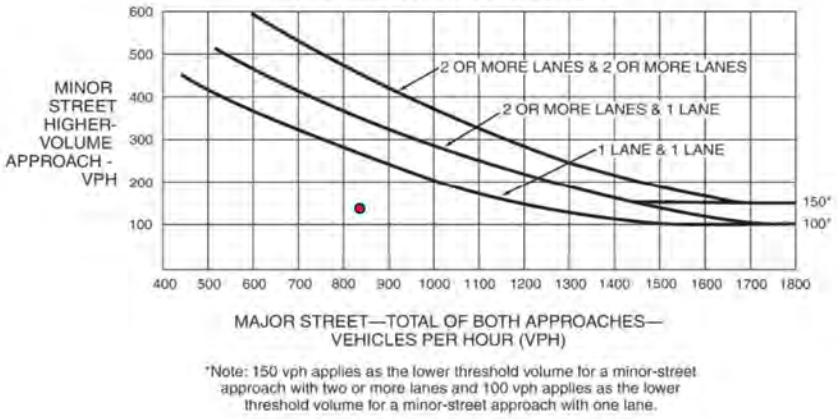
1. The total delay experienced by traffic on one minor street-approach (one-direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two lane approach; AND — **N**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane or traffic of 150 vph for two moving lanes; AND — **Y**
3. The total entering volume serviced during the hour equals or exceeds 800vph for intersections with four or more approaches or 650 vph for intersections with three approaches. — **Y**

Part B

Part B Satisfied? **N**

Approach Lanes	Volume
Both Approaches - Major Street	839
Higher Approach - Minor Street	139

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-3 (Urban Areas)? **N**

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Opening Year (2026) Without Project Conditions - Weekday AM Peak Hour**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Warrant 3 - Peak Hour
(Part A or Part B must be Satisfied)

Warrant Satisfied? **N**

Part A

Part A Satisfied? **N**

(All parts 1, 2, and 3 below must be satisfied the same one hour, for any four consecutive 15-minute periods)

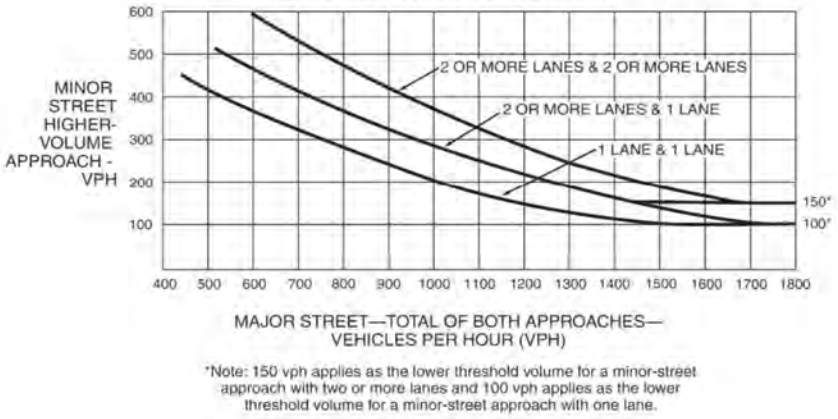
1. The total delay experienced by traffic on one minor street-approach (one-direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two lane approach; AND — **N**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane or traffic of 150 vph for two moving lanes; AND — **N**
3. The total entering volume serviced during the hour equals or exceeds 800vph for intersections with four or more approaches or 650 vph for intersections with three approaches. — **Y**

Part B

Part B Satisfied? **N**

Approach Lanes	Volume
Both Approaches - Major Street	2031
Higher Approach - Minor Street	67

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-3 (Urban Areas)?

N

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Opening Year (2026) Without Project Conditions - Weekday AM Peak Hour**

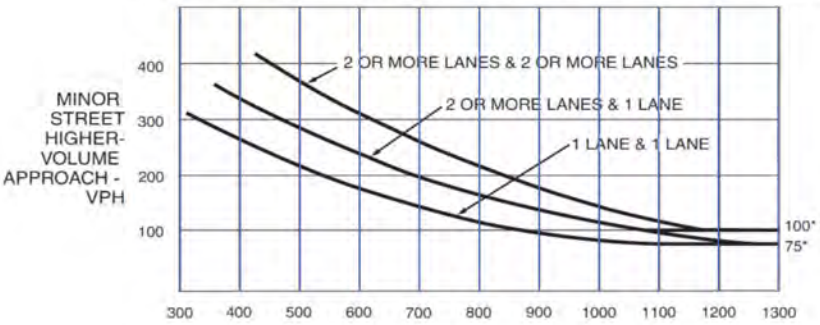
Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-4 (Rural Areas)? **N**

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Associated Road**
Minor Street: **Shopping Center Driveway No. 1**
Traffic Condition: **Opening Year (2026) Without Project Conditions - Weekday PM Peak Hour**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Urban**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

Warrant 3 - Peak Hour
(Part A or Part B must be Satisfied)

Warrant Satisfied? **Y**

Part A

Part A Satisfied? **N**

(All parts 1, 2, and 3 below must be satisfied the same one hour, for any four consecutive 15-minute periods)

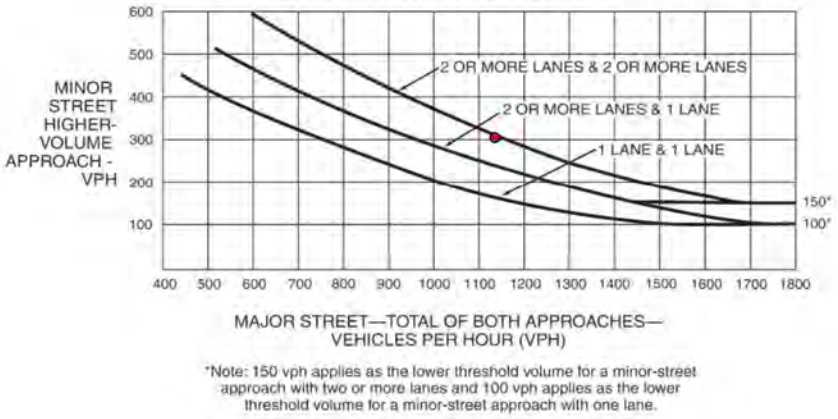
1. The total delay experienced by traffic on one minor street-approach (one-direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two lane approach; AND — **N**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane or traffic of 150 vph for two moving lanes; AND — **Y**
3. The total entering volume serviced during the hour equals or exceeds 800vph for intersections with four or more approaches or 650 vph for intersections with three approaches. — **Y**

Part B

Part B Satisfied? **Y**

Approach Lanes	Volume
Both Approaches - Major Street	1137
Higher Approach - Minor Street	305

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-3 (Urban Areas)? **Y**

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Opening Year (2026) Without Project Conditions - Weekday PM Peak Hour**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Warrant 3 - Peak Hour
(Part A or Part B must be Satisfied)

Warrant Satisfied? **N**

Part A

Part A Satisfied? **N**

(All parts 1, 2, and 3 below must be satisfied the same one hour, for any four consecutive 15-minute periods)

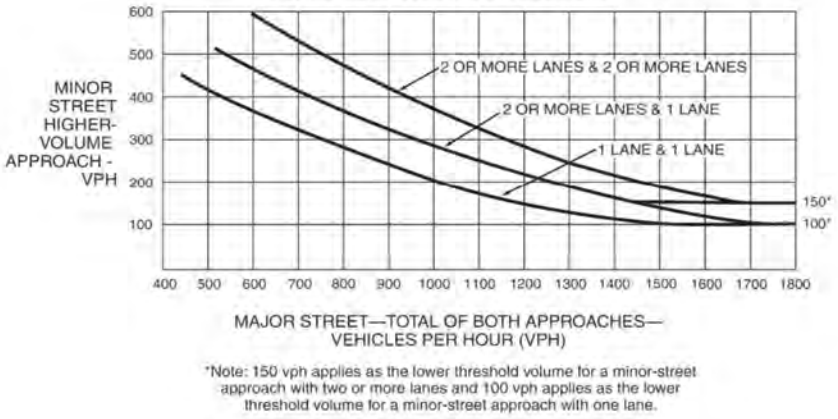
1. The total delay experienced by traffic on one minor street-approach (one-direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two lane approach; AND — **Y**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane or traffic of 150 vph for two moving lanes; AND — **N**
3. The total entering volume serviced during the hour equals or exceeds 800vph for intersections with four or more approaches or 650 vph for intersections with three approaches. — **Y**

Part B

Part B Satisfied? **N**

Approach Lanes	Volume
Both Approaches - Major Street	2793
Higher Approach - Minor Street	48

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-3 (Urban Areas)? **N**

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Opening Year (2026) Without Project Conditions - Weekday PM Peak Hour**

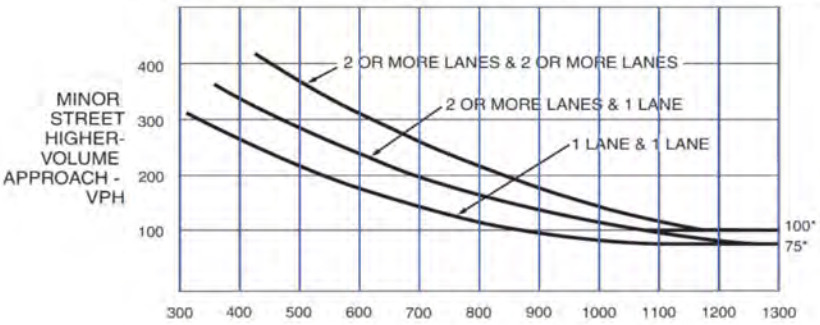
Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-4 (Rural Areas)? **N**

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Associated Road**
Minor Street: **Shopping Center Driveway No. 1**
Traffic Condition: **Opening Year (2026) Without Project Conditions - Saturday Midday Peak Hour**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Urban**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

Warrant 3 - Peak Hour
(Part A or Part B must be Satisfied)

Warrant Satisfied? **Y**

Part A

Part A Satisfied? **N**

(All parts 1, 2, and 3 below must be satisfied the same one hour, for any four consecutive 15-minute periods)

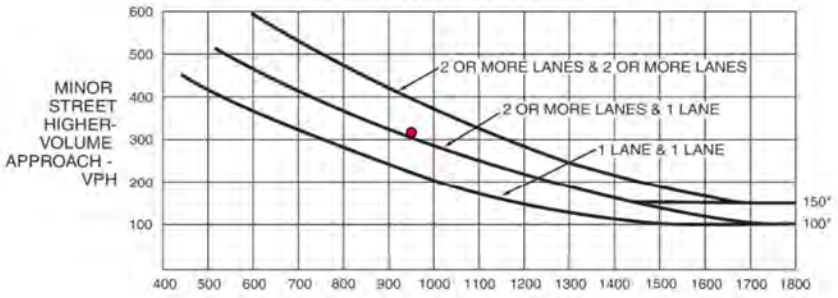
1. The total delay experienced by traffic on one minor street-approach (one-direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two lane approach; AND — **N**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane or traffic of 150 vph for two moving lanes; AND — **Y**
3. The total entering volume serviced during the hour equals or exceeds 800vph for intersections with four or more approaches or 650 vph for intersections with three approaches. — **Y**

Part B

Part B Satisfied? **Y**

Approach Lanes	Volume
Both Approaches - Major Street	953
Higher Approach - Minor Street	317

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-3 (Urban Areas)? **Y**

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street** Number of Lanes: **2 or more**
Minor Street: **Redbay Avenue** Number of Lanes: **1**
Traffic Condition: **Opening Year (2026) Without Project Conditions - Saturday Midday Peak Hour**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Warrant 3 - Peak Hour **Warrant Satisfied? N**
(Part A or Part B must be Satisfied)

Part A **Part A Satisfied? N**

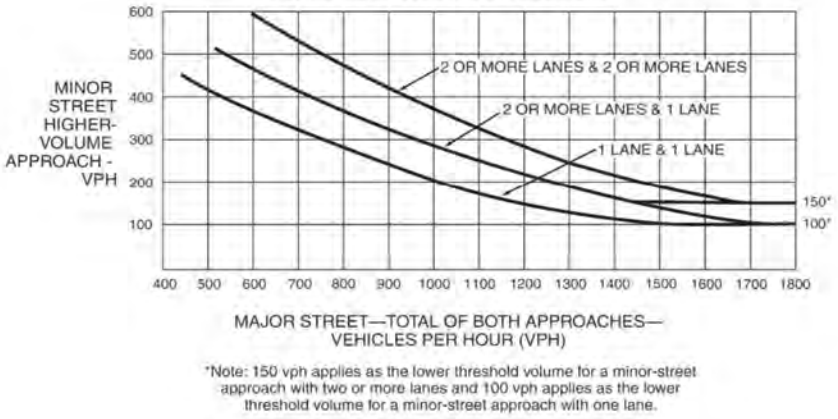
(All parts 1, 2, and 3 below must be satisfied the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street-approach (one-direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two lane approach; AND — **N**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane or traffic of 150 vph for two moving lanes; AND — **N**
3. The total entering volume serviced during the hour equals or exceeds 800vph for intersections with four or more approaches or 650 vph for intersections with three approaches. — **Y**

Part B **Part B Satisfied? N**

Approach Lanes	Volume
Both Approaches - Major Street	2032
Higher Approach - Minor Street	37

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-3 (Urban Areas)? **N**

Jurisdiction: **Brea**

Engineer: **SA** Date: 3/25/2024
Checked by: **JT** Date: 3/25/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Opening Year (2026) Without Project Conditions - Saturday Midday Peak Hour**

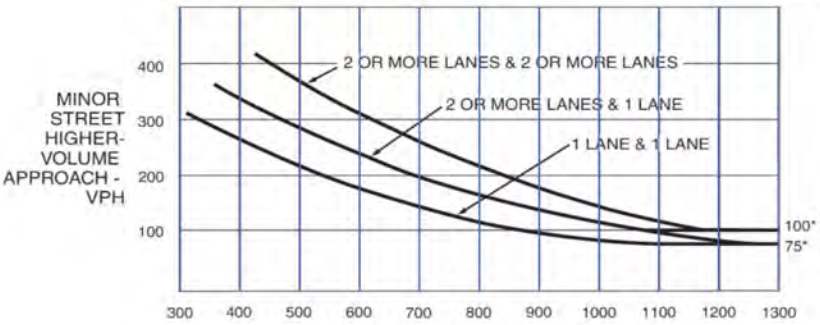
Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-4 (Rural Areas)? **N**

Jurisdiction: **Brea**

Engineer: **SA** Date: 4/5/2024
Checked by: **JT** Date: 4/5/2024

Major Street: **Associated Road** Number of Lanes: **2 or more** Roadway Classification
Minor Street: **Shopping Center Driveway No. 1** Number of Lanes: **1**
Traffic Condition: **Opening Year (2026) With Project Conditions - Weekday AM Peak Hour** **Urban**

Volume Level Criteria:
1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

Warrant 3 - Peak Hour **Warrant Satisfied? N**
(Part A or Part B must be Satisfied)

Part A **Part A Satisfied? N**

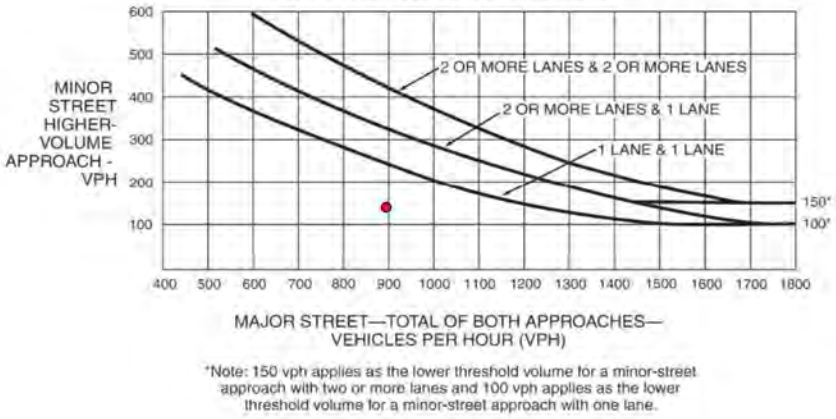
(All parts 1, 2, and 3 below must be satisfied the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street-approach (one-direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two lane approach; AND — **N**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane or traffic of 150 vph for two moving lanes; AND — **Y**
3. The total entering volume serviced during the hour equals or exceeds 800vph for intersections with four or more approaches or 650 vph for intersections with three approaches. — **Y**

Part B **Part B Satisfied? N**

Approach Lanes	Volume
Both Approaches - Major Street	897
Higher Approach - Minor Street	142

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-3 (Urban Areas)? **N**

Jurisdiction: **Brea**

Engineer: **SA** Date: 4/15/2024
Checked by: **JT** Date: 4/15/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Opening Year (2026) With Project Conditions - Weekday AM Peak Hour**

Number of Lanes: **2 or more**
Number of Lanes: **1**
Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Warrant 3 - Peak Hour
(Part A or Part B must be Satisfied)

Warrant Satisfied? **N**

Part A

Part A Satisfied? **N**

(All parts 1, 2, and 3 below must be satisfied the same one hour, for any four consecutive 15-minute periods)

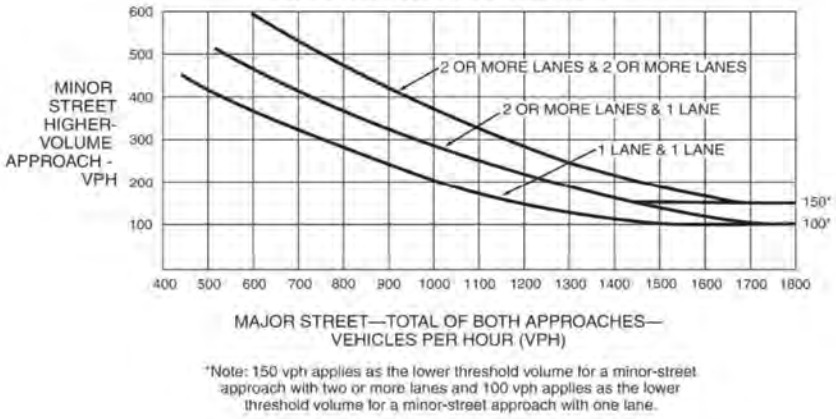
1. The total delay experienced by traffic on one minor street-approach (one-direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two lane approach; AND — **Y**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane or traffic of 150 vph for two moving lanes; AND — **N**
3. The total entering volume serviced during the hour equals or exceeds 800vph for intersections with four or more approaches or 650 vph for intersections with three approaches. — **Y**

Part B

Part B Satisfied? **N**

Approach Lanes	Volume
Both Approaches - Major Street	2054
Higher Approach - Minor Street	68

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-3 (Urban Areas)?

N

Jurisdiction: **Brea**

Engineer: **SA** Date: 4/15/2024
Checked by: **JT** Date: 4/15/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Opening Year (2026) With Project Conditions - Weekday AM Peak Hour**

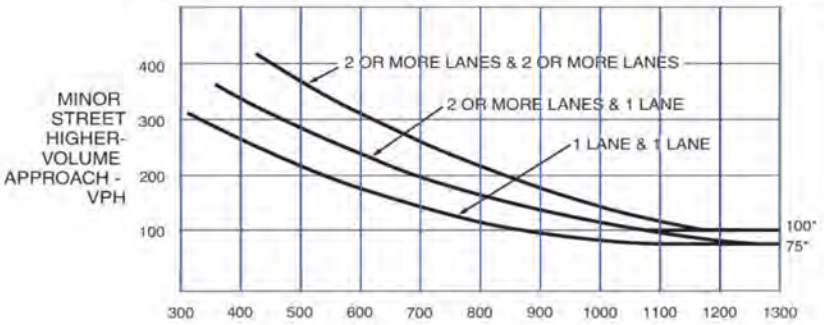
Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-4 (Rural Areas)? **N**

Jurisdiction: **Brea**

Engineer: **SA** Date: 4/5/2024
Checked by: **JT** Date: 4/5/2024

Major Street: **Associated Road** Number of Lanes: **2 or more** Roadway Classification
Minor Street: **Shopping Center Driveway No. 1** Number of Lanes: **1**
Traffic Condition: **Opening Year (2026) With Project Conditions - Weekday PM Peak Hour** **Urban**

Volume Level Criteria:
1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

Warrant 3 - Peak Hour **Warrant Satisfied? Y**
(Part A or Part B must be Satisfied)

Part A **Part A Satisfied? N**

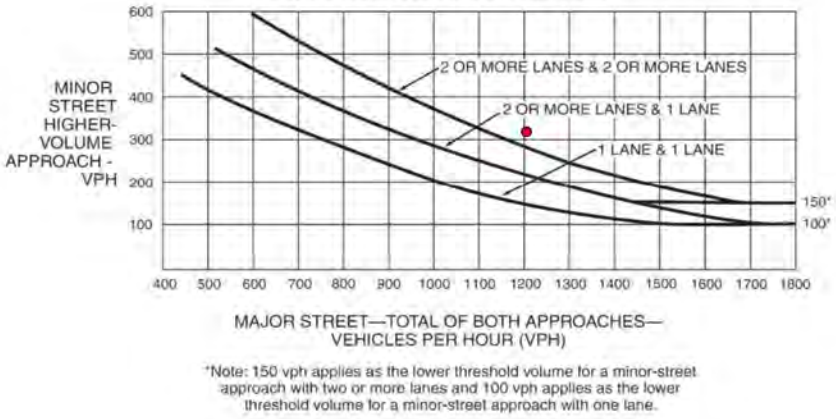
(All parts 1, 2, and 3 below must be satisfied the same one hour, for any four consecutive 15-minute periods)

1. The total delay experienced by traffic on one minor street-approach (one-direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two lane approach; AND — **N**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane or traffic of 150 vph for two moving lanes; AND — **Y**
3. The total entering volume serviced during the hour equals or exceeds 800vph for intersections with four or more approaches or 650 vph for intersections with three approaches. — **Y**

Part B **Part B Satisfied? Y**

Approach Lanes	Volume
Both Approaches - Major Street	1206
Higher Approach - Minor Street	319

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-3 (Urban Areas)? **Y**

Jurisdiction: **Brea**

Engineer: **SA** Date: 4/15/2024
Checked by: **JT** Date: 4/15/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Opening Year (2026) With Project Conditions - Weekday PM Peak Hour**

Number of Lanes: **2 or more**
Number of Lanes: **1**
Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Warrant 3 - Peak Hour
(Part A or Part B must be Satisfied)

Warrant Satisfied? **N**

Part A

Part A Satisfied? **N**

(All parts 1, 2, and 3 below must be satisfied the same one hour, for any four consecutive 15-minute periods)

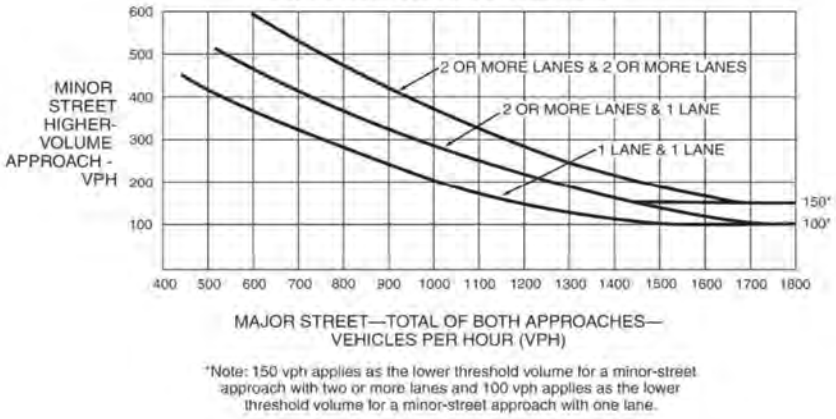
1. The total delay experienced by traffic on one minor street-approach (one-direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two lane approach; AND — **Y**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane or traffic of 150 vph for two moving lanes; AND — **N**
3. The total entering volume serviced during the hour equals or exceeds 800vph for intersections with four or more approaches or 650 vph for intersections with three approaches. — **Y**

Part B

Part B Satisfied? **N**

Approach Lanes	Volume
Both Approaches - Major Street	2822
Higher Approach - Minor Street	48

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-3 (Urban Areas)?

N

Jurisdiction: **Brea**

Engineer: **SA** Date: 4/15/2024
Checked by: **JT** Date: 4/15/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Opening Year (2026) With Project Conditions - Weekday PM Peak Hour**

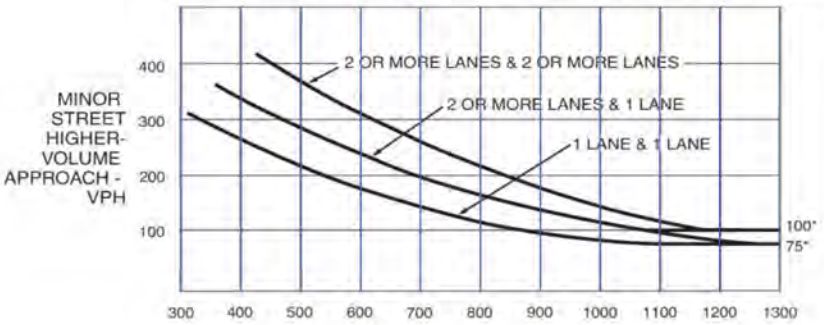
Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-4 (Rural Areas)? **N**

California MUTCD 2014 Edition
Traffic Signal Warrant Worksheets

Jurisdiction: **Brea**

Engineer: **SA** Date: 4/5/2024
Checked by: **JT** Date: 4/5/2024

Major Street: **Associated Road**
Minor Street: **Shopping Center Driveway No. 1**
Traffic Condition: **Opening Year (2026) With Project Conditions - Saturday Midday Peak Hour**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Urban**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **N**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **N**

Warrant 3 - Peak Hour
(Part A or Part B must be Satisfied)

Warrant Satisfied? Y

Part A

Part A Satisfied? N

(All parts 1, 2, and 3 below must be satisfied the same one hour, for any four consecutive 15-minute periods)

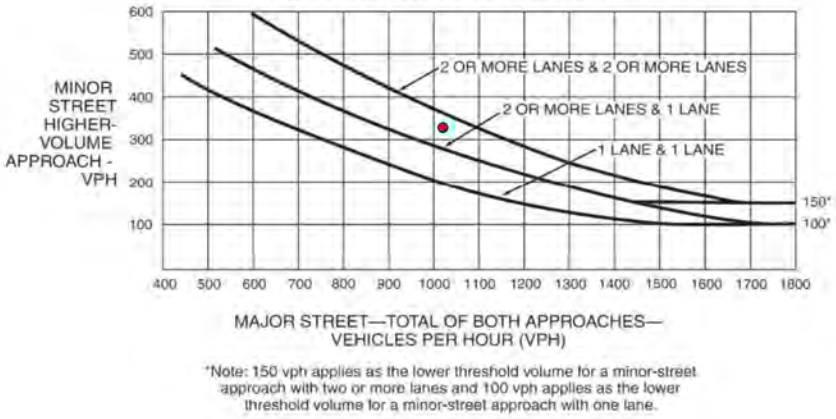
1. The total delay experienced by traffic on one minor street-approach (one-direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two lane approach; AND — **N**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane or traffic of 150 vph for two moving lanes; AND — **Y**
3. The total entering volume serviced during the hour equals or exceeds 800vph for intersections with four or more approaches or 650 vph for intersections with three approaches. — **Y**

Part B

Part B Satisfied? Y

Approach Lanes	Volume
Both Approaches - Major Street	1022
Higher Approach - Minor Street	329

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-3 (Urban Areas)?

Y

California MUTCD 2014 Edition
Traffic Signal Warrant Worksheets

Jurisdiction: **Brea**

Engineer: **SA** Date: 4/15/2024
Checked by: **JT** Date: 4/15/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Opening Year (2026) With Project Conditions - Saturday Midday Peak Hour**

Number of Lanes: **2 or more**
Number of Lanes: **1**

Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Warrant 3 - Peak Hour
(Part A or Part B must be Satisfied)

Warrant Satisfied? **N**

Part A

Part A Satisfied? **N**

(All parts 1, 2, and 3 below must be satisfied the same one hour, for any four consecutive 15-minute periods)

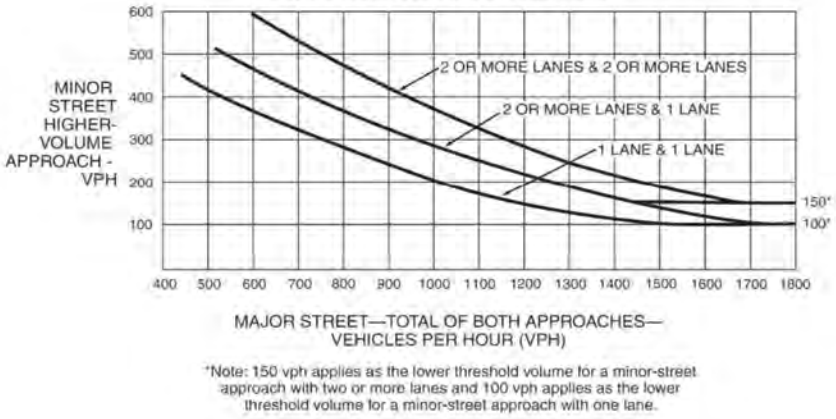
1. The total delay experienced by traffic on one minor street-approach (one-direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach, or five vehicle-hours for a two lane approach; AND — **N**
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane or traffic of 150 vph for two moving lanes; AND — **N**
3. The total entering volume serviced during the hour equals or exceeds 800vph for intersections with four or more approaches or 650 vph for intersections with three approaches. — **Y**

Part B

Part B Satisfied? **N**

Approach Lanes	Volume
Both Approaches - Major Street	2061
Higher Approach - Minor Street	37

Figure 4C-3. Warrant 3, Peak Hour



*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-3 (Urban Areas)?

N

Jurisdiction: **Brea**

Engineer: **SA** Date: 4/15/2024
Checked by: **JT** Date: 4/15/2024

Major Street: **Birch Street**
Minor Street: **Redbay Avenue**
Traffic Condition: **Opening Year (2026) With Project Conditions - Saturday Midday Peak Hour**

Number of Lanes: **2 or more**
Number of Lanes: **1**

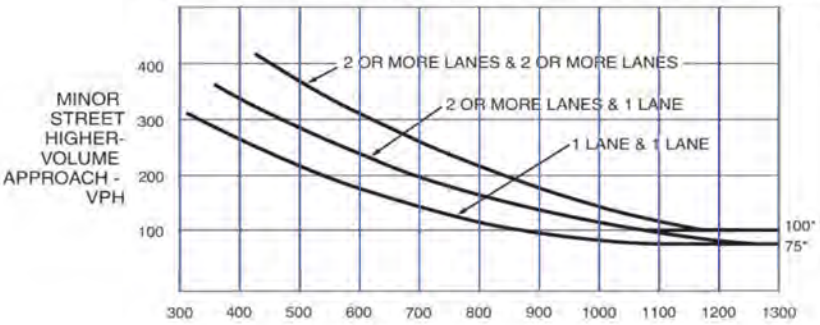
Roadway Classification: **Rural**

Volume Level Criteria:

1. Is the posted speed limit of 85th percentile speed on major road exceeds 40 mph? **Y**
2. Does the intersection lie within the built-area of an isolated community having a population of less than 10,000? **N**
3. Have adequate trials of other remedial measures been performed? **Y**

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

The plotted point falls above the appliable curve in Figure 4C-4 (Rural Areas)? **N**

Appendix H

Intersection Analysis Worksheets
Project Opening Year (2026)
Without Project Conditions With Improvements

RK19750.1
JN: 2827-2023-05

Intersection Level Of Service Report
Intersection 4: Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)

Control Type:	Signalized	Delay (sec / veh):	10.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.255

Intersection Setup

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	88.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Base Volume Input [veh/h]	46	300	423	70	66	73
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	300	423	70	66	73
Peak Hour Factor	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	81	114	19	18	20
Total Analysis Volume [veh/h]	50	324	456	76	71	79
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Protected	Permissive	Permissive	Permissive	Split	Split
Signal Group	1	6	2	0	3	0
Auxiliary Signal Groups						
Maximum Green [s]	7	48	37	0	34	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0
Walk [s]	0	0	7	0	0	0
Pedestrian Clearance [s]	0	0	19	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	11	52	41	0	38	0
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	6	6	6	0	6	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	No	No		No	
Pedestrian Recall	No	No	No		No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	C	L	R
C, Calculated Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	76	67	67	6	6
g / C, Green / Cycle	0.05	0.84	0.75	0.75	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.03	0.09	0.14	0.15	0.04	0.05
s, saturation flow rate [veh/h]	1800	3800	1900	1800	1800	1750
c, Capacity [veh/h]	86	3195	1422	1347	127	123
d1, Uniform Delay [s]	41.97	1.25	3.31	3.34	40.49	40.73
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.07	0.06	0.29	0.33	3.85	5.48
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.58	0.10	0.19	0.20	0.56	0.64
d, Delay for Lane Group [s/veh]	48.04	1.31	3.60	3.67	44.35	46.22
Lane Group LOS	D	A	A	A	D	D
Critical Lane Group	Yes	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	1.20	0.14	1.02	1.03	1.66	1.89
50th-Percentile Queue Length [ft/ln]	29.95	3.44	25.46	25.87	41.47	47.31
95th-Percentile Queue Length [veh/ln]	2.16	0.25	1.83	1.86	2.99	3.41
95th-Percentile Queue Length [ft/ln]	53.91	6.19	45.83	46.56	74.64	85.16

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	48.04	1.31	3.63	3.67	44.35	46.22
Movement LOS	D	A	A	A	D	D
d_A, Approach Delay [s/veh]	7.56		3.63		45.33	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	10.95					
Intersection LOS	B					
Intersection V/C	0.255					

Emissions

Vehicle Miles Traveled [mph]	1.05	6.83	7.04	7.04	1.90	2.11
Stops [stops/h]	47.92	11.01	40.74	41.39	66.35	75.70
Fuel consumption [US gal/h]	1.00	0.44	0.85	0.86	0.98	1.13
CO [g/h]	69.71	30.70	59.22	59.92	68.54	78.87
NOx [g/h]	13.56	5.97	11.52	11.66	13.34	15.35
VOC [g/h]	16.16	7.11	13.72	13.89	15.89	18.28

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	34.67
l_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	2.187
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1067	822	756
d_b, Bicycle Delay [s]	9.80	15.61	17.42
l_b,int, Bicycle LOS Score for Intersection	1.868	1.999	1.560
Bicycle LOS	A	A	A

Sequence

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)

Control Type:	Signalized	Delay (sec / veh):	15.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.354

Intersection Setup

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	88.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Base Volume Input [veh/h]	99	553	383	102	117	188
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	99	553	383	102	117	188
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	143	99	26	30	49
Total Analysis Volume [veh/h]	102	571	396	105	121	194
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Protected	Permissive	Permissive	Permissive	Split	Split
Signal Group	1	6	2	0	3	0
Auxiliary Signal Groups						
Maximum Green [s]	7	37	26	0	45	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0
Walk [s]	0	0	7	0	0	0
Pedestrian Clearance [s]	0	0	19	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	11	41	30	0	49	0
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	6	6	6	0	6	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	No	No		No	
Pedestrian Recall	No	No	No		No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	C	L	R
C, Calculated Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	69	59	59	13	13
g / C, Green / Cycle	0.07	0.77	0.66	0.66	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.06	0.15	0.13	0.14	0.07	0.11
s, saturation flow rate [veh/h]	1800	3800	1900	1800	1800	1750
c, Capacity [veh/h]	129	2931	1245	1179	252	245
d1, Uniform Delay [s]	41.09	2.77	6.17	6.22	35.70	37.46
k, delay calibration	0.16	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	14.39	0.15	0.36	0.41	1.42	5.75
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.19	0.20	0.21	0.48	0.79
d, Delay for Lane Group [s/veh]	55.48	2.92	6.53	6.63	37.13	43.21
Lane Group LOS	E	A	A	A	D	D
Critical Lane Group	Yes	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	2.67	0.85	1.65	1.67	2.55	4.51
50th-Percentile Queue Length [ft/ln]	66.64	21.35	41.17	41.71	63.67	112.67
95th-Percentile Queue Length [veh/ln]	4.80	1.54	2.96	3.00	4.58	7.99
95th-Percentile Queue Length [ft/ln]	119.95	38.43	74.10	75.08	114.60	199.70

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	55.48	2.92	6.57	6.63	37.13	43.21
Movement LOS	E	A	A	A	D	D
d_A, Approach Delay [s/veh]	10.88		6.58		40.87	
Approach LOS	B		A		D	
d_I, Intersection Delay [s/veh]	15.78					
Intersection LOS	B					
Intersection V/C	0.354					

Emissions

Vehicle Miles Traveled [mph]	2.15	12.03	6.63	6.63	3.24	5.19
Stops [stops/h]	106.62	68.33	65.87	66.74	101.87	180.26
Fuel consumption [US gal/h]	2.28	1.44	1.22	1.23	1.45	2.63
CO [g/h]	159.09	100.74	85.11	86.06	101.38	183.87
NOx [g/h]	30.95	19.60	16.56	16.74	19.73	35.77
VOC [g/h]	36.87	23.35	19.72	19.95	23.50	42.61

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	34.67
l_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	2.237
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	822	578	1000
d_b, Bicycle Delay [s]	15.61	22.76	11.25
l_b,int, Bicycle LOS Score for Intersection	2.115	1.973	1.560
Bicycle LOS	B	A	A

Sequence

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)

Control Type:	Signalized	Delay (sec / veh):	17.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.366

Intersection Setup

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	88.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Base Volume Input [veh/h]	91	396	371	95	104	213
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	91	396	371	95	104	213
Peak Hour Factor	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	104	98	25	27	56
Total Analysis Volume [veh/h]	96	416	390	100	109	224
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Protected	Permissive	Permissive	Permissive	Split	Split
Signal Group	1	6	2	0	3	0
Auxiliary Signal Groups						
Maximum Green [s]	6	36	26	0	46	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0
Walk [s]	0	0	7	0	0	0
Pedestrian Clearance [s]	0	0	19	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	10	40	30	0	50	0
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	6	6	6	0	6	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	No	No		No	
Pedestrian Recall	No	No	No		No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	C	L	R
C, Calculated Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	68	58	58	14	14
g / C, Green / Cycle	0.07	0.75	0.64	0.64	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.05	0.11	0.13	0.14	0.06	0.13
s, saturation flow rate [veh/h]	1800	3800	1900	1800	1800	1750
c, Capacity [veh/h]	120	2867	1222	1158	282	274
d1, Uniform Delay [s]	41.41	3.05	6.57	6.63	34.06	36.70
k, delay calibration	0.19	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	18.55	0.11	0.37	0.42	0.87	5.89
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.15	0.20	0.21	0.39	0.82
d, Delay for Lane Group [s/veh]	59.96	3.16	6.94	7.05	34.93	42.59
Lane Group LOS	E	A	A	A	C	D
Critical Lane Group	Yes	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	2.65	0.69	1.69	1.71	2.21	5.19
50th-Percentile Queue Length [ft/ln]	66.15	17.35	42.28	42.83	55.17	129.63
95th-Percentile Queue Length [veh/ln]	4.76	1.25	3.04	3.08	3.97	8.92
95th-Percentile Queue Length [ft/ln]	119.07	31.23	76.11	77.09	99.31	222.98

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	59.96	3.16	6.98	7.05	34.93	42.59
Movement LOS	E	A	A	A	C	D
d_A, Approach Delay [s/veh]	13.81		6.99		40.08	
Approach LOS	B		A		D	
d_I, Intersection Delay [s/veh]	17.86					
Intersection LOS	B					
Intersection V/C	0.366					

Emissions

Vehicle Miles Traveled [mph]	2.02	8.77	6.48	6.48	2.91	5.99
Stops [stops/h]	105.84	55.53	67.65	68.52	88.28	207.40
Fuel consumption [US gal/h]	2.28	1.13	1.24	1.26	1.24	3.01
CO [g/h]	159.61	78.75	86.89	87.84	86.98	210.13
NOx [g/h]	31.05	15.32	16.91	17.09	16.92	40.88
VOC [g/h]	36.99	18.25	20.14	20.36	20.16	48.70

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	34.67
l_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	2.238
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	800	578	1022
d_b, Bicycle Delay [s]	16.20	22.76	10.76
l_b,int, Bicycle LOS Score for Intersection	1.982	1.964	1.560
Bicycle LOS	A	A	A

Sequence

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Appendix I

Intersection Analysis Worksheets
Project Opening Year (2026)
With Project Conditions With Improvements

RK19750.1
JN: 2827-2023-05

Intersection Level Of Service Report
Intersection 2: Associated Road (N/S) at Birch Street (E/W)

Control Type:	Signalized	Delay (sec / veh):	36.2
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.660

Intersection Setup

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	225.00	100.00	230.00	100.00	100.00	100.00	150.00	100.00	100.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Base Volume Input [veh/h]	231	5	343	27	20	12	3	901	151	290	811	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	231	5	343	27	20	12	3	901	151	290	811	2
Peak Hour Factor	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600	0.8600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	67	1	100	8	6	3	1	262	44	84	236	1
Total Analysis Volume [veh/h]	269	6	399	31	23	14	3	1048	176	337	943	2
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal Group	1	6	6	0	2	0	3	8	8	7	4	0
Auxiliary Signal Groups			6,7						1,8			
Maximum Green [s]	6	6	6	0	6	0	6	6	6	6	6	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	24	24	0	24	0	0	26	26	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	15	50	50	0	35	0	10	53	53	17	60	0
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	6	0	6	0	6	6	6	6	6	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Minimum Recall	No	No	No		No		No	No	No	No	No	
Maximum Recall	No	No	No		No		No	No	No	No	No	
Pedestrian Recall	No	No	No		No		No	No	No	No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Calculated Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	11	58	75	43	43	1	37	52	13	49	49
g / C, Green / Cycle	0.09	0.48	0.62	0.36	0.36	0.01	0.31	0.43	0.11	0.41	0.41
(v / s)_i Volume / Saturation Flow Rate	0.08	0.00	0.23	0.02	0.02	0.00	0.28	0.10	0.10	0.25	0.25
s, saturation flow rate [veh/h]	3500	1900	1750	1800	1900	1800	3800	1750	3500	1900	1900
c, Capacity [veh/h]	321	916	1092	661	679	11	1176	760	379	782	782
d1, Uniform Delay [s]	53.63	16.13	10.99	25.22	25.28	59.36	39.51	21.34	52.79	27.65	27.65
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.11	0.11	0.44	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.82	0.01	0.95	0.13	0.15	12.48	2.58	0.63	7.17	0.76	0.76
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.84	0.01	0.37	0.05	0.05	0.27	0.89	0.23	0.89	0.60	0.60
d, Delay for Lane Group [s/veh]	59.45	16.15	11.94	25.36	25.43	71.84	42.09	21.97	59.96	28.41	28.40
Lane Group LOS	E	B	B	C	C	E	D	C	E	C	C
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.18	0.09	5.04	0.62	0.74	0.13	14.50	3.13	5.25	10.25	10.24
50th-Percentile Queue Length [ft/ln]	104.62	2.18	125.93	15.41	18.42	3.19	362.56	78.16	131.37	256.30	256.07
95th-Percentile Queue Length [veh/ln]	7.53	0.16	8.72	1.11	1.33	0.23	20.75	5.63	9.01	15.50	15.49
95th-Percentile Queue Length [ft/ln]	188.31	3.92	217.95	27.74	33.15	5.73	518.70	140.69	225.35	387.58	387.29

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	59.45	16.15	11.94	25.36	25.43	25.43	71.84	42.09	21.97	59.96	28.41	28.40
Movement LOS	E	B	B	C	C	C	E	D	C	E	C	C
d_A, Approach Delay [s/veh]	30.94			25.40			39.28			36.70		
Approach LOS	C			C			D			D		
d_I, Intersection Delay [s/veh]	36.24											
Intersection LOS	D											
Intersection V/C	0.660											

Emissions

Vehicle Miles Traveled [mph]	17.57	0.39	26.06	1.21	1.45	0.16	54.65	9.18	28.31	39.70	39.67
Stops [stops/h]	251.08	2.61	151.11	18.49	22.10	3.82	870.15	93.79	315.28	307.56	307.28
Fuel consumption [US gal/h]	6.35	0.06	3.39	0.29	0.34	0.10	21.67	2.27	9.00	7.92	7.91
CO [g/h]	443.85	4.15	236.77	19.95	23.86	6.76	1514.57	158.51	629.21	553.43	552.95
NOx [g/h]	86.36	0.81	46.07	3.88	4.64	1.32	294.68	30.84	122.42	107.68	107.58
VOC [g/h]	102.87	0.96	54.87	4.62	5.53	1.57	351.02	36.74	145.83	128.26	128.15

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersectio	2.729	1.975	3.120	3.183
Crosswalk LOS	B	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	767	517	817	933
d_b, Bicycle Delay [s]	22.82	33.00	21.00	17.07
l_b,int, Bicycle LOS Score for Intersection	2.672	1.672	2.572	2.617
Bicycle LOS	B	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Associated Road (N/S) at Greenbriar Lane (E/W)

Control Type:	Signalized	Delay (sec / veh):	8.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.198

Intersection Setup

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	110.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Base Volume Input [veh/h]	28	354	6	13	432	5	24	1	75	32	1	39
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	354	6	13	432	5	24	1	75	32	1	39
Peak Hour Factor	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290	0.9290
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	95	2	3	116	1	6	0	20	9	0	10
Total Analysis Volume [veh/h]	30	381	6	14	465	5	26	1	81	34	1	42
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing (Basic)

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Permiss	Split	Split	Permiss	Split
Signal Group	0	6	0	0	2	0	3	0	0	7	0	0
Auxiliary Signal Groups												
Maximum Green [s]	0	41	0	0	41	0	41	0	0	41	0	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0
Walk [s]	0	7	0	0	7	0	7	0	0	7	0	0
Pedestrian Clearance [s]	0	13	0	0	12	0	24	0	0	23	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No		No			No		
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	45	0	0	45	0	45	0	0	45	0	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	0	0	6	0	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0
Minimum Recall		No			No		No			No		
Maximum Recall		No			No		No			No		
Pedestrian Recall		No			No		No			No		

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Calculated Cycle Length [s]	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	75	75	75	75	75	75	7	7
g / C, Green / Cycle	0.84	0.84	0.84	0.84	0.84	0.84	0.08	0.08
(v / s)_i Volume / Saturation Flow Rate	0.02	0.10	0.10	0.01	0.12	0.12	0.06	0.04
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1900	1900	1900
c, Capacity [veh/h]	1478	1586	1586	1487	1586	1586	195	203
d1, Uniform Delay [s]	1.25	1.37	1.37	1.24	1.41	1.41	40.66	39.97
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.03	0.16	0.16	0.01	0.20	0.20	2.39	1.14
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.12	0.12	0.01	0.15	0.15	0.55	0.37
d, Delay for Lane Group [s/veh]	1.28	1.53	1.53	1.25	1.60	1.60	43.06	41.11
Lane Group LOS	A	A	A	A	A	A	D	D
Critical Lane Group	No	No	No	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.03	0.24	0.24	0.02	0.29	0.29	2.45	1.68
50th-Percentile Queue Length [ft/ln]	0.85	5.90	5.88	0.39	7.35	7.33	61.22	42.09
95th-Percentile Queue Length [veh/ln]	0.06	0.42	0.42	0.03	0.53	0.53	4.41	3.03
95th-Percentile Queue Length [ft/ln]	1.52	10.62	10.58	0.70	13.24	13.20	110.20	75.76

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	1.28	1.53	1.53	1.25	1.60	1.60	43.06	0.00	43.06	41.11	0.00	41.11
Movement LOS	A	A	A	A	A	A	D		D	D		D
d_A, Approach Delay [s/veh]	1.51			1.59			43.06			41.11		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	8.42											
Intersection LOS	A											
Intersection V/C	0.198											

Emissions

Vehicle Miles Traveled [mph]	1.03	6.66	6.63	0.45	7.54	7.52	2.05	1.80
Stops [stops/h]	1.36	9.44	9.40	0.63	11.77	11.73	97.96	67.34
Fuel consumption [US gal/h]	0.06	0.39	0.39	0.03	0.46	0.46	1.41	0.97
CO [g/h]	4.05	27.37	27.26	1.80	32.33	32.23	98.23	68.14
NOx [g/h]	0.79	5.32	5.30	0.35	6.29	6.27	19.11	13.26
VOC [g/h]	0.94	6.34	6.32	0.42	7.49	7.47	22.77	15.79

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersectio	2.607	2.579	1.815	1.773
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	911	911	911	911
d_b, Bicycle Delay [s]	13.34	13.34	13.34	13.34
l_b,int, Bicycle LOS Score for Intersection	1.904	1.959	1.736	1.685
Bicycle LOS	A	A	A	A

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)

Control Type:	Signalized	Delay (sec / veh):	10.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.270

Intersection Setup

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	88.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Base Volume Input [veh/h]	46	314	465	72	69	73
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	46	314	465	72	69	73
Peak Hour Factor	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	85	125	19	19	20
Total Analysis Volume [veh/h]	50	339	502	78	74	79
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Protected	Permissive	Permissive	Permissive	Split	Split
Signal Group	1	6	2	0	3	0
Auxiliary Signal Groups						
Maximum Green [s]	7	48	37	0	34	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0
Walk [s]	0	0	7	0	0	0
Pedestrian Clearance [s]	0	0	19	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	11	52	41	0	38	0
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	6	6	6	0	6	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	No	No		No	
Pedestrian Recall	No	No	No		No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	C	L	R
C, Calculated Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	4	76	67	67	6	6
g / C, Green / Cycle	0.05	0.84	0.75	0.75	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.03	0.09	0.15	0.16	0.04	0.05
s, saturation flow rate [veh/h]	1800	3800	1900	1800	1800	1750
c, Capacity [veh/h]	86	3194	1422	1347	127	123
d1, Uniform Delay [s]	41.97	1.26	3.36	3.40	40.55	40.72
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.07	0.07	0.32	0.37	4.20	5.43
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.58	0.11	0.20	0.22	0.58	0.64
d, Delay for Lane Group [s/veh]	48.04	1.32	3.69	3.76	44.74	46.15
Lane Group LOS	D	A	A	A	D	D
Critical Lane Group	Yes	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	1.20	0.15	1.13	1.15	1.74	1.89
50th-Percentile Queue Length [ft/ln]	29.95	3.64	28.23	28.71	43.45	47.27
95th-Percentile Queue Length [veh/ln]	2.16	0.26	2.03	2.07	3.13	3.40
95th-Percentile Queue Length [ft/ln]	53.91	6.55	50.82	51.68	78.21	85.09

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	48.04	1.32	3.72	3.76	44.74	46.15
Movement LOS	D	A	A	A	D	D
d_A, Approach Delay [s/veh]	7.33		3.72		45.47	
Approach LOS	A		A		D	
d_I, Intersection Delay [s/veh]	10.67					
Intersection LOS	B					
Intersection V/C	0.270					

Emissions

Vehicle Miles Traveled [mph]	1.05	7.14	7.67	7.67	1.98	2.11
Stops [stops/h]	47.92	11.64	45.17	45.94	69.52	75.63
Fuel consumption [US gal/h]	1.00	0.46	0.94	0.95	1.03	1.13
CO [g/h]	69.71	32.26	65.44	66.28	71.95	78.78
NOx [g/h]	13.56	6.28	12.73	12.90	14.00	15.33
VOC [g/h]	16.16	7.48	15.17	15.36	16.68	18.26

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	34.67
l_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	2.188
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1067	822	756
d_b, Bicycle Delay [s]	9.80	15.61	17.42
l_b,int, Bicycle LOS Score for Intersection	1.881	2.038	1.560
Bicycle LOS	A	B	A

Sequence

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Associated Road (N/S) at Birch Street (E/W)

Control Type:	Signalized	Delay (sec / veh):	37.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.605

Intersection Setup

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	225.00	100.00	230.00	100.00	100.00	100.00	150.00	100.00	100.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Base Volume Input [veh/h]	389	21	336	17	13	9	8	1056	254	244	1083	24
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	389	21	336	17	13	9	8	1056	254	244	1083	24
Peak Hour Factor	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660	0.9660
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	101	5	87	4	3	2	2	273	66	63	280	6
Total Analysis Volume [veh/h]	403	22	348	18	13	9	8	1093	263	253	1121	25
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	120
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal Group	1	6	6	0	2	0	3	8	8	7	4	0
Auxiliary Signal Groups			6,7						1,8			
Maximum Green [s]	6	6	6	0	6	0	6	6	6	6	6	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	24	24	0	24	0	0	26	26	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	20	55	55	0	35	0	19	51	51	14	46	0
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	6	0	6	0	6	6	6	6	6	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Minimum Recall	No	No	No		No		No	No	No	No	No	
Maximum Recall	No	No	No		No		No	No	No	No	No	
Pedestrian Recall	No	No	No		No		No	No	No	No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Calculated Cycle Length [s]	120	120	120	120	120	120	120	120	120	120	120
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	16	59	73	40	40	1	39	58	10	47	47
g / C, Green / Cycle	0.13	0.50	0.61	0.33	0.33	0.01	0.32	0.49	0.08	0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.12	0.01	0.18	0.01	0.01	0.00	0.29	0.15	0.07	0.30	0.30
s, saturation flow rate [veh/h]	3500	1900	1900	1800	1900	1800	3800	1750	3500	1900	1900
c, Capacity [veh/h]	458	941	1163	613	629	23	1222	850	292	745	745
d1, Uniform Delay [s]	51.23	15.47	11.07	27.12	27.16	58.76	38.78	18.69	54.35	31.78	31.69
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.11	0.11	0.50	0.11	0.21	0.21
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.66	0.05	0.66	0.09	0.10	9.08	2.57	0.95	7.72	3.35	3.22
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.88	0.02	0.30	0.03	0.03	0.35	0.89	0.31	0.87	0.77	0.77
d, Delay for Lane Group [s/veh]	56.89	15.51	11.73	27.21	27.26	67.84	41.35	19.63	62.07	35.12	34.91
Lane Group LOS	E	B	B	C	C	E	D	B	E	D	C
Critical Lane Group	No	No	Yes	No	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	6.20	0.31	4.30	0.37	0.46	0.29	15.05	4.43	3.99	14.44	14.29
50th-Percentile Queue Length [ft/ln]	154.94	7.80	107.57	9.30	11.38	7.33	376.31	110.69	99.83	360.97	357.24
95th-Percentile Queue Length [veh/ln]	10.28	0.56	7.70	0.67	0.82	0.53	21.42	7.88	7.19	20.67	20.49
95th-Percentile Queue Length [ft/ln]	257.01	14.05	192.62	16.75	20.48	13.19	535.38	196.96	179.70	516.76	512.23

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	56.89	15.51	11.73	27.21	27.26	27.26	67.84	41.35	19.63	62.07	35.02	34.91
Movement LOS	E	B	B	C	C	C	E	D	B	E	D	C
d_A, Approach Delay [s/veh]	35.38			27.24			37.31			39.91		
Approach LOS	D			C			D			D		
d_I, Intersection Delay [s/veh]	37.80											
Intersection LOS	D											
Intersection V/C	0.605											

Emissions

Vehicle Miles Traveled [mph]	26.32	1.44	22.73	0.70	0.86	0.42	57.00	13.71	21.25	48.28	47.98
Stops [stops/h]	371.86	9.37	129.08	11.17	13.66	8.79	903.15	132.83	239.59	433.16	428.69
Fuel consumption [US gal/h]	9.26	0.21	2.91	0.17	0.21	0.23	22.38	3.17	6.90	11.15	11.03
CO [g/h]	647.34	14.88	203.59	12.17	14.90	16.36	1564.29	221.75	482.50	779.29	771.16
NOx [g/h]	125.95	2.90	39.61	2.37	2.90	3.18	304.35	43.14	93.88	151.62	150.04
VOC [g/h]	150.03	3.45	47.18	2.82	3.45	3.79	362.54	51.39	111.82	180.61	178.72

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	49.50	49.50	49.50	49.50
l_p,int, Pedestrian LOS Score for Intersectio	2.749	1.980	3.213	3.189
Crosswalk LOS	B	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	850	517	783	700
d_b, Bicycle Delay [s]	19.84	33.00	22.20	25.35
l_b,int, Bicycle LOS Score for Intersection	2.835	1.626	2.685	2.714
Bicycle LOS	C	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Associated Road (N/S) at Greenbriar Lane (E/W)

Control Type:	Signalized	Delay (sec / veh):	5.1
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.240

Intersection Setup

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	110.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Base Volume Input [veh/h]	65	581	31	24	491	8	10	4	47	15	10	47
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	65	581	31	24	491	8	10	4	47	15	10	47
Peak Hour Factor	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390	0.9390
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	17	155	8	6	131	2	3	1	13	4	3	13
Total Analysis Volume [veh/h]	69	619	33	26	523	9	11	4	50	16	11	50
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Permiss	Split	Split	Permiss	Split
Signal Group	0	6	0	0	2	0	3	0	0	7	0	0
Auxiliary Signal Groups												
Maximum Green [s]	0	26	0	0	26	0	56	0	0	56	0	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0
Walk [s]	0	7	0	0	7	0	7	0	0	7	0	0
Pedestrian Clearance [s]	0	13	0	0	12	0	24	0	0	23	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No		No			No		
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	30	0	0	30	0	60	0	0	60	0	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	0	0	6	0	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0
Minimum Recall		No			No		No			No		
Maximum Recall		No			No		No			No		
Pedestrian Recall		No			No		No			No		

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Calculated Cycle Length [s]	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	77	77	77	77	77	77	5	5
g / C, Green / Cycle	0.86	0.86	0.86	0.86	0.86	0.86	0.05	0.05
(v / s)_i Volume / Saturation Flow Rate	0.04	0.17	0.17	0.01	0.14	0.14	0.03	0.03
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1900	1900	1900
c, Capacity [veh/h]	1515	1625	1625	1502	1625	1625	154	156
d1, Uniform Delay [s]	0.98	1.14	1.14	0.96	1.10	1.10	41.42	41.54
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.06	0.28	0.28	0.02	0.22	0.22	1.65	1.81
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.05	0.20	0.20	0.02	0.16	0.16	0.40	0.42
d, Delay for Lane Group [s/veh]	1.04	1.42	1.41	0.98	1.32	1.32	43.08	43.34
Lane Group LOS	A	A	A	A	A	A	D	D
Critical Lane Group	No	Yes	No	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.04	0.23	0.22	0.02	0.18	0.18	1.39	1.51
50th-Percentile Queue Length [ft/ln]	1.06	5.74	5.62	0.39	4.46	4.43	34.80	37.80
95th-Percentile Queue Length [veh/ln]	0.08	0.41	0.40	0.03	0.32	0.32	2.51	2.72
95th-Percentile Queue Length [ft/ln]	1.91	10.33	10.12	0.70	8.03	7.98	62.64	68.04

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	1.04	1.42	1.41	0.98	1.32	1.32	43.08	0.00	43.08	43.34	0.00	43.34
Movement LOS	A	A	A	A	A	A	D		D	D		D
d_A, Approach Delay [s/veh]	1.38			1.30			43.08			43.34		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	5.13											
Intersection LOS	A											
Intersection V/C	0.240											

Emissions

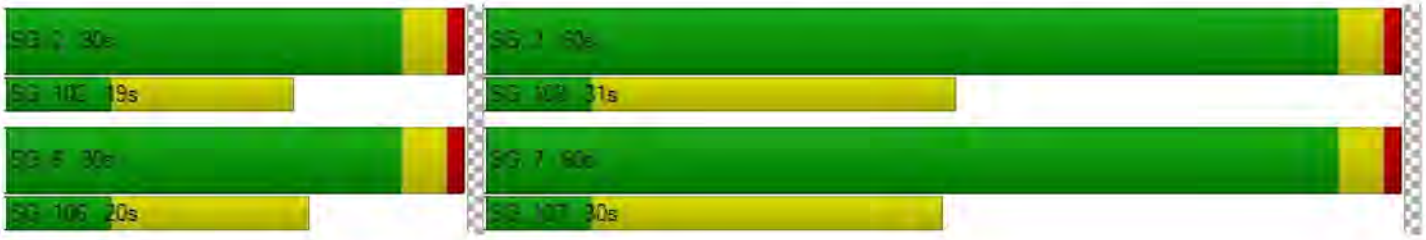
Vehicle Miles Traveled [mph]	2.37	11.29	11.10	0.83	8.54	8.50	1.17	1.56
Stops [stops/h]	1.70	9.18	9.00	0.63	7.14	7.10	55.68	60.48
Fuel consumption [US gal/h]	0.12	0.59	0.58	0.04	0.45	0.45	0.80	0.88
CO [g/h]	8.12	41.22	40.47	2.88	31.29	31.13	55.98	61.81
NOx [g/h]	1.58	8.02	7.87	0.56	6.09	6.06	10.89	12.03
VOC [g/h]	1.88	9.55	9.38	0.67	7.25	7.21	12.97	14.32

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersectio	2.663	2.637	1.869	1.802
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	578	578	1244	1244
d_b, Bicycle Delay [s]	22.76	22.76	6.42	6.42
l_b,int, Bicycle LOS Score for Intersection	2.154	2.020	1.660	1.669
Bicycle LOS	B	B	A	A

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)

Control Type:	Signalized	Delay (sec / veh):	15.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.363

Intersection Setup

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	88.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Base Volume Input [veh/h]	99	593	410	104	131	188
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	99	593	410	104	131	188
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	153	106	27	34	49
Total Analysis Volume [veh/h]	102	613	424	107	135	194
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Protected	Permissive	Permissive	Permissive	Split	Split
Signal Group	1	6	2	0	3	0
Auxiliary Signal Groups						
Maximum Green [s]	7	37	26	0	45	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0
Walk [s]	0	0	7	0	0	0
Pedestrian Clearance [s]	0	0	19	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	11	41	30	0	49	0
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	6	6	6	0	6	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	No	No		No	
Pedestrian Recall	No	No	No		No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	C	L	R
C, Calculated Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	69	59	59	13	13
g / C, Green / Cycle	0.07	0.77	0.66	0.66	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.06	0.16	0.14	0.15	0.08	0.11
s, saturation flow rate [veh/h]	1800	3800	1900	1800	1800	1750
c, Capacity [veh/h]	129	2930	1244	1178	252	245
d1, Uniform Delay [s]	41.09	2.81	6.24	6.29	35.97	37.42
k, delay calibration	0.16	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	14.39	0.16	0.39	0.44	1.76	5.67
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.79	0.21	0.21	0.23	0.54	0.79
d, Delay for Lane Group [s/veh]	55.48	2.98	6.63	6.74	37.74	43.10
Lane Group LOS	E	A	A	A	D	D
Critical Lane Group	Yes	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	2.67	0.93	1.76	1.79	2.88	4.50
50th-Percentile Queue Length [ft/ln]	66.64	23.31	44.12	44.74	71.88	112.51
95th-Percentile Queue Length [veh/ln]	4.80	1.68	3.18	3.22	5.18	7.98
95th-Percentile Queue Length [ft/ln]	119.95	41.97	79.42	80.53	129.39	199.49

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	55.48	2.98	6.67	6.74	37.74	43.10
Movement LOS	E	A	A	A	D	D
d_A, Approach Delay [s/veh]	10.47		6.68		40.90	
Approach LOS	B		A		D	
d_I, Intersection Delay [s/veh]	15.55					
Intersection LOS	B					
Intersection V/C	0.363					

Emissions

Vehicle Miles Traveled [mph]	2.15	12.92	7.03	7.03	3.61	5.19
Stops [stops/h]	106.62	74.61	70.60	71.58	115.01	180.02
Fuel consumption [US gal/h]	2.28	1.57	1.30	1.32	1.64	2.63
CO [g/h]	159.09	109.53	91.11	92.20	114.65	183.50
NOx [g/h]	30.95	21.31	17.73	17.94	22.31	35.70
VOC [g/h]	36.87	25.38	21.12	21.37	26.57	42.53

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	34.67
l_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	2.240
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	822	578	1000
d_b, Bicycle Delay [s]	15.61	22.76	11.25
l_b,int, Bicycle LOS Score for Intersection	2.149	1.998	1.560
Bicycle LOS	B	A	A

Sequence

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Associated Road (N/S) at Birch Street (E/W)

Control Type:	Signalized	Delay (sec / veh):	33.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.418

Intersection Setup

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	225.00	100.00	230.00	100.00	100.00	100.00	150.00	100.00	100.00	220.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			25.00			45.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Birch Street			Birch Street		
Base Volume Input [veh/h]	328	11	168	11	20	9	6	738	300	132	638	8
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	328	11	168	11	20	9	6	738	300	132	638	8
Peak Hour Factor	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710	0.9710
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	84	3	43	3	5	2	2	190	77	34	164	2
Total Analysis Volume [veh/h]	338	11	173	11	21	9	6	760	309	136	657	8
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	100
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	Protecte	Permiss	Overlap	Permiss	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss
Signal Group	1	6	6	0	2	0	3	8	8	7	4	0
Auxiliary Signal Groups			6,7						1,8			
Maximum Green [s]	6	6	6	0	6	0	6	6	6	6	6	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	0.0
Walk [s]	0	7	7	0	7	0	0	7	7	0	7	0
Pedestrian Clearance [s]	0	24	24	0	24	0	0	26	26	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	16	51	51	0	35	0	10	39	39	10	39	0
Lead / Lag	Lead	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	6	6	6	0	6	0	6	6	6	6	6	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0
Minimum Recall	No	No	No		No		No	No	No	No	No	
Maximum Recall	No	No	No		No		No	No	No	No	No	
Pedestrian Recall	No	No	No		No		No	No	No	No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Calculated Cycle Length [s]	100	100	100	100	100	100	100	100	100	100	100
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	0.00	2.00	2.00	2.00	2.00	0.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	58	68	42	42	1	24	40	6	29	29
g / C, Green / Cycle	0.12	0.58	0.68	0.42	0.42	0.01	0.24	0.40	0.06	0.29	0.29
(v / s)_i Volume / Saturation Flow Rate	0.10	0.01	0.09	0.01	0.02	0.00	0.20	0.18	0.04	0.18	0.17
s, saturation flow rate [veh/h]	3500	1900	1900	1800	1900	1800	3800	1750	3500	1900	1900
c, Capacity [veh/h]	420	1109	1297	782	805	19	903	696	205	542	542
d1, Uniform Delay [s]	42.86	8.71	5.55	16.71	16.87	49.09	36.33	22.04	46.09	30.96	30.93
k, delay calibration	0.11	0.50	0.50	0.50	0.50	0.11	0.11	0.50	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.66	0.02	0.21	0.03	0.09	8.69	2.23	2.05	3.62	1.13	1.12
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.80	0.01	0.13	0.01	0.04	0.31	0.84	0.44	0.66	0.61	0.61
d, Delay for Lane Group [s/veh]	46.52	8.73	5.76	16.74	16.96	57.78	38.56	24.09	49.71	32.09	32.05
Lane Group LOS	D	A	A	B	B	E	D	C	D	C	C
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	4.16	0.10	1.12	0.15	0.43	0.19	8.65	5.34	1.70	6.75	6.71
50th-Percentile Queue Length [ft/ln]	104.05	2.40	27.94	3.87	10.64	4.78	216.33	133.61	42.52	168.70	167.83
95th-Percentile Queue Length [veh/ln]	7.49	0.17	2.01	0.28	0.77	0.34	13.48	9.14	3.06	11.01	10.96
95th-Percentile Queue Length [ft/ln]	187.29	4.31	50.29	6.96	19.16	8.60	336.94	228.39	76.54	275.20	274.06

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	46.52	8.73	5.76	16.74	16.96	16.96	57.78	38.56	24.09	49.71	32.07	32.05
Movement LOS	D	A	A	B	B	B	E	D	C	D	C	C
d_A, Approach Delay [s/veh]	32.22			16.90			34.51			35.07		
Approach LOS	C			B			C			D		
d_I, Intersection Delay [s/veh]	33.91											
Intersection LOS	C											
Intersection V/C	0.418											

Emissions

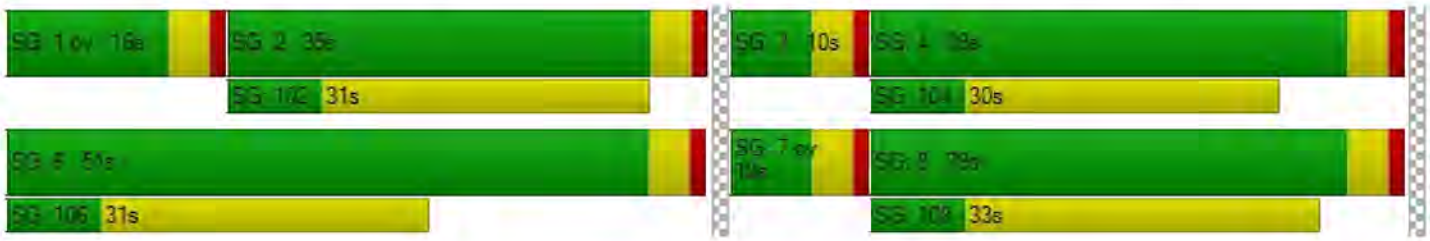
Vehicle Miles Traveled [mph]	22.07	0.72	11.30	0.43	1.17	0.31	39.63	16.11	11.42	27.99	27.87
Stops [stops/h]	299.67	3.45	40.23	5.57	15.33	6.88	623.03	192.39	122.47	242.92	241.68
Fuel consumption [US gal/h]	6.93	0.08	1.00	0.08	0.22	0.17	15.07	4.46	3.29	6.16	6.12
CO [g/h]	484.70	5.53	70.09	5.47	15.04	11.66	1053.27	311.70	229.97	430.27	428.11
NOx [g/h]	94.31	1.08	13.64	1.06	2.93	2.27	204.93	60.65	44.74	83.71	83.29
VOC [g/h]	112.33	1.28	16.24	1.27	3.49	2.70	244.10	72.24	53.30	99.72	99.22

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	39.61	39.61	39.61	39.61
l_p,int, Pedestrian LOS Score for Intersectio	2.672	1.963	3.033	2.899
Crosswalk LOS	B	A	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	940	620	700	700
d_b, Bicycle Delay [s]	14.05	23.81	21.13	21.13
l_b,int, Bicycle LOS Score for Intersection	2.421	1.627	2.446	2.220
Bicycle LOS	B	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 3: Associated Road (N/S) at Greenbriar Lane (E/W)

Control Type:	Signalized	Delay (sec / veh):	6.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.193

Intersection Setup

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	110.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00			40.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Associated Road			Associated Road			Greenbriar Lane			Greenbriar Lane		
Base Volume Input [veh/h]	54	451	22	6	418	8	12	0	64	19	11	33
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	451	22	6	418	8	12	0	64	19	11	33
Peak Hour Factor	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880	0.9880
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	114	6	2	106	2	3	0	16	5	3	8
Total Analysis Volume [veh/h]	55	456	22	6	423	8	12	0	65	19	11	33
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Split	Permiss	Split	Split	Permiss	Split
Signal Group	0	6	0	0	2	0	3	0	0	7	0	0
Auxiliary Signal Groups												
Maximum Green [s]	0	26	0	0	26	0	56	0	0	56	0	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	0.0	0.0	1.0	0.0	0.0
Walk [s]	0	7	0	0	7	0	7	0	0	7	0	0
Pedestrian Clearance [s]	0	13	0	0	12	0	24	0	0	23	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No		No			No		
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	0	30	0	0	30	0	60	0	0	60	0	0
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	6	0	0	6	0	6	0	0	6	0	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0
Minimum Recall		No			No		No			No		
Maximum Recall		No			No		No			No		
Pedestrian Recall		No			No		No			No		

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C
C, Calculated Cycle Length [s]	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	2.00	2.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	77	77	77	77	77	77	5	5
g / C, Green / Cycle	0.85	0.85	0.85	0.85	0.85	0.85	0.06	0.06
(v / s)_i Volume / Saturation Flow Rate	0.03	0.13	0.12	0.00	0.11	0.11	0.04	0.03
s, saturation flow rate [veh/h]	1800	1900	1900	1800	1900	1900	1900	1900
c, Capacity [veh/h]	1519	1619	1619	1514	1619	1619	159	167
d1, Uniform Delay [s]	1.02	1.13	1.13	0.99	1.11	1.11	41.52	40.95
k, delay calibration	0.50	0.50	0.50	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.04	0.19	0.19	0.00	0.17	0.17	2.29	1.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.04	0.15	0.15	0.00	0.13	0.13	0.49	0.31
d, Delay for Lane Group [s/veh]	1.06	1.32	1.32	0.99	1.28	1.28	43.81	42.00
Lane Group LOS	A	A	A	A	A	A	D	D
Critical Lane Group	No	Yes	No	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.04	0.18	0.18	0.00	0.16	0.16	1.78	1.17
50th-Percentile Queue Length [ft/ln]	0.95	4.49	4.42	0.10	3.97	3.95	44.44	29.14
95th-Percentile Queue Length [veh/ln]	0.07	0.32	0.32	0.01	0.29	0.28	3.20	2.10
95th-Percentile Queue Length [ft/ln]	1.70	8.08	7.96	0.18	7.14	7.11	79.98	52.45

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	1.06	1.32	1.32	0.99	1.28	1.28	43.81	0.00	43.81	42.00	0.00	42.00
Movement LOS	A	A	A	A	A	A	D		D	D		D
d_A, Approach Delay [s/veh]	1.29			1.28			43.81			42.00		
Approach LOS	A			A			D			D		
d_I, Intersection Delay [s/veh]	6.19											
Intersection LOS	A											
Intersection V/C	0.193											

Emissions

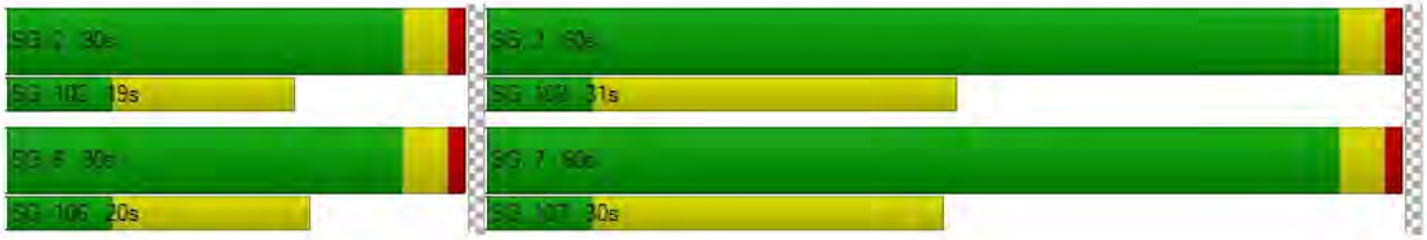
Vehicle Miles Traveled [mph]	1.89	8.26	8.15	0.19	6.92	6.89	1.47	1.23
Stops [stops/h]	1.51	7.19	7.08	0.16	6.35	6.32	71.10	46.62
Fuel consumption [US gal/h]	0.09	0.43	0.43	0.01	0.37	0.36	1.03	0.68
CO [g/h]	6.60	30.14	29.73	0.68	25.64	25.51	71.67	47.43
NOx [g/h]	1.28	5.86	5.78	0.13	4.99	4.96	13.95	9.23
VOC [g/h]	1.53	6.99	6.89	0.16	5.94	5.91	16.61	10.99

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.67	34.67	34.67	34.67
l_p,int, Pedestrian LOS Score for Intersectio	2.597	2.560	1.849	1.755
Crosswalk LOS	B	B	A	A
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	578	578	1244	1244
d_b, Bicycle Delay [s]	22.76	22.76	6.42	6.42
l_b,int, Bicycle LOS Score for Intersection	1.999	1.920	1.687	1.645
Bicycle LOS	A	A	A	A

Sequence

Ring 1	-	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Associated Road (N/S) at Shopping Center Driveway No. 1 (E/W)

Control Type:	Signalized	Delay (sec / veh):	16.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.379

Intersection Setup

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	0	0	0
Entry Pocket Length [ft]	88.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	No		No		Yes	

Volumes

Name	Associated Road		Associated Road		Shopping Center Driveway No. 1	
Base Volume Input [veh/h]	91	428	406	97	116	213
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Proportion of CAVs [%]	0.00					
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	91	428	406	97	116	213
Peak Hour Factor	0.9510	0.9510	0.9510	0.9510	0.9510	0.9510
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	113	107	25	30	56
Total Analysis Volume [veh/h]	96	450	427	102	122	224
Presence of On-Street Parking	No	No	No	No	No	No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0		0		0	
v_di, Inbound Pedestrian Volume crossing m	0		0		0	
v_co, Outbound Pedestrian Volume crossing	0		0		0	
v_ci, Inbound Pedestrian Volume crossing mi	0		0		0	
v_ab, Corner Pedestrian Volume [ped/h]	0		0		0	
Bicycle Volume [bicycles/h]	0		0		0	

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Pattern 1
Coordination Type	Time of Day Pattern Coordinated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	12.00

Phasing & Timing (Basic)

Control Type	Protected	Permissive	Permissive	Permissive	Split	Split
Signal Group	1	6	2	0	3	0
Auxiliary Signal Groups						
Maximum Green [s]	13	52	35	0	30	0
Amber [s]	3.0	3.0	3.0	0.0	3.0	0.0
All red [s]	1.0	1.0	1.0	0.0	1.0	0.0
Walk [s]	0	0	7	0	0	0
Pedestrian Clearance [s]	0	0	19	0	0	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No	No		No	
I1, Start-Up Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	0.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Pattern 1

Split [s]	17	56	39	0	34	0
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	6	6	6	0	6	0
Vehicle Extension [s]	3.0	3.0	3.0	0.0	3.0	0.0
Minimum Recall	No	No	No		No	
Maximum Recall	No	No	No		No	
Pedestrian Recall	No	No	No		No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	C	L	R
C, Calculated Cycle Length [s]	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	68	58	58	14	14
g / C, Green / Cycle	0.07	0.76	0.64	0.64	0.16	0.16
(v / s)_i Volume / Saturation Flow Rate	0.05	0.12	0.14	0.15	0.07	0.13
s, saturation flow rate [veh/h]	1800	3800	1900	1800	1800	1750
c, Capacity [veh/h]	125	2868	1217	1153	281	274
d1, Uniform Delay [s]	41.15	3.07	6.75	6.81	34.36	36.73
k, delay calibration	0.11	0.50	0.50	0.50	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	9.38	0.12	0.41	0.46	1.05	5.98
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.77	0.16	0.22	0.23	0.43	0.82
d, Delay for Lane Group [s/veh]	50.54	3.19	7.16	7.27	35.41	42.70
Lane Group LOS	D	A	A	A	D	D
Critical Lane Group	Yes	No	No	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	2.35	0.76	1.86	1.89	2.50	5.19
50th-Percentile Queue Length [ft/ln]	58.70	18.89	46.61	47.25	62.42	129.83
95th-Percentile Queue Length [veh/ln]	4.23	1.36	3.36	3.40	4.49	8.93
95th-Percentile Queue Length [ft/ln]	105.65	34.00	83.90	85.05	112.35	223.26

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	50.54	3.19	7.20	7.27	35.41	42.70
Movement LOS	D	A	A	A	D	D
d_A, Approach Delay [s/veh]	11.51		7.21		40.13	
Approach LOS	B		A		D	
d_I, Intersection Delay [s/veh]	16.88					
Intersection LOS	B					
Intersection V/C	0.379					

Emissions

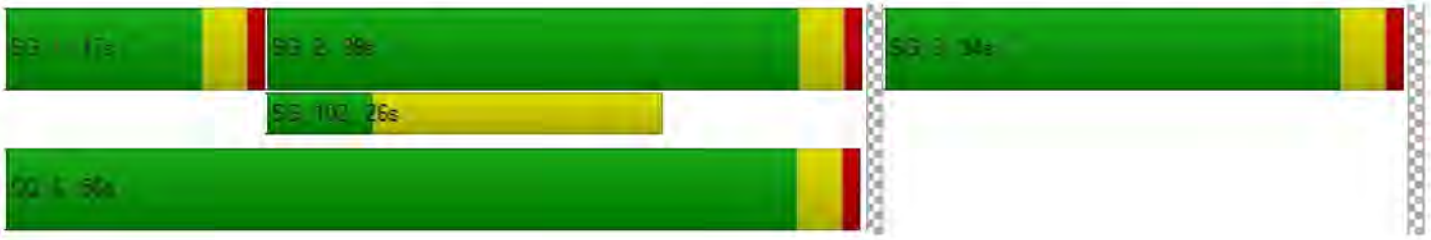
Vehicle Miles Traveled [mph]	2.02	9.48	7.00	7.00	3.26	5.99
Stops [stops/h]	93.91	60.45	74.58	75.60	99.86	207.73
Fuel consumption [US gal/h]	1.98	1.23	1.37	1.38	1.41	3.01
CO [g/h]	138.56	85.66	95.67	96.80	98.48	210.59
NOx [g/h]	26.96	16.67	18.61	18.83	19.16	40.97
VOC [g/h]	32.11	19.85	22.17	22.44	22.82	48.81

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	0.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	0.00	34.67
l_p,int, Pedestrian LOS Score for Intersectio	0.000	0.000	2.241
Crosswalk LOS	F	F	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1156	778	667
d_b, Bicycle Delay [s]	8.02	16.81	20.00
l_b,int, Bicycle LOS Score for Intersection	2.010	1.996	1.560
Bicycle LOS	B	A	A

Sequence

Ring 1	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Appendix J

SWITRS & TIMS Collision Data

Primary Rd **BIRCH ST** *Distance (ft)* **110.** *Direction* **W** *Secondary Rd* **ORANGE AV** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1447** *Collision Date* **20200229** *Time* **1146** *Day* **SAT**
Primary Collision Factor **R-O-W AUTO** *Violation* **21804A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20200526**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	32	F	W	HNBD		ENT TRAF	S	A	0700	JEEP	2015	-	3	E		-	M	G
2	DRVR	79	F	W	HNBD		PROC ST	W	A	0100	TOYOT	2019	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **BIRCH ST** *Distance (ft)* **200.** *Direction* **W** *Secondary Rd* **POPLAR AV** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1653** *Collision Date* **20191016** *Time* **2215** *Day* **WED**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20191113**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	17	M	W	HNBD		PROC ST	E	A	0100	FORD	2016	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **BIRCH ST** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **RANDOLPH AV** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1447** *Collision Date* **20200320** *Time* **1830** *Day* **FRI**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20200417**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	30	M	W	HBD-UI		PROC ST	-	D	2200	CHEVR	2005	-	3	N		-	M	G
2	DRVR	46	F	W	HNBD		CHANG LN	W	A	0700	LINCO	2010	-	3	A	21658	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **BIRCH ST** *Distance (ft)* **65.0** *Direction* **E** *Secondary Rd* **REDBAY AV** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1395** *Collision Date* **20190424** *Time* **1700** *Day* **WED**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20190508**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	57	M	W	HNBD		PROC ST	E	A	0800	DODGE	2017	-	3	F		-	L	G
2	DRVR	26	F	W	HNBD		STOPPED	E	A	0700	JEEP	2018	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **BIRCH ST** *Distance (ft)* **17.0** *Direction* **E** *Secondary Rd* **STARFLOWER ST** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1646** *Collision Date* **20190503** *Time* **0947** *Day* **FRI**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **3** *Tow Away?* **Y** *Process Date* **20190705**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	43	F	W	HNBD		PROC ST	W	A	0800	HONDA	2016	-	2	A	23123	-	L	G
2	DRVR	58	F	W	HNBD		LFT TURN	S	A	0100	BUICK	2010	-	3	N		-	L	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS	POSSIBL	9	M	4	0	M	G
DRVR	POSSIBL	58	F	1	0	L	G
PASS	MINOR	97	F	2	0	L	G

This report is accepted subject to the Terms of Use. Due to collision records processing backlogs, SWITRS data is typically seven months behind. Data requested for dates seven months prior to the current date will be incomplete.

STATE OF CALIFORNIA
DEPARTMENT OF CALIFORNIA HIGHWAY PATROL

REPORT 8 - TOTAL COLLISIONS

03/21/2019 thru 03/20/2020 | *Total Count: 779* | Jurisdiction(s): ALL

Include State Highways cases | *Report Run On: 03/25/2024*

Primary Rd **ALDER ST** *Distance (ft)* **122.** *Direction* **W** *Secondary Rd* **POPLAR AV** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20190814** *Time* **0716** *Day* **WED**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20191210**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **PKD MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	20	M	H	HNBD		PROC ST	E	A	0100	NISSA	2014	- 3	E		-	L G
2	PRKD	998	-				PARKED	E	D	2200	NISSA	2006	- -	N		-	- -
3	PRKD	998	-				PARKED	E	A	0100	HONDA	2011	- -	N		-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		14	M	3	0	L	G

Primary Rd **ALWICK PL** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **MIDBURY ST** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **011** *Type* **0** *CalTrans* *Badge* **1628** *Collision Date* **20200204** *Time* **1420** *Day* **TUE**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20200320**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **PKD MV** *Lighting* **DUSK/DAWN** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	E	A	0700	TOYOT		- -	N		-	- -
2	PRKD	998	-				PARKED	S	A	0100	HONDA	2004	- -	N		-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **23.0** *Direction* **S** *Secondary Rd* **BIRCH ST** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1447** *Collision Date* **20190426** *Time* **1408** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20190508**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	68	M	W	HNBD		PROC ST	N	D	2200	FORD	2017	- 3	N		-	M G
2	DRVR	38	F	H	HNBD		STOPPED	N	A	0100	TOYOT	2001	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	38	F	1	0	M	G

Primary Rd **ASSOCIATED RD** *Distance (ft)* **37.0** *Direction* **N** *Secondary Rd* **BIRCH ST** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1676** *Collision Date* **20190524** *Time* **1933** *Day* **FRI**
Primary Collision Factor **DRVR ALC\|DRG** *Violation* **23152A** *Collision Type* **HEAD-ON** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20190620**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	30	M	H	HBD-UI		RGT TURN	W	A	0100	TOYOT	2017	- 3	A	21650	-	L C
2	DRVR	24	F	H	HNBD		STOPPED	S	A	0100	HONDA	2015	- 3	N		-	M C

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **ASSOCIATED RD** *Distance (ft)* **125.** *Direction* **N** *Secondary Rd* **BIRCH ST** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1628** *Collision Date* **20191029** *Time* **1258** *Day* **TUE**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20191205**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info																Victim Info							
Party	*Type*	*Age*	*Sex*	*Race*	*Sobriety1*	*Sobriety2*	*Move Pre*	*Dir*	*SW Veh*	*CHP Veh*	*Make*	*Year*	*SP Info*	*OAF1*	*Viol*	*OAF2*	*Safety Equip*	*ROLE*	*Ext Of Inj*	*AGE*	*Sex*	*Seat Pos*	*Safety*	*EQUIP*	*Ejected*
1F	**DRVR**	**998**	**-**		**IMP UNK**	**IMP UNK**	**PROC ST**	**N**	**A**	**0700**	**-**	**-**	**-**	**N**	**-**	**-**	**-**								

Primary Rd **ASSOCIATED RD** *Distance (ft)* **1000** *Direction* **N** *Secondary Rd* **GREENBRIAR LN** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1395** *Collision Date* **20190920** *Time* **1604** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20191104**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info																	Victim Info							
Party	*Type*	*Age*	*Sex*	*Race*	*Sobriety1*	*Sobriety2*	*Move Pre*	*Dir*	*SW Veh*	*CHP Veh*	*Make*	*Year*	*SP Info*	*OAF1*	*Viol*	*OAF2*	*Safety Equip*	*ROLE*	*Ext Of Inj*	*AGE*	*Sex*	*Seat Pos*	*Safety*	*EQUIP*	*Ejected*
1F	**DRVR**	**40**	**F**	**W**	**HNBD**		**STOPPED**	**N**	**A**	**0700**	**JEEP**	**2015**	**-**	**3**	**N**	**-**	**M G**								
2	**DRVR**	**23**	**M**	**H**	**HNBD**		**STOPPED**	**N**	**A**	**0800**	**FORD**	**2017**	**-**	**3**	**N**	**-**	**M G**								
3	**DRVR**	**50**	**M**	**W**	**HNBD**		**SLOWING**	**N**	**D**	**2200**	**FORD**	**1992**	**-**	**3**	**N**	**-**	**M G**								
4	**DRVR**	**61**	**M**		**HNBD**		**SLOWING**	**N**	**H**	**1800**	**OTHER**	**2008**	**-**	**3**	**A**	**22400**	**- M G**								

Primary Rd **ASSOCIATED RD** *Distance (ft)* **322.** *Direction* **N** *Secondary Rd* **GREENBRIAR LN** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1653** *Collision Date* **20200122** *Time* **2002** *Day* **WED**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20200304**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info																	Victim Info							
Party	*Type*	*Age*	*Sex*	*Race*	*Sobriety1*	*Sobriety2*	*Move Pre*	*Dir*	*SW Veh*	*CHP Veh*	*Make*	*Year*	*SP Info*	*OAF1*	*Viol*	*OAF2*	*Safety Equip*	*ROLE*	*Ext Of Inj*	*AGE*	*Sex*	*Seat Pos*	*Safety*	*EQUIP*	*Ejected*
1F	**DRVR**	**22**	**M**	**A**	**HNBD**		**RAN OFF RD**	**S**	**A**	**0100**	**KIA**	**2020**	**-**	**1**	**F**	**-**	**L G**								

Primary Rd **ASSOCIATED RD** *Distance (ft)* **60.0** *Direction* **N** *Secondary Rd* **GREENBRIAR LN** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1461** *Collision Date* **20200207** *Time* **1609** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20200608**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info																	Victim Info							
Party	*Type*	*Age*	*Sex*	*Race*	*Sobriety1*	*Sobriety2*	*Move Pre*	*Dir*	*SW Veh*	*CHP Veh*	*Make*	*Year*	*SP Info*	*OAF1*	*Viol*	*OAF2*	*Safety Equip*	*ROLE*	*Ext Of Inj*	*AGE*	*Sex*	*Seat Pos*	*Safety*	*EQUIP*	*Ejected*
1F	**DRVR**	**31**	**F**	**H**	**HNBD**		**PROC ST**	**S**	**A**	**0100**	**FORD**	**2014**	**-**	**3**	**E**	**-**	**M G**								
2	**DRVR**	**64**	**M**	**W**	**HNBD**		**STOPPED**	**S**	**A**	**0100**	**VOLKS**	**2005**	**-**	**3**	**N**	**-**	**M G**								
3	**DRVR**	**47**	**F**	**A**	**HNBD**		**STOPPED**	**S**	**A**	**0100**	**NISSA**	**2017**	**-**	**3**	**N**	**-**	**M G**								

Primary Rd **ASSOCIATED RD** *Distance (ft)* **420.** *Direction* **N** *Secondary Rd* **IMPERIAL HWY** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1562** *Collision Date* **20190508** *Time* **0838** *Day* **WED**
Primary Collision Factor **R-O-W AUTO** *Violation* **21804A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20190530**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info																	Victim Info							
Party	*Type*	*Age*	*Sex*	*Race*	*Sobriety1*	*Sobriety2*	*Move Pre*	*Dir*	*SW Veh*	*CHP Veh*	*Make*	*Year*	*SP Info*	*OAF1*	*Viol*	*OAF2*	*Safety Equip*	*ROLE*	*Ext Of Inj*	*AGE*	*Sex*	*Seat Pos*	*Safety*	*EQUIP*	*Ejected*
1F	**DRVR**	**18**	**F**	**H**	**HNBD**		**LFT TURN**	**E**	**A**	**0100**	**FORD**	**2012**	**-**	**3**	**N**	**-**	**L G**	**PASS**		**16**	**F**	**3**	**0**	**L**	**G**
																		PASS		**16**	**F**	**4**	**0**	**M**	**G**
																		PASS		**16**	**F**	**6**	**0**	**M**	**G**
2	**DRVR**	**66**	**F**	**W**	**HNBD**		**PROC ST**	**S**	**A**	**0700**	**GMC**	**2017**	**-**	**3**	**N**	**-**	**M G**								

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Primary Rd **BIRCH ST** *Distance (ft)* **300.** *Direction* **E** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1650** *Collision Date* **20191210** *Time* **1720** *Day* **TUE**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20200124**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	CHANG LN	W	A	0700	-		-	N		-	- -
2	DRVR	23	F	W	HNBD		PROC ST	W	A	0100	HONDA	2002	-	N		-	M G
3	DRVR	28	F	W	HNBD		PROC ST	W	A	0100	HYUND	2011	-	N		-	M G
4	DRVR	43	F	W	HNBD		PROC ST	W	A	0700	FORD	2014	-	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **BIRCH ST** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1653** *Collision Date* **20200123** *Time* **1835** *Day* **THU**
Primary Collision Factor **STRTNG\|BCKNG** *Violation* **22106** *Collision Type* **OTHER** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20200516**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	BACKING	W	A	0100	BMW	2017	-	3	N		- - -
2	DRVR	39	M	H	HNBD		STOPPED	E	D	2200	CHEVR	2017	-	3	N		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		39	F	3	0	M	G
PASS		14	F	5	0	M	G

Primary Rd **BIRCH ST** *Distance (ft)* **12.0** *Direction* **W** *Secondary Rd* **ASSOCIATED RD E** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1447** *Collision Date* **20190419** *Time* **1758** *Day* **FRI**
Primary Collision Factor **IMPROP PASS** *Violation* **21755A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20190510**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT FNCT** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PASSING	E	D	2200	FORD	2016	-	-	N		- - -
2	DRVR	62	M	W	HNBD		STOPPED	E	A	0700	BMW	2018	-	3	N		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		59	F	3	0	M	G

Primary Rd **BIRCH ST** *Distance (ft)* **50.0** *Direction* **W** *Secondary Rd* **ASSOCIATED RD E** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* *Type* **0** *CalTrans* *Badge* **1674** *Collision Date* **20190811** *Time* **1916** *Day* **SUN**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* **N** *Process Date* **20190925**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	E	D	2200	-		-	N		-	- -
2	DRVR	55	F	W	HNBD		STOPPED	E	A	0100	TOYOT	2018	-	3	N		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	55	F	1	0	M	G
PASS	COMP PN	37	F	3	0	M	G
PASS		12	F	6	0	M	G

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Primary Rd **BIRCH ST** *Distance (ft)* **50.0** *Direction* **E** *Secondary Rd* **ASSOCIATED RD E** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20191023** *Time* **1458** *Day* **WED**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20191219**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		HBD-UNK		PROC ST	W	A	0100	HONDA		-	N		-	- -
2	DRVR	36	F	H	HNBD		STOPPED	W	A	0100	NISSA	2011	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **BIRCH ST** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **BIRCH MALL ENT** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1490** *Collision Date* **20190322** *Time* **1936** *Day* **FRI**
Primary Collision Factor **R-O-W AUTO** *Violation* **21801A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20190506**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	26	F	H	HNBD		LFT TURN	E	A	0700	CHEVR	2017	- 3	N		-	M G
2	DRVR	24	M	B	HNBD		PROC ST	W	A	0700	GMC	2004	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		27	M	3	0	M	G
PASS		1	F	4	0	M	Q
PASS		4	M	6	0	M	Q
PASS		3	F	7	0	M	Q
PASS		8	F	7	0	M	G

Primary Rd **BIRCH ST** *Distance (ft)* **150.** *Direction* **W** *Secondary Rd* **BREA BL** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1447** *Collision Date* **20190526** *Time* **1141** *Day* **SUN**
Primary Collision Factor **IMPROP TURN** *Violation* **22102** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20190606**
Weather1 **CLOUDY** *Weather2* **RAINING** *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	71	M	W	HNBD		U-TURN	W	A	0100	TOYOT	2009	- 3	N		-	M G
2	DRVR	45	F	W	HNBD		PROC ST	W	A	0700	MAZDA	2015	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		64	F	3	0	M	G

Primary Rd **BIRCH ST** *Distance (ft)* **50.0** *Direction* **E** *Secondary Rd* **BREA BL** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1650** *Collision Date* **20190907** *Time* **2013** *Day* **SAT**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* *Process Date* **20191017**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **FELONY** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	W	A	0100	BMW	2006	- 3	N		-	- -
2	DRVR	32	M	H	HNBD		STOPPED	W	A	0100	HONDA	2015	- -	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS	COMP PN	31	F	3	0	M	G

Primary Rd **BIRCH ST** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **FLOWER AV** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1650** *Collision Date* **20190608** *Time* **2138** *Day* **SAT**
Primary Collision Factor **R-O-W AUTO** *Violation* **21801A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20190710**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	22	M	A	HNBD		LFT TURN	W	A	0100	MAZDA	2016	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		19	F	3	0	M	G

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Primary Rd **ASSOCIATED RD** *Distance (ft)* **125.** *Direction* **N** *Secondary Rd* **BIRCH ST** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1628** *Collision Date* **20191029** *Time* **1258** *Day* **TUE**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20191205**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	N	A	0700	-		-	N		-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **1000** *Direction* **N** *Secondary Rd* **GREENBRIAR LN** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1395** *Collision Date* **20190920** *Time* **1604** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20191104**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	40	F	W	HNBD		STOPPED	N	A	0700	JEEP	2015	- 3	N		-	M G
2	DRVR	23	M	H	HNBD		STOPPED	N	A	0800	FORD	2017	- 3	N		-	M G
3	DRVR	50	M	W	HNBD		SLOWING	N	D	2200	FORD	1992	- 3	N		-	M G
4	DRVR	61	M		HNBD		SLOWING	N	H	1800	OTHER	2008	- 3	A	22400	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **322.** *Direction* **N** *Secondary Rd* **GREENBRIAR LN** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1653** *Collision Date* **20200122** *Time* **2002** *Day* **WED**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20200304**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	22	M	A	HNBD		RAN OFF RD	S	A	0100	KIA	2020	- 1	F		-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **60.0** *Direction* **N** *Secondary Rd* **GREENBRIAR LN** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1461** *Collision Date* **20200207** *Time* **1609** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20200608**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	31	F	H	HNBD		PROC ST	S	A	0100	FORD	2014	- 3	E		-	M G
2	DRVR	64	M	W	HNBD		STOPPED	S	A	0100	VOLKS	2005	- 3	N		-	M G
3	DRVR	47	F	A	HNBD		STOPPED	S	A	0100	NISSA	2017	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **420.** *Direction* **N** *Secondary Rd* **IMPERIAL HWY** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1562** *Collision Date* **20190508** *Time* **0838** *Day* **WED**
Primary Collision Factor **R-O-W AUTO** *Violation* **21804A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20190530**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	18	F	H	HNBD		LFT TURN	E	A	0100	FORD	2012	- 3	N		-	L G
2	DRVR	66	F	W	HNBD		PROC ST	S	A	0700	GMC	2017	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		16	F	3	0	L	G
PASS		16	F	4	0	M	G
PASS		16	F	6	0	M	G

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Primary Rd **ASSOCIATED RD** *Distance (ft)* **125.** *Direction* **N** *Secondary Rd* **BIRCH ST** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1628** *Collision Date* **20191029** *Time* **1258** *Day* **TUE**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20191205**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	N	A	0700	-		-	N		-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **1000** *Direction* **N** *Secondary Rd* **GREENBRIAR LN** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1395** *Collision Date* **20190920** *Time* **1604** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20191104**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	40	F	W	HNBD		STOPPED	N	A	0700	JEEP	2015	- 3	N		-	M G
2	DRVR	23	M	H	HNBD		STOPPED	N	A	0800	FORD	2017	- 3	N		-	M G
3	DRVR	50	M	W	HNBD		SLOWING	N	D	2200	FORD	1992	- 3	N		-	M G
4	DRVR	61	M		HNBD		SLOWING	N	H	1800	OTHER	2008	- 3	A	22400	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **322.** *Direction* **N** *Secondary Rd* **GREENBRIAR LN** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1653** *Collision Date* **20200122** *Time* **2002** *Day* **WED**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20200304**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	22	M	A	HNBD		RAN OFF RD	S	A	0100	KIA	2020	- 1	F		-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **60.0** *Direction* **N** *Secondary Rd* **GREENBRIAR LN** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1461** *Collision Date* **20200207** *Time* **1609** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20200608**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	31	F	H	HNBD		PROC ST	S	A	0100	FORD	2014	- 3	E		-	M G
2	DRVR	64	M	W	HNBD		STOPPED	S	A	0100	VOLKS	2005	- 3	N		-	M G
3	DRVR	47	F	A	HNBD		STOPPED	S	A	0100	NISSA	2017	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **420.** *Direction* **N** *Secondary Rd* **IMPERIAL HWY** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1562** *Collision Date* **20190508** *Time* **0838** *Day* **WED**
Primary Collision Factor **R-O-W AUTO** *Violation* **21804A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20190530**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	18	F	H	HNBD		LFT TURN	E	A	0100	FORD	2012	- 3	N		-	L G
2	DRVR	66	F	W	HNBD		PROC ST	S	A	0700	GMC	2017	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		16	F	3	0	L	G
PASS		16	F	4	0	M	G
PASS		16	F	6	0	M	G

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Primary Rd **ASSOCIATED RD** *Distance (ft)* **507.** *Direction* **N** *Secondary Rd* **IMPERIAL HWY** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1461** *Collision Date* **20191009** *Time* **0748** *Day* **WED**
Primary Collision Factor **R-O-W AUTO** *Violation* **21804B** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20200124**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	16	F	A	HNBD		ENT TRAF	E	A	0100	TOYOT	2015	-	3	N	-	M G
2	DRVR	47	F	W	HNBD		PROC ST	S	A	0700	BMW	2018	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		14	F	3	0	M	G
PASS		16	M	4	3	M	G

Primary Rd **ASSOCIATED RD** *Distance (ft)* **435.** *Direction* **N** *Secondary Rd* **IMPERIAL HWY** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1628** *Collision Date* **20191105** *Time* **2500** *Day* **TUE**
Primary Collision Factor **UNKNOWN** *Violation* *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20191126**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	998	-		IMP UNK	IMP UNK	OTHER	-	-	9900	-		-	-	N	-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **899.** *Direction* **N** *Secondary Rd* **IMPERIAL HWY** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1463** *Collision Date* **20191130** *Time* **0243** *Day* **SAT**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20200107**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	22	M	W	HBD-UI		PROC ST	S	D	2200	TOYOT	2004	-	3	A	22350	N M G
2	DRVR	34	M	W	HNBD		PROC ST	N	A	0100	TOYOT	2018	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **35.0** *Direction* **S** *Secondary Rd* **LAMBERT RD** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1447** *Collision Date* **20200314** *Time* **1635** *Day* **SAT**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* *Process Date* **20200720**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	19	M		IMP UNK	IMP UNK	OTHER	N	A	0100	-	2013	-	-	M	-	L B
2	DRVR	51	M	A	HNBD		STOPPED	N	A	0800	CHEVR	2016	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		17	F	3	0	L	B
DRVR	COMP PN	51	M	1	0	M	G
PASS		16	F	3	0	M	G

Primary Rd **ASSOCIATED RD** *Distance (ft)* **11.0** *Direction* **N** *Secondary Rd* **SLEEPY HOLLOW** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1628** *Collision Date* **20200210** *Time* **0858** *Day* **MON**
Primary Collision Factor **R-O-W PED** *Violation* **21950A** *Collision Type* **AUTO/PED** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* *Process Date* **20200528**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **PED** *Lighting* **DAYLIGHT** *Ped Action* **X-WLK AT** *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	37	F	A	HNBD		LFT TURN	E	A	0100	CHEVR	2019	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		6	M	6	0	M	S
PASS		75	F	5	0	M	G
PASS		77	M	3	0	M	G
PASS		8	F	4	0	M	S

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Primary Rd **IMPERIAL HWY** *Distance (ft)* **75.0** *Direction* **W** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.620** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* **12** *Badge* **1382** *Collision Date* **20190717** *Time* **1220** *Day* **WED**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20191211**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	25	M	H	HNBD		CHANG LN	E	A	0100	TOYOT	2009	-	3	N	-	M G
2	DRVR	57	F	A	HNBD		PROC ST	E	A	0100	LEXUS	2009	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		24	F	3	0	M	G
PASS		61	M	3	0	M	G

Primary Rd **IMPERIAL HWY** *Distance (ft)* **435.** *Direction* **E** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.730** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* **12** *Badge* **1461** *Collision Date* **20190806** *Time* **1245** *Day* **TUE**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20200918**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	70	F	W	HNBD		PROC ST	E	A	0100	NISSA	2011	-	3	N	-	M G
2	DRVR	28	F	W	HNBD		STOPPED	E	A	0700	TOYOT	2013	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HWY** *Distance (ft)* **160.** *Direction* **W** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.620** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* **12** *Badge* **1562** *Collision Date* **20190924** *Time* **1510** *Day* **TUE**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20200207**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **HOLES** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	57	M	H	HNBD		PROC ST	W	F	7600	HINO	2013	-	3	N	-	M G
2	DRVR	25	F	W	HNBD		STOPPED	W	A	0100	FORD	2002	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		45	F	2	0	M	G
PASS		60	M	3	0	M	G
DRVR	COMP PN	25	F	1	0	M	G

Primary Rd **IMPERIAL HWY** *Distance (ft)* **393.** *Direction* **E** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.720** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1646** *Collision Date* **20191008** *Time* **1655** *Day* **TUE**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20200918**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	54	F	A	HNBD		SLOWING	E	A	0700	HONDA	2017	-	3	N	-	M G
2	DRVR	44	M	W	HNBD		STOPPED	E	A	0800	TOYOT	2015	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HWY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.651** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* **12** *Badge* **1650** *Collision Date* **20191117** *Time* **2206** *Day* **SUN**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20200609**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **I** *Ramp/Int* **5**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	33	M	A	HNBD		PROC ST	E	A	0100	HONDA	2011	-	3	N	-	L G
2	DRVR	35	F	W	HNBD		PROC ST	E	A	0700	GMC	2017	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		20	M	3	0	L	G

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Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
IMPERIAL HWY	211.	E	ASSOCIATED RD	3002	Y	90	-	5.690	W

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		014	0	12	1447	20191206	1749	FRI

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
NOT DRIVER		REAR END	INJURY	0	1	Y	20200609

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLOUDY	RAINING	WET	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DARK - ST		FNCTNG	H	-

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	56	M		HNBD		SLOWING	W	A	0100	MITSU	2004	A	-	N	-	M G
2	DRVR	36	M	W	HNBD		STOPPED	W	A	0700	CHEVR	2017	A	-	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	56	M	1	0	M	G

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
IMPERIAL HWY	0.00		ASSOCIATED RD	3002	Y	90	-	5.651	W

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		013	0	12	1678	20191207	1544	SAT

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
IMPROP TURN	22100B	SIDESWIPE	PDO	0	0		20200914

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DAYLIGHT		FNCTNG	I	5

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	25	M	H			LFT TURN	E	D	2200	FORD	2015	-	3	N	-	M G
2	DRVR	33	M	W			LFT TURN	E	A	0100	TOYOT	2014	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		4	M	5	0	M	Q

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
IMPERIAL HWY	75.0	E	ASSOCIATED RD	3002	Y	90	-	5.660	W

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		013	0	12	1395	20191220	1703	FRI

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
LANE CHANGE	21658A	SIDESWIPE	PDO	0	0		20200609

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DARK - ST		NT PRS/FCTR	H	-

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	55	F	W	HNBD		CHANG LN	W	A	0700	FORD	2018	-	3	N	-	L G
2	DRVR	30	M	H	HNBD		PROC ST	W	A	0100	CHEVR	2016	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
IMPERIAL HWY	100.	E	ASSOCIATED RD	3002	Y	90	-	5.680	W

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		013	0	12	1395	20200306	1730	FRI

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNSAFE SPEED	22350	REAR END	PDO	0	0		20200925

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
MSDMNR	OTHER MV	DAYLIGHT		NT PRS/FCTR	H	-

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	M	B	IMP UNK	IMP UNK	SLOWING	W	D	2200	-	2006	-	1	A	23123	- - -
2	DRVR	48	M	W	HNBD		STOPPED	W	A	0100	-	2016	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
IMPERIAL HWY	0.00		BERRY ST	3002	Y	90	-	4.001	W

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		014	0	12	1490	20190412	2031	FRI

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
IMPROP TURN	22100A	REAR END	PDO	0	0	Y	20191211

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DARK - ST		FNCTNG	I	5

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	29	F	W	HNBD		RGT TURN	W	I	1100	FORD	2016	-	3	N	-	M G
2	DRVR	19	M	O	HNBD		PROC ST	W	A	0100	HONDA	1993	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		55	M	3	0	M	G

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Primary Rd **IMPERIAL HWY** *Distance (ft)* **400.** *Direction* **W** *Secondary Rd* **BREA PLAZA** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **R** *Postmile* **5.520** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1653** *Collision Date* **20190629** *Time* **1645** *Day* **SAT**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20191122**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	37	M	A	HBD-UI		PROC ST	E	A	0100	KIA	2013	-	3	A	22350	- M G
2	DRVR	38	M	W	HNBD		STOPPED	E	A	0100	SCION	2009	-	3	N		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HWY** *Distance (ft)* **140.** *Direction* **E** *Secondary Rd* **BREA PLZ** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1653** *Collision Date* **20190927** *Time* **1730** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20191017**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	M		IMP UNK	IMP UNK	PROC ST	W	A	0100	NISSA	2014	-	3	N		- - -
2	DRVR	25	F	W	HNBD		STOPPED	W	A	0100	MERCE	2014	-	3	N		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HWY** *Distance (ft)* **146.** *Direction* **W** *Secondary Rd* **CASTLE GATE LN** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.900** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1665** *Collision Date* **20190402** *Time* **1308** *Day* **TUE**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* *Process Date* **20190827**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	29	M	H	HNBD		PROC ST	W	A	0700	ACURA	2010	-	3	G		- M G
2	DRVR	30	M	A	HNBD		STOPPED	W	A	0100	TOYOT	2017	-	3	G		- M G
3	DRVR	30	M	A	HNBD		STOPPED	W	A	0100	HONDA	2018	-	3	G		- M G
4	DRVR	45	M	O	HNBD		STOPPED	W	A	0100	TOYOT	2007	-	3	G		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN 30		M	1	0	M	G

Primary Rd **IMPERIAL HWY** *Distance (ft)* **152.** *Direction* **E** *Secondary Rd* **CASTLE GATE LN** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.960** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1447** *Collision Date* **20191012** *Time* **1428** *Day* **SAT**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20200918**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	22	M	B	HNBD		SLOWING	W	A	0100	TOYOT	2001	-	3	N		- L G
2	DRVR	68	M	W	HNBD		STOPPED	W	A	0700	BMW	2006	-	3	N		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HWY** *Distance (ft)* **250.** *Direction* **E** *Secondary Rd* **CASTLE GATE LN** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.980** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1628** *Collision Date* **20191119** *Time* **1840** *Day* **TUE**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20200609**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	41	M	H	HNBD		CHANG LN	W	A	0100	HONDA	2011	-	3	N		- M G
2	DRVR	20	F	B	HNBD		SLOWING	W	A	0100	HONDA	2018	-	3	N		- L G
3	DRVR	50	F		HNBD		SLOWING	W	A	0100	TESLA	2018	-	3	N		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		72	F	3	0	M	G
DRVR	COMP PN 50		F	1	0	M	G

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Primary Rd **IMPERIAL HWY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **PINE AV** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **4.941** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* **12** *Badge* **1665** *Collision Date* **20190831** *Time* **1100** *Day* **SAT**
Primary Collision Factor **R-O-W AUTO** *Violation* **21804A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20200918**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* **I** *Ramp/Int* **5**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	24	F	A	HNBD		PROC ST	N	A	0100	TOYOT	2008	-	3	A	22100	E M G
2	DRVR	22	F	W	HNBD		SLOWING	E	A	0100	TOYOT	1994	-	2	N		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HWY** *Distance (ft)* **110.** *Direction* **W** *Secondary Rd* **PINE AV** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **4.920** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* **12** *Badge* **1447** *Collision Date* **20191230** *Time* **1149** *Day* **MON**
Primary Collision Factor **UNKNOWN** *Violation* *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20200609**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **FELONY** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	998	M	H	IMP UNK	IMP UNK	SLOWING	E	-	9900	ACURA		-	-	N		- - -
2	DRVR	40	F	W	HNBD		STOPPED	E	A	0700	HONDA	2004	-	3	N		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN 40		F	1	0	M	G

Primary Rd **IMPERIAL HWY** *Distance (ft)* **262.** *Direction* **W** *Secondary Rd* **PLACENTIA AV** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.880** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1447** *Collision Date* **20190715** *Time* **1157** *Day* **MON**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20191211**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	36	M		HNBD		PROC ST	E	D	2200	CHEVR	2013	-	3	N		- M G
2	DRVR	50	M	B	HNBD		PROC ST	E	A	0100	NISSA	2011	-	3	N		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN 50		M	1	0	M	G

Primary Rd **IMPERIAL HWY** *Distance (ft)* **297.** *Direction* **W** *Secondary Rd* **PLACENTIA AV** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1683** *Collision Date* **20190731** *Time* **1740** *Day* **WED**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20190829**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	27	F	H	HNBD		CHANG LN	E	A	0100	TOYOT	2003	-	3	N		- M C
2	DRVR	54	M	W	HNBD		CHANG LN	E	A	0100	JEEP	2016	-	3	-		- M C
3	DRVR	43	M	H	HNBD		PROC ST	E	A	0800	CHEVR	2000	-	3	N		- M C

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HWY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **PLACENTIA AV** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.910** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* **12** *Badge* **1684** *Collision Date* **20191003** *Time* **1227** *Day* **THU**
Primary Collision Factor **UNKNOWN** *Violation* *Collision Type* **OTHER** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20200204**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	83	F	A	HNBD		STOPPED	E	A	0100	TESLA	2015	-	3	N		- M G
2	DRVR	34	F	W	HNBD		STOPPED	E	A	0100	CADIL	2019	-	3	N		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **PALM ST** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **BONITA PL** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **011** *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20191004** *Time* **1350** *Day* **FRI**
Primary Collision Factor **R-O-W AUTO** *Violation* **21802A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20191104**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	20	M	H	HNBD		LFT TURN	E	A	0100	TOYOT	1997	-	3	N	-	M G
2	DRVR	67	M	W	HNBD		PROC ST	N	D	2200	CHEVR	2017	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **PALM ST** *Distance (ft)* **475.** *Direction* **S** *Secondary Rd* **LAMBERT RD** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1653** *Collision Date* **20191113** *Time* **2500** *Day* **WED**
Primary Collision Factor **UNKNOWN** *Violation* *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20200208**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	998	-		IMP UNK	IMP UNK	OTHER	N	-	9932	ACADI		-	-	N	-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **PEPPER TREE DR** *Distance (ft)* **40.0** *Direction* **S** *Secondary Rd* **FOREST PL** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **011** *Type* **0** *CalTrans* *Badge* **1632** *Collision Date* **20200217** *Time* **0037** *Day* **MON**
Primary Collision Factor **NOT STATED** *Violation* *Collision Type* **OTHER** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20200327**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **PKD MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	OTHER	S	A	0100	HONDA		-	-	N	-	- -
2	PRKD	998	-				PARKED	N	A	0100	HONDA	2018	-	-	N	-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **PINERIDGE ST** *Distance (ft)* **290.** *Direction* **W** *Secondary Rd* **TAMARACK AV** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **011** *Type* **0** *CalTrans* *Badge* **1576** *Collision Date* **20191219** *Time* **2030** *Day* **THU**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20200118**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **PKD MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	W	-	9900	-		-	-	N	-	- -
2	PRKD	998	-				PARKED	W	A	0100	MAZDA	2012	-	3	N	-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **PLACENTIA AV** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **IMPERIAL HWY** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.931** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* **N/A** *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1653** *Collision Date* **20190828** *Time* **1920** *Day* **WED**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20200918**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DUSK/DAWN** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **I** *Ramp/Int* **6**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	80	F	W	HNBD		PROC ST	N	A	0700	CHEVR	2003	-	3	N	-	M G
2	DRVR	31	F	H	HNBD		STOPPED	N	A	0100	TOYOT	2011	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **STATE ROUTE 57** *Distance (ft)* **890.** *Direction* **N** *Secondary Rd* **TONNER CYN RD** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **S/B** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **021274** *Collision Date* **20201025** *Time* **1951** *Day* **SUN**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20201103**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	
1F	DRVR	26	M	B	HBD-UI		PROC ST	S	A	0100	NISS	2009	- 3	A	22350	-	L	G
2	DRVR	60	M	A	HNBD		PROC ST	S	A	0100	HONDA	2018	- 3	N		-	M	G
3	DRVR	42	M	W	HNBD		PROC ST	S	M	4700	THOR	2016	- 3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	MINOR	26	M	1	0	L	G

Primary Rd **STATE ROUTE 57** *Distance (ft)* **90.0** *Direction* **N** *Secondary Rd* **IMPERIAL** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **S/B TO IMPERIAL HWY** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **021274** *Collision Date* **20200626** *Time* **1522** *Day* **FRI**
Primary Collision Factor **IMPROP PASS** *Violation* **21750A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20200702**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	S	-	9900	-		- 3	H		-	B	B
2	DRVR	71	M	W	HNBD		STOPPED	S	A	0700	SUBA	2019	- 3	H		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ACACIA ST** *Distance (ft)* **700.** *Direction* **E** *Secondary Rd* **BREA BL** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1447** *Collision Date* **20201202** *Time* **2500** *Day* **WED**
Primary Collision Factor **NOT STATED** *Violation* *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20210302**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **PKD MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	
1F	DRVR	998	-		IMP UNK	IMP UNK	OTHER	-	A	0100	-	2013	- -	M		-	-	-
2	PRKD	998	-				PARKED	E	D	2200	-	2002	- 3	N		-	-	-

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASH ST** *Distance (ft)* **11.0** *Direction* **W** *Secondary Rd* **BREA BL** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1646** *Collision Date* **20201118** *Time* **0727** *Day* **WED**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20210218**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	
1F	DRVR	50	M	W	HNBD		RGT TURN	S	A	0100	-	2005	- 3	N		-	M	G
2	DRVR	35	M	W	HNBD		LFT TURN	N	A	0100	-	2013	- 3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **40.0** *Direction* **S** *Secondary Rd* **BIRCH ST E** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1447** *Collision Date* **20210123** *Time* **0949** *Day* **SAT**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20210319**
Weather1 **CLOUDY** *Weather2* **RAINING** *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	
1F	DRVR	26	M	H	HNBD		PROC ST	N	A	0100	-	1997	- 3	E		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **ASSOCIATED RD** *Distance (ft)* **28.0** *Direction* **N** *Secondary Rd* **CHEVY CHASE DR** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1672** *Collision Date* **20200916** *Time* **1151** *Day* **WED**
Primary Collision Factor **R-O-W AUTO** *Violation* **21802A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20201120**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	40	F	A	HNBD		LFT TURN	W	A	0700	-	2016	-	3	N	-	M G
2	DRVR	42	F	H	HNBD		PROC ST	N	A	0100	-	2008	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	42	F	1	0	L	G

Primary Rd **ASSOCIATED RD** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **GREENBRIAR LN** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1645** *Collision Date* **20210215** *Time* **2259** *Day* **MON**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **3** *Tow Away?* **Y** *Process Date* **20210304**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	32	M	H	HBD-UI		PROC ST	N	A	0100	MERCE	2018	-	3	A	-	L -
2	DRVR	51	M	W	HNBD		LFT TURN	W	A	0700	NISSA	2019	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS	POSSIBL	35	M	3	0	L	G
DRVR	POSSIBL	51	M	1	0	L	G
PASS	POSSIBL	41	F	3	0	L	G

Primary Rd **ASSOCIATED RD** *Distance (ft)* **40.0** *Direction* **N** *Secondary Rd* **IMPERIAL HWY** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.651** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1382** *Collision Date* **20200501** *Time* **1305** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20201001**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **I** *Ramp/Int* **6**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	S	A	0100	TOYOT		-	-	N	-	- -
2	DRVR	25	M	H	HNBD		STOPPED	S	A	0100	TOYOT	2018	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **100.** *Direction* **N** *Secondary Rd* **IMPERIAL HWY** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.651** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1628** *Collision Date* **20200707** *Time* **1440** *Day* **TUE**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20201130**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **I** *Ramp/Int* **6**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	19	M	H	HNBD		PROC ST	S	A	0100	-	2004	-	3	N	-	L G
2	DRVR	34	M	H	HNBD		STOPPED	S	A	0700	FORD	2015	-	3	N	-	M H

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	34	M	1	0	M	H

Primary Rd **ASSOCIATED RD** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **IMPERIAL HWY** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.651** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1447** *Collision Date* **20200802** *Time* **1525** *Day* **SUN**
Primary Collision Factor **UNKNOWN** *Violation* *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20201130**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **I** *Ramp/Int* **5**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	38	M		HNBD		RGT TURN	S	A	0100	-	2012	-	3	N	-	M G
2	DRVR	34	M	W	HNBD		LFT TURN	N	D	2200	-	2001	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		35	F	3	0	M	G

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Primary Rd **ASSOCIATED RD** *Distance (ft)* **491.** *Direction* **N** *Secondary Rd* **IMPERIAL HWY** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1490** *Collision Date* **20200909** *Time* **1221** *Day* **WED**
Primary Collision Factor **R-O-W AUTO** *Violation* **21802A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20210120**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	64	F	B	HNBD		LFT TURN	E	A	0100	-	2020	-	3	N	-	M G
2	DRVR	27	F	H	HNBD		PROC ST	S	A	0100	-	1998	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS	OTH VIS	19	F	3	0	L	G

Primary Rd **ASSOCIATED RD** *Distance (ft)* **528.** *Direction* **N** *Secondary Rd* **IMPERIAL HWY** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1562** *Collision Date* **20201013** *Time* **1436** *Day* **TUE**
Primary Collision Factor **R-O-W AUTO** *Violation* **21804A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* *Process Date* **20201102**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	42	F	W	HNBD		LFT TURN	E	A	0100	-	2015	-	3	N	-	M G
2	DRVR	40	F	H	HNBD		PROC ST	S	A	0700	-	2003	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		37	M	3	0	M	G
DRVR	COMP PN	40	F	1	0	M	G
PASS	COMP PN	41	M	3	0	M	G
PASS		5	M	4	0	M	G
PASS		8	F	5	0	M	G
PASS		10	F	6	0	M	G

Primary Rd **ASSOCIATED RD** *Distance (ft)* **30.0** *Direction* **N** *Secondary Rd* **RT 90** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.651** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1632** *Collision Date* **20200425** *Time* **0237** *Day* **SAT**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152F** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20200825**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **I** *Ramp/Int* **6**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	34	M	W		DRUG	LFT TURN	N	A	0100	FORD	2002	-	3	A	22107	N M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **BERRY ST** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **LAMBERT RD** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **011** *Type* **0** *CalTrans* *Badge* **1447** *Collision Date* **20200704** *Time* **1125** *Day* **SAT**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* **Y** *Process Date* **20200921**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	25	M	H	HNBD		PROC ST	E	A	0100	-	2015	-	3	F	-	M G
2	DRVR	26	F	A	HNBD		PROC ST	N	A	0100	-	2016	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	25	M	1	0	M	G
DRVR	COMP PN	26	F	1	0	M	G

Primary Rd **BERRY ST** *Distance (ft)* **60.0** *Direction* **N** *Secondary Rd* **MERCURY LN** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1562** *Collision Date* **20200908** *Time* **1716** *Day* **TUE**
Primary Collision Factor **STRTNG|BCKNG** *Violation* **22106** *Collision Type* **OTHER** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20201125**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	47	F	W	HNBD		BACKING	N	G	2731	-	2004	-	3	N	-	M G
2	DRVR	34	F	A	HNBD		STOPPED	S	A	0100	-	2012	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **ASSOCIATED RD** *Distance (ft)* **28.0** *Direction* **N** *Secondary Rd* **CHEVY CHASE DR** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1672** *Collision Date* **20200916** *Time* **1151** *Day* **WED**
Primary Collision Factor **R-O-W AUTO** *Violation* **21802A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20201120**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	40	F	A	HNBD		LFT TURN	W	A	0700	-	2016	- 3	N		-	M G
2	DRVR	42	F	H	HNBD		PROC ST	N	A	0100	-	2008	- 3	N		-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	42	F	1	0	L	G

Primary Rd **ASSOCIATED RD** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **GREENBRIAR LN** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1645** *Collision Date* **20210215** *Time* **2259** *Day* **MON**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **3** *Tow Away?* **Y** *Process Date* **20210304**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	32	M	H	HBD-UI		PROC ST	N	A	0100	MERCE	2018	- 3	A		-	L -
2	DRVR	51	M	W	HNBD		LFT TURN	W	A	0700	NISSA	2019	- 3	N		-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS	POSSIBL	35	M	3	0	L	G
DRVR	POSSIBL	51	M	1	0	L	G
PASS	POSSIBL	41	F	3	0	L	G

Primary Rd **ASSOCIATED RD** *Distance (ft)* **40.0** *Direction* **N** *Secondary Rd* **IMPERIAL HWY** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.651** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1382** *Collision Date* **20200501** *Time* **1305** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20201001**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **I** *Ramp/Int* **6**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	S	A	0100	TOYOT		- -	N		-	- -
2	DRVR	25	M	H	HNBD		STOPPED	S	A	0100	TOYOT	2018	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **100.** *Direction* **N** *Secondary Rd* **IMPERIAL HWY** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.651** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1628** *Collision Date* **20200707** *Time* **1440** *Day* **TUE**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20201130**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **I** *Ramp/Int* **6**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	19	M	H	HNBD		PROC ST	S	A	0100	-	2004	- 3	N		-	L G
2	DRVR	34	M	H	HNBD		STOPPED	S	A	0700	FORD	2015	- 3	N		-	M H

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	34	M	1	0	M	H

Primary Rd **ASSOCIATED RD** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **IMPERIAL HWY** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.651** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1447** *Collision Date* **20200802** *Time* **1525** *Day* **SUN**
Primary Collision Factor **UNKNOWN** *Violation* *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20201130**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **I** *Ramp/Int* **5**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	38	M		HNBD		RGT TURN	S	A	0100	-	2012	- 3	N		-	M G
2	DRVR	34	M	W	HNBD		LFT TURN	N	D	2200	-	2001	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		35	F	3	0	M	G

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Primary Rd **ASSOCIATED RD** *Distance (ft)* **491.** *Direction* **N** *Secondary Rd* **IMPERIAL HWY** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1490** *Collision Date* **20200909** *Time* **1221** *Day* **WED**
Primary Collision Factor **R-O-W AUTO** *Violation* **21802A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20210120**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	64	F	B	HNBD		LFT TURN	E	A	0100	-	2020	-	3	N		-	M	G
2	DRVR	27	F	H	HNBD		PROC ST	S	A	0100	-	1998	-	3	N		-	L	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS	OTH VIS	19	F	3	0	L	G

Primary Rd **ASSOCIATED RD** *Distance (ft)* **528.** *Direction* **N** *Secondary Rd* **IMPERIAL HWY** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1562** *Collision Date* **20201013** *Time* **1436** *Day* **TUE**
Primary Collision Factor **R-O-W AUTO** *Violation* **21804A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* *Process Date* **20201102**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	42	F	W	HNBD		LFT TURN	E	A	0100	-	2015	-	3	N		-	M	G
2	DRVR	40	F	H	HNBD		PROC ST	S	A	0700	-	2003	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		37	M	3	0	M	G
DRVR	COMP PN	40	F	1	0	M	G
PASS	COMP PN	41	M	3	0	M	G
PASS		5	M	4	0	M	G
PASS		8	F	5	0	M	G
PASS		10	F	6	0	M	G

Primary Rd **ASSOCIATED RD** *Distance (ft)* **30.0** *Direction* **N** *Secondary Rd* **RT 90** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.651** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1632** *Collision Date* **20200425** *Time* **0237** *Day* **SAT**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152F** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20200825**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **I** *Ramp/Int* **6**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	34	M	W		DRUG	LFT TURN	N	A	0100	FORD	2002	-	3	A	22107	N	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **BERRY ST** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **LAMBERT RD** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **011** *Type* **0** *CalTrans* *Badge* **1447** *Collision Date* **20200704** *Time* **1125** *Day* **SAT**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* **Y** *Process Date* **20200921**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	25	M	H	HNBD		PROC ST	E	A	0100	-	2015	-	3	F		-	M	G
2	DRVR	26	F	A	HNBD		PROC ST	N	A	0100	-	2016	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	25	M	1	0	M	G
DRVR	COMP PN	26	F	1	0	M	G

Primary Rd **BERRY ST** *Distance (ft)* **60.0** *Direction* **N** *Secondary Rd* **MERCURY LN** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1562** *Collision Date* **20200908** *Time* **1716** *Day* **TUE**
Primary Collision Factor **STRTNG|BCKNG** *Violation* **22106** *Collision Type* **OTHER** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20201125**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	47	F	W	HNBD		BACKING	N	G	2731	-	2004	-	3	N		-	M	G
2	DRVR	34	F	A	HNBD		STOPPED	S	A	0100	-	2012	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **IMPERIAL HWY** *Distance (ft)* **175.** *Direction* **W** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.620** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* **12** *Badge* **1447** *Collision Date* **20200526** *Time* **1442** *Day* **TUE**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20201114**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info																Victim Info							
Party	*Type*	*Age*	*Sex*	*Race*	*Sobriety1*	*Sobriety2*	*Move Pre*	*Dir*	*SW Veh*	*CHP Veh*	*Make*	*Year*	*SP Info*	*OAF1*	*Viol*	*OAF2*	*Safety Equip*	*ROLE*	*Ext Of Inj*	*AGE*	*Sex*	*Seat Pos*	*Safety*	*EQUIP*	*Ejected*
1F	DRVR	61	M	W	HNBD		CHANG LN	E	A	0700	FORD	2001	-	3	N	-	M G	PASS		60	F	3	0	M	G
																		PASS		9	M	6	0	P	G
2	DRVR	24	F	H	HNBD		STOPPED	E	A	0700	-	2017	-	3	N	-	M G	PASS		23	M	3	0	M	G
																		PASS		14	M	4	0	M	G
																		PASS		24	F	6	0	M	G
																		PASS		24	M	6	0	M	G

Primary Rd **IMPERIAL HWY** *Distance (ft)* **100.** *Direction* **W** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **R** *Postmile* **5.580** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1695** *Collision Date* **20200726** *Time* **1240** *Day* **SUN**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20201125**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info																Victim Info							
Party	*Type*	*Age*	*Sex*	*Race*	*Sobriety1*	*Sobriety2*	*Move Pre*	*Dir*	*SW Veh*	*CHP Veh*	*Make*	*Year*	*SP Info*	*OAF1*	*Viol*	*OAF2*	*Safety Equip*	*ROLE*	*Ext Of Inj*	*AGE*	*Sex*	*Seat Pos*	*Safety*	*EQUIP*	*Ejected*
1F	DRVR	998	-		IMP UNK	IMP UNK	CHANG LN	W	-	9900	-		-	-	N	-	- -								
2	DRVR	23	M	H	HNBD		PROC ST	W	A	0100	-	2012	-	3	N	-	M G								

Primary Rd **IMPERIAL HWY** *Distance (ft)* **33.0** *Direction* **W** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.630** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1697** *Collision Date* **20200820** *Time* **1142** *Day* **THU**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20201203**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info																Victim Info							
Party	*Type*	*Age*	*Sex*	*Race*	*Sobriety1*	*Sobriety2*	*Move Pre*	*Dir*	*SW Veh*	*CHP Veh*	*Make*	*Year*	*SP Info*	*OAF1*	*Viol*	*OAF2*	*Safety Equip*	*ROLE*	*Ext Of Inj*	*AGE*	*Sex*	*Seat Pos*	*Safety*	*EQUIP*	*Ejected*
1F	DRVR	37	M	W	HNBD		PROC ST	E	D	2200	-	1996	-	3	N	-	M G								
2	DRVR	53	M	H	HNBD		STOPPED	E	D	2200	-	2006	-	3	N	-	M G	PASS		50	F	2	0	M	G

Primary Rd **IMPERIAL HWY** *Distance (ft)* **10.0** *Direction* **W** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.630** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1671** *Collision Date* **20200910** *Time* **1947** *Day* **THU**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20201203**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **MV ON OTHER RD** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info																Victim Info							
Party	*Type*	*Age*	*Sex*	*Race*	*Sobriety1*	*Sobriety2*	*Move Pre*	*Dir*	*SW Veh*	*CHP Veh*	*Make*	*Year*	*SP Info*	*OAF1*	*Viol*	*OAF2*	*Safety Equip*	*ROLE*	*Ext Of Inj*	*AGE*	*Sex*	*Seat Pos*	*Safety*	*EQUIP*	*Ejected*
1F	DRVR	29	M		HNBD		CHANG LN	E	A	0100	-	2018	-	3	N	-	M G								
2	DRVR	27	M	A	HNBD		PROC ST	E	A	0100	-	2014	-	3	N	-	M G								

Primary Rd **IMPERIAL HWY** *Distance (ft)* **172.** *Direction* **W** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.620** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1646** *Collision Date* **20201112** *Time* **1141** *Day* **THU**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20201215**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info																Victim Info							
Party	*Type*	*Age*	*Sex*	*Race*	*Sobriety1*	*Sobriety2*	*Move Pre*	*Dir*	*SW Veh*	*CHP Veh*	*Make*	*Year*	*SP Info*	*OAF1*	*Viol*	*OAF2*	*Safety Equip*	*ROLE*	*Ext Of Inj*	*AGE*	*Sex*	*Seat Pos*	*Safety*	*EQUIP*	*Ejected*
1F	DRVR	23	M	B	HNBD		CHANG LN	W	A	0100	-	2013	-	3	A	22350	- M G								

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| | | |

Primary Rd **IMPERIAL HWY** *Distance (ft)* **200.** *Direction* **W** *Secondary Rd* **VALENCIA AV** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **7.210** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **011** *Type* **0** *CalTrans* **12** *Badge* **1628** *Collision Date* **20200902** *Time* **1453** *Day* **WED**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20201203**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	64	F	H	HNBD		CHANG LN	E	A	0100	-	2000	-	3	N	-	M	G
2	DRVR	57	F	A	HNBD		PROC ST	E	A	0100	-	2015	-	3	N	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HWY** *Distance (ft)* **313.** *Direction* **W** *Secondary Rd* **VALENCIA AV** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **7.200** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* **12** *Badge* **1672** *Collision Date* **20201204** *Time* **0709** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20210114**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	26	M	A	HNBD		PROC ST	E	A	0700	-	2017	-	3	E	-	L	G
2	DRVR	43	M	H	HNBD		STOPPED	E	E	2235	-	2015	-	3	N	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	OTH VIS	26	M	1	0	L	G
PASS		31	M	6	0	M	G
PASS		49	M	3	0	M	G

Primary Rd **IMPERIAL HWY** *Distance (ft)* **100.** *Direction* **E** *Secondary Rd* **VIKING AV** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **3.870** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* **12** *Badge* **1382** *Collision Date* **20200710** *Time* **0730** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20201130**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	19	M	B	HNBD		PROC ST	E	A	0700	JEEP	2001	-	3	N	-	M	G
2	DRVR	56	M	B	HNBD		PROC ST	E	A	0700	-	2005	-	3	N	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	56	M	1	0	M	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **138.** *Direction* **W** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1672** *Collision Date* **20210202** *Time* **1645** *Day* **TUE**
Primary Collision Factor **IMPROP TURN** *Violation* **22100A** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20210304**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	54	M	W	HNBD		RGT TURN	N	A	0100	TOYOT	2012	-	3	N	-	M	G
2	DRVR	38	M	H	HNBD		PROC ST	E	C	0200	YAMAH	2017	-	3	N	-	-	W

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	38	M	1	1	P	W

Primary Rd **IMPERIAL HY** *Distance (ft)* **15.0** *Direction* **W** *Secondary Rd* **BREA BL** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1695** *Collision Date* **20210220** *Time* **1351** *Day* **SAT**
Primary Collision Factor **R-O-W PED** *Violation* **21950A** *Collision Type* **AUTO/PED** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20210309**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **PED** *Lighting* **DAYLIGHT** *Ped Action* **X-WLK AT** *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	26	M	H	HNBD		RGT TURN	E	A	0100	KIA	2012	-	3	N	-	M	G
2	PED	64	M	W	HNBD			N	N	6000	-		-	-	N	-	-	-

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PED	MINOR	64	M	9	-	-	-

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Primary Rd **RT 90** *Distance (ft)* **44.0** *Direction* **E** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.670** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* **12** *Badge* **1697** *Collision Date* **20200420** *Time* **0909** *Day* **MON**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20200825**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	W	-	9900	-	1994	-	N		-	- -
2	DRVR	43	M	A	HNBD		STOPPED	W	D	2200	FORD	2014	-	3	N		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **RT 90** *Distance (ft)* **3.00** *Direction* **W** *Secondary Rd* **LA CRESCENTA** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **7.370** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* **12** *Badge* **1693** *Collision Date* **20200420** *Time* **2300** *Day* **MON**
Primary Collision Factor **UNKNOWN** *Violation* *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20201105**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	998	-		IMP UNK	IMP UNK	OTHER	-	-	9900	-		-	N		-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **S BREA BL** *Distance (ft)* **0.00** *Direction* **W** *Secondary Rd* **ASH ST** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1671** *Collision Date* **20200912** *Time* **2027** *Day* **SAT**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20201202**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **PKD MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	21	M	A	HBD-UNK		UNS TURN	S	A	0100	-	2006	-	3	A	22350	- M B
2	PRKD	998	-				PARKED	N	A	0100	-	2017	-	-	N		- - -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SAINT CRISPEN AV** *Distance (ft)* **29.0** *Direction* **S** *Secondary Rd* **NAPOLI DR** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1447** *Collision Date* **20200502** *Time* **1659** *Day* **SAT**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20200908**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **PKD MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	M	A	IMP UNK	IMP UNK	LFT TURN	S	A	0100	-	2007	-	-	M		- - -
2	PRKD	998	-				PARKED	S	D	2200	-	1988	-	3	N		- - -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SAN JUAN DR** *Distance (ft)* **826.** *Direction* **N** *Secondary Rd* **NORTHWOOD AV** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **011** *Type* **0** *CalTrans* *Badge* **1683** *Collision Date* **20200729** *Time* **2500** *Day* **WED**
Primary Collision Factor **UNKNOWN** *Violation* *Collision Type* **OTHER** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20201120**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **PKD MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	998	-		IMP UNK	IMP UNK	OTHER	-	-	9900	-		-	N		-	- -
2	PRKD	998	-				PARKED	N	A	0100	-	2019	-	-	N		- - -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **IMPERIAL HWY** *Distance (ft)* **100.** *Direction* **W** *Secondary Rd* **BERRY ST** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **3.990** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* **12** *Badge* **1650** *Collision Date* **20201006** *Time* **2038** *Day* **TUE**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20201124**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	58	M		HNBD		PROC ST	E	A	0100	-	2018	-	3	N	-	M G
2	DRVR	31	M	H	HNBD		STOPPED	E	A	0800	-	2011	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	31	M	1	0	M	G
PASS		8	F	3	0	M	G
PASS		11	F	6	0	M	G

Primary Rd **IMPERIAL HWY** *Distance (ft)* **39.0** *Direction* **E** *Secondary Rd* **BREA PLAZA** *NCIC* **3002** *State Hwy?* **Y** *Route* **57** *Postmile Prefix* **-** *Postmile* **19.646** *Side of Hwy* **N**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1693** *Collision Date* **20200628** *Time* **1634** *Day* **SUN**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **SIDESWIPE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20201125**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **FELONY** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **R** *Ramp/Int* **4**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	25	M	B	HNBD		PROC ST	W	A	0100	-	2012	-	3	N	-	M G
2	DRVR	33	M	H	HNBD		STOPPED	W	A	0100	-	2019	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	33	M	1	0	M	G

Primary Rd **IMPERIAL HWY** *Distance (ft)* **55.0** *Direction* **W** *Secondary Rd* **CASTLE GATE LN** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.920** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1628** *Collision Date* **20200708** *Time* **1000** *Day* **WED**
Primary Collision Factor **NOT DRIVER** *Violation* *Collision Type* **SIDESWIPE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20201130**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	29	M	H		PHYS	PROC ST	W	A	0700	JEEP	2012	-	3	N	-	M G
2	DRVR	44	F	A	HNBD		PROC ST	W	A	0700	-	2018	-	2	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	OTH VIS	29	M	1	0	M	G

Primary Rd **IMPERIAL HWY** *Distance (ft)* **630.** *Direction* **E** *Secondary Rd* **CASTLE GATE LN** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.990** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* **12** *Badge* **1447** *Collision Date* **20200828** *Time* **1214** *Day* **FRI**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20201203**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **CONS ZONE** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	26	F	H	HNBD		CHANG LN	W	A	0700	-	2020	-	-	N	-	M G
2	DRVR	57	M	H	HNBD		PROC ST	W	F	2700	-	2020	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HWY** *Distance (ft)* **35.0** *Direction* **W** *Secondary Rd* **CASTLE GATE LN** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.920** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* **12** *Badge* **1696** *Collision Date* **20200903** *Time* **1515** *Day* **THU**
Primary Collision Factor **STRTNG\|BCKNG** *Violation* **22106** *Collision Type* **OTHER** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* *Process Date* **20201201**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	36	F	W	IMP UNK	IMP UNK	BACKING	E	A	0100	-	2017	-	-	N	-	M B
2	DRVR	32	M	H	HNBD		SLOWING	E	A	0100	-	2004	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS	COMP PN	66	F	3	0	M	G

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Primary Rd **IMPERIAL HWY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **CASTLE GATE LN** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **5.970** *Side of Hwy* **W**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* **12** *Badge* **1671** *Collision Date* **20201029** *Time* **1908** *Day* **THU**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20201221**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	24	M	W			PROC ST	W	A	0100	FORD	2018	-	3	N	-	M	G
2	DRVR	40	M	W			STOPPED	-	A	0700	FORD	2019	-	3	N	-	M	G
3	DRVR	22	M	H			STOPPED	-	A	0100	-	2016	-	3	N	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		2	M	4	0	M	G
PASS		998	F	2	0	M	G

Primary Rd **IMPERIAL HWY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **CATALPA AV** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **3.705** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* **12** *Badge* **1447** *Collision Date* **20200810** *Time* **1643** *Day* **MON**
Primary Collision Factor **R-O-W AUTO** *Violation* **21802A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* **Y** *Process Date* **20201130**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **I** *Ramp/Int* **5**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	27	M	A	HNBD		LFT TURN	N	A	0100	-	2016	-	3	E	-	M	G
2	DRVR	19	F	A	HNBD		PROC ST	E	A	0100	AUDI	2018	-	3	N	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	27	M	1	0	M	G
DRVR	COMP PN	19	F	1	0	M	G

Primary Rd **IMPERIAL HWY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **CATALPA AV** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **3.705** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* **12** *Badge* **1698** *Collision Date* **20201211** *Time* **1237** *Day* **FRI**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20210119**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* **I** *Ramp/Int* **5**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	42	M	W	HNBD		LFT TURN	W	A	0700	AUDI	2013	-	3	N	-	M	G
2	DRVR	44	M		HNBD		PROC ST	E	A	0700	-	2019	-	3	N	-	M	-

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HWY** *Distance (ft)* **15.0** *Direction* **W** *Secondary Rd* **FLOWER AV** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **4.530** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **011** *Type* **0** *CalTrans* **12** *Badge* **1709** *Collision Date* **20201123** *Time* **1755** *Day* **MON**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* **Y** *Process Date* **20210119**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* **H** *Ramp/Int* **-**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	22	M	W	HNBD		CHANG LN	-	D	2200	-	2015	-	3	A	22350	M	H
2	DRVR	37	F	H	HNBD		STOPPED	E	A	0100	-	2012	-	3	N	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	COMP PN	22	M	1	0	M	H
PASS	COMP PN	13	F	3	0	M	G

Primary Rd **IMPERIAL HWY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **GATEWAY** *NCIC* **3002** *State Hwy?* **Y** *Route* **90** *Postmile Prefix* **-** *Postmile* **4.260** *Side of Hwy* **E**
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* **12** *Badge* **1562** *Collision Date* **20200426** *Time* **1602** *Day* **SUN**
Primary Collision Factor **OTHER HAZ** *Violation* **21451A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* *Process Date* **20201112**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **BICYCLE** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* **I** *Ramp/Int* **5**

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	46	M	W	HNBD		PROC ST	E	D	2200	TOYOT	2018	-	3	E	-	M	G
2	BICY	52	M	B	HNBD		PROC ST	S	L	0400	-	-	-	3	N	-	-	-

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS		44	F	3	0	M	G

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Primary Rd **RANDOLPH AV** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **BREA MALL** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20211108** *Time* **1531** *Day* **MON**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20220104**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	67	F	A	HNBD		PROC ST	S	A	0100	HYUND	2013	-	3	N	-	L G
2	DRVR	75	F	W	HNBD		LFT TURN	W	A	0700	TOYOT	2021	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **REDBAY AV** *Distance (ft)* **141.** *Direction* **S** *Secondary Rd* **BIRCH ST** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1508** *Collision Date* **20210507** *Time* **0250** *Day* **FRI**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20210527**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **PKD MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	32	F	W	HNBD	FATG	PROC ST	S	A	0100	HYUND	2013	-	3	N	-	M G
2	PRKD	998	-				PARKED	S	A	0100	HONDA	2013	-	-	N	-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **REDWOOD AV** *Distance (ft)* **67.0** *Direction* **N** *Secondary Rd* **IMPERIAL HY** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1516** *Collision Date* **20220109** *Time* **1533** *Day* **SUN**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152B** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220203**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **PKD MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	32	M	H	HBD-UI		RGT TURN	N	A	0100	CADIL	2007	-	3	A	-	M C
2	PRKD	998	-				PARKED	N	A	0100	MERCE	1979	-	-	N	-	- -
3	PRKD	998	-				PARKED	N	A	0700	GMC	2003	-	-	N	-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ROSE DR** *Distance (ft)* **27.0** *Direction* **E** *Secondary Rd* **VALENCIA AV** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1720** *Collision Date* **20220214** *Time* **1519** *Day* **MON**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20220309**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	71	M	O	HNBD		LFT TURN	S	A	0100	TESLA	2020	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ROSE DR** *Distance (ft)* **15.0** *Direction* **S** *Secondary Rd* **VESUVIUS DR** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* *Type* **0** *CalTrans* *Badge* **1672** *Collision Date* **20211022** *Time* **1422** *Day* **FRI**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152F** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20220104**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	46	M	H		DRUG	PROC ST	N	A	0100	NISSA	2005	-	3	A	N	L G
2	DRVR	64	M	W	HNBD		STOPPED	N	A	0700	KIA	2021	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	64	M	1	0	M	G

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Primary Rd **834 E ALMOND DR** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **NOT STATED** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1650** *Collision Date* **20220212** *Time* **2500** *Day* **SAT**
Primary Collision Factor **UNKNOWN** *Violation* *Collision Type* **OTHER** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220311**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **PKD MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1	DRVR	998	-		IMP UNK	IMP UNK	OTHER	-	-	9900	-		-	-		-	-	-
2	PRKD	998	-				PARKED	E	A	0100	CHRYS	2015	-	-		N	-	-

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **BIRCH ST (W)** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1672** *Collision Date* **20210923** *Time* **0806** *Day* **THU**
Primary Collision Factor **PED VIOL** *Violation* **21950B** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20211015**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **BICYCLE** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	BICY	10	M	O	HNBD		PROC ST	E	L	0400	MONG		-	3	N	-	-	W
2	DRVR	75	M	W	HNBD		RGT TURN	S	A	0100	HONDA	2017	-	3	N	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
BICY	SERIOUS	10	M	1	2	-	W

Primary Rd **ASSOCIATED RD** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **BREA PLAZA** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1646** *Collision Date* **20211215** *Time* **1430** *Day* **WED**
Primary Collision Factor **R-O-W AUTO** *Violation* **21804A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20220104**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	44	F	W	HNBD		LFT TURN	E	A	0100	HYUND	2013	-	3	N	-	L	G
2	DRVR	29	F	B	HNBD		PROC ST	S	A	0700	FORD	2012	-	3	N	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **CHEVY CHASE DR** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1696** *Collision Date* **20211024** *Time* **1427** *Day* **SUN**
Primary Collision Factor **R-O-W AUTO** *Violation* **21801A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220104**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	36	M	W	HNBD		LFT TURN	W	A	0100	MERCE	2021	-	3	N	-	M	G
2	DRVR	32	F	H	HNBD		PROC ST	N	A	0700	HONDA	2011	-	3	N	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **CINNAMON RIDGE** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20220106** *Time* **1451** *Day* **THU**
Primary Collision Factor **R-O-W AUTO** *Violation* **21801A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20220128**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **OTHER** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **BICYCLE** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	45	F	W	HNBD		LFT TURN	N	A	0100	TOYOT	2011	-	3	N	-	M	G
2	BICY	11	M	H	HNBD		PROC ST	S	L	0400	-		-	3	N	-	-	P

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
BICY	MINOR	11	M	1	2	-	P

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Primary Rd **BERRY ST** *Distance (ft)* **130.** *Direction* **N** *Secondary Rd* **LAMBERT RD** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **011** *Type* **0** *CalTrans* *Badge* **1671** *Collision Date* **20220303** *Time* **1447** *Day* **THU**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220407**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	54	F	H	HNBD		CHANG LN	S	A	0100	CHEVR	2016	-	3	N	-	M G
2	DRVR	28	F	H	HNBD		PROC ST	S	A	0700	DODGE	2019	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **BERRY ST** *Distance (ft)* **30.0** *Direction* **W** *Secondary Rd* **STONEBRIDGE DR** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **011** *Type* **0** *CalTrans* *Badge* **1628** *Collision Date* **20210602** *Time* **1741** *Day* **WED**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **HIT OBJECT** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20210629**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	78	M	W	HNBD		LFT TURN	N	A	0100	MERCE	2004	-	3	N	-	L H

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	MINOR	78	M	1	0	L	H

Primary Rd **BERRY ST** *Distance (ft)* **127.** *Direction* **S** *Secondary Rd* **VANGUARD WY** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1698** *Collision Date* **20210322** *Time* **1737** *Day* **MON**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **HIT OBJECT** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20210413**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	20	M	H	IMP UNK	IMP UNK	RAN OFF RD	S	A	0100	HONDA	2015	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	MINOR	20	M	1	0	L	G

Primary Rd **BIRCH ST** *Distance (ft)* **17.0** *Direction* **W** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20210816** *Time* **0742** *Day* **MON**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20210903**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	29	M	O	HNBD		PROC ST	E	A	0100	CHEVR	2017	-	-	N	-	M G
2	DRVR	998	-		IMP UNK	IMP UNK	STOPPED	E	-	9900	-		-	3	N	-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **BIRCH ST** *Distance (ft)* **252.** *Direction* **E** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1646** *Collision Date* **20211206** *Time* **1545** *Day* **MON**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20220104**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	16	M	O	HNBD		PROC ST	W	A	0700	FORD	2001	-	3	N	-	M G
2	DRVR	49	F	H	HNBD		STOPPED	W	A	0700	NISSA	2011	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	49	F	1	0	M	G

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Primary Rd **BIRCH ST** *Distance (ft)* **40.0** *Direction* **E** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1672** *Collision Date* **20211028** *Time* **1219** *Day* **THU**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220104**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	*Type*	*Age*	*Sex*	*Race*	*Sobriety1*	*Sobriety2*	*Move Pre*	*Dir*	*SW Veh*	*CHP Veh*	*Make*	*Year*	*SP Info*	*OAF1*	*Viol*	*OAF2*	*Safety Equip*
1F	DRVR	21	F	H	HNBD		PROC ST	W	A	0100	HONDA	2005	-	3	N	-	M G
2	DRVR	81	F	W	HNBD		STOPPED	W	A	0700	MAZDA	2011	-	3	N	-	M G

Victim Info

ROLE	*Ext Of Inj*	*AGE*	*Sex*	*Seat Pos*	*Safety*	*EQUIP*	*Ejected*

Primary Rd **BIRCH ST** *Distance (ft)* **115.** *Direction* **W** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1672** *Collision Date* **20211210** *Time* **1129** *Day* **FRI**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20220104**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	*Type*	*Age*	*Sex*	*Race*	*Sobriety1*	*Sobriety2*	*Move Pre*	*Dir*	*SW Veh*	*CHP Veh*	*Make*	*Year*	*SP Info*	*OAF1*	*Viol*	*OAF2*	*Safety Equip*
1F	DRVR	60	F	W	HBD-UI		PROC ST	E	A	0100	NISSA	2009	-	3	A	-	M G
2	DRVR	73	F	W	HNBD		STOPPED	E	A	0700	JEEP	2014	-	3	N	-	M G

Victim Info

ROLE	*Ext Of Inj*	*AGE*	*Sex*	*Seat Pos*	*Safety*	*EQUIP*	*Ejected*

Primary Rd **BIRCH ST** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **BREA MALL RD** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1720** *Collision Date* **20220301** *Time* **1635** *Day* **TUE**
Primary Collision Factor **R-O-W AUTO** *Violation* **21801A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220329**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	*Type*	*Age*	*Sex*	*Race*	*Sobriety1*	*Sobriety2*	*Move Pre*	*Dir*	*SW Veh*	*CHP Veh*	*Make*	*Year*	*SP Info*	*OAF1*	*Viol*	*OAF2*	*Safety Equip*
1F	DRVR	998	-		IMP UNK	IMP UNK	LFT TURN	W	-	9900	-		-	-	N	-	- -
2	DRVR	39	F	H	HNBD		PROC ST	E	A	0100	MAZDA	2016	-	3	N	-	M G

Victim Info

ROLE	*Ext Of Inj*	*AGE*	*Sex*	*Seat Pos*	*Safety*	*EQUIP*	*Ejected*

Primary Rd **BIRCH ST** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **KRAEMER BL** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1710** *Collision Date* **20210801** *Time* **2303** *Day* **SUN**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **3** *Tow Away?* **Y** *Process Date* **20210902**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	*Type*	*Age*	*Sex*	*Race*	*Sobriety1*	*Sobriety2*	*Move Pre*	*Dir*	*SW Veh*	*CHP Veh*	*Make*	*Year*	*SP Info*	*OAF1*	*Viol*	*OAF2*	*Safety Equip*
1F	DRVR	42	F	H	HNBD		PROC ST	S	A	0700	CADIL	2014	-	3	N	-	L G
2	DRVR	26	M	A	HNBD		PROC ST	E	A	0100	HONDA	2001	-	3	N	-	L G

Victim Info

ROLE	*Ext Of Inj*	*AGE*	*Sex*	*Seat Pos*	*Safety*	*EQUIP*	*Ejected*
DRVR	POSSIBL	42	F	1	0	L	G
DRVR	POSSIBL	26	M	1	0	L	G
PASS	POSSIBL	30	F	3	0	L	G

Primary Rd **BIRCH ST** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **KRAEMER BL** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1675** *Collision Date* **20211201** *Time* **2118** *Day* **WED**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220104**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	*Type*	*Age*	*Sex*	*Race*	*Sobriety1*	*Sobriety2*	*Move Pre*	*Dir*	*SW Veh*	*CHP Veh*	*Make*	*Year*	*SP Info*	*OAF1*	*Viol*	*OAF2*	*Safety Equip*
1F	DRVR	37	M	W	HNBD		PROC ST	N	A	0100	ACURA	2008	-	3	N	-	L G
2	DRVR	63	F	A	HNBD		PROC ST	E	A	0700	HYUND	2019	-	3	N	-	L G
3	DRVR	37	F	W	HNBD		STOPPED	W	A	0100	FORD	2015	-	3	N	-	M G

Victim Info

ROLE	*Ext Of Inj*	*AGE*	*Sex*	*Seat Pos*	*Safety*	*EQUIP*	*Ejected*

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Primary Rd **FLOWER AV** *Distance (ft)* **350.** *Direction* **N** *Secondary Rd* **BIRCH ST** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1672** *Collision Date* **20210528** *Time* **1533** *Day* **FRI**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20210621**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **PKD MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	37	F	H	HNBD		PROC ST	N	A	0700	NISSA	2021	-	3	N	-	L	G
2	PRKD	998	-				PARKED	N	A	0700	LEXUS	2019	-	-	N	-	-	-

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **FLOWER AV** *Distance (ft)* **195.** *Direction* **N** *Secondary Rd* **BIRCH ST** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1516** *Collision Date* **20211214** *Time* **1731** *Day* **TUE**
Primary Collision Factor **WRONG SIDE** *Violation* **21650** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220104**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	85	F	W	HNBD		PROC ST	S	A	0100	TOYOT	1983	-	3	N	-	M	G
2	DRVR	37	F	W	HNBD		BACKING	W	A	0100	MERCE	2014	-	3	N	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **FLOWER AV** *Distance (ft)* **221.** *Direction* **N** *Secondary Rd* **BIRCH ST** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **011** *Type* **0** *CalTrans* *Badge* **1516** *Collision Date* **20211214** *Time* **1817** *Day* **TUE**
Primary Collision Factor **STRTNG\|BCKNG** *Violation* **22106** *Collision Type* **OTHER** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220104**
Weather1 **RAINING** *Weather2* *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **PKD MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	85	F	W	HNBD		BACKING	N	A	0100	TOYOT	1983	-	3	N	-	M	G
2	PRKD	998	-				PARKED	N	A	0100	INFIN	1992	-	-	N	-	-	-

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **GREENBRIAR LN** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1696** *Collision Date* **20210904** *Time* **1421** *Day* **SAT**
Primary Collision Factor **STOP SGN\|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **3** *Tow Away?* **Y** *Process Date* **20211007**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	20	F	W	HNBD		PROC ST	N	D	2200	TOYOT	2001	-	3	N	-	L	G
2	DRVR	50	M	W	HNBD		LFT TURN	W	D	2200	GMC	2004	-	3	N	-	L	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	20	F	1	0	L	G
PASS	POSSIBL	15	F	3	0	L	G
DRVR	MINOR	50	M	1	0	L	G

Primary Rd **HUMMINGBIRD DR** *Distance (ft)* **130.** *Direction* **S** *Secondary Rd* **WOODPECKER ST** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1706** *Collision Date* **20220312** *Time* **2148** *Day* **SAT**
Primary Collision Factor **DRVR ALC\|DRG** *Violation* **23152A** *Collision Type* **AUTO/PED** *Severity* **INJURY** *#Killed* **0** *#Injured* **3** *Tow Away?* **Y** *Process Date* **20220405**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **PED** *Lighting* **DARK - ST** *Ped Action* **NOT IN RD** *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	52	M	H	HBD-UI		UNS TURN	S	A	0100	TOYOT	2013	-	3	A	N	L	G
2	PED	36	M	W	HNBD			N	N	6000	-		-	3	N	-	-	-
3	PED	35	F	A	HNBD			N	N	6000	-		-	3	N	-	-	-

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	MINOR	52	M	1	0	L	G
PED	MINOR	36	M	9	-	-	P
PED	MINOR	35	F	9	-	-	P

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Primary Rd **834 E ALMOND DR** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **NOT STATED** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1650** *Collision Date* **20220212** *Time* **2500** *Day* **SAT**
Primary Collision Factor **UNKNOWN** *Violation* *Collision Type* **OTHER** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220311**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **PKD MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1	DRVR	998	-		IMP UNK	IMP UNK	OTHER	-	-	9900	-		-	-		-	-	-
2	PRKD	998	-				PARKED	E	A	0100	CHRYS	2015	-	-		N	-	-	-

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **BIRCH ST (W)** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1672** *Collision Date* **20210923** *Time* **0806** *Day* **THU**
Primary Collision Factor **PED VIOL** *Violation* **21950B** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20211015**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **BICYCLE** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	BICY	10	M	O	HNBD		PROC ST	E	L	0400	MONG		-	3	N		-	W
2	DRVR	75	M	W	HNBD		RGT TURN	S	A	0100	HONDA	2017	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
BICY	SERIOUS	10	M	1	2	-	W

Primary Rd **ASSOCIATED RD** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **BREA PLAZA** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1646** *Collision Date* **20211215** *Time* **1430** *Day* **WED**
Primary Collision Factor **R-O-W AUTO** *Violation* **21804A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20220104**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	44	F	W	HNBD		LFT TURN	E	A	0100	HYUND	2013	-	3	N		-	L	G
2	DRVR	29	F	B	HNBD		PROC ST	S	A	0700	FORD	2012	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **CHEVY CHASE DR** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1696** *Collision Date* **20211024** *Time* **1427** *Day* **SUN**
Primary Collision Factor **R-O-W AUTO** *Violation* **21801A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220104**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	36	M	W	HNBD		LFT TURN	W	A	0100	MERCE	2021	-	3	N		-	M	G
2	DRVR	32	F	H	HNBD		PROC ST	N	A	0700	HONDA	2011	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **CINNAMON RIDGE** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20220106** *Time* **1451** *Day* **THU**
Primary Collision Factor **R-O-W AUTO** *Violation* **21801A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20220128**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **OTHER** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **BICYCLE** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	45	F	W	HNBD		LFT TURN	N	A	0100	TOYOT	2011	-	3	N		-	M	G
2	BICY	11	M	H	HNBD		PROC ST	S	L	0400	-		-	3	N		-	-	P

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
BICY	MINOR	11	M	1	2	-	P

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Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
IMPERIAL HY	55.0	W	RT 57 NB	3002	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		013	0		1447	20210425	1808	SUN

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
LANE CHANGE	21658A	SIDESWIPE	PDO	0	0	N	20210511

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DAYLIGHT		FNCTNG		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	28	F	W	HNBD		CHANG LN	W	A	0100	FORD	2015	-	3	N	-	M G
2	DRVR	33	M	W	HNBD		PROC ST	W	A	0700	TOYOT	2016	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
IMPERIAL HY	0.00		RT 57 NB	3002	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		013	0		1684	20210805	0616	THU

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
IMPROP TURN	22107	SIDESWIPE	PDO	0	0	N	20210826

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DUSK/DAWN		FNCTNG		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	38	M	H	HNBD		RGT TURN	E	F	2600	FREIG	2020	-	3	N	-	M G
2	DRVR	55	F	A	HNBD		RGT TURN	E	A	0100	HONDA	2016	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
IMPERIAL HY	50.0	W	RT 57 NB ONRAMP	3002	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		013	0		1382	20210414	1330	WED

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
NOT DRIVER		SIDESWIPE	PDO	0	0	N	20210430

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DAYLIGHT		FNCTNG		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	48	F	H		PHYS	PROC ST	W	A	0100	FORD	2015	-	-	N	-	M -
2	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	W	F	2500	-		-	-	N	-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
IMPERIAL HY	8.00	W	RT 57 NB ONRAMP	3002	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		013	0		1628	20211005	1118	TUE

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNSAFE SPEED	22350	REAR END	INJURY	0	3	N	20211028

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DAYLIGHT		FNCTNG		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	30	M	W	HNBD		PROC ST	W	A	0100	CHEVR	2014	-	3	N	-	M G
2	DRVR	39	F	W	HNBD		SLOWING	W	A	0100	VOLKS	2017	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	39	F	1	0	M	G
PASS	POSSIBL	20	F	3	0	M	G
PASS	POSSIBL	17	F	6	0	M	G

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
IMPERIAL HY	0.00		RT 57 SB	3002	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		013	0		1646	20210915	0906	WED

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
LANE CHANGE	21658A	SIDESWIPE	PDO	0	0	N	20211004

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DAYLIGHT		FNCTNG		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	59	M	O	HNBD		RGT TURN	S	-	3132	VOLVO	1999	-	3	N	-	M G
2	DRVR	56	M	O	HNBD		RGT TURN	S	-	3132	VOLVO	2011	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **SR-57 N/B TO** *Distance (ft)* **250.** *Direction* **S** *Secondary Rd* **IMPERIAL** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **IMPERIAL HIGHWAY** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **016748** *Collision Date* **20211218** *Time* **1117** *Day* **SAT**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20211228**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	51	M	W	HNBD		PROC ST	N	A	0700	LNDR	2015	-	3	H	-	L G
2	DRVR	38	M	H	HNBD		STOPPED	N	A	0700	GMC	2001	-	3	H	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	MINOR	51	M	1	0	L	G

Primary Rd **SR-57 NB (ORANGE** *Distance (ft)* **686.** *Direction* **N** *Secondary Rd* **BIRCH ST** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **FREEWAY)** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **020033** *Collision Date* **20211011** *Time* **1705** *Day* **MON**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20211020**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	44	M	H	HNBD		CHANG LN	N	D	2200	TOYT	2007	-	4	G	-	M G
2	DRVR	30	M	H	HNBD		PROC ST	N	F	2600	ISU	2017	-	3	G	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57** *Distance (ft)* **500.** *Direction* **N** *Secondary Rd* **ASSOCIATED RD** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **NORTHBOUND** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **019135** *Collision Date* **20211005** *Time* **1835** *Day* **TUE**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20211015**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	21	F	H	HNBD		PROC ST	N	A	0100	CHEV	2014	-	3	G	-	M G
2	DRVR	53	M	H	HNBD		STOPPED	N	D	2200	FORD	2021	-	3	G	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57** *Distance (ft)* **466.** *Direction* **N** *Secondary Rd* **BASTANCHURY** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **NORTHBOUND** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **019897** *Collision Date* **20211120** *Time* **0615** *Day* **SAT**
Primary Collision Factor **NOT DRIVER** *Violation* *Collision Type* **OTHER** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20211202**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	26	M	H	HNBD		PROC ST	N	D	2200	CHEV	2017	-	3	N	-	M G
2	DRVR	36	M	B	HNBD		PROC ST	S	A	0100	NISS	2013	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS	POSSIBL	41	F	3	0	L	G

Primary Rd **SR-57** *Distance (ft)* **300.** *Direction* **N** *Secondary Rd* **BIRCH ST** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **NORTHBOUND** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **019135** *Collision Date* **20210608** *Time* **1750** *Day* **TUE**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20210617**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **1**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	19	M	A	HNBD		CHANG LN	N	A	0700	PORS	2018	-	3	G	-	M G
2	DRVR	52	M	B	HNBD		PROC ST	N	H	1300	BLUE	2017	-	3	G	-	P G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **SR-57** *Distance (ft)* **1500** *Direction* **S** *Secondary Rd* **IMPERIAL** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **NORTHBOUND** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **019979** *Collision Date* **20210408** *Time* **0550** *Day* **THU**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20210408**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	51	M	H	HNBD		CHANG LN	N	G	2731	INTL	2016	-	3	N	-	M G
2	DRVR	75	M	W	HNBD		PROC ST	N	A	0100	NISS	2013	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57** *Distance (ft)* **1800** *Direction* **N** *Secondary Rd* **IMPERIAL** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **NORTHBOUND** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **016748** *Collision Date* **20210423** *Time* **0830** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20210429**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	21	M	H	HNBD		PROC ST	N	A	0800	FORD	2018	-	3	N	-	M G
2	DRVR	53	M	W	HNBD		STOPPED	N	A	0100	GENES	2019	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57** *Distance (ft)* **1584** *Direction* **N** *Secondary Rd* **IMPERIAL** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **NORTHBOUND** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **021960** *Collision Date* **20210603** *Time* **1428** *Day* **THU**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20210614**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	37	M	H	HNBD		PROC ST	N	A	0100	TOYT	2006	-	3	N	-	L G
2	DRVR	26	F	A	HNBD		SLOWING	N	A	0100	TOYT	2013	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	MINOR	37	M	1	0	L	G

Primary Rd **SR-57** *Distance (ft)* **200.** *Direction* **N** *Secondary Rd* **IMPERIAL** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **NORTHBOUND** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **016748** *Collision Date* **20210608** *Time* **0920** *Day* **TUE**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20210616**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **CONS ZONE** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	20	M	W	HNBD		PROC ST	N	A	0100	VOLK	2014	-	3	N	-	M G
2	DRVR	35	M	A	HNBD		STOPPED	N	A	0100	MITS	2010	-	3	N	-	M G
3	DRVR	66	M	A	HNBD		PROC ST	N	A	0100	TOYT	2020	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57** *Distance (ft)* **2112** *Direction* **N** *Secondary Rd* **IMPERIAL** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **NORTHBOUND** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **021960** *Collision Date* **20210623** *Time* **1645** *Day* **WED**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20210723**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	22	M	B	HNBD		CHANG LN	N	A	0100	TOYT	2013	-	3	N	-	M G
2	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	N	-	9900	-		-	4	N	-	B B
3	DRVR	67	F	A	HNBD		PROC ST	N	A	0800	TOYT	2013	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **SR-57** *Distance (ft)* **775.** *Direction* **S** *Secondary Rd* **TONNER CYN RD** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **NORTHBOUND** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **021633** *Collision Date* **20220319** *Time* **1600** *Day* **SAT**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220325**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	OTHER	N	-	9900	-		-	4	N	-	B B
2	DRVR	38	F	H	HNBD		PROC ST	N	A	0100	CHEV	2020	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57** *Distance (ft)* **600.** *Direction* **N** *Secondary Rd* **NUTWOOD** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **NORTHBOUND** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **571** *Type* **1** *CalTrans* *Badge* **019518** *Collision Date* **20211207** *Time* **0800** *Day* **TUE**
Primary Collision Factor **FROM NUTWOOD** **STRTNG|BCKNG** *Violation* **22106** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20211214**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	33	M	O	HNBD		PROC ST	N	A	0100	HOND	2014	-	3	N	-	M G
2	DRVR	51	F	A	HNBD		PROC ST	N	A	0100	HOND	2015	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57** *Distance (ft)* **157.** *Direction* **S** *Secondary Rd* **IMPERIAL** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **NORTHBOUND TO** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **021960** *Collision Date* **20210521** *Time* **1058** *Day* **FRI**
Primary Collision Factor **IMPERIAL HIGHWAY** **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20210615**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	28	M	H	IMP UNK	IMP UNK	CHANG LN	N	A	0100	LEXS	2000	-	3	N	-	M G
2	DRVR	19	M	A	HNBD		CHANG LN	N	A	0100	TOYT	2016	-	3	A	21658 -	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57** *Distance (ft)* **30.0** *Direction* **S** *Secondary Rd* **IMPERIAL** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **NORTHBOUND TO** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **019518** *Collision Date* **20211111** *Time* **1045** *Day* **THU**
Primary Collision Factor **IMPERIAL HIGHWAY** **STRTNG|BCKNG** *Violation* **22106** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20211119**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	21	F	H	HNBD		PROC ST	N	A	0700	JEEP	2017	-	3	H	-	M G
2	DRVR	22	M	A	HNBD		STOPPED	N	A	0100	HOND	1998	-	3	H	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57** *Distance (ft)* **55.0** *Direction* **S** *Secondary Rd* **IMPERIAL** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **NORTHBOUND TO** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **019942** *Collision Date* **20210517** *Time* **1305** *Day* **MON**
Primary Collision Factor **IMPERIAL HWY** **STRTNG|BCKNG** *Violation* **22106** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20210525**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	29	M	W	HNBD		PROC ST	N	D	2200	CHEV	2006	-	3	H	-	M G
2	DRVR	23	F	A	HNBD		STOPPED	N	A	0100	TOYT	2014	-	3	H	-	M G
3	DRVR	43	M	A	HNBD		STOPPED	N	A	0100	MERZ	2013	-	3	H	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **SR-57** *Distance (ft)* **30.0** *Direction* **S** *Secondary Rd* **IMPERIAL HWY** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **NORTHBOUND TO Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **021691** *Collision Date* **20220106** *Time* **2033** *Day* **THU**
Primary Collision Factor **IMPERIAL HWY DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220125**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	27	F	W	HBD-UI		PROC ST	N	A	0100	LINCO	2004	-	4	A	21755	H M B
2	DRVR	28	M	H	HNBD		STOPPED	N	A	0100	BMW	2000	-	3	H		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57** *Distance (ft)* **500.** *Direction* **S** *Secondary Rd* **IMPERIAL HWY** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **NORTHBOUND TO Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **019320** *Collision Date* **20211116** *Time* **0745** *Day* **TUE**
Primary Collision Factor **IMPERIAL HWY UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20211126**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	18	F	H	HNBD		PROC ST	N	C	0200	SUZI	2007	-	3	H		- - W
2	DRVR	39	M	H	HNBD		SLOWING	N	A	0100	KIA	2017	-	3	H		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	MINOR	18	F	1	1	P	W

Primary Rd **SR-57** *Distance (ft)* **500.** *Direction* **S** *Secondary Rd* **IMPERIAL HWY.** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **NORTHBOUND TO Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **019320** *Collision Date* **20220121** *Time* **0830** *Day* **FRI**
Primary Collision Factor **IMPERIAL HWY IMPROP TURN** *Violation* **22107** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220202**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	30	M	W	HNBD		OTHER	N	D	2200	TOYT	2002	-	3	H		L M G
2	DRVR	58	F	A	HNBD		PROC ST	N	A	0700	ISU	2004	-	3	H		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57 S/B** *Distance (ft)* **100.** *Direction* **S** *Secondary Rd* **BIRCH ST.** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **020923** *Collision Date* **20211230** *Time* **0934** *Day* **THU**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220104**
Weather1 **CLOUDY** *Weather2* **RAINING** *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	39	M	H	HNBD		PROC ST	S	A	0100	TOYT	2011	-	3	N		- M G
2	DRVR	52	M	H	HNBD		PROC ST	S	G	2531	FRHT	2019	-	3	N		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57 S/B** *Distance (ft)* **500.** *Direction* **S** *Secondary Rd* **LAMBERT RD** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **021633** *Collision Date* **20210430** *Time* **1509** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **5** *Tow Away?* **Y** *Process Date* **20210506**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	57	F	H	HNBD		PROC ST	S	A	0100	NISS	2006	-	3	N		- L G
2	DRVR	26	F	H	HNBD		SLOWING	S	A	0100	AUDI	2017	-	3	G		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	57	F	1	0	L	G
PASS	POSSIBL	15	F	3	0	L	G
DRVR	MINOR	26	F	1	0	M	G

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Primary Rd **STATE ROUTE 57** *Distance (ft)* **1000** *Direction* **N** *Secondary Rd* **TONNER CANYON** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **N/B** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **021274** *Collision Date* **20220129** *Time* **1956** *Day* **SAT**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20220207**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	38	M	O	HNBD		PROC ST	N	A	0700	BMW	2017	-	3	N		- L G
2	DRVR	60	M	A	HNBD		STOPPED	N	A	0100	CHEV	2018	-	3	N		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	60	M	1	0	M	G

Primary Rd **STATE ROUTE 57** *Distance (ft)* **95.0** *Direction* **S** *Secondary Rd* **IMPERIAL** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **N/B TO IMPERIAL HIGHWAY** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **021274** *Collision Date* **20210807** *Time* **1820** *Day* **SAT**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20210816**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	34	M	H	HNBD		PROC ST	N	D	2200	CHEV	2008	-	3	A	22350	H M G
2	DRVR	53	F	H	HNBD		STOPPED	N	A	0100	LEXS	2015	-	3	H		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **STATE ROUTE 57** *Distance (ft)* **790.** *Direction* **S** *Secondary Rd* **LAMBERT RD.** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **N/B TO LAMBERT** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **021274** *Collision Date* **20210926** *Time* **1650** *Day* **SUN**
Primary Collision Factor **NOT DRIVER** *Violation* *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20211006**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **CONS ZONE** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	58	M	H	HNBD		PROC ST	N	A	0700	TOYT	1998	-	3	N		- L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **STATE ROUTE 57** *Distance (ft)* **1120** *Direction* **S** *Secondary Rd* **BIRCH STREET** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **S/B** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **021274** *Collision Date* **20210928** *Time* **1541** *Day* **TUE**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20211007**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	20	M	H	HNBD		PROC ST	S	A	0100	TOYT	2007	-	3	N		- M G
2	DRVR	56	F	A	HNBD		PROC ST	S	A	0100	TESL	2021	-	3	N		- M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **STATE ROUTE 57** *Distance (ft)* **1100** *Direction* **S** *Secondary Rd* **LAMBERT ROAD** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **S/B** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **021274** *Collision Date* **20211223** *Time* **1959** *Day* **THU**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **SIDESWIPE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20211231**
Weather1 **RAINING** *Weather2* *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	S	-	9900	-		-	3	N		- B B
2	DRVR	44	M	H	HNBD		PROC ST	S	A	0700	BMW	2018	-	3	N		- L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	44	M	1	0	L	G

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Primary Rd **I-5 N/B FROM AUTO** *Distance (ft)* **1056** *Direction* **N** *Secondary Rd* **BEACH BLVD** *NCIC* **9670** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **CENTER DR** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **500** *Type* **1** *CalTrans* *Badge* **021579** *Collision Date* **20210406** *Time* **1700** *Day* **TUE**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20210412**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	44	M	O	HNBD		STOPPED	N	A	0100	MERZ	2006	-	3	N	-	M G
2	DRVR	62	M	W	HNBD		PROC ST	N	A	0700	CHEV	2019	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **42.0** *Direction* **W** *Secondary Rd* **AROVISTA AV** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1704** *Collision Date* **20210508** *Time* **2035** *Day* **SAT**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* **Y** *Process Date* **20210525**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **SLIPPERY** *Rdwy Cond1* **FLOODED** *Rdwy Cond2* **NO UNUSL CND** *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	16	M	W	HNBD		PROC ST	E	A	0700	JEEP	2006	-	1	F	-	L G
2	DRVR	56	F	W	HNBD		STOPPED	E	A	0100	MERCE	2017	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	16	M	1	0	L	G
DRVR	POSSIBL	56	F	1	0	M	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **600.** *Direction* **W** *Secondary Rd* **AROVISTA AV** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1710** *Collision Date* **20210524** *Time* **1945** *Day* **MON**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20210609**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	UNS TURN	W	A	0700	MERCE	2014	-	-	N	-	M G
2	DRVR	48	F	H	HNBD		PROC ST	W	A	0100	LEXUS	2010	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **AROVISTA AV** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1628** *Collision Date* **20210908** *Time* **1555** *Day* **WED**
Primary Collision Factor **R-O-W AUTO** *Violation* **21453B** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* **Y** *Process Date* **20210928**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	83	F	W	HNBD		RGT TURN	N	A	0700	TOYOT	2015	-	3	N	-	L G
2	DRVR	30	F	O	HNBD		PROC ST	E	A	0700	HONDA	2015	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	83	F	1	0	L	G
DRVR	POSSIBL	30	F	1	0	L	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **22.0** *Direction* **W** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1698** *Collision Date* **20210322** *Time* **1543** *Day* **MON**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20210408**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	E	D	2200	FORD	2000	-	-	N	-	- -
2	DRVR	22	F	W	HNBD		STOPPED	E	A	0100	TOYOT	2005	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **IMPERIAL HY** *Distance (ft)* **60.0** *Direction* **E** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1395** *Collision Date* **20210414** *Time* **0800** *Day* **WED**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20210430**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	54	M	W	HNBD		STOPPED	W	G	2531	FREIG	2012	-	3	N	-	M G
2	DRVR	40	F	B	HNBD		STOPPED	W	A	0100	TOYOT	2007	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **500.** *Direction* **E** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1628** *Collision Date* **20210419** *Time* **1045** *Day* **MON**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20210506**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	47	M	H	HNBD		CHANG LN	W	G	2528	FREIG	2008	-	3	N	-	M G
2	DRVR	65	F	A	HNBD		SLOWING	W	A	0100	HONDA	2020	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **150.** *Direction* **E** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20210611** *Time* **1250** *Day* **FRI**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20210701**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	M	H	IMP UNK	IMP UNK	CHANG LN	W	-	3100	-		-	-	N	-	- -
2	DRVR	77	F	W	HNBD		PROC ST	W	A	0100	CADIL	2017	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **200.** *Direction* **E** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1628** *Collision Date* **20210715** *Time* **1534** *Day* **THU**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20210803**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	68	M	W	HNBD		PROC ST	W	-	3129	PETER	2021	-	3	N	-	M G
2	DRVR	47	M	W	HNBD		STOPPED	W	A	0700	JEEP	2019	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **175.** *Direction* **E** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1696** *Collision Date* **20211009** *Time* **1424** *Day* **SAT**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* **Y** *Process Date* **20211029**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	63	F	W	HNBD		PROC ST	W	A	0100	HYUND	2014	-	3	A	-	L G
2	DRVR	39	F	W	HNBD		STOPPED	W	D	2200	TOYOT	2012	-	3	N	-	M G
3	DRVR	39	M	O	HNBD		STOPPED	W	D	2300	TOYOT	2020	-	3	N	-	M G
4	DRVR	61	F	O	HNBD		STOPPED	W	A	0100	TOYOT	2014	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	63	F	1	0	L	G
PASS	POSSIBL	8	F	4	0	M	Q

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Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
IMPERIAL HY	43.0	W	ASSOCIATED RD	3002	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		013	0		1672	20211022	1233	FRI

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
R-O-W AUTO	21804A	BROADSIDE	PDO	0	0	Y	20220104

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DAYLIGHT		FNCTNG		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	20	F	H	HNBD		RGT TURN	E	A	0100	HONDA	2020	-	3	N	-	L G
2	DRVR	70	F	A	HNBD		PROC ST	E	A	0100	TOYOT	2012	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
IMPERIAL HY	100.	W	ASSOCIATED RD	3002	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		014	0		1628	20211103	1439	WED

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNSAFE SPEED	22350	REAR END	INJURY	0	3	N	20220104

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DAYLIGHT		FNCTNG		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	33	M	W	HNBD		PROC ST	E	D	2200	FORD	2019	-	3	N	-	M G
2	DRVR	46	M	W	HNBD		STOPPED	E	A	0100	CHRYS	2010	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	46	M	1	0	M	G
PASS	POSSIBL	22	M	6	0	M	G
PASS	POSSIBL	32	M	3	0	M	G

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
IMPERIAL HY	75.0	E	ASSOCIATED RD	3002	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		013	0		1676	20211209	1827	THU

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNSAFE SPEED	22350	REAR END	INJURY	0	2	Y	20220104

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		WET	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DARK - ST		FNCTNG		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	35	M	W	HNBD		SLOWING	W	A	0100	HONDA	2004	-	3	A	-	M G
2	DRVR	53	M	H	HNBD		SLOWING	W	A	0100	TOYOT	2018	-	3	N	-	M G
3	DRVR	35	M	H	HNBD		SLOWING	W	A	0700	CHEVR	2021	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	MINOR	35	M	1	0	M	G
DRVR	POSSIBL	35	M	1	0	M	G

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
IMPERIAL HY	1900	E	BERRY ST	3002	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4	N/A	014	0		1654	20210703	1157	SAT

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNSAFE SPEED	22350	HIT OBJECT	PDO	0	0	Y	20210722

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	FIXED OBJ	DAYLIGHT		NT PRS/FCTR		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	20	M	H	HNBD		SLOWING	W	A	0100	BMW	2015	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
IMPERIAL HY	0.00		BERRY ST	3002	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		014	0		1711	20220101	2155	SAT

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNKNOWN		HEAD-ON	PDO	0	0	N	20230124

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
MSDMNR	FIXED OBJ	DARK - ST		FNCTNG		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	998	-		IMP UNK	IMP UNK	OTHER	-	-	9900	-		-	-	M	-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
CARBON CANYON	235.	E	TELEGRAPH	3002	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea RD	Orange	4	N/A	012	0		1706	20220221	0259	MON

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
IMPROP TURN	22107	OVERTURNED	PDO	0	0	Y	20220329

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER OBJ	DARK - NO		NT PRS/FCTR		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	22	M	W	HNBD		UNS TURN	W	A	0100	SCION	2016	- 3	A		N	L C

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
CARBON CANYON	816.	E	VALENCIA AV	3002	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea RD	Orange	4		012	0		1646	20210825	0756	WED

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
LANE CHANGE	21658A	SIDESWIPE	PDO	0	0	N	20210909

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DAYLIGHT		FNCTNG		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	33	F	H	HNBD		CHANG LN	W	A	0100	TOYOT	2015	- 3	N		-	M G
2	DRVR	32	M	H	HNBD		PROC ST	W	A	0100	FORD	2019	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
CARBON CANYON	193.	E	VALENCIA AV	3002	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea RD	Orange	4		012	0		1698	20211203	1700	FRI

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
LANE CHANGE	21658A	SIDESWIPE	PDO	0	0	N	20220104

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
MSDMNR	OTHER MV	DUSK/DAWN		FNCTNG		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	MERGING	E	-	9900	-		- -	-		-	- -
2	DRVR	26	M	B	HNBD		PROC ST	E	A	0100	HONDA	2012	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
CASTLE GATE LN	23.0	N	IMPERIAL HY	3002	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		012	0		1672	20210402	0943	FRI

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
IMPROP TURN	22107	SIDESWIPE	PDO	0	0	Y	20210421

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DAYLIGHT		FNCTNG		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	26	F	W	HNBD		RGT TURN	W	A	0700	FORD	2013	- 3	A		-	M G
2	DRVR	37	M	W	HNBD		STOPPED	S	D	2200	DODGE	2018	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
CATALPA AV	330.	S	OLEANDER ST (E)	3002	N				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		014	0		1672	20210401	0812	THU

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNSAFE SPEED	22350	BROADSIDE	PDO	0	0	N	20210421

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
MSDMNR	BICYCLE	DAYLIGHT		NT PRS/FCTR		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	BICY	998	-		IMP UNK	IMP UNK	PROC ST	S	L	0400	-		- -	N		-	- -
2	DRVR	29	F	O	HNBD		STOPPED	E	A	0100	AUDI	2019	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety EQUIP	Ejected

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Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
BIRCH ST	470.	W	POPLAR AV (E)	3002	N				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4	N/A	013	0		1707	20220322	1844	TUE

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNKNOWN	23123	REAR END	PDO	0	0	Y	20220414

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	PKD MV	DAYLIGHT		FNCTNG		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	55	F	W	HNBD		PROC ST	W	A	0100	HONDA	2013	-	1 F	-	L	G
2	PRKD	998	-				PARKED	W	D	2200	CHEVR	2016	-	- N	-	-	-

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
BIRCH ST	148.	E	POPLAR AV (E)	3002	N				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		013	0		1684	20221006	0930	THU

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
OTHER IMPROP DRV		SIDESWIPE	PDO	0	0	N	20221028

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLOUDY		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	PKD MV	DAYLIGHT		NT PRS/FCTR		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	34	M	A	HNBD		PROC ST	W	D	2200	FORD	2021	-	3 N	-	M	G
2	PRKD	998	-				PARKED	W	A	0700	CHEVR	2005	-	- N	-	-	-

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
BIRCH ST	30.0	W	RANDOLPH AV (E)	3002	N				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		013	0		1673	20220701	2145	FRI

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
DRVR ALC|DRG	23152A	REAR END	PDO	0	0	N	20220726

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DARK - ST		FNCTNG		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	62	M	W	HBD-UI		PROC ST	E	A	0700	CADIL	2019	-	1 A	-	M	G
2	DRVR	46	M	W	HNBD		STOPPED	E	A	0700	DODGE	2020	-	3 N	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
BIRCH ST	30.0	W	REDBAY AV	3002	N				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4	N/A	012	0		1507	20220910	1530	SAT

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNSAFE SPEED	22350	REAR END	PDO	0	0	N	20221010

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLOUDY		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DAYLIGHT		NT PRS/FCTR		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	45	F	W	HNBD		SLOWING	E	A	0100	HONDA	2019	-	3 N	-	M	G
2	DRVR	20	M	H	HNBD		STOPPED	E	A	0100	LEXUS	2015	-	3 N	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
BIRCH ST	200.	E	REDWOOD AV	3002	N				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		013	0		1671	20230210	1414	FRI

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNKNOWN		SIDESWIPE	PDO	0	0	N	20230301

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
MSDMNR	PKD MV	DAYLIGHT		NT PRS/FCTR		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	-	-	9900	UNKNO		-	- N	-	-	-
2	PRKD	998	-				PARKED	W	A	0700	NISSA	2003	-	3 N	-	-	-

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **BIRCH MALL** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **BIRCH ST** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **ENTRANCE RD** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20230209** *Time* **0908** *Day* **THU**
Primary Collision Factor **OTHER HAZ** *Violation* **21451A** *Collision Type* **AUTO/PED** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20230301**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **PED** *Lighting* **DAYLIGHT** *Ped Action* **X-WLK AT** *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	27	F	A	HNBD		LFT TURN	S	A	0100	HONDA	2019	-	3	N	-	M G
2	PED	22	F	H	HNBD		PROC ST	N	N	6000	-		-	3	N	-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PED	MINOR	22	F	9	-	-	-

Primary Rd **BIRCH ST** *Distance (ft)* **90.0** *Direction* **W** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1705** *Collision Date* **20221106** *Time* **2139** *Day* **SUN**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20221205**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	23	M	W	HNBD		PROC ST	W	A	0100	KIA	2008	-	3	F	-	M H

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **BIRCH ST** *Distance (ft)* **272.** *Direction* **E** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20221129** *Time* **0921** *Day* **TUE**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **HIT OBJECT** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20221226**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	22	M	W	HNBD		PROC ST	E	A	0100	HONDA	2001	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	22	M	1	0	L	G

Primary Rd **BIRCH ST** *Distance (ft)* **95.0** *Direction* **E** *Secondary Rd* **BIRCH MALL** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1646** *Collision Date* **20220920** *Time* **0741** *Day* **TUE**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20221012**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **PKD MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	19	F	W	HNBD		PROC ST	E	A	0100	ACURA	2019	-	3	M	-	L G
2	PRKD	998	-				PARKED	E	I	1900	NEW F	2007	-	-	N	-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **BIRCH ST** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **BIRCH MALL** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1694** *Collision Date* **20221104** *Time* **1810** *Day* **FRI**
Primary Collision Factor **R-O-W AUTO** *Violation* **21801A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* **Y** *Process Date* **20221121**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	25	M	H	HNBD		LFT TURN	N	A	0100	MERCE	2015	-	3	N	-	M G
2	DRVR	44	M	H	HNBD		PROC ST	W	A	0100	TOYOT	2004	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	44	M	1	0	M	G
PASS	POSSIBL	29	M	3	0	M	G

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Primary Rd **FLOWER AV** *Distance (ft)* **22.0** *Direction* **N** *Secondary Rd* **IMPERIAL HY** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1681** *Collision Date* **20220924** *Time* **1853** *Day* **SAT**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20221010**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DUSK/DAWN** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	29	M	H	HNBD		PROC ST	S	A	0100	TOYOT	2022	-	-	F	-	M G
2	DRVR	43	F	H	HNBD		STOPPED	S	A	0100	TESLA	2022	-	-	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **GREENBRIAR LN** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **HILLHAVEN DR** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1720** *Collision Date* **20221108** *Time* **1630** *Day* **TUE**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20221124**
Weather1 **CLOUDY** *Weather2* **RAINING** *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DUSK/DAWN** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	LFT TURN	E	A	0700	TOYOT	2009	-	-	M	-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **HAWKS DR** *Distance (ft)* **96.0** *Direction* **E** *Secondary Rd* **CONDOR AV** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1706** *Collision Date* **20220828** *Time* **2054** *Day* **SUN**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220922**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **PKD MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	62	F	H	HNBD		LFT TURN	W	A	0100	CHRYS	2008	-	3	F	-	M G
2	PRKD	998	-		HNBD		PARKED	W	A	0700	JEEP	2019	-	3	N	-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HIGHWAY** *Distance (ft)* **25.0** *Direction* **E** *Secondary Rd* **PUENTE STREET** *NCIC* **9675** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** (EASTBOUND) *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **901** *Type* **4** *CalTrans* *Badge* **016748** *Collision Date* **20220506** *Time* **0656** *Day* **FRI**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20220516**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **1**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	33	M	H	HNBD		CHANG LN	E	A	0700	MITS	2019	-	3	N	-	M G
2	DRVR	77	M	H	HNBD		PROC ST	E	H	1300	CHEV	2001	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	77	M	1	0	M	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **6.00** *Direction* **N** *Secondary Rd* **57 NORTHBOUND** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1709** *Collision Date* **20220618** *Time* **0141** *Day* **SAT**
Primary Collision Factor **STOP SGN\|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220801**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	E	A	0100	LEXUS	1999	-	-	N	-	- -
2	DRVR	24	M	O	HNBD		LFT TURN	N	A	0100	KIA	2020	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **IMPERIAL HY** *Distance (ft)* **185.** *Direction* **E** *Secondary Rd* **BREA BL** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20230215** *Time* **0905** *Day* **WED**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230320**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	W	-	9900	INFIN		- 3	N		-	- -
2	DRVR	39	F	A	HNBD		STOPPED	W	A	0800	HONDA	2021	- -	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **20.0** *Direction* **E** *Secondary Rd* **BREA BL** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* **N/A** *Beat* **014** *Type* **0** *CalTrans* *Badge* **1576** *Collision Date* **20230311** *Time* **1303** *Day* **SAT**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230424**
Weather1 **CLEAR** *Weather2* **CLOUDY** *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	M	O	IMP UNK	IMP UNK	SLOWING	W	A	0800	TOYOT	2005	- -	N		-	- -
2	DRVR	41	F	O	HNBD		STOPPED	W	A	0700	LEXUS	2017	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **BREA BL** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1671** *Collision Date* **20230315** *Time* **0630** *Day* **WED**
Primary Collision Factor **R-O-W AUTO** *Violation* **21453C** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230412**
Weather1 **RAINING** *Weather2* *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DUSK/DAWN** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	LFT TURN	S	-	9900	UNKNO		- 3	N		-	- -
2	DRVR	56	F	W	HNBD		PROC ST	W	A	0700	TOYOT	2019	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **BREA PLAZA** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1671** *Collision Date* **20220624** *Time* **1332** *Day* **FRI**
Primary Collision Factor **UNKNOWN** *Violation* *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220809**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	60	F	W	HNBD		LFT TURN	W	A	0100	VOLVO	2010	- 3	N		-	M G
2	DRVR	59	M	B	HNBD		LFT TURN	W	G	2599	PETER	2015	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **150.** *Direction* **W** *Secondary Rd* **BREA PLAZA** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1646** *Collision Date* **20220828** *Time* **2335** *Day* **SUN**
Primary Collision Factor **PED VIOL** *Violation* **21954A** *Collision Type* **AUTO/PED** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20230220**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **FELONY** *Motor Vehicle Involved With* **PED** *Lighting* **DARK - ST** *Ped Action* **NOT IN X-** *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	PED	75	M	W	IMP UNK	IMP UNK	ENT TRAF	N	N	6000	-		- -	N		-	- -
2	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	W	-	9900	-		- -	N		-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PED	SERIOUS	76	M	9	-	-	P

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Primary Rd **IMPERIAL HY** *Distance (ft)* **65.0** *Direction* **W** *Secondary Rd* **BREA PLAZA** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **011** *Type* **0** *CalTrans* *Badge* **1671** *Collision Date* **20230301** *Time* **0935** *Day* **WED**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20230320**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **FELONY** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	23	F	W	HNBD		PROC ST	W	A	0100	HONDA	2014	-	3	N	-	L G
2	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	W	-	9900	UNKNO		-	3	N	-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	MINOR	21	F	1	0	L	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **331.** *Direction* **E** *Secondary Rd* **CASTLE GATE LN** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1671** *Collision Date* **20220519** *Time* **1429** *Day* **THU**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20220623**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	57	M	H	HNBD		PROC ST	W	D	2200	FORD	2006	-	3	N	-	L G
2	DRVR	50	F	H	HNBD		STOPPED	W	A	0700	FORD	2020	-	3	N	-	M G
3	DRVR	40	F	H	HNBD		STOPPED	W	A	0700	TOYOT	2015	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **675.** *Direction* **W** *Secondary Rd* **CASTLE GATE LN** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1695** *Collision Date* **20230315** *Time* **1353** *Day* **WED**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230509**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	W	D	2200	NISSA	2015	-	-	M	-	- -
2	DRVR	33	M	H	HNBD		STOPPED	W	D	2200	FORD	2019	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **25.0** *Direction* **W** *Secondary Rd* **GATEWAY** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* *Type* **0** *CalTrans* *Badge* **1720** *Collision Date* **20220409** *Time* **1725** *Day* **SAT**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220428**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	E	A	0700	-		-	-	N	-	- -
2	DRVR	72	M	W	HNBD		STOPPED	E	A	0700	LEXUS	2013	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **50.0** *Direction* **W** *Secondary Rd* **KINGSWOOD CT** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1671** *Collision Date* **20220928** *Time* **1708** *Day* **WED**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20221024**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	45	F	H	HNBD		CHANG LN	E	D	8200	CHEVR	2004	-	2	N	-	M G
2	DRVR	20	F	H	HNBD		PROC ST	E	A	0100	VOLKS	2017	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **IMPERIAL HY** *Distance (ft)* **300.** *Direction* **W** *Secondary Rd* **RANDOLPH AV (E)** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1717** *Collision Date* **20221119** *Time* **1125** *Day* **SAT**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20221214**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	58	F	W	HNBD		PROC ST	E	A	0100	HONDA	2017	-	3	G	-	L G
2	DRVR	63	M	A	HNBD		PROC ST	E	D	2200	TOYOT	2023	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	MINOR	58	F	1	0	L	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **20.0** *Direction* **E** *Secondary Rd* **RANDOLPH AV (W)** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1718** *Collision Date* **20221205** *Time* **0333** *Day* **MON**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* **Y** *Process Date* **20230102**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	50	F	H	HNBD		SLOWING	W	A	0100	NISSA	2011	-	3	N	-	L G
2	DRVR	32	M	O	HNBD		STOPPED	W	A	0100	BMW	2020	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	32	M	1	0	L	G
PASS	POSSIBL	26	F	3	0	L	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **70.0** *Direction* **E** *Secondary Rd* **RT 57 NB** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1672** *Collision Date* **20220325** *Time* **1525** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20220419**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	50	M	H	HNBD		PROC ST	W	A	0800	FORD	2021	-	3	N	-	M G
2	DRVR	41	F	H	HNBD		STOPPED	W	A	0100	LEXUS	2007	-	3	N	-	M G
3	DRVR	74	F	W	HNBD		STOPPED	W	A	0100	TOYOT	2021	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	74	F	1	0	M	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **RT 57 NB** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1509** *Collision Date* **20220409** *Time* **1715** *Day* **SAT**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220513**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	LFT TURN	W	-	9900	-		-	-	N	-	- -
2	DRVR	44	M	H	HNBD		LFT TURN	W	A	0100	INFIN	2015	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **RT 57 NB** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1646** *Collision Date* **20221108** *Time* **0630** *Day* **TUE**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20221128**
Weather1 **CLOUDY** *Weather2* **RAINING** *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	44	M	H	HNBD		LFT TURN	N	-	3132	FREIG	2014	-	3	N	-	M G
2	DRVR	39	F	H	HNBD		LFT TURN	N	A	0100	CHEVR	2018	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **RT 57 NB** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1694** *Collision Date* **20221201** *Time* **2004** *Day* **THU**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20221219**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	21	M	H	HNBD		PROC ST	W	A	0100	DODGE	2020	-	3	F	-	L G
2	DRVR	29	F	H	HNBD		PROC ST	N	A	0100	TOYOT	2013	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **RT 57 NB** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1632** *Collision Date* **20230107** *Time* **0115** *Day* **SAT**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* **Y** *Process Date* **20230130**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	28	M	H	HNBD		PROC ST	E	A	0700	FORD	2016	-	3	N	-	L G
2	DRVR	24	M	B	HNBD		LFT TURN	N	A	0100	FORD	2019	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	MINOR	28	M	1	0	L	G
DRVR	POSSIBL	24	M	1	0	L	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **12.0** *Direction* **E** *Secondary Rd* **RT 57 NB** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1706** *Collision Date* **20230212** *Time* **2059** *Day* **SUN**
Primary Collision Factor **UNKNOWN** *Violation* *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230301**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - NO** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	71	M	A	HNBD		RGT TURN	E	A	0700	LEXUS	2020	-	3	N	-	M G
2	DRVR	27	M	W	HNBD		RGT TURN	E	A	0100	CHEVR	2013	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **RT 57 SB** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20220419** *Time* **1412** *Day* **TUE**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20220601**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	52	F	H		DRUG	PROC ST	S	A	0100	NISSA	2017	-	3	A	N	M G
2	DRVR	69	F	O	HNBD		PROC ST	E	A	0100	VOLKS	2000	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **82.0** *Direction* **E** *Secondary Rd* **RT 57 SB** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1694** *Collision Date* **20221018** *Time* **2028** *Day* **TUE**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20221115**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	71	F	W	HNBD		PROC ST	W	A	0100	TOYOT	2008	-	3	N	-	M G
2	DRVR	20	F	W	HNBD		STOPPED	W	A	0100	HONDA	2008	-	3	N	-	M G
3	DRVR	25	M	W	HNBD		STOPPED	W	A	0100	TOYOT	2012	-	3	N	-	M G
4	DRVR	26	F	A	HNBD		STOPPED	W	A	0700	TOYOT	2010	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	71	F	1	0	M	G

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Primary Rd **SR-57 N/B FROM** *Distance (ft)* **115.** *Direction* **S** *Secondary Rd* **IMPERIAL HWY** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **IMPERIAL HIGHWAY E/B** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **022099** *Collision Date* **20220329** *Time* **2300** *Day* **TUE**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20220408**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	25	F	H	HNBD		RAN OFF RD	N	A	0100	LEXS	2002	-	3	H	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57 N/B FROM** *Distance (ft)* **635.** *Direction* **N** *Secondary Rd* **IMPERIAL** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **IMPERIAL HWY W/B** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **021274** *Collision Date* **20230208** *Time* **1550** *Day* **WED**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230216**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	54	M	H	HNBD		PROC ST	N	D	2200	GMC	2002	-	3	H	-	M G
2	DRVR	53	M	A	HNBD		STOPPED	N	A	0700	ACUR	2016	-	3	H	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57 N/B FROM** *Distance (ft)* **630.** *Direction* **N** *Secondary Rd* **IMPERIAL** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **W/B IMPERIAL HIGHWAY** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **016748** *Collision Date* **20221207** *Time* **0812** *Day* **WED**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20221215**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	34	F	H	HNBD		PROC ST	N	A	0700	TOYT	2016	-	2	H	-	L G
2	DRVR	61	M	W	HNBD		STOPPED	N	A	0700	HOND	2005	-	3	H	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57** *Distance (ft)* **320.** *Direction* **S** *Secondary Rd* **ASSOCITATED RD.** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **NORTHBOUND** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **019320** *Collision Date* **20230111** *Time* **0532** *Day* **WED**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230202**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - NO** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	OTHER	N	-	9900	-		-	3	N	-	- -
2	DRVR	42	M	H	HNBD		PROC ST	N	A	0100	NISS	2020	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57** *Distance (ft)* **600.** *Direction* **N** *Secondary Rd* **BIRCH ST** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **NORTHBOUND** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **020694** *Collision Date* **20220916** *Time* **1856** *Day* **FRI**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220926**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	51	M	B	HNBD		CHANG LN	N	A	0100	JAGU	2011	-	3	N	-	M G
2	DRVR	24	M	H	HNBD		PROC ST	N	D	2200	FORD	2014	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **SR-57** *Distance (ft)* **500.** *Direction* **N** *Secondary Rd* **IMPERIAL** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **020694** *Collision Date* **20221005** *Time* **1545** *Day* **WED**
Primary Collision Factor **FROM IMPERIAL UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20221013**
Weather1 **CLEAR** *Weather2* **HIGHWAY** *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **EASTBOUND** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	59	M	W	HNBD		PROC ST	N	A	0700	INFI	2020	-	3	H	-	L G
2	DRVR	73	F	A	HNBD		STOPPED	N	A	0100	TESL	2019	-	3	H	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57** *Distance (ft)* **30.0** *Direction* **S** *Secondary Rd* **IMPERIAL** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **019652** *Collision Date* **20220825** *Time* **0655** *Day* **THU**
Primary Collision Factor **NORTHBOUND TO IMPERIAL HIGHWAY IMPROP TURN** *Violation* **22107** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220902**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	31	M	H	HNBD		OTHER	N	G	2531	PTRB	2020	-	3	H	-	M G
2	DRVR	36	F	W	HNBD		STOPPED	N	A	0700	SUBA	2011	-	3	H	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57** *Distance (ft)* **60.0** *Direction* **S** *Secondary Rd* **LAMBERT RD** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **021633** *Collision Date* **20220402** *Time* **1348** *Day* **SAT**
Primary Collision Factor **NORTHBOUND TO LAMBERT RD STRTNG|BCKNG** *Violation* **22106** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20220412**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	31	M	H	HNBD		PROC ST	N	D	2200	GMC	2021	-	3	H	-	M G
2	DRVR	29	M	A	HNBD		STOPPED	N	A	0100	MAZD	2019	-	3	H	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	29	M	1	0	M	G

Primary Rd **SR-57** *Distance (ft)* **850.** *Direction* **S** *Secondary Rd* **LAMBERT ROAD** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **021691** *Collision Date* **20220427** *Time* **0225** *Day* **WED**
Primary Collision Factor **NORTHBOUND TO LAMBERT ROAD DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20220502**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	22	F	H	HBD-UI		RAN OFF RD	N	A	0100	TOYT	2018	-	1	A	22350	H L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **IMPERIAL HY** *Distance (ft)* **210.** *Direction* **E** *Secondary Rd* **AROVISTA AV** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **011** *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20220419** *Time* **1416** *Day* **TUE**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20220601**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	52	F	H		DRUG	UNS TURN	W	A	0100	NISSA	2017	-	3	A		N M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **16.0** *Direction* **W** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1705** *Collision Date* **20220407** *Time* **0610** *Day* **THU**
Primary Collision Factor **PED VIOL** *Violation* **21954A** *Collision Type* **AUTO/PED** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20220503**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **PED** *Lighting* **DUSK/DAWN** *Ped Action* **NOT IN X-** *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	PED	998	M	W	IMP UNK	IMP UNK		N	N	6000	-		-	-	N	-	-	-
2	DRVR	42	M	O	HNBD		PROC ST	W	A	0100	LEXUS	2014	-	3	N	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PED	SERIOUS	44	M	9	-	-	P

Primary Rd **IMPERIAL HY** *Distance (ft)* **5.00** *Direction* **W** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1672** *Collision Date* **20220407** *Time* **1449** *Day* **THU**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **HEAD-ON** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20220510**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	18	M	A	HNBD		WRONG WY	W	A	0700	ACURA	2004	-	3	A		M	L G
2	DRVR	22	F	H	HNBD		STOPPED	E	A	0100	KIA	2022	-	3	N		-	L G
3	DRVR	45	M	W	HNBD		PROC ST	E	D	2200	FORD	2018	-	3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **35.0** *Direction* **E** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1646** *Collision Date* **20220407** *Time* **0830** *Day* **THU**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220623**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	W	-	9900	-		-	-	-	-	-	-
2	DRVR	33	F	H	HNBD		STOPPED	W	A	0100	TOYOT	2011	-	3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **72.0** *Direction* **W** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1671** *Collision Date* **20220519** *Time* **1346** *Day* **THU**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20220627**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	18	M	H	HNBD		CHANG LN	W	A	0100	TOYOT	2007	-	3	N		-	M G
2	DRVR	39	M	A	HNBD		PROC ST	W	A	0100	KIA	2021	-	3	N		-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1672** *Collision Date* **20220726** *Time* **0736** *Day* **TUE**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20220812**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	36	M	H	HNBD		PROC ST	W	D	2200	FORD	1998	-	3	N	-	M G
2	DRVR	26	F	A	HNBD		LFT TURN	S	A	0700	TOYOT	2018	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* **N/A** *Beat* **013** *Type* **0** *CalTrans* *Badge* **1713** *Collision Date* **20221108** *Time* **1850** *Day* **TUE**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20221205**
Weather1 **RAINING** *Weather2* *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	26	F	W	HNBD		RGT TURN	W	A	0100	HONDA	2013	-	2	N	-	M G
2	DRVR	33	M	O	HNBD		PROC ST	W	A	0100	HONDA	2018	-	3	N	-	N G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **354.** *Direction* **W** *Secondary Rd* **BERRY ST** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1675** *Collision Date* **20220506** *Time* **0129** *Day* **FRI**
Primary Collision Factor **UNKNOWN** *Violation* **23123A** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20220526**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DARK - NO** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	35	F	H	HNBD		PROC ST	E	A	0100	HONDA	2006	-	1	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **BERRY ST** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1717** *Collision Date* **20220511** *Time* **1538** *Day* **WED**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20220601**
Weather1 *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **BICYCLE** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	BICY	37	M	B	HNBD		PROC ST	E	L	0400	-		-	3	A	N	-	-
2	DRVR	57	M	H	HNBD		LFT TURN	S	A	0100	TOYOT	2006	-	3	N	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **352.** *Direction* **E** *Secondary Rd* **BERRY ST** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1706** *Collision Date* **20220723** *Time* **2117** *Day* **SAT**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20220823**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	51	M	H	HBD-UI		PROC ST	W	A	0700	CHEVR	2001	-	3	A	-	M -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **PINE AV** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1694** *Collision Date* **20220816** *Time* **2019** *Day* **TUE**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20221003**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	27	F	W	HBD-UI		PROC ST	W	A	0700	HYUND	2020	-	3	A		-	L	G
2	DRVR	50	F	H	HNBD		PROC ST	W	A	0700	HYUND	2019	-	3	N		-	L	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **70.0** *Direction* **W** *Secondary Rd* **PINE AV** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1646** *Collision Date* **20221120** *Time* **1137** *Day* **SUN**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20221206**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	33	F	H	HNBD		CHANG LN	E	A	0700	HONDA	2013	-	3	N		-	M	G
2	DRVR	53	F	H	HNBD		PROC ST	E	A	0100	AUDI	2014	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **PINE AV** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1695** *Collision Date* **20221216** *Time* **1650** *Day* **FRI**
Primary Collision Factor **R-O-W AUTO** *Violation* **21804A** *Collision Type* **HEAD-ON** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20230116**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **BICYCLE** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	68	F	W	HNBD		PROC ST	N	A	0100	TOYOT	2003	-	3	N		-	M	G
2	BICY	76	M	H	HNBD		PROC ST	W	L	0400	WINDH		-	3	N		-	-	-

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
BICY	MINOR	76	M	1	3	-	-

Primary Rd **IMPERIAL HY** *Distance (ft)* **15.0** *Direction* **W** *Secondary Rd* **PLACENTIA AV** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1709** *Collision Date* **20220624** *Time* **1913** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20220801**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	66	M	A	HNBD		PROC ST	E	A	0100	LEXUS	2004	-	3	N		-	M	G
2	DRVR	37	F	A	HNBD		STOPPED	E	A	0100	BMW	2021	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	37	F	1	0	M	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **30.0** *Direction* **W** *Secondary Rd* **PLACENTIA AV** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20221123** *Time* **1007** *Day* **WED**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20221219**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	18	F	W	HNBD		PROC ST	E	D	2200	FORD	2009	-	3	N		-	M	G
2	DRVR	51	F	H	HNBD		STOPPED	E	A	0700	INFIN	2019	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **PALM ST** *Distance (ft)* **161.** *Direction* **S** *Secondary Rd* **LAMBERT RD** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1718** *Collision Date* **20221229** *Time* **1807** *Day* **THU**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* **Y** *Process Date* **20230117**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	40	M	H	HNBD		PROC ST	N	A	0700	TOYOT	2002	-	3	F	-	L G
2	DRVR	21	F	W	HNBD		STOPPED	N	A	0700	FORD	2018	-	3	N	-	M G
3	DRVR	25	F	W	HNBD		STOPPED	N	A	0100	HONDA	2022	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	21	F	1	0	L	G
DRVR	POSSIBL	25	F	1	0	M	G

Primary Rd **PLACENTIA AV** *Distance (ft)* **105.** *Direction* **S** *Secondary Rd* **17TH ST** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **015** *Type* **0** *CalTrans* *Badge* **P633** *Collision Date* **20230113** *Time* **0728** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* **Y** *Process Date* **20230214**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **OTHER** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	25	F	W	HNBD		PROC ST	S	A	0100	-	2013	-	3	N	-	L G
2	DRVR	43	M	H	HNBD		STOPPED	S	D	2200	-	2022	-	3	N	-	M G
3	DRVR	59	F	W	HNBD		STOPPED	S	A	0700	-	2003	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	25	F	1	0	L	G
DRVR	POSSIBL	43	M	1	0	M	G

Primary Rd **PLACENTIA AV** *Distance (ft)* **299.** *Direction* **S** *Secondary Rd* **IMPERIAL HY** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* **N/A** *Beat* **013** *Type* **0** *CalTrans* *Badge* **1713** *Collision Date* **20220729** *Time* **1800** *Day* **FRI**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152F** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20220817**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	44	M	H		DRUG	PROC ST	S	D	2200	FORD	2007	-	3	A	N	M -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **PLACENTIA AV** *Distance (ft)* **22.0** *Direction* **S** *Secondary Rd* **IMPERIAL HY** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1672** *Collision Date* **20230127** *Time* **1320** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20230216**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	76	M	W	HNBD		PROC ST	N	D	2200	NISSA	2006	-	3	N	-	M G
2	DRVR	37	M	A	HNBD		STOPPED	N	A	0100	VOLKS	2013	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS	POSSIBL	34	F	3	0	M	G

Primary Rd **POPLAR AV** *Distance (ft)* **188.** *Direction* **N** *Secondary Rd* **IMPERIAL HY** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* **N/A** *Beat* **013** *Type* **0** *CalTrans* *Badge* **1707** *Collision Date* **20220622** *Time* **0040** *Day* **WED**
Primary Collision Factor **UNKNOWN** *Violation* *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20220802**
Weather1 **RAINING** *Weather2* *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **PKD MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	998	-		IMP UNK	IMP UNK	OTHER	S	D	2200	FORD	2000	-	-	M	-	L -
2	PRKD	998	-				PARKED	S	A	0100	LEXUS	2017	-	3	N	-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **BIRCH ST** *Distance (ft)* **340.** *Direction* **W** *Secondary Rd* **KRAEMER BL** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* **N/A** *Beat* **012** *Type* **0** *CalTrans* *Badge* **1696** *Collision Date* **20231025** *Time* **0218** *Day* **WED**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20231115**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	33	M	O	HNBD		CHANG LN	W	D	2200	FORD	2016	-	3	M	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **BIRCH ST** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **KRAEMER BL** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1738** *Collision Date* **20231217** *Time* **0938** *Day* **SUN**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* **Y** *Process Date* **20240119**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	66	F	O	HNBD		PROC ST	E	A	0700	HONDA	2014	-	3	N	-	L G
2	DRVR	56	F	O	HNBD		PROC ST	N	A	0700	SUBAR	2021	-	3	N	-	L G
3	DRVR	57	F	O	HNBD		STOPPED	W	A	0100	TOYOT	2007	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	MINOR	66	F	1	0	L	G
DRVR	MINOR	56	F	1	0	L	G

Primary Rd **BIRCH ST** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **MARKETPLACE** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1717** *Collision Date* **20230723** *Time* **1506** *Day* **SUN**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20230901**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	17	M	A	HNBD		PROC ST	W	A	0100	ACURA	2022	-	1	A	-	L G
2	DRVR	60	M	H	HNBD		PROC ST	N	A	0100	ACURA	2013	-	3	N	-	L G
3	DRVR	40	M	W	HNBD		PROC ST	S	A	0700	CHEVR	2019	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	40	M	1	0	L	G

Primary Rd **BIRCH ST** *Distance (ft)* **175.** *Direction* **W** *Secondary Rd* **REDBAY AV** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1727** *Collision Date* **20230613** *Time* **0510** *Day* **TUE**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230704**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **OBSTR ON RD** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER OBJ** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	67	F	W	HNBD		PROC ST	W	A	0700	TOYOT	2018	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **BIRCH ST** *Distance (ft)* **175.** *Direction* **W** *Secondary Rd* **S RANDOLPH AVE** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* **N/A** *Beat* **013** *Type* **0** *CalTrans* *Badge* **1730** *Collision Date* **20230721** *Time* **0900** *Day* **FRI**
Primary Collision Factor **UNKNOWN** *Violation* *Collision Type* **OTHER** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230823**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **PKD MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	998	-		IMP UNK	IMP UNK	OTHER	-	-	9900	-		-	-	N	-	- -
2	PRKD	998	-				PARKED	W	D	2200	CHEVR	2023	-	-	N	-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **305 W IMPERIAL** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **175 S MADRONA** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** **HWY** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1735** *Collision Date* **20240213** *Time* **0845** *Day* **TUE**
Primary Collision Factor **PED VIOL** *Violation* **21954A** *Collision Type* **AUTO/PED** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20240313**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **PED** *Lighting* **DAYLIGHT** *Ped Action* **NOT IN X-** *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	PED	54	F	O			ENT TRAF	W	N	6000	-		-	3	N		-	-	-
2	DRVR	54	M	O			PROC ST	S	A	0100	TOYOT	2005	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PED	MINOR	54	F	9	-	-	P

Primary Rd **904 REDBUD ST** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **NOT STATED** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1672** *Collision Date* **20230427** *Time* **0351** *Day* **THU**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20230517**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	998	M	H	IMP UNK	IMP UNK	LFT TURN	E	A	0100	CHEVR	2021	-	-	N		-	-	-
2	PRKD	998	-				PARKED	S	A	0700	FORD	2001	-	-	N		-	-	-
3	PRKD	998	-				PARKED	S	A	0100	TOYOT	2007	-	-	N		-	-	-

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **AROVISTA CI** *Distance (ft)* **168.** *Direction* **N** *Secondary Rd* **MARINER ST** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **011** *Type* **0** *CalTrans* *Badge* **1672** *Collision Date* **20230428** *Time* **1355** *Day* **FRI**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230517**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **PKD MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	35	M	H	HNBD		RGT TURN	S	F	2700	AUTOC	2015	-	3	N		-	M	G
2	PRKD	998	-				PARKED	S	A	0100	KIA	2015	-	-	N		-	-	-

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **ASSOCIATED RD** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **BIRCH ST (E)** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1717** *Collision Date* **20230724** *Time* **0734** *Day* **MON**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230823**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	CHANG LN	S	-	9900	-		-	-	N		-	-	-
2	DRVR	34	F	H	HNBD		STOPPED	S	A	0700	DODGE	2021	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **BERRY ST** *Distance (ft)* **1354** *Direction* **N** *Secondary Rd* **IMPERIAL HY** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1710** *Collision Date* **20231127** *Time* **1214** *Day* **MON**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20231214**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	39	M	O	HNBD		PROC ST	N	I	1100	RAM	2022	-	3	N		-	L	G
2	DRVR	63	M	O	HNBD		STOPPED	N	I	1100	INTER	2021	-	3	N		-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **BERRY ST** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **LAMBERT RD** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1710** *Collision Date* **20230405** *Time* **0650** *Day* **WED**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20230501**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	
1F	DRVR	63	M	W	HNBD		PROC ST	W	D	2200	CHEVR	2021	-	3	F	-	L	G
2	DRVR	65	F	A	HNBD		PROC ST	S	A	0100	MERCE	2009	-	3	N	-	L	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	65	F	1	0	L	G

Primary Rd **BERRY ST** *Distance (ft)* **436.** *Direction* **N** *Secondary Rd* **MERCURY LN** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1678** *Collision Date* **20231101** *Time* **0305** *Day* **WED**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152B** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20231116**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	
1F	DRVR	25	M	O	HBD-UI		PROC ST	N	A	0100	NISSA	2010	-	1	A	-	L	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **BERRY ST** *Distance (ft)* **25.0** *Direction* **S** *Secondary Rd* **NORTHWOOD AV** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **011** *Type* **0** *CalTrans* *Badge* **1719** *Collision Date* **20230427** *Time* **2154** *Day* **THU**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20230522**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	
1F	DRVR	34	M	H	HBD-UI		PROC ST	E	A	0100	DODGE	2017	-	3	A	N	L	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **BIRCH ST** *Distance (ft)* **55.0** *Direction* **E** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1720** *Collision Date* **20231011** *Time* **0951** *Day* **WED**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20231027**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	
1F	DRVR	78	F	O	HNBD		PROC ST	W	A	0100	SCION	2016	-	3	N	-	L	G
2	DRVR	87	F	O	HNBD		STOPPED	W	A	0700	LINCO	2004	-	3	N	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	78	F	1	0	L	G

Primary Rd **BIRCH ST** *Distance (ft)* **160.** *Direction* **W** *Secondary Rd* **BIRCH MALL** *NCIC* **3002** *State Hwy?* **N** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1695** *Collision Date* **20240121** *Time* **1035** *Day* **SUN**
Primary Collision Factor **UNKNOWN** *Violation* *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20240207**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **BICYCLE** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip	
1	DRVR	37	M	O	HNBD		PROC ST	N	D	2200	FORD	2018	-	3	N	-	M	G
2	BICY	65	M	O	HNBD		PROC ST	W	L	0400	GIANT		-	3	N	-	-	P

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
BICY	MINOR	65	M	9	3	-	P

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Primary Rd **IMPERIAL HY** *Distance (ft)* **280.** *Direction* **W** *Secondary Rd* **BERRY ST** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1728** *Collision Date* **20230616** *Time* **1805** *Day* **FRI**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **SIDESWIPE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20230714**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	27	M	W	HNBD		CHANG LN	W	A	0100	HONDA	2006	- 3	N		-	M G
2	DRVR	50	M	H	HNBD		PROC ST	W	-	3100	FREIG	2018	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	MINOR	27	M	1	0	M	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **560.** *Direction* **W** *Secondary Rd* **BERRY ST** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1705** *Collision Date* **20230618** *Time* **2229** *Day* **SUN**
Primary Collision Factor **DRVR ALC|DRG** *Violation* **23152A** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20230714**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	40	M	O	HBD-UI		PROC ST	E	D	2200	FORD	2023	- -	A		-	M G
2	DRVR	68	F	W	HNBD		PROC ST	E	A	0100	FORD	2015	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **100.** *Direction* **W** *Secondary Rd* **BREA BL** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1671** *Collision Date* **20230512** *Time* **0943** *Day* **FRI**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20230608**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	RGT TURN	E	-	9900	-		- -	N		-	- -
2	DRVR	71	F	W	HNBD		PROC ST	E	A	0100	NISSA	2013	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **58.0** *Direction* **E** *Secondary Rd* **BREA BL** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1717** *Collision Date* **20231224** *Time* **1031** *Day* **SUN**
Primary Collision Factor **OTHER IMPROP DRV** *Violation* *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20240108**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	27	M	O	HNBD		BACKING	W	J	4800	FORD	2020	- 3	N		-	M G
2	DRVR	29	F	O	HNBD		STOPPED	W	A	0700	HONDA	2006	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **BREA PLAZA** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1730** *Collision Date* **20230712** *Time* **2058** *Day* **WED**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20230728**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	25	M	W	HBD-NUI		PROC ST	W	A	0100	KIA	2014	- 3	N		-	L G
2	DRVR	51	M	W	HNBD		PROC ST	N	D	2200	CHEVR	2015	- 3	N		-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **IMPERIAL HY** *Distance (ft)* **15.0** *Direction* **E** *Secondary Rd* **BREA PLAZA** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1718** *Collision Date* **20230820** *Time* **1529** *Day* **SUN**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20231011**
Weather1 **RAINING** *Weather2* *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	W	A	0100	CHEVR	2017	-	-	N	-	- -
2	DRVR	46	M	A	HNBD		STOPPED	W	A	0700	MERCE	2022	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **50.0** *Direction* **W** *Secondary Rd* **BREA PLAZA** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1671** *Collision Date* **20240119** *Time* **1448** *Day* **FRI**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20240207**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	36	M	O	HNBD		CHANG LN	W	A	0100	HONDA	2020	-	3	N	-	M G
2	DRVR	58	M	O	HNBD		PROC ST	W	F	2700	MACK	2016	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **70.0** *Direction* **W** *Secondary Rd* **CASTLE GATE LN** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1717** *Collision Date* **20231222** *Time* **1118** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20240116**
Weather1 **RAINING** *Weather2* *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	74	F	O	HNBD		SLOWING	W	A	0700	FORD	2016	-	3	N	-	M G
2	DRVR	78	F	O	HNBD		PROC ST	W	A	0100	MERCE	2009	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	74	F	1	0	M	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **213.** *Direction* **W** *Secondary Rd* **CATALPA AV** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1675** *Collision Date* **20231122** *Time* **1717** *Day* **WED**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20231212**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	30	F	O	HNBD		PROC ST	E	D	2200	TOYOT	1999	-	1	A	-	L G
2	DRVR	51	F	O	HNBD		PROC ST	E	A	0700	MERCE	2024	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **78.0** *Direction* **W** *Secondary Rd* **GATEWAY** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20230323** *Time* **1340** *Day* **THU**
Primary Collision Factor **OTHER IMPROP DRV** *Violation* *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230509**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	22	M	H	HNBD		PROC ST	E	D	2200	FORD	2022	-	1	A	N	M G
2	DRVR	47	F	H	HNBD		STOPPED	E	A	0100	TOYOT	2011	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **RANDOLPH AV (E)** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1696** *Collision Date* **20231222** *Time* **0515** *Day* **FRI**
Primary Collision Factor **STOP SGN\|SIG** *Violation* **21453A** *Collision Type* **AUTO/PED** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20240112**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **PED** *Lighting* **DARK - ST** *Ped Action* **X-WLK AT** *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	20	M	O	HNBD		PROC ST	W	A	0100	HONDA	2023	-	1	A	-	M G
2	PED	74	M	O	IMP UNK	IMP UNK		N	N	6000	-	-	-	3	N	-	- -

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PED	SERIOUS	74	M	9	-	-	P

Primary Rd **IMPERIAL HY** *Distance (ft)* **26.0** *Direction* **W** *Secondary Rd* **RANDOLPH AV (W)** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1719** *Collision Date* **20230602** *Time* **1209** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20230630**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	38	M	W	HNBD		PROC ST	E	A	0700	JEEP	2017	-	3	N	-	M G
2	DRVR	64	F	O	HNBD		STOPPED	E	A	0100	ACURA	2001	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	64	F	1	0	M	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **199.** *Direction* **E** *Secondary Rd* **RT 57 NB** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* **N/A** *Beat* **013** *Type* **0** *CalTrans* *Badge* **1707** *Collision Date* **20230403** *Time* **1938** *Day* **MON**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20230503**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	71	F	H	HNBD		PROC ST	W	A	0100	HONDA	2000	-	3	N	-	M G
2	DRVR	33	F	H	HNBD		STOPPED	W	A	0700	NISSA	2015	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	33	F	1	0	M	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **RT 57 NB** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* **N/A** *Beat* **013** *Type* **0** *CalTrans* *Badge* **1696** *Collision Date* **20230608** *Time* **1915** *Day* **THU**
Primary Collision Factor **STOP SGN\|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230628**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	E	-	9900	-		-	-	N	-	- -
2	DRVR	30	M	A	HNBD		PROC ST	N	A	0100	HONDA	2017	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **RT 57 NB** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1729** *Collision Date* **20230613** *Time* **2301** *Day* **TUE**
Primary Collision Factor **STOP SGN\|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20230713**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	75	M	W	HNBD		PROC ST	E	D	2200	FORD	2018	-	3	N	-	M G
2	DRVR	28	M	W	HNBD		LFT TURN	N	A	0100	TOYOT	2020	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **IMPERIAL HY** *Distance (ft)* **160.** *Direction* **E** *Secondary Rd* **RT 57 NB** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20230707** *Time* **1350** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230803**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	W	A	0100	NISSA	2022	-	-	N	-	- -
2	DRVR	45	M	W	HNBD		PROC ST	W	A	0100	LINCO	2018	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* **N** *Secondary Rd* **RT 57 NB** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1729** *Collision Date* **20231105** *Time* **0005** *Day* **SUN**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20231205**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	36	M	O	HBD-NUI		LFT TURN	N	A	0100	MERCE	2012	-	3	N	-	L G
2	DRVR	17	F	O	HNBD		PROC ST	E	A	0100	HONDA	2010	-	3	N	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
PASS	POSSIBL	35	F	3	0	L	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **RT 57 NB** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1705** *Collision Date* **20231116** *Time* **1945** *Day* **THU**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20231213**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	LFT TURN	N	A	0700	NISSA	2023	-	-	N	-	- -
2	DRVR	33	F	O	HNBD		LFT TURN	N	A	0100	FORD	2010	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **RT 57 SB** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* *Type* **0** *CalTrans* *Badge* **1720** *Collision Date* **20230417** *Time* **1031** *Day* **MON**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230503**
Weather1 **CLOUDY** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	35	F	H	HNBD		RGT TURN	S	A	0700	FORD	2003	-	3	N	-	L G
2	DRVR	54	M	W	HNBD		PROC ST	W	G	2532	FREIG	2019	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* **S** *Secondary Rd* **RT 57 SB** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1729** *Collision Date* **20231016** *Time* **0453** *Day* **MON**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20231114**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	68	F	O	HNBD		PROC ST	W	A	0800	TOYOT	2004	-	3	N	-	M G
2	DRVR	66	M	O	HNBD		RGT TURN	W	-	3132	INTER	2022	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	68	F	1	0	M	G

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Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
SR-57 N/B FROM	80.0	N	IMPERIAL	9675	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		570	1		021874	20231102	2345	THU

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
DRVR ALC|DRG	23152A	HIT OBJECT	PDO	0	0	Y	20231106

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	FIXED OBJ	DARK - NO		NT PRS/FCTR		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	26	M	O	HBD-UI		OTHER	N	A	0100	VOLK	2019	-	3	A	22107	H L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
SR-57 N/B FROM	50.0	N	IMPERIAL	9675	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		570	1		021874	20230615	2120	THU

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNSAFE SPEED	22350	HIT OBJECT	INJURY	0	1	N	20230621

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	FIXED OBJ	DARK - NO		NT PRS/FCTR		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	20	M	A	HNBD		RAN OFF RD	N	A	0100	MERZ	2011	-	3	H	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	20	M	1	0	L	G

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
SR-57 N/B TO	15.0	S	IMPERIAL	9675	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		570	1		021377	20231020	2015	FRI

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNSAFE SPEED	22350	REAR END	PDO	0	0	N	20231030

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DAYLIGHT		NT PRS/FCTR		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	43	F	W	HNBD		PROC ST	N	A	0700	BUIC	2016	-	3	H	-	M G
2	DRVR	29	-	H	HNBD		STOPPED	N	A	0700	HYUN	2020	-	3	G	H	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
SR-57 N/B TO	500.	S	IMPERIAL HWY	9675	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		570	1		022639	20231217	1625	SUN

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNSAFE SPEED	22350	REAR END	PDO	0	0	N	20240304

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
MSDMNR	OTHER MV	DAYLIGHT		NT PRS/FCTR		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	33	M	W	HNBD		PROC ST	N	A	0100	HOND	2017	-	3	H	-	M G
2	DRVR	48	M	W	HNBD		STOPPED	N	A	0100	FORD	2019	-	3	H	-	M G
3	DRVR	998	-		IMP UNK	IMP UNK	STOPPED	N	-	9900	-		-	4	H	-	B B

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
SR-57 N/B TO	95.0	S	IMPERIAL	9675	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		570	1		021397	20231120	0940	MON

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
STRTNG|BCKNG	22106	REAR END	PDO	0	0	N	20231128

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DAYLIGHT		FNCTNG		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	56	M	H	HNBD		STOPPED	N	F	2500	FRHT	2012	-	3	H	-	M G
2	DRVR	36	F	H	IMP UNK	IMP UNK	STOPPED	N	B	0731	HOND	2016	-	3	H	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
SR-57	5808	N	TONNER CYN RD	9675	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		570	1		019320	20240219	1110	MON

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNSAFE SPEED	22350	HIT OBJECT	PDO	0	0	N	20240227

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
RAINING		WET	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	FIXED OBJ	DAYLIGHT		NT PRS/FCTR		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	21	M	A	HNBD		PROC ST	N	A	0100	SUBA	2024	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
SR-57	3402	N	TONNER CYN RD	9675	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		570	1		019320	20240219	1130	MON

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNSAFE SPEED	22350	SIDESWIPE	PDO	0	0	N	20240227

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
RAINING		WET	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DAYLIGHT		NT PRS/FCTR		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	44	M	W	HNBD		MERGING	N	D	2200	FORD	2018	-	3	N	-	M G
2	DRVR	43	F	A	HNBD		PROC ST	N	A	0100	TESL	2021	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
SR-57	60.0	S	TONNER CYN RD	9675	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		570	1		019320	20240221	1455	WED

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNSAFE SPEED	22350	REAR END	PDO	0	0	N	20240304

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DAYLIGHT		NT PRS/FCTR		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	27	M	H	HNBD		PROC ST	N	A	0700	TOYT	2018	-	3	N	-	M G
2	DRVR	58	M	H	HNBD		SLOWING	N	D	2200	RAM	2017	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
SR-57	2112	S	TONNER CYN RD	9675	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		570	1		022866	20240302	0015	SAT

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
IMPROP TURN	22107	SIDESWIPE	PDO	0	0	N	20240306

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
RAINING		WET	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
MSDMNR	OTHER MV	DARK - NO		NT PRS/FCTR		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	OTHER	N	-	9900	-		-	4	N	-	B B
2	DRVR	29	M	A	HNBD		PROC ST	N	A	0100	NISS	2022	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety EQUIP	Ejected

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
SR-57	40.0	N	IMPERIAL HWY	9675	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		570	1		022046	20230406	2146	THU

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNSAFE SPEED	22350	HIT OBJECT	PDO	0	0	Y	20230417

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	FIXED OBJ	DARK - ST		NT PRS/FCTR		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	36	M	H	HNBD		RAN OFF RD	N	D	2200	FORD	2020	-	3	H	-	L G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety EQUIP	Ejected

FROM IMPERIAL HWY WESTBOUND

This report is accepted subject to the Terms of Use. Due to collision records processing backlogs, SWITRS data is typically seven months behind. Data requested for dates seven months prior to the current date will be incomplete.

Primary Rd **SR-57** *Distance (ft)* **10.0** *Direction* **S** *Secondary Rd* **IMPERIAL** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **021305** *Collision Date* **20230410** *Time* **2015** *Day* **MON**
Primary Collision Factor **NORTHBOUND TO IMPERIAL HIGHWAY** *Violation* **IMPROP TURN** **22107** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230612**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	OTHER	N	-	9900	-		-	4	H	-	B B
2	DRVR	26	F	H	HNBD		STOPPED	N	A	0700	TOYT	2022	-	3	H	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57** *Distance (ft)* **175.** *Direction* **S** *Secondary Rd* **IMPERIAL** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **016748** *Collision Date* **20230726** *Time* **1122** *Day* **WED**
Primary Collision Factor **NORTHBOUND TO IMPERIAL HIGHWAY** *Violation* **LANE CHANGE** **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230913**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	22	F	W	IMP UNK	IMP UNK	CHANG LN	N	A	0100	FORD	2015	-	4	H	-	M G
2	DRVR	42	M	H	HNBD		PROC ST	N	D	2200	TOYT	2006	-	3	H	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57** *Distance (ft)* **950.** *Direction* **S** *Secondary Rd* **LAMBERT RD** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **019320** *Collision Date* **20231008** *Time* **1055** *Day* **SUN**
Primary Collision Factor **LAMBERT RD** **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20231017**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	37	F	H	HNBD		PROC ST	N	A	0700	HOND	2012	-	3	H	-	M G
2	DRVR	42	F	H	HNBD		STOPPED	N	A	0700	FORD	2020	-	3	H	-	M G
3	DRVR	29	M	H	HNBD		STOPPED	N	A	0100	CHEV	2020	-	3	H	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57** *Distance (ft)* **160.** *Direction* **S** *Secondary Rd* **LAMBERT RD.** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **022159** *Collision Date* **20231016** *Time* **2149** *Day* **MON**
Primary Collision Factor **LAMBERT RD.** **LANE CHANGE** *Violation* **21658A** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20231026**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	53	M	H	HNBD		CHANG LN	N	A	0100	NISS	2015	-	3	H	-	M G
2	DRVR	35	M	W	HNBD		PROC ST	N	A	0100	CHEV	2021	-	3	H	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **SR-57** *Distance (ft)* **150.** *Direction* **S** *Secondary Rd* **LAMBERT RD** *NCIC* **9675** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **570** *Type* **1** *CalTrans* *Badge* **016748** *Collision Date* **20230702** *Time* **1311** *Day* **SUN**
Primary Collision Factor **LAMBERT ROAD** **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20230711**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	26	M	H	HNBD		PROC ST	N	D	2200	CHEV	1999	-	3	H	-	M G
2	DRVR	55	M	W	HNBD		STOPPED	N	A	0700	ACUR	2010	-	3	H	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	MINOR	55	M	1	0	M	G

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Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* *Type* **0** *CalTrans* *Badge* **1728** *Collision Date* **20230703** *Time* **2037** *Day* **MON**
Primary Collision Factor **STOP SGN|SIG** *Violation* **21453A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20230728**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	19	F	W	HNBD		PROC ST	W	A	0100	HONDA	2012	-	3	N	-	L G
2	DRVR	56	F	W	HNBD		LFT TURN	S	A	0700	TESLA	2021	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	SERIOUS	19	F	1	0	L	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **30.0** *Direction* **W** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* **N/A** *Beat* **012** *Type* **0** *CalTrans* *Badge* **1642** *Collision Date* **20230713** *Time* **0043** *Day* **THU**
Primary Collision Factor **IMPROP TURN** *Violation* **22100B** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230817**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **MV ON OTHER RD** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	U-TURN	E	-	9900	-		-	-	N	-	- -
2	DRVR	20	M	H	HNBD		LFT TURN	E	A	0100	HONDA	2018	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **400.** *Direction* **E** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1671** *Collision Date* **20230720** *Time* **1751** *Day* **THU**
Primary Collision Factor **UNKNOWN** *Violation* *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **3** *Tow Away?* **Y** *Process Date* **20230814**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	43	F	W	HNBD		PROC ST	E	A	0700	BMW	2005	-	3	N	-	M G
2	DRVR	68	M	W	HNBD		STOPPED	E	A	0100	TOYOT	2017	-	3	N	-	M G
3	DRVR	70	F	A	HNBD		PROC ST	E	A	0700	TOYOT	2014	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	68	M	1	0	M	G
DRVR	POSSIBL	70	F	1	0	M	G
PASS	POSSIBL	10	M	3	0	M	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **4.00** *Direction* **W** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1729** *Collision Date* **20230728** *Time* **1426** *Day* **FRI**
Primary Collision Factor **WRONG SIDE** *Violation* **21651B** *Collision Type* **SIDESWIPE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230830**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	20	M	H	IMP UNK	IMP UNK	WRONG WY	W	A	0100	SCION	2004	-	-	N	-	- -
2	DRVR	27	F	B	HNBD		STOPPED	E	A	0100	VOLKS	2013	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **160.** *Direction* **E** *Secondary Rd* **ASSOCIATED RD** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1720** *Collision Date* **20231012** *Time* **0925** *Day* **THU**
Primary Collision Factor **LANE CHANGE** *Violation* **21658A** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20231030**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	CHANG LN	E	F	2700	-		-	-	N	-	- -
2	DRVR	43	F	O	HNBD		PROC ST	E	A	0100	BMW	2016	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **IMPERIAL HY** *Distance (ft)* **15.0** *Direction* **E** *Secondary Rd* **BREA PLAZA** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1718** *Collision Date* **20230820** *Time* **1529** *Day* **SUN**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20231011**
Weather1 **RAINING** *Weather2* *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	W	A	0100	CHEVR	2017	-	-	N	-	- -
2	DRVR	46	M	A	HNBD		STOPPED	W	A	0700	MERCE	2022	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **50.0** *Direction* **W** *Secondary Rd* **BREA PLAZA** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1671** *Collision Date* **20240119** *Time* **1448** *Day* **FRI**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **BROADSIDE** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20240207**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	36	M	O	HNBD		CHANG LN	W	A	0100	HONDA	2020	-	3	N	-	M G
2	DRVR	58	M	O	HNBD		PROC ST	W	F	2700	MACK	2016	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **70.0** *Direction* **W** *Secondary Rd* **CASTLE GATE LN** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **013** *Type* **0** *CalTrans* *Badge* **1717** *Collision Date* **20231222** *Time* **1118** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20240116**
Weather1 **RAINING** *Weather2* *Rdwy Surface* **WET** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	74	F	O	HNBD		SLOWING	W	A	0700	FORD	2016	-	3	N	-	M G
2	DRVR	78	F	O	HNBD		PROC ST	W	A	0100	MERCE	2009	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	74	F	1	0	M	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **213.** *Direction* **W** *Secondary Rd* **CATALPA AV** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1675** *Collision Date* **20231122** *Time* **1717** *Day* **WED**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20231212**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	30	F	O	HNBD		PROC ST	E	D	2200	TOYOT	1999	-	1	A	-	L G
2	DRVR	51	F	O	HNBD		PROC ST	E	A	0700	MERCE	2024	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **78.0** *Direction* **W** *Secondary Rd* **GATEWAY** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20230323** *Time* **1340** *Day* **THU**
Primary Collision Factor **OTHER IMPROP DRV** *Violation* *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230509**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	22	M	H	HNBD		PROC ST	E	D	2200	FORD	2022	-	1	A	N	M G
2	DRVR	47	F	H	HNBD		STOPPED	E	A	0100	TOYOT	2011	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **IMPERIAL HY** *Distance (ft)* **0.00** *Direction* *Secondary Rd* **LA CRESCENTA** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1710** *Collision Date* **20240113** *Time* **1315** *Day* **SAT**
Primary Collision Factor **OTHER HAZ** *Violation* **21451A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* **Y** *Process Date* **20240207**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **MV ON OTHER RD** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	83	F	O	HNBD		PROC ST	W	A	0100	DODGE	2006	-	3	N	-	M	G
2	DRVR	31	M	O	HNBD		LFT TURN	S	A	0100	TESLA	2018	-	3	N	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	MINOR	83	F	1	0	M	G
DRVR	MINOR	31	M	1	0	M	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **450.** *Direction* **E** *Secondary Rd* **LAUREL AV (E)** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* *Type* **0** *CalTrans* *Badge* **1620** *Collision Date* **20230823** *Time* **2016** *Day* **WED**
Primary Collision Factor **R-O-W AUTO** *Violation* **21804A** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **N** *Process Date* **20230922**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **BICYCLE** *Lighting* **DARK - ST** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	59	M	W	HNBD		RGT TURN	N	A	0700	MAZDA	2015	-	3	N	-	M	G
2	BICY	20	M	O	HNBD		PROC ST	W	L	0400	UNKNO		-	3	N	-	-	A

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
BICY	MINOR	20	M	1	0	-	A

Primary Rd **IMPERIAL HY** *Distance (ft)* **27.0** *Direction* **E** *Secondary Rd* **ORANGE AV** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1717** *Collision Date* **20240209** *Time* **0846** *Day* **FRI**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **HIT OBJECT** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **Y** *Process Date* **20240227**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **FIXED OBJ** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **NT PRS/FCTR** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	37	F	O	HNBD		PROC ST	E	A	0100	TESLA	2022	-	3	M	-	L	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **10.0** *Direction* **W** *Secondary Rd* **PINE AV** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1734** *Collision Date* **20240106** *Time* **1649** *Day* **SAT**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20240227**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	998	M		IMP UNK	IMP UNK	PROC ST	E	-	9900	-		-	-	N	-	-	-
2	DRVR	26	F	O	HNBD		STOPPED	E	A	0100	KIA	2015	-	3	N	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

Primary Rd **IMPERIAL HY** *Distance (ft)* **79.0** *Direction* **W** *Secondary Rd* **PLACENTIA AV** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1727** *Collision Date* **20230507** *Time* **1713** *Day* **SUN**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **PDO** *#Killed* **0** *#Injured* **0** *Tow Away?* **N** *Process Date* **20230524**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run **MSDMNR** *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety	Equip
1F	DRVR	998	M	H	IMP UNK	IMP UNK	PROC ST	E	-	9900	-		-	-	N	-	-	-
2	DRVR	38	F	O	HNBD		STOPPED	E	A	0100	TOYOT	2018	-	3	N	-	M	G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected

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Primary Rd **IMPERIAL HY** *Distance (ft)* **120.** *Direction* **E** *Secondary Rd* **PLACENTIA AV** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **012** *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20230721** *Time* **1449** *Day* **FRI**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20230816**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	80	M	W	HNBD		PROC ST	W	A	0100	AUDI	2013	-	3	N	-	L G
2	DRVR	65	M	W	HNBD		STOPPED	W	A	0100	KIA	2014	-	3	N	-	M G
3	DRVR	25	F	H	HNBD		STOPPED	W	A	0100	TOYOT	2020	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	25	F	1	0	M	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **15.0** *Direction* **E** *Secondary Rd* **PUENTE ST** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* **N/A** *Beat* **014** *Type* **0** *CalTrans* *Badge* **1661** *Collision Date* **20230328** *Time* **1830** *Day* **TUE**
Primary Collision Factor **IMPROP TURN** *Violation* **22107** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **2** *Tow Away?* **Y** *Process Date* **20230509**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	43	M	W	HNBD		CHANG LN	W	A	0100	HONDA	2009	-	3	N	-	M G
2	DRVR	37	F	H	HNBD		PROC ST	W	D	7200	DODGE	2018	-	3	N	-	M G
3	DRVR	49	M	O	HNBD		PROC ST	W	A	0800	DODGE	2006	-	3	N	-	M G
4	DRVR	21	F	W	HNBD		PROC ST	W	A	0700	MAZDA	2021	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	43	M	1	0	M	G
PASS	POSSIBL	33	F	3	0	M	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **485.** *Direction* **E** *Secondary Rd* **PUENTE ST** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1720** *Collision Date* **20231107** *Time* **1410** *Day* **TUE**
Primary Collision Factor **UNSAFE SPEED** *Violation* **22350** *Collision Type* **REAR END** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20231128**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	44	M	O	HNBD		PROC ST	W	A	0100	TOYOT	2012	-	3	A	N	M G
2	DRVR	57	F	O	HNBD		PROC ST	W	A	0100	HONDA	2012	-	3	N	-	M G
3	DRVR	75	F	O	HNBD		PROC ST	W	A	0100	LEXUS	2013	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	75	F	1	0	M	G

Primary Rd **IMPERIAL HY** *Distance (ft)* **25.0** *Direction* **W** *Secondary Rd* **RANDOLPH AV (E)** *NCIC* **3002** *State Hwy?* **Y** *Route* *Postmile Prefix* *Postmile* *Side of Hwy*
City **Brea** *County* **Orange** *Population* **4** *Rpt Dist* *Beat* **014** *Type* **0** *CalTrans* *Badge* **1684** *Collision Date* **20230421** *Time* **1136** *Day* **FRI**
Primary Collision Factor **R-O-W AUTO** *Violation* **21453B** *Collision Type* **BROADSIDE** *Severity* **INJURY** *#Killed* **0** *#Injured* **1** *Tow Away?* **Y** *Process Date* **20230517**
Weather1 **CLEAR** *Weather2* *Rdwy Surface* **DRY** *Rdwy Cond1* **NO UNUSL CND** *Rdwy Cond2* *Spec Cond* **0**
Hit and Run *Motor Vehicle Involved With* **OTHER MV** *Lighting* **DAYLIGHT** *Ped Action* *Cntrl Dev* **FNCTNG** *Loc Type* *Ramp/Int*

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	63	F	A	HNBD		RGT TURN	W	A	0700	LAND	2020	-	3	N	-	L G
2	DRVR	59	F	W	HNBD		LFT TURN	W	A	0100	HYUND	2022	-	3	N	-	M G

Victim Info

ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
DRVR	POSSIBL	63	F	1	0	L	G

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Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
PLACENTIA AV	15.0	S	IMPERIAL HY	3002	Y				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		012	0		1718	20230527	1714	SAT

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNSAFE SPEED	22350	REAR END	PDO	0	0	N	20230626

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
MSDMNR	OTHER MV	DAYLIGHT		FNCTNG		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	N	D	2200	TOYOT	2003	-	N		-	- -
2	DRVR	34	M	A	HNBD		STOPPED	N	A	0700	BMW	2023	-	N		-	M G

Victim Info

Party	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F								
2								

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
POPLAR AV	40.0	N	BIRCH ST (E)	3002	N				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4	N/A	013	0		1576	20230326	1633	SUN

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
DRVR ALC|DRG	23152A	SIDESWIPE	PDO	0	0	N	20230502

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
	OTHER MV	DAYLIGHT		FNCTNG		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	28	M	H	HBD-UI		OPPOS LN	N	A	0700	FORD	2003	-	A		-	M G
2	DRVR	35	F		HNBD		STOPPED	S	A	0700	SUBAR	2019	-	N		-	M G

Victim Info

Party	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F								
2								

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
POPLAR AV	465.	S	BIRCH ST (E)	3002	N				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		013	0		1719	20231106	2500	MON

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNKNOWN		OTHER	PDO	0	0	N	20231128

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
MSDMNR	PKD MV	DAYLIGHT		NT PRS/FCTR		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	998	-		IMP UNK	IMP UNK	OTHER	-	-	9900	-		-	N		-	- -
2	PRKD	998	-				PARKED	N	A	0700	MAZDA	2010	-	N		-	- -

Victim Info

Party	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1								
2								

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
POPLAR AV	103.	N	MADISON WY	3002	N				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		013	0		1714	20230603	0422	SAT

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
IMPROP TURN	22107	SIDESWIPE	PDO	0	0	N	20230623

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
MSDMNR	PKD MV	DARK - ST		NT PRS/FCTR		

Party Info

Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1F	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	N	-	9900	-		-	N		-	- -
2	PRKD	998	-				PARKED	N	A	0100	MAZDA	2010	-	N		-	- -

Victim Info

Party	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1F								
2								

Primary Rd	Distance (ft)	Direction	Secondary Rd	NCIC	State Hwy?	Route	Postmile Prefix	Postmile	Side of Hwy
POPLAR AV	200.	N	MADISON WY	3002	N				

City	County	Population	Rpt Dist	Beat	Type	CalTrans	Badge	Collision Date	Time	Day
Brea	Orange	4		013	0		1695	20230822	1015	TUE

Primary Collision Factor	Violation	Collision Type	Severity	#Killed	#Injured	Tow Away?	Process Date
UNKNOWN		BROADSIDE	PDO	0	0	N	20230922

Weather1	Weather2	Rdwy Surface	Rdwy Cond1	Rdwy Cond2	Spec Cond
CLEAR		DRY	NO UNUSL CND		0

Hit and Run	Motor Vehicle Involved With	Lighting	Ped Action	Cntrl Dev	Loc Type	Ramp/Int
MSDMNR	OTHER MV	DAYLIGHT		NT PRS/FCTR		

Party Info

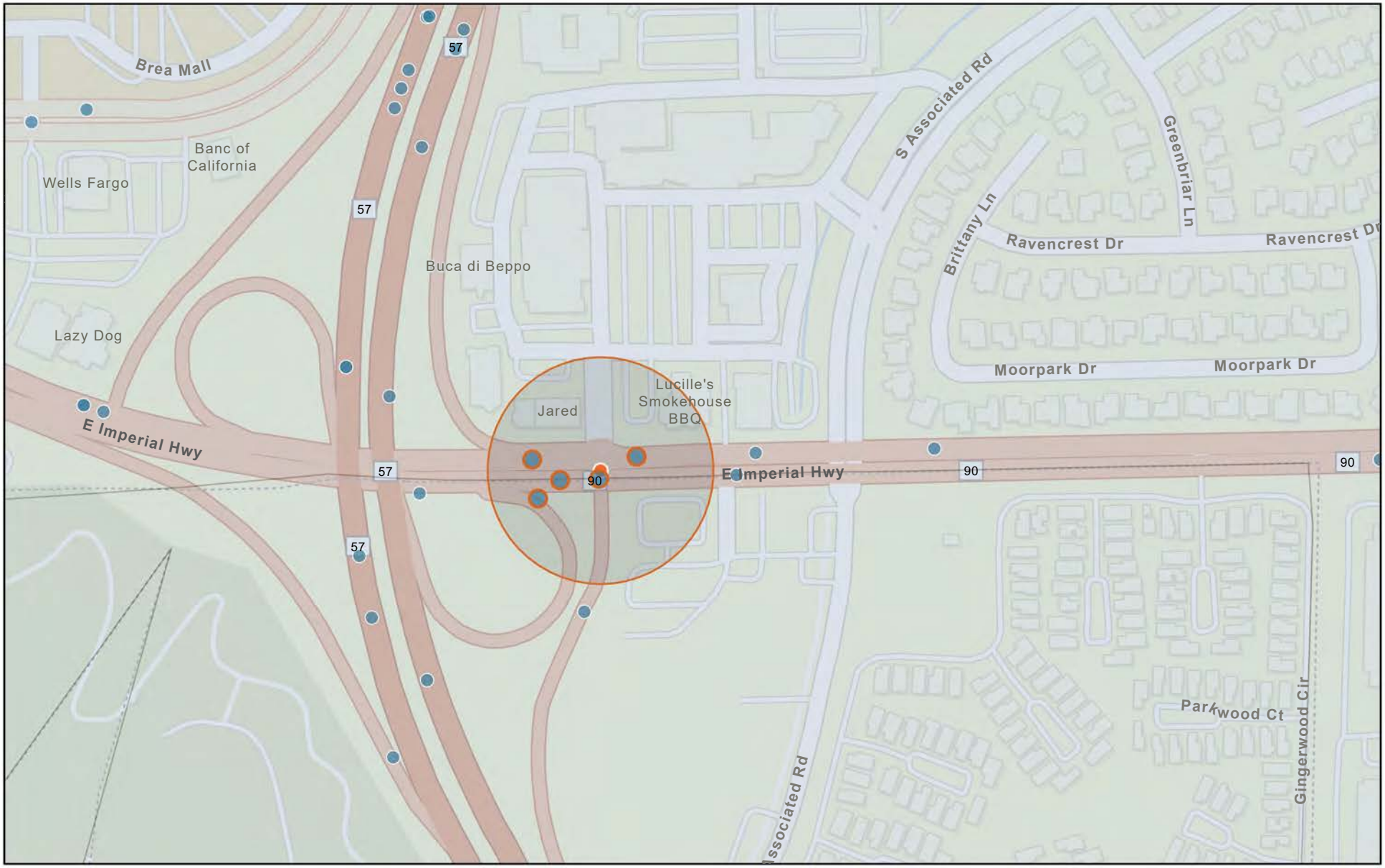
Party	Type	Age	Sex	Race	Sobriety1	Sobriety2	Move Pre	Dir	SW Veh	CHP Veh	Make	Year	SP Info	OAF1	Viol	OAF2	Safety Equip
1	DRVR	998	-		IMP UNK	IMP UNK	PROC ST	S	-	9900	-		-	N		-	- -
2	DRVR	38	M	H	HNBD		LFT TURN	N	D	2200	TOYOT	2018	-	3	N		-	M G

Victim Info

Party	ROLE	Ext Of Inj	AGE	Sex	Seat Pos	Safety	EQUIP	Ejected
1								
2								

This report is accepted subject to the Terms of Use. Due to collision records processing backlogs, SWITRS data is typically seven months behind. Data requested for dates seven months prior to the current date will be incomplete.

SWITRS GIS Map: Orange, Brea, Fullerton, Placentia 03/21/2019 - 03/20/2020



4/16/2024

SWITRS

Crashes

Crashes (Selected)

1:4,401

0 0.03 0.06 0.12 mi

0 0.05 0.1 0.2 km

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BerkeleySafeTREC

Crash Details for: Case ID 91179033

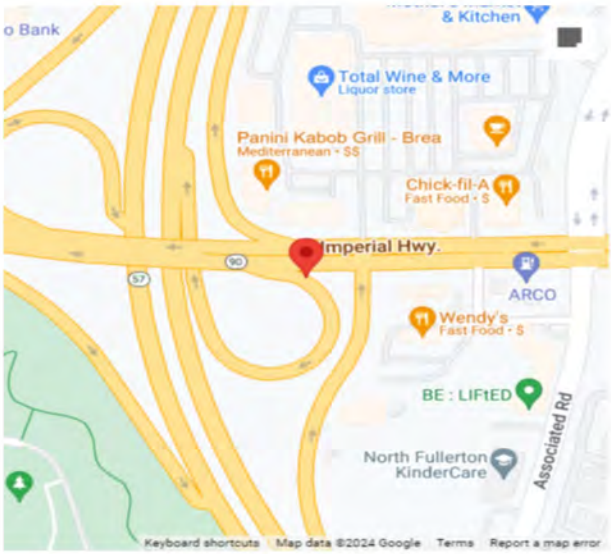
Crash Information

County	Orange
City	Fullerton
Date & Time (M/D/Y)	01/25/2020 13:52
Location (Intersection)	Sr-57 N/b From Imperial Hwy. & Imperial Highway
Dist. & Dir. from Intersection	30.00 ft South
State Highway Info	Route Number 57 Side of Hwy N Postmile N/A Location Type R - Ramp(or Collector)
Geocoded Location	33.9105682, -117.8823395

Type of Crash	D - Broadside
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	18 - Other Than Driver (or Pedestrian)
Weather	A - Clear
Alcohol Involved	No

Pedestrian Crash	No	**Bicycle Crash**	No
Motorcycle Crash	No	**Truck Crash**	No

Map View



Street View



Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	North	C - Ran Off Road
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	North	A - Stopped

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	F - Female	84	7 - Possible Injury

BerkeleySafeTREC

Crash Details for: Case ID 8842626

Crash Information

County	Orange
City	Brea
Date & Time (M/D/Y)	03/29/2019 13:52
Location (Intersection)	Imperial Hwy & Rt 57
Dist. & Dir. from Intersection	14.00 ft East
State Highway Info	Route Number 90 Side of Hwy W Postmile R 5.560 Location Type H - Highway
Geocoded Location	33.9108238, -117.8816223

Type of Crash	C - Rear End
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	03 - Unsafe Speed
Weather	A - Clear
Alcohol Involved	No

Pedestrian Crash	No	**Bicycle Crash**	No
Motorcycle Crash	No	**Truck Crash**	No

Map View



Street View



Parties: 3

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	West	B - Proceeding Straight
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	West	A - Stopped
3	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	West	A - Stopped

Victims: 3

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	F - Female	58	7 - Possible Injury

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
2	1 - Driver	F - Female	76	7 - Possible Injury
3	1 - Driver	F - Female	51	7 - Possible Injury

Crash Details for: Case ID 9020952

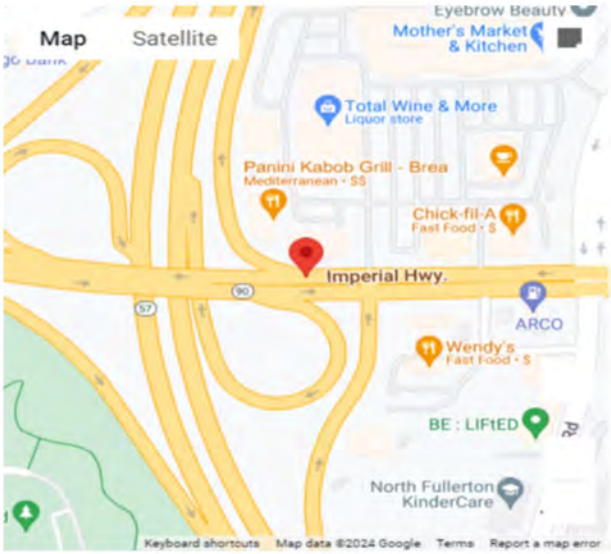
Crash Information

County	Orange
City	Brea
Date & Time (M/D/Y)	12/22/2019 15:34
Location (Intersection)	Imperial Hwy & Rt 57
Dist. & Dir. from Intersection	111.00 ft West
State Highway Info	Route Number 90 Side of Hwy W Postmile R 5.520 Location Type H - Highway
Geocoded Location	33.9108047, -117.8823853

Type of Crash	C - Rear End
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	03 - Unsafe Speed
Weather	B - Cloudy
Alcohol Involved	No

Pedestrian Crash	No	**Bicycle Crash**	No
Motorcycle Crash	No	**Truck Crash**	No

Map View



Street View



Parties: 2

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	West	H - Slowing/Stopping
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	West	A - Stopped

Victims: 2

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	2 - Passenger	F - Female	0	0 - No Injury
2	1 - Driver	F - Female	52	7 - Possible Injury

Crash Details for: Case ID 9034224

Crash Information

County	Orange
City	Brea
Date & Time (M/D/Y)	12/31/2019 12:54
Location (Intersection)	Imperial Hwy & Rt 57
Dist. & Dir. from Intersection	49.00 ft West
State Highway Info	Route Number 90 Side of Hwy E Postmile R 5.530 Location Type H - Highway
Geocoded Location	33.9106789, -117.8821793

Type of Crash	C - Rear End
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	07 - Unsafe Lane Change
Weather	A - Clear
Alcohol Involved	No

Pedestrian Crash	No	**Bicycle Crash**	No
Motorcycle Crash	No	**Truck Crash**	No

Map View



Street View



Parties: 3

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	East	J - Changing Lanes
2	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	East	B - Proceeding Straight
3	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	East	E - Making Left Turn

Victims: 4

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
2	2 - Passenger	F - Female	32	0 - No Injury

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
2	2 - Passenger	M - Male	4	0 - No Injury
2	2 - Passenger	M - Male	0	0 - No Injury
3	1 - Driver	- - Not Stated	23	7 - Possible Injury

BerkeleySafeTREC

Crash Details for: Case ID 8873034

Crash Information

County	Orange
City	Brea
Date & Time (M/D/Y)	05/29/2019 14:50
Location (Intersection)	Imperial Hwy & Rt 57
Dist. & Dir. from Intersection	At Intersection
State Highway Info	Route Number 90 Side of Hwy E Postmile R 5.545 Location Type I - Intersection
Geocoded Location	33.9106865, -117.881897

Type of Crash	D - Broadside
Motor Vehicle Involved With	C - Other Motor Vehicle
Crash Severity	4 - Injury (Complaint of Pain)
PCF Violation Category	12 - Traffic Signals and Signs
Weather	A - Clear
Alcohol Involved	No

Pedestrian Crash	No	**Bicycle Crash**	No
Motorcycle Crash	No	**Truck Crash**	No

Map View



Street View



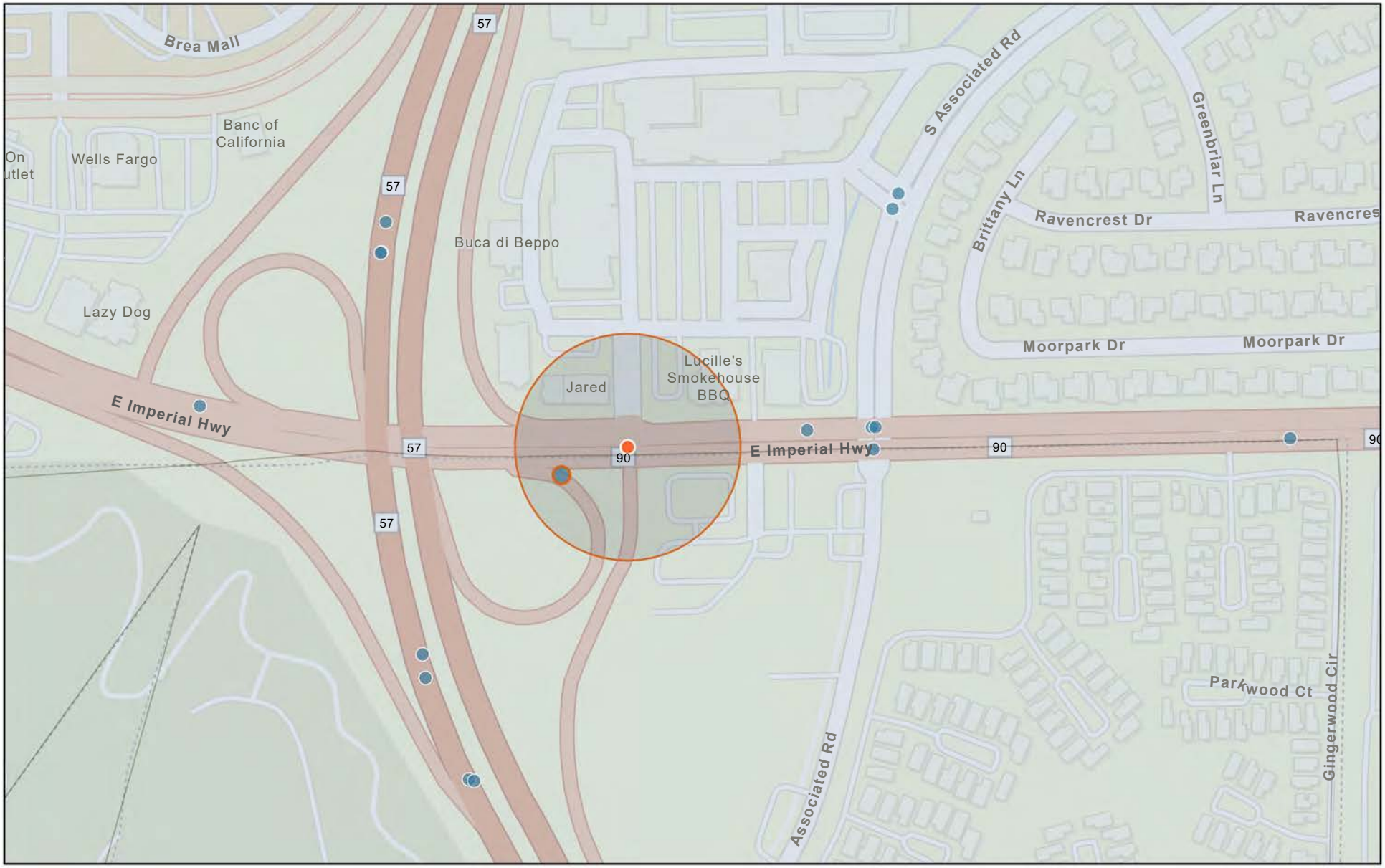
Parties: 3

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	East	B - Proceeding Straight
2	1 - Driver (including Hit and Run)	D - Pickup or Panel Truck	No	North	E - Making Left Turn
3	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	No	North	E - Making Left Turn

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
3	1 - Driver	M - Male	26	7 - Possible Injury

SWITRS GIS Map: Orange, Brea, Fullerton, Placentia 03/21/2020 - 03/20/2021



4/16/2024

SWITRS

Crashes

Crashes (Selected)

1:4,401

0 0.03 0.06 0.12 mi

0 0.05 0.1 0.2 km

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Crash Details for: Case ID 91288623

Crash Information

County	Orange
City	Brea
Date & Time (M/D/Y)	08/08/2020 00:40
Location (Intersection)	Sr-57 Northbound From Imperial Hwy & Imperial Highway
Dist. & Dir. from Intersection	694.00 ft South
State Highway Info	Route Number 57 Side of Hwy N Postmile N/A Location Type R - Ramp(or Collector)
Geocoded Location	33.9105682, -117.8823776

Type of Crash	E - Hit Object
Motor Vehicle Involved With	I - Fixed Object
Crash Severity	3 - Injury (Other Visible)
PCF Violation Category	01 - Driving or Bicycling Under the Influence of Alcohol or Drug
Weather	A - Clear
Alcohol Involved	Yes

Pedestrian Crash	No	**Bicycle Crash**	No
Motorcycle Crash	No	**Truck Crash**	No

Map View



Street View



Parties: 1

Party Number	Party Type	Statewide Vehicle Type	At Fault	Party Direction	Movement Preceding Collision
1	1 - Driver (including Hit and Run)	A - Passenger Car/Station Wagon	Yes	North	R - Other

Victims: 1

Party Number	Victim Role	Victim Gender	Victim Age	Victim Degree of Injury
1	1 - Driver	F - Female	26	6 - Suspected Minor Injury

Appendix K

Neighborhood Cut-Through Counts

Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2024
ROUTE SUMMARY
Weekday AM: 7:00 AM - 9:00 AM
Weekday PM: 4:00 PM - 6:00 PM
Saturday MD: 12:00 PM - 3:00 PM

Location List:

OD - 1A:	Reedbay Ave S/ Birch to Greenbriar Ln E/ Plum Ave (SB)
OD - 1B:	Greenbriar Ln E/ Plum Ave to Reedbay Ave S/ Birch (NB)

Route List:		**Origin Volume**	**Destination Volume**	**Matches**	**% Match**
Route 1A - AM	1A TO 1B	48	63	2	4%
Route 1A - PM	1A TO 1B	90	35	6	7%
Route 1A - SAT	1A TO 1B	80	56	1	1%
Route 1B - AM	1B TO 1A	25	109	4	16%
Route 1B - PM	1B TO 1A	68	67	0	0%
Route 1B - SAT	1B TO 1A	60	77	1	2%

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 1A - From 1A to 1B
Reedbay Ave S/ Birch to Greenbriar Ln E/ Plum Ave (SB)
7:00 AM - 9:00 AM

	Enter at Origin: Reedbay Ave S/ Birch		**Exit at Destination:** Greenbriar Ln E/ Plum Ave	**Matches**
Time	SB Entering	**Time**	SB Exiting	
7:11:36	Beige Pickup - Work Rack	7:01:58	Silver Toyota Van	
7:14:28	White Chevy Box Truck	7:04:41	Silver Toyota Tacoma	
		7:06:10	Silver Lexus SUV	
		7:06:32	White Lexus SUV	
		7:06:55	Black BMW SUV	
		7:07:27	White Toyota Tacoma	
		7:09:26	Sivler 4 Door Sedan	
		7:11:04	Silver Toyota Corolla	
		7:11:27	Silver SUV	
		7:13:24	Silver Nissan SUV	
7:18:11	White Ford Pickup Truck	7:19:05	Silver Tesla	
7:24:50	White Ford Van	7:19:26	White GMC Yukon	
		7:20:27	White Toyota Van	
		7:20:33	Black SUV	
		7:20 58	Red Toyota Van	
		7:27:03	Silver Mazda Sedan	
7:32:12	Silver Toyota Rav4	7:30:15	Black Subaru Sedan	
7:32:46	Red Toyota Van	7:31:25	Yellow School Bus	
7:33:49	White Dodge SUV	7:31:34	Black Dodge Ram Truck	
7:33:55	Bronze Toyota Tacoma	7:32:02	White Honda Sedan	
		7:35:16	Black Honda CRV	
		7:36:27	Black Tesla	
		7:36:56	Silver Toyota Prius	
		7:37:18	Black Chevy Sedan	
		7:42:22	Black Kia SUV	
		7:42:26	Grey Toyota SUV	
		7:43:06	White Toyota Van	
		7:43:38	Grey Ford Truck	
		7:45:17	Grey Chevy SUV	
		7:45:39	Black Ford SUV	
7:47:05	Black Kia SUV	7:47:40	Silver Kia Soul	
7:47:31	Grey/Silver Toyota Rav4	7:48:01	Grey Scion Sedan	
7:51:28	Large White Work Truck	7:48:35	Red SUV	
7:55:52	White Honda CRV	7:56:13	White BMW Sedan	
		7:56:36	Silver Toyota Corolla	
8:06:29	White Chevy SUV	8:00:13	Small Red SUV	
8:07:29	Grey Ford Explorer	8:03:01	Black Nissan Sedan	
8:08:53	Black Mazda Miata	8:04:01	Grey Toyota Tacoma	
8:10:10	White Toyota Van	8:06:07	Whie BMW Sedan	
8:10:45	White Tesla SUV	8:07:47	White Kia Telluride	X
		8:08:15	Yellow School Bus	
		8:11:40	White Lexus SUV	
		8:11:58	Grey Nissan Sedan	
		8:13:12	White Ford Flex	
8:15:11	Silver Lexus SUV	8:14:43	Tan BMW Sedan	
8:16:26	Red Toyota Van	8:15:15	White Tesla SUV	
8:18:43	Black VW SUV	8:18:47	Grey SUV	
8:19:00	White Tank Truck	8:25:37	Silver Toyota Corolla	
8:19:45	Silver Hyundai Sedan	8:28:06	Black Audi Sedan	
8:20:55	Silver Toyota SUV			
8:21:57	Silver/Grey Honda CRV			
8:26:11	Blue/Silver SUV			

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 1A - From 1A to 1B

8:26:25	Silver Kia Telluride			
8:30:17	Black BMW Sedan	8:32:45	Silver Toyota Corolla	
8:30:53	White Tesla SUV	8:35:07	Black Ford SUV	
8:33:12	White Lexus SUV	8:44:05	White Toyota Corolla Hatchback	
8:33:18	Silver Mercedes Sedan	8:44:25	Red Sedan	
8:35:43	Tan Honda Civic			
8:40:55	Silver/Grey SUV			
8:41:46	Black Chevy Truck			
8:42:27	Black Tesla SUV			
8:43:57	Black Mercedes SUV			
8:44:36	Silver Toyota Corolla			
8:45:22	Silver SUV	8:46:38	White Sedan	
8:46:34	White Toyota Highlander	8:48:19	Grey Toyota Sequoia	
8:47:23	Black Truck w/Bed Cover	8:50:34	Grey Chevy SUV	
8:49:08	Black SUV	8:51:37	Grey Ford Explorer	
8:50:08	Bronze Jeep Wrangler	8:54:35	Grey Subaru Crossover	X
8:54:41	White Honda Accord	8:55:27	Blue Toyota Rav 4	
8:55:03	Grey SUV	8:55:37	Silver Toyota Tacoma	
8:55:18	Silver/Grey Ford Sedan	8:56:57	Bronze Jeep Wrangler	
8:58:28	Black SUV	8:57:29	White SUV	
8:58:47	White Ford Flex	8:58:29	Silver Toyota Rav 4	
TOTALS	**48**		**63**	**2**

% of Matches from Origin to Destination: **4%**

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 1A - From 1A to 1B
Reedbay Ave S/ Birch to Greenbriar Ln E/ Plum Ave (SB)
4:00 PM - 6:00 PM

	Enter at Origin: Reedbay Ave S/ Birch		Exit at Destination: Greenbriar Ln E/ Plum Ave	Matches
Time	SB Entering	Time	SB Exiting	
16:00:00		16:00:00		
16:02:00	Black BMW Sedan	16:01:14	Black SUV	
16:03:06	Blue Tesla SUV	16:02:28	Amazon Delivery Truck	
16:03:23	White Orkin Work Truck	16:10:10	White Lexus SUV	
16:06:18	Black Truck	16:13:08	White Jeep SUV	
16:06:45	Silver/Blue SUV	16:13:22	Silver Toyota Camry	
16:08:20	Black Mini Cooper	16:13:30	Silver Toyota Camry	
16:09:50	Red Toyota Van	16:14:23	Red Toyota Van	X
16:09:58	Silver SUV			
16:10:04	White Chevy Sedan			
16:10:56	Red Chevy Sedan			
16:12:27	White Jeep Wrangler			
16:13:18	White Honda Pilot			
16:14:01	Black Sedan			
16:15:12	White Ford Truck			X
16:16:41	White Mercedes Sedan	16:15:00	Light Blue SUV	
16:17:09	White Toyota Highlander	16:16:46	White Ford Truck	
16:18:29	White Lexus SUV	16:18:57	Silver Honda SUV	
16:19:21	Silver Jeep SUV	16:28:51	White VAN	
16:20:23	Silver Honda CRV			
16:20:38	White Toyota 4Runner			
16:26:10	Grey Toyota Camry			
16:27:01	White SUV			
16:28:09	Silver Infiniti Sedan			
16:29:59	Grey Chevy Truck	16:33:42	Silver Toyota Camry	
16:30:04	White Honda SUV			
16:30:44	Black Tesla Sedan			
16:30:47	Grey Toyota Tacoma	16:35:19	White Honda Sedan (U-Turn may not count)	
16:33:57	White Van	16:36:24	Tan Crown Victoria	
16:34:06	Black Sedan	16:39:01	Blue Honda Truck	
16:34:51	Black SUV	16:40:25	White Van	
16:35:38	White Lexus Sedan	16:40:28	Blue Toyota Van	
16:37:37	Black Toyota Corolla	16:44:09	Grey Honda Accord	
16:37:42	Blue BMW Sedan			
16:37:55	Silver Truck			
16:41:15	Grey Honda Accord			X
16:41:19	Red Honda Pilot			
16:42:53	White BMW Sedan			
16:43:03	Black Lexus Sedan			
16:43:05	Grey Chevy Truck			
16:47:54	Black SUV	16:51:25	Grey Honda Accord	
16:48:40	Grey Truck	16:53:26	Black Tesla Sedan	
16:50:22	Grey Chysler Van	16:53:49	Black Kia Telluride	
16:51:56	Grey Honda Accord	16:54:11	Silver Honda CRV	
16:53:45	Black Cadillac Escalade			
16:56:29	Grey Kia Telluride			
16:57:16	Silver Sedan			
17:01:07	White SUV	17:03:41	Silver Honda Prelude	
17:01:34	Grey SUV	17:08:59	Black Dodge Truck	
17:02:47	Grey Honda Accord	17:11:21	Silver Nissan Altima	
17:03:09	Black Chevy Truck	17:12:37	White SUV	

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 1A - From 1A to 1B

17:04:24	Black Dodge Truck	17:13:45	Blue Sedan	X
17:04:33	Black BMW Sedan			
17:05:52	Black Acura Sedan			
17:06:41	Red Toyota Van			
17:08:28	Grey Scion TC			
17:08:58	Silver Nissan Altima			X
17:10:52	White SUV			
17:14:28	Black Chevy Suburban			
17:15:31	White Van	17:15:12	Grey Subaru Crossover	
17:16:36	Black SUV			
17:18:14	Light Blue Toyota Highlander			
17:19:14	Blue Toyota Rav 4			
17:19:33	Silver Honda Prelude			
17:20:07	Silver SUV			
17:20:51	Grey Hyundai Sedan			
17:22:09	Dark Red Van			
17:22:45	White Jeep SUV			
17:24:55	White Ford Explorer			
17:24:57	Black Toyota Camry			
17:25:53	Red Tesla SUV			
17:28:14	Black Mercedes Sedan			
19:29:13	White Chevy Truck			
17:31:58	Red Ford Truck	17:33:43	Silver Toyota Prius	
17:33:33	Lifted Black truck	17:34:11	Silver Jeep SUV	
17:34:14	White Tesla SUV	17:35:27	Silver/Grey Honda CRV	
17:35:54	Red Toyota Van	17:39:48	RedToyota Van	X
17:36:41	Black Sedan			
17:38:36	Silver SUV			
17:38:38	Grey Work Van Eagle Air			
17:40:21	Blue Ford Truck			
17:40:25	Silver Lexus SUV			
17:45:38	Red Honda Accord	17:46:41	Silver SUV	
17:46:23	White SUV	17:52:04	White Toyota 4Runner	
17:48:40	Black SUV			
17:49:03	Silver Hatchback			
17:50:37	Grey SUV			
17:51:50	White SUV			
17:54:43	White Toyota Van			
17:56:01	White Sedan			
17:59:10	Black SUV			
TOTALS	**90**		**35**	**6**

% of Matches from Origin to Destination: **7%**

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/10/2023
Route 1A - From 1A to 1B
Reedbay Ave S/ Birch to Greenbriar Ln E/ Plum Ave (SB)
12:00 PM to 3:00 PM

	Enter at Origin:		**Exit at Destination:**	
	Reedbay Ave S/ Birch		Greenbriar Ln E/ Plum Ave	**Matches**
Time	SB Entering	**Time**	SB Exiting	
12:00:00		12:00:00		
12:00:41	Silver Hyundai Sedan	12:03:24	Red Toyota Rav4	
12:04:29	Black Sedan	12:03:54	Blue Sedan	
12:07:54	Grey Chevy Truck	12:11:26	Blue Chevy Truck	
12:08:09	White Toyota Corolla Hatchback	12:14:39	Black Kia SUV	
12:09:29	Grey Honda Accord			
12:09:54	Black Sedan			
12:13:00	Red Tesla SUV			
12:13:02	Grey Honda Sedan			
12:13:09	Blue Tesla SUV			
12:23:06	Blue Work Van	12:15:55	Silver Lexus SUV	
12:24:04	Silver SUV	12:20:08	Grey SUV	
12:25:32	Black Kia SUV	12:23:30	Grey Sedan Hatchback	
12:26:09	White Toyota 4 Runner	12:24:29	Red Honda Pilot	
12:27:55	Tan Ford Expedition	12:25:16	White Sedan	
12:29:41	Grey Ford Bronco	12:27:27	Silver Toyota Camry	
12:30:24	White SUV	12:41:44	Black Tesla SUV	
12:31:32	White Sedan	12:42:56	Silver Honda CRV	
12:33:17	Silver Chevy Truck			
12:36:40	Silver SUV			
12:38:13	Silver Lexus SUV			
12:39:00	White Chevy Truck			
12:41:51	Red SUV			
12:42:05	Blue Ford Bronco			
12:42:37	Silver/Beige SUV			
12:44:41	Black SUV			
12:45:48	Black SUV	12:45:53	Black SUV	
12:51:18	Silver Toyota Sequoia	12:47:17	Red Tesla SUV	
12:51:51	White Chevy Truck	12:50:34	White SUV	
13:01:18	Grey Honda Accord	12:58:20	Red SUV	
13:04:16	Black Lexus SUV Lifted	13:04:20	Silver Honda SUV	
13:04:31	Silver/Grey Audi SUV	13:05:01	Gold Toyota Camry	
13:06:00	Silver Mercedes Sedan	13:05:41	Black SUV	
13:07:18	Grey BMW Sedan	13:06:40	Beige Tooyota Corolla	
13:14:02	Black Tesla Sedan	13:07:22	White Mail Car	
13:14:32	Blue Lexus SUV	13:07:38	Grey Tesla Sedan	
13:16:44	Silver Sedan	13:12:04	Grey Tesla SUV	
13:23:36	Silver/Grey Lexus SUV	13:12:44	Silver Hyundai Hatchback Sedan	
13:25:01	Black Jeep SUV	13:13:13	Black SUV	
13:25:11	Blue/Black Toyota Highlander	13:13:14	Grey Scion TC	
13:33:03	Red Ram Truck	13:14:33	Black Ford SUV	
		13:17:29	Blue Tesla Sedan	
		13:20:35	Silver Lexus Sedan	
		13:21:00	Black Sedan	
		13:26:46	Silver SUV	
		13:30:44	Silver/Grey Lexus SUV	
		13:31:10	White SUV	
		13:33:27	White Toyota Prius	
		13:37:24	White Kia Soul	
		13:39:51	Tan Van	
		13:40:24	Black Honda Sedan	
13:46:10	Black SUV	13:46:49	Grey SUV	

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/10/2023
Route 1A - From 1A to 1B

13:47:27	White Nissan Sentra	13:50:28	Silver Chevy Truck	
13:47:29	White Toyota Corolla	13:51:57	Silver Toyota Rav4	
13:49:21	Blue BMW Sedan	13:54:13	White SUV	
13:50:18	Grey Chevy Truck	13:54:26	Red Chevy SUV	
13:50:20	Black Tesla Sedan	13:55:05	Grey Toyota 4 Runner	
13:50:52	Black Sedan	13:57:35	Black SUV	
13:51:34	Silver Sedan	14:01:42	Light Blue Toyota Corolla	
13:51:57	Black Buick SUV			
13:52:02	Silver Toyota Sedan			
13:57:18	Red Honda Pilot			
13:59:01	Silver Ford Flex			
14:03:53	White Toyota 4Runner			
14:04:17	UPS Delivery Truck			
14:06:24	White Toyota Corolla			
14:06:39	Silver Ford Sedan			
14:10:42	Black Lexus Sedan			
14:17:59	Black Ford SUV	14:15:15	Red Toyota Corolla	
14:18:33	Red Lexus SUV	14:15:50	Black Tesla Sedan	
14:19:03	Black Tesla SUV	14:16:31	Tan Chevy Tahoe	
14:19:04	Grey Honda Accord	14:27:28	Black Ford SUV	
14:20:09	Black SUV	14:29:37	White Tesla SUV	
14:20:16	Black Honda Acoord			
14:21:49	Red GMC SUV			
14:23:48	Amazon Prime Truck			
14:24:09	Black Subaru Crossover			
14:24:12	Black Sedan			
14:25:57	Black Honda Sedan			
14:26:58	Dark Red Honda Pilot			
14:33:29	Black Chevy SUV	14:39:32	Dark Red Honda Pilot	
14:36:57	Grey SUV	14:40:42	White Lexus Sedan	
14:37:11	Silver Toyota Corolla	14:42:50	Black Tesla SUV	
14:37:24	Black Toyota Rav4			
14:39:37	Red SUV			
14:40:02	Silver Truck			
14:41:49	Blue Ford Mustang			
14:52:02	White Tesla SUV	14:48:25	Amazon Delivery Truck	
14:56:45	White Chevy SUV			
14:57:28	Red Tesla SUV			
14:57:31	White Dodge Truck	15:02:10	White Dodge Truck	X
TOTALS	**80**		**56**	**1**

% of Matches from Origin to Destination: **1%**

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 1B - From 1B to 1A
Greenbriar Ln E/ Plum Ave to Reedbay Ave S/ Birch (NB)
7:00 AM - 9:00 AM

	Enter at Origin: Greenbriar Ln E/ Plum Ave		**Exit at Destination:** Reedbay Ave S/ Birch	**Matches**
Time	NB Entering	**Time**	NB Exiting	
7:00:00		7:00:00		
7:03:28	Black Mazda SUV	7:02:33	Blue Mini Coooper	
		7:02:34	Light Blue Toyota Highlander	
		7:03:32	White Range Rover	
		7:03:41	White Sedan	
		7:06:39	Grey Honda Civic	
		7:09:56	White SUV	
7:22:57	Blue Subaru Crossover	7:19:27	Black BMW Sedan	
7:23:53	White Work Truck with Green Trailer	7:19:34	Black Hyundai SUV	X
		7:20:45	Silver Toyota Rav4	
		7:20:46	White Toyota Highlander	
		7:23:36	Black Acura Sedan	
		7:24:55	Red Ford Sedan	
		7:26:00	White Work Truck with Green Trailer	
		7:27:25	White Toyota Rav4	
		7:27:43	White Honda Civic	
		7:28:00	Black 2 door BMW	
		7:29:06	Grey Honda Accord	
7:30:15	Yellow School Bus	7:30:28	White Work Van	
7:30:43	Silver SUV	7:31:27	White Toyota Corolla	
7:32:18	Black Chevy Hatchback	7:33:59	White Tesla SUV	
7:32:33	Silver SUV	7:34:03	White Honda SUV	
7:39:53	Tan Crown Victoria	7:35:37	White Toyota Corolla	
7:44:42	Black Honda Civic	7:36:39	Silver Toyota Highlander	
		7:37:50	Red Honda Pilot	
		7:38:50	White Infiniti Sedan	
		7:40:28	Grey Ford Sedan	
		7:40:35	Silver Honda CRV	
		7:41:00	White Tesla SUV	
		7:44:16	Blue BMW Sedan	
		7:47:49	White Lexus SUV	
		7:48:15	White Sedan	
		7:49:59	Grey Ford SUV	
		7:52:28	Large White Work Truck	
7:53:29	White Kia Tellruide	7:53:27	White Chevy Volt	X
7:54:14	Grey Sedan	7:54:13	Grey Ford Explorer	
7:55:20	Red Buick Sedan	7:54:14	Brown Chevy Truck	
		7:55:41	White Kia Telluride	
		7:57:18	Tan Chevy Tahoe	
		7:57:36	Silver Toyota Camry	
		7:58:45	White Toyota Van	
		7:58:47	Black Tesla Sedan	
8:06:40	Yellow School Bus	8:00:22	Grey Chevy SUV	
8:08:51	Grery Nisssan Hatchback	8:03:39	Silver Lexus SUV	
8:10:52	Silver Hyundai Sedan	8:04:23	Black Mazda SUV	X
8:14:32	Grey Crossover	8:04:30	Black Sedan	
8:14:58	Grey Honda SUV	8:05:09	Black VW SUV	X
		8:06:29	Grey Honda Accord	
		8:06:47	Grey Toyota Tacoma	
		8:06:48	Grey Honda CRV	
		8:06:52	Black Toyota Hatchback	

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 1B - From 1B to 1A

		8:06:57	Silver Hyundai Sedan
		8:07:30	Lifted Black Lexus SUV
		8:10:13	Silver Toyota Van
		8:10:20	Red Toyota Van
		8:11:38	Silver Infiniti Sedan
		08:11:41	White Kia SUV
		8:11:56	Silver Hyundai SUV
		8:12:05	White Box Truck
		8:13:21	Blue Lexus SUV
		8:13:28	Silver Chevy Tahoe
		8:13:30	Silver Toyota Corolla
		8:13:35	Grey Chevy Truck
		8:15:21	Blue Toyota Camry
		8:15:29	Silver Hyundai Sedan
		8:16:05	Black Toyota Rav4
		8:16:32	Black Toyota Truck
		8:16:41	White Honda SUV
		8:16:54	Grey Honda SUV
		8:21:40	Red SUV
		8:22:20	Silver Hyundai Sedan
		8:22:52	Silver SUV
		8:23:38	Yellow Truck
		8:23:40	Black SUV
		8:24:38	Grey Toyota Van
		8:25:55	Silver SUV
		8:26:45	Silver Lexus SUV
		8:27:52	Grey Toyota Camry
		8:28:37	Silver Mercedes Sedan
		8:29:57	Grey/Blue SUV
8:32:57	Black Ford Explorer	8:30:04	White Toyota Van
8:34:44	Red Toyota Tacoma with Rack	8:30:21	White Honda SUV
8:44:48	Red Ford Mustang	8:30:23	White Hyundai Hatchback
		8:31:31	Black Mercedes Sedan
		8:32:41	Grey Tesla Sedan
		8:32:48	White Tank Truck
		8:32:53	Black Audi SUV
		8:33:36	Blue Tesla Sedan
		8:33:55	Grey Toyota Rav4
		8:35:12	Black Mercedes SUV
		8:35:24	Black Ford Truck Camper Shell
		8:36:00	Light Blue Chrysler 300
		8:36:06	Black Tesla SUV
		8:36:28	Tan Chevy Tahoe
		8:37:47	White Tesla SUV
		8:38:35	Silver Subaru Sedan
		8:41:05	Silver/Grey SUV
		8:41:58	White Toyota SUV
		8:42:36	Red SUV
		8:42:48	White Chevy SUV
		8:43:55	White Ford Explorer
		8:44:10	Blue/Grey Chevy SUV
		8:44:47	White Toyota Camry
8:50:36	White Toyota Hatchback	8:47:03	Black Honda Truck
8:51:35	White Sedan	8:47:09	Tan SUV
8:52:02	Silver Honda Civic	8:47:35	Light Blue Van
8:56:30	Black Mazda SUV	8:48:53	Black Scion SUV
8:58:32	Black Mercedes Sedan	8:49:12	Black VW SUV

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 1B - From 1B to 1A

		8:55:07	Red Lexus SUV	
		8:56:52	Red Acura Sedan	
TOTALS	**25**		**109**	**4**

% of Matches from Origin to Destination: **16%**

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 1B - From 1B to 1A
Greenbriar Ln E/ Plum Ave to Reedbay Ave S/ Birch (NB)
4:00 PM - 6:00 PM

	Enter at Origin:		**Exit at Destination:**	
	Greenbriar Ln E/ Plum Ave		Reedbay Ave S/ Birch	**Matches**
Time	NB Entering	**Time**	NB Exiting	
16:00:00		16:00:00		
16:01:24	White Work Van	16:00:32	Black Tesla Sedan	
16:01:59	Black Honda Hatchback	16:00:42	Grey Honda Accord	
16:04:45	Silver Toyota Van	16:01:05	Grey Toyota Rav4	
16:07:27	Silver/Grey Lexus Sedan	16:04:20	White Kia SUV	
16:07:40	White Toyota Prius	16:05:10	White Honda Van	
16:10:18	Silver Toyota Camry	16:05:19	White Box truck	
16:11:11	White Chevy Van	16:09:32	Red Honda Pilot	
16:12:41	Black/Blue Honda Accord	16:09:49	Black Buick SUV	
16:12:45	Light Blue Cadillac SUV	16:10:44	White Tesla SUV	
		16:10:47	Grey Toyota Van	
		16:11:51	Light Blue Ford Sedan	
16:16:58	Black Honda Accord	16:15:12	Grey Toyota Tacoma	
16:17:01	Black Dodge Ram	16:16:22	Grey Hyundai Sedan	
16:17:09	Silver Mazda SUV	16:16:30	Grey Honda Civic	
16:18:10	White Work Van	16:17:17	Silver Van	
16:18:35	Black Honda Fit	16:17:47	White Honda SUV	
16:25:46	White Toyota Tacoma	16:19:02	Red Honda Pilot	
16:26:11	Black Honda Accord	16:19:42	White Orkin Toyota Tacoma	
16:27:56	Silver Lexus SUV	16:20:47	Grey Lexus SUV	
16:31:45	Black Tesla SUV	16:21:37	White Lexus SUV	
16:31:50	Black Ford SUV	16:21:41	Balck Toyota Prius	
16:33:16	Silver SUV	16:33:22	White Tesla SUV	
16:35:10	White Honda Hatchback (U-Turn)	16:33:40	Grey Chevy Truck	
16:36:12	White BMW Sedan	16:37:23	White Lexus SUV	
16:36:37	Black Ford Truck	16:39:49	Silver Infiniti Sedan	
16:37:34	Silver Mitsubishi SUV	16:42:53	Grey Tesla SUV	
16:37:39	Silver Nissan SUV	16:43:23	White Toyota Highlander	
16:37:41	Silver SUV	16:43:26	Grey Tesla Sedan	
16:38:13	White Lexus SUV	16:43:39	Black Toyota Rav4	
16:38:16	Silver Toyota Tacoma	16:44:43	Red Tesla SUV	
16:38:37	White Kia SUV	16:44:59	White BMW Sedan	
16:39:05	Black Mazda SUV	16:51:07	Grey Toyota Camry	
16:40:06	Silver/Grey Honda CRV	16:51:39	Black Mazda SUV	
16:41:02	Silver Toyota Camry	16:56:47	White Toyota Van	
16:43:21	White Ford Truck	16:59:10	White Toyota Corolla Hatchback	
16:46:42	Black Jeep SUV	16:59:21	Black Honda Accord	
16:49:24	White Toyota Rav4			
16:51:34	Black Honda Sedan			
16:53:19	White GMC Van			
16:53:36	Grey Nissan SUV			
16:53:58	Black Toyota Van			
16:55:43	White Honda Accord			
17:00:01	Silver Honda Accord	17:00:00	White Nissan Work Van	
17:04:22	Grey Honda Accord	17:01:00	Silver Kia Soul	
17:17:38	Silver Honda SUV	17:01:15	Black Honda CRV	
17:19:44	Black Hyundai Sedan	17:10:19	Grey Crossover	
17:20:21	Silver/Grey SUV	17:12:58	Silver Maxda SUV	
17:21:58	Silver Toyota Corolla	17:13:59	Black BMW Sedan	
17:27:16	White Toyota Van	17:16:31	Silver Chevy Truck	
		17:18:37	Silver Toyota Camry	
		17:20:23	Black/Blue SUV	

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 1B - From 1B to 1A

		17:22:39	Blue/Grey Chevy Tahoe	
		17:25:28	Black Honda Accord	
		17:27:37	Silver SUV (Kia/Hyundai?)	
		17:27:47	Grey Honda Accord	
		17:28:45	Grey BMW Sedan	
		17:29:22	White Jeep SUV	
17:30:04	Silver Sedan	17:31:12	Blue Ford Bronco	
17:32:31	White BMW Sedan	17:37:33	Blue SUV	
17:32:42	Black Lexus SUV Lifted	17:41:25	Grey Honda SUV	
17:33:46	Blue Honda Truck	17:41:35	Silver Mazda SUV	
17:35:13	Red Honda Pilot	17:42:11	White Chevy Truck	
17:37:36	White Honda Fit	17:43:24	Red Honda Pilot	
17:39:41	Blue Honda CRV			
17:43:19	Black Kia SUV			
17:45:04	White Range Rover	17:45:08	Silver Toyota Corolla	
17:45:33	Silver Honda SUV	17:45:17	White Jeep Wrangler	
17:46:49	Silver SUV	17:46:50	White Toyota Rav4	
17:47:23	Blue Tesla Sedan	17:46:52	White Toyota Camry	
17:50:05	Tan BMW Sedan	17:47:50	red Sedan	
17:50:39	Black Lexus Sedan	17:51:22	Black Acura Sedan	
17:51:48	White SUV	17:52:10	Silver Chevy SUV	
17:51:51	White Toyota Rav4	17:53:12	Black Kia SUV	
17:52:11	Black Tesla Sedan	17:54:16	White Lexus SUV	
17:52:43	White Toyota Highlander	17:57:03	Red Tesla SUV	
17:55:36	Silver Kia SUV			
17:57:10	Tan Chevy/GMC SUV			
17:59:52	White SUV			
TOTALS	**68**		**67**	**0**

% of Matches from Origin to Destination: **0%**

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/10/2023
Route 1B - From 1B to 1A
Greenbriar Ln E/ Plum Ave to Reedbay Ave S/ Birch (NB)
12:00 PM to 3:00 PM

	Enter at Origin:		**Exit at Destination:**	
	Greenbriar Ln E/ Plum Ave		Reedbay Ave S/ Birch	**Matches**
Time	NB Entering	**Time**	NB Exiting	
12:00:00		12:00:00		
12:10:22	White Chevy Truck	12:00:14	Silver Honda SUV	
12:21:27	White BMW Sedan	12:00:51	Silver Toyota Camry	
12:23:10	Grey Hyundai SUV	12:02:44	Grey Chevy Pickup	
12:25:12	Silver Honda CRV	12:08:13	Silver SUV	
12:25:46	Silver Chevy Tahoe	12:11:57	Grey Honda Accord	
12:29:07	Silver/Grey Honda Element	12:12:02	Silver Toyota Highlander	
12:29:12	Grey Tesla SUV	12:13:19	Black SUV	
		12:13:22	White SUV	
		12:13:22	Blue Lexus SUV	
		12:15:29	Red Chevy Corvette	
		12:19:29	White Chevy Truck	
		12:19:35	Silver Infiniti Sedan	
		12:22:27	Tan SUV	
		12:23:08	Red Chevy Tahoe	
		12:25:08	Grey SUV	
		12:25:23	White Van	
		12:27:31	Blue Work Van	
12:31:13	Fedex Truck	12:30:28	White Chevy Truck	
12:31:21	Red Tesla SUV	12:31:03	Blue SUV	
12:32:27	Silver Toyota Sequoia	12:37:25	Black Dodge Ram	
12:33:55	Silver SUV	12:38:33	Silver Mercedes Sedan	
12:35:08	Red Chevy Corvette	12:42:21	White Toyota Rav4	
12:35:19	White Toyota Prius	12:42:26	White SUV	
12:35:49	Silver Chevy Truck			
12:48:30	Silver Nissan SUV	12:50:56	Fedex Truck	
12:50:07	Black Scion SUV	12:52:26	Blue BMW Sedan	
12:50:29	Black Hyundai SUV	12:52:55	White Toyota 4Runner	
12:55:33	Black Ford Explorer	12:52:55	Silver Honda CRV	
12:56:25	White Nissan Sedan	12:52:00	Silver Toyota Corolla	
12:58:21	White Sedan	12:58:31	Balck Mercedes Sedan	X
12:59:39	White Honda Hatchback	13:02:05	Silver Toyota Corolla	
13:00:10	Black Dodge Ram	13:02:08	White Sedan	
13:05:51	White Chevy Van	13:07:44	Silver SUV	
13:10:37	White GMC SUV	13:10:43	Silver Nissan Hatchback	
13:12:34	Black Hyundai Sedan	13:12:26	White Chevy Truck	
13:16:30	White Toyota SUV	13:17:37	Black Tesla Sedan	
13:27:30	Black Hyundai SUV	13:18:52	Red Dodge Ram	
		13:19:19	Grey Chevy Truck	
		13:20:33	Black Sedan	
		13:21:53	Black Honda Sedan	
		13:21:59	White Toyota hatchback	
		13:22:49	Black Ford SUV	
		13:26:52	Blue Toyota Highlander	
		13:27:38	Grey Ford Fusion	
13:31:40	Black Honda Truck	13:34:25	Grey Honda Accord	
13:33:01	Grey Toyota Tacoma	13:34:27	White Toyota Highlander	
13:34:11	Black SUV	13:35:59	White Chevy SUV	
13:36:27	Amazon Delivery Truck	13:36:48	White Mercedes Sedan	
13:38:33	Black Honda Sedan	13:40:03	White Range Rover	
13:38:34	Grey Hyundai SUV			
13:40:28	Black/Grey Jeep SUV			

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/10/2023
Route 1B - From 1B to 1A

13:47:15	GreyTesla Sedan	13:45:09	Grey Buick SUV	
13:51:17	White Honda Accord	13:46:22	Silver Chevy Truck	
13:54:05	Silver Honda CRV	13:51:11	Black Honda SUV	
13:55:24	Blue/Grey Toyota Sedan	13:52:36	White Toyota Van	
14:01:38	Silver Chevy Tahoe	13:56:01	White Toyota Tundra	
14:02:06	Silver Honda Van	14:02:52	Light Blue Toyota Hatchback	
14:03:19	White Chevy Truck	14:03:02	White Chevy Volt	
14:03:34	Black Toyota Tacoma	14:03:03	Silver Ford Flex	
14:03:39	White Toyota Highlander	14:08:29	Black/Grey Mazda SUV	
14:06:04	Silver Honda SUV	14:08:58	Blue/Grey Audi SUV	
14:06:49	White Chevy Suburban	14:12:52	Blue Ford Bronco	
14:10:13	White Kia SUV	14:13:25	UPS Truck	
14:15:08	Red SUV	14:23:09	Black Ford SUV	
14:15:11	Black Ford SUV	14:23:12	Red Acura Sedan	
14:15:13	White Tesla SUV	14:24:13	White Land Rover	
14:17:36	Grey Honda Accord	14:24:21	Black Ford SUV	
14:22:06	Black Mazda SUV	14:27:02	Blue Ford Mustang	
14:22:40	Bronze Toyota Rav4	14:27:15	Blue Hatchback	
14:23:37	Grey Nissan Sedan			
14:27:01	Silver Chevy Tahoe			
14:28:28	Black Kia Optima			
14:34:00	Silver Ford Fusion	14:32:15	Grey Nissan Sedan	
14:39:04	Black Mitsubishi Sedan	14:33:09	Grey SUV	
		14:41:03	Grey/Blue Chevy Tahoe	
		14:43:49	Red SUV	
14:49:45	White Chevy Work Truck	14:47:43	Amazon Truck	
14:54:09	Grey Crossover	14:53:17	Blue Lexus SUV	
14:55:18	Silver Lexus Sedan	14:55:48	Silver Toyota Van	
		14:56:57	White Range Rover	
		14:57:36	Grey Chevy Truck	
		14:57:37	Grey Toyota Rav4	
		14:57:45	Grey/Blue Honda Accord	
TOTALS	**60**		**77**	**1**

% of Matches from Origin to Destination: **2%**

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2024
ROUTE SUMMARY
Weekday AM: 7:00 AM - 9:00 AM
Weekday PM: 4:00 PM - 6:00 PM
Saturday MD: 12:00 PM - 3:00 PM

Location List:

OD - 2A:	Greenbriar Ln S/ Associated Rd to Castlegate Ln N/ Imperial Blvd (SB)
OD - 2B:	Castlegate Ln N/ Imperial Blvd to Greenbriar Ln S/ Associated Rd (NB)

Route List:		**Origin Volume**	**Destination Volume**	**Matches**	**% Match**
Route 2A - AM	2A TO 2B	45	116	6	13%
Route 2A - PM	2A TO 2B	85	87	16	19%
Route 2A - SAT	2A TO 2B	95	129	18	19%
Route 2B - AM	2B TO 2A	63	133	24	38%
Route 2B - PM	2B TO 2A	176	121	60	34%
Route 2B - SAT	2B TO 2A	178	147	53	30%

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 2A - From 2A to 2B
Greenbriar Ln S/ Associated Rd to Castlegate Ln N/ Imperial Blvd (SB)
7:00 AM - 9:00 AM

	Enter at Origin: Greenbriar Ln S/ Associated Rd		**Exit at Destination:** Castlegate Ln N/ Imperial Blvd	**Matches**
Time	SB Entering	**Time**	SB Exiting	
7:00:00		7:00:00		
7:06:58	Bronze Toyota Corolla	7:00:48	Black Honda Accord	
7:11:54	White Toyota Tacoma Bed Rack	7:02:56	Silver Kia Soul	
7:14:22	Grey SUV	7:02:57	White Honda CRV	
7:19:56	Red SUV	7:05:01	Silver SUV	
7:22:24	Black Jeep Truck	7:09:06	White Toyota Corolla	
7:28:01	Silver Lexus SUV	7:09:09	Grey Toyota Rav 4	
		7:10:40	Silver Honda Sedan	
		7:11:27	White Honda Accord	
		7:11:29	Silver Chevy SUV	
		7:11:30	Blue/Grey Toyota Corolla	
		7:13:36	Silver Ford SUV	
		7:15:31	White BMW SUV	
		7:15:34	Black Lexus Sedan	
		7:16:07	White Tesla SUV	
		7:18:03	Silver Jeep SUV	
		7:19:05	Black Acura SUV	
		7:20:10	Black Ford Truck	
		7:22:17	White Honda Civic	
		7:24:31	White BMW SUV	
		7:28:49	Silver Toyota Tacoma	
7:30:09	Grey/Black Chevy Tahoe	7:32:28	Black Chevy Volt	
7:30:50	White Honda Civic	7:32:46	Grey Ford Truck	X
7:31:46	Grey Toyota Prius	7:33:20	Silver Honda Accord	
7:32:45	White Chevy Tahoe	7:35:21	Black Ford SUV	
7:33:26	White Honda Fit	7:35:22	White Honda Fit	X
7:43:13	Black SUV	7:36:38	White Honda Civic	
7:44:50	Bronze Toyota Tundra	7:37:10	Black SUV	
		7:37:36	Silver Jeep SUV	
		7:39:04	White Ford SUV	
		7:39:39	Grey/Blue Honda Accord	
		7:41:06	White Toyota SUV	
		7:41:54	Black SUV	
		7:41:55	White Tesla Sedan	
		7:41:57	White Toyota Camry	
		7:42:00	Grey Nissan SUV	
		7:43:30	White BMW SUV	
7:46:35	Bronze/Silver Hyundai Sedan	7:46:33	Black Hyundai SUV	X
7:48:01	Grey Ford Truck	7:46:36	Grey Toyota Van	
7:54:58	Black SUV	7:46:37	White Chrysler 300	
		7:46:36	White Chevy Work Truck	
		7:48:22	Bronze/Silver Hyundai Sedan	
		7:48:24	White Hyundai Hatchback	
		7:49:46	Bronze Toyota Rav4	
		7:50:35	Black Hyundai SUV	
		7:50:37	Black Honda SUV	
		7:52:54	White SUV	
		7:52:55	Grey Honda Accord	
		7:52:54	Grey Acura TL	
		7:54:48	Black Tesla SUV	
		7:56:27	Red Sedan	
8:05:20	Black SUV	7:59:12	Black Toyota Corolla	X

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 2A - From 2A to 2B

8:11:42	White Work Truck (Cones)	7:59:13	Black SUV	
8:12:12	Tan Chevy Tahoe	8:03:30	WhiteSUV	X
8:13:10	Grey SUV	8:03:31	White Toyota Camry	
		8:03:46	White Subaru Hatchback	
		8:05:48	Silver Honda SUV	
		8:08:16	Black Mazda SUV	
		8:09:34	White Mercedes Sedan	
		8:09:45	Silver Chevy SUV	
		8:09:58	White Sedan	
		8:10:01	Grey Toyota Rav 4	
		8:10:09	Black SUV	
		8:12:14	Red Toyota Rav4	
		8:12:14	Black Porsche Sedan	
8:16:50	Grey Toyota Van	8:13:48	Red Sedan	
8:21:22	Red Sedan	8:14:27	Grey Ford Explorer	
8:22:55	Red Covnertible Mustang	8:14:28	Yellow School Bus	
8:23:10	White Kia SUV	8:14:30	Tan Toyota Highlander	
8:25:58	Grey/Bronze Toyota Rav4	8:14:31	Tan Chevy Tahoe	
		8:14:33	White Toyota Tacoma	
		8:18:52	Grey Hummer	
		8:19:06	Black Infinti SUV	
		8:20:03	Grey Hyundai SUV	
		8:20:59	White Toyota Van	
		8:21:26	Silver Jeep SUV	
		8:23:06	Grey Cube	
		8:23:08	White Honda Civic	
		8:24:26	Black Honda Civic	
		8:24:55	White Box Truck	
		8:27:29	Grey Honda SUV	
		8:27:57	Black Honda Accord	
		8:28:02	Bronze Toyota Corolla	
		8:29:41	Grey Infiniti Sedan	
		8:29:43	Black Tesla Sedan	
		8:29:46	Black Toyota Prius	
8:33:55	Silver Toyota Corolla	8:30:58	Black Jeep Grand Cherokee	X
8:34:14	Black SUV	8:31:11	Black Toyota Tacoma	
8:35:48	Black Honda SUV	8:31:59	White Kia SUV	
8:36:02	White Chevy SUV	8:32:00	Grey Mazda Sedan	
8:37:50	Grey Kia SUV	8:33:52	Grey Honda SUV	
8:43:07	Blue/Grey Kia/Hyundai SUV	8:35:31	Silver Toyota Corolla	
8:43:12	Black SUV	8:40:28	Blue Subaru Crossover	
		8:40:29	Silver Toyota Tundra	
		8:41:01	Black Rav 4	
		8:42:24	Black SUV	
		8:42:25	White Chevy SUV	
		8:42:26	Silver Ford Truck	
		8:42:41	Grey Toyota SUV	
		8:44:51	Blue Tesla SUV	
8:45:01	White Honda Van	8:48:37	Black Honda Accord	
8:45:08	Grey SUV	8:49:03	Grey Mazda SUV	
8:46:57	White Van w/ Black Top	8:49:08	Black SUV	
8:47:00	Black Mercedes SUV	8:51:21	Bklue 4 Runner	
8:47:31	White Hatchback	8:51:22	Silver Ford Hatchback	
8:47:42	Grey Toyota Corolla	8:51:24	Black Kia SUV	
8:50:36	White Toyota Highlander	8:51:28	Black Honda SUV	
8:51:21	White Ford Explorer	8:53:34	White Toyota Tundra	
8:52:33	Silver Jeep SUV	8:53:34	White SUV	

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 2A - From 2A to 2B

8:53:00	Grey Ford Explorer	8:55:15	Silver Hyundai Sedan	X
8:55:22	Black/Blue Tesla SUV	8:55:39	Grey Ford Explorer	
8:58:03	White Chevy Truck	8:55:41	Black BMW SUV	
8:59:28	Silver Toyota Rav 4	8:57:50	Grey Ford Hatchback	
		8:59:55	White Honda Van	
		8:59:57	Grey BMW SUV	
		9:02:05	White Lexus SUV	
		9:02:06	Black Chevy SUV	
TOTALS	**45**		**116**	**6**

% of Matches from Origin to Destination: **13%**

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 2A - From 2A to 2B
Greenbriar Ln S/ Associated Rd to Castlegate Ln N/ Imperial Blvd (SB)
4:00 PM - 6:00 PM

	Enter at Origin: Greenbriar Ln S/ Associated Rd		**Exit at Destination:** Castlegate Ln N/ Imperial Blvd	**Matches**
Time	SB Entering	**Time**	SB Exiting	
16:00:00		16:00:00		
16:01:50	Black Ford SUV	16:01:18	Chevy Work Truck	X
16:09:28	Silver Toyota Van	16:02:58	Black Ford SUV	
16:11:05	White Honda Van	16:02:59	White Chrysler 300	X
16:13:12	White Mercedes SUV	16:05:05	White Dodge Ram	X
16:14:04	White Work Van	16:05:06	White Van Orange Top	
16:14:25	Amazon Box Truck	16:05:07	Grey SUV	
		16:05:08	White Honda Accord	
		16:05:11	Grey Toyota Prius	
		16:06:22	Silver Honda Civic	
		16:09:28	Gold Hummer	
		16:09:30	White SUV	
		16:10:34	Black Honda Accord	
		16:11:52	Black Ford SUV	
		16:11:53	White Chevy SUV	
		16:12:45	White VW Hatchback	
		16:13:57	White Honda Van	
16:20:56	White SUV	16:16:06	White Mercedes SUV	
16:21:00	White Work Van w/ Ladder	16:16:08	White Dodge Ram with Red Bed	
16:22:32	Grey Hatchback	16:18:15	Grey SUV	
16:22:37	Grey Mercedes Sedan	16:22:27	Amazon Box Truck	
16:24:52	White Tesla SUV	16:22:30	White Work Van	
16:24:57	Grey SUV	16:24:47	Grey Toyota 4 Runner	
16:26:55	Grey/Tan Lexus Sedan	16:24:47	Light Blue Porsche Sedan	
		16:26:54	White Lexus SUV	
		16:26:55	White Van	
		16:26:54	White Honda Civic	
		16:29:27	Grey SUV	
16:30:09	White Work Van	16:31:09	Black SUV	X
16:31:51	Grey Honda Fit	16:33:23	White Work Van	
16:33:16	Black Sedan	16:37:21	Grey Kia SUV	
16:33:21	Grey SUV	16:39:45	Black SUV	
16:36:04	Black SUV	16:39:48	White Toyota Tundra	X
16:36:07	White Small Hatchback	16:40:13	Grey Toyota Tundra	
16:37:31	White BMW Sedan	16:40:14	White Honda SUV	
16:38:33	White Kia SUV	16:42:06	White Tesla Sedan	
16:41:06	White SUV	16:46:24	Black/Grey Ford SUV	
16:43:37	White Corolla Hatchback	16:48:34	Red Toyota Rav4	
16:43:40	Orange Chevy SUV	16:48:35	White Ocacess Bus	
16:43:41	Black Mercedes SUV	16:48:39	Grey Lexus SUV	
16:44:43	White Honda Civic	16:50:39	Blue Convertible BMW Coupe	
16:45:05	Silver Kia SUV	16:50:42	White Toyota Corolla	
16:45:45	Red Toyota Rav 4	16:52:51	Grey Tesla SUV	X
16:47:19	White Ford Truck	16:54:59	White Honda Van	
16:48:37	Silver Honda CRV	16:55:01	White Ford Truck	
16:48:56	Silver Honda CRV	16:57:12	Grey SUV	
16:53:59	White VW Sedan	16:57:15	Black Honda CRV	
16:54:31	White Chevy Camaro	16:57:17	Burgundy BMW SUV	
16:55:06	Black Honda CRV	16:59:20	White Toyota Corolla	X
16:55:19	White BMW SUV	16:59:20	Green Subaru Crossover	
16:55:21	Grey SUV	16:59:22	Silver Honda Pilot	X
16:56:21	Green Subaru Crossover			X

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 2A - From 2A to 2B

16:58:32	Black SUV			
17:02:00	Grey Ford Hatchback	17:02:54	Silver Toyota Tundra	
17:02:06	Black Mercedes Sedan	17:03:34	Grey Honda Accord	
17:02:21	Silver Toyota Rav 4	17:03:35	Black SUV	
17:03:10	Bronze Mercedes SUV	17:07:08	Blue/Grey Ford Explorer	
17:03:18	Bronze Toyota Highlander	17:08:05	Grey Chevy Volt	
17:03:39	Black SUV	17:12:21	Grey Dodge Ram	
17:04:12	White Toyota Corolla			
17:04:10	Black Truck			
17:06:24	Silver Nissan SUV			
17:09:15	Black/Grey Chevy Tahoe			
17:09:20	Grey Dodge Ram			X
17:11:48	Bronze Dodge Ram			
17:12:56	White Toyota Prius			
17:13:01	Bronze SUV			
17:13:10	Silver Toyota Van			
17:13:54	White Honda Civic			
17:15:05	Black Audi SUV	17:18:52	Silver Honda Civic	X
17:15:12	Black Lexus SUV	17:21:03	Red Tesla Sedan	
17:15:46	Silver Honda Civic	17:21:04	Grey Lexus SUV	
17:16:02	White Ford Truck	17:21:05	Blue Tesla SUV	
17:16:48	Red SUV	17:23:28	Silver Ford Truck	
17:17:18	White Chevy Truck	17:25:27	Grey Toyota Highlander	
17:18:59	Black Toyota Tundra	17:25:28	White Lexus SUV	
17:19:15	White Ford Truck	17:25:29	Light Blue Porsche Sedan	
17:20:06	White Ford Truck	17:26:53	Black Cadillac SUV	
17:21:47	Silver Honda Civic	17:27:50	White Honda Accord	
17:25:44	Black Hatchback	17:27:51	Black Hatchback	X
17:26:07	Black/Grey Chevy SUV	17:29:39	Black Mercedes SUV	
17:29:49	White Ford SUV			
17:29:51	White Subaru Crossover			
17:29:51	Silver GMC SUV			X
17:31:51	Black/White Toyota Tacoma	17:31:45	Grey Honda SUV	
17:31:58	Flatbed Truck	17:31:46	Silver GMC SUV	
17:32:17	White Ford SUV	17:34:00	White Honda Accord	
17:34:00	Silver Toyota Corolla	17:36:27	Blue Tesla Sedan	
17:37:37	Blue/Silver SUV	17:41:01	Grey Chevy SUV	
17:38:16	Black Mercedes SUV	17:42:40	Grey Honda Accord	
17:40:58	Black Lexus SUV	17:42:41	Black SUV	
17:42:48	White Chevy Truck	17:44:48	Black SUV	X
17:43:18	Grey SUV	17:44:53	White Chevy Truck	X
17:45:05	White Tesla SUV	17:44:54	Grey SUV	
17:45:42	White Lexus SUV	17:46:11	Black Honda Civic	
17:49:23	White Tesla Sedan	17:49:16	Black Jeep SUV	
17:51:50	White SUV	17:53:02	White Mercedes SUV	
17:53:52	White Honda Civic	17:53:32	Blue/Grey SUV	X
17:55:02	Tan Toyota Corolla	17:56:02	Grey SUV	
17:56:27	Silver Honda CRV	17:55:02	White Honda Civic	
		17:59:59	White Sedan	
		18:00:01	White SUV	
		18:00:04	Black SUV	
TOTALS	**85**		**87**	**16**

% of Matches from Origin to Destination: **19%**

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/10/2023
Route 2A - From 2A to 2B
Greenbriar Ln S/ Associated Rd to Castlegate Ln N/ Imperial Blvd (SB)
12:00 PM to 3:00 PM

	Enter at Origin: Greenbriar Ln S/ Associated Rd		**Exit at Destination:** Castlegate Ln N/ Imperial Blvd	**Matches**
Time	SB Entering	**Time**	SB Exiting	
12:00:00		12:00:00		
12:00:49	White SUV	12:01:51	Black Toyota Highlander	
12:04:26	Black Mazda Sedan	12:04:13	White Honda Civic	
12:04:02	Black Honda Accord	12:06:16	Silver Toyota Camry	
12:04:59	Silver Toyota Tacoma	12:06:18	Bronze Honda CRV	
12:06:06	White BMW Sedan	12:08:20	Black Toyota Highlander	
12:08:51	Silver Toyota Rav 4	12:08:23	Black SUV	X
12:11:10	White Ford Explorer	12:10:38	Dump Truck	
12:13:29	Silver Toyota Camry	12:10:36	Grey /Silver SUV	
		12:10:39	Silver Rav 4	
12:15:23	Black SUV	12:15:05	Grey Ford Explorer	
12:19:09	White SUV	12:15:06	Black Dodge Ram	X
12:20:01	Black Dodge Ram	12:17:09	Silver/Grey SUV	
12:21:31	White Honda Accord	12:18:24	Grey Toyota Tundra	
12:23:24	White Crossover	12:21:34	Grey Jeep SUV	X
12:23:57	Grey SUV	12:21:35	Silver VAN	
12:24:26	Silver Grey SUV	12:12:37	White SUV	
12:25:53	Silver Chevy SUV	12:23:31	Black Honda SUV	
12:29:48	Black SUV	12:26:10	White Chevy SUV	
		12:26:11	White Subaru Crossover	
		12:26:15	Silver/Tan Lexus SUV	
		12:26:16	Silver SUV	
		12:26:17	Blue Honda Civic	
		12:26:18	White BMW Sedan	
		12:26:19	White Toyota Tacoma	
		12:26:19	Grey Honda Hatchback	
		12:27:51	White SUV	
12:30:11	Black/Grey Toyota Rav 4	12:32:16	White Chrysler 300	
12:32:15	Black Convertible Mustang	12:32:17	Silver Honda CRV	X
12:32:15	Black SUV	12:32:18	White Tesla SUV	X
12:34:22	Red Dodge Van	12:34:24	Red Chevy Truck	
12:35:32	Black SUV	12:34:25	Black Convetible Mustang	
12:36:57	White Lexus SUV	12:36:38	Black SUV	
12:41:16	Silver Toyota Van	12:41:01	Blue Ford Truck	
		12:43:09	Black Chevy Tahoe	
		12:43:10	Blue Chevy Truck	
		12:44:27	Silver Toyota Tacoma	
12:45:10	Black SUV	12:45:20	White Ford Truck	
12:45:51	Silver SUV	12:45:22	Grey Ford Explorer	
12:47:14	Small Black SUV	12:48:22	Blue Honda CRV	
12:47:40	White Tesla Sedan	12:49:31	Grey Hatchback	
12:47:54	Grey Hatchback	12:53:52	White Toyota Camry	X
12:52:08	Black SUV	12:55:11	Blue/Black SUV	
12:53:03	White Kia SUV	12:56:13	Black Toyota Camry	
12:53:42	Black Toyota Camry	12:56:14	Black BMW Sedan	
12:53:55	Silver Van	12:58:19	White Nissan Sentra	
12:57:23	Black Mercedes SUV	12:59:42	White Toyota Prius	
12:58:48	Black SUV			X
13:00:56	Black Sedan	13:00:24	White Ford Explorer	
13:03:01	Black Sedan	13:02:37	Black SUV	X
13:03:27	Grey SUV	13:02:38	White Hatchback	
13:07:27	White Toyota Corolla	13:04:47	Grey/Silver SUV	

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/10/2023
Route 2A - From 2A to 2B

13:09:34	Grey Mercedes Sedan	13:09:00	Black Sedan	
13:09:38	White Ford Truck	13:11:14	Black Chevy Truck	
13:14:01	Black GMC SUV	13:13:18	Grey Honda CRV	X
13:15:24	Black Ford SUV	13:15:29	White Work Van	X
13:18:02	White Honda Accord	13:15:29	Black GMC SUV	
13:18:51	White BMW Sedan	13:15:31	Black BMW SUV	X
13:20:06	Mail Car	13:17:56	Black Ford SUV	
13:20:37	Black Chevy Truck	13:17:57	Silver Honda Accord	
13:22:28	Black SUV	13:17:58	White Toyota Camry	
13:26:49	Black SUV	13:17:59	Grey Mercedes Sedan	
13:26:55	Grey Nissan SUV	13:18:01	Tan Nissan Sedan	
13:26:58	Black SUV	13:21:58	White BMW Sedan	
13:28:57	Silver Sedan	13:21:59	White Honda Civic	X
		13:24:14	Black SUV	
		13:24:18	Grey Honda CRV	
		13:24:19	Light Blue SUV	
		13:24:22	Blue Ford Truck	
		13:26:35	Grey Ford Explorer	
		13:26:36	White Cadillac Sedan	
		13:28:40	Grey GMC Truck	
13:33:11	White Dodge Ram	13:30:36	Silver Honda CRV	
13:37:38	White Tesla Sedan	13:30:37	Red Tesla Sedan	
13:40:02	Grey Sedan	13:30:41	Green Toyota 4 Runner	
13:42:00	White Van	13:30:42	Silver Sedan	
		13:35:33	Silver/Grey Honda Van	
		13:39:27	Silver BMW Hatchback	
13:48:34	Black SUV	13:45:27	Blue Honda Civic	
13:50:49	Black Honda SUV	13:47:29	Grey Jeep SUV	
13:58:58	Yellow Hummer	13:50:17	Black Mazda Sedan	
13:59:19	Black Dodge Challenger	13:52:08	Black Mercedes SUV	
		13:52:25	Yellow Hummer	
		13:53:57	Silver Chevy Truck	
		13:54:07	Grey Ford Truck	
		13:54:48	White SUV	
		13:57:07	Black SUV	
		13:57:08	Blue Muscle Car	
14:01:18	White Kia SUV	14:00:42	White GMC SUV	
14:01:27	White Toyota Corolla	14:00:48	White Tesla Sedan	
14:01:33	Black Sedan	14:01:30	White Cadillac Sedan	
14:05:44	White Honda SUV	14:01:31	Red Tesla Sedan	
14:09:40	Black Nissan SUV	14:05:19	Silver Hyundai Sedan	
14:10:31	White Toyota Corolla	14:07:35	Red Sedan	
14:10:43	Grey Toyota Camry	14:07:36	White Honda SUV	
14:11:24	Silver Toyota Tundra	14:07:37	Silver Toyota Camry	X
14:14:04	White Ford Truck	14:14:06	Silver Toyota Tundra	
14:15:24	Yellow Hummer	14:18:25	Silver Honda Acoord	
14:17:17	White Ford Truck	14:18:26	White Nissan Truck	X
14:18:16	Grey/Silver Sedan	14:18:27	White Ford Truck	
14:18:39	Silver Toyota Tacoma	14:18:29	White Toyota Corolla	
14:21:28	Green Toyota 4 Runner	14:20:36	Black Toyota Corolla	
14:23:08	White Chevy Tahoe	14:20:37	Grey Tesla Sedan	
14:26:17	Black Mercedes Sedan	14:22:52	Blue Chevy Truck	X
14:29:29	Black GMC Sedan	14:24:53	White Honda SUV	
14:29:31	White Honda Civic	14:26:56	Silver Honda CRV	
		14:26:58	Silver Toyota Tacoma	
		14:29:11	Black Mercedes Sedan	
		14:29:12	Gold Cadillac SUV	

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/10/2023
Route 2A - From 2A to 2B

		14:29:15	White BMW Sedan	
		14:29:16	White Van	
		14:29:17	Grey Jeep SUV	
		14:29:18	Silver Kia SUV	
14:34:30	White Truck with rack	14:33:33	Silver/Grey SUV	
14:35:41	White BMW SUV	14:37:56	Black SUV	
14:36:31	Silver Nissan SUV	14:37:57	Silver Nissan SUV	X
14:40:00	Black SUV	14:40:00	Silver Grey SUV	
14:41:34	Silver SUV	14:44:28	Silver Nissan Sedan	
14:42:07	Black Sedan	14:44:29	Silver Toyota 4 Runner	
14:42:34	Gold Toyota Camry			
14:43:09	Silver Toyota 4 Runner			X
14:43:19	Black SUV			
14:44:44	Black Ford SUV			
14:44:48	White SUV			
14:46:31	Silver SUV	14:48:48	Red Sedan	
14:47:15	Black SUV	14:48:50	White Mercedes Sedan	
14:48:00	Grey/Silver Sedan	14:50:24	White Truck with rack	X
14:55:12	Silver Sedan	14:50:55	Grey Sedan	
14:57:54	Grey Honda Accord	14:50:56	Silver Toyota Van	
14:57:58	White Toyota Camry	14:50:58	Black Jeep SUV	
		14:54:15	Blue Toyota Prius	
		14:55:15	Black GMC SUV	
		14:55:16	Silver SUV	
		14:58:08	White BMW Sedan	
		14:58:26	Grey Ford Truck	
		14:59:26	Black Dodge Challenger	
TOTALS	**95**		**129**	**18**

% of Matches from Origin to Destination: **19%**

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 2B - From 2B to 2A
Castlegate Ln N/ Imperial Blvd to Greenbriar Ln S/ Associated Rd (NB)
7:00 AM - 9:00 AM

	Enter at Origin:		**Exit at Destination:**	
	Castlegate Ln N/ Imperial		Greenbriar Ln S/ Associate Rd	**Matches**
Time	NB Entering	**Time**	NB Exiting	
7:00:00		7:00:00		
7:02:50	Black SUV	7:00:00	Blue Toyota Van	
7:03:23	Black SUV	7:02:26	White Toyota Rav4	
7:09:22	Black Sedan	7:02:27	Silver Toyota Rav 4	
7:10:35	Silver SUV	7:03:42	White Chevy Truck	
7:13:49	Truck with Red Bed	7:03:43	Black Mercedes Sedan	
		7:03:46	White SUV	
		7:07:57	Black Sedan	
		7:08:29	Black Lexus SUV	
		7:09:18	White Honda Accord	
		7:09:27	Tan Toyota Camry	
		7:09:45	White Lexus SUV	
		7:09:46	White Toyota Corolla	
		7:10:18	White Honda Truck	
		7:11:16	White Subaru Crossover	
		7:11:19	White Honda Civic	
		7:12:33	Silver Kia SUV	
		7:14:04	Black Ford Truck	
		7:14:06	Silver Honda Accord	
7:15:22	White Jeep Wrangler	7:15:45	Grey Chevy Tahoe	X
		7:16:24	White Jeep Wrangler	
		7:18:26	White Tesla Sedan	
		7:19:41	Black Toyota Rav4	
		7:21:35	White Toyota Camry	
		7:23:16	Silver Hyundai Sedan	
		7;24:30	Silver Toyota Corolla	
		7:24:32	Black Jeep Truck	
		7:27:23	White Lexus Hatchback	
		7:28:32	Yellow School Bus	
		7:29:51	Black Audi Sedan	
7:31:05	White Honda Accord	7:32:13	White Ford Truck	
7:32:23	Black Toyota Camry	7:33:24	Black Toyota Camry	X
7:33:06	White SUV	7:33:31	Silver Honda SUV	X
7:33:30	White SUV	7:34:02	White SUV	
7:39:53	Silver Sedan	7:34:15	Black SUV	
7:46:05	Large White SUV	7:34:49	Grey Hatchback	X
7:46:11	White Truck	7:37:22	Grey SUV	X
7:50:47	Grey Toyota Rav4	7:37:22	Black Toyota Prius	
7:51:55	White Kia SUV	7:38:35	Black Toyota Tundra	X
7:52:31	Grey SUV	7:39:50	White SUV	
7:52:41	Black Chevy Truck	7:39:51	White Chevy Truck	
7:52:44	Silver GMC SUV	7:39:53	White Ford Explorer	X
		7:41:14	Black MercedesSedan	
		7:41:17	White SUV	
		7:42:53	Black Nissan SUV	
		7:42:57	White Lexus SUV	
		7:44:30	Bronze Toyota Rav 4	
		7:44:32	Black Chevy Volt	
		7:46:37	Grey SUV	
		7:47:11	Large White SUV	
		7:47:17	White Truck	
		7:47:35	Silver Lexus SUV	

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 2B - From 2B to 2A

		7:48:17	Silver SUV	
		7:48:19	Black Mercedes Sedan	
		7:48:24	White Crossover	
		7:49:56	Silver Honda Accord	
		7:49:59	Blue Sedan	
		7:50:04	White VW Sedan	
		7:51:34	White Tesla Sedan	
		7:51:35	Black Honda SUV	
		7:51:38	Bronze Honda Pilot	
		7:53:10	White Kia SUV	
		7:53:45	Silver SUV	
		7:53:53	Black Chevy Truck	
		7:54:26	White Lexus SUV	
		7:55:43	White Truck w/ Bike	
		7:56:02	Grey Van	
		7:58:28	White Toyota Tundra	
		7:58:29	Silver Kia SUV	
		7:59:55	Red Sedan	
8:01:13	White Hatchback	8:01:16	White Toyota Camry	X
8:01:18	Grey Van	8:02:22	White Hatchback	X
8:02:37	Silver SUV	8:02:28	Grey Van	
8:03:00	Grey Honda Accord	8:02:36	White SUV	
8:05:34	Grey Sedan	8:06:19	Black SUV	X
8:06:02	Red Sedan	8:06:20	Black/Grey Sedan	
8:07:45	Silver Grey BMW Sedan	8:06:39	Grey Sedan	
8:08:30	White SUV	8:07:38	White SUV	X
8:09:52	Grey SUV	8:08:42	Silver Grey BMW Sedan	X
8:09:56	White Sedan	8:10:02	Grey Honda Accord	X
8:10:26	Yellow School Bus	8:10:31	White SUV	
8:14:48	White Honda Civic	8:10:53	Grey SUV	
		8:10:59	White Sedan	
		8:11:51	Grey Honda Sedan	
		8:14:43	Red Convertible Mustang	
8:15:25	Silver Jeep SUV	18:17:04	White Ford Truck w/Cones	
8:16:17	White SUV	8:17:06	White Nissan Truck	
8:16:26	White SUV	8:18:42	Red Ford Truck	
8:17:16	White Chevy Truck w/ Roof Rack	8:19:10	Silver Mercedes Van	
8:19:07	Yellow School Bus	8:20:41	White Chevy SUV	X
8:23:23	White AC Box Truck	8:23:50	Yellow School Bus	
8:23:45	Silver Honda Accord	8:23:52	Black Mercedes Sedan	X
8:25:28	Grey SUV	8:23:57	Grey Mazda SUV	X
8:27:44	Grey Sedan	8:24:41	Silver Honda Accord	
8:28:39	Black Sedan	8:25:20	Grey Van	
		8:26:31	Grey SUV	
		8:28:46	Silver Honda CRV	
		8:29:35	Grey/Silver Toyota Corolla	
8:30:44	Red Toyota Camry	8:30:45	Black SUV	
8:30:47	Black Ford Explorer	8:32:38	Grey SUV	X
8:31:34	Black Honda SUV	8:32:39	Black Ford Explorer	X
8:31:47	Black SUV	8:32:39	Black Honda SUV	X
8:32:09	Black Tesla SUV	8:33:15	Black SUV	
8:32:13	Grey SUV	8:34:33	Grey SUV	X
8:32:54	Black Mercedes SUV	8:34:46	Black Ford SUV	
8:33:42	Grey SUV	8:35:09	Red Ford Mustang	
8:35:44	Black Chevy Truck	8:35:48	White Van	
8:40:39	Black Toyota Rav4	8:37:04	Grey SUV	
8:42:40	Silver Truck	8:37:28	Silver Van	X

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 2B - From 2B to 2A

8:43:36	Black Toyota Prius	8:37:31	Grey Ford Truck	
		8:37:53	White Dodge Van	
		8:38:44	Red Toyota Camry	
		8:38:47	Grey Toyota Tacoma	
		8:39:35	Black Mercedes SUV	
		8:40:02	Silver Toyota Camry	
		8:41:19	Silver Toyota Prius	
		8:42:31	White/Black Toyota Tacoma	
		8:44:11	Silver Truck	
8:45:16	Silver SUV	8:45:27	White Tesla Sedan	X
8:45:41	Tan/ Gold Nissan Sedan	8:45:28	White SUV	
8:47:00	Grey SUV	8:45:56	White Toyota Rav4	
8:47:21	Silver Honda Pilot	8:46:02	White Toyota Highlander	
8:50:18	Silver Honda CRV	8:46:20	Silver SUV	
8:51:41	White Toyota Tundra	8:49:05	White Toyota Corolla	
8:53:47	White Truck Bed Rack	8:49:49	Silver SUV	
8:54:04	Grey Infiniti Sedan	8:51:48	White Honda Accord	
8:55:24	Silver Lexus Sedan	8:52:26	White Chevy Camaro	X
8:55:25	White Tesla Sedan	8:53:10	Black Sedan	X
8:55:54	Grey/ Black SUV	8:54:11	Silver BMW Sedan	
		8:55:31	Silver Honda SUV	
		8:56:31	Grey SUV	
		8:56:33	Silver Lexus Sedan	
		8:56:38	White Tesla Sedan	
		8:59:42	White Truck	
TOTALS	**63**		**133**	**24**

% of Matches from Origin to Destination: **38%**

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 2B - From 2B to 2A
Castlegate Ln N/ Imperial Blvd to Greenbriar Ln S/ Associated Rd (NB)
4:00 PM - 6:00 PM

	Enter at Origin:		**Exit at Destination:**	
	Castlegate Ln N/ Imperial		Greenbriar Ln S/ Associate Rd	**Matches**
Time	NB Entering	**Time**	NB Exiting	
16:00:00		16:00:00		
16:00:17	Bronze Sedan	16:01:39	Bronze Sedan	X
16:00:50	Grey/Silver Toyota 4 Runner	16:02:09	Black Mercedes SUV	
16:01:28	Black Hatchback	16:03:30	Silver SUV	
16:01:31	Silver Honda Civic	16:04:10	Silver/Green Toyota Prius	
16:01:32	Silver Ford Truck	16:04:26	Silver Van	
16:02:19	Silver SUV	16:05:33	Black Truck	X
16:03:47	Black Mercedes Sedan	16:05:59	White Sedan	
16:04:31	Black Ford Truck	16:06:58	White Ford Truck	
16:04:54	White Sedan	16:07:45	White Work Truck	X
16:08:39	White Chevy Van	16:08:15	Grey Tesla SUV	X
16:08:43	Silver Kia Optima	16:08:53	Black Honda SUV	X
16:09:14	Silver Chevy Truck	16:09:36	Grey SUV	
16:11:36	Bronze Mitsubishi Eclipse	16:10:21	Silver Kia Optima	
16:11:38	White Toyota Highlander	16:10:51	White Chevy Van	X
16:12:26	Blue Honda CRV	16:11:47	Black Sedan	
16:12:59	White Nissan SUV	16:13:07	Whte Toyota Highlander	X
16:13:44	White VW Sedan	16:14:16	White Nissan SUV	
16:15:44	Silver Sedan	16:14:59	Black Sedan	X
16:15:47	Silver/Blue Toyota Highlander	16:15:42	Grey SUV	
16:15:53	Grey Toyota Highlander	16:16:53	Silver Sedan	X
16:15:55	Silver Convertible	16:17:15	Silver Covertible	X
16:15:58	Silver/Grey Toyota Prius	16:17:19	Grey Toyota Highlander	
16:16:22	Black BMW Sedan	16:17:33	Black BMW Sedan	X
16:16:50	Light Blue Porsche Sedan	16:18:31	Silver Acura SUV	
16:17:55	Silver Chevy SUV	16:19:13	Grey Dodge Truck	
16:17:57	Silver Hyundai Sedan	16:21:08	Black Mercedes Sedan	
16:18:03	Grey Dodge Ram	16:22:19	Silver Ford Mustang	X
16:18:28	Silver Ford Mustang	16:23:15	White Tesla SUV	X
16:19:30	Black Mercedes Sedan	16:26:18	White Toyota Corolla	
16:20:09	Grey/Tan Toyota Camry	16:27:41	Grey Toyota Tundra	
16:20:10	White Toyota Camry	16:28:56	White VW Sedan	
16:20:43	Black Mercedes Sedan	16:28:57	Grey Toyota Tacoma w/ Camper	
16:22:40	White Bus OCAccess			
16:24:25	Grey Mazda SUV			
16:24:43	White Toyota Corolla			X
16:25:01	Red Toyota Rav 4			
16:26:43	Gold/Tan Toyota Corolla			
16:26;49	Grey Toyota Tundra			
16:27:53	Yellow VW Bug			
16:28:29	Light Blue Ford Bronco			
16:28:53	Grey/Silver Ford Explorer			
16:28:55	Silver/Grey Honda Van			
16:28:58	Grey Toyota 4 Runner			
16:29:00	Silver/Grey Honda Civic			
16:29:03	White SUV			
16:29:54	White Work Van			
16:29:58	Black Ford SUV			X
16:30:56	White Toyota Camry	16:30:05	Bronze Honda Van	X
16:30:59	Blue Subaru Crossover	16:30:09	Grey Honda Civic	
16:31:00	Red Jeep SUV	16:31:27	Grey Tesla SUV	X
16:31:25	Grey Tesla SUV	16:31:28	Red SUV	

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 2B - From 2B to 2A

16:31:49	Black SUV	16:31:29	Black Ford SUV	
16:31:53	White SUV	16:31:30	Silver SUV	
16:31:55	Silver Hyundai SUV	16:32:02	White Toyota Camry	X
16:32:38	White SUV	16:32:05	Red Jeep SUV	
16:33:40	White Honda Van	16:32:56	Black Toyota Prius	
16:33:42	Grey/Blue SUV	16:32:58	Silver Hyundai SUV	
16:35:09	Brown BMW SUV	16:34:13	Red Ford Truck	
16:35:13	Grey/Silver SUV	16:37:15	Slver Mitsubishi SUV	
16:35:16	Silver Mitsubishi SUV	16:37:18	Silver Nissan SUV	X
16:35:36	White Toyota Camry	16:37:20	Silver Mazda SUV	
16:35:51	Blue Tesla SUV	16:37:21	Black Sedan	
16:36:03	Silver Nissan SUV	16:38:37	Black SUV	X
16:36:09	Silver Mazda SUV	16:40:27	Blue Toyota Corolla	X
16:36:26	White Toyota Rav 4	16:41:23	Silver/Grey Sedan	
16:36:56	Black SUV	16:41:42	Grey Sedan	X
16:37:49	Grey/Silver Sedan	16:41:43	Black Lexus SUV	X
16:38:18	Silver/Grey SUV	16:41:47	Black Lincoln SUV	
16:40:32	White BMW SUV	16:43:01	Grey Nissan Sedan	
16:41:32	Black SUV	16:43:03	Silver Ford Truck	
16:41:36	Silver Ford Truck	16:43:37	Silver Toyota Highlander	X
16:41:49	Silver Toyota Highlander			X
16:42:45	Tan Chevy Tahoe			
16:43:30	Black SUV			
16:43:59	White SUV			
16:44:02	White Audi Sedan			
16:44:07	Silver SUV			X
16:46:11	Silver Toyota Camry	16:45:20	Silver SUV	
16:46:13	Silver Toyota Tacoma	16:47:32	Silver Toyota Tacoma	X
16:47:31	Yellow GMC Truck	16:47:37	Black Toyota Tundra	
16:48:20	White Toyota Tacoma	16:48:15	Black SUV	X
16:50:55	Grey Ford Explorer	16:49:19	White Tesla Sedan	
16:51:32	Black GMC Truck	16:49:20	White Toyota Tacoma	
16:54:41	White SUV	16:51:54	Grey Chevy Tahoe	
16:54:43	Silver Toyota Tacoma	16:55:47	Silver Toyota Tacoma	
16:55:13	Grey Honda Accord			
16:55:16	Silver Ford Truck			
16:56:57	Tan/ Beige Ford SUV			
16:57:41	Black GMC Truck			
16:58:12	Light Blue Porsche Sedan			
16:59:08	Black Honda Civic			X
16:59:12	White Honda SUV			X
17:00:30	Grey Toyota Highlander	17:00:07	Black Honda Civic	
17:00:41	Grey/Bronze Sedan	17:00:20	White Honda SUV	X
17:01:15	Grey Tesla SUV	17:01:48	Grey/Bronze Sedan	X
17:01:57	Black Infiniti Sedan	17:02:44	Grey Tesla SUV	
17:02:20	Silver Ford Truck	17:03:32	Silver Ford Truck	X
17:02:46	Silver Chevy SUV	17:06:44	Silver Toyota Rav 4	
17:04:56	Silver/Grey Sedan	17:07:22	Black SUV	
17:05:11	White Sedan	17:09:25	Silver Honda Civic	
17:05:35	Grey/Bronze Toyota Corolla	17:10:14	Black Toyota Prius	
17:08:27	Red Toyota Rav 4	17:10:59	Grey Chevy Tahoe	
17:08:30	White Toyota Camry	17:11:00	Tan/Grey SUV	
17:08:32	Black Toyota Prius	17:11:21	White Chrysler 300	X
17:09:11	Silver Subaru SUV	17:12:35	Grey Van	
17:09:25	Black SUV	17:13:12	Black BMW Sedan	
17:09:55	Grey/Bronze SUV	17:13:53	White Honda SUV	X
17:10:08	White Van Orange Top	17:14:31	White Ford Sedan	

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 2B - From 2B to 2A

17:10:09	White Chrysler 300	17:14:37	Grey Toyota Corolla	X
17:10:18	Black/Burgundy Kia Optima			
17:11:38	Black SUV			
17:11:42	White Ford Truck			
17:12:05	Black BMW Sedan			X
17:13:16	White BMW Sedan			
17:13:19	Blue Tesla SUV			
17:14:43	Grey Ford Explorer			
17:15:22	Black SUV	17:19:51	White Chevy Truck	
17:15:41	Silver Honda Pilot	17:19:53	Black SUV	
17:18:40	White Chevy Truck	17:20:19	Black BMW Sedan	X
17:18:43	Black SUV	17:21:36	Silver Toyota Corolla	X
17:19:10	Black BMW Sedan	17:21:37	White Ford Truck	X
17:19:45	White Toyota Corolla	17:21:38	White Nissan Truck	
17:20:02	Silver Toyota Corolla	17:22:12	Black Hatchback	X
17:20:39	White Nissan Truck	17:26:57	White Van	X
17:20:46	Black Hatchback	17:27:18	Grey Hatchback	X
17:21:32	Silver Ford Truck	17:27:22	White Honda Civic	
17:22:15	Grey/Green Toyota 4 Runner			
17:23:44	Blue SUV			
17:24:46	Black SUV			
17:25:17	Silver SUV			
17:25:49	White Van			X
17:26:04	White Lexus Hatchback			
17:26:06	White Toyota Camry			
17:26:20	White Honda Civic			X
17:28:03	Burgundy Toyota Tundra	17:31:12	Burgundy Toyota Tundra	X
17:28:26	White Mercedes SUV	17:32:37	White Flatbed Truck	
17:32:35	Black Mercedes Sedan	17:35:53	Blue Sedan	
17:33:42	Balck Hatchback	17:36:01	Grey Honda Accord	
17:35:23	Grey Honda Accord	17:37:14	Grey Toyota 4 Runner	X
17:36:00	White Honda Fit	17:37:16	White Hatchback	X
17:36:02	Grey Toyota 4 Runner	17:37:19	White Honda Fit	X
17:36:15	White Hatchback	17:37:24	White Tesla Sedan	X
17:38:06	Grey Ford Truck	17:40:43	Black Toyota Tundra	
17:38:09	Black SUV	17:40:50	Grey SUV	
17:38:45	White Van	17:41:55	Black Toyota Rav 4	
17:40:21	Black Toyota Rav4	17:44:50	White Range Rover	X
17:40:23	Red Tesla Sedan	17:44:51	Black Jeep SUV	
17:41:22	White Van			
17:42:51	Silver SUV			
17:43:26	White Range Rover			X
17:43:47	Black SUV			
17:45:09	Black SUV	17:46:04	Tan SUV	
17:45:23	Black Mercedes Sedan	17:47:47	White Tesla Sedan	
17:46:23	White Sedan	17:50:21	White Van	
17:47:07	Grey Tesla SUV	17:50:24	Silver/ Grey Lexus Sedan	
17:47:09	Black Ford Sedan	17:50:25	Grey Chevy Tahoe	
17:47:47	Grey Sedan	17:52:27	White Toyota Highlander	
17:48:57	Black Sedan	17:54:03	White SUV	
17:49:29	Black/Grey SUV	17:54:41	Black/Grey SUV	
17:50:38	Black/Burgundy SUV	17:55:18	Silver Kia SUV	
17:51:05	Burgundy/Red SUV	17:56:31	Silver SUV	
17:51:18	White Toyota Highlander	17:56:33	Black Sedan	X
17:53:02	White SUV	17:56:54	Red Toyota Camry	X
17:53:19	Grey SUV	17:57:37	Black SUV	X
17:53:49	Black SUV	17:57:47	Grey Honda Accord	

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/13/2023
Route 2B - From 2B to 2A

17:53:49	White SUV	17:57:49	Grey SUV	
17:54:06	Silver Kia SUV	17:58:34	Black SUV	X
17:55:26	Silver SUV	17:58:38	Silver Sedan	X
17:55:43	Red Toyota Camry			X
17:56:23	Black SUV			X
17:56:56	Silver Sedan			X
17:57:48	Black Hatchback			
17:58:02	White Sedan			
17:58:22	White Range Rover			
17:59:22	Silver Honda Accord			
17:59:48	Black Sedan			
TOTALS	**176**		**121**	**60**

% of Matches from Origin to Destination: **34%**

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/10/2023
Route 2B - From 2B to 2A
Castlegate Ln N/ Imperial Blvd to Greenbriar Ln S/ Associated Rd (NB)
12:00 PM - 3:00 PM

	Enter at Origin: Castlegate Ln N/ Imperial		**Exit at Destination:** Greenbriar Ln S/ Associate Rd	**Matches**
Time	NB Entering	**Time**	NB Exiting	
12:00:00		12:00:00		
12:00:12	White Mini Cooper	12:01:30	White Mini Cooper	X
12:03:57	Black SUV	12:02:17	White Van	
12:06:35	Black GMC Truck	12:03:32	Black BMW Sedan	X
12:06:42	Blue Tesla SUV	12:04:08	White Tesla SUV	
12:06:47	Blue Gray Toyota Corolla	12:04:47	Black Honda Civic	
12:07:07	Black Toyota Tacoma	12:06:01	White Tesla Sedan	
12:08:37	White Chevy Truck	12:06:02	Motorcycle	X
12:08:49	White Lexus Hatchback	12:07:17	Red Van	
12:13:19	Grey SUV	12:08:31	Black Sedan	
12:14:05	Brown Toyota Tundra	12:08:33	Black GMC Truck	
		12:10:02	Whte Chevy Truck	
		12:10:03	White Toyota Camry	
		12:11:18	White BMW SUV	
		12:13:03	White Truck	
		12:13:15	Silver Mazda hatchback	
		12:13:20	Silver SUV	
12:16:56	Silver Rav4	12:15:05	Blue Toyota Prius	
12:19:28	Grey Honda Accord	12:17:14	Silver Ford SUV	
12:20:26	Silver Rav 4	12:20:47	White Work Truck	X
12:21:19	White Sedan	12:21:37	Silver Rav 4	
12:21:25	Grey Hyundai SUV	12:22:50	Grey Hyundai SUV	X
12:21;50	White Toyota Sedan	12:24:02	White Sedan	
12:23:18	Silver/Tan Chevy Suburban	12:24:34	Silver Nissan Pathfinder	X
12:23:20	Silver Nissan Pathfinder	12:25:27	Silver/ Tan Chevy Suburban	X
12:23:47	Amazon Prime Truck	12:27:29	Black Honda Accord	
12:26:45	Silver Honda SUV	12:28:44	Silver Honda SUV	X
12:26:53	Silver/Grey Chevy Volt	12:28:45	Grey Tesla SUV	
12:26:56	Grey Tesla SUV	12:28:48	White Lexus SUV	X
12:27:14	Silver Chevy Tahoe	12:28:51	Black Honda SUV	
12:29:05	Grey Tesla SUV	12:29:29	Silver Van	
12:29:13	Silver Toyota Tacoma w/ Rack			
12:29:35	Silver/Grey Toyota Highlander			
12:29:48	White BMW Sedan			X
12:30:15	White Honda Accord	12:30:04	Silver Honda SUV	
12:31:41	Grey Honda Accord	12:30:08	White Honda Accord	
12:31:44	Silver Sedan	12:30:09	Red Mercedes SUV	
12:31:47	Black Jeep SUV	12:31:19	White BMW Sedan	
12:32:02	Grey Toyota Rav 4	12:31:24	Red Ford Mustang	
12:33:39	Black Dodge Ram	12:31:30	Blue Sedan	
12:34:11	Black Rav 4	12:34:53	White Honda Accord	X
12:35:19	Black Honda SUV	12:35:20	Black Toyota Rav 4	
12:36:17	Black Mercedes Sedan	12:37:22	Black Mercedes Sedan	X
12:36:23	Black Toyota Highlander	12:37:33	White Honda Civic	
12:36:51	White KIA SUV	12:37:34	Grey Honda Accord	
12:37:30	Black Acura SUV	12:39:54	Silver Toyota Prius	
12:38:04	White BMW SUV	12:40:15	Grey SUV	
12:38:39	Silver/Grey Acura SUV	12:42:34	White Kia SUV	
12:38:52	Silver Toyota Tacoma	12:43:54	Red Ford Sedan	
12:38:54	Black SUV	12:44:45	Black Chevy Tahoe	
12:39:14	White Van Orange Top			
12:42:54	Red Ford Sedan			X

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/10/2023
Route 2B - From 2B to 2A

12:43:22	Black Toyota 4 Runner			
12:44:46	Black SUV			
12:47:08	Silver Honda Accord	12:46:02	Amazon Prime Truck	
12:47:43	White Honda Fit	12:46:04	Black/Grey Honda Sedan	X
12:47:46	Black Scion SUV	12:46:06	Black Coupe	X
12:49:16	Silver Honda CRV	12:47:19	White Van	
12:50:34	White SUV Black Top	12:48:34	Silver Mazda SUV	
12:50:51	Black SUV	12:48:42	White Honda Fit	
12:51:34	White Ford Sedan	12:49:49	Black Scion SUV	
12:51:36	Black SUV	12:51:43	White Ford Truck	X
12:51:55	White Toyota Camry	12:52:36	Black SUV	
12:52:41	Gold Cadillac SUV	12:53:26	Grey Mini Cooper	
12:52:54	Black Jeep SUV			
12:53:44	White Toyota Prius			
12:54:25	Black BMW Coupe			
12:56:52	Silver Toyota Van			
12:58:10	Silver/Green Honda CRV			X
13:00:37	Black Sedan	13:00:12	White SUV	X
13:02:23	Grey Crossover/ Wagon	13:00:13	Silver/Green Honda CRV	X
13:03:36	Blue Honda Truck	13:01:33	Black Toyota 4 Runner	
13:06:45	White Honda Civic	13:01:38	Black Sedan	
13:07:47	White SUV	13:02:25	Blue Tesla SUV	
13:08:20	White Chevy Tahoe	13:03:20	Grey Crossover/ Wagon	X
13:08:56	Grey Mazda Hatchback	13:04:48	Grey Sedan	X
13:11:01	Grey Toyota Camry	13:07:39	White Honda Civic	
13:11:27	White Transit Van	13:08:59	Black Chevy Camaro	
13:11:59	Grey Range Rover	13:10:03	Grey Mazda Hatchback	
13:12:27	Silver Nissan Sedan	13:10:15	White Chevy Tahoe	
13:13:03	Grey Acura SUV	13:11:28	White Range Rover	X
13:13:37	Grey Honda SUV	13:12:50	White Ford Truck	
13:13:43	Grey Ford Explorer	13:14:09	White Van	
13:16:04	Grey Ford Sedan	13:14:09	Grey Acura SUV	
13:18:13	Black Sedan	13:15:32	Grey Toyota Highlander	X
13;19:44	Silver Honda Accord	13:17:08	Grey Ford Sedan	X
13:20:12	Black Sedan	13:20:51	Silver Honda Accord	
13:22:17	White Hachback/Mini SUV	13:21:20	Grey Toyota Camry	
13:23:26	Red Chevy Truck	13:21:21	White Honda Accord	
13:24:05	Grey Toyota Camry	13:23:50	Silver Ford Explorer	
13:24:32	White Lexus Sedan	13:25:15	Silver SUV	X
13:26:15	Grey Nissan Truck	13:25:19	Grey Toyota Camry	
13:26:56	Silver Lexus SUV	13:25:41	White Lexus Sedan	
13:28:22	Blue Chevy Truck	13:26:32	Black BMW Sedan	
13:28:26	Black Chevy Tahoe	13:28:40	Silver Highlander	
13:29:24	Black BMW SUV	13:29:55	Black Acura SUV	
13:30:10	Mail Car	13:32;04	Bronze Toyota Camry	
13:31:02	Bronze Toyota Camry	13:32:35	White SUV	X
13:31:31	White SUV	13:32:51	Silver Mercedes SUV	X
13:32:35	Silver Chevy Truck	13:33:56	Black SUV	
13:32:37	Black Mazda SUV	13:34:11	White Honda Accord	X
13:36:58	Black Honda Civic	13:35:24	Silver Chevy SUV	X
13:37:01	Grey SUV	13:35:25	White SUV	X
13:39:17	Red Sedan	13:38:12	Black Honda Civic	X
13:40:58	Silver Nissan SUV	13:38:14	Grey SUV	
13:43:56	Silver SUV	13:40:04	Black Chevy Truck	
13:44:39	Blue Chevy Truck	13:40:24	Red Sedan	
13:45:18	Grey Tesla SUV	13:42:08	White Tesla SUV	X
13:47:53	Silver Nissan Sedan	13:46:49	Grey Tesla SUV	X

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/10/2023
Route 2B - From 2B to 2A

13:47:57	Amazon Prime Truck	13:49:24	Silver Nissan Sedan	
13:48:22	White Honda SUV	13:52:34	Blue Honda Civic	
13:50:02	White Range Rover	13:53:41	Silver Honda CRV	
13:50:32	Silver Toyota Prius	13:54:18	Grey Truck	
13:51:34	Blue Honda Civic	13:54:55	Red Jeep SUV	X
13:52:16	White Cadillac Sedan	13:55:01	White VW Sedan	
13:52:19	Silver Honda CRV	13:55:03	Grey Toyota Sedan	
13:52:30	Black Kia Soul	13:56:16	Black Van	
13:52:46	Grey Ford Truck	13:56:19	Black GMC SUV	
13:53:05	Black Dodge Ram	13:56:59	White Honda Civic	
13:53:37	Silver Cube			
13:55:12	White GMC SUV			
13:57:59	Red Tesla SUV			
14:00:16	Black Jeep Grand Cherokee	14:01:45	Black Nissan SUV	X
14:00:28	Silver Honda Van	14:01:47	Silver Honda Van	X
14:01:42	White SUV	14:01:48	Silver Toyota Prius	
14:02:05	White Toyota Highlander	14:02:15	Black Jeep Grand Cherokee	X
14:02:11	Black SUV	14:03:19	White Toyota Highlander	
14:03:03	Grey Tesla Sedan	14:04:29	Black Mercedes SUV	
14:03:18	Black Mercedes Sedan	14:04:33	Black Chevy Camaro	
14:04:12	Silver Honda CRV	14:04:47	Black Honda SUV	
14:05:32	White Chevy Tahoe	14:06:25	White SUV	
14:07:22	Blue SUV	14:06:30	White Chevy SUV	X
14:09:25	Silver Ford SUV	14:08:27	Blue SUV	X
14:09:29	Blue SUV	14:10:15	Silver Sedan	
14:11:45	White Honda Civic	14:10:16	Yellow Hummer	
14:12:05	Black Infiniti Coupe	14:10:43	Silver Ford SUV	X
14:12:17	Light Blue SUV	14:10:47	Black SUV	
14:13:52	Silver Honda SUV	14:13:11	Black Infiniti Coupe	
		14:14:30	Honda Black SUV	
14:16:02	Tan Ford Flex	14:17:03	Tan Ford Flex	X
14:16:10	Black Honda Accord	14:18:22	Grey Toyota Tundra	
14:16:17	White Honda Civic	14:18:52	White Toyota Camry	
14:18:40	White Van	14:20:40	White Toyota 4 Runner	
14:19:42	White Toyota 4 Runner	14:21:09	Black Mercedes SUV	X
14:22:40	Grey Jeep SUV	14:22:44	Silver Nissan Truck	
14:23:05	White Tesla SUV	14:22:46	Black Lexus SUV	
14:24:21	Silver Toyota Tundra	14:24:08	Red Sedan	X
14:25:17	Silver/Tan Chevy Tahoe	14:25:30	Silver Toyota Tundra	X
14:27:19	Silver Honda CRV	14:26:39	Silver/Tan Chevy Tahoe	
14:29:34	White Tesla SUV	14:27:53	Black SUV	
14:31:21	White BMW SUV	14:32:54	Silver Acura SUV	
14:31:40	Black Hatchback	14:34:22	Grey Toyota Tacoma	
14:33:16	Grey Toyota Tacoma	14:35:57	Black Toyota Highlander	X
14:35:29	White Subaru SUV	14:36:39	White Subaru SUV	X
14:35:36	White Jeep SUV	14:44:48	Blue Tesla SUV	
14:38:12	Blue Honda Civic			
14:42:45	White SUV			
14:43:31	Blue Tesla SUV			X
14:44:11	White Nissan Altima			X
14:44:14	White Toyota Corolla			
14:45:21	Grey Honda SUV	14:45:11	White Nissan Altima	
14:45:40	White Toyota Camry	14:48:32	Grey Truck	
14:46:10	Bronze Honda CRV	14:49:35	Grey Jeep Wrangler	
14:46:38	Red Tesla Sedan	14:49:45	Grey Acura SUV	
14:46:40	Black SUV	14:52:36	Red SUV	
14:46:42	Green Work Van	14:54:06	Black Sedan	

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Brea - Origin-Destination Study
Location: City of Brea
Date: 2/10/2023
Route 2B - From 2B to 2A

14:47:15	Burgundy Kia Optima	14:58:08	Black Ford Explorer	
14:47:41	Black/ Burgundy SUV			
14:48:31	Grey Jeep Wrangler			X
14:49:39	White Tesla SUV			
14:50:05	Blue Chevy Truck			
14:50:43	Brown/Orange Sedan			
14:51:13	Black Toyota Prius			
14:51:33	Red SUV			X
14:51:36	Blue Range Rover			
14:52:23	Silver/Grey Nissan SUV			
14:52:54	Red Honda Civic			
14:53:42	Silver Toyota Tacoma			
14:56:14	Black Ford Explorer			X
14:57:10	Silver Toyota Rav 4			
14:57:15	Black Sedan			
14:57:29	Black Tesla Sedan			
14:59;00	Silver Van			
14:59:05	Light Blue Toyota Corolla			
14:59:23	Red Dodge Crossover			X
14:59:26	White Ford Truck Wood Bed	15:00:28	Red Dodge Crossover	X
		15:00:59	White Ford Truck Wood Bed	
TOTALS	**178**		**147**	**53**

% of Matches from Origin to Destination: **30%**

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