BEYOND FOOD MART (OLIVER AND IRIS) TRAFFIC IMPACT ANALYSIS

City of Moreno Valley

May 12, 2023

gandini

Traffic Engineering ● Transportation Planning ● Parking ● Noise & Vibration
Air Quality ● Global Climate Change ● Health Risk Assessment

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prepared by

Perrie Ilercil, P.E. (AZ)
Giancarlo Ganddini, PE, PTP

GANDDINI GROUP, INC.
555 Parkcenter Drive, Suite 225
Santa Ana, California 92705
(714) 795-3100 | ganddini.com

Project No. 19606

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EXECUTIVE SUMMARY

This section summarizes the proposed project, operational findings, and identifies recommendations (if any) as specified in this study.

Project Description

The 1.31-acre project site (APN: 486-310-038) is located at the northwest corner of the intersection of Oliver Street and Iris Avenue in the City of Moreno Valley, California. The project site is currently undeveloped and zoned for commercial use.

The proposed project (PEN22-0238) involves construction of a 7,460 square foot convenience store/gas station with eight (8) dual-sided fuel pumps (16 vehicle fueling positions), and a 1,790 square foot automatic car wash tunnel. Vehicular access for the project site is proposed via two restricted right turn in/out driveways with one on Oliver Street and one on Iris Avenue.

Project Trip Generation

The proposed project is forecast to generate a total of approximately 4,346 new daily trips, including 155 new trips during the AM peak hour and 185 new trips during the PM peak hour.

Level of Service Analysis

The study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours for all analysis scenarios. Therefore, the proposed project is forecast to result in no substantial transportation effects relating to Level of Service operations for all analysis scenarios.

Summary of Improvements

Project design features, necessary to provide project access, are outlined in the Site Access & On-Site Circulation (Section 7).

To maintain sufficient storage capacity for the eastbound left-turn lane at the Oliver Street/Iris Avenue intersection, it is recommended that the raised median on eastbound Iris Avenue approaching Oliver Street be modified to provide additional storage length with a minimum of 285 feet of storage for the left-turn pocket. While there is ample storage on northbound Oliver Street south of Iris Avenue, it is recommended that a R10-7 regulatory roadway sign be installed on northbound Oliver Street approximately 155 feet south of Iris Avenue to prevent potential morning peak hour blockage of the Oliver Street/Arla Street intersection. This is shown as a project design feature.

Since the proposed project is not forecast to cause any substantial adverse transportation effects relating to Level of Service operations, no additional improvements or fair share contributions are recommended.

Vehicle Miles Traveled Analysis

For compliance with California Environmental Quality Act (CEQA) requirements, the project VMT assessment is documented separately in the *Beyond Food Mart (Oliver and Iris) Vehicle Miles Traveled Assessment* (Ganddini Group, Inc., April 11, 2023).

1. INTRODUCTION

This section provides an overview of the proposed project and the general scope of the analysis.

PURPOSE AND OBJECTIVES

The purpose of this study is to evaluate the potential for transportation impacts resulting from the development of the proposed project in the context of the City of Moreno Valley's discretionary authority for conformance with locally established operational standards. Although this is a technical report, effort has been made to prepare the report clearly and concisely. A glossary is provided in Appendix A to assist the reader with technical terms.

This study was prepared in consultation with the City of Moreno Valley staff following the procedures and methodologies for assessing transportation impacts established by the City of Moreno Valley. To assess the project's conformance with local operational standards, this study evaluates the project's effect on traffic operations and, if necessary, identifies recommended improvements or corrective measures to alleviate operational deficiencies substantially caused or worsened by the proposed project. For compliance with California Environmental Quality Act (CEQA) requirements, a vehicle miles traveled (VMT) assessment is documented separately in the *Beyond Food Mart (Oliver and Iris) Vehicle Miles Traveled Assessment* (Ganddini Group, Inc., April 11, 2023).

PROJECT DESCRIPTION

The 1.31-acre project site (APN: 486-310-038) is located at the northwest corner of the intersection of Oliver Street and Iris Avenue in the City of Moreno Valley, California. The project site is currently undeveloped and zoned for commercial use. Figure 1 and Figure 2 show the regional and project location maps.

The proposed project (PEN22-0238) involves construction of a 7,460 square foot convenience store/gas station with eight (8) dual-sided fuel pumps (16 vehicle fueling positions), and a 1,790 square foot automatic car wash tunnel. Vehicular access for the project site is proposed via two restricted right turn in/out driveways with one on Oliver Street and one on Iris Avenue. Figure 3 illustrates the project site plan.

SCOPE OF ANALYSIS

The scope of this analysis was determined in consultation with the City of Moreno Valley as documented in the approved scoping agreement provided in Appendix B.

Study Area

Figure 4 illustrates the study area. In accordance with the City of Moreno Valley requirements, the study area was determined in consultation with the City of Moreno Valley engineering staff and consists of classified roadway intersections to which the project is forecast to contribute 50 or more peak hour trips. Based on the project trip generation and distribution forecasts presented later in this report, the study area consists of the following study intersections, each within the City of Moreno Valley jurisdiction:

1. Grande Vista Drive (NS) at Iris Avenue (EW) [1]
2. Nason Street (NS) at Iris Avenue (EW)
3. Kaiser Hospital Main Drive (NS) at Iris Avenue (EW)
4. Hospital East Access (NS) at Iris Avenue (EW)
5. Oliver Street (NS) at Iris Avenue (EW)

[1] (NS) = north-south roadway; (EW) = east-west roadway.

6. Via Del Lago (NS) at Iris Avenue (EW)
7. Moreno Beach Drive (NS) at John F Kennedy Drive (EW)
8. Oliver Street (NS) at John F Kennedy Drive (EW)
9. Oliver Street (NS) at Filaree Street (EW)
10. Oliver Street (NS) at Shellie Street (EW)
11. Oliver Street (NS) at Project Driveway (EW)
12. Project Driveway (NS) at Iris Avenue (EW)

Analysis Scenarios

This study includes an evaluation of the following analysis scenarios for weekday AM and PM peak hour conditions:

- Existing
- Existing Plus Ambient Growth Plus Project
- Opening Year (2025) Without Project
- Opening Year (2025) With Project

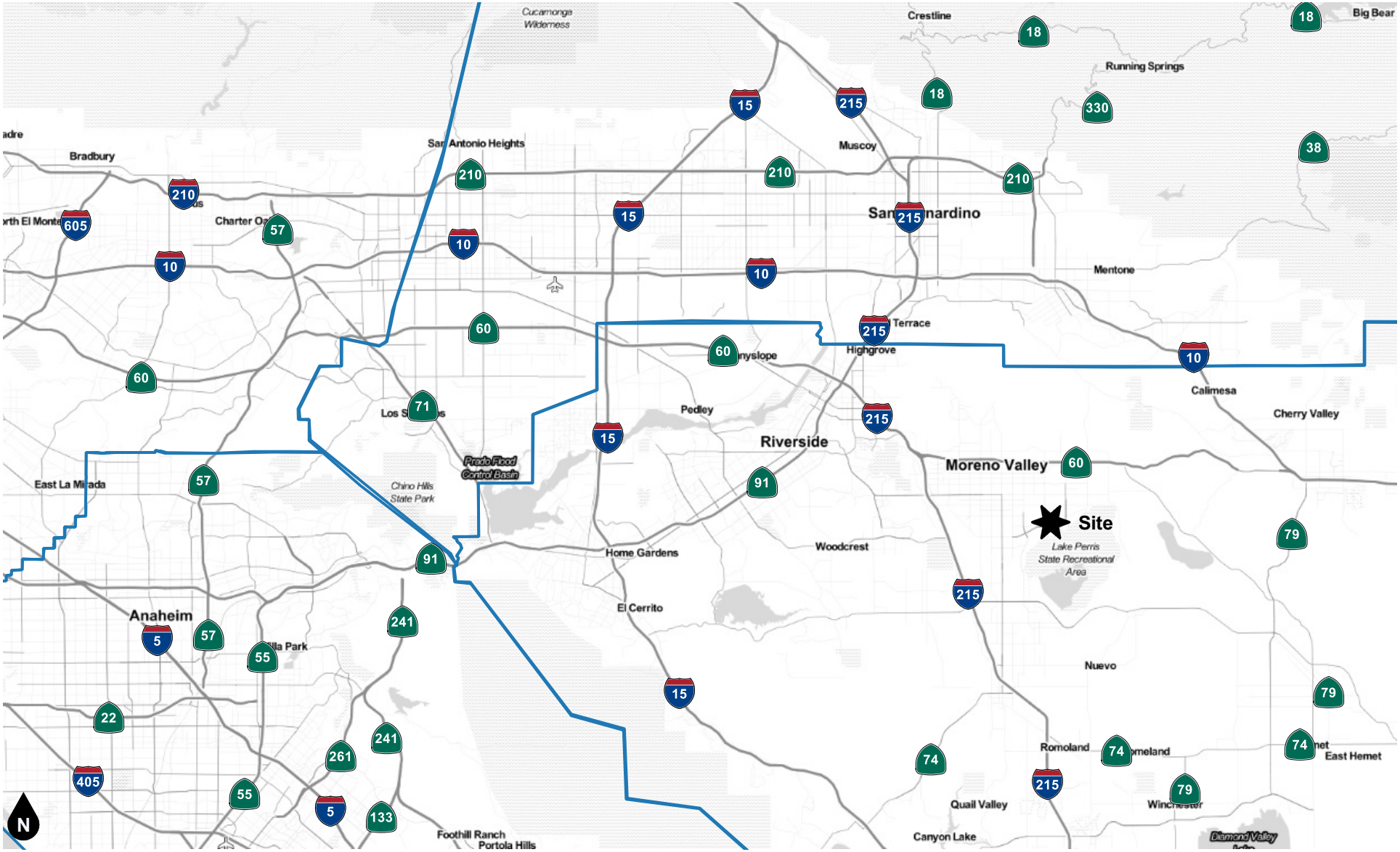


Figure 1
Regional Location Map

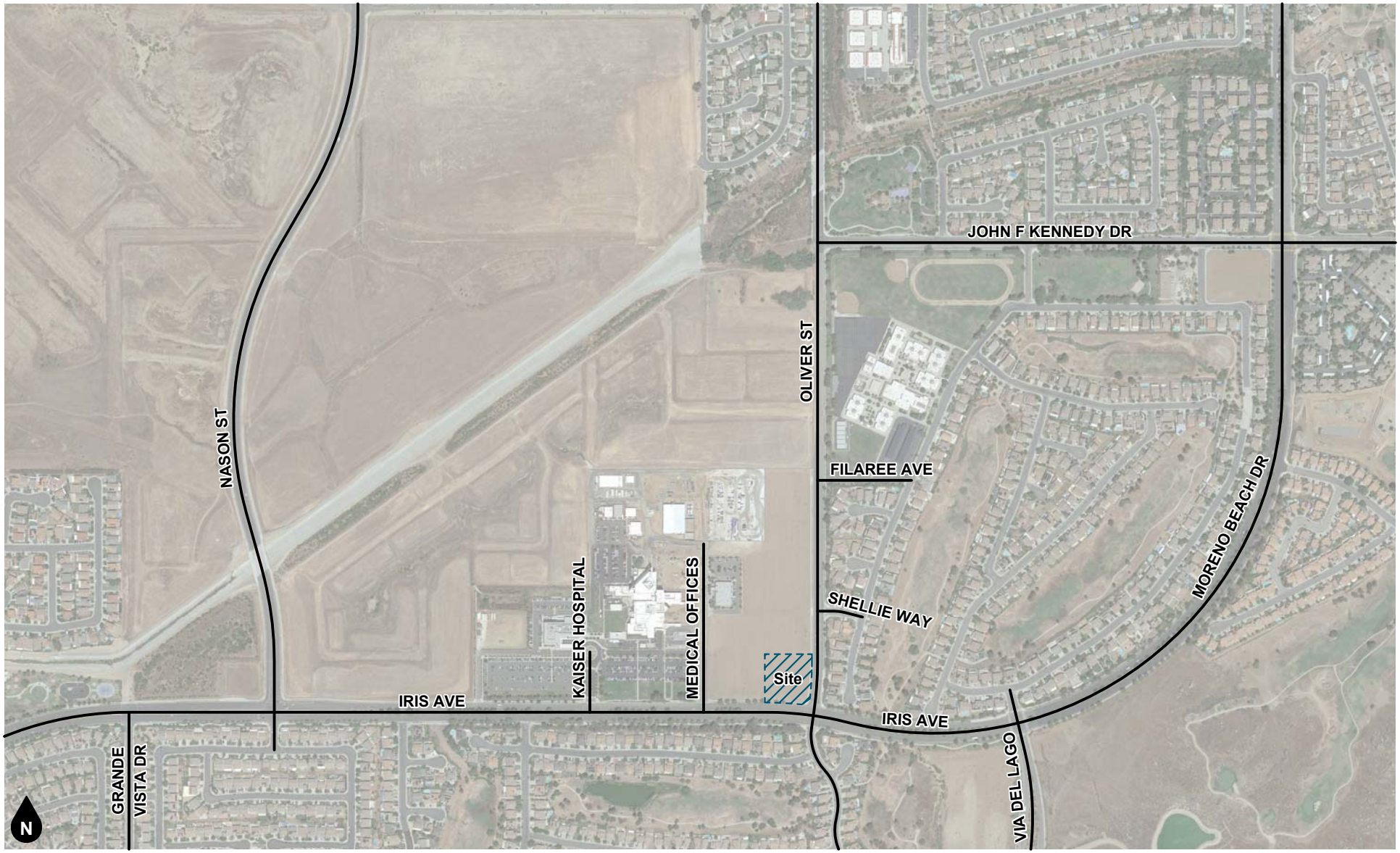


Figure 2
Project Location Map

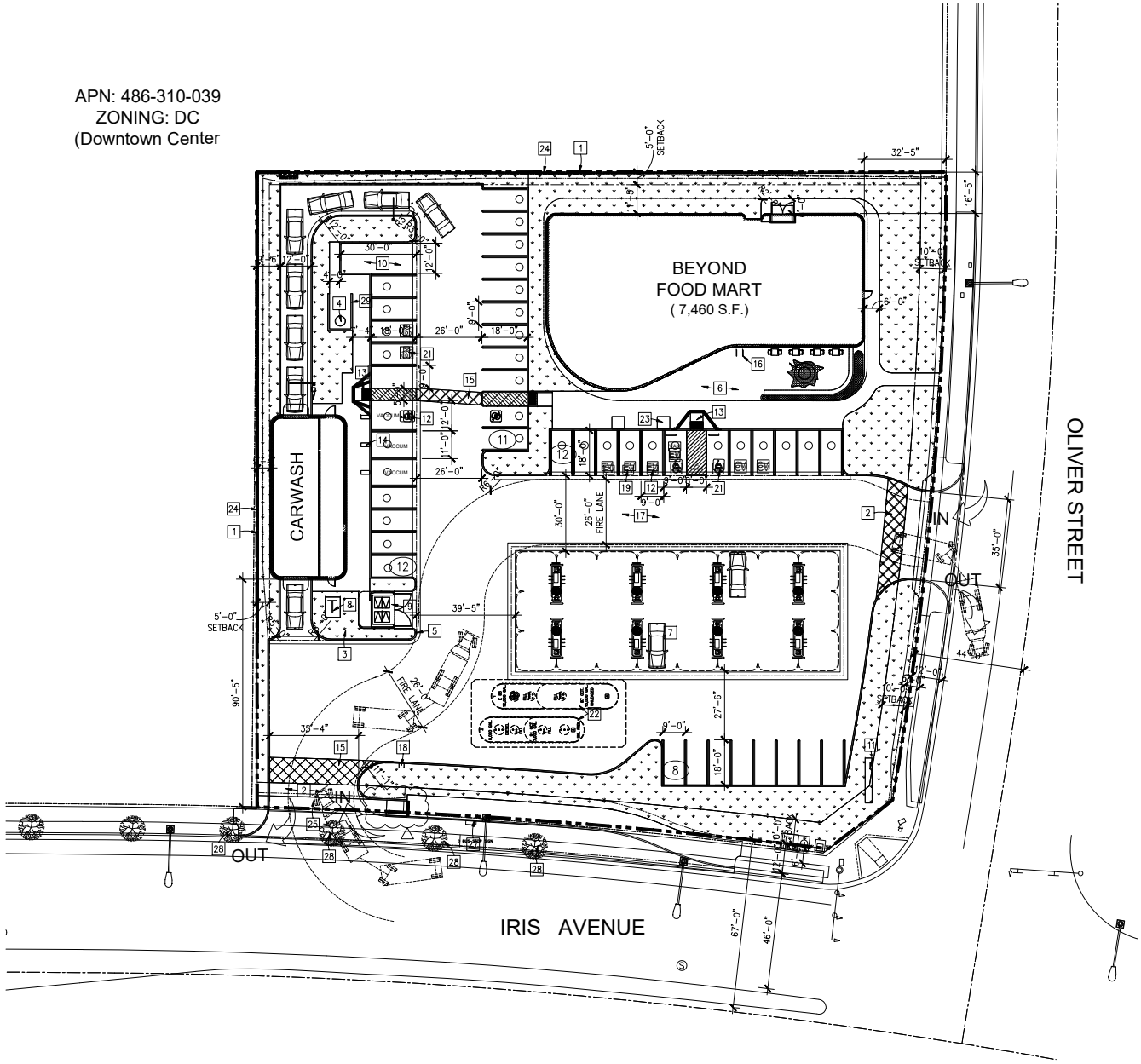
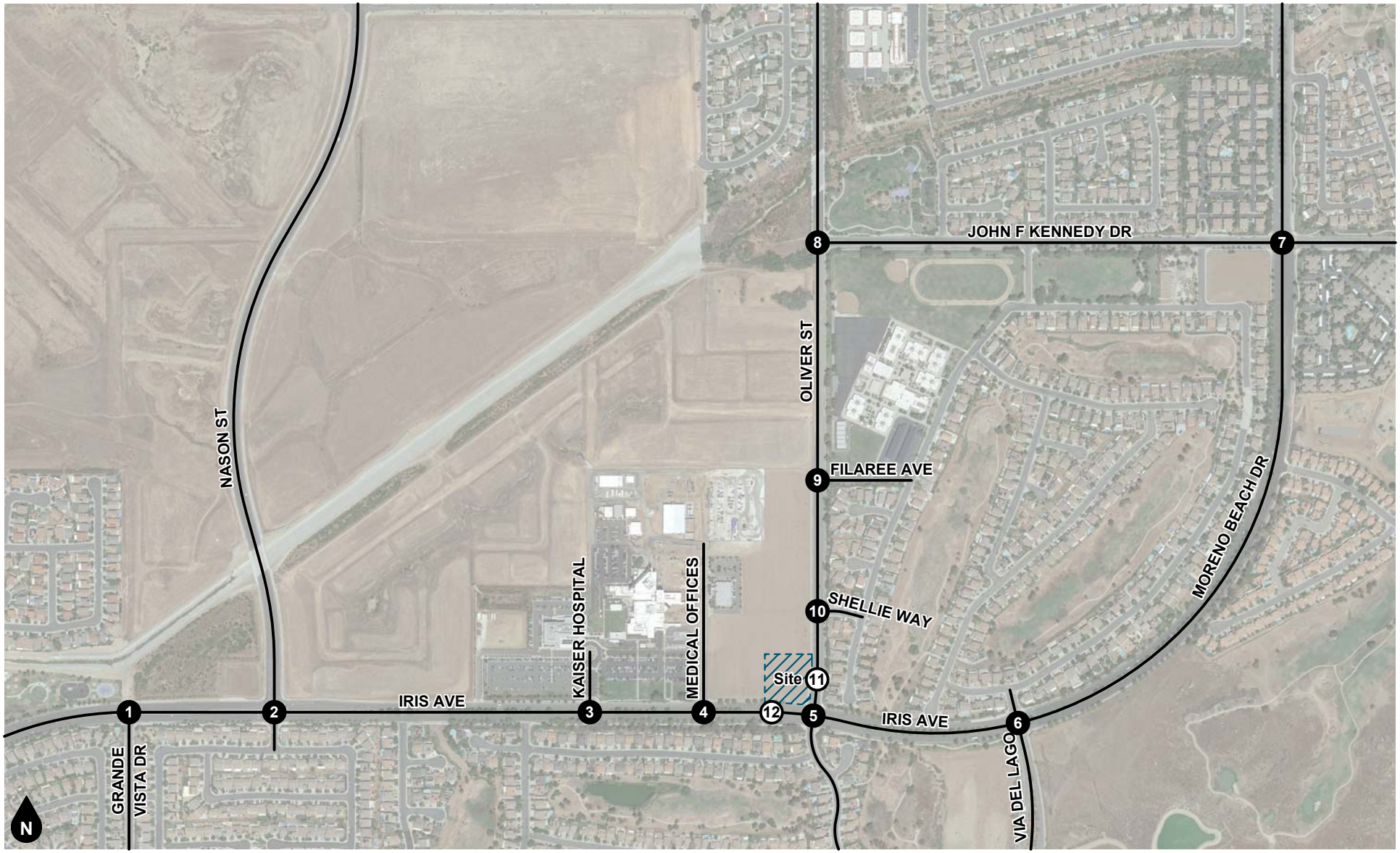


Figure 3
Site Plan



Legend

(#) Study Intersection

(#) Project Driveway

Figure 4
Study Area

2. METHODOLOGY

This section discusses the analysis methodologies used to assess transportation facility performance as adopted by the respective jurisdictional agencies. This traffic impact analysis is based on the *City of Moreno Valley Transportation Impact Analysis Preparation Guide for Vehicle Miles Traveled and Level of Service Assessment* (June 2020) ["City TIA Guidelines"].

LEVEL OF SERVICE/OPERATIONAL ANALYSIS METHODOLOGY (NON-CEQA)

Level of Service analysis is performed to assess conformance with General Plan and operational standards established by the applicable agencies. In accordance with current CEQA provisions, a project's effect on automobile delay (as measured by Level of Service) shall not constitute a significant environmental impact.

Intersections: Highway Capacity Manual Delay Methodology

City of Moreno Valley intersections are analyzed using the intersection delay methodology based on procedures contained in the *Highway Capacity Manual* (HCM) (Transportation Research Board, 7th Edition). The methodology considers the traffic volume and distribution of movements, traffic composition, geometric characteristics, and signalization details to calculate the average control delay per vehicle and corresponding Level of Service. At intersections with cross street stop control (i.e., one- or two-way stop control), the Level of Service is determined by the average control delay for the worst minor street approach or major street left-turn movement. Intersection delay analysis was performed with default capacity values and adjustment factors recommended in the HCM. The intersection Level of Service is based on the thresholds contained within the HCM.

Level of Service	Delay Methodology [1]	
	Signalized Intersection	Unsignalized Intersection
	Seconds per Vehicle	Seconds per Vehicle
A	≤ 10.0	≤ 10.0
B	> 10.0 to ≤ 20.0	> 10.0 to ≤ 15.0
C	> 20.0 to ≤ 35.0	> 15.0 to ≤ 25.0
D	> 35.0 to ≤ 55.0	> 25.0 to ≤ 35.0
E	> 55.0 to ≤ 80.0	> 35.0 to ≤ 50.0
F	> 80.0	> 50.0

1. Source: Transportation Research Board *Highway Capacity Manual* (7th Edition).

Level of Service is used to qualitatively describe the performance of a roadway facility, ranging from Level of Service A (free-flow conditions) to Level of Service F (extreme congestion and system failure). Intersection analysis was performed using the Vistro software. The Level of Service analysis was performed in accordance with parameters specified in the City TIA Guidelines.

At intersections with traffic signal or all way stop control, Level of Service is determined by the average control delay for the overall intersection. At intersections with cross street stop control (i.e., one- or two-way stop control), Level of Service is determined by the average control delay for the worst minor street approach or major street left-turn movement.

Transportation Effects

The City of Moreno Valley has established a minimum acceptable Level of Service C for peak hour intersection operations; except for intersections that are adjacent to freeway on/off ramps or adjacent to employment generating land uses and boundary intersections.

A substantial transportation effect is defined to occur at a signalized study intersection if the project causes intersection operations to degrade from an acceptable Level of Service (C or better) to an unacceptable Level of Service (D to F) or the project-related increase in delay is equal to or greater than 5.0 seconds at an intersection that is already operating at an unacceptable Level of Service without the Project.

A substantial transportation effect is defined to occur at an unsignalized study intersection if one or more of the following conditions are met:

- The addition of project trips to a study intersection causes intersection operations to degrade from an acceptable Level of Service (C or better) to an unacceptable Level of Service (D to F).
- The project-related increase in delay is equal to or greater than 5.0 seconds at an intersection that is already operating at an unacceptable Level of Service without the Project.
- The intersection meets peak hour signal warrants either caused by project volumes or project volumes are added at an intersection that meets peak hour signal warrants in the baseline scenario(s). Peak hour signal warrants should be determined based on the latest California Manual on Uniform Traffic Control Devices (CA MUTCD).

Where improvements are identified to address project Level of Service deficiencies, improvements for signalized intersections should be identified such that the intersections are forecast to operate at an acceptable Levels of Service during the peak hours. Furthermore, unsignalized intersections which operated at an acceptable Level of Service without the project should have improvements identified so that the intersections are forecast to operate Levels of Service D or better. Lastly, unsignalized intersections operating at an unacceptable Level of Service where the project adds 5.0 seconds and meets the peak hour traffic signal warrant, should have improvements identified that provide the pre-project Level of Service at a minimum.

Where improvements are identified to address cumulative Level of Service deficiencies, a project fair share cost estimate is provided based on the volume of project traffic using the impacted facility divided by the total "new" traffic (i.e., ambient growth and other developments).

VEHICLE MILES TRAVELED ANALYTICAL METHODOLOGY (CEQA)

The metric used to evaluate the transportation impact of land use and transportation projects under CEQA is known as vehicle miles traveled (VMT). In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region. As previously noted, the project VMT assessment is documented separately in the *Beyond Food Mart (Oliver and Iris) Vehicle Miles Traveled Assessment* (Ganddini Group, Inc., April 11, 2023).

3. EXISTING CONDITIONS

This section describes the existing transportation setting of the project study area.

EXISTING ROADWAY SYSTEM

Figure 5, shows the lane geometry and intersection traffic controls for existing conditions based on a field survey of the study area. Regional access to the project site is provided by State Route 60 approximately 3.0 miles to the north and Interstate 215 approximately 5.0 miles to the west of the project site. Local north-south circulation is provided by Nason Street, Oliver Street, Via Del Lago and Moreno Beach Drive; and east-west circulation is provided by Iris Avenue, and John F Kennedy Drive.

Nason Street: This four-lane divided roadway trends in a north-south direction and is classified as a Divided Arterial (four-lane divided roadway with 8-foot shoulders) on the City of Moreno Valley circulation system in the study area. On-street parking appears to be restricted in the project vicinity. Class II bike lanes are on both sides of the roadway in the project vicinity. Sidewalks are provided on the east side of the roadway in the project vicinity. The posted speed in the project vicinity is 45 miles per hour.

Oliver Street: This two-lane undivided to four-lane undivided to four-lane divided roadway trends in a north-south direction and is classified as a Minor Arterial (four-lane divided or undivided roadway with 5 to 8-foot shoulders) a on the City of Moreno Valley General Plan Circulation Element in the project vicinity north of Iris Avenue and is unclassified south of Iris Avenue. On-street parking does not appear restricted in the study area, except at the Landmark Middle School bus loading zone. Currently, there are no designated bicycle facilities in the project vicinity; however, marked Class II bike lanes are proposed for this roadway on the master plan. Sidewalks are provided on both sides of the roadway in the project vicinity. The posted speed in the project vicinity is 25 miles per hour.

Via Del Lago: This four-lane divided roadway trends in a north-south direction and is unclassified on the City of Moreno Valley General Plan Circulation Element in the study area. On-street parking is restricted in the project vicinity. A Class II bike lane is on the westside of the roadway in the project vicinity, and a marked shared bike-auto lane is on the eastside of the roadway. Sidewalks are not provided on either side of the roadway. The posted speed in the project vicinity is 35 miles per hour.

Moreno Beach Drive: This six-lane divided roadway trends in a north-south direction and is classified as a Divided Major Arterial (six-lane divided roadway with 8-foot shoulders) on the City of Moreno Valley General Plan Circulation Element in the study area. On-street parking appears to be restricted in the project vicinity. Class II bike lanes are on both sides of the roadway in the project vicinity. Sidewalks are provided on both sides of the roadway. The posted speed is 50 miles per hour in the project vicinity.

Iris Avenue: This six-lane divided roadway trends in an east-west direction and is classified as a Divided Major Arterial (six-lane divided roadway with 8-foot shoulders) on the City of Moreno Valley General Plan Circulation Element in the study area. On-street parking appears to be restricted in the project vicinity. Class II bike lanes are on both sides of the roadway in the project vicinity. Sidewalks are provided on both sides of the roadway. The posted speed is 50 miles per hour in the project vicinity.

John F Kennedy Drive: This two-lane divided to four-lane undivided roadway trends in an east-west direction and is classified as a Minor Arterial (four-lane divided or undivided roadway with 5 to 8-foot shoulders) a on the City of Moreno Valley General Plan Circulation Element in the study area. On-street parking appears to be restricted in the project vicinity. Currently, Class II bike lanes are west of Moreno Beach Drive and Class III bike routes are east of Moreno Beach Drive. Sidewalks are provided on both sides of the roadway. The posted speed is 35 miles per hour in the project vicinity.

PEDESTRIAN FACILITIES

Existing pedestrian facilities in the project vicinity are shown in Figure 6. As shown in Figure 6, sidewalks are provided along the project site frontage, currently.

TRANSIT FACILITIES

Figure 7 shows the existing Riverside Transit Agency (RTA) system map in the project vicinity. Route 20 runs along Iris Avenue and Moreno Beach Drive. The closest bus stop to the project is at the northwest corner of Iris Avenue in front of the project location.

GENERAL PLAN CONTEXT

Figure 8 shows the City of Moreno Valley General Plan Circulation Element roadway classifications map. This figure shows the nature and extent of arterial and collector highways that are needed to adequately serve the ultimate development depicted by the Land Use Element of the General Plan. The City of Moreno Valley standard roadway cross-sections are illustrated in Figure 9.

BICYCLE FACILITIES MASTER PLAN

The City of Moreno Valley Bicycle Master Plan is shown in Figure 10. This figure shows the bicycle facilities master plan. As shown in Figure 10, there are proposed bike facilities on Oliver Street and existing bike lanes on Iris Avenue, Nason Street, Via Del Lago, Moreno Beach Drive and John F Kennedy Drive.

DESIGNATED TRUCK ROUTES

The City of Moreno Valley Truck Routes are shown in Figure 11. This figure shows the designated truck routes. As shown in Figure 11, There are no designated truck routes in the study area.

EXISTING ROADWAY VOLUMES

Figure 12 shows the existing average daily traffic volumes. The existing average daily traffic volumes have been factored from peak hour intersection turning movement volumes at locations using the following formula for each intersection leg:

PM Peak Hour (Approach Volume + Exit Volume) x 13.8[2] = Leg Volume

Figure 13 and Figure 14 show the existing AM and PM peak hour intersection turning movement volumes. Existing peak hour intersection turning movement volumes are based upon AM peak period and PM peak period intersection turning movement counts obtained in March 2023 during typical weekday conditions. The weekday AM peak period was counted between 7:00 AM and 9:00 AM and the weekday PM peak period was counted between 4:00 PM and 6:00 PM; these periods generally capture the peak times for commuter traffic when the roadway system is typically experiencing peak demand. The actual peak hour within each two-hour count period is determined based on the sum of the four consecutive 15-minute periods with the highest total volume entering the intersection. Thus, the weekday PM peak hour at one intersection may be 4:45 PM to 5:45 PM and may vary at other intersections depending on the four consecutive 15-minute periods that have the highest total volume. Intersection turning movement count worksheets are provided in Appendix C.

[2] Approximate average PM peak hour K factor (ADT/PM peak hour volume) based on 24-hour data from City of Moreno Valley website traffic counts (2017) with 2% ambient growth applied to roadway segment ADT volumes.

EXISTING INTERSECTION LEVEL OF SERVICE

The study intersection Levels of Service for Existing conditions are shown in Table 1. Detailed Level of Service worksheets are provided in Appendix D.

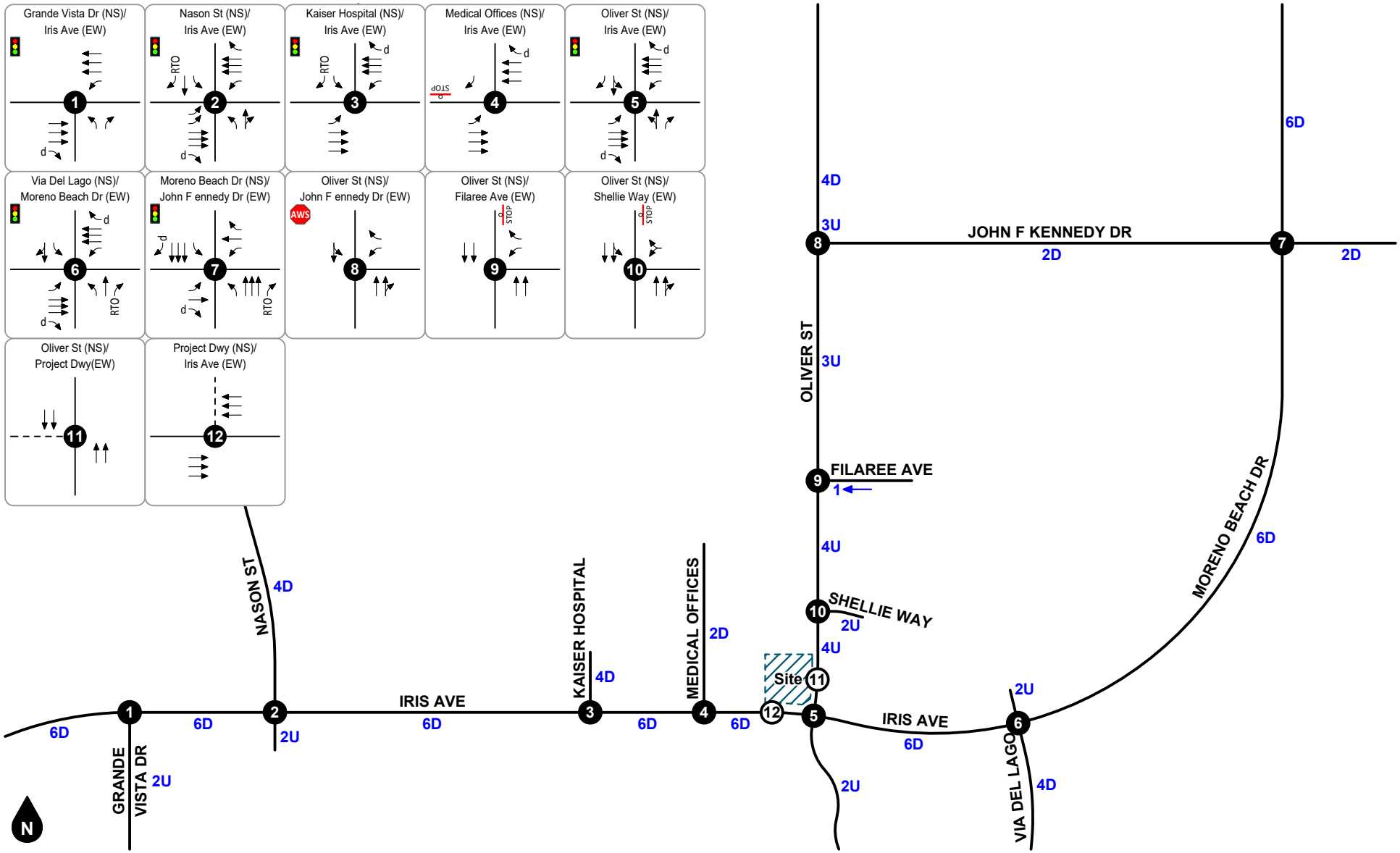
As shown in Table 1, the study intersections currently operate within acceptable Levels of Service (C or better) during peak hours.

Table 1
Existing Intersection Levels of Service

Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS
1. Grande Vista Drive at Iris Avenue	TS	5.1	A	3.9	A
2. Nasson Street at Iris Avenue	TS	25.6	C	23.5	C
3. Kaiser Hospital Main Drive at Iris Avenue	TS	8.7	A	8.6	A
4. Medical Offices at Iris Avenue	CSS	12.7	B	11.9	B
5. Oliver Street at Iris Avenue	TS	22.4	C	14.2	B
6. Via Del Lago at Iris Avenue	TS	9.2	A	7.8	A
7. Moreno Beach Drive at John F Kennedy Drive	TS	16.9	B	15.5	B
8. Oliver Street at John F Kennedy Drive	AWS	14.8	B	8.3	A
9. Oliver Street at Filaree Street	CSS	11.3	B	9.2	A
10. Oliver Street at Shellie Street	CSS	15.6	C	9.5	A

Notes:

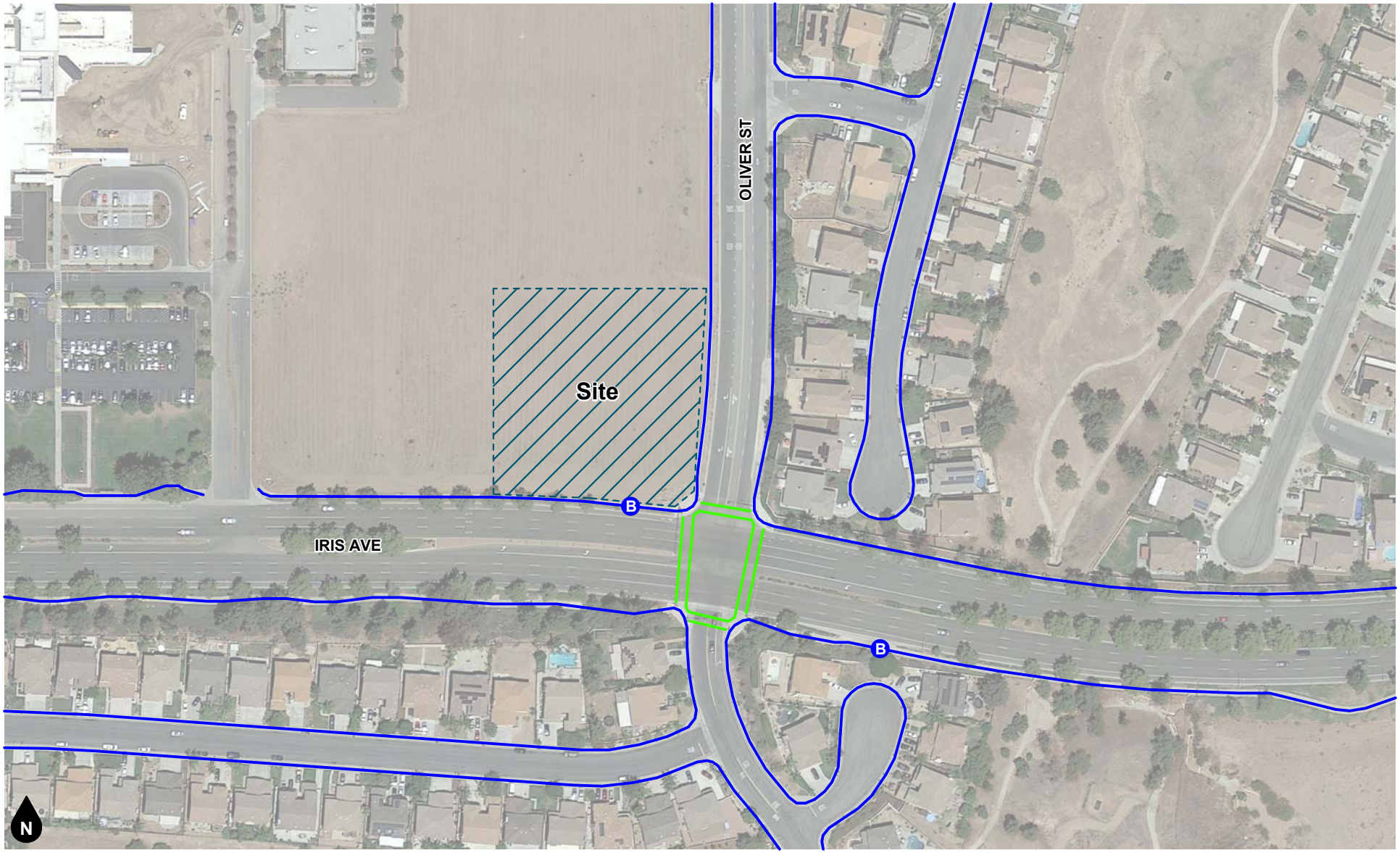
1. TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop
2. Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn movement.
3. LOS = Level of Service



Legend

- Traffic Signal
- All Way Stop
- Stop Sign
- #D #-Lane Divided Roadway
- #U #-Lane Undivided Roadway
- Existing Lane
- RTO Right Turn Overlap
- d De Facto Right Turn Lane
- Project Driveway

Figure 5
Existing Lane Geometry and Intersection Traffic Controls



Legend
- Sidewalk
- Cross Walk
- B Bus Stop

Figure 6
Existing Pedestrian Facilities

Source: Riverside Transit Agency

Figure 7
Existing Transit Routes

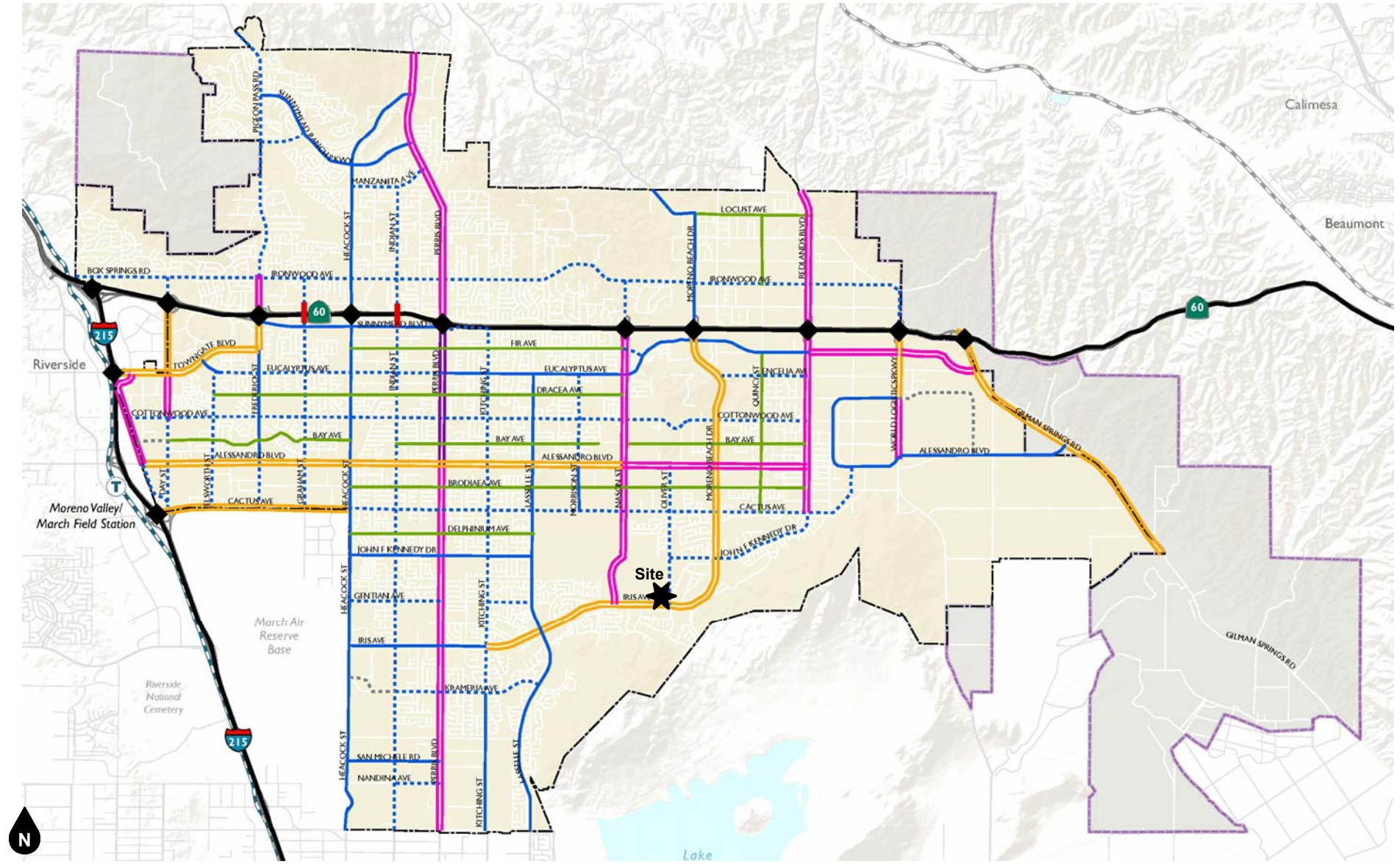


Figure 8
City of Moreno Valley General Plan Circulation Element

Source: City of Moreno Valley

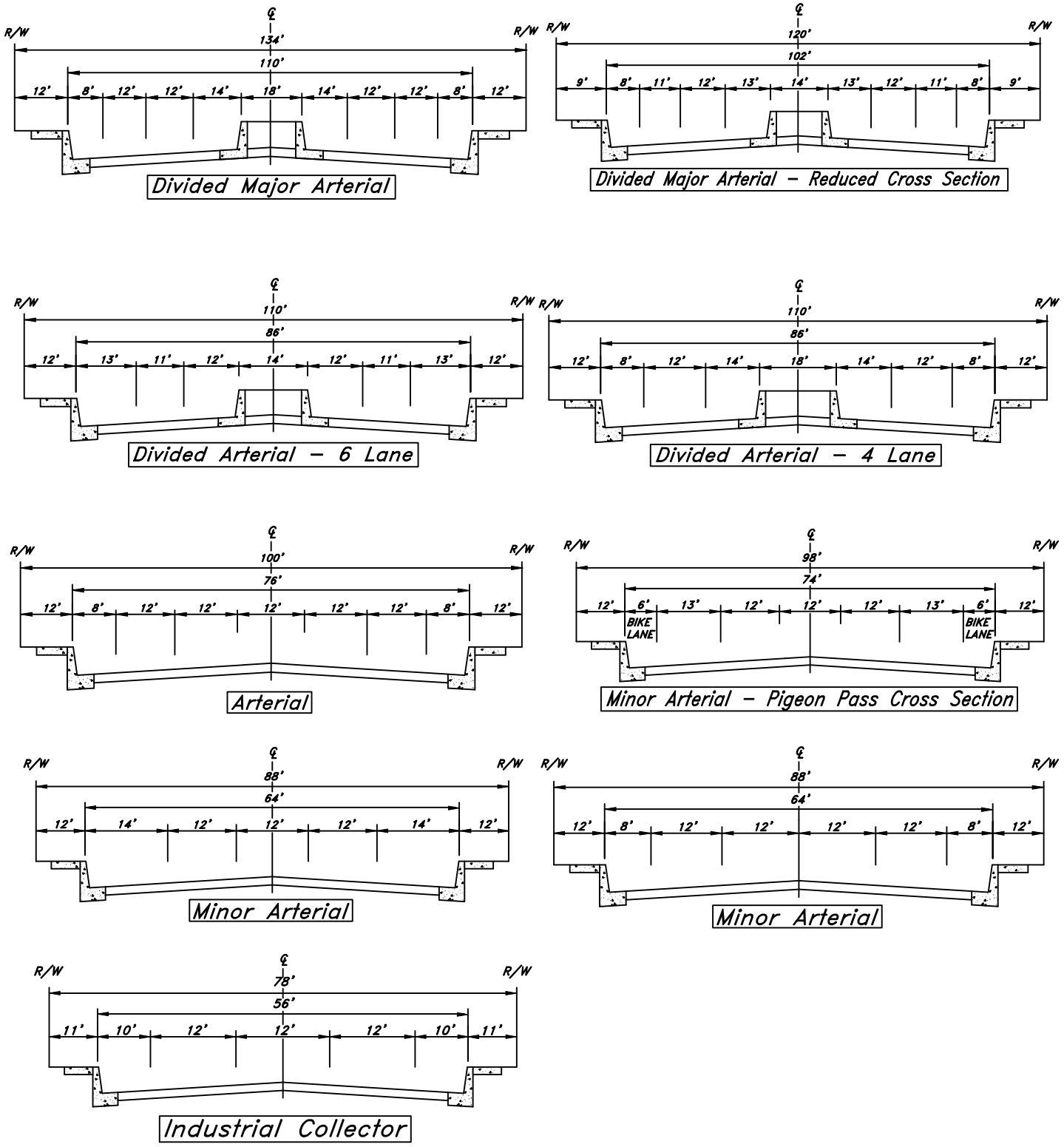
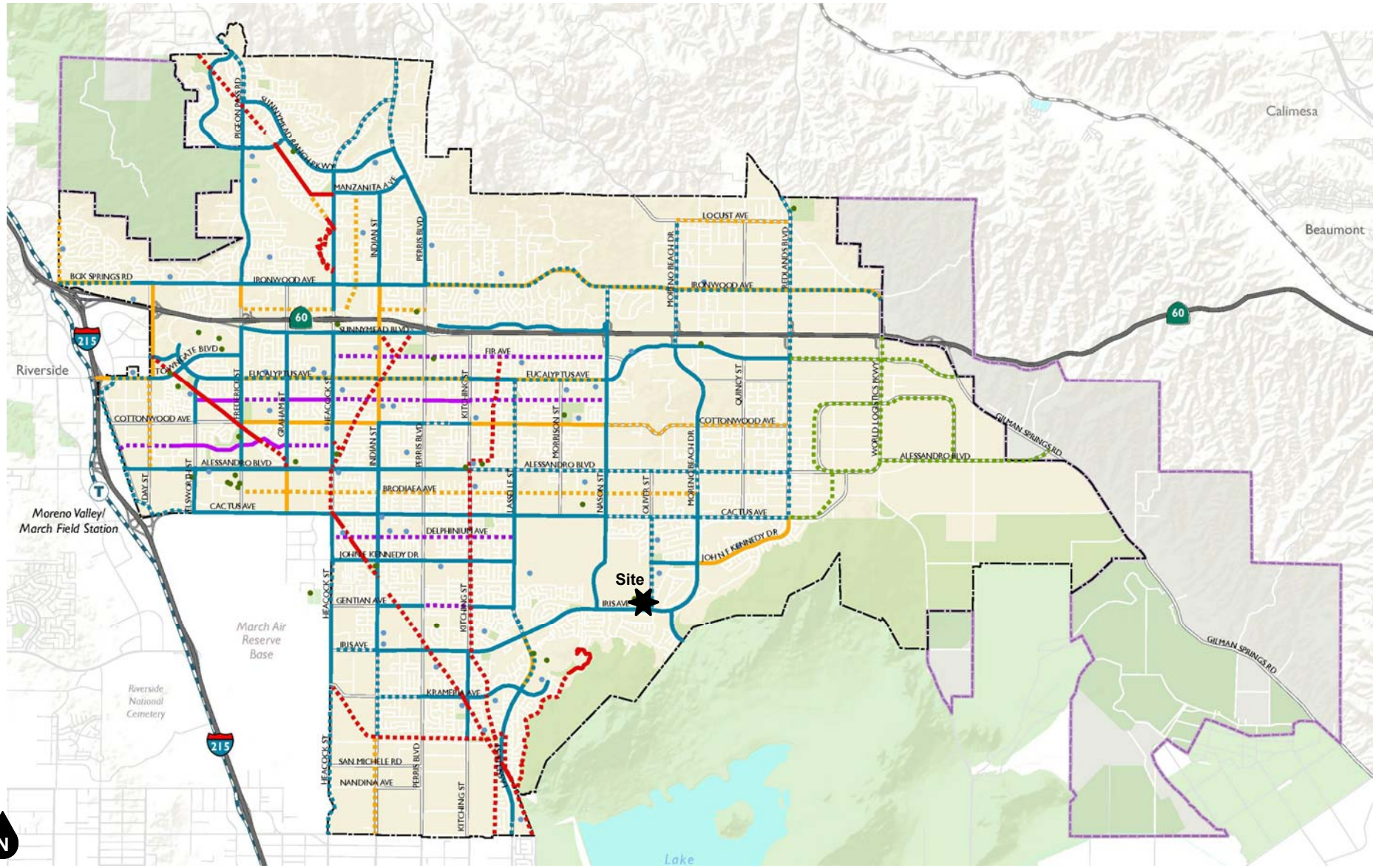


Figure 9
City of Moreno Valley General Plan Roadway Cross-Sections

Source: City of Moreno Valley



Source: City of Moreno Valley

Figure 10
City of Moreno Valley Bicycle Facilities Master Plan

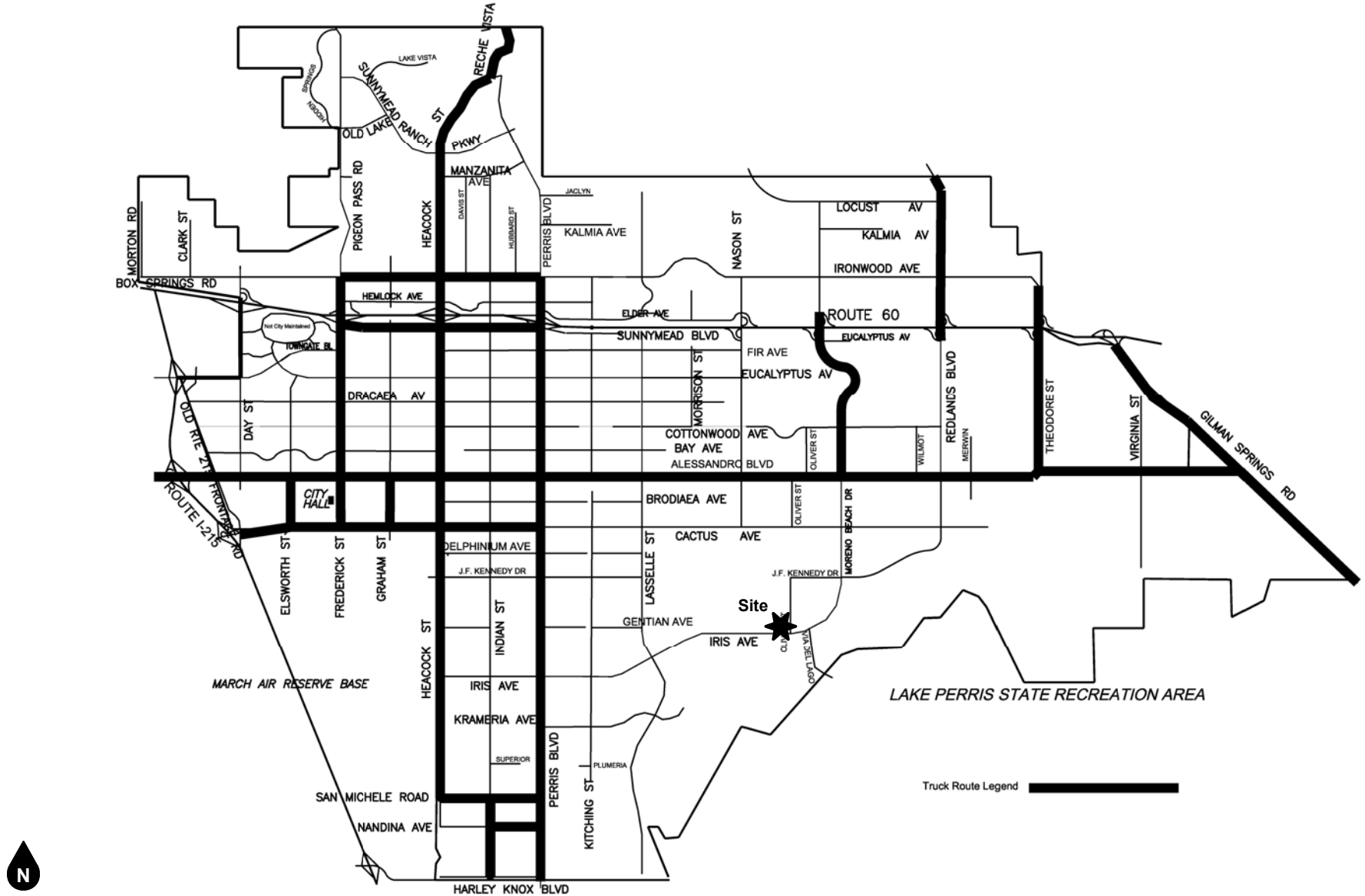


Figure 11
City of Moreno Valley Designated Truck Routes

Source: City of Moreno Valley

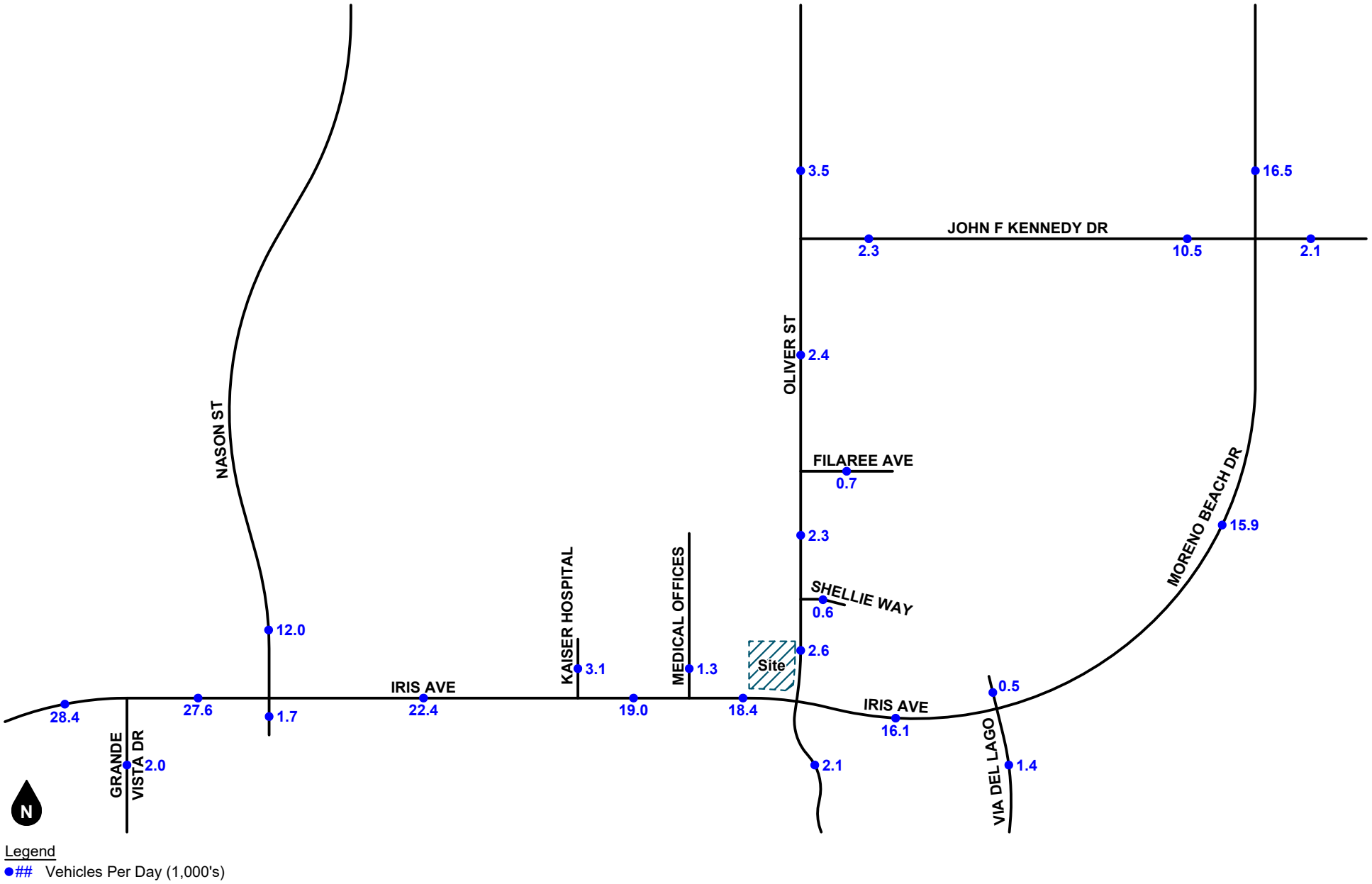


Figure 12
Existing Average Daily Traffic Volumes

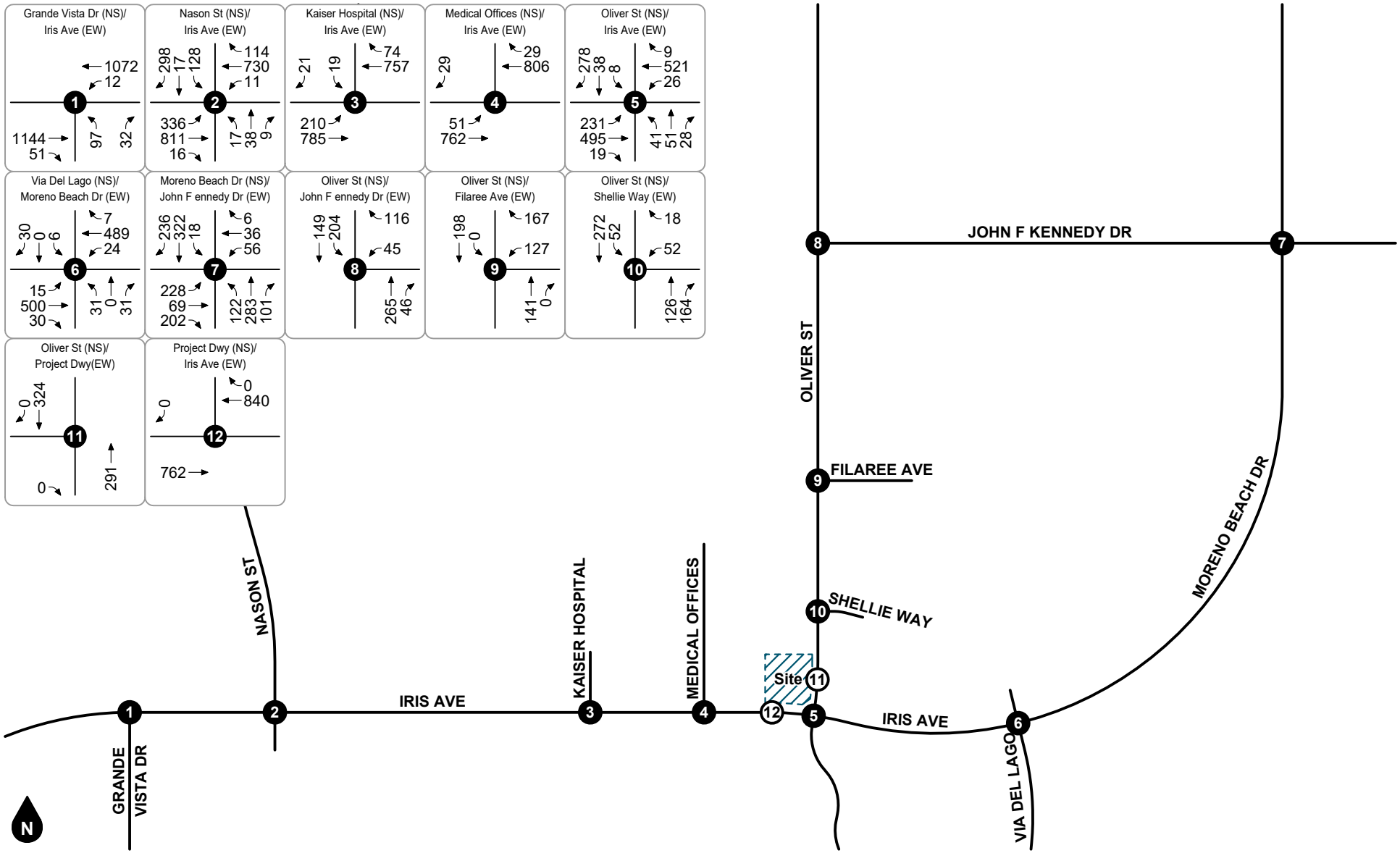


Figure 13
Existing AM Peak Hour Intersection Turning Movement Volumes

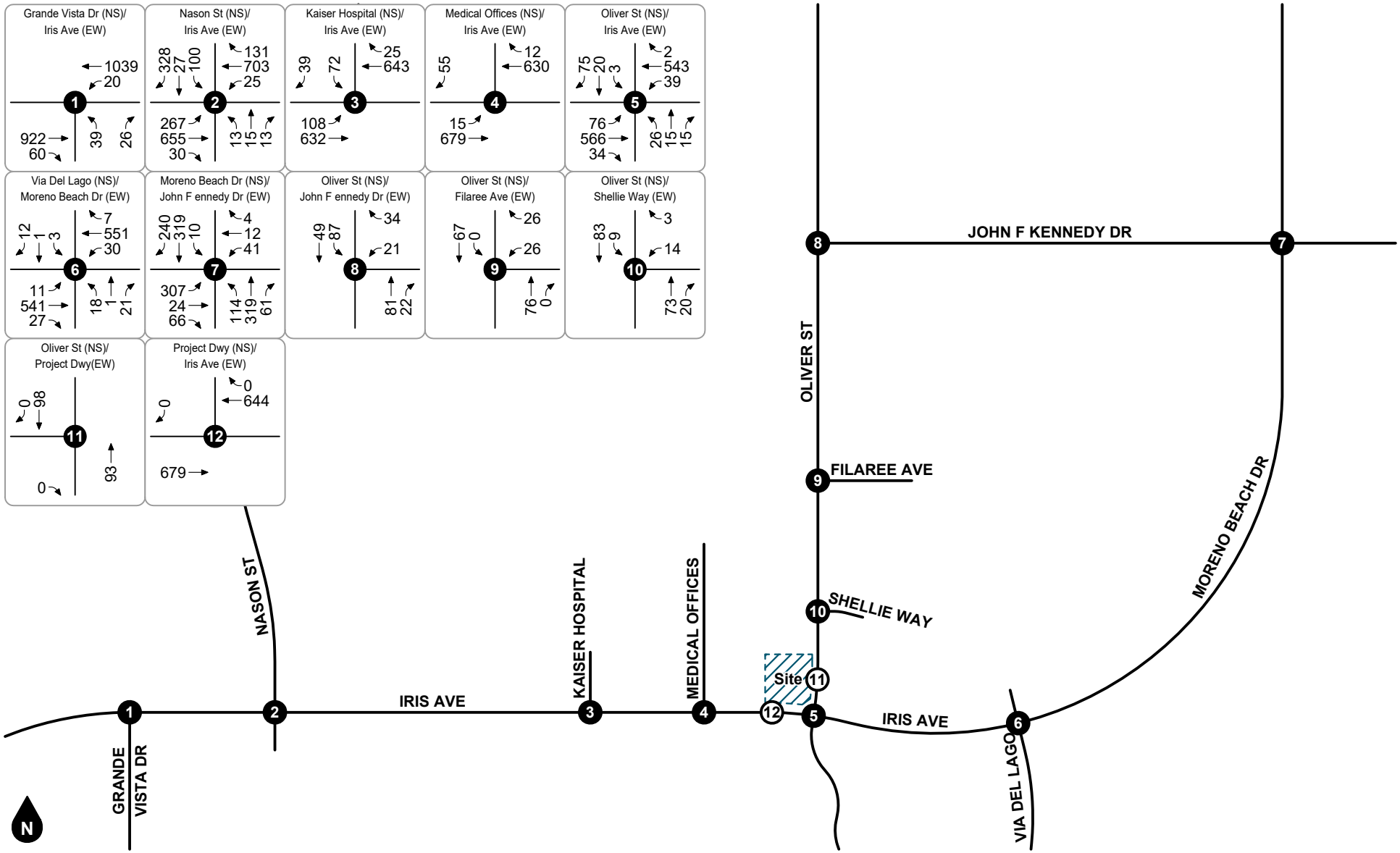


Figure 14
Existing PM Peak Hour Intersection Turning Movement Volumes

4. PROJECT TRIP FORECASTS

This section describes how project trip generation, trip distribution, and trip assignment forecasts were developed. The forecast project volumes are illustrated in the figures contained in this section.

PROJECT TRIP GENERATION

Table 2 shows the proposed project trip generation forecast is based on average rates obtained from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021) for Land Use Codes 945 (Convenience Store Gas Station) and 948 (Automated Car Wash).

Pass-by Trip Adjustments

The project trip generation includes pass-by trip adjustments based on average pass-by rates obtained from the ITE *Trip Generation Manual*. Land uses such as shopping centers, restaurants, gas stations, and convenience stores are often located next to busy roadways to attract motorists already on the street. Since the trip generation rates contained in the ITE *Trip Generation Manual* represent vehicles entering and exiting at the site driveway(s), it is appropriate to reduce the initial trip generation forecast by the applicable pass-by trip rate when calculating the net new trips that will be added to the surrounding street system. Pass-by trips are included at the project driveways and the adjacent Oliver Street and Iris Avenue.

Project Trips

As shown in Table 2, the proposed project is forecast to generate a total of approximately 4,346 new daily trips, including 155 new trips during the AM peak hour and 185 new trips during the PM peak hour.

PROJECT TRIP DISTRIBUTION & ASSIGNMENT

Figure 15 and Figure 16 show the forecast outbound and inbound directional distribution patterns for the project generated trips, respectively. The project trip distribution patterns were developed using engineering judgment in consultation with the City engineering staff based on a review of existing traffic data, surrounding land uses, and the local and regional roadway facilities in the project vicinity.

Based on the identified project trip generation and distributions, The project-generated average daily traffic volumes are shown in Figure 17. The project-generated AM peak hour and PM peak hour intersection turning movement volumes are shown in Figure 18 and Figure 19.

Table 2
Project Trip Generation

Trip Generation Rates									
Land Use	Source[1]	Land Use Variable[2]	AM Peak Hour			PM Peak Hour			Daily Rate
			% In	% Out	Rate	% In	% Out	Rate	
Convenience Store Gas Station (5.5-10 ksf GFA)	ITE 945	VFP	50%	50%	31.60	50%	50%	26.90	345.75
Automated Car Wash	ITE 948 [3]	CWT	50%	50%	34.44	50%	50%	77.50	*861.11*

Trips Generated									
Land Use	Source	Quantity	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Convenience Store Gas Station (5.5-10 ksf GFA)	ITE 945	16 VFP	253	253	506	215	215	430	5,532
Pass-by Trips (76%AM, 75%PM, 37%Daily)	ITE 945[4]		*-192*	*-193*	*-385*	*-161*	*-162*	*-323*	*-2,047*
Subtotal			61	60	121	54	53	107	3,485
Automated Car Wash	ITE 948	1 CWT	17	17	34	39	39	78	861
Subtotal - Gross Project Trips			270	270	540	254	254	508	6,393
Total Pass-by Trips			-192	-193	-385	-161	-162	-323	-2,047
TOTAL NEW TRIPS GENERATED			**78**	**77**	**155**	**93**	**92**	**185**	**4,346**

Notes:

1. ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = Land Use Code. All rates based on General Urban/Suburban setting.
2. VFP = Vehicle Fuel Position; CWT = Car Wash Tunnel.
3. San Diego Association of Governments (SANDAG) *Vehicular Traffic Generation Rates* (April 2002). Where the daily or peak hour rate is not provided by ITE, the SANDAG percentage of peak hour to daily rate is used to calculate the missing data. Where the peak hour distribution is not provided by ITE, the SANDAG peak hour distribution is used.
4. Pass-by trips calculated in accordance with procedures in the ITE *Trip Generation Handbook*. Daily pass-by is calculated using half of the AM and PM pass-by average rates.

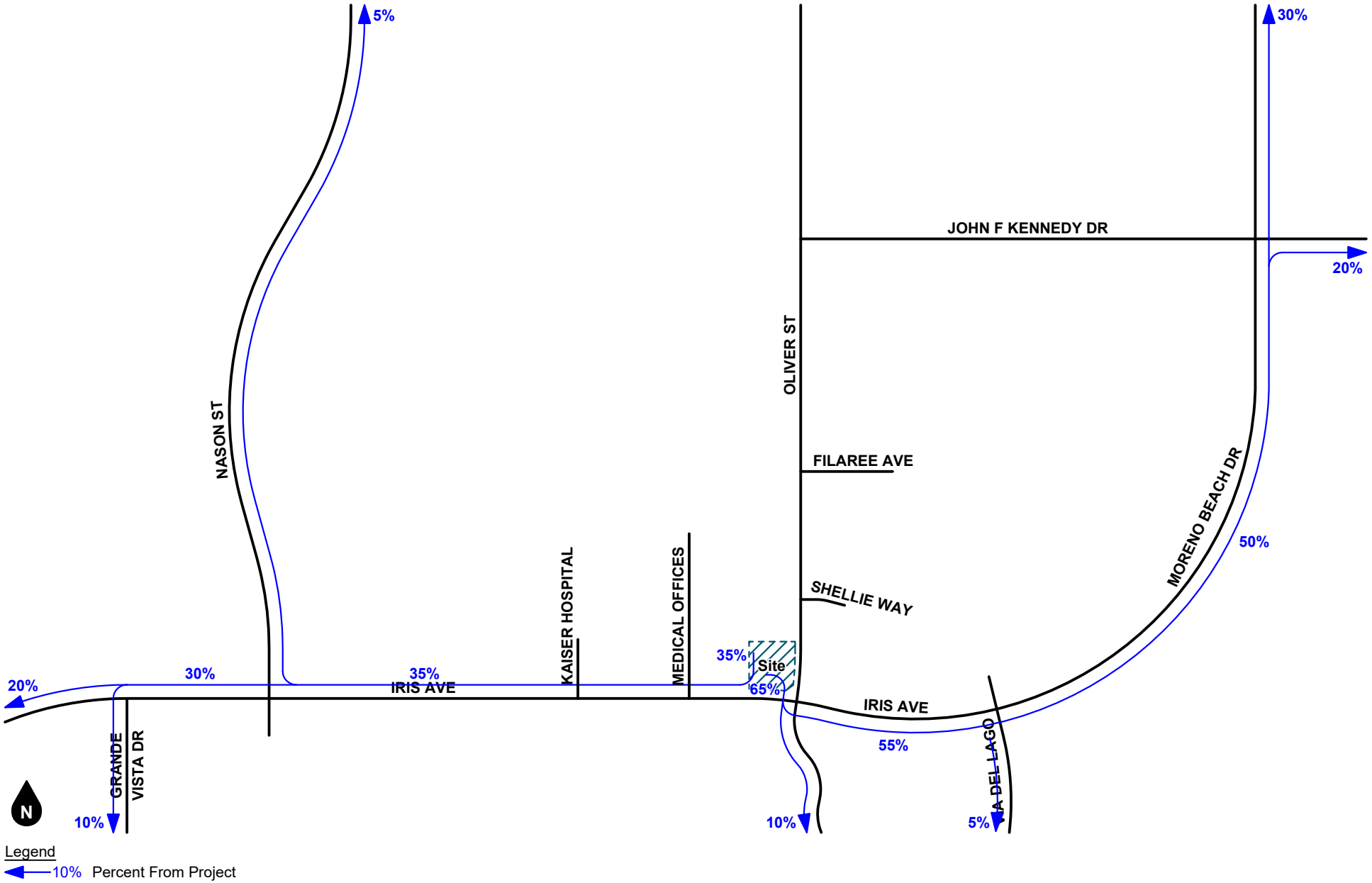


Figure 15
Project Trip Distribution (Outbound)

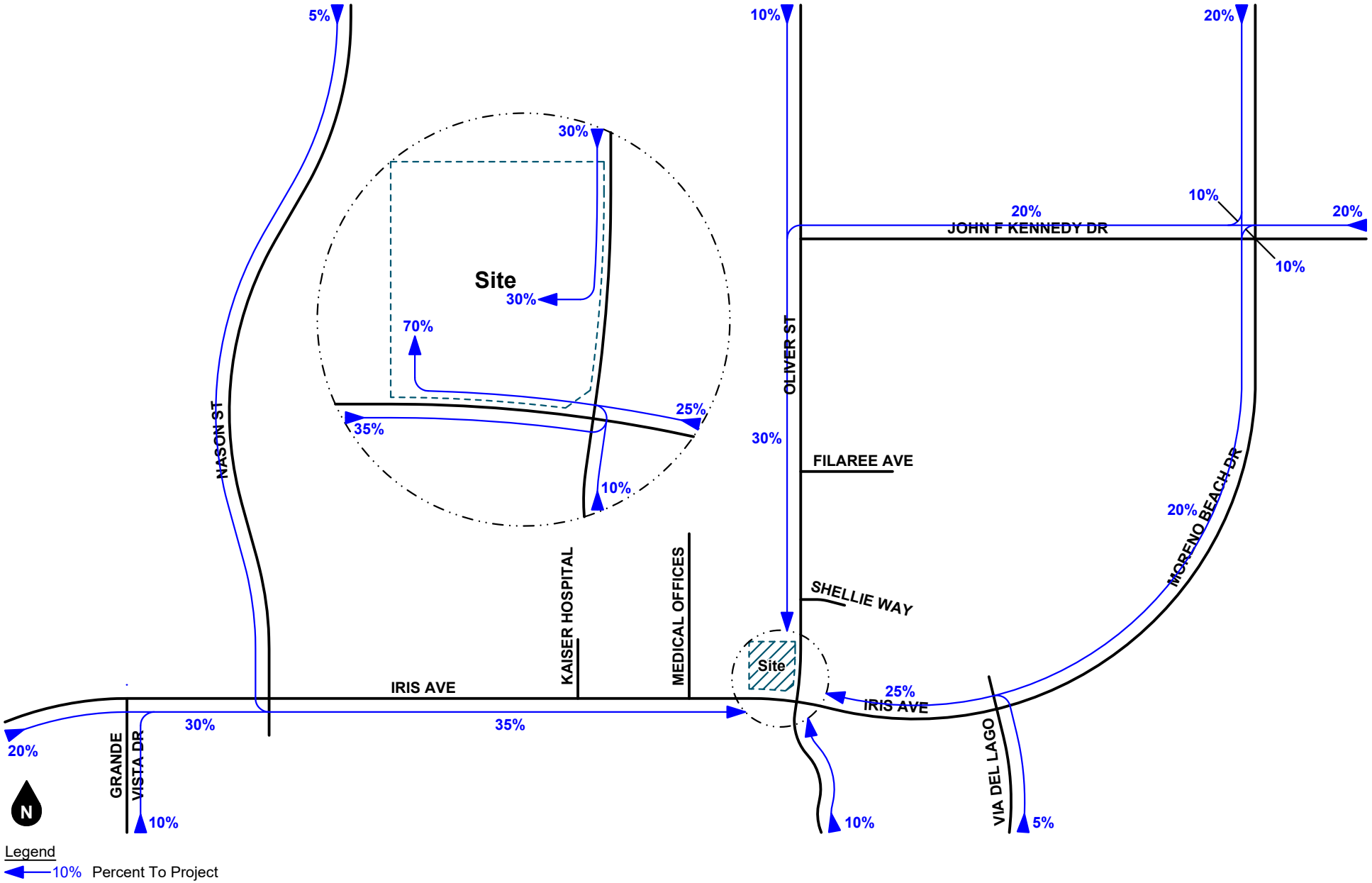


Figure 16
Project Trip Distribution (Inbound)

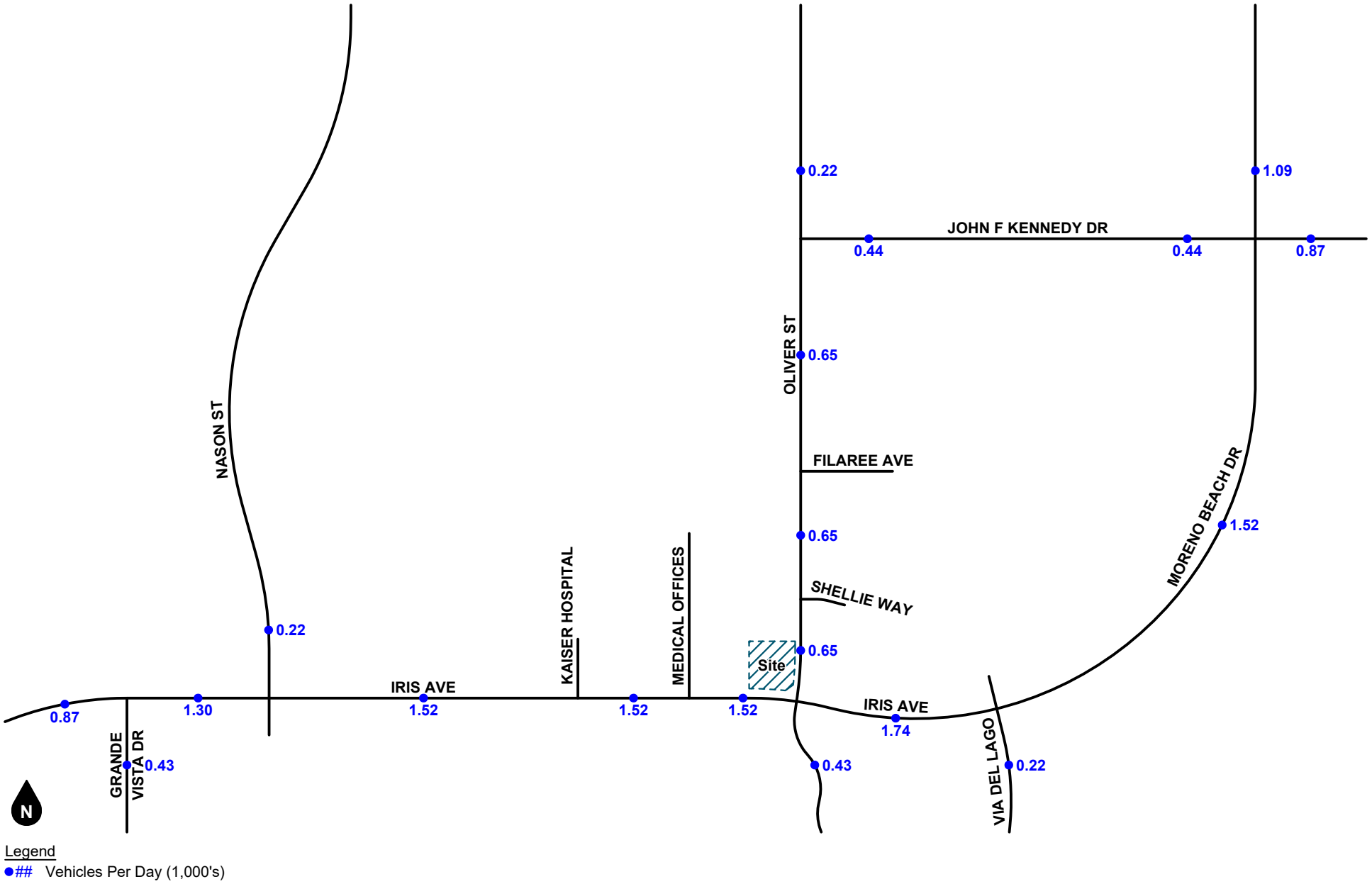


Figure 17
Project Average Daily Traffic Volumes

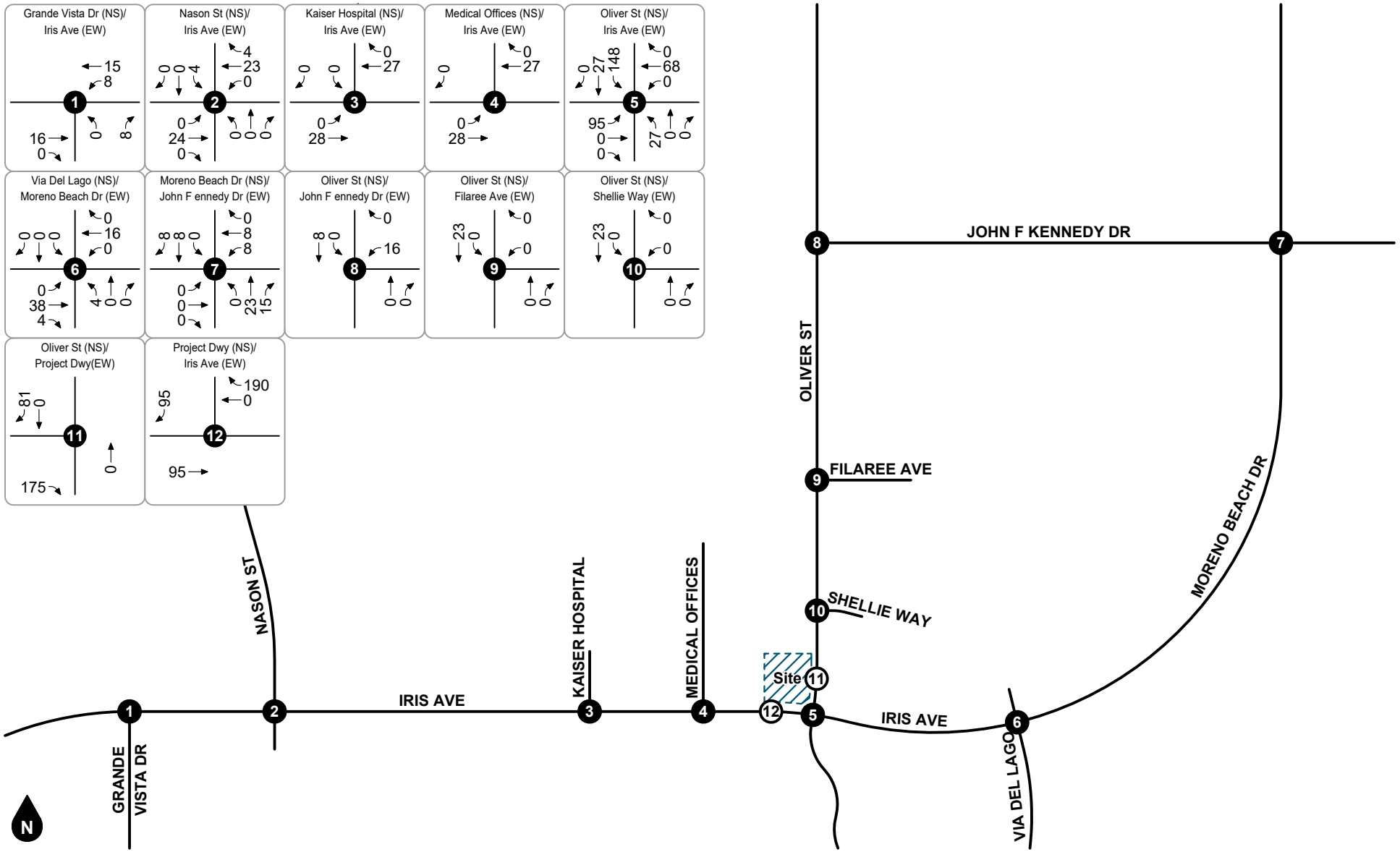


Figure 18
Project AM Peak Hour Intersection Turning Movement Volumes

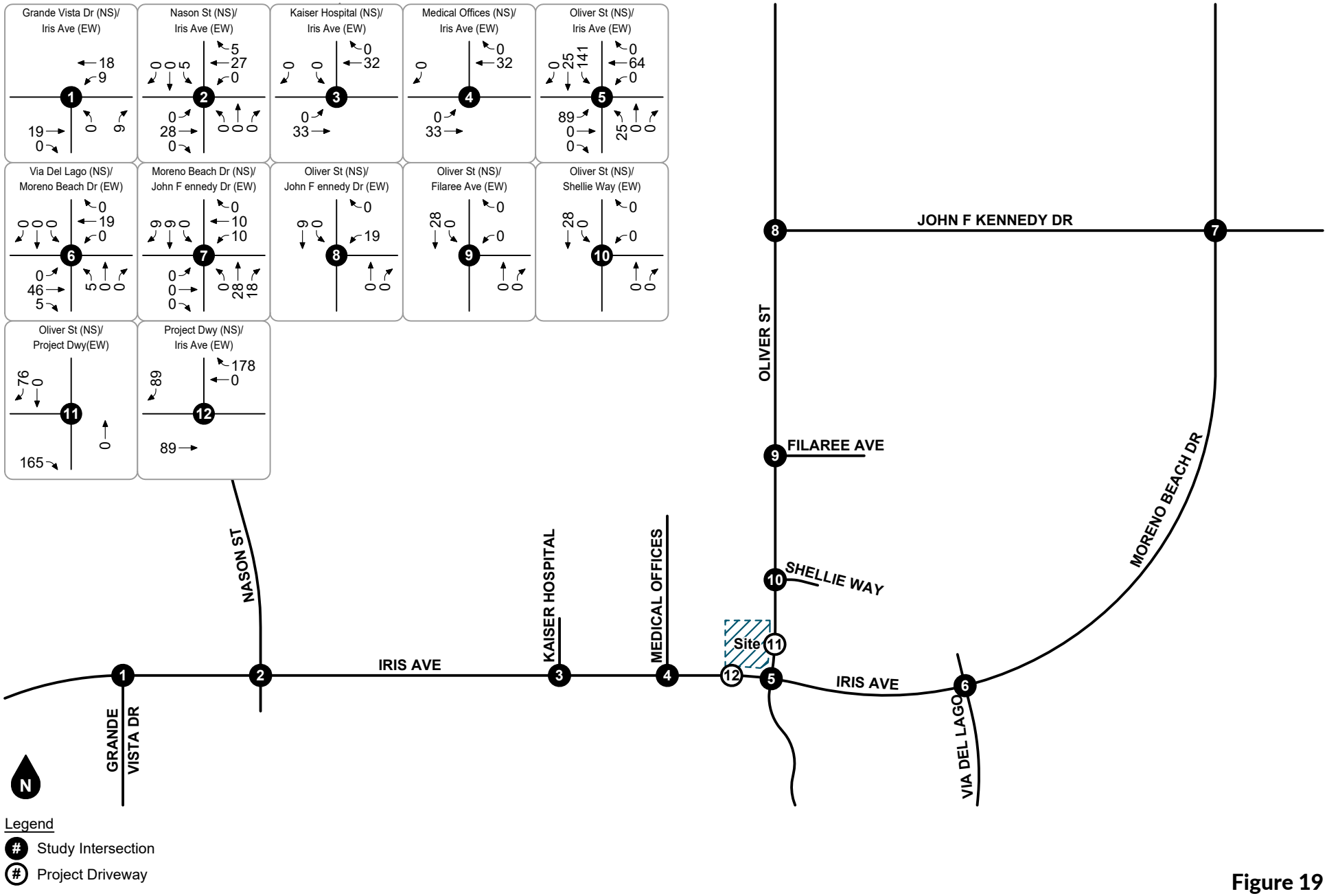


Figure 19
Project PM Peak Hour Intersection Turning Movement Volumes

5. FUTURE VOLUME FORECASTS

This section describes how future volume forecasts for each analysis scenario were developed. Forecast study area volumes are illustrated in the figures contained in this section.

METHOD OF PROJECTION

To assess future conditions, existing volumes were combined with project trips, ambient growth, and other development trips. The project completion date for analysis purposes in this report is 2025.

Ambient Growth

To account for ambient growth, Opening Year (2025) roadway volumes were developed by increasing existing (year 2023) volumes by a growth rate of two percent (2.0%) per year over a two (2) year period for a total growth factor of 1.02. The ambient growth was applied to all movements at the study intersections.

Other Developments

To account for growth associated with other development projects, trips generated by other pending or approved but unconstructed developments in the City of Moreno Valley were reviewed and added to the study area as appropriate. The other development trip generation summary is shown in Table 3. The regional ambient growth is assumed to account for any additional trips generated by other developments not specifically listed in Table 3. Figure 20 shows the other development location map.

Average daily traffic volumes generated by other developments are shown in Figure 21. Figure 22 and Figure 23 show the forecast AM peak hour and PM peak hour intersection turning movement volumes for trips generated by other developments.

ANALYSIS SCENARIO VOLUMES

Existing Plus Ambient Growth Plus Project

The Existing Plus Ambient Growth Plus Project volume forecast was developed by applying the ambient growth factor to existing volumes and adding project-generated trips. Existing Plus Ambient Growth Plus Project average daily traffic volumes are shown in Figure 24. Existing Plus Ambient Growth Plus Project AM peak hour and PM peak hour intersection turning movement volumes are shown in Figure 25 and Figure 26.

Opening Year (2025) Without Project

The Opening Year (2025) Without Project volume forecast was developed by applying the ambient growth factor to existing volumes and adding trips generated by other developments. Opening Year (2025) Without Project average daily traffic volumes are shown in Figure 27. Opening Year (2025) Without Project AM peak hour and PM peak hour intersection turning movement volumes are shown in Figure 28 and Figure 29.

Opening Year (2025) With Project

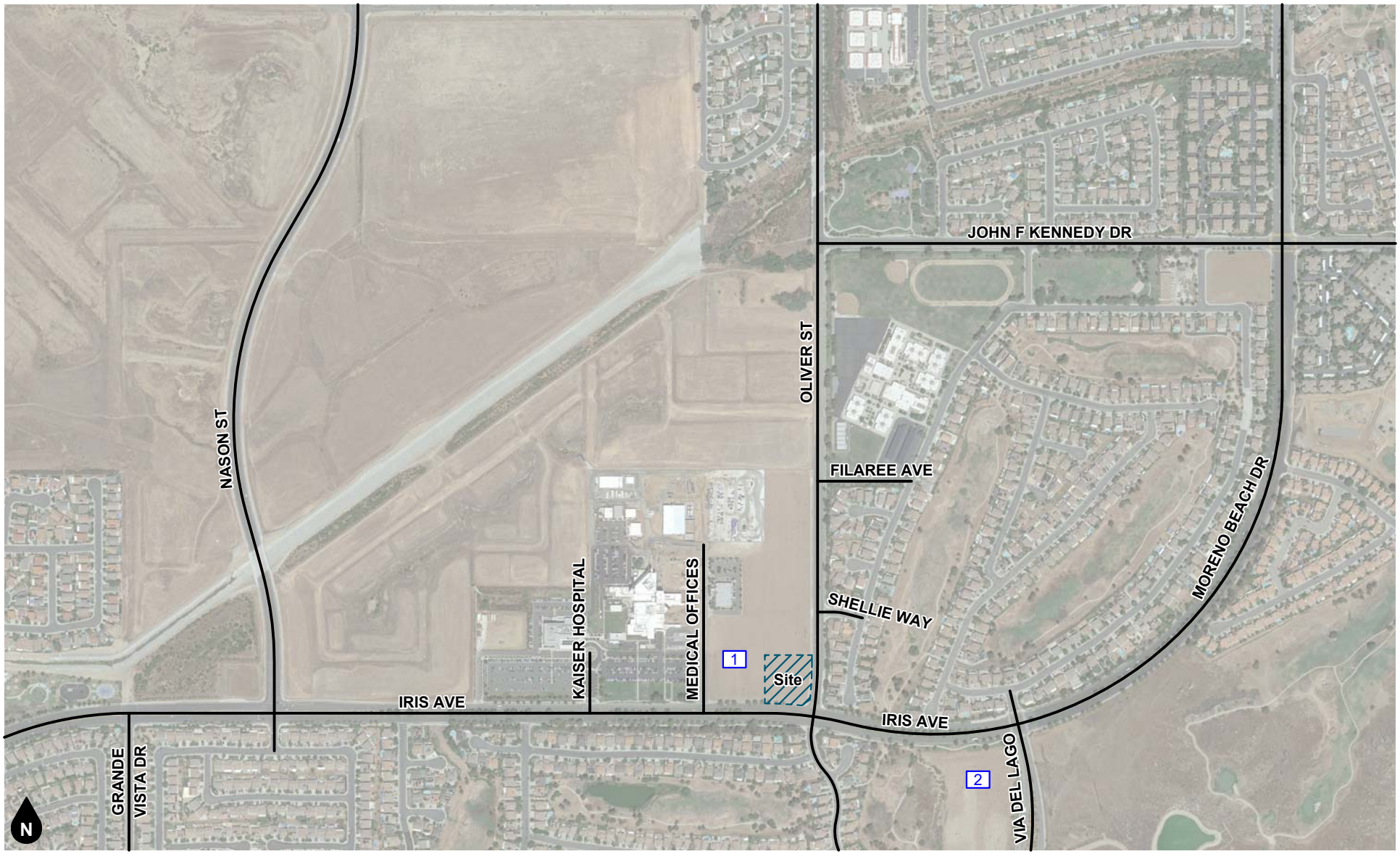
The Opening Year (2025) With Project volume forecast was developed by adding project-generated trips to the Opening Year (2025) Without Project volumes. Opening Year (2025) With Project average daily traffic volumes are shown in Figure 30. Opening Year (2025) With Project AM peak hour and PM peak hour intersection turning movement volumes are shown in Figure 31 and Figure 32.

Table 3
Other Development Trip Generation

Trips Generated											
					AM Peak Hour			PM Peak Hour			
ID	Name/Address	Land Use	Source	Quantity	In	Out	Total	In	Out	Total	Daily
1	NW of Oliver and Iris Mixed-use	Multifamily Housing (Low-Rise, Not Close to Rail Transit)	ITE 220	348 DU	33	106	139	112	65	177	2,346
		Strip Retail Plaza (<40k)	ITE 822	12.000 TSF	17	11	28	40	39	79	653
		Internal Capture Trips (1%AM, 24%PM, 6%Daily)			0	-1	-1	-38	-23	-61	-167
		Subtotal			50	116	166	114	81	195	2,832
2	SWC Iris and Via Del Lago Condos	Single-Family Attached Housing	ITE 215	135 DU	20	45	65	44	33	77	972
TOTAL OTHER DEVELOPMENT TRIPS GENERATED					**70**	**161**	**231**	**158**	**114**	**272**	**3,804**

Notes:

1. ITE = Institute of Transportation Engineers Trip Generation Manual (11th Edition, 2021); ### = Land Use Code. All rates based on General Urban/Suburban setting.
2. DU = Dwelling Unit; TSF = Thousand Square Feet.
3. Internal capture rates calculated in accordance with procedures in the ITE Trip Generation Handbook (3rd Edition, 2017). The daily internal capture rate is equal to half of the AM and PM peak hour average internal rates.



Legend

[#] Traffic Analysis Zone Location

Figure 20
Other Development Location Map

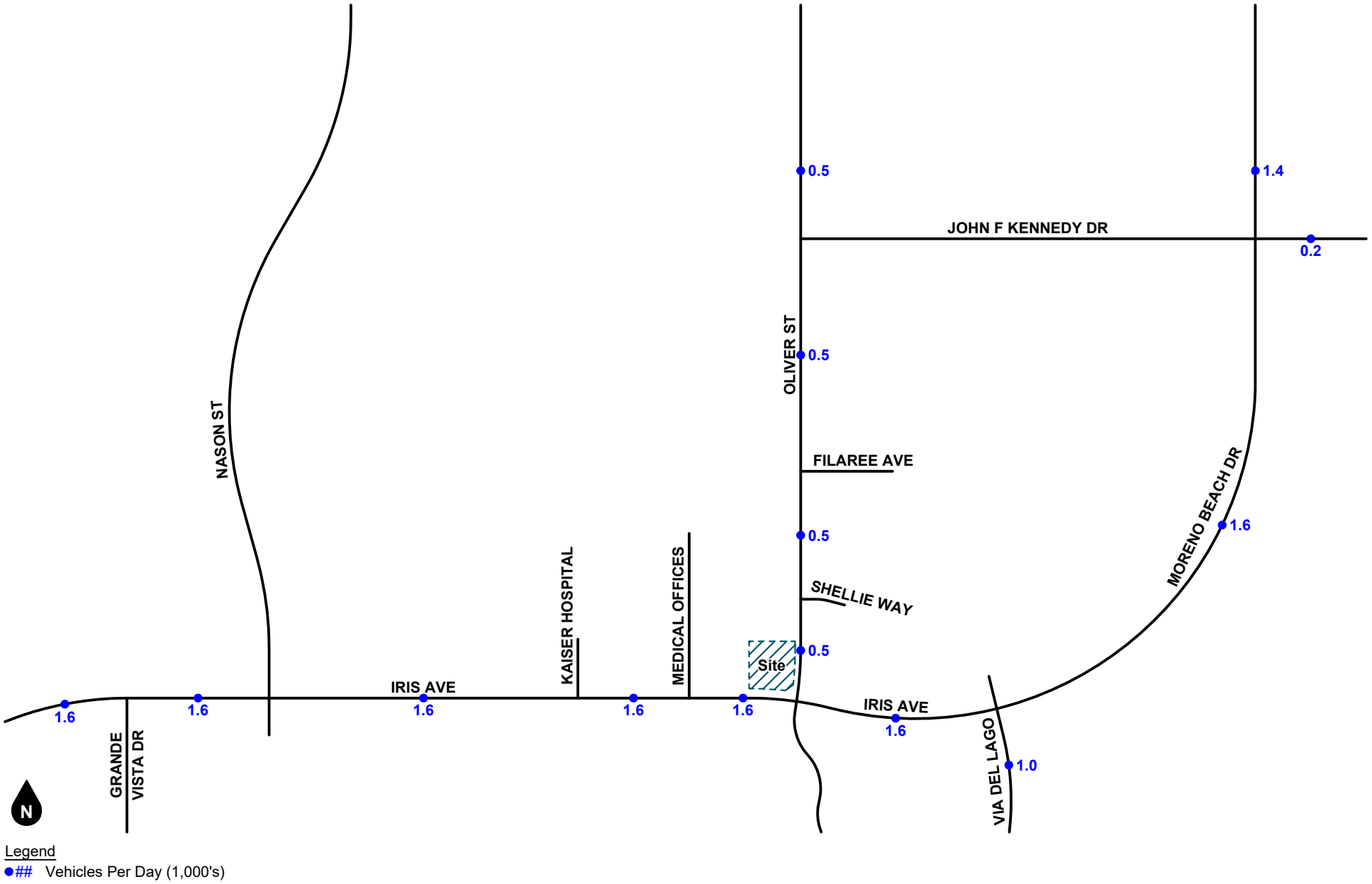


Figure 21
Other Development Average Daily Traffic Volumes

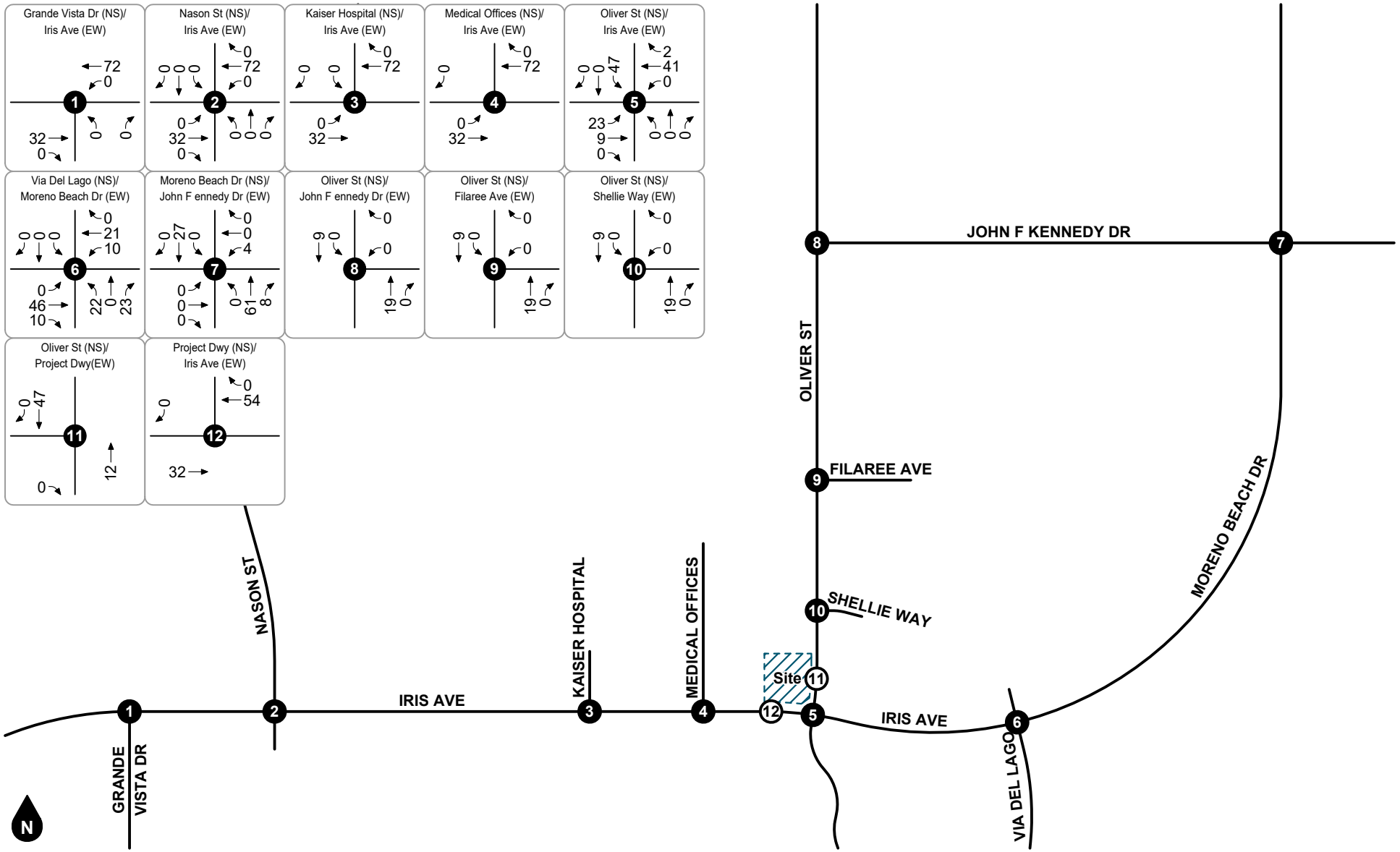
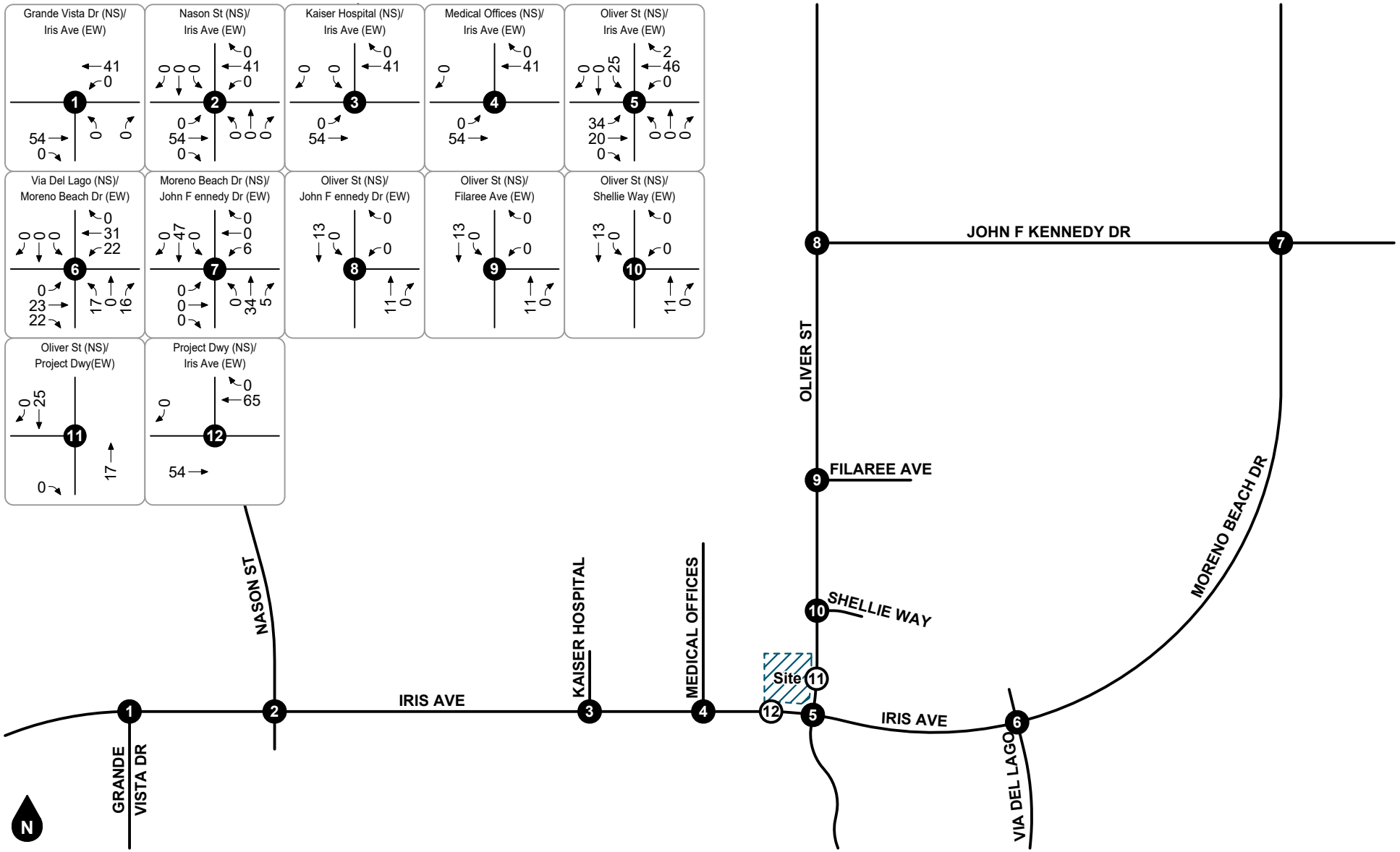


Figure 22
Other Development
AM Peak Hour Intersection Turning Movement Volumes



Legend

Study Intersection

(#) Project Driveway

Figure 23
Other Development
PM Peak Hour Intersection Turning Movement Volumes

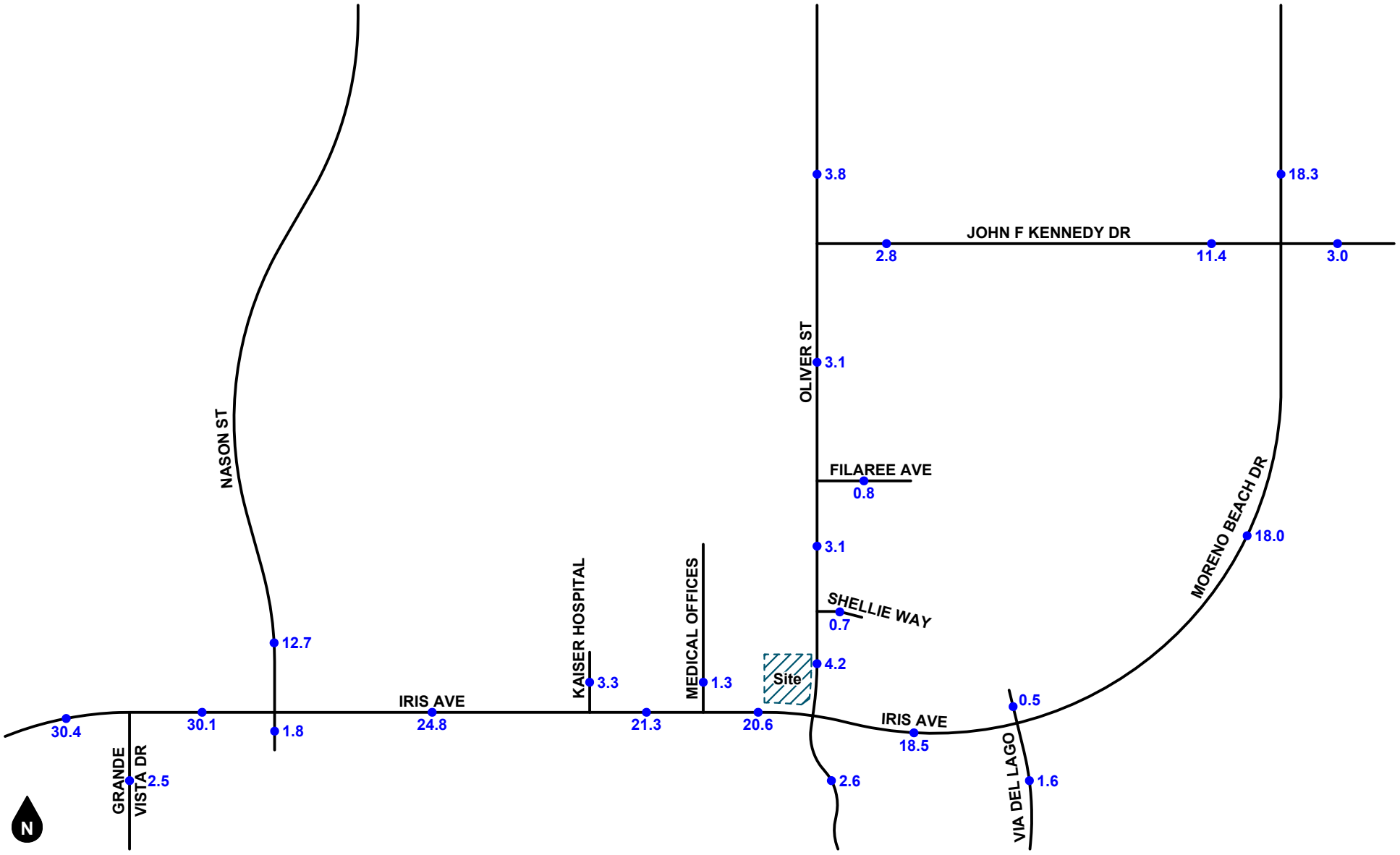


Figure 24
Existing Plus Ambient Growth Plus Project
Average Daily Traffic Volumes

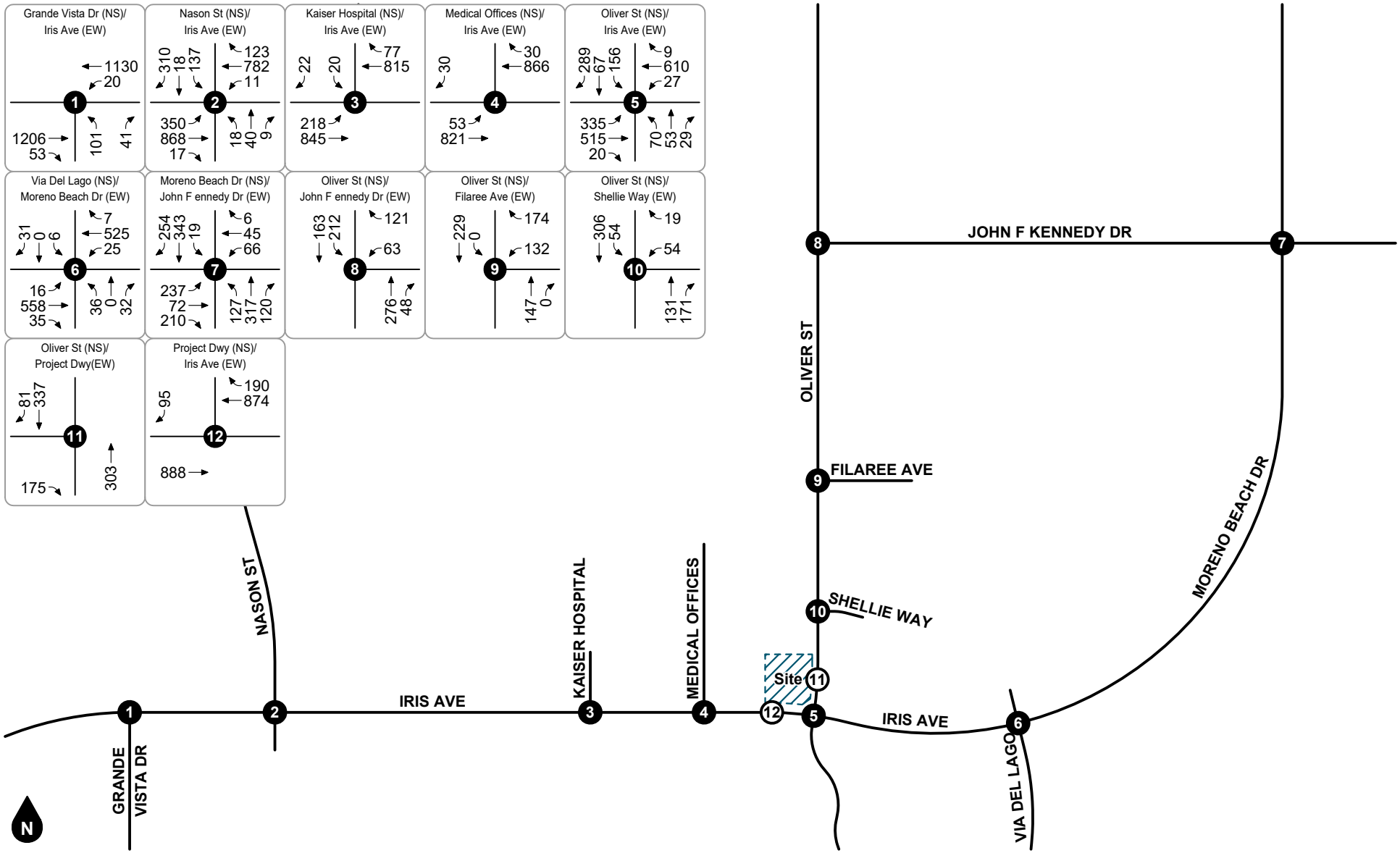


Figure 25
Existing Plus Ambient Growth Plus Project
AM Peak Hour Intersection Turning Movement Volumes

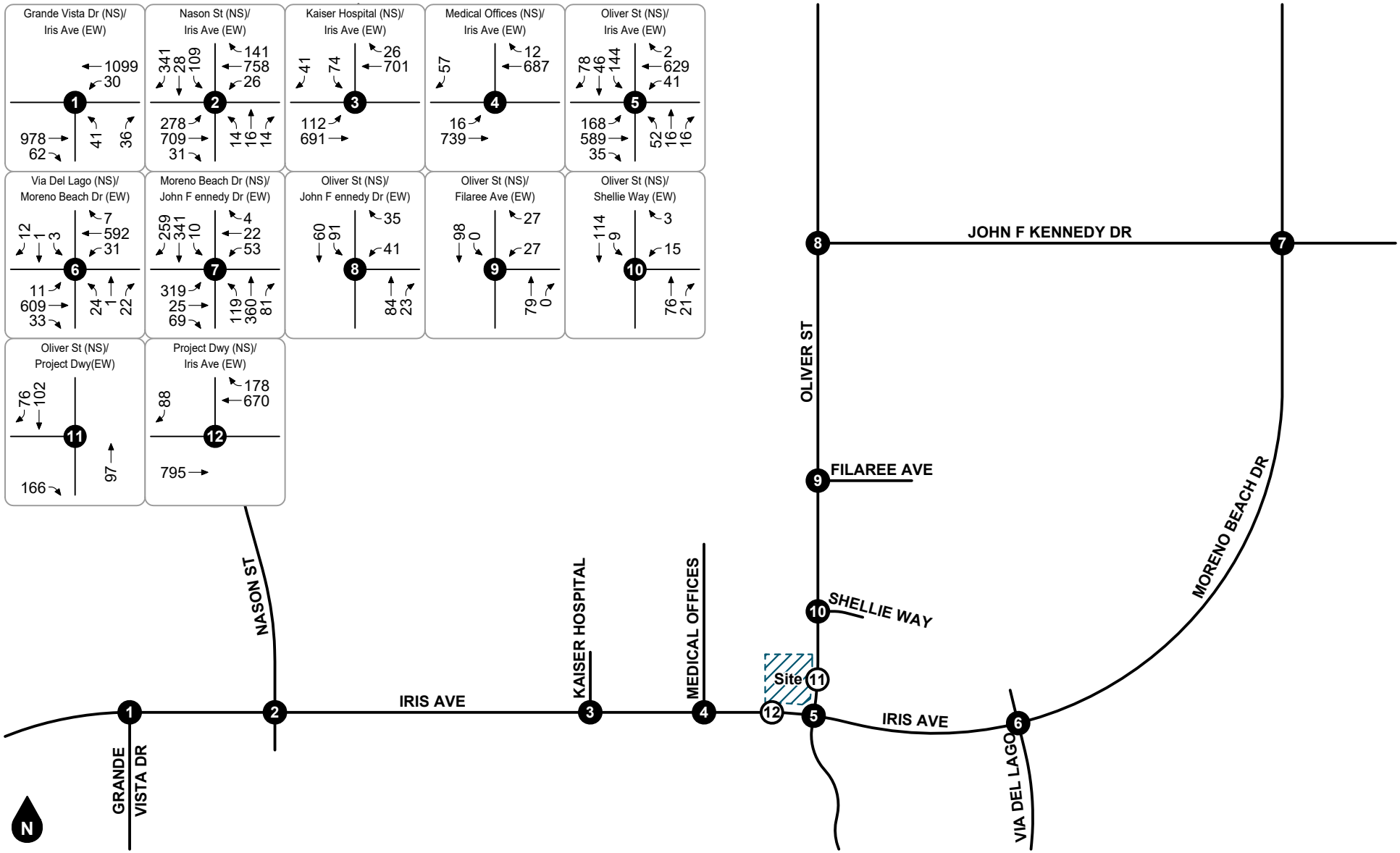


Figure 26
Existing Plus Ambient Growth Plus Project
PM Peak Hour Intersection Turning Movement Volumes

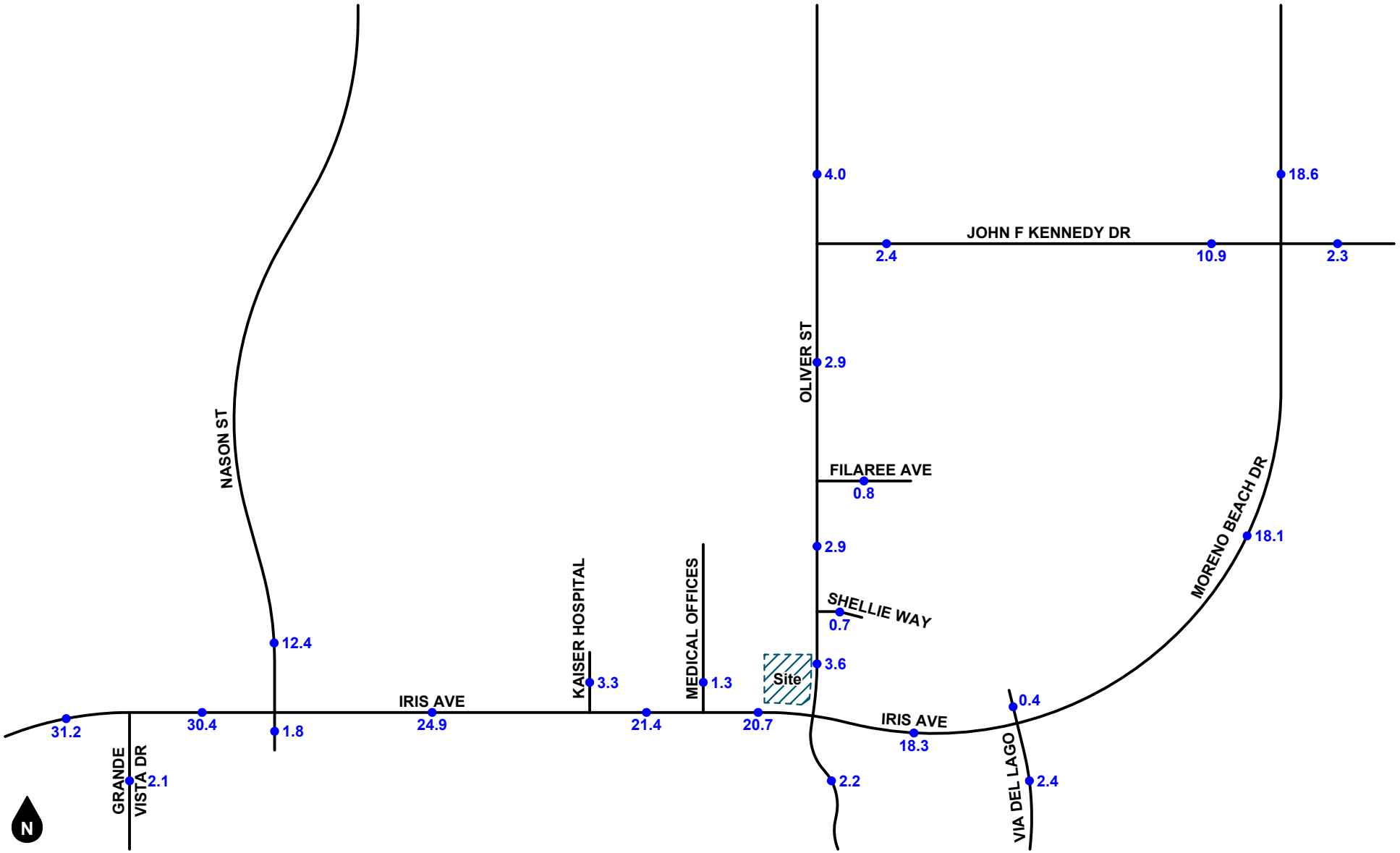


Figure 27
Opening Year (2025) Without Project
Average Daily Traffic Volumes

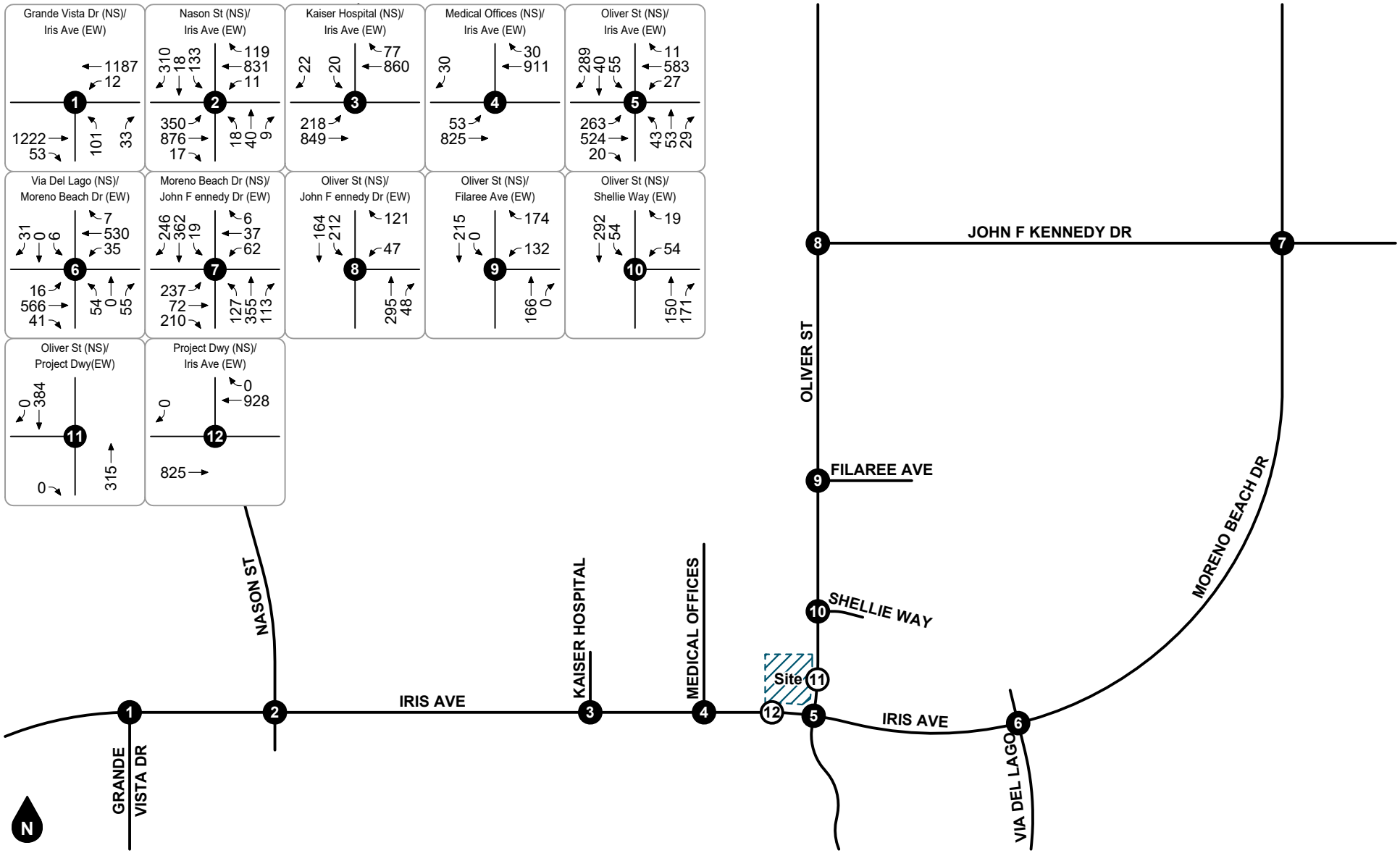
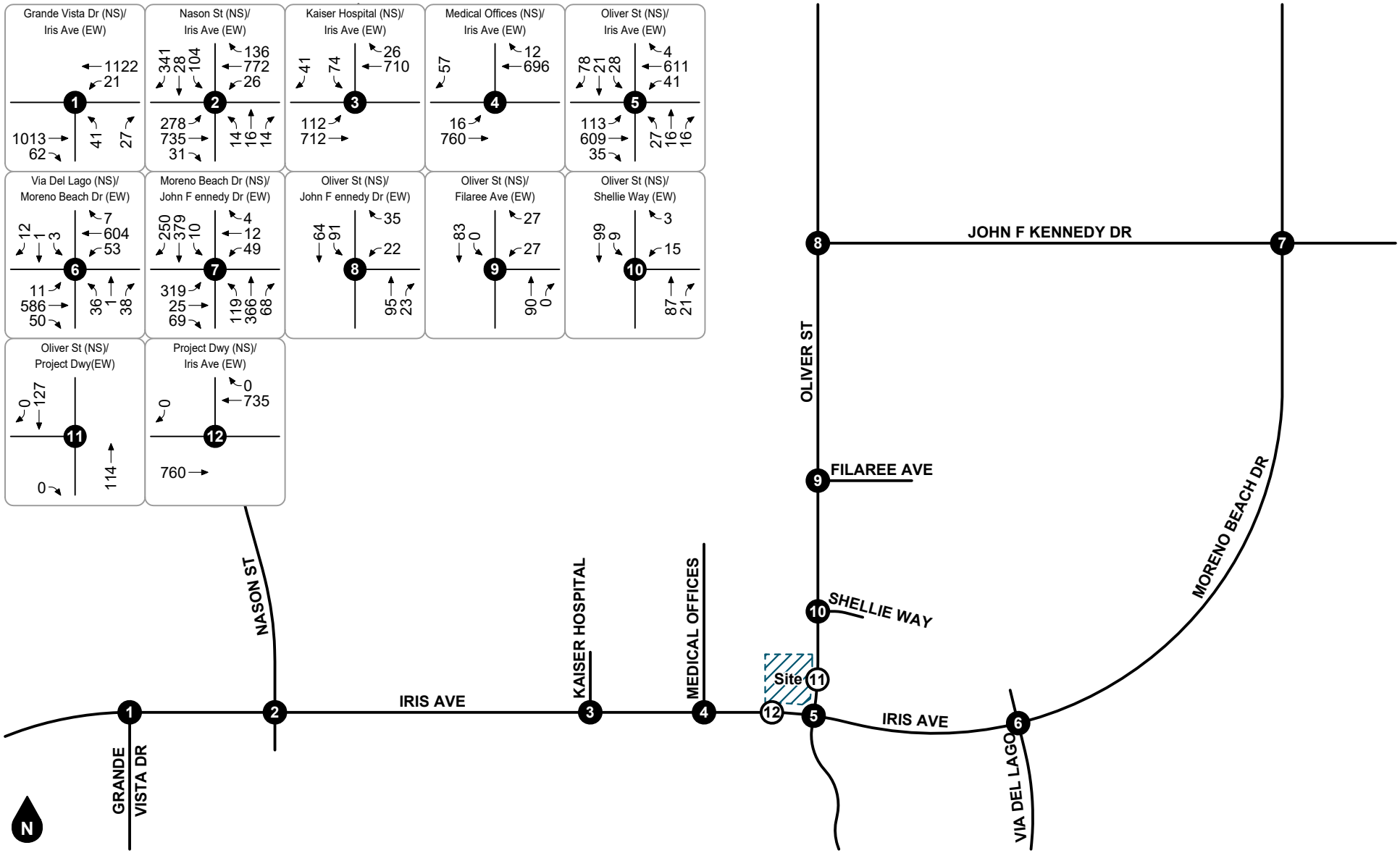


Figure 28
Opening Year (2025) Without Project
AM Peak Hour Intersection Turning Movement Volumes



Legend

Study Intersection

(#) Project Driveway

Figure 29
Opening Year (2025) Without Project
PM Peak Hour Intersection Turning Movement Volumes

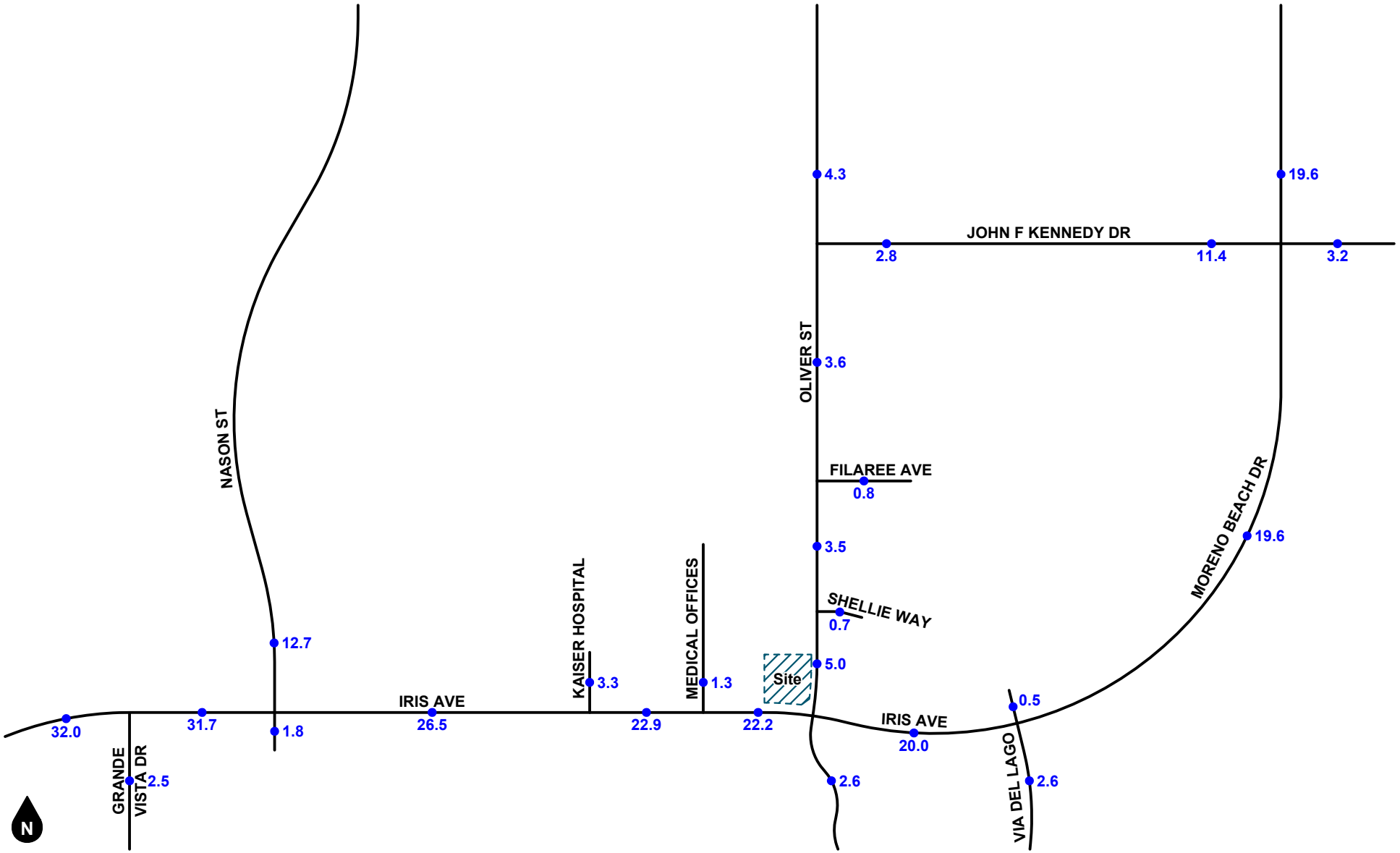


Figure 30
Opening Year (2025) With Project
Average Daily Traffic Volumes

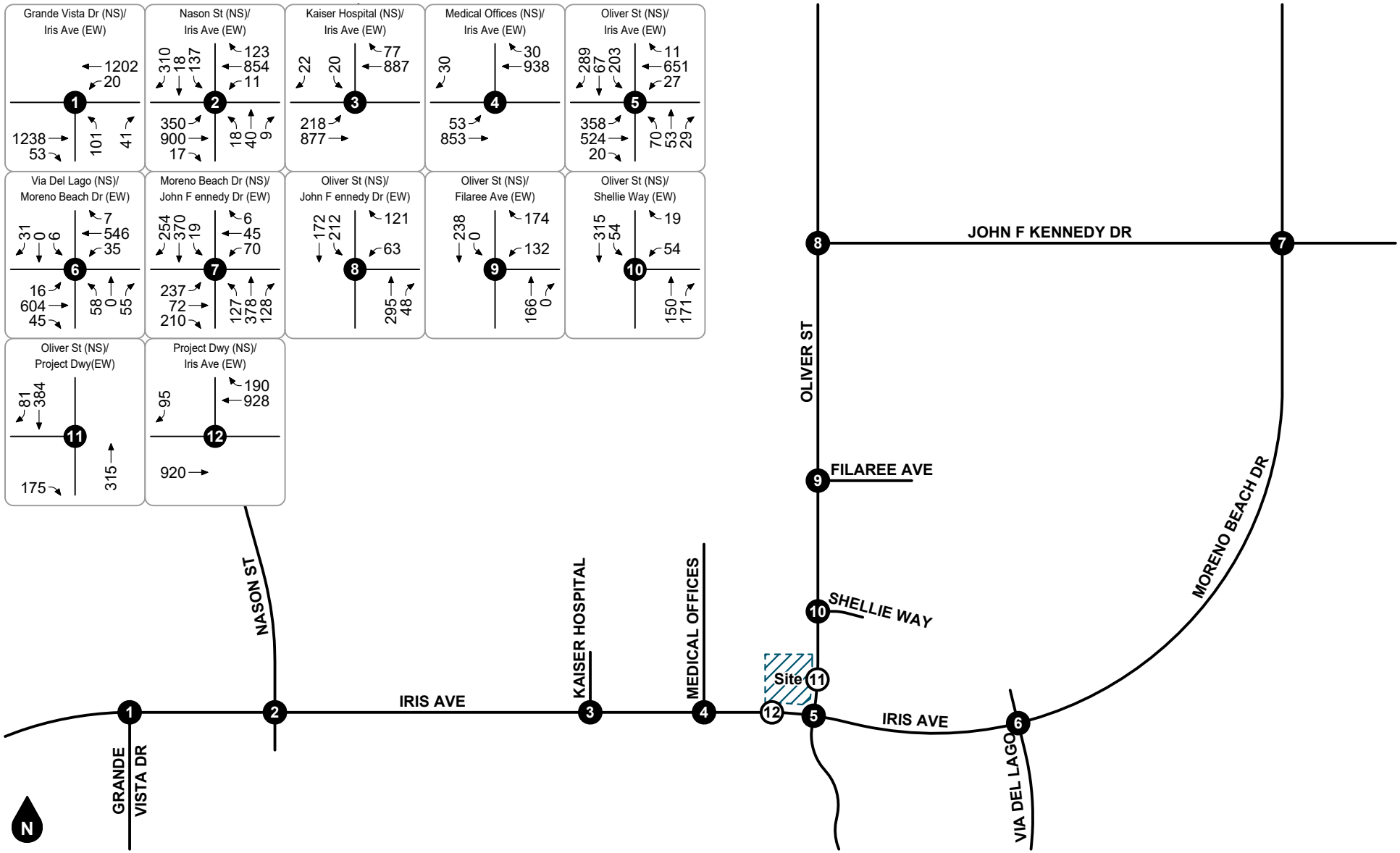


Figure 31
Opening Year (2025) With Project
AM Peak Hour Intersection Turning Movement Volumes

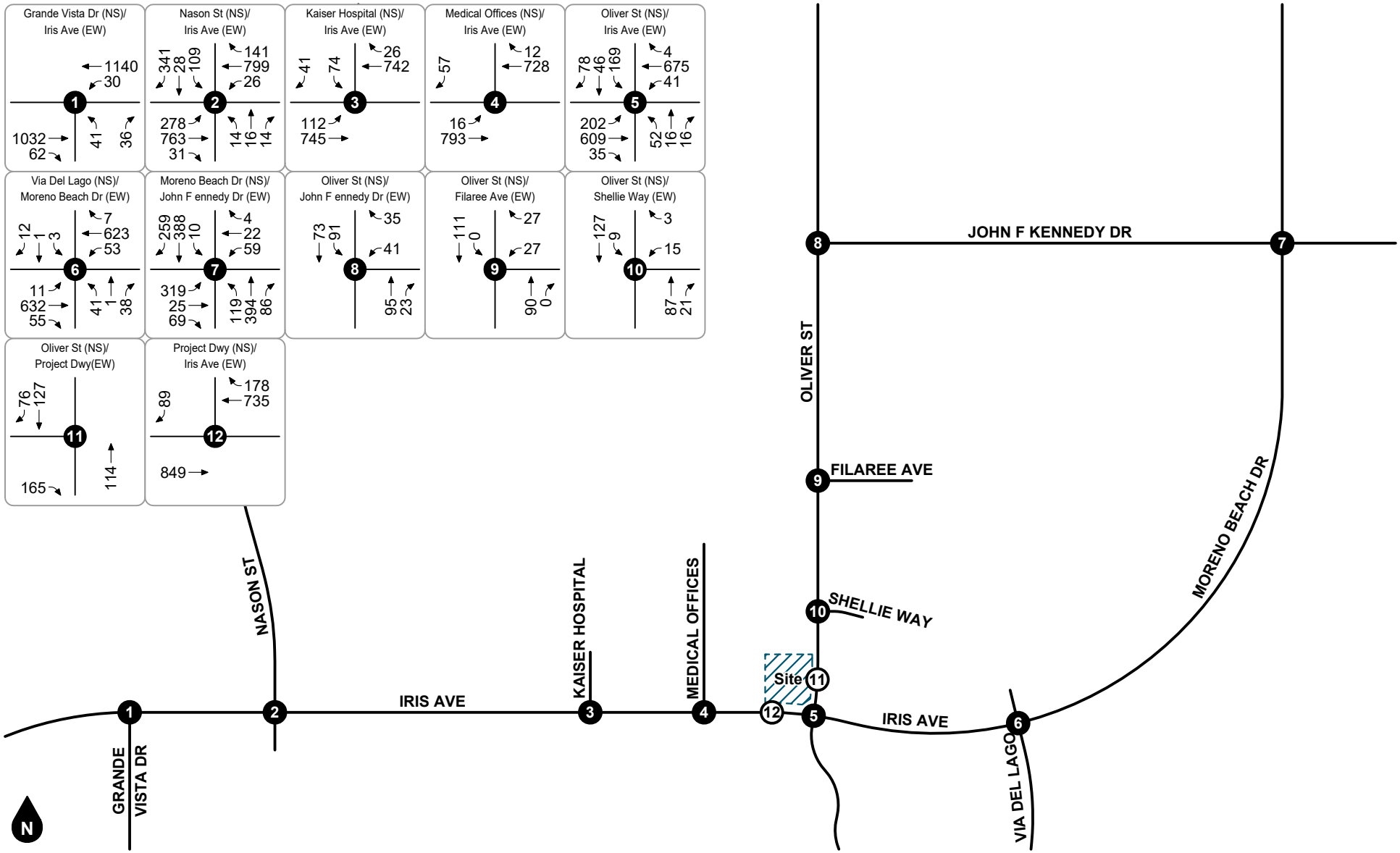


Figure 32
Opening Year (2025) With Project
PM Peak Hour Intersection Turning Movement Volumes

6. FUTURE LEVELS OF SERVICE ANALYSIS

Detailed intersection Level of Service calculation worksheets for each of the following analysis scenarios are provided in Appendix D.

Project design features, such as improvements necessary to provide project site access, are assumed to be constructed by the proposed project and are described in further detail in the Site Access & Circulation section presented later in this report.

EXISTING PLUS AMBIENT GROWTH PLUS PROJECT

The study intersection Levels of Service for Existing Plus Ambient Growth Plus Project conditions are shown in Table 4. As shown in Table 4, the study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours for Existing Plus Ambient Growth Plus Project conditions.

OPENING YEAR (2025) WITHOUT PROJECT

The study intersection Levels of Service for Opening Year (2025) Without Project conditions are shown in Table 5. As shown in Table 5, the study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours for Opening Year (2025) Without Project conditions.

OPENING YEAR (2025) WITH PROJECT

The study intersection Levels of Service for Opening Year (2025) With Project conditions is shown in Table 6. As shown in Table 6, the study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours for Opening Year (2025) With Project conditions.

As shown in Table 6, the proposed project is forecast to result in no substantial transportation effects at the study intersections for Opening Year (2025) With Project conditions.

Table 4
Existing Plus Ambient Growth Plus Project Intersection Levels of Service

Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS
1. Grande Vista Drive at Iris Avenue	TS	5.6	A	4.4	A
2. Nasson Street at Iris Avenue	TS	27.1	C	23.8	C
3. Kaiser Hospital Main Drive at Iris Avenue	TS	8.8	A	8.7	A
4. Medical Offices at Iris Avenue	CSS	13.2	B	12.3	B
5. Oliver Street at Iris Avenue	TS	26.9	C	18.1	B
6. Via Del Lago at Iris Avenue	TS	9.5	A	8.0	A
7. Moreno Beach Drive at John F Kennedy Drive	TS	17.6	B	16.7	B
8. Oliver Street at John F Kennedy Drive	AWS	16.8	C	8.6	A
9. Oliver Street at Filaree Street	CSS	11.6	B	9.3	A
10. Oliver Street at Shellie Street	CSS	16.4	C	9.7	A
11. Oliver Street at Project Driveway	CSS	11.1	B	9.7	A
12. Project Driveway at Iris Avenue	CSS	15.1	C	13.1	B

Notes:

1. TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop
2. Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn movement.
3. LOS = Level of Service

Table 5
Opening Year (2025) Without Project Intersection Levels of Service

Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS
1. Grande Vista Drive at Iris Avenue	TS	5.2	A	3.9	A
2. Nasson Street at Iris Avenue	TS	26.5	C	23.4	C
3. Kaiser Hospital Main Drive at Iris Avenue	TS	8.8	A	8.6	A
4. Medical Offices at Iris Avenue	CSS	13.5	B	12.4	B
5. Oliver Street at Iris Avenue	TS	24.0	C	15.5	B
6. Via Del Lago at Iris Avenue	TS	10.2	B	8.7	A
7. Moreno Beach Drive at John F Kennedy Drive	TS	17.1	B	15.8	B
8. Oliver Street at John F Kennedy Drive	AWS	16.6	C	8.5	A
9. Oliver Street at Filaree Street	CSS	11.8	B	9.3	A
10. Oliver Street at Shellie Street	CSS	16.9	C	9.7	A

Notes:

1. TS = Traffic Signal; CSS = Cross Street Stop; AWS = All Way Stop
2. Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn movement.
3. LOS = Level of Service

Table 6
Opening Year (2025) Intersection Levels of Service & Project-Related Effect

Study Intersection	Opening Year (2025) Without Project				Opening Year (2025) With Project				AM Peak Hour		PM Peak Hour	
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour					
	Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	Delay[1]	LOS[2]	Change	Substantial Effect?	Change	Substantial Effect?
1. Grande Vista Drive at Iris Avenue	5.2	A	3.9	A	5.6	A	4.4	A	+0.4	NO	+0.5	NO
2. Nasson Street at Iris Avenue	26.5	C	23.4	C	26.6	C	25.0	C	+0.1	NO	+1.6	NO
3. Kaiser Hospital Main Drive at Iris Avenue	8.8	A	8.6	A	8.9	A	8.7	A	+0.1	NO	+0.1	NO
4. Medical Offices at Iris Avenue	13.5	B	12.4	B	13.7	B	12.6	B	+0.2	NO	+0.2	NO
5. Oliver Street at Iris Avenue	24.0	C	15.5	B	28.4	C	18.8	B	+4.4	NO	+3.3	NO
6. Via Del Lago at Iris Avenue	10.2	B	8.7	A	10.3	B	8.8	A	+0.1	NO	+0.1	NO
7. Moreno Beach Drive at John F Kennedy Drive	17.1	B	15.8	B	17.9	B	16.9	B	+0.8	NO	+1.1	NO
8. Oliver Street at John F Kennedy Drive	16.6	C	8.5	A	17.6	C	8.7	A	+1.0	NO	+0.2	NO
9. Oliver Street at Filaree Street	11.8	B	9.3	A	11.9	B	9.8	A	+0.1	NO	+0.5	NO
10. Oliver Street at Shellie Street	16.9	C	9.7	A	17.1	C	9.8	A	+0.2	NO	+0.1	NO
11. Oliver Street at Project Driveway	-	-	-	-	11.5	B	9.8	A	+11.5	NO	+9.8	NO
12. Project Driveway at Iris Avenue	-	-	-	-	15.7	C	13.7	B	+15.7	NO	+13.7	NO

Notes:

1. Delay is shown in seconds per vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst minor street approach or major street left turn movement.
2. LOS = Level of Service

7. SITE ACCESS & ON-SITE CIRCULATION

This section evaluates the project site access and on-site circulation. Vehicular access for the project site is proposed via two restricted right-turn in/out driveways. One project driveway is on Iris Avenue, and one project driveway is on Oliver Street.

PROJECT DESIGN FEATURES

This analysis assumes the following improvements will be constructed by the project to provide project site access:

5. Oliver Street (NS) at Iris Avenue (EW)
    - Modify raised median on the west leg of intersection to provide a minimum of 285 feet of storage length.
    - Install R10-7 (Do Not Block Intersection) regulatory roadway sign on northbound Oliver Street approximately 155 feet south of Iris Avenue.

11. Oliver Street (NS) at Project Driveway (EW)
    - Construct the project driveway with one inbound lane and one outbound lane.
    - Install outbound stop control for eastbound right-turn lane site egress.
    - Maintain southbound shared through/right-turn lane providing site ingress.

12. Project Driveway (NS) at Iris Avenue (EW)
    - Construct the project driveway with one inbound lane and one outbound lane.
    - Install outbound stop control for southbound right-turn lane site egress.
    - Construct westbound right-turn lane providing site ingress.

This analysis also assumes the project shall comply with the following conditions as part of the City of Moreno Valley standard development review process to ensure adequate geometric design and emergency access:

- Site-adjacent roadways shall be constructed or repaired at their ultimate half-section width, including landscaping and parkway improvements in conjunction with development, or as otherwise required by the City of Moreno Valley.

- All on-site and off-site roadway design, signing/striping, and traffic control improvements relating to the proposed project shall be submitted to the City for review and constructed following applicable State/Federal engineering standards to the satisfaction of the City of Moreno Valley.

- The final grading, landscaping, and street improvement plans shall demonstrate that applicable sight distance requirements are met.

- The project shall comply with the City of Moreno Valley municipal parking requirements which will be reviewed as a part of the standard development review process.

- Final project plans shall demonstrate adequate emergency vehicle access and circulation to the satisfaction of the City of Moreno Valley Public Works and Fire Departments.

- A construction worksite traffic control plan shall comply with applicable engineering standards outlined in the California *Manual of Uniform Traffic Control Devices* and shall be submitted to the City for review and approval before the issuance of a grading permit or start of construction. The plan shall identify any roadway, sidewalk, bike route, or bus stop closures and detours as well as haul routes and hours of operation. All construction-related trips shall be restricted to off-peak hours to the extent possible.

SITE ACCESS QUEUING ANALYSIS

Table 7 summarizes the results of the queue analysis to check for potential conflicts between the project driveways and the immediately adjacent Oliver Street at Iris Avenue intersection. The forecasted queue lengths shown in Table 7, are based on the HCM 95th-percentile back-of-queue methodology. Queuing calculations for the project driveways and the adjacent intersection are shown in the Level of Service worksheets provided in Appendix D.

As shown in Table 7, vehicle queue lengths at for project driveways are forecast to operate within the available storage lengths during the peak hours for the Opening Year (2025) With Project conditions. However, the vehicle queue lengths for the following key movements are forecast to exceed the available storage length:

5. Oliver Street (NS) at Iris Avenue (EW)
    - Northbound left-through movement.
    - Eastbound left-turn

It is recommended that the raised median on eastbound Iris Avenue approaching Oliver Street be modified to provide additional storage length with a minimum of 285 feet of storage for the left-turn pocket. Additionally, it is recommended that a R10-7 regulatory roadway sign be installed on northbound Oliver Street approximately 155 feet south of Iris Avenue to prevent potential morning peak hour blockage of the Oliver Street/Arla Street intersection. This is shown as a project design feature.

DRIVE-THROUGH QUEUING ANALYSIS

The proposed project involves construction of a 1,790 square foot automatic car wash tunnel. Patrons of the car wash have a drive-through aisle to queue for the car wash tunnel. Using drive-through data compiled from the *Drive-Through Queue Generation*, (Spack Consulting February 2012) and *300 South Atlantic Boulevard Express Car Wash Drive-Through Queuing Study* (Ganddini Group, Inc., January 2021), the 85th-percentile queue for drive-through car wash was 4.0 to 6.2 vehicles. In these studies, the car wash drive-through locations were located at gas stations for 8 out of 9 locations, and the queue included vehicles waiting in line and did not include the car being washed. The weighted average of both studies is 5.4 vehicles for the 85th-percentile queue. The Spack Consulting and Ganddini Group, Inc. studies are provided in Appendix E.

Assuming 22 feet of stacking length per vehicle, which accounts for closely spaced vehicles common in drive-through lanes, the automatic car wash drive-through lane provides storage capacity for approximately 7 vehicles. Therefore, sufficient stacking is forecast to be provided for the automatic car wash.

Table 7
Site Access Queuing Analysis

Study Intersection	Approach	Lane	Storage Length (Feet)[2]	Peak Hour 95th-Percentile Queue Length (Feet)[1]								Adequate Storage Provided	
				Existing		Existing Plus Ambient Growth With Project		Opening Year (2025)					
								Without Project		With Project		With Project	
				AM	PM	AM	PM	AM	PM	AM	PM	EAG	2025
5. Oliver Street at Iris Avenue	Northbound	Left-Thru	105	60	<20	105	35	70	<20	115	35	YES	NO-120
	Northbound	Right	50	<20	<20	25	<20	<20	<20	25	<20	YES	YES
	Southbound	Left-Thru	470	25	<20	165	85	55	<20	215	105	YES	YES
	Southbound	Right	470	185	30	235	35	210	30	245	35	YES	YES
	Eastbound	Left	235	150	30	250	85	185	50	285	105	NO-250	NO-285
	Westbound	Left	250	<20	<20	25	25	25	<20	30	25	YES	YES
11. Oliver Street at Project Driveway	Southbound	Thru-Right	470	-	-	<20	<20	-	-	<20	<20	YES	YES
	Eastbound	Right	150	-	-	25	<20	-	-	30	<20	YES	YES
12. Project Driveway at Iris Avenue	Southbound	Right	75	-	-	25	<20	-	-	25	<20	YES	YES
	Westbound	Right	80	-	-	<20	<20	-	-	<20	<20	YES	YES

Notes:

1. The forecast 95th-percentile queue lengths shown in the delay calculation worksheets have been rounded up to nearest 5-foot increment.
2. Length of turning lane storage or distance to the adjacent driveway.

8. CONCLUSIONS

This section summarizes the proposed project, operational findings, and identifies recommendations (if any) as specified in previous sections of this study. Figure 33 summarizes the recommended improvements.

PROJECT TRIP GENERATION

The proposed project is forecast to generate a total of approximately 4,346 new daily trips, including 155 new trips during the AM peak hour and 185 new trips during the PM peak hour.

LEVEL OF SERVICE ANALYSIS

The study intersections are forecast to operate within acceptable Levels of Service (C or better) during the peak hours for all analysis scenarios. Therefore, the proposed project is forecast to result in no substantial transportation effects relating to Level of Service operations for all analysis scenarios.

SUMMARY OF IMPROVEMENTS

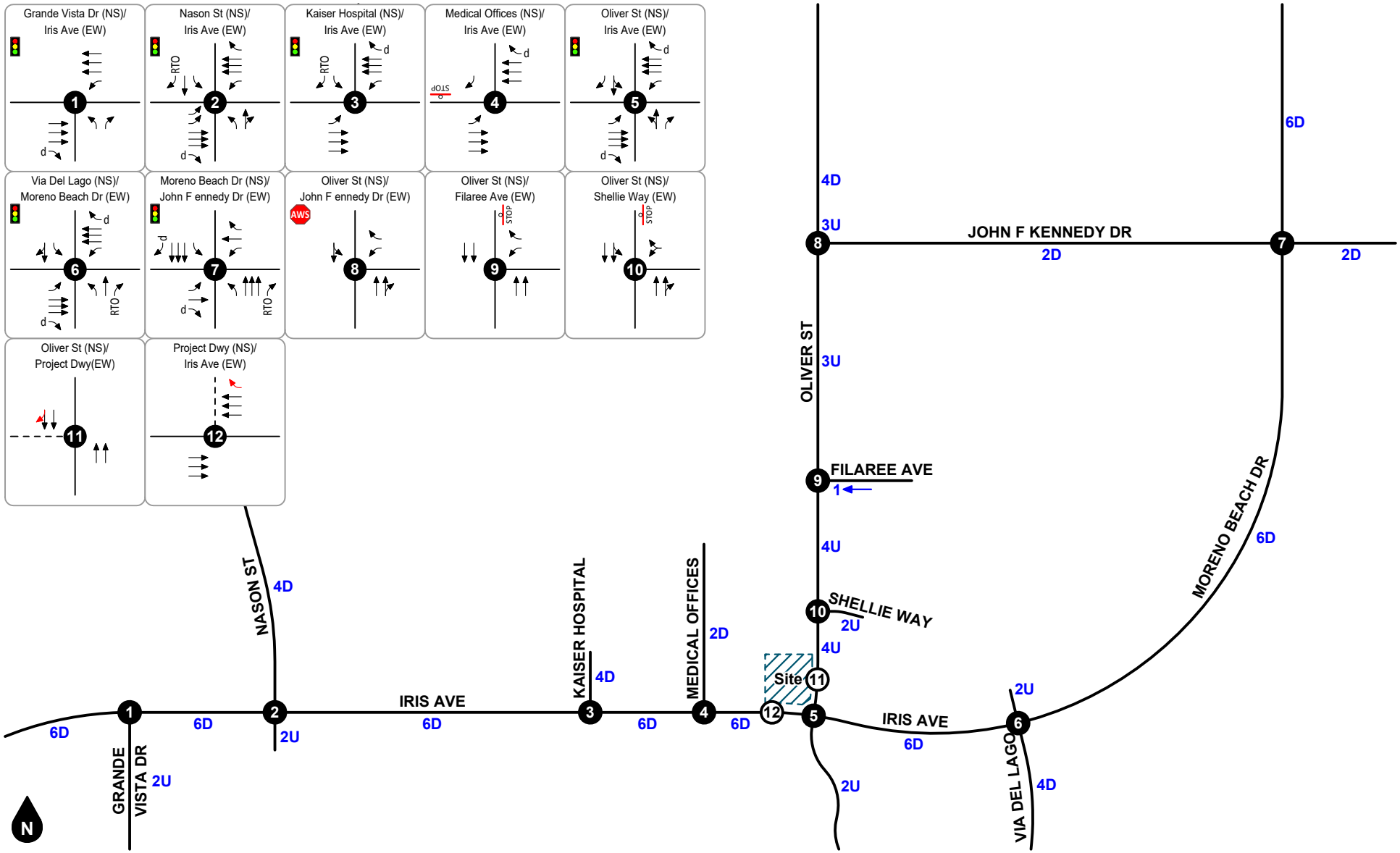
Project design features, necessary to provide project access, are outlined in the Site Access & On-Site Circulation section.

To maintain sufficient storage capacity for the eastbound left-turn lane at the Oliver Street/Iris Avenue intersection, it is recommended that the raised median on eastbound Iris Avenue approaching Oliver Street be modified to provide additional storage with a minimum of 285 feet of storage for the left-turn pocket. While there is ample storage on northbound Oliver Street south of Iris Avenue, it is recommended that a R10-7 regulatory roadway sign be installed on northbound Oliver Street approximately 155 feet south of Iris Avenue to prevent potential morning peak hour blockage of the Oliver Street/Arla Street intersection. This is shown as a project design feature.

Since the proposed project is not forecast to cause any substantial adverse transportation effects relating to Level of Service operations, no additional improvements or fair share contributions are recommended.

VEHICLE MILES TRAVELED ANALYSIS

For compliance with California Environmental Quality Act (CEQA) requirements, the project VMT assessment is documented separately in the *Beyond Food Mart (Oliver and Iris) Vehicle Miles Traveled Assessment* (Ganddini Group, Inc., April 11, 2023).



Legend

- Traffic Signal
- All Way Stop
- Stop Sign
- #D #-Lane Divided Roadway
- #U #-Lane Undivided Roadway
- Existing Lane
- Improvements
- RTO Right Turn Overlap
- d De Facto Right Turn Lane
- Project Driveway

Figure 33
Recommended Lane Geometry and Intersection Traffic Controls

APPENDICES

Appendix A Glossary
Appendix B Scoping Agreement
Appendix C Traffic Count Data
Appendix D Intersection Level of Service Worksheets
Appendix E Car Wash Drive-Through Queueing Analysis

APPENDIX A

GLOSSARY

ACRONYMS

AC	Acres
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
DU	Dwelling Unit
ICU	Intersection Capacity Utilization
GFA	Gross Floor Area
LOS	Level of Service
PCE	Passenger Car Equivalent
SF	Square Foot
SP	Service Population
TSF	Thousand Square Feet
V/C	Volume to Capacity Ratio
VMT	Vehicle Miles Traveled

TERMS

ACTUATED SIGNAL CONTROL: A type of traffic signal control in which display of each phase depends on whether the corresponding phase detector has registered a service call or the phase is on recall.

ACTUATION: Detection of a roadway user that is forwarded to the signal controller.

AVERAGE DAILY TRAFFIC: The average 24-hour volume for a stated period is divided by the number of days in that period. For example, Annual Average Daily Traffic is the total volume during a year divided by 365 days.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A point of constriction along a roadway that limits the amount of traffic that can proceed downstream from its location.

CALL: An indication within a signal controller that a particular phase is waiting for service, either through actuation from a roadway user or phase recall.

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass through a roadway facility during a specified period.

CHANNELIZATION: The separation of conflicting traffic movements by use of pavement markings, raised curbs, or other suitable means to facilitate free flow movement.

CLEARANCE INTERVAL: Equal to the yellow plus all-red time, if any, when a traffic signal changes between phases (i.e., the amount of time between the end of a green light from one movement to the beginning of a green light for the next).

COORDINATED SIGNAL CONTROL: A type of traffic signal control in which non-coordinated phases associated with minor movements are constrained such that the coordinated phases are served at a specific time during the signal cycle, thus maintaining the efficient progression of traffic flow along the major roadway.

CONTROL DELAY: The portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign). It includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay.

CORDON: An imaginary boundary line around or across a study area across which vehicles, persons, or other information can be collected for survey and analytical purposes.

CORNER SIGHT DISTANCE: The minimum sight distance required by the driver of a vehicle to cross or enter the lanes of the major roadway without requiring approaching traffic traveling at a given speed to radically alter their speed or trajectory.

CYCLE: A complete sequence of signal indications for all phases. Also known as a signal cycle.

CYCLE LENGTH: The total time for a traffic signal to complete one full cycle.

DAILY CAPACITY: A theoretical value representing the daily traffic volume that will typically result in a peak hour volume equal to the capacity of the roadway.

DELAY: The total additional travel time experienced by a roadway user (driver, passenger, bicyclist, or pedestrian) beyond that required to travel at a desired speed.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device used to count or determine the presence of a roadway user.

DESIGN SPEED: A speed used for purposes of designing horizontal and vertical alignments of a highway.

DIRECTIONAL SPLIT: The percent of two-way traffic traveling in a specified direction.

DIVERSION: The rerouting of traffic from a normal path of travel between two points, such as to avoid congestion or perform a secondary trip.

FREE FLOW: Traffic flow that is unaffected by a traffic control and/or or upstream or downstream conditions.

GAP: Time or distance between two vehicles measured from rear bumper of the front vehicle to front bumper of the second vehicle.

GAP ACCEPTANCE: The method by which a driver accepts an available gap in traffic to enter or cross the road.

HEADWAY: Time or distance between two successive vehicles measured from same point on both vehicles (i.e., front bumper to front bumper). Also known as gap.

LEVEL OF SERVICE: A grading scale of quantitative performance measures representing the quality of service of a transportation facility or service from an average traveler's perspective.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MULTI-MODAL: More than one mode, such as automobile, transit, bicycle, and pedestrian.

OFFSET: The time interval between the beginning of a traffic signal cycle at one intersection and the beginning of signal cycle an adjacent intersection.

PLATOON: A set of vehicles traveling at similar speed and moving as a general group with clear separation between other vehicles ahead and behind.

PASSENGER CAR EQUIVALENT: A metric used to assess the impact of larger vehicles, such as trucks, recreational vehicles, and buses, by converting the traffic volume of larger vehicles to an equivalent number of passenger cars.

PEDESTRIAN CLEARANCE INTERVAL: Also known as the "Flashing Don't Walk" interval, it signals the end of pedestrian entry into the crosswalk following the "Walk" indication and provides time for pedestrians who have already entered the crosswalk to finishing crossing.

PEAK HOUR: The hour within a day in which the maximum volume occurs.

PEAK HOUR FACTOR: The peak hour volume divided by the four times the peak 15-minute flow rate.

PHASE: In traffic signals, the green, yellow, and red clearance intervals assigned to a specified traffic movement.

PRETIMED SIGNAL: A traffic signal operation in which the cycle length, phasing sequence, and phasing times are predetermined and fixed, regardless of actual demand for any given traffic movement. Also known as a fixed time signal.

PROGRESSION: The coordinated movement of vehicles through signalized intersections along a corridor.

QUEUE: The number of vehicles waiting at a service area such as a traffic signal, stop sign, or access gate.

QUEUE LENGTH: The length of vehicle queue, typically expressed in feet, waiting at a service area such as a traffic signal, stop sign, or access gate.

RECALL: A signal phasing operation in which a specified phase places a call to the signal controller each time a conflicting phase is served, thus ensuring the specified phase will be serviced again.

SEMI-ACTUATED CONTROL: A type of traffic signal control in which only the minor movements are provided detection.

SIGHT DISTANCE: The continuous length of roadway visible to a driver or roadway user.

STACKING DISTANCE: The length of area available behind a service area, such as a traffic signal or gate, for vehicle queuing to occur.

STOPPING SIGHT DISTANCE: The minimum distance required by the driver of a vehicle traveling at a given speed to bring the vehicle to a stop after an object on the road becomes visible, including reaction and response time.

TRAFFIC-ACTUATED SIGNAL: A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors. Also known as a demand responsive signal.

TRIP OR TRIP END: The one-directional movement of a person or vehicle. Every trip has an origin and a destination at its respective ends (i.e., trip ends). In terms of site trip generation, the same vehicle entering and exiting a site generates two trips: one inbound trip and one outbound trip.

TRIP GENERATION RATE: The rate at which a land use generates trips per the specified land use variable, such per dwelling unit or per thousand square feet.

TURNING RADIUS: The circular arc formed by the smallest turning path radius of the front outside tire of a vehicle, such as that performed by a U-turn maneuver. This is based on the length and width of the wheelbase as well as the steering mechanism of the vehicle.

VEHICLE MILES TRAVELED: A measure of the amount and distance of automobile travel essentially calculated as the sum of each trip times the trip length.

APPENDIX B

SCOPING AGREEMENT

EXHIBIT A

Project Scoping Form

This scoping form shall be submitted to the Lead Agency to assist in identifying infrastructure improvements that may be required to support traffic from the proposed project.

Project Identification:

Case Number:	PEN22-0176, PEN 22-0238
Related Cases:	APN 486-310-038
SP No.	
EIR No.	
GPA No.	
CZ No.	
Project Name:	Beyond Food Mart (Oliver and Iris)
Project Address:	Northwest corner of Oliver Street and Iris Avenue intersection
Project Opening Year:	2025
Project Description:	16-fueling position service station with 7,460 square foot convenience market with drive through[1] and 1,790 square foot (1-tunnel) automated car wash

The City of Moreno Valley reserves the right to use, share and reproduce the information including, but not limited to, traffic counts, exhibits and surveys provided in all submitted traffic studies and VMT assessments.

	Consultant:	Developer:
Name:	Ganddini Group, Inc / Perrie Ilercil	Paradise Lake, LLC
Address:	555 Park Center Drive, Suite 225	4300 Edison Avenue
	Santa Ana, CA 92705	Chino, California, 91710
Telephone:	(714) 795-3100 ext 103	
Email:	perrie@ganddini.com	

Trip Generation Information:

Trip Generation Data Source: ITE Trip Generation Manual (11th Edition, 2021)

[1]Beyond Food Mart operates as a gas station and convenience market with drive-through window. Customers can order ahead via an app before they get to the gas station, or while filling their cars with gas, then use the drive-through window to pick up their order.

3/9/2023

Current General Plan Land Use:

Commercial

Proposed General Plan Land Use:

Commercial

Current Zoning:

DC - Downtown Commericial

Proposed Zoning:

DC - Downtown Commericial

	Existing Trip Generation			Proposed Trip Generation		
	In	Out	Total	In	Out	Total
AM Trips	-	-	-	78	77	155
PM Trips	-	-	-	93	82	185

Trip Internalization: ☐ Yes ☐ No (_____% Trip Discount)

Pass-By Allowance: ☑ Yes ☐ No (_____% Trip Discount)

See Attached Trip Generation Table

Potential Screening Checks

Is your project screened from specific analyses (see Page 3 of the guidelines related to LOS assessment and Pages 22-23 for VMT screening criteria).

Is the project screened from LOS assessment? ☐ Yes ☑ No

LOS screening justification (see Page 3 of the guidelines): _____
LOS screening not justified; LOS analysis will be prepared.

Is the project screened from VMT assessment? ☑ Yes ☐ No

VMT screening justification (see Pages 22-23 of the guidelines): _____
VMT screening satisfied; local-serving retail less than 50,000 square feet.

Level of Service Scoping

- Proposed Trip Distribution (Attach Graphic for Detailed Distribution):

North	South	East	West
35 %	25 %	20 %	20 %

Link level of service and data collection:

____ will be required

_X_ will not be required

- Attach list of study intersections (and roadway segments if applicable)
- Attach site plan
- Other specific items to be addressed:
  - Site access
  - On-site circulation
  - Parking
  - Consistency with Plans supporting Bikes/Peds/Transit
  - Other See Notes on the following page
- Date of Traffic Counts Will conduct traffic counts
- Attach proposed analysis scenarios (years plus proposed forecasting approach)
- Attach proposed phasing approach (if the project is phased)

VMT Scoping NA - See Screening Assessment above

For projects that are not screened, identify the following:

- Travel Demand Forecasting Model Used WRCOG VMT Screening
- Attach WRCOG Screening VMT Assessment output or describe why it is not appropriate for use
- Attach proposed Model Land Use Inputs and Assumed Conversion Factors (attach)

Analysis Scenerios

1. Existing
2. Existing Plus Ambient Growth (2% per year) Plus Project
3. Opening Year (2025) Without Project
4. Opening Year (2025) With Project

Study Intersections

1. Grande Vista Drive (NS) at Iris Avenue (EW)
2. Nasson Street (NS) at Iris Avenue (EW)
3. Kaiser Hospital Main Drive (NS) at Iris Avenue (EW)
4. Kaiser Hospital East Driveway (NS) at Iris Avenue (EW)
5. Oliver Street (NS) at Iris Avenue (EW)
6. Via Del Lago (NS) at Iris Avenue (EW)
7. Moreno Beach Drive (NS) at John F Kennedy Drive (EW)
8. Oliver Street (NS) at John F Kennedy Drive (EW)
9. Oliver Street (NS) at Filaree Street (EW)
10. Oliver Street (NS) at Shellie Street (EW)
11. Oliver Street (NS) at Project Driveway (EW)
12. Project Driveway (NS) at Iris Avenue (EW)

Other specific items to be addressed:

1. Queuing analysis for car wash and drive through to show no queues overflow on to public streets
2. 95 percentile queuing analysis for southbound approach at Oliver Street and Iris Avenue.
3. Include the following projects in cumulative analysis: Adjacent project on NW quadrant of Oliver & Iris (APN 486-310-039) and an approved project on the SWC of Via del Lago and Iris (135 condos/ APN 304-600-001)

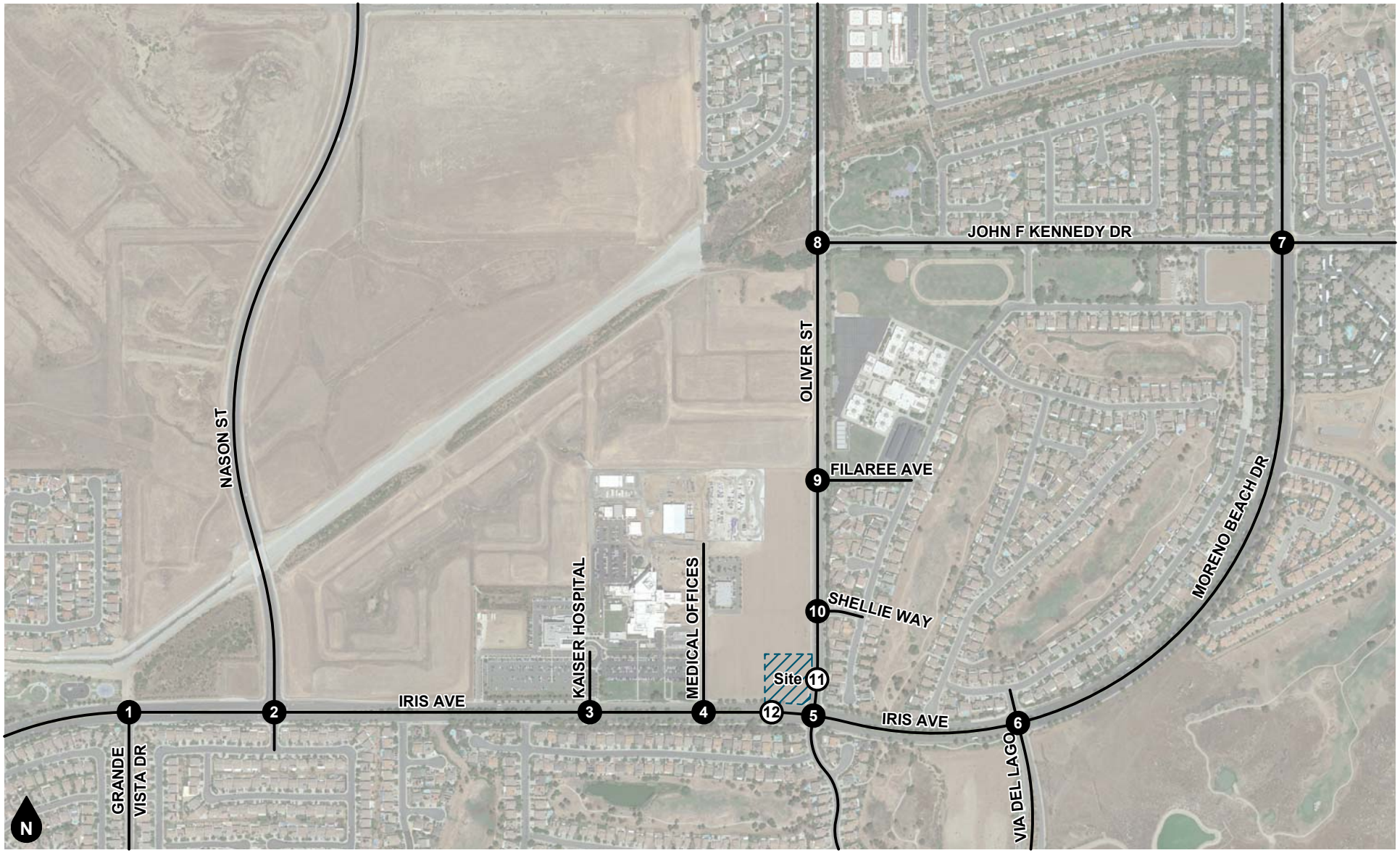
Table 1
Project Trip Generation

Trip Generation Rates										
			AM Peak Hour			PM Peak Hour			
Land Use	Source[1]	Land Use Variable[2]	% In	% Out	Rate	% In	% Out	Rate	Daily Rate
Convenience Store Gas Station (5.5-10 ksf GFA)	ITE 945	VFP	50%	50%	31.60	50%	50%	26.90	345.75
Automated Car Wash	ITE 948 [3]	CWT	50%	50%	34.44	50%	50%	77.50	861.11

Trips Generated										
			AM Peak Hour			PM Peak Hour			
Land Use	Source	Quantity	In	Out	Total	In	Out	Total	Daily
Convenience Store Gas Station (5.5-10 ksf GFA)	ITE 945	16 VFP	253	253	506	215	215	430	5,532
Pass-by Trips (76%AM, 75%PM, 37%Daily)	ITE ~~934~~[4]		*-192*	*-193*	*-385*	*-161*	*-162*	*-323*	*-2,047*
Subtotal	945		61	60	121	54	53	107	3,485
Automated Car Wash	ITE 948	1 CWT	17	17	34	39	39	78	861
Subtotal Project Trips (Gross)			270	270	540	254	254	508	6,393
Total Pass-by Trips			-192	-193	-385	-161	-162	-323	-2,047
TOTAL NEW PROJECT TRIPS			**78**	**77**	**155**	**93**	**92**	**185**	**4,346**

Notes:

1. ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = Land Use Code. All rates based on General Urban/Suburban setting.
2. VFP = Vehicle Fuel Position; CWT = Car Wash Tunnel.
3. ITE rates supplimented with data from San Diego Association of Governments (SANDAG) *Vehicular Traffic Generation Rates* (April 2002). Where the daily or peak hour rate is not provided by ITE, the SANDAG percentage of peak hour to daily rate is used to calculate the missing data. Where the peak hour distribution is not provided by ITE, the SANDAG peak hour distribution is used.
4. Pass-by rates calculated in accordance with procedures in the ITE Trip Generation Handbook (11th Edition, 2021). Daily pass-by is calculated using half of the AM and PM pass-by average rates for the daily rate.



Legend

(#) Study Intersection

(#) Project Driveway

Figure 1
Project Location Map

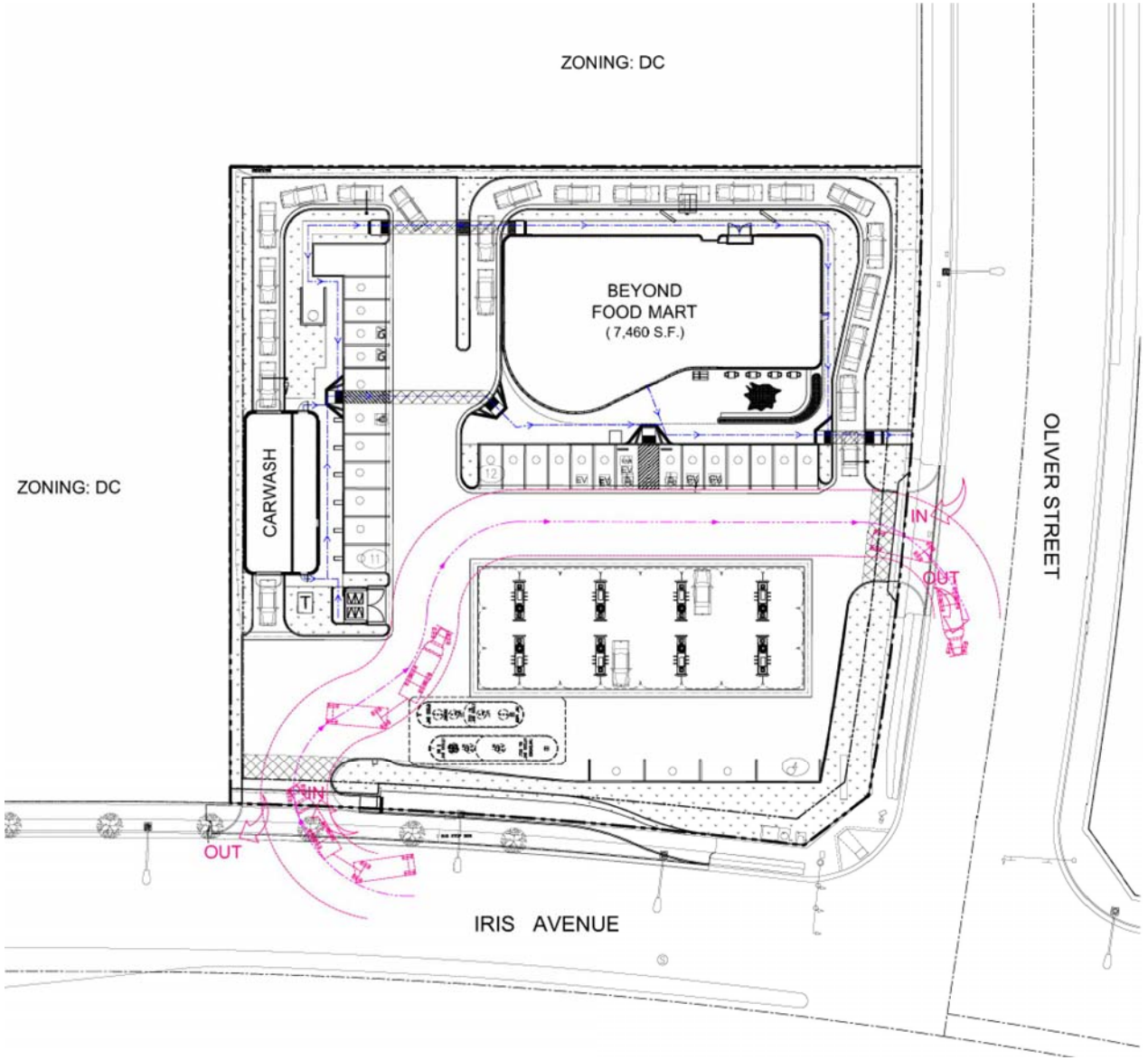


Figure 2
Site Plan

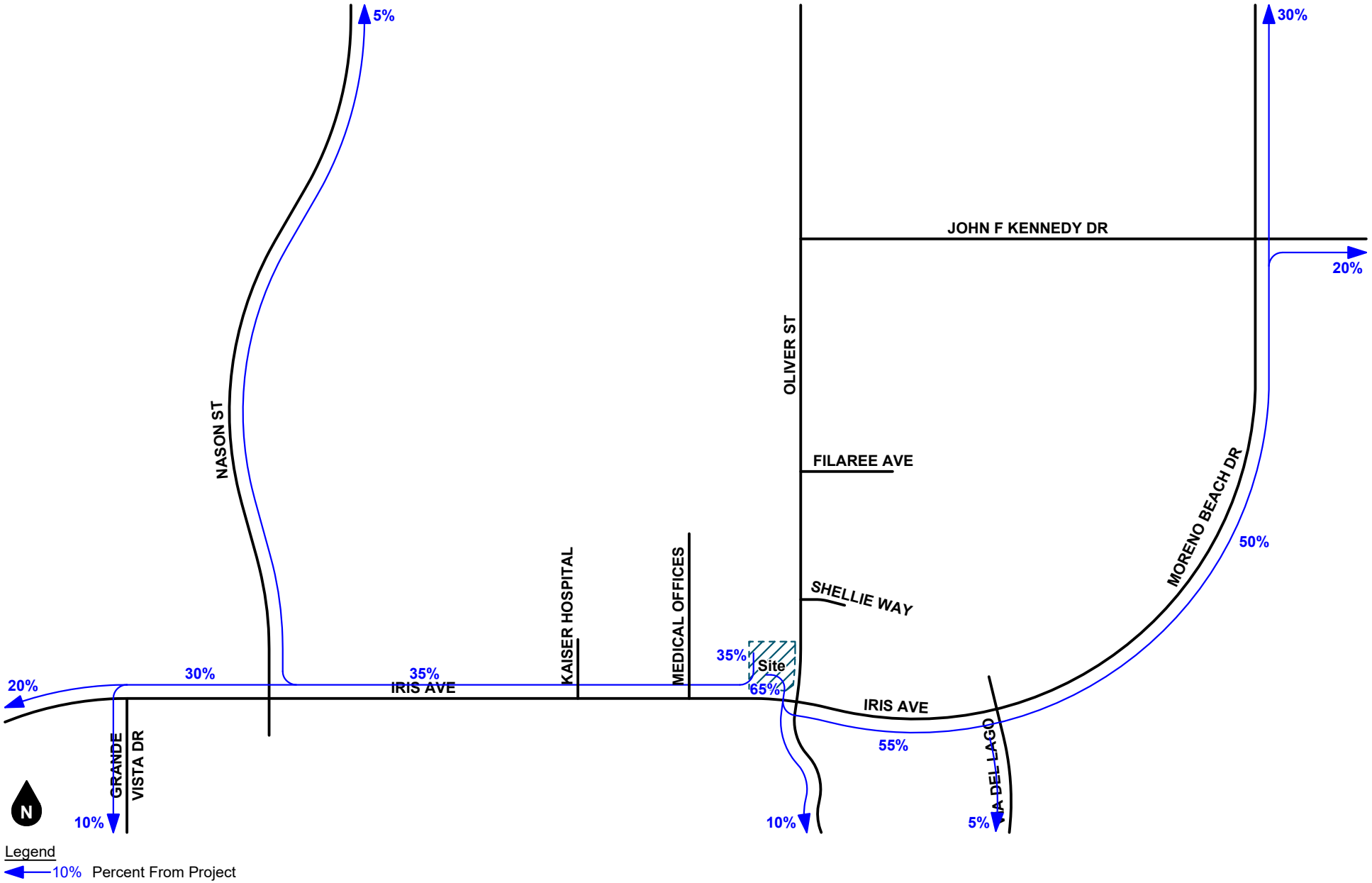


Figure 3
Project Outbound Trip Distribution

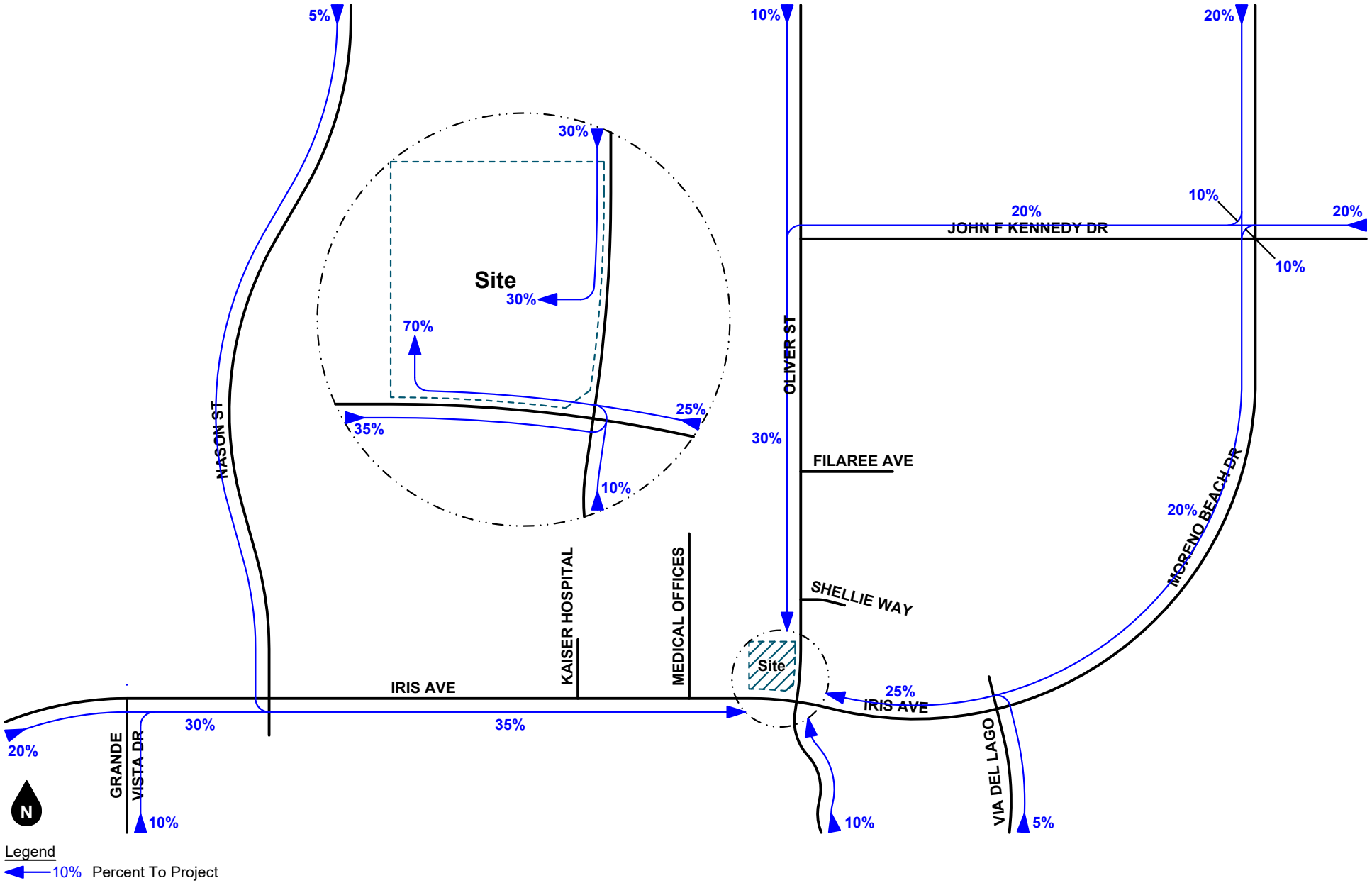


Figure 4
Project Inbound Trip Distribution

APPENDIX C

TRAFFIC COUNT DATA

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

City of Moreno Valley
N/S: Grande Vista Drive
E/W: Iris Avenue
Weather: Clear

File Name : 01_MRV_Gr Vi_Iris AM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 1

Groups Printed- Total Volume

	Grande Vista Drive Southbound				Iris Avenue Westbound				Grande Vista Drive Northbound				Iris Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	2	159	0	161	20	0	10	30	0	157	5	162	353
07:15 AM	0	0	0	0	2	213	0	215	32	0	11	43	0	212	8	220	478
07:30 AM	0	0	0	0	2	295	0	297	47	0	9	56	0	278	13	291	644
07:45 AM	0	0	0	0	3	270	0	273	18	0	8	26	0	278	17	295	594
Total	0	0	0	0	9	937	0	946	117	0	38	155	0	925	43	968	2069
08:00 AM	0	0	0	0	6	226	0	232	22	0	11	33	0	268	13	281	546
08:15 AM	0	0	0	0	1	281	0	282	10	0	4	14	0	320	8	328	624
08:30 AM	0	0	0	0	5	217	0	222	6	0	8	14	0	218	4	222	458
08:45 AM	0	0	0	0	3	142	0	145	11	0	3	14	0	160	5	165	324
Total	0	0	0	0	15	866	0	881	49	0	26	75	0	966	30	996	1952
Grand Total	0	0	0	0	24	1803	0	1827	166	0	64	230	0	1891	73	1964	4021
Apprch %	0	0	0		1.3	98.7	0		72.2	0	27.8		0	96.3	3.7		
Total %	0	0	0	0	0.6	44.8	0	45.4	4.1	0	1.6	5.7	0	47	1.8	48.8	

	Grande Vista Drive Southbound				Iris Avenue Westbound				Grande Vista Drive Northbound				Iris Avenue 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	0	0	2	**295**	0	**297**	**47**	0	9	**56**	0	278	13	291	**644**
07:45 AM	0	0	0	0	3	270	0	273	18	0	8	26	0	278	**17**	295	594
08:00 AM	0	0	0	0	**6**	226	0	232	22	0	**11**	33	0	268	13	281	546
08:15 AM	0	0	0	0	1	281	0	282	10	0	4	14	0	**320**	8	**328**	624
Total Volume	0	0	0	0	12	1072	0	1084	97	0	32	129	0	1144	51	1195	2408
% App. Total	0	0	0		1.1	98.9	0		75.2	0	24.8		0	95.7	4.3		
PHF	.000	.000	.000	.000	.500	.908	.000	.912	.516	.000	.727	.576	.000	.894	.750	.911	.935

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PO Box 1178
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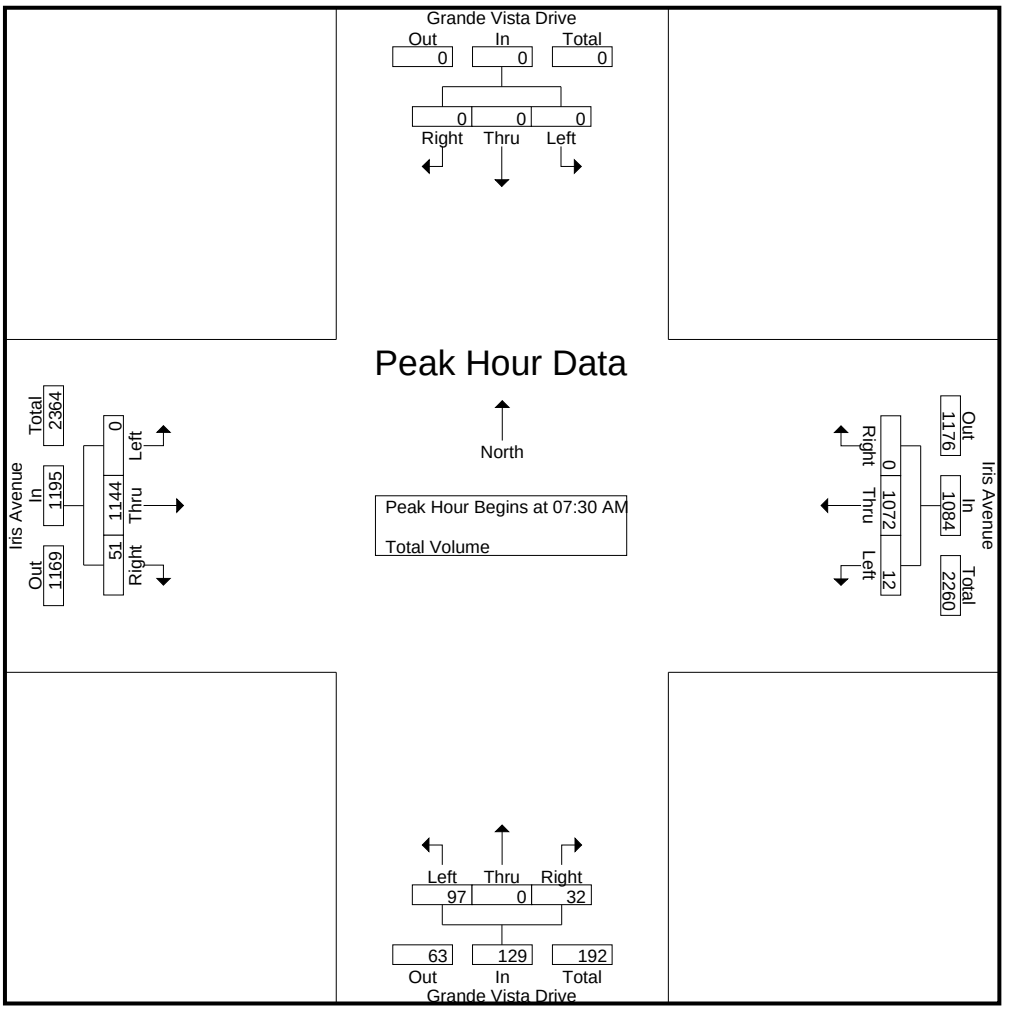
City of Moreno Valley
N/S: Grande Vista Drive
E/W: Iris Avenue
Weather: Clear

File Name : 01_MRV_Gr Vi_Iris AM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 2



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

	07:00 AM				07:30 AM				07:15 AM				07:30 AM			
+0 mins.	0	0	0	0	2	**295**	0	**297**	32	0	**11**	43	0	278	13	291
+15 mins.	0	0	0	0	3	270	0	273	**47**	0	9	**56**	0	278	**17**	295
+30 mins.	0	0	0	0	**6**	226	0	232	18	0	8	26	0	268	13	281
+45 mins.	0	0	0	0	1	281	0	282	22	0	11	33	0	**320**	8	**328**
Total Volume	0	0	0	0	12	1072	0	1084	119	0	39	158	0	1144	51	1195
% App. Total	0	0	0		1.1	98.9	0		75.3	0	24.7		0	95.7	4.3	
PHF	.000	.000	.000	.000	.500	.908	.000	.912	.633	.000	.886	.705	.000	.894	.750	.911

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City of Moreno Valley
N/S: Grande Vista Drive
E/W: Iris Avenue
Weather: Clear

File Name : 01_MRV_Gr Vi_Iris PM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 1

Groups Printed- Total Volume

	Grande Vista Drive Southbound				Iris Avenue Westbound				Grande Vista Drive Northbound				Iris Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	7	276	0	283	15	0	4	19	0	219	21	240	542
04:15 PM	0	0	0	0	7	252	0	259	10	0	6	16	0	238	15	253	528
04:30 PM	0	0	0	0	2	250	0	252	6	0	7	13	0	227	14	241	506
04:45 PM	0	0	0	0	4	261	0	265	8	0	9	17	0	238	10	248	530
Total	0	0	0	0	20	1039	0	1059	39	0	26	65	0	922	60	982	2106
05:00 PM	0	0	0	0	7	257	0	264	6	0	7	13	0	183	6	189	466
05:15 PM	0	0	0	0	5	221	0	226	9	0	2	11	0	185	13	198	435
05:30 PM	0	0	0	0	10	294	0	304	13	0	3	16	0	159	7	166	486
05:45 PM	0	0	0	0	7	255	0	262	8	0	2	10	0	161	8	169	441
Total	0	0	0	0	29	1027	0	1056	36	0	14	50	0	688	34	722	1828
Grand Total	0	0	0	0	49	2066	0	2115	75	0	40	115	0	1610	94	1704	3934
Apprch %	0	0	0		2.3	97.7	0		65.2	0	34.8		0	94.5	5.5		
Total %	0	0	0	0	1.2	52.5	0	53.8	1.9	0	1	2.9	0	40.9	2.4	43.3	

	Grande Vista Drive Southbound				Iris Avenue Westbound				Grande Vista Drive Northbound				Iris Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	**7**	**276**	0	**283**	**15**	0	4	**19**	0	219	**21**	240	**542**
04:15 PM	0	0	0	0	7	252	0	259	10	0	6	16	0	**238**	15	**253**	528
04:30 PM	0	0	0	0	2	250	0	252	6	0	7	13	0	227	14	241	506
04:45 PM	0	0	0	0	4	261	0	265	8	0	**9**	17	0	238	10	248	530
Total Volume	0	0	0	0	20	1039	0	1059	39	0	26	65	0	922	60	982	2106
% App. Total	0	0	0		1.9	98.1	0		60	0	40		0	93.9	6.1		
PHF	.000	.000	.000	.000	.714	.941	.000	.936	.650	.000	.722	.855	.000	.968	.714	.970	.971

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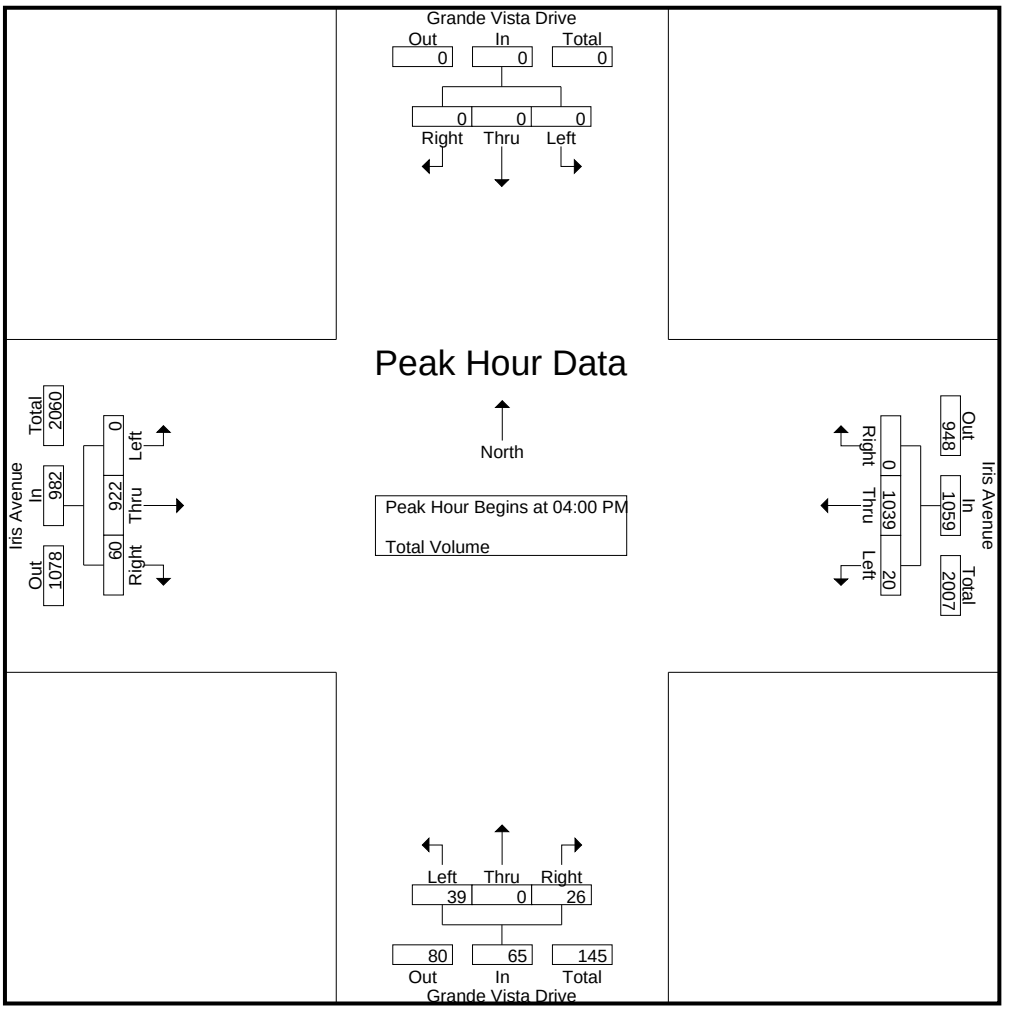
City of Moreno Valley
N/S: Grande Vista Drive
E/W: Iris Avenue
Weather: Clear

File Name : 01_MRV_Gr Vi_Iris PM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 2



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

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	**7**	**276**	0	**283**	**15**	0	4	**19**	0	219	**21**	240
+15 mins.	0	0	0	0	7	252	0	259	10	0	6	16	0	**238**	15	**253**
+30 mins.	0	0	0	0	2	250	0	252	6	0	7	13	0	227	14	241
+45 mins.	0	0	0	0	4	261	0	265	8	0	**9**	17	0	238	10	248
Total Volume	0	0	0	0	20	1039	0	1059	39	0	26	65	0	922	60	982
% App. Total	0	0	0		1.9	98.1	0		60	0	40		0	93.9	6.1	
PHF	.000	.000	.000	.000	.714	.941	.000	.936	.650	.000	.722	.855	.000	.968	.714	.970

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

City of Moreno Valley
N/S: Nason Street/Hillrose Lane
E/W: Iris Avenue
Weather: Clear

File Name : 02_MRV_Nason_Iris AM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 1

Groups Printed- Total Volume

	Nason Street Southbound				Iris Avenue Westbound				Hillrose Lane Northbound				Iris Avenue 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	16	0	65	81	1	100	30	131	3	11	2	16	60	103	1	164	392
07:15 AM	28	1	62	91	2	123	32	157	7	11	3	21	79	129	2	210	479
07:30 AM	28	4	77	109	2	198	38	238	4	9	2	15	73	199	1	273	635
07:45 AM	42	4	72	118	7	201	24	232	6	8	3	17	88	208	10	306	673
Total	114	9	276	399	12	622	124	758	20	39	10	69	300	639	14	953	2179
08:00 AM	25	4	76	105	0	154	34	188	4	13	1	18	77	179	1	257	568
08:15 AM	33	5	73	111	2	177	18	197	3	8	3	14	98	225	4	327	649
08:30 AM	46	5	69	120	2	153	16	171	1	6	2	9	63	172	5	240	540
08:45 AM	32	8	55	95	3	91	23	117	2	6	2	10	48	114	3	165	387
Total	136	22	273	431	7	575	91	673	10	33	8	51	286	690	13	989	2144
Grand Total	250	31	549	830	19	1197	215	1431	30	72	18	120	586	1329	27	1942	4323
Apprch %	30.1	3.7	66.1		1.3	83.6	15		25	60	15		30.2	68.4	1.4		
Total %	5.8	0.7	12.7	19.2	0.4	27.7	5	33.1	0.7	1.7	0.4	2.8	13.6	30.7	0.6	44.9	

	Nason Street Southbound				Iris Avenue Westbound				Hillrose Lane Northbound				Iris Avenue 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	28	4	**77**	109	2	198	**38**	**238**	4	9	2	15	73	199	1	273	635
07:45 AM	**42**	4	72	**118**	**7**	**201**	24	232	**6**	8	**3**	17	88	208	**10**	306	**673**
08:00 AM	25	4	76	105	0	154	34	188	4	**13**	1	**18**	77	179	1	257	568
08:15 AM	33	**5**	73	111	2	177	18	197	3	8	3	14	**98**	**225**	4	**327**	649
Total Volume	128	17	298	443	11	730	114	855	17	38	9	64	336	811	16	1163	2525
% App. Total	28.9	3.8	67.3		1.3	85.4	13.3		26.6	59.4	14.1		28.9	69.7	1.4		
PHF	.762	.850	.968	.939	.393	.908	.750	.898	.708	.731	.750	.889	.857	.901	.400	.889	.938

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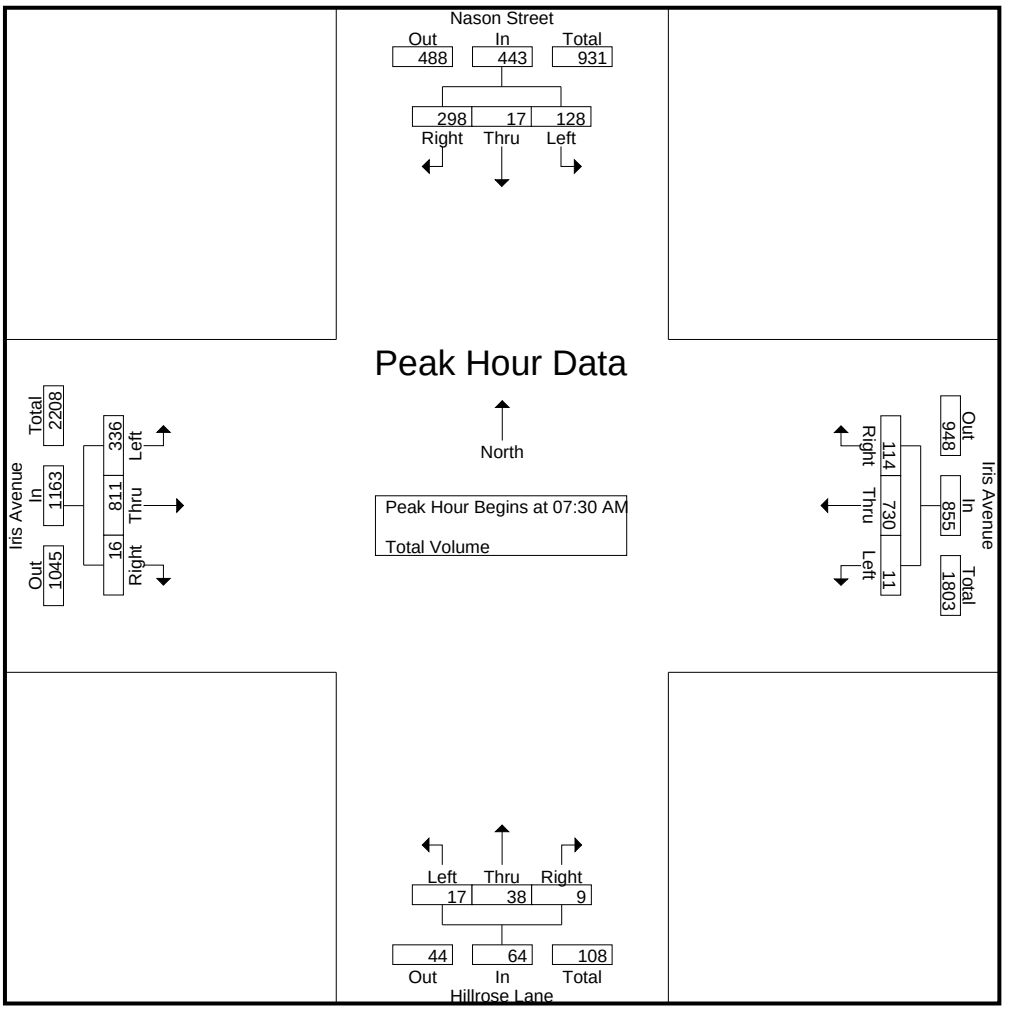
Page No : 2



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

	07:45 AM				07:30 AM				07:15 AM				07:30 AM			
+0 mins.	42	4	72	118	2	198	**38**	**238**	**7**	11	**3**	**21**	73	199	1	273
+15 mins.	25	4	**76**	105	**7**	**201**	24	232	4	9	2	15	88	208	**10**	306
+30 mins.	33	**5**	73	111	0	154	34	188	6	8	3	17	77	179	1	257
+45 mins.	**46**	5	69	**120**	2	177	18	197	4	**13**	1	18	**98**	**225**	4	**327**
Total Volume	146	18	290	454	11	730	114	855	21	41	9	71	336	811	16	1163
% App. Total	32.2	4	63.9		1.3	85.4	13.3		29.6	57.7	12.7		28.9	69.7	1.4	
PHF	.793	.900	.954	.946	.393	.908	.750	.898	.750	.788	.750	.845	.857	.901	.400	.889

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File Name : 02_MRV_Nason_Iris PM
Site Code : 22523253
Start Date : 3/16/2023

Groups Printed- Total Volume

	Nason Street Southbound				Iris Avenue Westbound				Hillrose Lane Northbound				Iris Avenue 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	27	8	103	138	6	151	24	181	1	1	6	8	61	158	12	231	558
04:15 PM	22	5	70	97	8	200	36	244	6	5	3	14	72	173	7	252	607
04:30 PM	27	9	81	117	6	172	32	210	1	6	0	7	59	166	6	231	565
04:45 PM	24	5	74	103	5	180	39	224	5	3	4	12	75	158	5	238	577
Total	100	27	328	455	25	703	131	859	13	15	13	41	267	655	30	952	2307
05:00 PM	29	12	109	150	3	154	28	185	2	6	1	9	48	138	4	190	534
05:15 PM	35	12	82	129	4	144	24	172	2	6	3	11	56	137	6	199	511
05:30 PM	30	9	92	131	4	182	20	206	3	11	1	15	61	109	3	173	525
05:45 PM	29	9	102	140	2	160	27	189	1	6	3	10	38	113	2	153	492
Total	123	42	385	550	13	640	99	752	8	29	8	45	203	497	15	715	2062
Grand Total	223	69	713	1005	38	1343	230	1611	21	44	21	86	470	1152	45	1667	4369
Apprch %	22.2	6.9	70.9		2.4	83.4	14.3		24.4	51.2	24.4		28.2	69.1	2.7		
Total %	5.1	1.6	16.3	23	0.9	30.7	5.3	36.9	0.5	1	0.5	2	10.8	26.4	1	38.2	

	Nason Street Southbound				Iris Avenue Westbound				Hillrose Lane Northbound				Iris Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**27**	8	**103**	**138**	6	151	24	181	1	1	**6**	8	61	158	**12**	231	558
04:15 PM	22	5	70	97	**8**	**200**	36	**244**	**6**	5	3	**14**	72	**173**	7	**252**	**607**
04:30 PM	27	**9**	81	117	6	172	32	210	1	**6**	0	7	59	166	6	231	565
04:45 PM	24	5	74	103	5	180	**39**	224	5	3	4	12	**75**	158	5	238	577
Total Volume	100	27	328	455	25	703	131	859	13	15	13	41	267	655	30	952	2307
% App. Total	22	5.9	72.1		2.9	81.8	15.3		31.7	36.6	31.7		28	68.8	3.2		
PHF	.926	.750	.796	.824	.781	.879	.840	.880	.542	.625	.542	.732	.890	.947	.625	.944	.950

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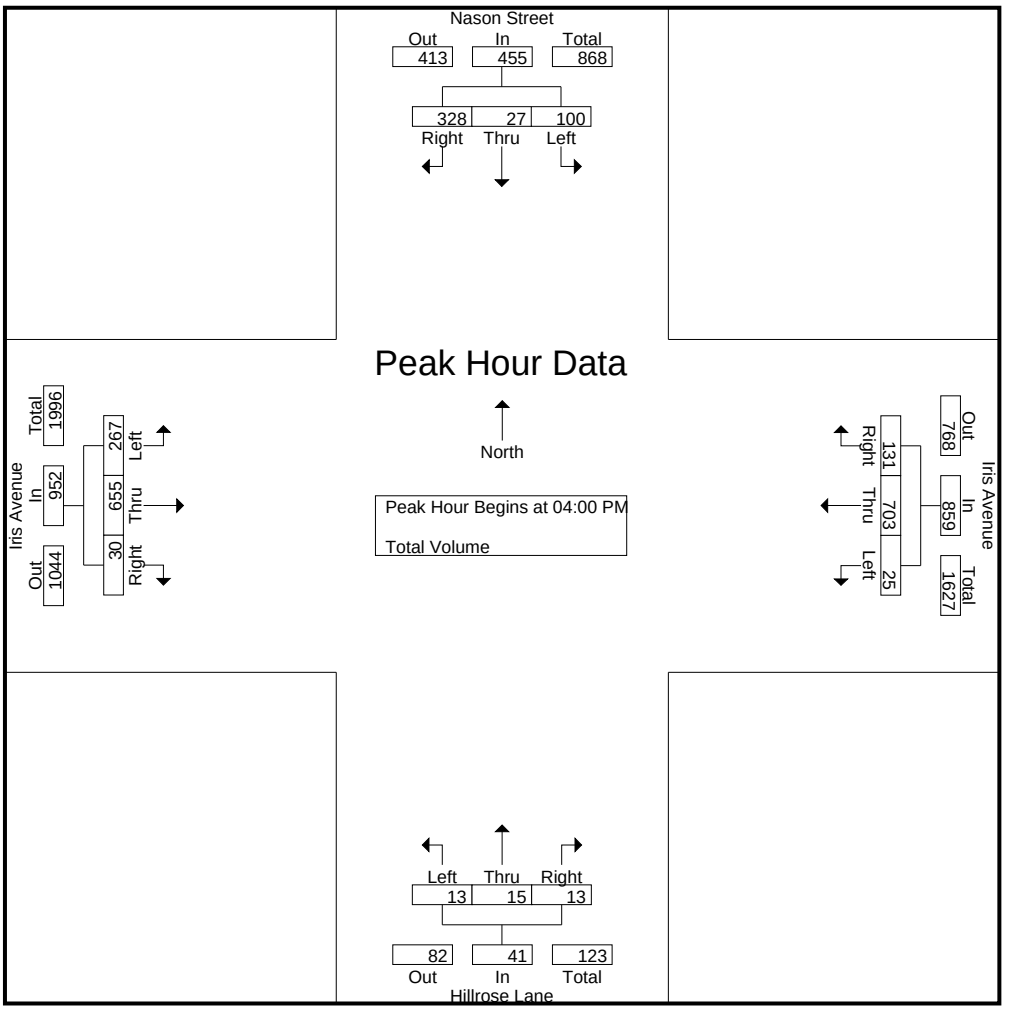
Page No : 2



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

	05:00 PM				04:15 PM				04:45 PM				04:00 PM			
+0 mins.	29	**12**	**109**	**150**	**8**	**200**	36	**244**	**5**	3	**4**	12	61	158	**12**	231
+15 mins.	**35**	12	82	129	6	172	32	210	2	6	1	9	72	**173**	7	**252**
+30 mins.	30	9	92	131	5	180	**39**	224	2	6	3	11	59	166	6	231
+45 mins.	29	9	102	140	3	154	28	185	3	**11**	1	**15**	**75**	158	5	238
Total Volume	123	42	385	550	22	706	135	863	12	26	9	47	267	655	30	952
% App. Total	22.4	7.6	70		2.5	81.8	15.6		25.5	55.3	19.1		28	68.8	3.2	
PHF	.879	.875	.883	.917	.688	.883	.865	.884	.600	.591	.563	.783	.890	.947	.625	.944

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City of Moreno Valley
N/S: Kaiser Hospital Main Driveway
E/W: Iris Avenue
Weather: Clear

File Name : 03_MRV_K Main_Iris AM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 1

Groups Printed- Total Volume

	Kaiser Hospital Main Driveway Southbound			Iris Avenue Westbound			Iris Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	0	2	2	106	4	110	35	108	143	255
07:15 AM	5	3	8	155	7	162	47	128	175	345
07:30 AM	5	17	22	200	13	213	43	194	237	472
07:45 AM	5	2	7	194	17	211	70	202	272	490
Total	15	24	39	655	41	696	195	632	827	1562
08:00 AM	5	2	7	172	17	189	45	175	220	416
08:15 AM	1	0	1	191	27	218	52	214	266	485
08:30 AM	2	8	10	138	15	153	60	155	215	378
08:45 AM	2	0	2	94	10	104	60	98	158	264
Total	10	10	20	595	69	664	217	642	859	1543
Grand Total	25	34	59	1250	110	1360	412	1274	1686	3105
Apprch %	42.4	57.6		91.9	8.1		24.4	75.6		
Total %	0.8	1.1	1.9	40.3	3.5	43.8	13.3	41	54.3	

	Kaiser Hospital Main Driveway Southbound			Iris Avenue Westbound			Iris Avenue 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 07:30 AM										
07:30 AM	**5**	**17**	**22**	**200**	13	213	43	194	237	472
07:45 AM	5	2	7	194	17	211	**70**	202	**272**	**490**
08:00 AM	5	2	7	172	17	189	45	175	220	416
08:15 AM	1	0	1	191	**27**	**218**	52	**214**	266	485
Total Volume	16	21	37	757	74	831	210	785	995	1863
% App. Total	43.2	56.8		91.1	8.9		21.1	78.9		
PHF	.800	.309	.420	.946	.685	.953	.750	.917	.915	.951

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File Name : 03_MRV_K Main_Iris AM
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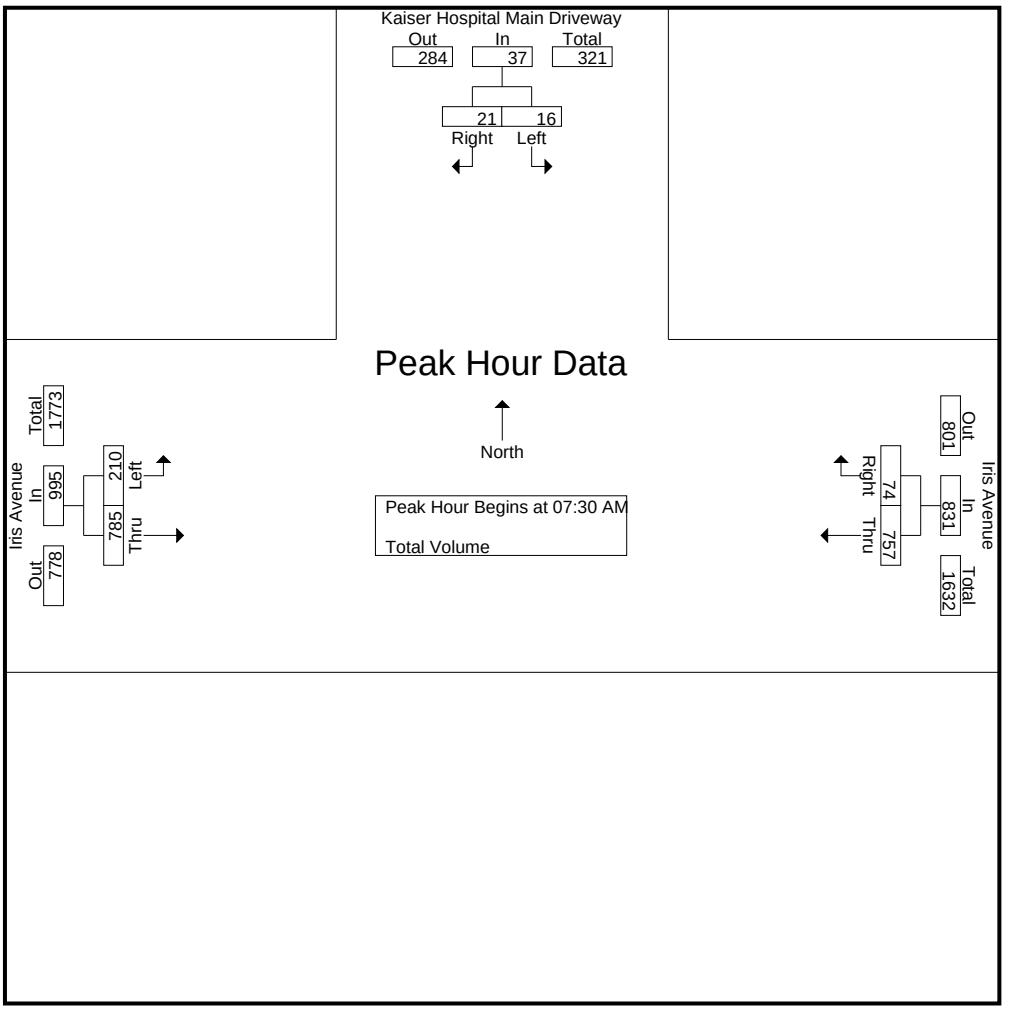

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM			07:30 AM			07:30 AM		
+0 mins.	**5**	3	8	**200**	13	213	43	194	237
+15 mins.	5	**17**	**22**	194	17	211	**70**	202	**272**
+30 mins.	5	2	7	172	17	189	45	175	220
+45 mins.	5	2	7	191	**27**	**218**	52	**214**	266
Total Volume	20	24	44	757	74	831	210	785	995
% App. Total	45.5	54.5		91.1	8.9		21.1	78.9	
PHF	1.000	.353	.500	.946	.685	.953	.750	.917	.915

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Start Date : 3/16/2023
Page No : 1

Groups Printed- Total Volume

	Kaiser Hospital Main Driveway Southbound			Iris Avenue Westbound			Iris Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	11	11	22	171	7	178	32	159	191	391
04:15 PM	14	12	26	163	10	173	27	159	186	385
04:30 PM	17	11	28	157	2	159	30	159	189	376
04:45 PM	19	5	24	152	6	158	19	155	174	356
Total	61	39	100	643	25	668	108	632	740	1508
05:00 PM	13	8	21	143	1	144	27	125	152	317
05:15 PM	8	8	16	136	3	139	30	135	165	320
05:30 PM	7	6	13	176	3	179	19	111	130	322
05:45 PM	5	7	12	155	3	158	25	119	144	314
Total	33	29	62	610	10	620	101	490	591	1273
Grand Total	94	68	162	1253	35	1288	209	1122	1331	2781
Apprch %	58	42		97.3	2.7		15.7	84.3		
Total %	3.4	2.4	5.8	45.1	1.3	46.3	7.5	40.3	47.9	

	Kaiser Hospital Main Driveway Southbound			Iris Avenue Westbound			Iris Avenue 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	11	11	22	**171**	7	**178**	**32**	**159**	**191**	**391**
04:15 PM	14	**12**	26	163	**10**	173	27	159	186	385
04:30 PM	17	11	**28**	157	2	159	30	159	189	376
04:45 PM	**19**	5	24	152	6	158	19	155	174	356
Total Volume	61	39	100	643	25	668	108	632	740	1508
% App. Total	61	39		96.3	3.7		14.6	85.4		
PHF	.803	.813	.893	.940	.625	.938	.844	.994	.969	.964

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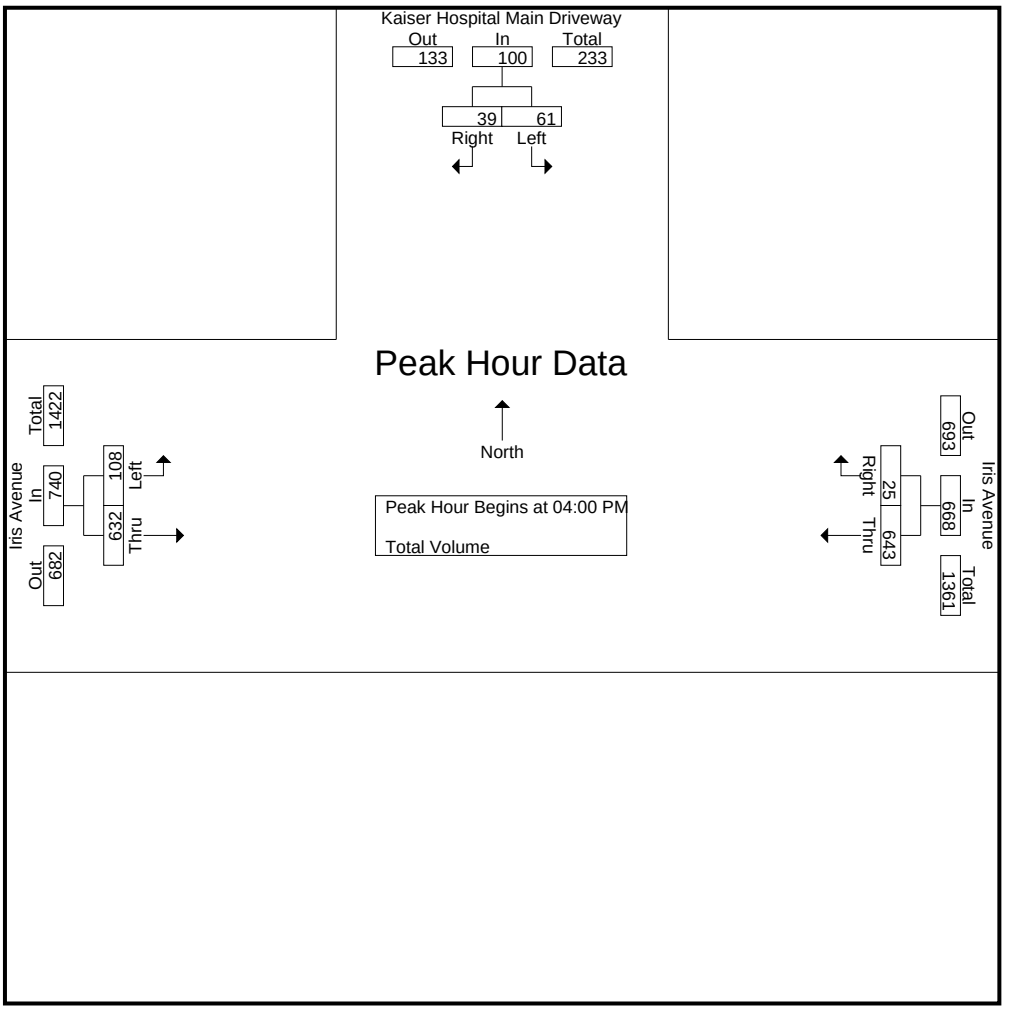

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	11	11	22	**171**	7	**178**	**32**	**159**	**191**
+15 mins.	14	**12**	26	163	**10**	173	27	159	186
+30 mins.	17	11	**28**	157	2	159	30	159	189
+45 mins.	**19**	5	24	152	6	158	19	155	174
Total Volume	61	39	100	643	25	668	108	632	740
% App. Total	61	39		96.3	3.7		14.6	85.4	
PHF	.803	.813	.893	.940	.625	.938	.844	.994	.969

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Page No : 1

Groups Printed- Total Volume

	Kaiser Hospital East Driveway Southbound			Iris Avenue Westbound			Iris Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
07:00 AM	2	9	11	100	9	109	6	104	110	230
07:15 AM	5	10	15	154	2	156	5	123	128	299
07:30 AM	1	5	6	205	7	212	8	193	201	419
07:45 AM	1	9	10	213	11	224	21	184	205	439
Total	9	33	42	672	29	701	40	604	644	1387
08:00 AM	1	10	11	187	6	193	5	172	177	381
08:15 AM	0	5	5	201	5	206	17	213	230	441
08:30 AM	1	6	7	144	7	151	13	140	153	311
08:45 AM	1	12	13	90	2	92	11	89	100	205
Total	3	33	36	622	20	642	46	614	660	1338
Grand Total	12	66	78	1294	49	1343	86	1218	1304	2725
Apprch %	15.4	84.6		96.4	3.6		6.6	93.4		
Total %	0.4	2.4	2.9	47.5	1.8	49.3	3.2	44.7	47.9	

	Kaiser Hospital East Driveway Southbound			Iris Avenue Westbound			Iris Avenue 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 07:30 AM										
07:30 AM	**1**	5	6	205	7	212	8	193	201	419
07:45 AM	1	9	10	**213**	**11**	**224**	**21**	184	205	439
08:00 AM	1	**10**	**11**	187	6	193	5	172	177	381
08:15 AM	0	5	5	201	5	206	17	**213**	**230**	**441**
Total Volume	3	29	32	806	29	835	51	762	813	1680
% App. Total	9.4	90.6		96.5	3.5		6.3	93.7		
PHF	.750	.725	.727	.946	.659	.932	.607	.894	.884	.952

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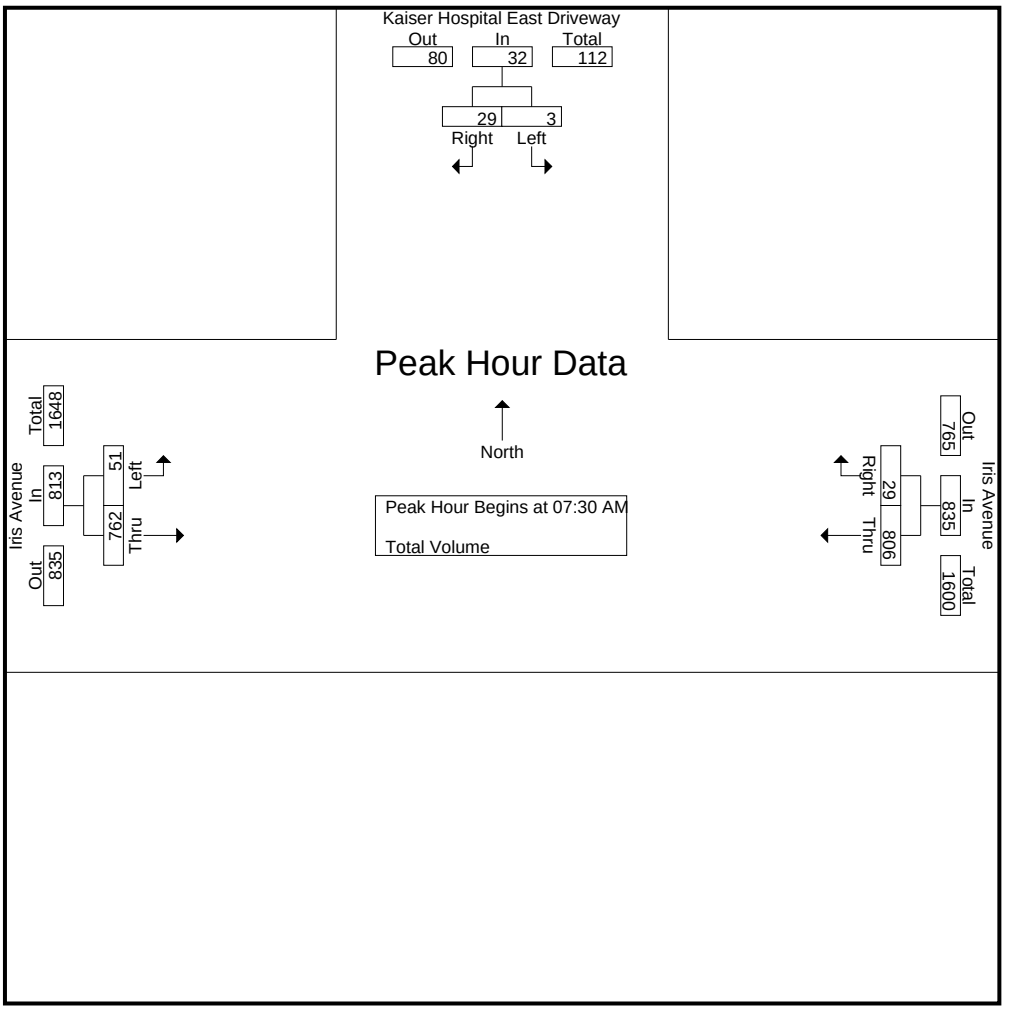

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM			07:30 AM			07:30 AM		
+0 mins.	2	9	11	205	7	212	8	193	201
+15 mins.	**5**	**10**	**15**	**213**	**11**	**224**	**21**	184	205
+30 mins.	1	5	6	187	6	193	5	172	177
+45 mins.	1	9	10	201	5	206	17	**213**	**230**
Total Volume	9	33	42	806	29	835	51	762	813
% App. Total	21.4	78.6		96.5	3.5		6.3	93.7	
PHF	.450	.825	.700	.946	.659	.932	.607	.894	.884

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	Kaiser Hospital East Driveway Southbound			Iris Avenue Westbound			Iris Avenue Eastbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
04:00 PM	1	14	15	165	2	167	7	163	170	352
04:15 PM	2	12	14	172	2	174	2	169	171	359
04:30 PM	6	16	22	143	3	146	3	184	187	355
04:45 PM	2	13	15	150	5	155	3	163	166	336
Total	11	55	66	630	12	642	15	679	694	1402
05:00 PM	2	9	11	143	2	145	2	143	145	301
05:15 PM	0	2	2	135	1	136	3	136	139	277
05:30 PM	0	6	6	172	2	174	2	119	121	301
05:45 PM	2	6	8	152	6	158	3	125	128	294
Total	4	23	27	602	11	613	10	523	533	1173
Grand Total	15	78	93	1232	23	1255	25	1202	1227	2575
Apprch %	16.1	83.9		98.2	1.8		2	98		
Total %	0.6	3	3.6	47.8	0.9	48.7	1	46.7	47.7	

	Kaiser Hospital East Driveway Southbound			Iris Avenue Westbound			Iris Avenue 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	1	14	15	165	2	167	**7**	163	170	352
04:15 PM	2	12	14	**172**	2	**174**	2	169	171	**359**
04:30 PM	**6**	**16**	**22**	143	3	146	3	**184**	**187**	355
04:45 PM	2	13	15	150	**5**	155	3	163	166	336
Total Volume	11	55	66	630	12	642	15	679	694	1402
% App. Total	16.7	83.3		98.1	1.9		2.2	97.8		
PHF	.458	.859	.750	.916	.600	.922	.536	.923	.928	.976

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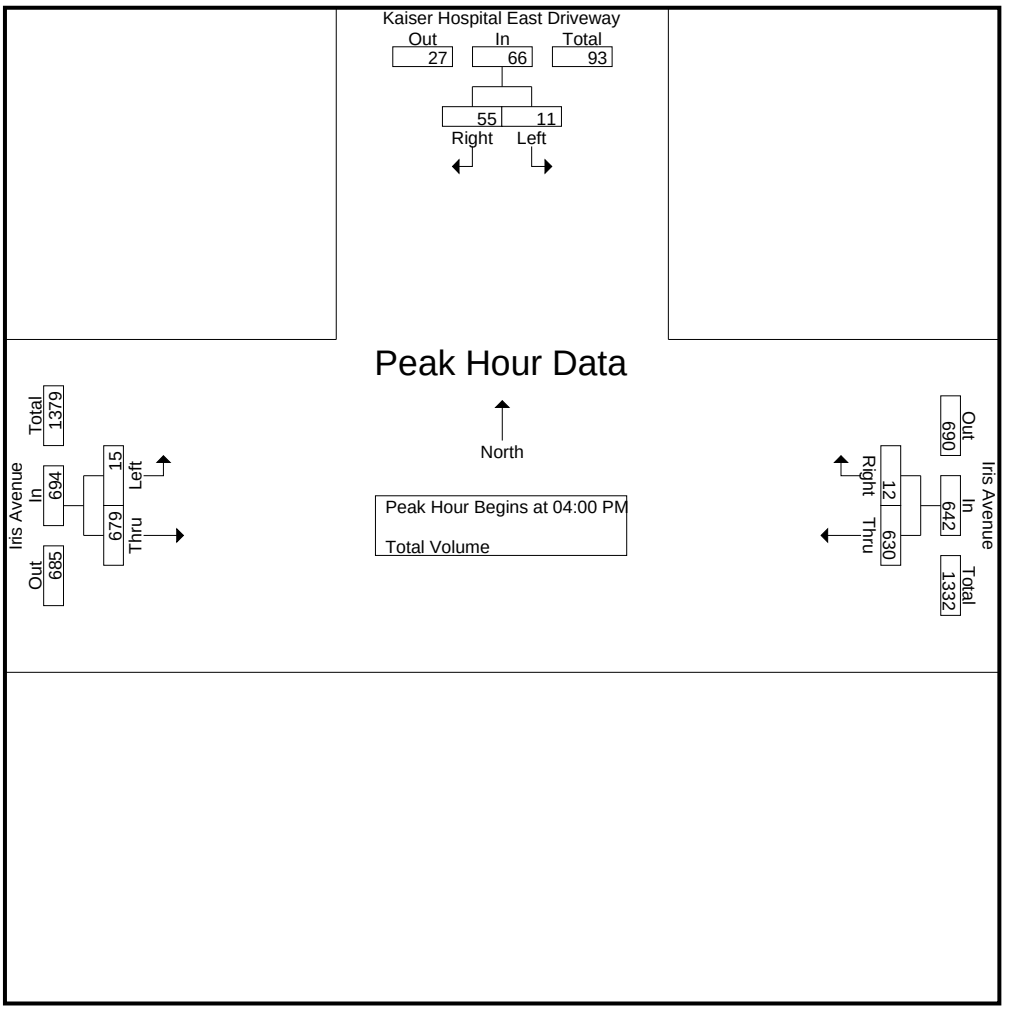
City of Moreno Valley
N/S: Kaiser Hospital East Driveway
E/W: Iris Avenue
Weather: Clear

File Name : 04_MRV_K East_Iris PM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 2



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

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	1	14	15	165	2	167	**7**	163	170
+15 mins.	2	12	14	**172**	2	**174**	2	169	171
+30 mins.	**6**	**16**	**22**	143	3	146	3	**184**	**187**
+45 mins.	2	13	15	150	**5**	155	3	163	166
Total Volume	11	55	66	630	12	642	15	679	694
% App. Total	16.7	83.3		98.1	1.9		2.2	97.8	
PHF	.458	.859	.750	.916	.600	.922	.536	.923	.928

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City of Moreno Valley
N/S: Oliver Street
E/W: Iris Avenue
Weather: Clear

File Name : 05_MRV_Oliver_Iris AM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 1

Groups Printed- Total Volume

	Oliver Street Southbound				Iris Avenue Westbound				Oliver Street Northbound				Iris Avenue 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	5	10	15	0	82	1	83	17	7	6	30	6	95	2	103	231
07:15 AM	1	2	32	35	4	115	4	123	10	10	6	26	33	91	2	126	310
07:30 AM	0	7	53	60	6	143	2	151	16	27	11	54	52	135	2	189	454
07:45 AM	2	17	68	87	9	143	1	153	9	5	7	21	35	136	9	180	441
Total	3	31	163	197	19	483	8	510	52	49	30	131	126	457	15	598	1436
08:00 AM	4	5	65	74	3	117	3	123	12	8	7	27	48	100	1	149	373
08:15 AM	2	9	92	103	8	118	3	129	4	11	3	18	96	124	7	227	477
08:30 AM	2	9	43	54	2	94	2	98	12	5	7	24	21	108	6	135	311
08:45 AM	1	1	17	19	6	73	0	79	6	1	7	14	12	78	6	96	208
Total	9	24	217	250	19	402	8	429	34	25	24	83	177	410	20	607	1369
Grand Total	12	55	380	447	38	885	16	939	86	74	54	214	303	867	35	1205	2805
Apprch %	2.7	12.3	85		4	94.2	1.7		40.2	34.6	25.2		25.1	72	2.9		
Total %	0.4	2	13.5	15.9	1.4	31.6	0.6	33.5	3.1	2.6	1.9	7.6	10.8	30.9	1.2	43	

	Oliver Street Southbound				Iris Avenue Westbound				Oliver Street Northbound				Iris Avenue 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	7	53	60	6	**143**	2	151	**16**	**27**	**11**	**54**	52	135	2	189	454
07:45 AM	2	**17**	68	87	**9**	143	1	**153**	9	5	7	21	35	**136**	**9**	180	441
08:00 AM	**4**	5	65	74	3	117	**3**	123	12	8	7	27	48	100	1	149	373
08:15 AM	2	9	**92**	**103**	8	118	3	129	4	11	3	18	**96**	124	7	**227**	**477**
Total Volume	8	38	278	324	26	521	9	556	41	51	28	120	231	495	19	745	1745
% App. Total	2.5	11.7	85.8		4.7	93.7	1.6		34.2	42.5	23.3		31	66.4	2.6		
PHF	.500	.559	.755	.786	.722	.911	.750	.908	.641	.472	.636	.556	.602	.910	.528	.820	.915

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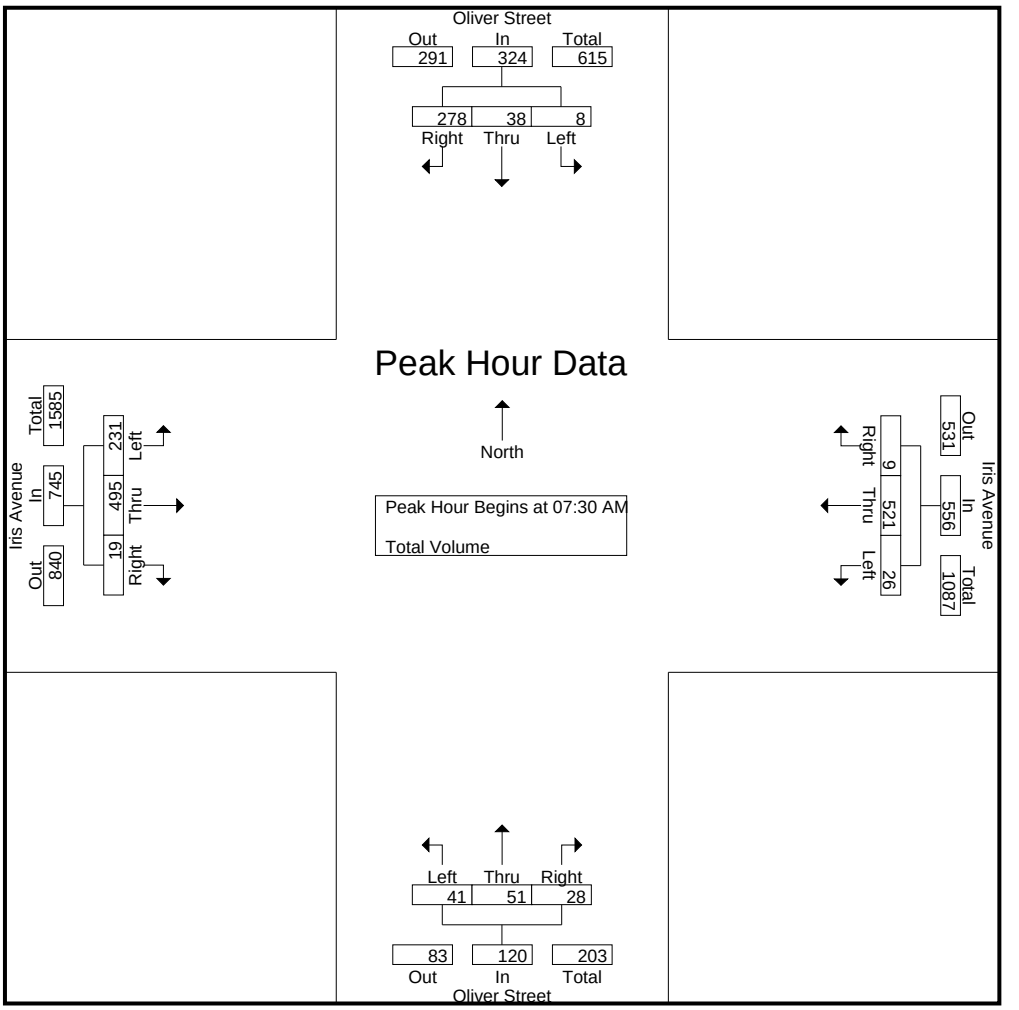
City of Moreno Valley
N/S: Oliver Street
E/W: Iris Avenue
Weather: Clear

File Name : 05_MRV_Oliver_Iris AM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 2



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

	07:30 AM				07:30 AM				07:00 AM				07:30 AM			
+0 mins.	0	7	53	60	6	**143**	2	151	**17**	7	6	30	52	135	2	189
+15 mins.	2	**17**	68	87	**9**	143	1	**153**	10	10	6	26	35	**136**	**9**	180
+30 mins.	**4**	5	65	74	3	117	**3**	123	16	**27**	**11**	**54**	48	100	1	149
+45 mins.	2	9	**92**	**103**	8	118	3	129	9	5	7	21	**96**	124	7	**227**
Total Volume	8	38	278	324	26	521	9	556	52	49	30	131	231	495	19	745
% App. Total	2.5	11.7	85.8		4.7	93.7	1.6		39.7	37.4	22.9		31	66.4	2.6	
PHF	.500	.559	.755	.786	.722	.911	.750	.908	.765	.454	.682	.606	.602	.910	.528	.820

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City of Moreno Valley
N/S: Oliver Street
E/W: Iris Avenue
Weather: Clear

File Name : 05_MRV_Oliver_Iris PM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 1

Groups Printed- Total Volume

	Oliver Street Southbound				Iris Avenue Westbound				Oliver Street Northbound				Iris Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	6	29	36	13	131	1	145	9	7	3	19	18	130	6	154	354
04:15 PM	1	3	18	22	7	143	1	151	6	3	5	14	14	149	10	173	360
04:30 PM	0	7	9	16	7	134	0	141	8	2	3	13	27	145	9	181	351
04:45 PM	1	4	19	24	12	135	0	147	3	3	4	10	17	142	9	168	349
Total	3	20	75	98	39	543	2	584	26	15	15	56	76	566	34	676	1414
05:00 PM	0	8	17	25	6	117	0	123	9	2	5	16	12	113	10	135	299
05:15 PM	2	7	14	23	3	111	2	116	10	6	4	20	15	102	11	128	287
05:30 PM	0	3	16	19	13	146	2	161	12	2	3	17	16	86	9	111	308
05:45 PM	1	6	14	21	10	136	1	147	5	1	3	9	22	82	16	120	297
Total	3	24	61	88	32	510	5	547	36	11	15	62	65	383	46	494	1191
Grand Total	6	44	136	186	71	1053	7	1131	62	26	30	118	141	949	80	1170	2605
Apprch %	3.2	23.7	73.1		6.3	93.1	0.6		52.5	22	25.4		12.1	81.1	6.8		
Total %	0.2	1.7	5.2	7.1	2.7	40.4	0.3	43.4	2.4	1	1.2	4.5	5.4	36.4	3.1	44.9	

	Oliver Street Southbound				Iris Avenue Westbound				Oliver Street Northbound				Iris Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	6	**29**	**36**	**13**	131	**1**	145	**9**	**7**	3	**19**	18	130	6	154	354
04:15 PM	1	3	18	22	7	**143**	1	**151**	6	3	**5**	14	14	**149**	**10**	173	**360**
04:30 PM	0	**7**	9	16	7	134	0	141	8	2	3	13	**27**	145	9	**181**	351
04:45 PM	1	4	19	24	12	135	0	147	3	3	4	10	17	142	9	168	349
Total Volume	3	20	75	98	39	543	2	584	26	15	15	56	76	566	34	676	1414
% App. Total	3.1	20.4	76.5		6.7	93	0.3		46.4	26.8	26.8		11.2	83.7	5		
PHF	.750	.714	.647	.681	.750	.949	.500	.967	.722	.536	.750	.737	.704	.950	.850	.934	.982

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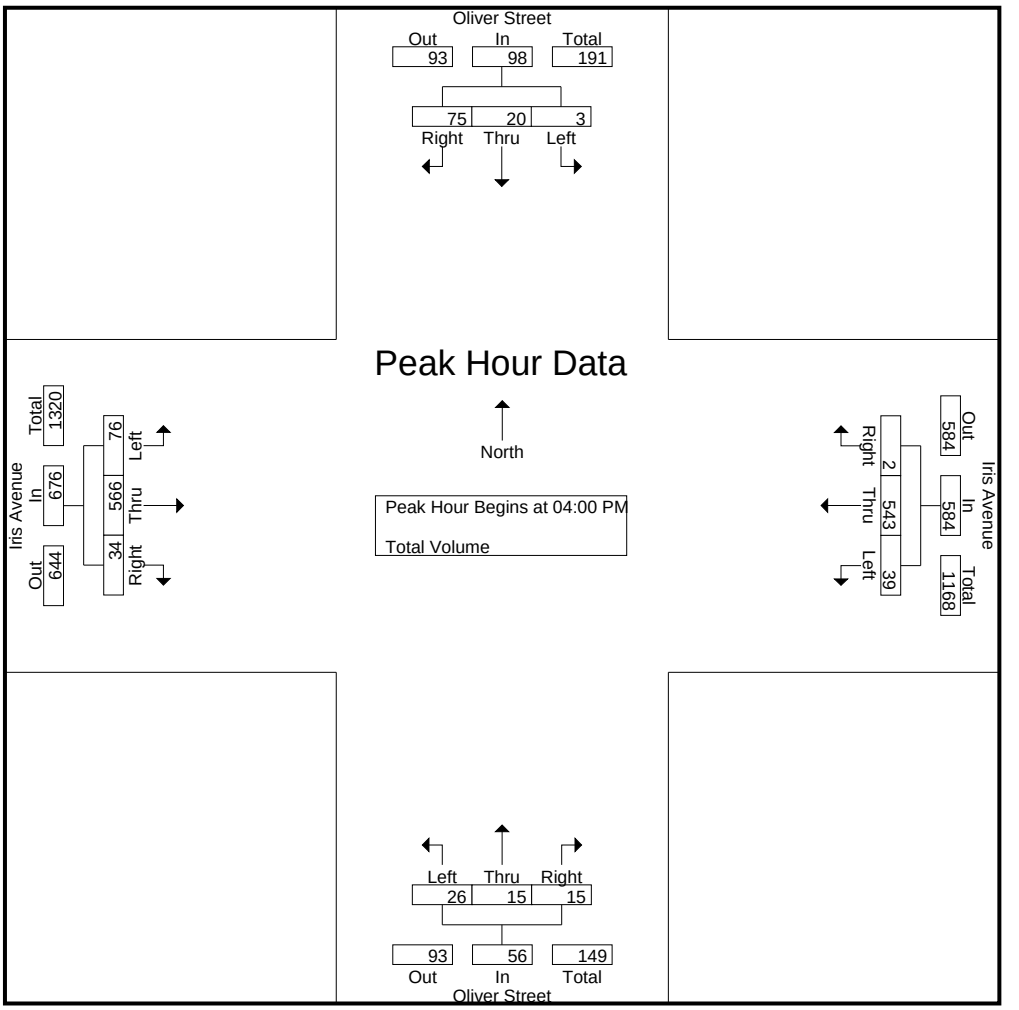
City of Moreno Valley
N/S: Oliver Street
E/W: Iris Avenue
Weather: Clear

File Name : 05_MRV_Oliver_Iris PM
Site Code : 22523253
Start Date : 3/16/2023
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				04:00 PM			
+0 mins.	**1**	6	**29**	**36**	**13**	131	**1**	145	3	3	4	10	18	130	6	154
+15 mins.	1	3	18	22	7	**143**	1	**151**	9	2	**5**	16	14	**149**	**10**	173
+30 mins.	0	**7**	9	16	7	134	0	141	10	**6**	4	**20**	**27**	145	9	**181**
+45 mins.	1	4	19	24	12	135	0	147	**12**	2	3	17	17	142	9	168
Total Volume	3	20	75	98	39	543	2	584	34	13	16	63	76	566	34	676
% App. Total	3.1	20.4	76.5		6.7	93	0.3		54	20.6	25.4		11.2	83.7	5	
PHF	.750	.714	.647	.681	.750	.949	.500	.967	.708	.542	.800	.788	.704	.950	.850	.934

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City of Moreno Valley
N/S: Via Del Lago
E/W: Iris Avenue
Weather: Clear

File Name : 06_MRV_VD Lago_Iris AM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 1

Groups Printed- Total Volume

	Via Del Lago Southbound				Iris Avenue Westbound				Via Del Lago Northbound				Iris Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	1	2	5	4	72	1	77	6	0	10	16	1	103	1	105	203
07:15 AM	2	1	11	14	4	106	0	110	10	0	13	23	3	99	2	104	251
07:30 AM	1	0	6	7	5	135	1	141	5	0	15	20	0	149	6	155	323
07:45 AM	2	0	8	10	10	143	1	154	4	0	6	10	3	127	10	140	314
Total	7	2	27	36	23	456	3	482	25	0	44	69	7	478	19	504	1091
08:00 AM	1	0	6	7	4	103	4	111	15	0	7	22	3	110	8	121	261
08:15 AM	2	0	10	12	5	108	1	114	7	0	3	10	9	114	6	129	265
08:30 AM	1	0	6	7	8	91	1	100	5	0	7	12	4	109	9	122	241
08:45 AM	0	0	1	1	2	68	1	71	4	0	2	6	2	83	6	91	169
Total	4	0	23	27	19	370	7	396	31	0	19	50	18	416	29	463	936
Grand Total	11	2	50	63	42	826	10	878	56	0	63	119	25	894	48	967	2027
Apprch %	17.5	3.2	79.4		4.8	94.1	1.1		47.1	0	52.9		2.6	92.5	5		
Total %	0.5	0.1	2.5	3.1	2.1	40.7	0.5	43.3	2.8	0	3.1	5.9	1.2	44.1	2.4	47.7	

	Via Del Lago Southbound				Iris Avenue Westbound				Via Del Lago Northbound				Iris Avenue 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	1	0	6	7	5	135	1	141	5	0	**15**	20	0	**149**	6	**155**	**323**
07:45 AM	**2**	0	8	10	**10**	**143**	1	**154**	4	0	6	10	3	127	**10**	140	314
08:00 AM	1	0	6	7	4	103	**4**	111	**15**	0	7	**22**	3	110	8	121	261
08:15 AM	2	0	**10**	**12**	5	108	1	114	7	0	3	10	**9**	114	6	129	265
Total Volume	6	0	30	36	24	489	7	520	31	0	31	62	15	500	30	545	1163
% App. Total	16.7	0	83.3		4.6	94	1.3		50	0	50		2.8	91.7	5.5		
PHF	.750	.000	.750	.750	.600	.855	.438	.844	.517	.000	.517	.705	.417	.839	.750	.879	.900

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City of Moreno Valley
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E/W: Iris Avenue
Weather: Clear

File Name : 06_MRV_VD Lago_Iris AM
Site Code : 22523253
Start Date : 3/16/2023
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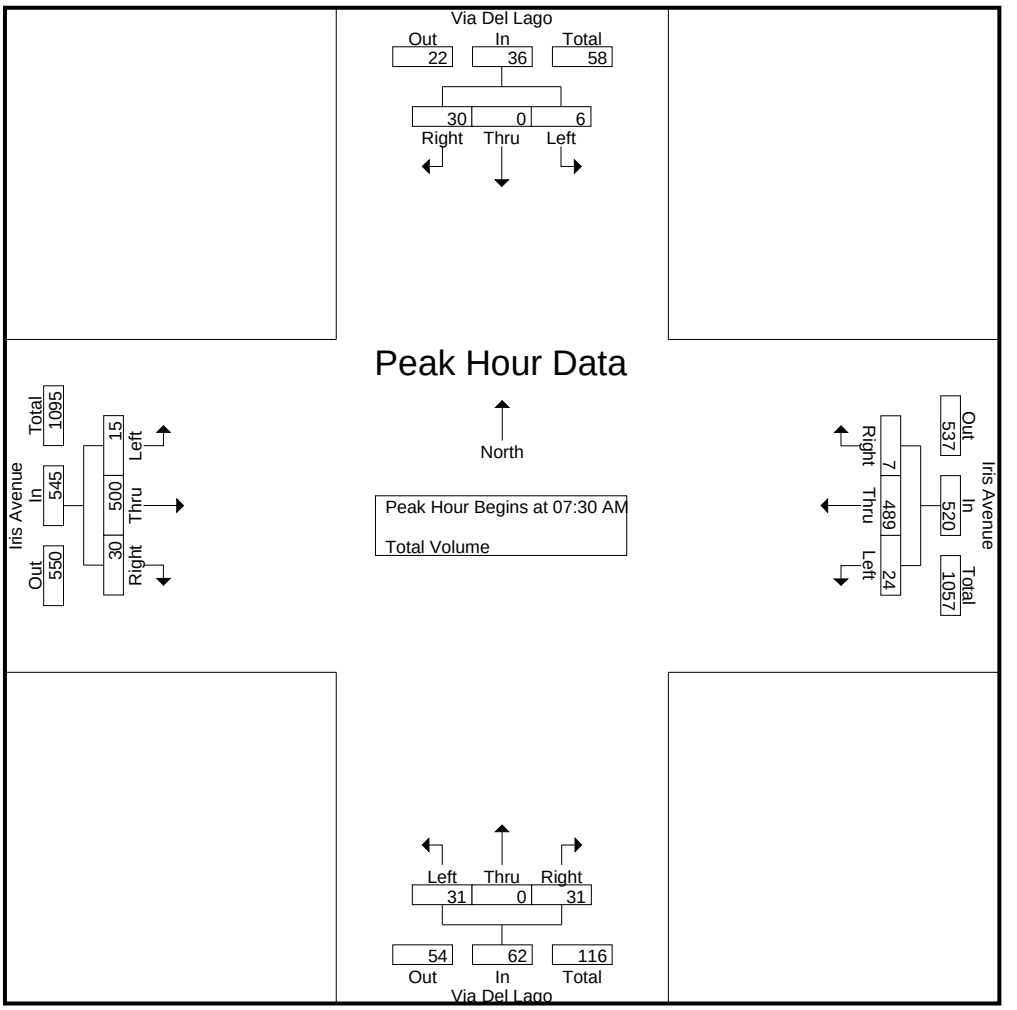

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:30 AM				07:15 AM				07:30 AM			
+0 mins.	**2**	**1**	**11**	**14**	5	135	1	141	10	0	13	**23**	0	**149**	6	**155**
+15 mins.	1	0	6	7	**10**	**143**	1	**154**	5	0	**15**	20	3	127	**10**	140
+30 mins.	2	0	8	10	4	103	**4**	111	4	0	6	10	3	110	8	121
+45 mins.	1	0	6	7	5	108	1	114	**15**	0	7	22	**9**	114	6	129
Total Volume	6	1	31	38	24	489	7	520	34	0	41	75	15	500	30	545
% App. Total	15.8	2.6	81.6		4.6	94	1.3		45.3	0	54.7		2.8	91.7	5.5	
PHF	.750	.250	.705	.679	.600	.855	.438	.844	.567	.000	.683	.815	.417	.839	.750	.879

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City of Moreno Valley
N/S: Via Del Lago
E/W: Iris Avenue
Weather: Clear

File Name : 06_MRV_VD Lago_Iris PM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 1

Groups Printed- Total Volume

	Via Del Lago Southbound				Iris Avenue Westbound				Via Del Lago Northbound				Iris Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	0	5	6	6	135	3	144	7	0	5	12	3	127	8	138	300
04:15 PM	1	0	1	2	11	140	1	152	5	0	6	11	3	136	7	146	311
04:30 PM	0	0	5	5	5	136	2	143	1	0	6	7	2	154	5	161	316
04:45 PM	1	1	1	3	8	140	1	149	5	1	4	10	3	124	7	134	296
Total	3	1	12	16	30	551	7	588	18	1	21	40	11	541	27	579	1223
05:00 PM	3	0	3	6	8	116	0	124	5	0	1	6	4	124	4	132	268
05:15 PM	0	0	5	5	12	112	4	128	3	0	4	7	6	113	1	120	260
05:30 PM	1	0	1	2	9	155	6	170	5	0	3	8	6	88	6	100	280
05:45 PM	1	0	6	7	13	142	2	157	5	0	6	11	2	78	6	86	261
Total	5	0	15	20	42	525	12	579	18	0	14	32	18	403	17	438	1069
Grand Total	8	1	27	36	72	1076	19	1167	36	1	35	72	29	944	44	1017	2292
Apprch %	22.2	2.8	75		6.2	92.2	1.6		50	1.4	48.6		2.9	92.8	4.3		
Total %	0.3	0	1.2	1.6	3.1	46.9	0.8	50.9	1.6	0	1.5	3.1	1.3	41.2	1.9	44.4	

	Via Del Lago Southbound				Iris Avenue Westbound				Via Del Lago Northbound				Iris Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	0	**5**	**6**	6	135	**3**	144	**7**	0	5	**12**	**3**	127	**8**	138	300
04:15 PM	1	0	1	2	**11**	**140**	1	**152**	5	0	**6**	11	3	136	7	146	311
04:30 PM	0	0	5	5	5	136	2	143	1	0	6	7	2	**154**	5	**161**	**316**
04:45 PM	1	**1**	1	3	8	140	1	149	5	**1**	4	10	3	124	7	134	296
Total Volume	3	1	12	16	30	551	7	588	18	1	21	40	11	541	27	579	1223
% App. Total	18.8	6.2	75		5.1	93.7	1.2		45	2.5	52.5		1.9	93.4	4.7		
PHF	.750	.250	.600	.667	.682	.984	.583	.967	.643	.250	.875	.833	.917	.878	.844	.899	.968

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City of Moreno Valley
N/S: Via Del Lago
E/W: Iris Avenue
Weather: Clear

File Name : 06_MRV_VD Lago_Iris PM
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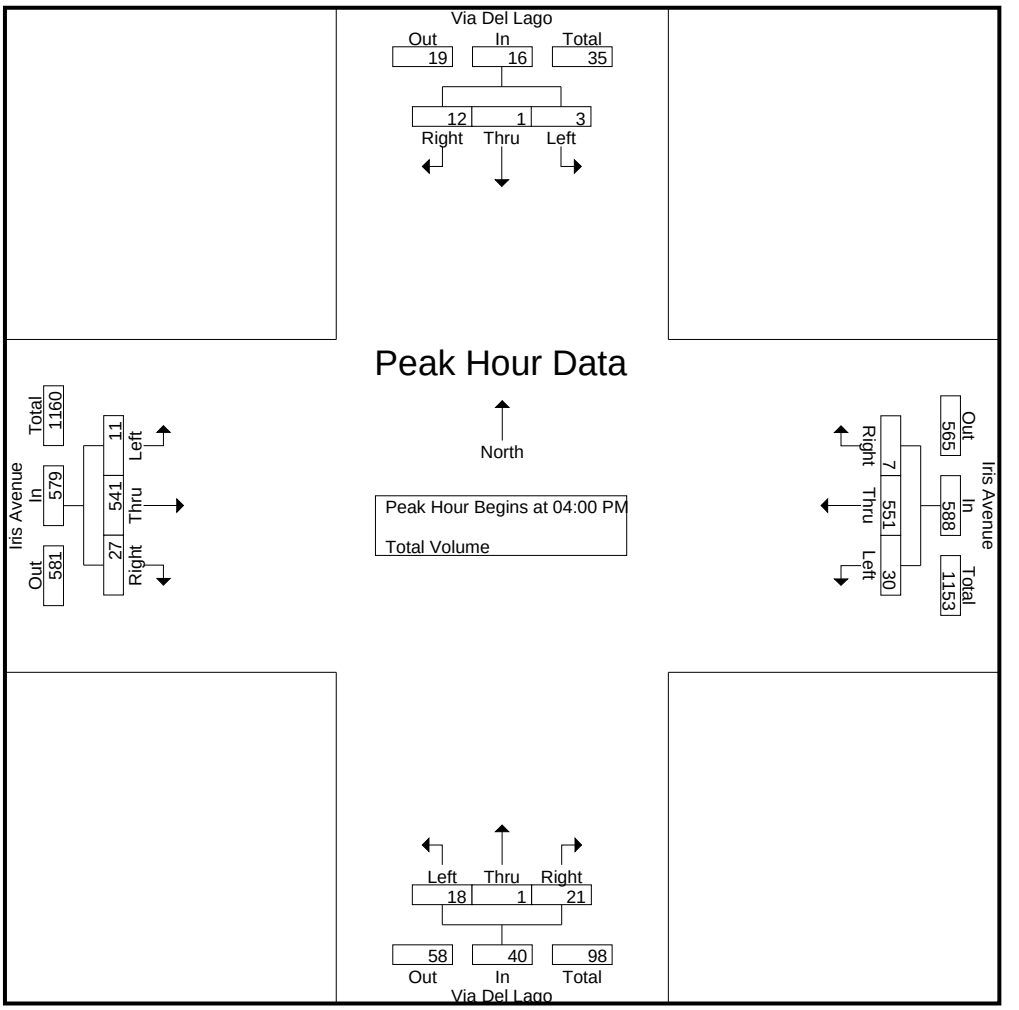

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	**3**	0	3	6	6	135	**3**	144	**7**	0	5	**12**	**3**	127	**8**	138
+15 mins.	0	0	5	5	**11**	**140**	1	**152**	5	0	**6**	11	3	136	7	146
+30 mins.	1	0	1	2	5	136	2	143	1	0	6	7	2	**154**	5	**161**
+45 mins.	1	0	**6**	**7**	8	140	1	149	5	**1**	4	10	3	124	7	134
Total Volume	5	0	15	20	30	551	7	588	18	1	21	40	11	541	27	579
% App. Total	25	0	75		5.1	93.7	1.2		45	2.5	52.5		1.9	93.4	4.7	
PHF	.417	.000	.625	.714	.682	.984	.583	.967	.643	.250	.875	.833	.917	.878	.844	.899

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City of Moreno Valley
N/S: Moreno Beach Drive
E/W: John F Kennedy Drive
Weather: Clear

File Name : 07_MRV_Mo B_JFK AM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 1

Groups Printed- Total Volume

	Moreno Beach Drive Southbound				John F Kennedy Drive Westbound				Moreno Beach Drive Northbound				John F Kennedy Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	52	73	127	14	9	1	24	12	47	7	66	42	3	22	67	284
07:15 AM	4	60	50	114	10	8	1	19	35	58	14	107	53	8	52	113	353
07:30 AM	2	111	75	188	19	9	2	30	35	69	29	133	66	9	50	125	476
07:45 AM	4	77	51	132	19	8	3	30	27	87	32	146	70	29	73	172	480
Total	12	300	249	561	62	34	7	103	109	261	82	452	231	49	197	477	1593
08:00 AM	8	74	60	142	8	11	0	19	25	69	26	120	39	23	27	89	370
08:15 AM	5	64	48	117	18	14	6	38	25	67	26	118	40	25	15	80	353
08:30 AM	0	73	53	126	12	8	2	22	9	63	9	81	42	6	15	63	292
08:45 AM	0	50	38	88	9	3	2	14	14	49	7	70	29	4	7	40	212
Total	13	261	199	473	47	36	10	93	73	248	68	389	150	58	64	272	1227
Grand Total	25	561	448	1034	109	70	17	196	182	509	150	841	381	107	261	749	2820
Apprch %	2.4	54.3	43.3		55.6	35.7	8.7		21.6	60.5	17.8		50.9	14.3	34.8		
Total %	0.9	19.9	15.9	36.7	3.9	2.5	0.6	7	6.5	18	5.3	29.8	13.5	3.8	9.3	26.6	

	Moreno Beach Drive Southbound				John F Kennedy Drive Westbound				Moreno Beach Drive Northbound				John F Kennedy Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	4	60	50	114	10	8	1	19	**35**	58	14	107	53	8	52	113	353
07:30 AM	2	**111**	**75**	**188**	**19**	9	2	**30**	35	69	29	133	66	9	50	125	476
07:45 AM	4	77	51	132	19	8	**3**	30	27	**87**	**32**	**146**	**70**	**29**	**73**	**172**	**480**
08:00 AM	**8**	74	60	142	8	**11**	0	19	25	69	26	120	39	23	27	89	370
Total Volume	18	322	236	576	56	36	6	98	122	283	101	506	228	69	202	499	1679
% App. Total	3.1	55.9	41		57.1	36.7	6.1		24.1	55.9	20		45.7	13.8	40.5		
PHF	.563	.725	.787	.766	.737	.818	.500	.817	.871	.813	.789	.866	.814	.595	.692	.725	.874

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City of Moreno Valley
N/S: Moreno Beach Drive
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File Name : 07_MRV_Mo B_JFK AM
Site Code : 22523253
Start Date : 3/16/2023
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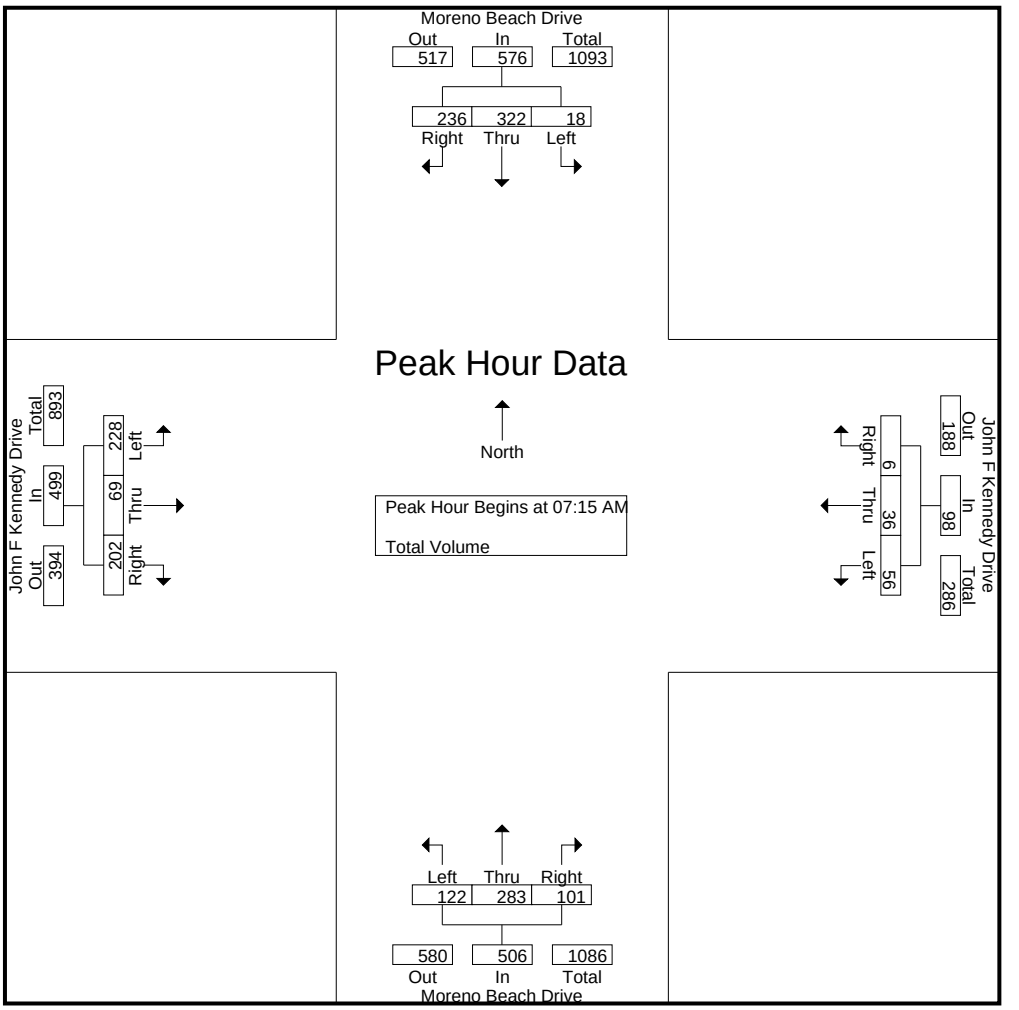

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:15 AM			
+0 mins.	2	**111**	**75**	**188**	**19**	9	2	30	**35**	69	29	133	53	8	52	113
+15 mins.	4	77	51	132	19	8	3	30	27	**87**	**32**	**146**	66	9	50	125
+30 mins.	**8**	74	60	142	8	11	0	19	25	69	26	120	**70**	**29**	**73**	**172**
+45 mins.	5	64	48	117	18	**14**	**6**	**38**	25	67	26	118	39	23	27	89
Total Volume	19	326	234	579	64	42	11	117	112	292	113	517	228	69	202	499
% App. Total	3.3	56.3	40.4		54.7	35.9	9.4		21.7	56.5	21.9		45.7	13.8	40.5	
PHF	.594	.734	.780	.770	.842	.750	.458	.770	.800	.839	.883	.885	.814	.595	.692	.725

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City of Moreno Valley
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File Name : 07_MRV_Mo B_JFK PM
Site Code : 22523253
Start Date : 3/16/2023
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Groups Printed- Total Volume

	Moreno Beach Drive Southbound				John F Kennedy Drive Westbound				Moreno Beach Drive Northbound				John F Kennedy Drive 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	76	57	136	12	4	1	17	29	68	19	116	83	7	20	110	379
04:15 PM	5	72	70	147	9	2	2	13	36	94	19	149	79	5	17	101	410
04:30 PM	2	92	54	148	10	2	0	12	31	75	8	114	70	5	13	88	362
04:45 PM	0	79	59	138	10	4	1	15	18	82	15	115	75	7	16	98	366
Total	10	319	240	569	41	12	4	57	114	319	61	494	307	24	66	397	1517
05:00 PM	2	66	59	127	16	7	1	24	23	74	15	112	65	8	16	89	352
05:15 PM	2	66	47	115	8	2	1	11	22	69	14	105	77	5	23	105	336
05:30 PM	3	58	37	98	14	3	0	17	18	98	14	130	89	7	16	112	357
05:45 PM	3	50	37	90	8	8	0	16	10	97	2	109	67	4	16	87	302
Total	10	240	180	430	46	20	2	68	73	338	45	456	298	24	71	393	1347
Grand Total	20	559	420	999	87	32	6	125	187	657	106	950	605	48	137	790	2864
Apprch %	2	56	42		69.6	25.6	4.8		19.7	69.2	11.2		76.6	6.1	17.3		
Total %	0.7	19.5	14.7	34.9	3	1.1	0.2	4.4	6.5	22.9	3.7	33.2	21.1	1.7	4.8	27.6	

	Moreno Beach Drive Southbound				John F Kennedy Drive Westbound				Moreno Beach Drive Northbound				John F Kennedy Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	3	76	57	136	**12**	**4**	1	**17**	29	68	**19**	116	**83**	**7**	**20**	**110**	379
04:15 PM	**5**	72	**70**	147	9	2	**2**	13	**36**	**94**	19	**149**	79	5	17	101	**410**
04:30 PM	2	**92**	54	**148**	10	2	0	12	31	75	8	114	70	5	13	88	362
04:45 PM	0	79	59	138	10	4	1	15	18	82	15	115	75	7	16	98	366
Total Volume	10	319	240	569	41	12	4	57	114	319	61	494	307	24	66	397	1517
% App. Total	1.8	56.1	42.2		71.9	21.1	7		23.1	64.6	12.3		77.3	6	16.6		
PHF	.500	.867	.857	.961	.854	.750	.500	.838	.792	.848	.803	.829	.925	.857	.825	.902	.925

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File Name : 07_MRV_Mo B_JFK PM
Site Code : 22523253
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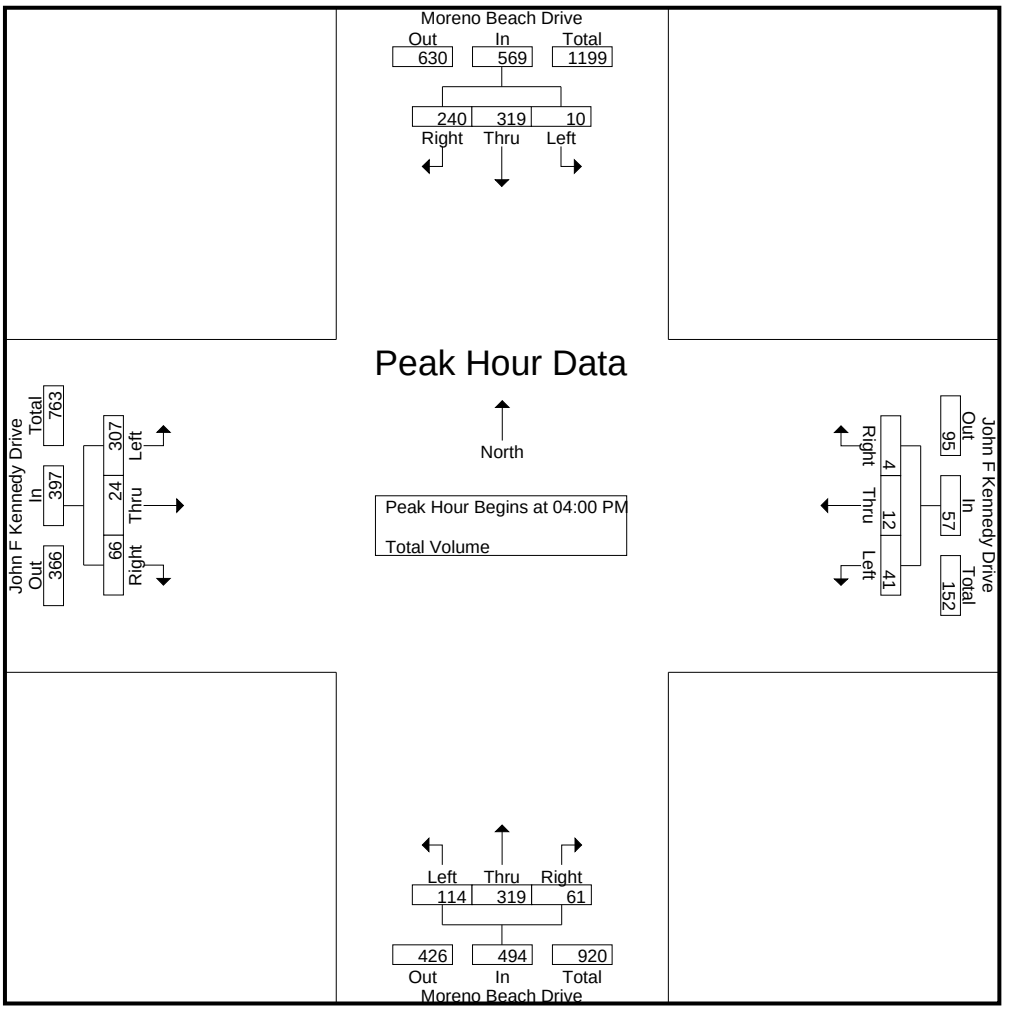

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:00 PM				04:45 PM			
+0 mins.	3	76	57	136	**16**	7	**1**	**24**	29	68	**19**	116	75	7	16	98
+15 mins.	**5**	72	**70**	147	8	2	1	11	**36**	**94**	19	**149**	65	**8**	16	89
+30 mins.	2	**92**	54	**148**	14	3	0	17	31	75	8	114	77	5	**23**	105
+45 mins.	0	79	59	138	8	**8**	0	16	18	82	15	115	**89**	7	16	**112**
Total Volume	10	319	240	569	46	20	2	68	114	319	61	494	306	27	71	404
% App. Total	1.8	56.1	42.2		67.6	29.4	2.9		23.1	64.6	12.3		75.7	6.7	17.6	
PHF	.500	.867	.857	.961	.719	.625	.500	.708	.792	.848	.803	.829	.860	.844	.772	.902

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City of Moreno Valley
N/S: Oliver Street
E/W: John F Kennedy Drive
Weather: Clear

File Name : 08_MRV_Oliver_JFK AM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 1

Groups Printed- Total Volume

	Oliver Street Southbound			John F Kennedy Drive Westbound			Oliver Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	5	12	17	4	22	26	17	0	17	60
07:15 AM	22	18	40	4	20	24	42	4	46	110
07:30 AM	25	40	65	2	39	41	77	11	88	194
07:45 AM	48	49	97	17	36	53	34	9	43	193
Total	100	119	219	27	117	144	170	24	194	557
08:00 AM	51	24	75	14	17	31	62	8	70	176
08:15 AM	80	36	116	12	24	36	92	18	110	262
08:30 AM	25	11	36	6	21	27	48	4	52	115
08:45 AM	8	4	12	6	8	14	13	2	15	41
Total	164	75	239	38	70	108	215	32	247	594
Grand Total	264	194	458	65	187	252	385	56	441	1151
Apprch %	57.6	42.4		25.8	74.2		87.3	12.7		
Total %	22.9	16.9	39.8	5.6	16.2	21.9	33.4	4.9	38.3	

	Oliver Street Southbound			John F Kennedy Drive Westbound			Oliver Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	25	40	65	2	**39**	41	77	11	88	194
07:45 AM	48	**49**	97	**17**	36	**53**	34	9	43	193
08:00 AM	51	24	75	14	17	31	62	8	70	176
08:15 AM	**80**	36	**116**	12	24	36	**92**	**18**	**110**	**262**
Total Volume	204	149	353	45	116	161	265	46	311	825
% App. Total	57.8	42.2		28	72		85.2	14.8		
PHF	.638	.760	.761	.662	.744	.759	.720	.639	.707	.787

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City of Moreno Valley
N/S: Oliver Street
E/W: John F Kennedy Drive
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File Name : 08_MRV_Oliver_JFK AM
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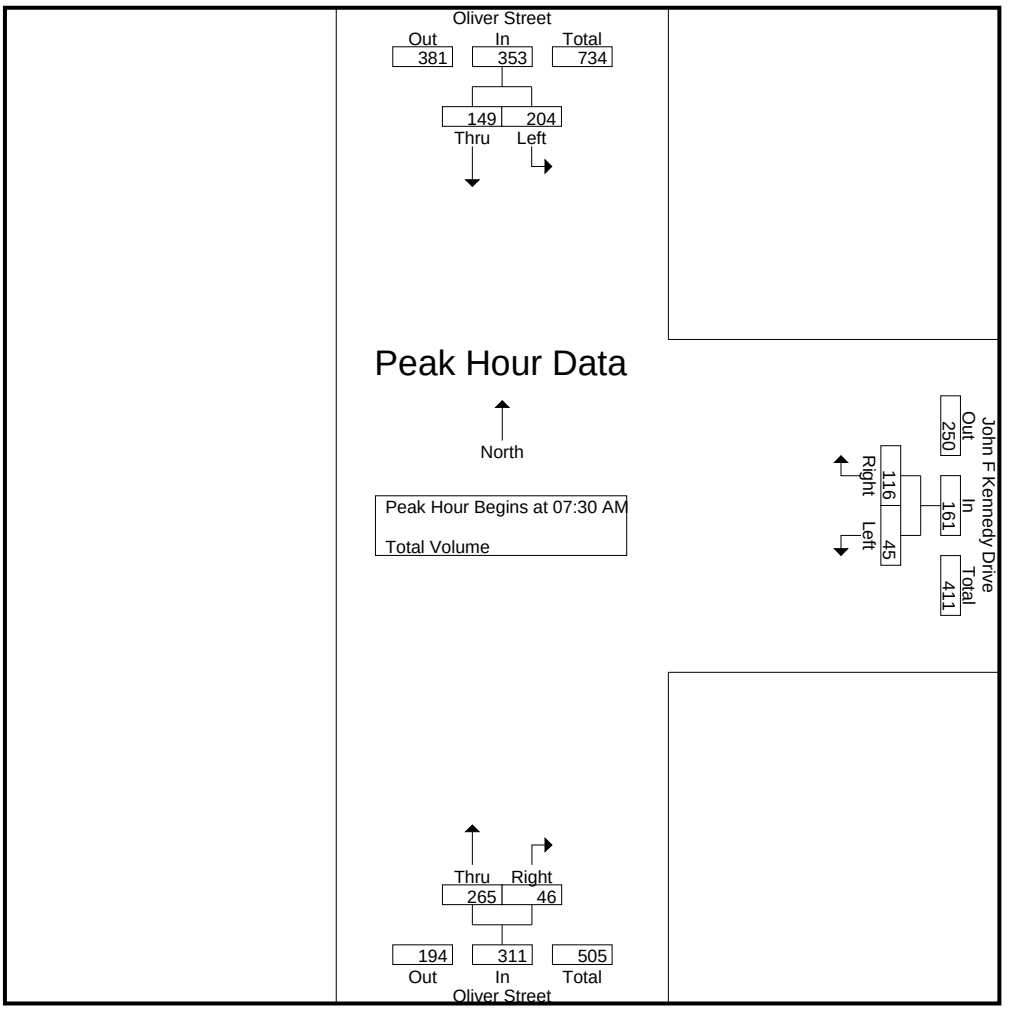

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	25	40	65	2	**39**	41	77	11	88
+15 mins.	48	**49**	97	**17**	36	**53**	34	9	43
+30 mins.	51	24	75	14	17	31	62	8	70
+45 mins.	**80**	36	**116**	12	24	36	**92**	**18**	**110**
Total Volume	204	149	353	45	116	161	265	46	311
% App. Total	57.8	42.2		28	72		85.2	14.8	
PHF	.638	.760	.761	.662	.744	.759	.720	.639	.707

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City of Moreno Valley
N/S: Oliver Street
E/W: John F Kennedy Drive
Weather: Clear

File Name : 08_MRV_Oliver_JFK PM
Site Code : 22523253
Start Date : 3/16/2023
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Groups Printed- Total Volume

	Oliver Street Southbound			John F Kennedy Drive Westbound			Oliver Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	22	9	31	5	11	16	27	10	37	84
04:15 PM	26	10	36	7	12	19	16	2	18	73
04:30 PM	20	14	34	3	7	10	25	5	30	74
04:45 PM	19	16	35	6	4	10	13	5	18	63
Total	87	49	136	21	34	55	81	22	103	294
05:00 PM	18	16	34	4	9	13	10	2	12	59
05:15 PM	20	15	35	2	8	10	18	4	22	67
05:30 PM	22	9	31	6	14	20	20	5	25	76
05:45 PM	25	13	38	3	8	11	15	4	19	68
Total	85	53	138	15	39	54	63	15	78	270
Grand Total	172	102	274	36	73	109	144	37	181	564
Apprch %	62.8	37.2		33	67		79.6	20.4		
Total %	30.5	18.1	48.6	6.4	12.9	19.3	25.5	6.6	32.1	

	Oliver Street Southbound			John F Kennedy Drive Westbound			Oliver Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	22	9	31	5	11	16	**27**	**10**	**37**	**84**
04:15 PM	**26**	10	**36**	**7**	**12**	**19**	16	2	18	73
04:30 PM	20	14	34	3	7	10	25	5	30	74
04:45 PM	19	**16**	35	6	4	10	13	5	18	63
Total Volume	87	49	136	21	34	55	81	22	103	294
% App. Total	64	36		38.2	61.8		78.6	21.4		
PHF	.837	.766	.944	.750	.708	.724	.750	.550	.696	.875

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File Name : 08_MRV_Oliver_JFK PM
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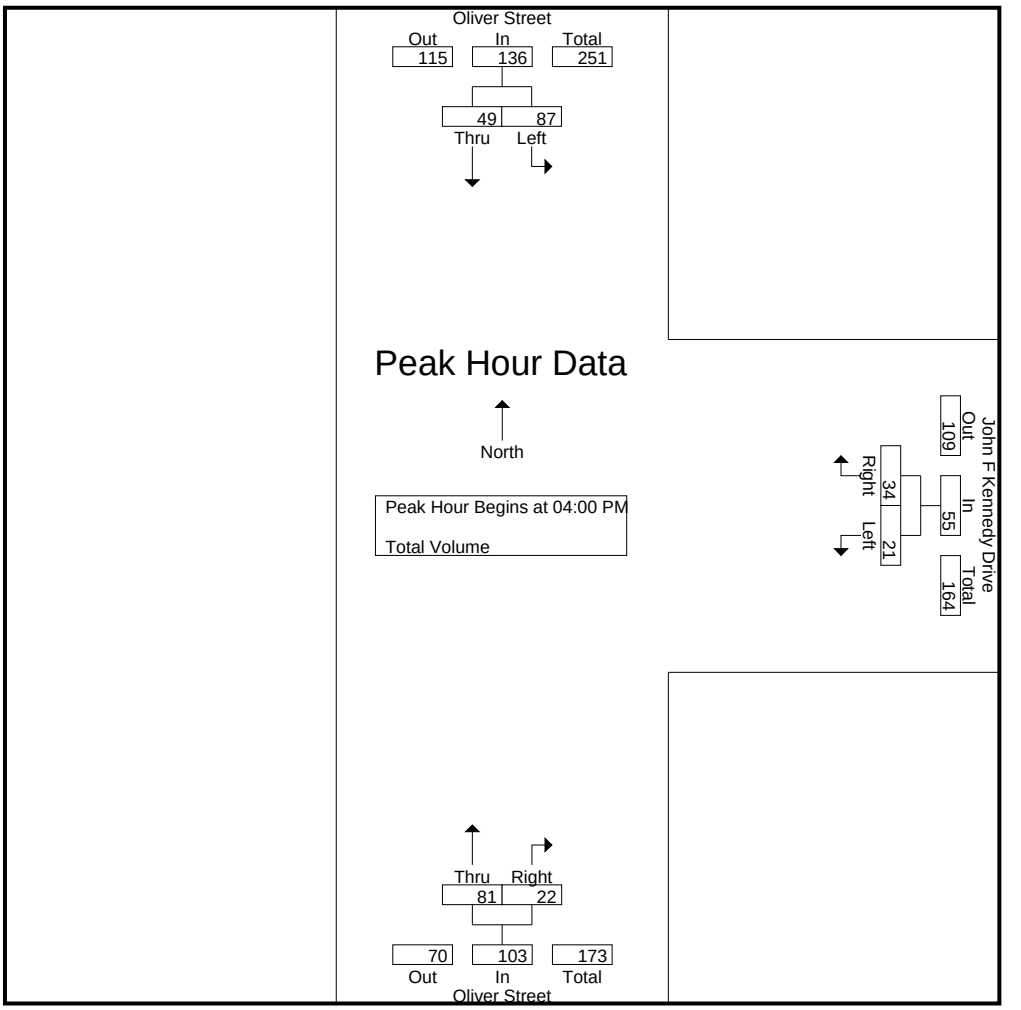

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:15 PM			04:00 PM			04:00 PM		
+0 mins.	**26**	10	**36**	5	11	16	**27**	**10**	**37**
+15 mins.	20	14	34	**7**	**12**	**19**	16	2	18
+30 mins.	19	**16**	35	3	7	10	25	5	30
+45 mins.	18	16	34	6	4	10	13	5	18
Total Volume	83	56	139	21	34	55	81	22	103
% App. Total	59.7	40.3		38.2	61.8		78.6	21.4	
PHF	.798	.875	.965	.750	.708	.724	.750	.550	.696

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City of Moreno Valley
N/S: Oliver Street
E/W: Filaree Avenue
Weather: Clear

File Name : 09_MRV_Oliver_Fil AM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 1

Groups Printed- Total Volume

	Oliver Street Southbound				Filaree Avenue Westbound				Oliver Street Northbound				Filaree Avenue 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	15	0	15	0	0	1	1	0	16	0	16	0	0	0	0	32
07:15 AM	0	22	0	22	8	0	10	18	0	39	0	39	0	0	0	0	79
07:30 AM	0	41	0	41	14	0	15	29	0	71	0	71	0	0	0	0	141
07:45 AM	0	67	0	67	23	0	20	43	0	23	0	23	0	0	0	0	133
Total	0	145	0	145	45	0	46	91	0	149	0	149	0	0	0	0	385
08:00 AM	0	38	0	38	33	0	48	81	2	20	0	22	0	0	0	0	141
08:15 AM	0	52	0	52	57	0	84	141	0	27	0	27	0	0	0	0	220
08:30 AM	0	14	0	14	24	0	37	61	1	12	0	13	0	0	0	0	88
08:45 AM	0	11	0	11	3	0	7	10	0	8	0	8	0	0	0	0	29
Total	0	115	0	115	117	0	176	293	3	67	0	70	0	0	0	0	478
Grand Total	0	260	0	260	162	0	222	384	3	216	0	219	0	0	0	0	863
Apprch %	0	100	0		42.2	0	57.8		1.4	98.6	0		0	0	0		
Total %	0	30.1	0	30.1	18.8	0	25.7	44.5	0.3	25	0	25.4	0	0	0	0	

	Oliver Street Southbound				Filaree Avenue Westbound				Oliver Street Northbound				Filaree Avenue 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	41	0	41	14	0	15	29	0	**71**	0	**71**	0	0	0	0	141
07:45 AM	0	**67**	0	**67**	23	0	20	43	0	23	0	23	0	0	0	0	133
08:00 AM	0	38	0	38	33	0	48	81	**2**	20	0	22	0	0	0	0	141
08:15 AM	0	52	0	52	**57**	0	**84**	**141**	0	27	0	27	0	0	0	0	**220**
Total Volume	0	198	0	198	127	0	167	294	2	141	0	143	0	0	0	0	635
% App. Total	0	100	0		43.2	0	56.8		1.4	98.6	0		0	0	0		
PHF	.000	.739	.000	.739	.557	.000	.497	.521	.250	.496	.000	.504	.000	.000	.000	.000	.722

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City of Moreno Valley
N/S: Oliver Street
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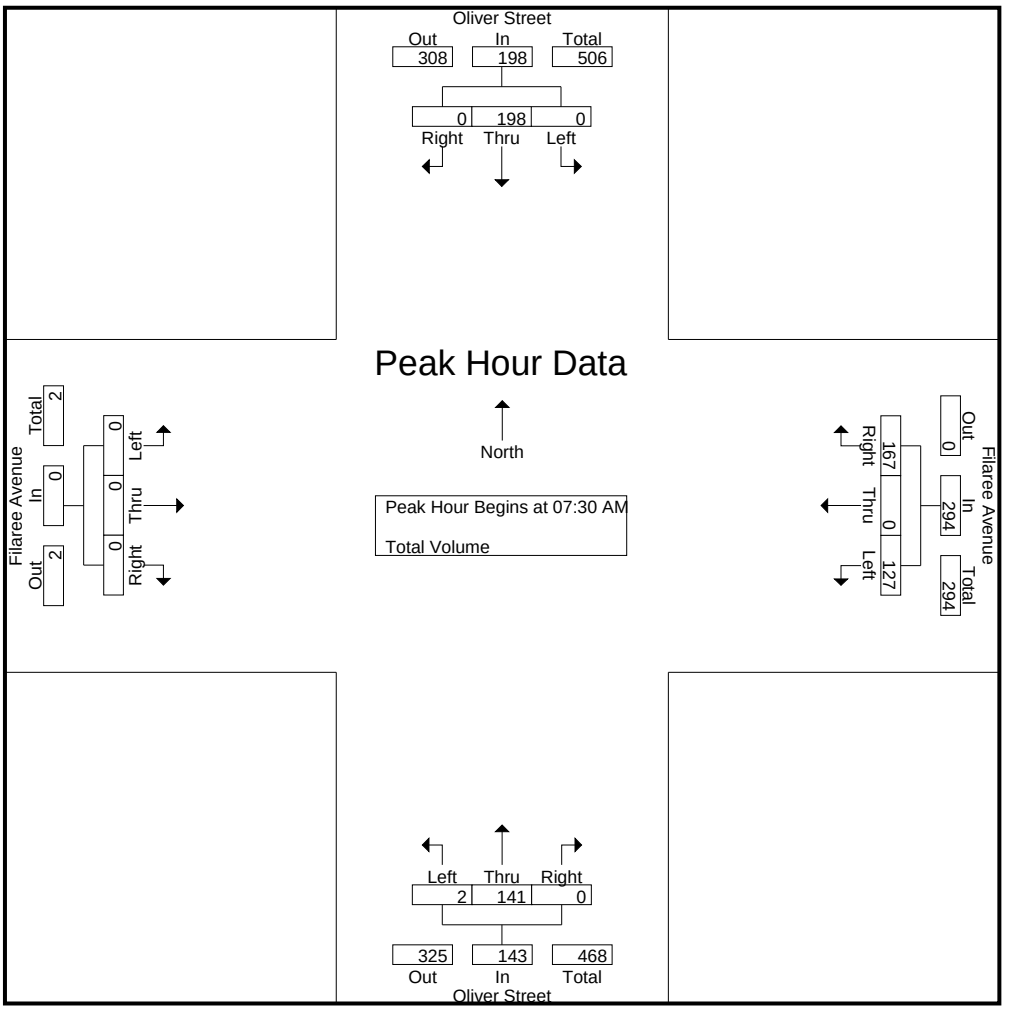
File Name : 09_MRV_Oliver_Fil AM
Site Code : 22523253
Start Date : 3/16/2023



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				07:45 AM				07:15 AM				07:00 AM			
+0 mins.	0	41	0	41	23	0	20	43	0	39	0	39	0	0	0	0
+15 mins.	0	**67**	0	**67**	33	0	48	81	0	**71**	0	**71**	0	0	0	0
+30 mins.	0	38	0	38	**57**	0	**84**	**141**	0	23	0	23	0	0	0	0
+45 mins.	0	52	0	52	24	0	37	61	**2**	20	0	22	0	0	0	0
Total Volume	0	198	0	198	137	0	189	326	2	153	0	155	0	0	0	0
% App. Total	0	100	0		42	0	58		1.3	98.7	0		0	0	0	
PHF	.000	.739	.000	.739	.601	.000	.563	.578	.250	.539	.000	.546	.000	.000	.000	.000

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(951)268-6268

City of Moreno Valley
N/S: Oliver Street
E/W: Filaree Avenue
Weather: Clear

File Name : 09_MRV_Oliver_Fil PM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 1

Groups Printed- Total Volume

	Oliver Street Southbound				Filaree Avenue Westbound				Oliver Street Northbound				Filaree Avenue 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	13	0	13	19	0	17	36	0	20	0	20	0	0	0	0	69
04:15 PM	0	16	0	16	5	0	3	8	0	16	0	16	0	0	0	0	40
04:30 PM	0	17	0	17	1	0	4	5	0	25	0	25	0	0	0	0	47
04:45 PM	0	21	0	21	1	0	2	3	0	15	1	16	0	0	0	0	40
Total	0	67	0	67	26	0	26	52	0	76	1	77	0	0	0	0	196
05:00 PM	1	20	0	21	3	0	1	4	0	9	0	9	0	0	0	0	34
05:15 PM	0	15	0	15	4	0	3	7	1	21	0	22	0	0	0	0	44
05:30 PM	0	18	0	18	3	0	5	8	0	18	0	18	0	0	0	0	44
05:45 PM	0	16	0	16	5	0	2	7	0	17	1	18	0	0	0	0	41
Total	1	69	0	70	15	0	11	26	1	65	1	67	0	0	0	0	163
Grand Total	1	136	0	137	41	0	37	78	1	141	2	144	0	0	0	0	359
Apprch %	0.7	99.3	0		52.6	0	47.4		0.7	97.9	1.4		0	0	0		
Total %	0.3	37.9	0	38.2	11.4	0	10.3	21.7	0.3	39.3	0.6	40.1	0	0	0	0	

	Oliver Street Southbound				Filaree Avenue Westbound				Oliver Street Northbound				Filaree Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	13	0	13	**19**	0	**17**	**36**	0	20	0	20	0	0	0	0	**69**
04:15 PM	0	16	0	16	5	0	3	8	0	16	0	16	0	0	0	0	40
04:30 PM	0	17	0	17	1	0	4	5	0	**25**	0	**25**	0	0	0	0	47
04:45 PM	0	**21**	0	**21**	1	0	2	3	0	15	**1**	16	0	0	0	0	40
Total Volume	0	67	0	67	26	0	26	52	0	76	1	77	0	0	0	0	196
% App. Total	0	100	0		50	0	50		0	98.7	1.3		0	0	0		
PHF	.000	.798	.000	.798	.342	.000	.382	.361	.000	.760	.250	.770	.000	.000	.000	.000	.710

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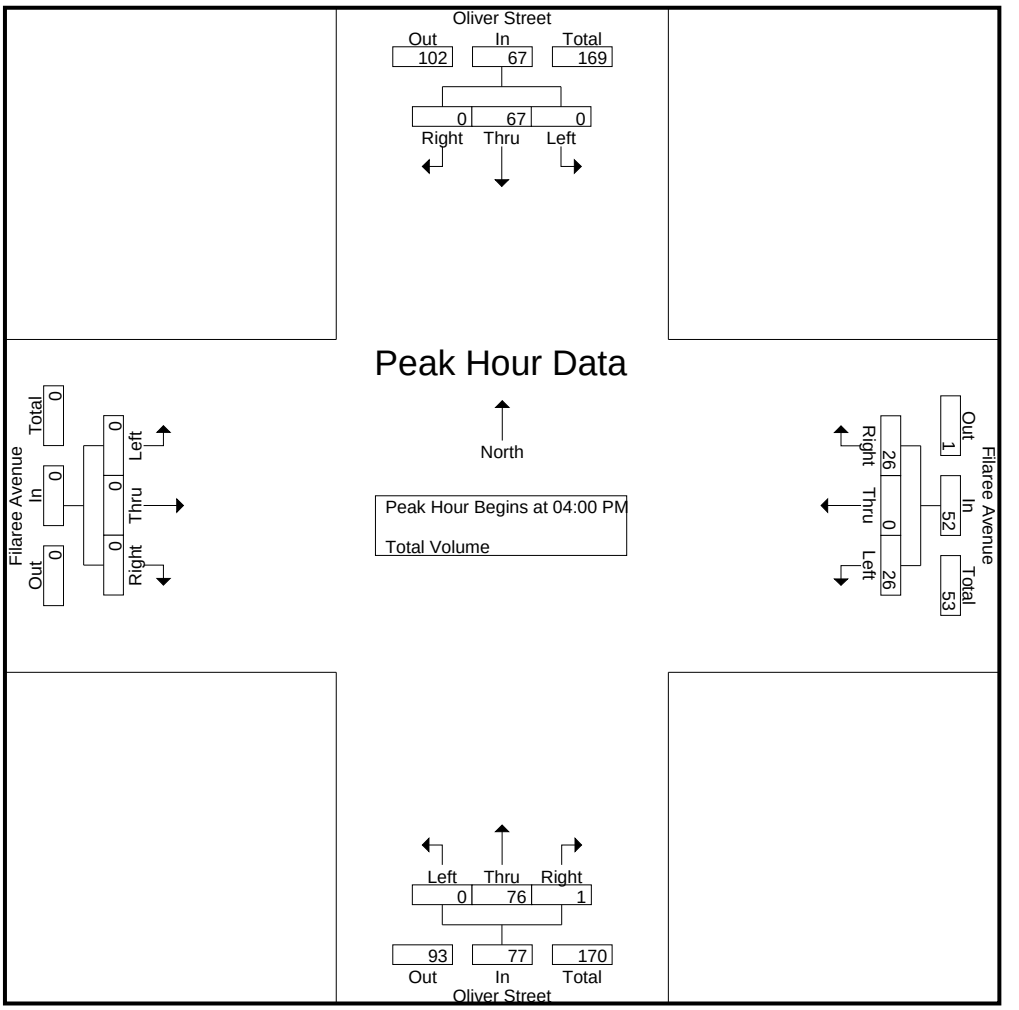
File Name : 09_MRV_Oliver_Fil PM
Site Code : 22523253
Start Date : 3/16/2023



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				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	16	0	16	**19**	0	**17**	**36**	0	20	0	20	0	0	0	0
+15 mins.	0	17	0	17	5	0	3	8	0	16	0	16	0	0	0	0
+30 mins.	0	**21**	0	**21**	1	0	4	5	0	**25**	0	**25**	0	0	0	0
+45 mins.	**1**	20	0	21	1	0	2	3	0	15	**1**	16	0	0	0	0
Total Volume	1	74	0	75	26	0	26	52	0	76	1	77	0	0	0	0
% App. Total	1.3	98.7	0		50	0	50		0	98.7	1.3		0	0	0	
PHF	.250	.881	.000	.893	.342	.000	.382	.361	.000	.760	.250	.770	.000	.000	.000	.000

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City of Moreno Valley
N/S: Oliver Street
E/W: Shellie Way
Weather: Clear

File Name : 10_MRV_Oliver_Shel AM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 1

Groups Printed- Total Volume

	Oliver Street Southbound			Shellie Way Westbound			Oliver Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	13	13	3	2	5	14	0	14	32
07:15 AM	0	32	32	4	3	7	36	11	47	86
07:30 AM	5	50	55	13	8	21	64	17	81	157
07:45 AM	7	81	88	10	0	10	23	17	40	138
Total	12	176	188	30	13	43	137	45	182	413
08:00 AM	9	63	72	9	2	11	21	43	64	147
08:15 AM	31	78	109	20	8	28	18	87	105	242
08:30 AM	3	38	41	12	0	12	11	22	33	86
08:45 AM	0	14	14	5	1	6	7	6	13	33
Total	43	193	236	46	11	57	57	158	215	508
Grand Total	55	369	424	76	24	100	194	203	397	921
Apprch %	13	87		76	24		48.9	51.1		
Total %	6	40.1	46	8.3	2.6	10.9	21.1	22	43.1	

	Oliver Street Southbound			Shellie Way Westbound			Oliver Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	5	50	55	13	**8**	21	**64**	17	81	157
07:45 AM	7	**81**	88	10	0	10	23	17	40	138
08:00 AM	9	63	72	9	2	11	21	43	64	147
08:15 AM	**31**	78	**109**	**20**	8	**28**	18	**87**	**105**	**242**
Total Volume	52	272	324	52	18	70	126	164	290	684
% App. Total	16	84		74.3	25.7		43.4	56.6		
PHF	.419	.840	.743	.650	.563	.625	.492	.471	.690	.707

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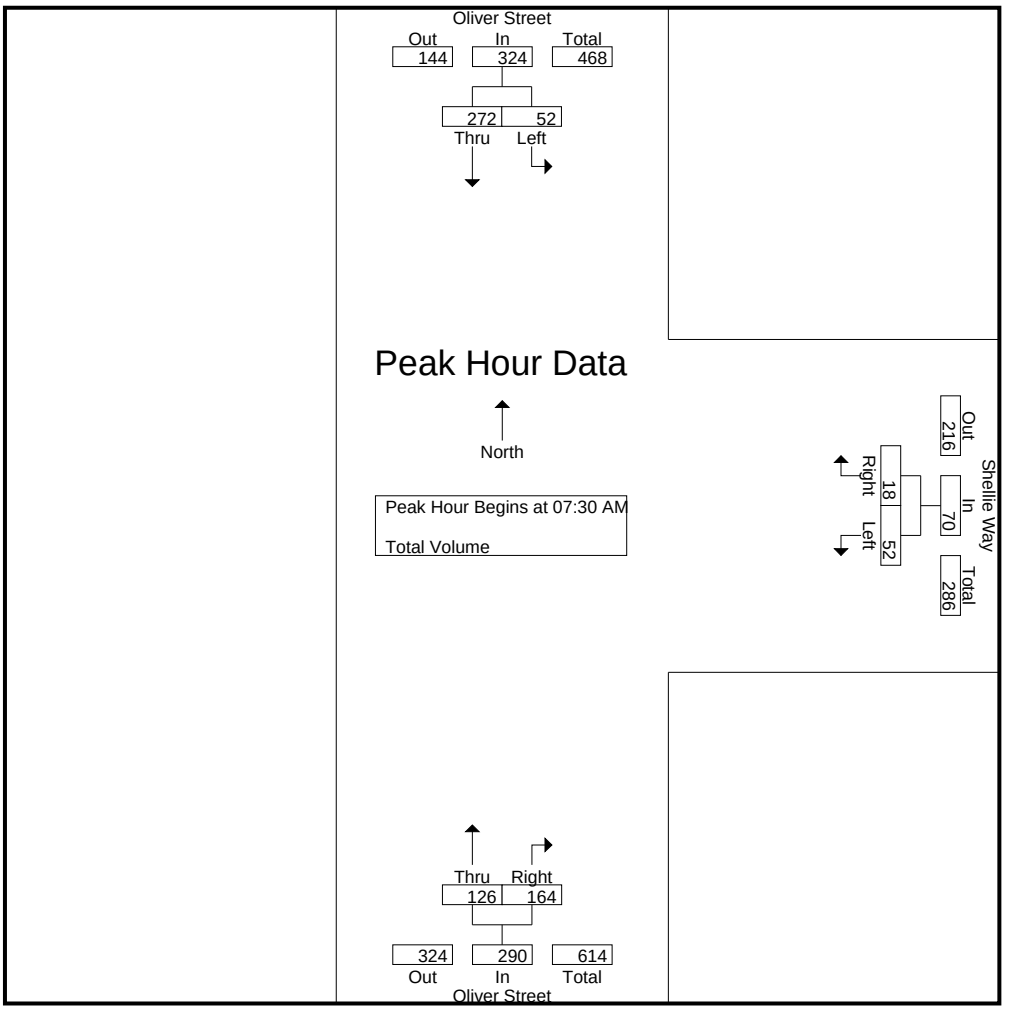
E/W: Shellie Way
Weather: Clear

File Name : 10_MRV_Oliver_Shel AM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 2



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

	07:30 AM			07:30 AM			07:30 AM		
+0 mins.	5	50	55	13	**8**	21	**64**	17	81
+15 mins.	7	**81**	88	10	0	10	23	17	40
+30 mins.	9	63	72	9	2	11	21	43	64
+45 mins.	**31**	78	**109**	**20**	8	**28**	18	**87**	**105**
Total Volume	52	272	324	52	18	70	126	164	290
% App. Total	16	84		74.3	25.7		43.4	56.6	
PHF	.419	.840	.743	.650	.563	.625	.492	.471	.690

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City of Moreno Valley
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E/W: Shellie Way
Weather: Clear

File Name : 10_MRV_Oliver_Shel PM
Site Code : 22523253
Start Date : 3/16/2023
Page No : 1

Groups Printed- Total Volume

	Oliver Street Southbound			Shellie Way Westbound			Oliver Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	3	30	33	5	0	5	20	6	26	64
04:15 PM	1	20	21	2	1	3	15	4	19	43
04:30 PM	4	14	18	3	0	3	24	5	29	50
04:45 PM	1	19	20	4	2	6	14	5	19	45
Total	9	83	92	14	3	17	73	20	93	202
05:00 PM	1	23	24	2	0	2	9	5	14	40
05:15 PM	0	20	20	4	5	9	17	6	23	52
05:30 PM	5	16	21	2	5	7	15	5	20	48
05:45 PM	2	18	20	3	2	5	15	8	23	48
Total	8	77	85	11	12	23	56	24	80	188
Grand Total	17	160	177	25	15	40	129	44	173	390
Apprch %	9.6	90.4		62.5	37.5		74.6	25.4		
Total %	4.4	41	45.4	6.4	3.8	10.3	33.1	11.3	44.4	

	Oliver Street Southbound			Shellie Way Westbound			Oliver Street Northbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	3	**30**	**33**	**5**	0	5	20	**6**	26	**64**
04:15 PM	1	20	21	2	1	3	15	4	19	43
04:30 PM	**4**	14	18	3	0	3	**24**	5	**29**	50
04:45 PM	1	19	20	4	**2**	**6**	14	5	19	45
Total Volume	9	83	92	14	3	17	73	20	93	202
% App. Total	9.8	90.2		82.4	17.6		78.5	21.5		
PHF	.563	.692	.697	.700	.375	.708	.760	.833	.802	.789

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Site Code : 22523253
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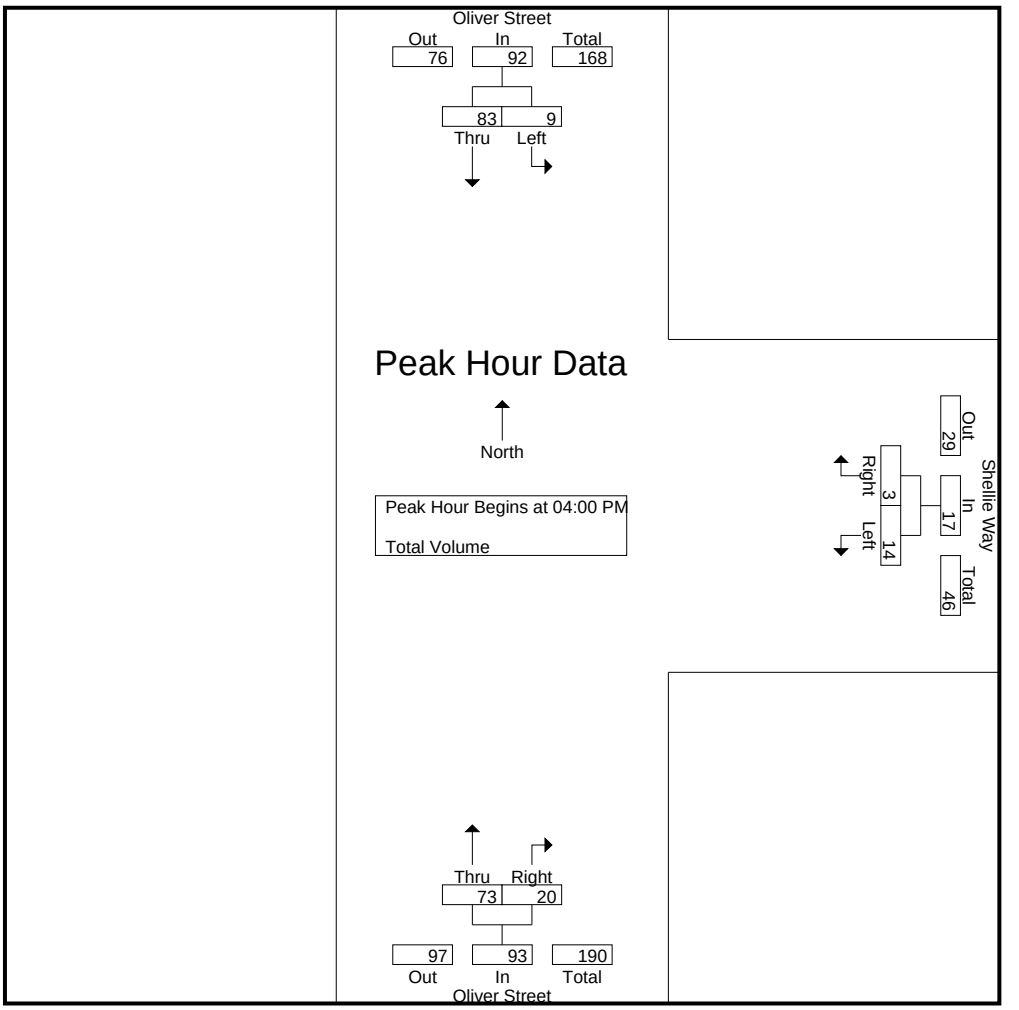


Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM			04:45 PM			04:00 PM		
+0 mins.	3	**30**	**33**	**4**	2	6	20	**6**	26
+15 mins.	1	20	21	2	0	2	15	4	19
+30 mins.	**4**	14	18	4	**5**	**9**	**24**	5	**29**
+45 mins.	1	19	20	2	5	7	14	5	19
Total Volume	9	83	92	12	12	24	73	20	93
% App. Total	9.8	90.2		50	50		78.5	21.5	
PHF	.563	.692	.697	.750	.600	.667	.760	.833	.802

APPENDIX D

INTERSECTION LEVEL OF SERVICE WORKSHEETS

EXISTING

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Grand Vista Dr (NS) at Iris Ave (EW)

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):	0.356

Intersection Setup

Name	Grand Vista Dr		Iris Ave		Iris Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	1	0
Entry Pocket Length [ft]	105.00	100.00	100.00	212.00	296.00	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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Grand Vista Dr		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	97	32	1144	51	12	1072
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]	97	32	1144	51	12	1072
Peak Hour Factor	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	26	9	306	14	3	287
Total Analysis Volume [veh/h]	104	34	1224	55	13	1147
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]	85
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Permissive	Permissive	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	2	0	1	6
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	10	0	7	10
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	47	0	27	0	11	38
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	34	0	18	0	0	10
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	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	85	85	85	85	85	85
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]	7	7	64	64	2	70
g / C, Green / Cycle	0.08	0.08	0.75	0.75	0.02	0.82
(v / s)_i Volume / Saturation Flow Rate	0.06	0.02	0.24	0.03	0.01	0.23
s, saturation flow rate [veh/h]	1781	1589	5094	1589	1781	5094
c, Capacity [veh/h]	146	130	3840	1198	41	4197
d1, Uniform Delay [s]	38.07	36.63	3.39	2.67	40.89	1.70
k, delay calibration	0.11	0.11	0.50	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.30	1.05	0.22	0.07	4.29	0.16
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	0.71	0.26	0.32	0.05	0.32	0.27
d, Delay for Lane Group [s/veh]	44.37	37.68	3.61	2.74	45.17	1.86
Lane Group LOS	D	D	A	A	D	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.36	0.70	1.15	0.14	0.30	0.24
50th-Percentile Queue Length [ft/ln]	58.95	17.49	28.74	3.44	7.54	5.93
95th-Percentile Queue Length [veh/ln]	4.24	1.26	2.07	0.25	0.54	0.43
95th-Percentile Queue Length [ft/ln]	106.12	31.48	51.73	6.20	13.58	10.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	44.37	37.68	3.61	2.74	45.17	1.86
Movement LOS	D	D	A	A	D	A
d_A, Approach Delay [s/veh]	42.72		3.57		2.35	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	5.12					
Intersection LOS	A					
Intersection V/C	0.356					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
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]	33.99	33.99	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.995	3.180	0.000
Crosswalk LOS	A	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1011	541	800
d_b, Bicycle Delay [s]	10.39	22.63	15.31
l_b,int, Bicycle LOS Score for Intersection	1.560	2.263	2.198
Bicycle LOS	A	B	B

Sequence

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

Intersection Level Of Service Report
Intersection 2: Nason St (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	25.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.490

Intersection Setup

Name	Nason St			Nason St			Iris Ave			Iris Ave		
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	1	0	0	2	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	208.00	100.00	100.00	263.00	100.00	207.00	174.00	100.00	163.00
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			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Nason St			Nason St			Iris Ave			Iris Ave		
Base Volume Input [veh/h]	17	38	9	128	17	298	336	811	16	11	730	114
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]	17	38	9	128	17	298	336	811	16	11	730	114
Peak Hour Factor	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380
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	10	2	34	5	79	90	216	4	3	195	30
Total Analysis Volume [veh/h]	18	41	10	136	18	318	358	865	17	12	778	122
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	0	7	10	10	7	10	0	7	10	0
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	50	0	14	53	53	17	41	0	15	39	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	41	0	0	40	40	0	18	0	0	30	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	2.0	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	2.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, 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	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	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	8	10	15	32	13	83	83	2	73	73
g / C, Green / Cycle	0.03	0.07	0.08	0.13	0.27	0.11	0.70	0.70	0.02	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.01	0.03	0.08	0.01	0.20	0.10	0.17	0.01	0.01	0.15	0.08
s, saturation flow rate [veh/h]	1781	1807	1781	1870	1589	3459	5094	1589	1781	5094	1589
c, Capacity [veh/h]	48	124	149	234	425	376	3539	1104	35	3087	963
d1, Uniform Delay [s]	57.42	53.59	54.56	46.36	40.28	53.20	6.73	5.65	58.06	11.00	10.09
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]	4.85	2.18	18.59	0.14	2.66	13.04	0.16	0.03	5.65	0.20	0.27
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	0.38	0.41	0.91	0.08	0.75	0.95	0.24	0.02	0.34	0.25	0.13
d, Delay for Lane Group [s/veh]	62.28	55.77	73.15	46.50	42.95	66.24	6.90	5.67	63.71	11.19	10.36
Lane Group LOS	E	E	E	D	D	E	A	A	E	B	B
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.61	1.57	4.74	0.47	8.61	5.86	2.26	0.12	0.40	2.91	1.31
50th-Percentile Queue Length [ft/ln]	15.15	39.14	118.58	11.86	215.28	146.44	56.58	2.93	10.10	72.78	32.63
95th-Percentile Queue Length [veh/ln]	1.09	2.82	8.31	0.85	13.42	9.83	4.07	0.21	0.73	5.24	2.35
95th-Percentile Queue Length [ft/ln]	27.27	70.45	207.87	21.34	335.59	245.67	101.84	5.27	18.19	131.00	58.73

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.28	55.77	55.77	73.15	46.50	42.95	66.24	6.90	5.67	63.71	11.19	10.36
Movement LOS	E	E	E	E	D	D	E	A	A	E	B	B
d_A, Approach Delay [s/veh]	57.47			51.78			24.01			11.77		
Approach LOS	E			D			C			B		
d_I, Intersection Delay [s/veh]	25.59											
Intersection LOS	C											
Intersection V/C	0.490											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	51.35	51.35	51.35	51.35
l_p,int, Pedestrian LOS Score for Intersection	1.987	2.606	3.289	3.131
Crosswalk LOS	A	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]	767	817	617	583
d_b, Bicycle Delay [s]	22.82	21.01	28.71	30.11
l_b,int, Bicycle LOS Score for Intersection	1.673	2.338	2.242	2.061
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 3: Kaiser Hospital (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	8.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.337

Intersection Setup

Name	Kaiser Hospital		Iris Ave		Iris Ave	
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	1	0	1	0	0	1
Entry Pocket Length [ft]	110.00	100.00	195.00	100.00	100.00	200.00
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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Kaiser Hospital		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	19	21	210	785	757	74
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]	19	21	210	785	757	74
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]	5	6	55	206	199	19
Total Analysis Volume [veh/h]	20	22	221	825	796	78
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Split	Overlap	Protected	Permissive	Permissive	Permissive
Signal Group	7	4	5	2	6	0
Auxiliary Signal Groups		4,5				
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	7	7	10	10	0
Maximum Green [s]	30	30	30	30	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	42	42	19	48	29	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	33	0	0	10	20	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	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No	No	No	No	
Maximum Recall	No	No	No	No	No	
Pedestrian Recall	No	No	No	No	No	
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, 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	0.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	20	13	79	62	62
g / C, Green / Cycle	0.03	0.22	0.14	0.88	0.69	0.69
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.12	0.16	0.16	0.05
s, saturation flow rate [veh/h]	1781	1589	1781	5094	5094	1589
c, Capacity [veh/h]	61	355	258	4467	3504	1093
d1, Uniform Delay [s]	42.48	27.54	37.60	0.81	5.20	4.61
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.10	0.07	8.05	0.09	0.15	0.13
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	0.33	0.06	0.86	0.18	0.23	0.07
d, Delay for Lane Group [s/veh]	45.58	27.61	45.65	0.90	5.35	4.74
Lane Group LOS	D	C	D	A	A	A
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.49	0.38	5.02	0.04	1.30	0.37
50th-Percentile Queue Length [ft/ln]	12.19	9.54	125.43	0.94	32.61	9.15
95th-Percentile Queue Length [veh/ln]	0.88	0.69	8.69	0.07	2.35	0.66
95th-Percentile Queue Length [ft/ln]	21.94	17.17	217.27	1.70	58.70	16.46

Movement, Approach, & Intersection Results

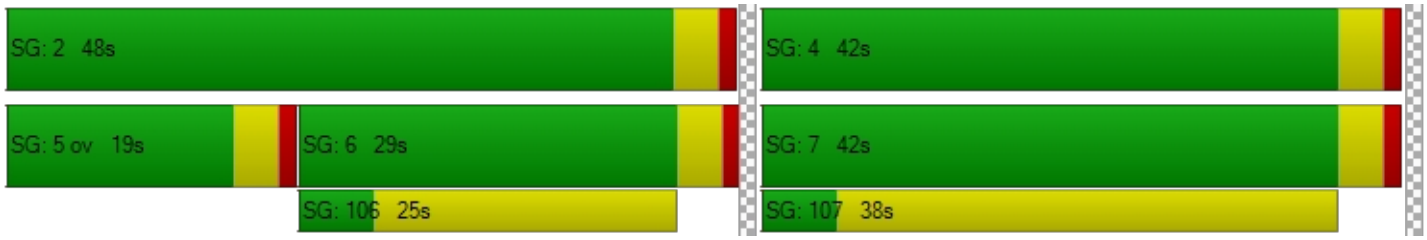
d_M, Delay for Movement [s/veh]	45.58	27.61	45.65	0.90	5.35	4.74
Movement LOS	D	C	D	A	A	A
d_A, Approach Delay [s/veh]	36.17		10.36		5.30	
Approach LOS	D		B		A	
d_I, Intersection Delay [s/veh]	8.66					
Intersection LOS	A					
Intersection V/C	0.337					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
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]	36.46	36.46	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.034	3.028	0.000
Crosswalk LOS	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	844	978	555
d_b, Bicycle Delay [s]	15.03	11.76	23.48
l_b,int, Bicycle LOS Score for Intersection	1.560	2.135	2.040
Bicycle LOS	A	B	B

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Medical Offices (NS) at Iris Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	14.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.120

Intersection Setup

Name	Medical Offices		Iris Ave		Iris Ave	
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	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	280.00	100.00	100.00	192.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	25.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Medical Offices		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	0	29	51	762	806	29
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	29	51	762	806	29
Peak Hour Factor	0.9524	0.9524	0.9524	0.9524	0.9524	0.9524
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	8	13	200	212	8
Total Analysis Volume [veh/h]	0	30	54	800	846	30
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
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	0.00	0.06	0.12	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	12.74	14.11	0.00	0.00	0.00
Movement LOS		B	B	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.19	0.41	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	4.82	10.17	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.74		0.89		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.65					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: Oliver St (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	22.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.686

Intersection Setup

Name	Oliver St			Oliver St			Iris Ave				Iris Ave		
Approach	Northbound			Southbound			Eastbound				Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	52.00	100.00	100.00	100.00	235.0	100.0	100.0	200.0	249.00	100.00	200.00
No. of Lanes in Exit Pocket	0	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	0.00
Speed [mph]	25.00			35.00			50.00				50.00		
Grade [%]	0.00			0.00			0.00				0.00		
Curb Present	No			No			No				No		
Crosswalk	Yes			Yes			Yes				Yes		

Volumes

Name	Oliver St			Oliver St			Iris Ave				Iris Ave		
Base Volume Input [veh/h]	41	51	28	8	38	278	0	231	495	19	26	521	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	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	2.00
Proportion of CAVs [%]	0.00												
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	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	0
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	41	51	28	8	38	278	0	231	495	19	26	521	9
Peak Hour Factor	0.9150	0.9150	0.9150	0.9150	0.9150	0.9150	0.950	0.915	0.915	0.915	0.9150	0.9150	0.9150
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	14	8	2	10	76	0	63	135	5	7	142	2
Total Analysis Volume [veh/h]	45	56	31	9	42	304	0	252	541	21	28	569	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	0
Local Bus Stopping Rate [/h]	0	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]	130
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Split	Split	Split	Split	Split	Split	Permi	Prote	Permi	Permi	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	0	5	2	0	1	6	0
Auxiliary Signal Groups													
Lead / Lag	-	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	0	7	10	0	7	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	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	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	37	0	0	37	0	0	25	35	0	21	31	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	0	17	0	0	22	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	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	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	0.0	2.0	2.0	0.0	2.0	2.0	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	
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	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	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	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	R	C	R	L	C	R	L	C	R
C, Cycle Length [s]	59	59	59	59	59	59	59	59	59	59
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
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
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
g_i, Effective Green Time [s]	9	9	14	14	10	18	18	3	10	10
g / C, Green / Cycle	0.15	0.15	0.23	0.23	0.18	0.30	0.30	0.04	0.17	0.17
(v / s)_i Volume / Saturation Flow Rate	0.06	0.02	0.03	0.19	0.14	0.11	0.01	0.02	0.11	0.01
s, saturation flow rate [veh/h]	1829	1589	1854	1589	1781	5094	1589	1781	5094	1589
c, Capacity [veh/h]	275	239	430	369	316	1542	481	79	864	270
d1, Uniform Delay [s]	22.57	21.75	17.93	21.56	23.30	16.08	14.56	27.43	22.94	20.51
k, delay calibration	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00
d2, Incremental Delay [s]	0.82	0.24	0.12	4.69	4.62	0.14	0.04	2.69	0.86	0.06
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
Rp, platoon ratio	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

Lane Group Results

X, volume / capacity	0.37	0.13	0.12	0.82	0.80	0.35	0.04	0.36	0.66	0.04
d, Delay for Lane Group [s/veh]	23.39	21.99	18.05	26.25	27.92	16.21	14.60	30.12	23.81	20.56
Lane Group LOS	C	C	B	C	C	B	B	C	C	C
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.27	0.37	0.51	4.04	3.25	1.56	0.17	0.40	2.16	0.10
50th-Percentile Queue Length [ft/ln]	31.63	9.29	12.79	101.04	81.21	38.95	4.18	9.91	54.04	2.57
95th-Percentile Queue Length [veh/ln]	2.28	0.67	0.92	7.28	5.85	2.80	0.30	0.71	3.89	0.19
95th-Percentile Queue Length [ft/ln]	56.93	16.73	23.02	181.88	146.19	70.11	7.52	17.84	97.27	4.63

Movement, Approach, & Intersection Results

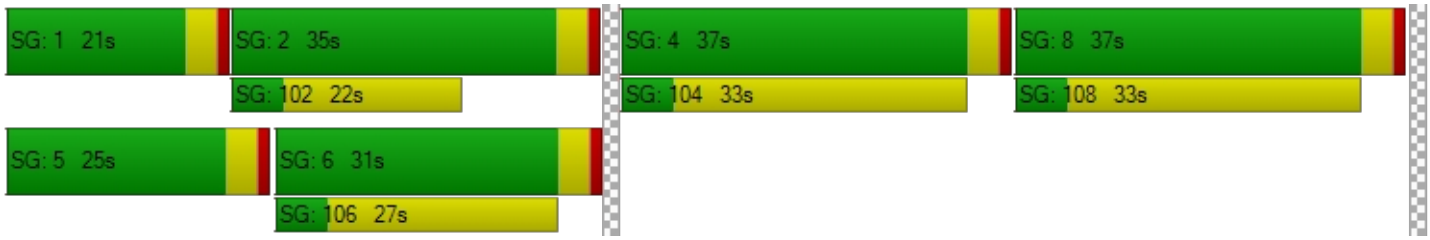
d_M, Delay for Movement [s/veh]	23.39	23.39	21.99	18.05	18.05	26.25	27.92	27.92	16.21	14.60	30.12	23.81	20.56
Movement LOS	C	C	C	B	B	C	C	C	B	B	C	C	C
d_A, Approach Delay [s/veh]	23.06			25.07			19.80				24.04		
Approach LOS	C			C			B				C		
d_I, Intersection Delay [s/veh]	22.36												
Intersection LOS	C												
Intersection V/C	0.686												

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	21.16	21.16	21.16	21.16
l_p,int, Pedestrian LOS Score for Intersection	1.980	2.302	3.057	2.946
Crosswalk LOS	A	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]	1120	1120	1052	916
d_b, Bicycle Delay [s]	5.71	5.71	6.62	8.66
l_b,int, Bicycle LOS Score for Intersection	1.777	2.145	1.869	1.893
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Via Del Lago (NS) at Moreno Beach Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	9.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.328

Intersection Setup

Name	Via Del Lago			Via Del Lago			Iris Ave			Moreno Beach Dr		
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	0	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	93.00	100.00	100.00	100.00	100.00	100.00	110.00	100.00	231.00	315.00	100.00	202.00
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]	35.00			25.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Via Del Lago			Via Del Lago			Iris Ave			Moreno Beach Dr		
Base Volume Input [veh/h]	31	0	31	6	0	30	15	500	30	24	489	7
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]	31	0	31	6	0	30	15	500	30	24	489	7
Peak Hour Factor	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002
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]	9	0	9	2	0	8	4	139	8	7	136	2
Total Analysis Volume [veh/h]	34	0	34	7	0	33	17	555	33	27	543	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]	95
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	10	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	41	41	11	40	0	11	32	0	11	32	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	37	37	0	36	0	0	23	0	0	21	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	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

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	R
C, Cycle Length [s]	32	32	32	32	32	32	32	32	32	32	32
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	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	4	10	0	3	1	10	10	2	10	10
g / C, Green / Cycle	0.06	0.13	0.30	0.01	0.08	0.03	0.31	0.31	0.05	0.33	0.33
(v / s)_i Volume / Saturation Flow Rate	0.02	0.00	0.02	0.00	0.02	0.01	0.11	0.02	0.02	0.11	0.01
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1589	1781	5094	1589	1781	5094	1589
c, Capacity [veh/h]	107	241	481	26	132	59	1580	493	88	1664	519
d1, Uniform Delay [s]	14.49	0.00	8.00	15.69	13.81	15.20	8.60	7.82	14.77	8.17	7.33
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00	1.00
d2, Incremental Delay [s]	1.68	0.00	0.06	5.34	0.97	2.70	0.13	0.06	1.94	0.11	0.01
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
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	0.00	0.07	0.27	0.25	0.29	0.35	0.07	0.31	0.33	0.02
d, Delay for Lane Group [s/veh]	16.18	0.00	8.07	21.02	14.78	17.89	8.73	7.88	16.71	8.28	7.35
Lane Group LOS	B	A	A	C	B	B	A	A	B	A	A
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.23	0.00	0.12	0.08	0.22	0.13	0.50	0.09	0.18	0.46	0.02
50th-Percentile Queue Length [ft/ln]	5.81	0.00	2.91	2.04	5.53	3.16	12.59	2.16	4.39	11.51	0.48
95th-Percentile Queue Length [veh/ln]	0.42	0.00	0.21	0.15	0.40	0.23	0.91	0.16	0.32	0.83	0.03
95th-Percentile Queue Length [ft/ln]	10.45	0.00	5.24	3.68	9.96	5.69	22.66	3.88	7.90	20.72	0.87

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.18	0.00	8.07	21.02	14.78	14.78	17.89	8.73	7.88	16.71	8.28	7.35
Movement LOS	B	A	A	C	B	B	B	A	A	B	A	A
d_A, Approach Delay [s/veh]	12.12			15.87			8.94			8.66		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	9.20											
Intersection LOS	A											
Intersection V/C	0.328											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	8.27	8.27	8.27	8.27
l_p,int, Pedestrian LOS Score for Intersection	2.110	1.900	2.914	2.906
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]	2312	2249	1749	1749
d_b, Bicycle Delay [s]	0.39	0.25	0.25	0.25
l_b,int, Bicycle LOS Score for Intersection	1.672	1.626	1.892	1.878
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 7: Moreno Beach Dr (NS) at John F Kennedy Dr (EW)

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):	0.652

Intersection Setup

Name	Moreno Beach Dr			Moreno Beach Dr			John F Kennedy Dr			John F Kennedy Dr		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	282.00	100.00	248.00	350.00	100.00	186.00	100.00	100.00	190.00	320.00	100.00	196.00
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]	50.00			50.00			35.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Moreno Beach Dr			Moreno Beach Dr			John F Kennedy Dr			John F Kennedy Dr		
Base Volume Input [veh/h]	122	283	101	18	322	236	228	69	202	56	36	6
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	283	101	18	322	236	228	69	202	56	36	6
Peak Hour Factor	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745
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	81	29	5	92	67	65	20	58	16	10	2
Total Analysis Volume [veh/h]	140	324	115	21	368	270	261	79	231	64	41	7
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	10	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	37	37	11	32	0	27	49	0	23	45	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	23	23	0	23	0	0	40	0	0	36	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	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

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	R	L	C	R	L	C	R
C, Cycle Length [s]	47	47	47	47	47	47	47	47	47	47	47	47
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	0.00	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	15	23	2	11	11	9	10	10	4	5	5
g / C, Green / Cycle	0.13	0.33	0.50	0.04	0.24	0.24	0.19	0.21	0.21	0.09	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.08	0.06	0.07	0.01	0.07	0.17	0.15	0.04	0.15	0.04	0.02	0.00
s, saturation flow rate [veh/h]	1781	5094	1589	1781	5094	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	225	1665	791	65	1209	377	340	394	335	153	197	168
d1, Uniform Delay [s]	19.51	11.39	6.40	22.10	14.76	16.49	18.06	15.32	17.16	20.40	19.25	18.91
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.81	0.06	0.08	2.78	0.14	2.54	3.65	0.25	2.54	1.81	0.52	0.10
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	0.62	0.19	0.15	0.32	0.30	0.72	0.77	0.20	0.69	0.42	0.21	0.04
d, Delay for Lane Group [s/veh]	22.31	11.45	6.48	24.88	14.90	19.03	21.71	15.56	19.70	22.21	19.77	19.01
Lane Group LOS	C	B	A	C	B	B	C	B	B	C	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.33	0.58	0.36	0.24	0.83	2.27	2.62	0.62	2.17	0.63	0.37	0.06
50th-Percentile Queue Length [ft/ln]	33.20	14.58	9.00	5.91	20.72	56.66	65.48	15.46	54.34	15.77	9.17	1.54
95th-Percentile Queue Length [veh/ln]	2.39	1.05	0.65	0.43	1.49	4.08	4.71	1.11	3.91	1.14	0.66	0.11
95th-Percentile Queue Length [ft/ln]	59.76	26.24	16.20	10.65	37.29	101.98	117.87	27.82	97.81	28.39	16.50	2.77

Movement, Approach, & Intersection Results

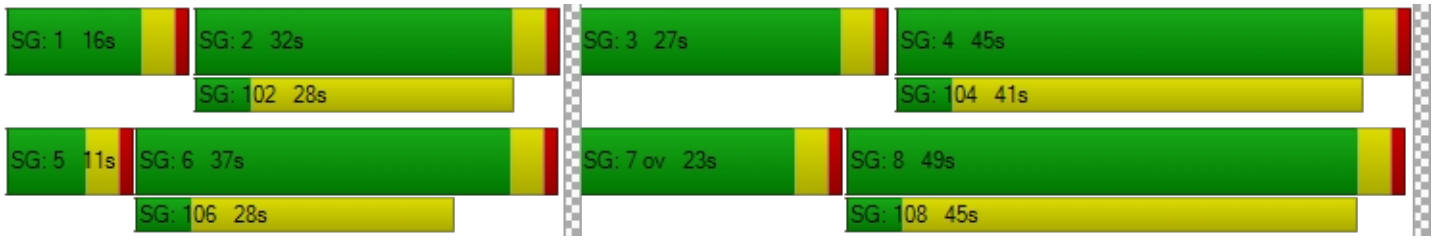
d_M, Delay for Movement [s/veh]	22.31	11.45	6.48	24.88	14.90	19.03	21.71	15.56	19.70	22.21	19.77	19.01
Movement LOS	C	B	A	C	B	B	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	13.09			16.91			20.05			21.12		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	16.94											
Intersection LOS	B											
Intersection V/C	0.652											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	15.30	15.30	15.30	15.30
l_p,int, Pedestrian LOS Score for Intersection	2.944	2.946	2.388	2.362
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1408	1195	1920	1749
d_b, Bicycle Delay [s]	2.05	3.80	0.04	0.37
l_b,int, Bicycle LOS Score for Intersection	1.878	1.922	2.502	1.744
Bicycle LOS	A	A	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Oliver St (NS) at John F Kennedy Dr (EW)

Control Type:	All-way stop	Delay (sec / veh):	14.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.694

Intersection Setup

Name	Oliver St		Oliver St		John F Kennedy Dr	
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	1	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]	35.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Oliver St		Oliver St		John F Kennedy Dr	
Base Volume Input [veh/h]	265	46	204	149	45	116
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]	265	46	204	149	45	116
Peak Hour Factor	0.7872	0.7872	0.7872	0.7872	0.7872	0.7872
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	84	15	65	47	14	37
Total Analysis Volume [veh/h]	337	58	259	189	57	147
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	630	654	645	503	607
Degree of Utilization, x	0.31	0.30	0.69	0.11	0.24

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.34	1.27	5.56	0.38	0.94
95th-Percentile Queue Length [ft]	33.44	31.77	138.92	9.51	23.61
Approach Delay [s/veh]	10.79		20.25	10.59	
Approach LOS	B		C	B	
Intersection Delay [s/veh]	14.80				
Intersection LOS	B				

Intersection Level Of Service Report
Intersection 9: Oliver St (NS) at Filaree Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.276

Intersection Setup

Name	Oliver St		Oliver St		Filaree Ave	
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]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Filaree Ave	
Base Volume Input [veh/h]	141	0	0	198	127	167
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]	141	0	0	198	127	167
Peak Hour Factor	0.7220	0.9500	0.9500	0.7220	0.7220	0.7220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	49	0	0	69	44	58
Total Analysis Volume [veh/h]	195	0	0	274	176	231
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	0.00	0.00	0.00	0.00	0.28	0.25
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	12.79	10.08
Movement LOS	A			A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	1.12	0.97
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	28.06	24.19
d_A, Approach Delay [s/veh]	0.00		0.00		11.25	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.23					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 10: Oliver St (NS) at Shellie Way (EW)

Control Type:	Two-way stop	Delay (sec / veh):	16.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.194

Intersection Setup

Name	Oliver St		Oliver St		Shellie Way	
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	1	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]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Shellie Way	
Base Volume Input [veh/h]	126	164	52	272	52	18
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]	126	164	52	272	52	18
Peak Hour Factor	0.7070	0.7070	0.7070	0.7070	0.7070	0.7070
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	58	18	96	18	6
Total Analysis Volume [veh/h]	178	232	74	385	74	25
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.06	0.00	0.19	0.03
d_M, Delay for Movement [s/veh]	0.00	0.00	8.23	0.00	16.80	11.86
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.13	0.06	0.85	0.85
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.21	1.61	21.37	21.37
d_A, Approach Delay [s/veh]	0.00		1.33		15.55	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.22					
Intersection LOS	C					

PM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Grand Vista Dr (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	3.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.271

Intersection Setup

Name	Grand Vista Dr		Iris Ave		Iris Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	1	0
Entry Pocket Length [ft]	105.00	100.00	100.00	212.00	296.00	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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Grand Vista Dr		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	39	26	922	60	20	1039
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]	39	26	922	60	20	1039
Peak Hour Factor	0.9714	0.9714	0.9714	0.9714	0.9714	0.9714
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	10	7	237	15	5	267
Total Analysis Volume [veh/h]	40	27	949	62	21	1070
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]	85
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Permissive	Permissive	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	2	0	1	6
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	10	0	7	10
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	43	0	31	0	11	42
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	34	0	18	0	0	10
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	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	85	85	85	85	85	85
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	6	65	65	3	71
g / C, Green / Cycle	0.07	0.07	0.76	0.76	0.03	0.84
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.19	0.04	0.01	0.21
s, saturation flow rate [veh/h]	1781	1589	5094	1589	1781	5094
c, Capacity [veh/h]	119	106	3865	1206	60	4275
d1, Uniform Delay [s]	37.90	37.69	3.04	2.58	40.20	1.39
k, delay calibration	0.11	0.11	0.50	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.66	1.25	0.15	0.08	3.48	0.14
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	0.34	0.25	0.25	0.05	0.35	0.25
d, Delay for Lane Group [s/veh]	39.56	38.95	3.19	2.66	43.68	1.53
Lane Group LOS	D	D	A	A	D	A
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.85	0.57	0.78	0.15	0.46	0.06
50th-Percentile Queue Length [ft/ln]	21.21	14.24	19.60	3.71	11.57	1.39
95th-Percentile Queue Length [veh/ln]	1.53	1.03	1.41	0.27	0.83	0.10
95th-Percentile Queue Length [ft/ln]	38.18	25.64	35.28	6.67	20.82	2.50

Movement, Approach, & Intersection Results

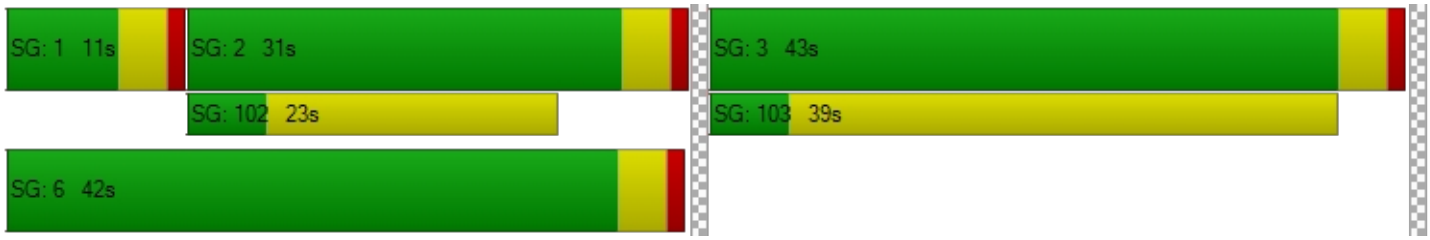
d_M, Delay for Movement [s/veh]	39.56	38.95	3.19	2.66	43.68	1.53
Movement LOS	D	D	A	A	D	A
d_A, Approach Delay [s/veh]	39.31		3.16		2.34	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	3.87					
Intersection LOS	A					
Intersection V/C	0.271					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
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]	33.99	33.99	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.980	3.085	0.000
Crosswalk LOS	A	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	917	635	894
d_b, Bicycle Delay [s]	12.46	19.80	13.01
l_b,int, Bicycle LOS Score for Intersection	1.560	2.116	2.160
Bicycle LOS	A	B	B

Sequence

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



Intersection Level Of Service Report
Intersection 2: Nason St (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	23.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.433

Intersection Setup

Name	Nason St			Nason St			Iris Ave			Iris Ave		
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	1	0	0	2	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	208.00	100.00	100.00	263.00	100.00	207.00	174.00	100.00	163.00
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			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Nason St			Nason St			Iris Ave			Iris Ave		
Base Volume Input [veh/h]	13	15	13	100	27	328	267	655	30	25	703	131
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	15	13	100	27	328	267	655	30	25	703	131
Peak Hour Factor	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502
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	4	3	26	7	86	70	172	8	7	185	34
Total Analysis Volume [veh/h]	14	16	14	105	28	345	281	689	32	26	740	138
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	0	7	10	10	7	10	0	7	10	0
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	50	0	13	52	52	18	37	0	20	39	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	41	0	0	40	40	0	18	0	0	30	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	2.0	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	2.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, 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	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	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	7	9	13	31	14	84	84	4	74	74
g / C, Green / Cycle	0.02	0.06	0.07	0.11	0.26	0.12	0.70	0.70	0.03	0.62	0.62
(v / s)_i Volume / Saturation Flow Rate	0.01	0.02	0.06	0.01	0.22	0.08	0.14	0.02	0.01	0.15	0.09
s, saturation flow rate [veh/h]	1781	1728	1781	1870	1589	3459	5094	1589	1781	5094	1589
c, Capacity [veh/h]	40	98	130	200	409	405	3577	1116	62	3157	985
d1, Uniform Delay [s]	57.79	54.36	54.80	48.58	42.26	50.93	6.16	5.43	56.76	10.16	9.51
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]	5.01	1.74	11.02	0.31	4.76	2.14	0.12	0.05	4.49	0.17	0.30
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	0.35	0.31	0.81	0.14	0.84	0.69	0.19	0.03	0.42	0.23	0.14
d, Delay for Lane Group [s/veh]	62.81	56.10	65.82	48.90	47.02	53.07	6.28	5.48	61.25	10.33	9.80
Lane Group LOS	E	E	E	D	D	D	A	A	E	B	A
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.48	0.93	3.45	0.76	9.88	4.04	1.66	0.21	0.83	2.61	1.42
50th-Percentile Queue Length [ft/ln]	11.97	23.16	86.26	19.06	247.02	101.08	41.56	5.36	20.66	65.23	35.53
95th-Percentile Queue Length [veh/ln]	0.86	1.67	6.21	1.37	15.04	7.28	2.99	0.39	1.49	4.70	2.56
95th-Percentile Queue Length [ft/ln]	21.55	41.70	155.26	34.31	375.90	181.94	74.81	9.64	37.20	117.42	63.95

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.81	56.10	56.10	65.82	48.90	47.02	53.07	6.28	5.48	61.25	10.33	9.80
Movement LOS	E	E	E	E	D	D	D	A	A	E	B	A
d_A, Approach Delay [s/veh]	58.23			51.26			19.38			11.71		
Approach LOS	E			D			B			B		
d_I, Intersection Delay [s/veh]	23.50											
Intersection LOS	C											
Intersection V/C	0.433											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	51.35	51.35	51.35	51.35
l_p,int, Pedestrian LOS Score for Intersection	1.991	2.582	3.244	3.088
Crosswalk LOS	A	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]	766	800	550	583
d_b, Bicycle Delay [s]	22.83	21.61	31.55	30.12
l_b,int, Bicycle LOS Score for Intersection	1.632	2.348	2.111	2.057
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 3: Kaiser Hospital (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	8.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.275

Intersection Setup

Name	Kaiser Hospital		Iris Ave		Iris Ave	
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	1	0	1	0	0	1
Entry Pocket Length [ft]	110.00	100.00	195.00	100.00	100.00	200.00
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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Kaiser Hospital		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	72	39	108	632	643	25
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]	72	39	108	632	643	25
Peak Hour Factor	0.9642	0.9642	0.9642	0.9642	0.9642	0.9642
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	10	28	164	167	6
Total Analysis Volume [veh/h]	75	40	112	655	667	26
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]	85
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Split	Overlap	Protected	Permissive	Permissive	Permissive
Signal Group	7	4	5	2	6	0
Auxiliary Signal Groups		4,5				
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	7	7	10	10	0
Maximum Green [s]	30	30	30	30	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	42	42	14	43	29	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	33	0	0	10	20	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	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No	No	No	No	
Maximum Recall	No	No	No	No	No	
Pedestrian Recall	No	No	No	No	No	
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	85	85	85	85	85	85
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	0.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	17	7	71	60	60
g / C, Green / Cycle	0.07	0.20	0.08	0.84	0.71	0.71
(v / s)_i Volume / Saturation Flow Rate	0.04	0.03	0.06	0.13	0.13	0.02
s, saturation flow rate [veh/h]	1781	1589	1781	5094	5094	1589
c, Capacity [veh/h]	124	314	144	4261	3608	1126
d1, Uniform Delay [s]	38.44	28.09	38.33	1.31	4.16	3.68
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.70	0.18	8.61	0.08	0.11	0.04
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	0.61	0.13	0.78	0.15	0.18	0.02
d, Delay for Lane Group [s/veh]	43.14	28.27	46.94	1.38	4.28	3.72
Lane Group LOS	D	C	D	A	A	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.68	0.69	2.49	0.04	0.82	0.09
50th-Percentile Queue Length [ft/ln]	41.89	17.14	62.18	1.12	20.59	2.33
95th-Percentile Queue Length [veh/ln]	3.02	1.23	4.48	0.08	1.48	0.17
95th-Percentile Queue Length [ft/ln]	75.40	30.84	111.93	2.01	37.06	4.19

Movement, Approach, & Intersection Results

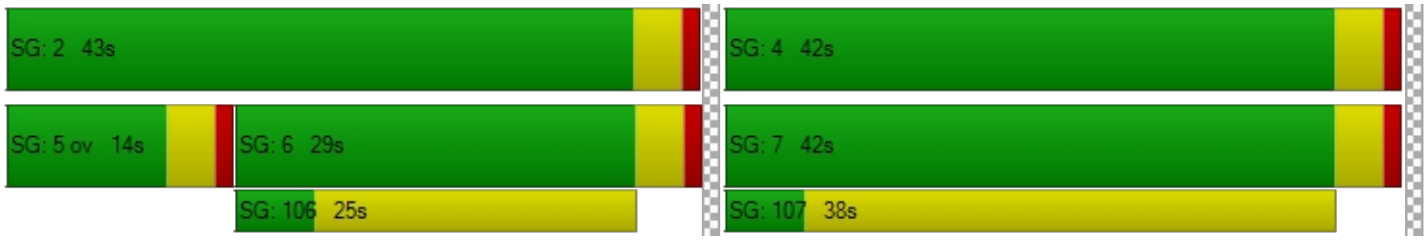
d_M, Delay for Movement [s/veh]	43.14	28.27	46.94	1.38	4.28	3.72
Movement LOS	D	C	D	A	A	A
d_A, Approach Delay [s/veh]	37.97		8.03		4.25	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	8.56					
Intersection LOS	A					
Intersection V/C	0.275					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
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]	33.99	33.99	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.007	2.935	0.000
Crosswalk LOS	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	894	917	588
d_b, Bicycle Delay [s]	13.01	12.46	21.19
l_b,int, Bicycle LOS Score for Intersection	1.560	1.981	1.941
Bicycle LOS	A	A	A

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Medical Offices (NS) at Iris Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.097

Intersection Setup

Name	Medical Offices		Iris Ave		Iris Ave	
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	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	280.00	100.00	100.00	192.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	25.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Medical Offices		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	0	55	15	679	630	12
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	55	15	679	630	12
Peak Hour Factor	0.9763	0.9763	0.9763	0.9763	0.9763	0.9763
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	14	4	174	161	3
Total Analysis Volume [veh/h]	0	56	15	695	645	12
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
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	0.00	0.10	0.03	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	11.94	11.47	0.00	0.00	0.00
Movement LOS		B	B	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.32	0.08	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	8.06	2.02	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	11.94		0.24		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.59					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: Oliver St (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	14.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.359

Intersection Setup

Name	Oliver St			Oliver St			Iris Ave				Iris Ave		
Approach	Northbound			Southbound			Eastbound				Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	52.00	100.00	100.00	100.00	235.0	100.0	100.0	200.0	249.00	100.00	200.00
No. of Lanes in Exit Pocket	0	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	0.00
Speed [mph]	25.00			35.00			50.00				50.00		
Grade [%]	0.00			0.00			0.00				0.00		
Curb Present	No			No			No				No		
Crosswalk	Yes			Yes			Yes				Yes		

Volumes

Name	Oliver St			Oliver St			Iris Ave				Iris Ave		
Base Volume Input [veh/h]	26	15	15	3	20	75	0	76	566	34	39	543	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	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	2.00
Proportion of CAVs [%]	0.00												
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	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	0
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	26	15	15	3	20	75	0	76	566	34	39	543	2
Peak Hour Factor	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.950	0.982	0.982	0.982	0.9820	0.9820	0.9820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	4	4	1	5	19	0	19	144	9	10	138	1
Total Analysis Volume [veh/h]	26	15	15	3	20	76	0	77	576	35	40	553	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	0
Local Bus Stopping Rate [/h]	0	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]	130
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Split	Split	Split	Split	Split	Split	Permi	Prote	Permi	Permi	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	0	5	2	0	1	6	0
Auxiliary Signal Groups													
Lead / Lag	-	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	0	7	10	0	7	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	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	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	37	0	0	37	0	0	25	35	0	21	31	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	0	17	0	0	22	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	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	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	0.0	2.0	2.0	0.0	2.0	2.0	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	
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	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	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	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	R	C	R	L	C	R	L	C	R
C, Cycle Length [s]	42	42	42	42	42	42	42	42	42	42
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
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
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
g_i, Effective Green Time [s]	5	5	7	7	4	12	12	3	10	10
g / C, Green / Cycle	0.12	0.12	0.17	0.17	0.10	0.27	0.27	0.06	0.24	0.24
(v / s)_i Volume / Saturation Flow Rate	0.02	0.01	0.01	0.05	0.04	0.11	0.02	0.02	0.11	0.00
s, saturation flow rate [veh/h]	1813	1589	1858	1589	1781	5094	1589	1781	5094	1589
c, Capacity [veh/h]	213	187	309	264	180	1394	435	115	1207	376
d1, Uniform Delay [s]	16.85	16.63	14.89	15.45	17.85	12.58	11.41	18.93	13.82	12.33
k, delay calibration	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00
d2, Incremental Delay [s]	0.43	0.18	0.10	0.59	1.60	0.20	0.08	1.80	0.27	0.01
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
Rp, platoon ratio	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

Lane Group Results

X, volume / capacity	0.19	0.08	0.07	0.29	0.43	0.41	0.08	0.35	0.46	0.01
d, Delay for Lane Group [s/veh]	17.29	16.81	14.99	16.04	19.45	12.78	11.49	20.73	14.09	12.34
Lane Group LOS	B	B	B	B	B	B	B	C	B	B
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.35	0.13	0.16	0.57	0.62	1.04	0.18	0.35	1.09	0.01
50th-Percentile Queue Length [ft/ln]	8.69	3.14	4.09	14.35	15.52	25.99	4.43	8.75	27.21	0.27
95th-Percentile Queue Length [veh/ln]	0.63	0.23	0.29	1.03	1.12	1.87	0.32	0.63	1.96	0.02
95th-Percentile Queue Length [ft/ln]	15.63	5.65	7.36	25.83	27.94	46.79	7.97	15.75	48.98	0.49

Movement, Approach, & Intersection Results

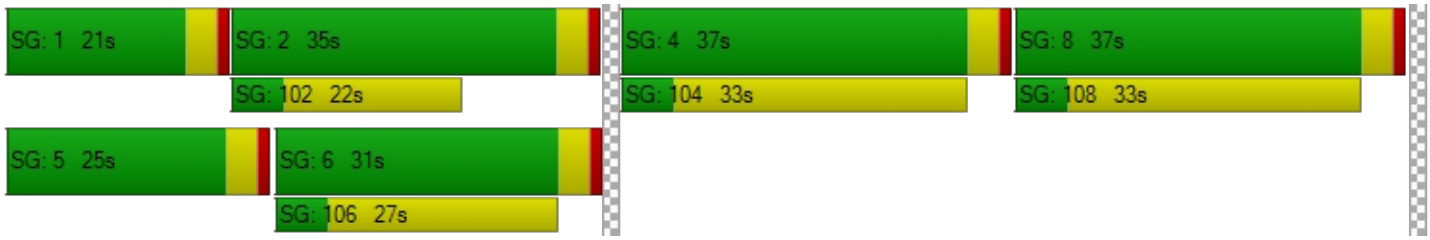
d_M, Delay for Movement [s/veh]	17.29	17.29	16.81	14.99	14.99	16.04	19.45	19.45	12.78	11.49	20.73	14.09	12.34
Movement LOS	B	B	B	B	B	B	B	B	B	B	C	B	B
d_A, Approach Delay [s/veh]	17.16			15.80			13.46				14.53		
Approach LOS	B			B			B				B		
d_I, Intersection Delay [s/veh]	14.21												
Intersection LOS	B												
Intersection V/C	0.359												

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	13.00	13.00	13.00	13.00
l_p,int, Pedestrian LOS Score for Intersection	1.941	2.146	2.958	2.927
Crosswalk LOS	A	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]	1569	1569	1474	1283
d_b, Bicycle Delay [s]	0.98	0.98	1.46	2.70
l_b,int, Bicycle LOS Score for Intersection	1.652	1.723	1.896	1.887
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Via Del Lago (NS) at Moreno Beach Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	7.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.315

Intersection Setup

Name	Via Del Lago			Via Del Lago			Iris Ave			Moreno Beach Dr		
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	0	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	93.00	100.00	100.00	100.00	100.00	100.00	110.00	100.00	231.00	315.00	100.00	202.00
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]	35.00			25.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Via Del Lago			Via Del Lago			Iris Ave			Moreno Beach Dr		
Base Volume Input [veh/h]	18	1	21	3	1	12	11	541	27	30	551	7
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]	18	1	21	3	1	12	11	541	27	30	551	7
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	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	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	5	1	0	3	3	140	7	8	142	2
Total Analysis Volume [veh/h]	19	1	22	3	1	12	11	559	28	31	569	7
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	10	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	41	41	11	40	0	11	32	0	11	32	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	37	37	0	36	0	0	23	0	0	21	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	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

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	R
C, Cycle Length [s]	30	30	30	30	30	30	30	30	30	30	30
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	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	1	2	8	0	1	1	10	10	2	11	11
g / C, Green / Cycle	0.04	0.07	0.26	0.01	0.04	0.02	0.33	0.33	0.06	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.01	0.00	0.01	0.00	0.01	0.01	0.11	0.02	0.02	0.11	0.00
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1608	1781	5094	1589	1781	5094	1589
c, Capacity [veh/h]	68	128	413	14	62	42	1693	528	104	1869	583
d1, Uniform Delay [s]	14.04	13.04	8.34	14.81	14.00	14.41	7.52	6.82	13.56	6.78	6.05
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00	1.00
d2, Incremental Delay [s]	2.18	0.02	0.05	6.89	1.66	3.19	0.11	0.04	1.59	0.09	0.01
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
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	0.28	0.01	0.05	0.21	0.21	0.26	0.33	0.05	0.30	0.30	0.01
d, Delay for Lane Group [s/veh]	16.23	13.06	8.39	21.69	15.67	17.59	7.63	6.86	15.15	6.87	6.06
Lane Group LOS	B	B	A	C	B	B	A	A	B	A	A
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.13	0.01	0.07	0.04	0.10	0.09	0.38	0.06	0.17	0.32	0.01
50th-Percentile Queue Length [ft/ln]	3.37	0.14	1.85	1.11	2.46	2.13	9.46	1.38	4.32	8.09	0.29
95th-Percentile Queue Length [veh/ln]	0.24	0.01	0.13	0.08	0.18	0.15	0.68	0.10	0.31	0.58	0.02
95th-Percentile Queue Length [ft/ln]	6.07	0.25	3.33	2.00	4.42	3.83	17.02	2.48	7.77	14.57	0.52

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.23	13.06	8.39	21.69	15.67	15.67	17.59	7.63	6.86	15.15	6.87	6.06
Movement LOS	B	B	A	C	B	B	B	A	A	B	A	A
d_A, Approach Delay [s/veh]	12.05			16.80			7.78			7.28		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	7.80											
Intersection LOS	A											
Intersection V/C	0.315											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	7.27	7.27	7.27	7.27
l_p,int, Pedestrian LOS Score for Intersection	2.097	1.887	2.906	2.904
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]	2482	2415	1878	1878
d_b, Bicycle Delay [s]	0.87	0.64	0.06	0.06
l_b,int, Bicycle LOS Score for Intersection	1.629	1.586	1.889	1.893
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 7: Moreno Beach Dr (NS) at John F Kennedy Dr (EW)

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):	0.669

Intersection Setup

Name	Moreno Beach Dr			Moreno Beach Dr			John F Kennedy Dr			John F Kennedy Dr		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	282.00	100.00	248.00	350.00	100.00	186.00	100.00	100.00	190.00	320.00	100.00	196.00
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]	50.00			50.00			35.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Moreno Beach Dr			Moreno Beach Dr			John F Kennedy Dr			John F Kennedy Dr		
Base Volume Input [veh/h]	114	319	61	10	319	240	307	24	66	41	12	4
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	319	61	10	319	240	307	24	66	41	12	4
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
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	86	16	3	86	65	83	6	18	11	3	1
Total Analysis Volume [veh/h]	123	345	66	11	345	259	332	26	71	44	13	4
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	10	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	35	35	11	32	0	29	49	0	25	45	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	23	23	0	23	0	0	40	0	0	36	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	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

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	R	L	C	R	L	C	R
C, Cycle Length [s]	44	44	44	44	44	44	44	44	44	44	44	44
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	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	5	15	22	1	10	10	10	9	9	3	2	2
g / C, Green / Cycle	0.12	0.34	0.49	0.02	0.23	0.23	0.24	0.21	0.21	0.07	0.04	0.04
(v / s)_i Volume / Saturation Flow Rate	0.07	0.07	0.04	0.01	0.07	0.16	0.19	0.01	0.04	0.02	0.01	0.00
s, saturation flow rate [veh/h]	1781	5094	1589	1781	5094	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	222	1717	787	37	1186	370	422	398	339	120	82	69
d1, Uniform Delay [s]	18.18	10.42	5.88	21.33	13.95	15.53	15.82	13.88	14.32	19.71	20.35	20.26
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.15	0.06	0.05	4.51	0.13	2.40	3.30	0.07	0.30	1.87	0.90	0.34
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	0.55	0.20	0.08	0.30	0.29	0.70	0.79	0.07	0.21	0.37	0.16	0.06
d, Delay for Lane Group [s/veh]	20.34	10.47	5.93	25.83	14.08	17.94	19.12	13.95	14.63	21.57	21.25	20.60
Lane Group LOS	C	B	A	C	B	B	B	B	B	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.04	0.54	0.17	0.14	0.70	1.98	2.93	0.18	0.51	0.42	0.13	0.04
50th-Percentile Queue Length [ft/ln]	26.12	13.53	4.35	3.41	17.60	49.40	73.18	4.48	12.82	10.39	3.17	0.98
95th-Percentile Queue Length [veh/ln]	1.88	0.97	0.31	0.25	1.27	3.56	5.27	0.32	0.92	0.75	0.23	0.07
95th-Percentile Queue Length [ft/ln]	47.02	24.35	7.83	6.13	31.68	88.92	131.72	8.07	23.08	18.70	5.71	1.76

Movement, Approach, & Intersection Results

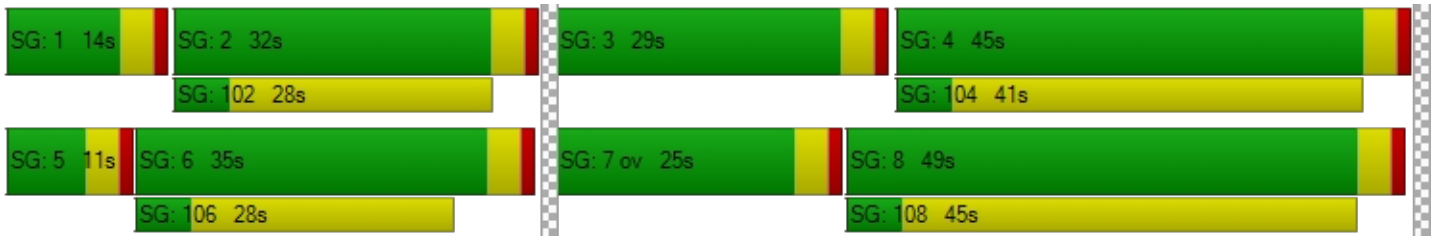
d_M, Delay for Movement [s/veh]	20.34	10.47	5.93	25.83	14.08	17.94	19.12	13.95	14.63	21.57	21.25	20.60
Movement LOS	C	B	A	C	B	B	B	B	B	C	C	C
d_A, Approach Delay [s/veh]	12.18			15.92			18.07			21.44		
Approach LOS	B			B			B			C		
d_I, Intersection Delay [s/veh]	15.47											
Intersection LOS	B											
Intersection V/C	0.669											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	13.91	13.91	13.91	13.91
l_p,int, Pedestrian LOS Score for Intersection	2.890	2.952	2.328	2.311
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1410	1273	2046	1864
d_b, Bicycle Delay [s]	1.92	2.91	0.01	0.10
l_b,int, Bicycle LOS Score for Intersection	1.853	1.898	2.267	1.660
Bicycle LOS	A	A	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Oliver St (NS) at John F Kennedy Dr (EW)

Control Type:	All-way stop	Delay (sec / veh):	8.3
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.204

Intersection Setup

Name	Oliver St		Oliver St		John F Kennedy Dr	
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	1	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]	35.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Oliver St		Oliver St		John F Kennedy Dr	
Base Volume Input [veh/h]	81	22	87	49	21	34
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]	81	22	87	49	21	34
Peak Hour Factor	0.8750	0.8750	0.8750	0.8750	0.8750	0.8750
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	6	25	14	6	10
Total Analysis Volume [veh/h]	93	25	99	56	24	39
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	747	797	758	634	805
Degree of Utilization, x	0.08	0.07	0.20	0.04	0.05

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.26	0.24	0.76	0.12	0.15
95th-Percentile Queue Length [ft]	6.41	5.99	19.08	2.95	3.81
Approach Delay [s/veh]	7.76		8.96	7.86	
Approach LOS	A		A	A	
Intersection Delay [s/veh]	8.33				
Intersection LOS	A				

Intersection Level Of Service Report
Intersection 9: Oliver St (NS) at Filaree Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.045

Intersection Setup

Name	Oliver St		Oliver St		Filaree Ave	
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]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Filaree Ave	
Base Volume Input [veh/h]	76	0	0	67	26	26
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]	76	0	0	67	26	26
Peak Hour Factor	0.7101	0.9500	0.9500	0.7101	0.7101	0.7101
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	0	0	24	9	9
Total Analysis Volume [veh/h]	107	0	0	94	37	37
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	0.00	0.00	0.00	0.00	0.05	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	9.58	8.73
Movement LOS	A			A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.14	0.11
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	3.53	2.87
d_A, Approach Delay [s/veh]	0.00		0.00		9.16	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.46					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 10: Oliver St (NS) at Shellie Way (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.023

Intersection Setup

Name	Oliver St		Oliver St		Shellie Way	
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	1	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]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Shellie Way	
Base Volume Input [veh/h]	73	20	9	83	14	3
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]	73	20	9	83	14	3
Peak Hour Factor	0.7891	0.7891	0.7891	0.7891	0.7891	0.7891
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	23	6	3	26	4	1
Total Analysis Volume [veh/h]	93	25	11	105	18	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.01	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.46	0.00	9.70	8.74
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.01	0.08	0.08
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.46	0.23	2.07	2.07
d_A, Approach Delay [s/veh]	0.00		0.71		9.53	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.14					
Intersection LOS	A					

EXISTING PLUS AMBIENT GROWTH PLUS PROJECT

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Grand Vista Dr (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	5.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.379

Intersection Setup

Name	Grand Vista Dr		Iris Ave		Iris Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	1	0
Entry Pocket Length [ft]	105.00	100.00	100.00	212.00	296.00	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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Grand Vista Dr		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	97	32	1144	51	12	1072
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	8	16	0	8	15
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]	101	41	1206	53	20	1130
Peak Hour Factor	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	11	322	14	5	302
Total Analysis Volume [veh/h]	108	44	1290	57	21	1209
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]	85
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Permissive	Permissive	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	2	0	1	6
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	10	0	7	10
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	47	0	27	0	11	38
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	34	0	18	0	0	10
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	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	85	85	85	85	85	85
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]	7	7	63	63	3	70
g / C, Green / Cycle	0.08	0.08	0.74	0.74	0.03	0.82
(v / s)_i Volume / Saturation Flow Rate	0.06	0.03	0.25	0.04	0.01	0.24
s, saturation flow rate [veh/h]	1781	1589	5094	1589	1781	5094
c, Capacity [veh/h]	152	136	3770	1176	60	4180
d1, Uniform Delay [s]	37.88	36.60	3.85	2.98	40.20	1.79
k, delay calibration	0.11	0.11	0.50	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.01	1.37	0.25	0.08	3.48	0.18
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	0.71	0.32	0.34	0.05	0.35	0.29
d, Delay for Lane Group [s/veh]	43.90	37.97	4.10	3.06	43.68	1.97
Lane Group LOS	D	D	A	A	D	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.43	0.91	1.42	0.16	0.46	0.30
50th-Percentile Queue Length [ft/ln]	60.84	22.74	35.59	4.07	11.57	7.42
95th-Percentile Queue Length [veh/ln]	4.38	1.64	2.56	0.29	0.83	0.53
95th-Percentile Queue Length [ft/ln]	109.51	40.93	64.06	7.32	20.82	13.36

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	43.90	37.97	4.10	3.06	43.68	1.97
Movement LOS	D	D	A	A	D	A
d_A, Approach Delay [s/veh]	42.18		4.05		2.68	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	5.56					
Intersection LOS	A					
Intersection V/C	0.379					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
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]	33.99	33.99	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.001	3.211	0.000
Crosswalk LOS	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1011	541	800
d_b, Bicycle Delay [s]	10.39	22.63	15.31
l_b,int, Bicycle LOS Score for Intersection	1.560	2.300	2.236
Bicycle LOS	A	B	B

Sequence

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

Intersection Level Of Service Report
Intersection 2: Nason St (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	27.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.509

Intersection Setup

Name	Nason St			Nason St			Iris Ave			Iris Ave		
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	1	0	0	2	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	208.00	100.00	100.00	263.00	100.00	207.00	174.00	100.00	163.00
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			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Nason St			Nason St			Iris Ave			Iris Ave		
Base Volume Input [veh/h]	17	38	9	128	17	298	336	811	16	11	730	114
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
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	4	0	0	0	24	0	0	23	4
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]	18	40	9	137	18	310	350	868	17	11	782	123
Peak Hour Factor	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380
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	11	2	37	5	83	93	231	5	3	208	33
Total Analysis Volume [veh/h]	19	43	10	146	19	330	373	925	18	12	834	131
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	0	7	10	10	7	10	0	7	10	0
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	50	0	14	53	53	17	41	0	15	39	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	41	0	0	40	40	0	18	0	0	30	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	2.0	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	2.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, 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	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	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	8	10	15	32	13	83	83	2	73	73
g / C, Green / Cycle	0.03	0.07	0.08	0.13	0.27	0.11	0.69	0.69	0.02	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.01	0.03	0.08	0.01	0.21	0.11	0.18	0.01	0.01	0.16	0.08
s, saturation flow rate [veh/h]	1781	1810	1781	1870	1589	3459	5094	1589	1781	5094	1589
c, Capacity [veh/h]	50	126	149	234	425	376	3534	1103	35	3082	962
d1, Uniform Delay [s]	57.33	53.53	54.90	46.39	40.67	53.46	6.87	5.69	58.06	11.20	10.20
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]	4.79	2.23	29.77	0.15	3.10	20.05	0.18	0.03	5.65	0.22	0.29
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	0.38	0.42	0.98	0.08	0.78	0.99	0.26	0.02	0.34	0.27	0.14
d, Delay for Lane Group [s/veh]	62.12	55.77	84.67	46.54	43.77	73.50	7.05	5.72	63.71	11.41	10.50
Lane Group LOS	E	E	F	D	D	E	A	A	E	B	B
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.64	1.63	5.52	0.50	9.06	6.47	2.47	0.12	0.40	3.17	1.42
50th-Percentile Queue Length [ft/ln]	15.94	40.67	138.10	12.52	226.45	161.65	61.70	3.12	10.10	79.34	35.38
95th-Percentile Queue Length [veh/ln]	1.15	2.93	9.38	0.90	13.99	10.64	4.44	0.22	0.73	5.71	2.55
95th-Percentile Queue Length [ft/ln]	28.69	73.21	234.46	22.54	349.85	265.91	111.06	5.61	18.19	142.81	63.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.12	55.77	55.77	84.67	46.54	43.77	73.50	7.05	5.72	63.71	11.41	10.50
Movement LOS	E	E	E	F	D	D	E	A	A	E	B	B
d_A, Approach Delay [s/veh]	57.45			55.94			25.87			11.93		
Approach LOS	E			E			C			B		
d_I, Intersection Delay [s/veh]	27.11											
Intersection LOS	C											
Intersection V/C	0.509											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	51.35	51.35	51.35	51.35
l_p,int, Pedestrian LOS Score for Intersection	1.988	2.620	3.316	3.159
Crosswalk LOS	A	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]	767	817	617	583
d_b, Bicycle Delay [s]	22.82	21.01	28.71	30.11
l_b,int, Bicycle LOS Score for Intersection	1.678	2.376	2.283	2.097
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 3: Kaiser Hospital (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	8.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.353

Intersection Setup

Name	Kaiser Hospital		Iris Ave		Iris Ave	
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	1	0	1	0	0	1
Entry Pocket Length [ft]	110.00	100.00	195.00	100.00	100.00	200.00
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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Kaiser Hospital		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	19	21	210	785	757	74
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	28	27	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]	20	22	218	845	815	77
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]	5	6	57	222	214	20
Total Analysis Volume [veh/h]	21	23	229	889	857	81
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]	95
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Split	Overlap	Protected	Permissive	Permissive	Permissive
Signal Group	7	4	5	2	6	0
Auxiliary Signal Groups		4,5				
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	7	7	10	10	0
Maximum Green [s]	30	30	30	30	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	42	42	24	53	29	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	33	0	0	10	20	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	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No	No	No	No	
Maximum Recall	No	No	No	No	No	
Pedestrian Recall	No	No	No	No	No	
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	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
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	0.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	21	14	84	66	66
g / C, Green / Cycle	0.03	0.23	0.15	0.88	0.69	0.69
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.13	0.17	0.17	0.05
s, saturation flow rate [veh/h]	1781	1589	1781	5094	5094	1589
c, Capacity [veh/h]	61	359	266	4491	3515	1097
d1, Uniform Delay [s]	44.85	28.90	39.43	0.81	5.49	4.81
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.35	0.07	7.96	0.10	0.17	0.13
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	0.35	0.06	0.86	0.20	0.24	0.07
d, Delay for Lane Group [s/veh]	48.20	28.97	47.39	0.90	5.65	4.94
Lane Group LOS	D	C	D	A	A	A
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.54	0.42	5.49	0.04	1.56	0.41
50th-Percentile Queue Length [ft/ln]	13.55	10.56	137.28	1.03	38.92	10.33
95th-Percentile Queue Length [veh/ln]	0.98	0.76	9.33	0.07	2.80	0.74
95th-Percentile Queue Length [ft/ln]	24.38	19.01	233.35	1.85	70.06	18.60

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	48.20	28.97	47.39	0.90	5.65	4.94
Movement LOS	D	C	D	A	A	A
d_A, Approach Delay [s/veh]	38.15		10.43		5.59	
Approach LOS	D		B		A	
d_I, Intersection Delay [s/veh]	8.85					
Intersection LOS	A					
Intersection V/C	0.353					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
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]	38.93	38.93	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.040	3.062	0.000
Crosswalk LOS	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	800	1032	526
d_b, Bicycle Delay [s]	17.10	11.14	25.79
I_b,int, Bicycle LOS Score for Intersection	1.560	2.175	2.076
Bicycle LOS	A	B	B

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 4: Medical Offices (NS) at Iris Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	14.9
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.134

Intersection Setup

Name	Medical Offices		Iris Ave		Iris Ave	
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	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	280.00	100.00	100.00	192.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	25.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Medical Offices		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	0	29	51	762	806	29
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	28	27	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	30	53	821	866	30
Peak Hour Factor	0.9524	0.9524	0.9524	0.9524	0.9524	0.9524
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	8	14	216	227	8
Total Analysis Volume [veh/h]	0	31	56	862	909	31
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
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	0.00	0.07	0.13	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	13.15	14.93	0.00	0.00	0.00
Movement LOS		B	B	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.21	0.46	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	5.24	11.47	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	13.15		0.91		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.66					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: Oliver St (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	26.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.778

Intersection Setup

Name	Oliver St			Oliver St			Iris Ave				Iris Ave		
Approach	Northbound			Southbound			Eastbound				Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	52.00	100.00	100.00	100.00	235.0	100.0	100.0	200.0	249.00	100.00	200.00
No. of Lanes in Exit Pocket	0	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	0.00
Speed [mph]	25.00			35.00			50.00				50.00		
Grade [%]	0.00			0.00			0.00				0.00		
Curb Present	No			No			No				No		
Crosswalk	Yes			Yes			Yes				Yes		

Volumes

Name	Oliver St			Oliver St			Iris Ave				Iris Ave		
Base Volume Input [veh/h]	41	51	28	8	38	278	0	231	495	19	26	521	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	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	2.00
Proportion of CAVs [%]	0.00												
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.000	1.040	1.040	1.040	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	0	0	42	8	0	28	0	0	0	0	20	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	19	0	0	106	19	0	67	0	0	0	0	48	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	53	29	156	67	289	95	240	515	20	27	610	9
Peak Hour Factor	0.9150	0.9150	0.9150	0.9150	0.9150	0.9150	0.950	0.915	0.915	0.915	0.9150	0.9150	0.9150
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	14	8	43	18	79	25	66	141	5	7	167	2
Total Analysis Volume [veh/h]	77	58	32	170	73	316	100	262	563	22	30	667	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	0
Local Bus Stopping Rate [/h]	0	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]	130
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Split	Split	Split	Split	Split	Split	Permi	Prote	Permi	Permi	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	0	5	2	0	1	6	0
Auxiliary Signal Groups													
Lead / Lag	-	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	0	7	10	0	7	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	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	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	37	0	0	37	0	0	25	35	0	21	31	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	0	17	0	0	22	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	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	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	0.0	2.0	2.0	0.0	2.0	2.0	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	
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	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	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	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	R	C	R	L	C	R	L	C	R
C, Cycle Length [s]	73	73	73	73	73	73	73	73	73	73
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
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
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
g_i, Effective Green Time [s]	10	10	17	17	17	27	27	3	13	13
g / C, Green / Cycle	0.13	0.13	0.24	0.24	0.23	0.37	0.37	0.04	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.07	0.02	0.13	0.20	0.20	0.11	0.01	0.02	0.13	0.01
s, saturation flow rate [veh/h]	1818	1589	1807	1589	1781	5094	1589	1781	5094	1589
c, Capacity [veh/h]	241	211	427	376	417	1874	585	78	904	282
d1, Uniform Delay [s]	29.67	28.03	24.59	26.56	26.86	16.40	14.79	33.93	28.41	24.85
k, delay calibration	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00
d2, Incremental Delay [s]	2.04	0.33	1.19	5.10	5.57	0.09	0.03	3.03	1.20	0.05
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
Rp, platoon ratio	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

Lane Group Results

X, volume / capacity	0.56	0.15	0.57	0.84	0.87	0.30	0.04	0.38	0.74	0.04
d, Delay for Lane Group [s/veh]	31.71	28.36	25.78	31.67	32.43	16.49	14.82	36.96	29.61	24.90
Lane Group LOS	C	C	C	C	C	B	B	D	C	C
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.31	0.51	3.61	5.40	5.96	1.92	0.21	0.54	3.39	0.13
50th-Percentile Queue Length [ft/ln]	57.67	12.64	90.16	135.00	149.07	47.88	5.13	13.51	84.68	3.33
95th-Percentile Queue Length [veh/ln]	4.15	0.91	6.49	9.21	9.97	3.45	0.37	0.97	6.10	0.24
95th-Percentile Queue Length [ft/ln]	103.81	22.74	162.29	230.28	249.19	86.19	9.23	24.32	152.43	6.00

Movement, Approach, & Intersection Results

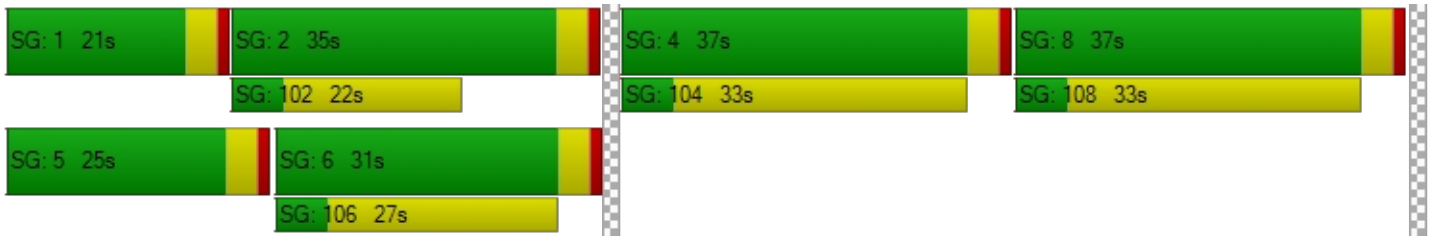
d_M, Delay for Movement [s/veh]	31.71	31.71	28.36	25.78	25.78	31.67	32.43	32.43	16.49	14.82	36.96	29.61	24.90
Movement LOS	C	C	C	C	C	C	C	C	B	B	D	C	C
d_A, Approach Delay [s/veh]	31.07			29.11			22.55				29.86		
Approach LOS	C			C			C				C		
d_I, Intersection Delay [s/veh]	26.86												
Intersection LOS	C												
Intersection V/C	0.778												

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	27.97	27.97	27.97	27.97
l_p,int, Pedestrian LOS Score for Intersection	2.010	2.375	3.124	3.015
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]	906	906	851	742
d_b, Bicycle Delay [s]	10.89	10.89	12.01	14.42
l_b,int, Bicycle LOS Score for Intersection	1.835	2.482	1.936	1.948
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 6: Via Del Lago (NS) at Moreno Beach Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	9.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.357

Intersection Setup

Name	Via Del Lago			Via Del Lago			Iris Ave			Moreno Beach Dr		
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	0	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	93.00	100.00	100.00	100.00	100.00	100.00	110.00	100.00	231.00	315.00	100.00	202.00
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]	35.00			25.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Via Del Lago			Via Del Lago			Iris Ave			Moreno Beach Dr		
Base Volume Input [veh/h]	31	0	31	6	0	30	15	500	30	24	489	7
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	4	0	0	0	0	0	0	38	4	0	16	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]	36	0	32	6	0	31	16	558	35	25	525	7
Peak Hour Factor	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002
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]	10	0	9	2	0	9	4	155	10	7	146	2
Total Analysis Volume [veh/h]	40	0	36	7	0	34	18	620	39	28	583	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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	10	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	46	46	11	45	0	12	32	0	11	31	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	37	37	0	36	0	0	23	0	0	21	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	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

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	R
C, Cycle Length [s]	33	33	33	33	33	33	33	33	33	33	33
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	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	4	10	0	3	1	10	10	2	11	11
g / C, Green / Cycle	0.07	0.14	0.31	0.01	0.08	0.03	0.31	0.31	0.05	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.02	0.00	0.02	0.00	0.02	0.01	0.12	0.02	0.02	0.11	0.01
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1589	1781	5094	1589	1781	5094	1589
c, Capacity [veh/h]	122	260	497	26	136	62	1559	486	91	1642	512
d1, Uniform Delay [s]	14.52	0.00	7.91	15.94	13.98	15.40	8.97	8.08	14.97	8.48	7.55
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00	1.00
d2, Incremental Delay [s]	1.54	0.00	0.06	5.33	0.96	2.58	0.16	0.07	1.90	0.13	0.01
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
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	0.33	0.00	0.07	0.27	0.25	0.29	0.40	0.08	0.31	0.36	0.02
d, Delay for Lane Group [s/veh]	16.06	0.00	7.97	21.27	14.94	17.98	9.13	8.14	16.87	8.61	7.56
Lane Group LOS	B	A	A	C	B	B	A	A	B	A	A
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.27	0.00	0.12	0.08	0.23	0.13	0.60	0.11	0.18	0.53	0.02
50th-Percentile Queue Length [ft/ln]	6.75	0.00	3.09	2.07	5.78	3.35	15.10	2.70	4.61	13.22	0.51
95th-Percentile Queue Length [veh/ln]	0.49	0.00	0.22	0.15	0.42	0.24	1.09	0.19	0.33	0.95	0.04
95th-Percentile Queue Length [ft/ln]	12.14	0.00	5.56	3.72	10.41	6.03	27.18	4.86	8.29	23.80	0.92

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.06	0.00	7.97	21.27	14.94	14.94	17.98	9.13	8.14	16.87	8.61	7.56
Movement LOS	B	A	A	C	B	B	B	A	A	B	A	A
d_A, Approach Delay [s/veh]	12.23			16.02			9.31			8.97		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	9.51											
Intersection LOS	A											
Intersection V/C	0.357											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	8.51	8.51	8.51	8.51
l_p,int, Pedestrian LOS Score for Intersection	2.115	1.902	2.940	2.929
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]	2583	2521	1722	1660
d_b, Bicycle Delay [s]	1.38	1.10	0.31	0.47
l_b,int, Bicycle LOS Score for Intersection	1.685	1.627	1.932	1.900
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 7: Moreno Beach Dr (NS) at John F Kennedy Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	17.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.676

Intersection Setup

Name	Moreno Beach Dr			Moreno Beach Dr			John F Kennedy Dr			John F Kennedy Dr		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	282.00	100.00	248.00	350.00	100.00	186.00	100.00	100.00	190.00	320.00	100.00	196.00
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]	50.00			50.00			35.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Moreno Beach Dr			Moreno Beach Dr			John F Kennedy Dr			John F Kennedy Dr		
Base Volume Input [veh/h]	122	283	101	18	322	236	228	69	202	56	36	6
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	23	15	0	8	8	0	0	0	8	8	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]	127	317	120	19	343	254	237	72	210	66	45	6
Peak Hour Factor	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745
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]	36	91	34	5	98	73	68	21	60	19	13	2
Total Analysis Volume [veh/h]	145	362	137	22	392	290	271	82	240	75	51	7
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	10	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	37	37	11	32	0	27	49	0	23	45	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	23	23	0	23	0	0	40	0	0	36	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	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

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	R	L	C	R	L	C	R
C, Cycle Length [s]	49	49	49	49	49	49	49	49	49	49	49	49
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	0.00	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	16	25	2	12	12	10	11	11	5	6	6
g / C, Green / Cycle	0.12	0.33	0.50	0.04	0.25	0.25	0.19	0.21	0.21	0.09	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.08	0.07	0.09	0.01	0.08	0.18	0.15	0.04	0.15	0.04	0.03	0.00
s, saturation flow rate [veh/h]	1781	5094	1589	1781	5094	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	219	1693	803	67	1259	393	347	403	343	164	211	179
d1, Uniform Delay [s]	20.79	11.91	6.65	23.27	15.24	17.21	18.97	15.97	17.99	21.36	20.10	19.63
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.41	0.06	0.10	2.80	0.14	2.73	3.82	0.25	2.60	1.98	0.59	0.09
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	0.66	0.21	0.17	0.33	0.31	0.74	0.78	0.20	0.70	0.46	0.24	0.04
d, Delay for Lane Group [s/veh]	24.20	11.97	6.75	26.07	15.38	19.93	22.79	16.22	20.60	23.34	20.69	19.72
Lane Group LOS	C	B	A	C	B	B	C	B	C	C	C	B
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.51	0.71	0.47	0.26	0.94	2.62	2.91	0.69	2.42	0.79	0.49	0.07
50th-Percentile Queue Length [ft/ln]	37.73	17.70	11.81	6.55	23.58	65.51	72.74	17.13	60.39	19.68	12.16	1.63
95th-Percentile Queue Length [veh/ln]	2.72	1.27	0.85	0.47	1.70	4.72	5.24	1.23	4.35	1.42	0.88	0.12
95th-Percentile Queue Length [ft/ln]	67.92	31.86	21.26	11.79	42.45	117.92	130.93	30.84	108.71	35.43	21.89	2.93

Movement, Approach, & Intersection Results

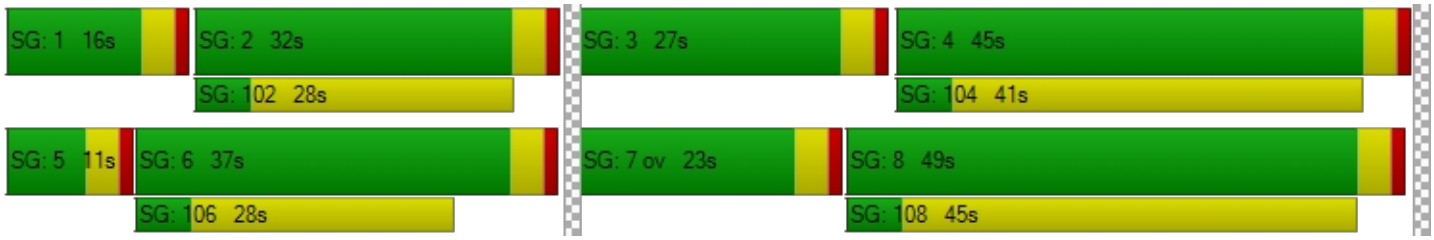
d_M, Delay for Movement [s/veh]	24.20	11.97	6.75	26.07	15.38	19.93	22.79	16.22	20.60	23.34	20.69	19.72
Movement LOS	C	B	A	C	B	B	C	B	C	C	C	B
d_A, Approach Delay [s/veh]	13.62			17.59			20.99			22.13		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	17.62											
Intersection LOS	B											
Intersection V/C	0.676											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	16.53	16.53	16.53	16.53
l_p,int, Pedestrian LOS Score for Intersection	2.970	2.968	2.408	2.379
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1336	1133	1821	1659
d_b, Bicycle Delay [s]	2.73	4.64	0.20	0.72
l_b,int, Bicycle LOS Score for Intersection	1.914	1.947	2.538	1.779
Bicycle LOS	A	A	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Oliver St (NS) at John F Kennedy Dr (EW)

Control Type:	All-way stop	Delay (sec / veh):	16.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.756

Intersection Setup

Name	Oliver St		Oliver St		John F Kennedy Dr	
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	1	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]	35.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Oliver St		Oliver St		John F Kennedy Dr	
Base Volume Input [veh/h]	265	46	204	149	45	116
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	8	16	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]	276	48	212	163	63	121
Peak Hour Factor	0.7872	0.7872	0.7872	0.7872	0.7872	0.7872
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	88	15	67	52	20	38
Total Analysis Volume [veh/h]	351	61	269	207	80	154
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	610	633	630	493	592
Degree of Utilization, x	0.34	0.33	0.76	0.16	0.26

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.48	1.41	6.85	0.57	1.04
95th-Percentile Queue Length [ft]	37.12	35.26	171.35	14.36	25.89
Approach Delay [s/veh]	11.34		24.25	11.08	
Approach LOS	B		C	B	
Intersection Delay [s/veh]	16.76				
Intersection LOS	C				

Intersection Level Of Service Report
Intersection 9: Oliver St (NS) at Filaree Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	13.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.300

Intersection Setup

Name	Oliver St		Oliver St		Filaree Ave	
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]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Filaree Ave	
Base Volume Input [veh/h]	141	0	0	198	127	167
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	1.0404	1.0000	1.0000	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	23	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]	147	0	0	229	132	174
Peak Hour Factor	0.7220	0.9500	0.9500	0.7220	0.7220	0.7220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	51	0	0	79	46	60
Total Analysis Volume [veh/h]	204	0	0	317	183	241
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	0.00	0.00	0.00	0.00	0.30	0.26
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	13.41	10.19
Movement LOS	A			A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	1.26	1.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	31.40	25.80
d_A, Approach Delay [s/veh]	0.00		0.00		11.58	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.20					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 10: Oliver St (NS) at Shellie Way (EW)

Control Type:	Two-way stop	Delay (sec / veh):	17.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.212

Intersection Setup

Name	Oliver St		Oliver St		Shellie Way	
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	1	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]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Shellie Way	
Base Volume Input [veh/h]	126	164	52	272	52	18
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	23	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]	131	171	54	306	54	19
Peak Hour Factor	0.7070	0.7070	0.7070	0.7070	0.7070	0.7070
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	46	60	19	108	19	7
Total Analysis Volume [veh/h]	185	242	76	433	76	27
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.07	0.00	0.21	0.03
d_M, Delay for Movement [s/veh]	0.00	0.00	8.28	0.00	17.85	12.34
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.13	0.07	0.96	0.96
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.30	1.65	23.93	23.93
d_A, Approach Delay [s/veh]	0.00		1.24		16.40	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.23					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 11: Oliver St (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.245

Intersection Setup

Name	Oliver St		Oliver St		Project Dwy	
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	0	0	0	1	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	2	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	74.61	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Project Dwy	
Base Volume Input [veh/h]	0	291	324	0	0	0
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	1.0404	1.0404	1.0404	1.0000	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	23	0	50
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	58	0	125
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	303	337	81	0	175
Peak Hour Factor	0.9500	0.9200	0.9200	0.9200	0.9500	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	82	92	22	0	48
Total Analysis Volume [veh/h]	0	329	366	88	0	190
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	0.00	0.00	0.00	0.00	0.00	0.24
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	11.14
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.96
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	24.01
d_A, Approach Delay [s/veh]	0.00		0.00		11.14	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.17					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 12: Project Dwy (NS) at Iris Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	15.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.225

Intersection Setup

Name	Project Dwy		Iris Ave		Iris Ave	
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	1
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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Dwy		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	0	0	0	762	840	0
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	1.0404	1.0000	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	27	0	28	0	56
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	68	0	67	0	134
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	95	0	888	874	190
Peak Hour Factor	0.9500	0.9200	0.9500	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	26	0	241	238	52
Total Analysis Volume [veh/h]	0	103	0	965	950	207
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
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	0.00	0.22	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	15.11	0.00	0.00	0.00	0.00
Movement LOS		C		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.85	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	21.32	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	15.11		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.70					
Intersection LOS	C					

PM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Grand Vista Dr (NS) at Iris Ave (EW)

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):	0.286

Intersection Setup

Name	Grand Vista Dr		Iris Ave		Iris Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	1	0
Entry Pocket Length [ft]	105.00	100.00	100.00	212.00	296.00	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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Grand Vista Dr		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	39	26	922	60	20	1039
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	19	0	9	18
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]	41	36	978	62	30	1099
Peak Hour Factor	0.9714	0.9714	0.9714	0.9714	0.9714	0.9714
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	9	252	16	8	283
Total Analysis Volume [veh/h]	42	37	1007	64	31	1131
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]	85
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Permissive	Permissive	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	2	0	1	6
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	10	0	7	10
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	43	0	31	0	11	42
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	34	0	18	0	0	10
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	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	85	85	85	85	85	85
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	6	63	63	4	71
g / C, Green / Cycle	0.07	0.07	0.75	0.75	0.04	0.84
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.20	0.04	0.02	0.22
s, saturation flow rate [veh/h]	1781	1589	5094	1589	1781	5094
c, Capacity [veh/h]	126	113	3790	1183	78	4254
d1, Uniform Delay [s]	37.61	37.60	3.47	2.90	39.55	1.49
k, delay calibration	0.11	0.11	0.50	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.53	1.68	0.17	0.09	3.20	0.15
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	0.33	0.33	0.27	0.05	0.39	0.27
d, Delay for Lane Group [s/veh]	39.15	39.29	3.64	2.99	42.75	1.64
Lane Group LOS	D	D	A	A	D	A
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.88	0.78	0.99	0.18	0.66	0.10
50th-Percentile Queue Length [ft/ln]	22.10	19.60	24.77	4.42	16.57	2.57
95th-Percentile Queue Length [veh/ln]	1.59	1.41	1.78	0.32	1.19	0.18
95th-Percentile Queue Length [ft/ln]	39.78	35.28	44.59	7.96	29.83	4.62

Movement, Approach, & Intersection Results

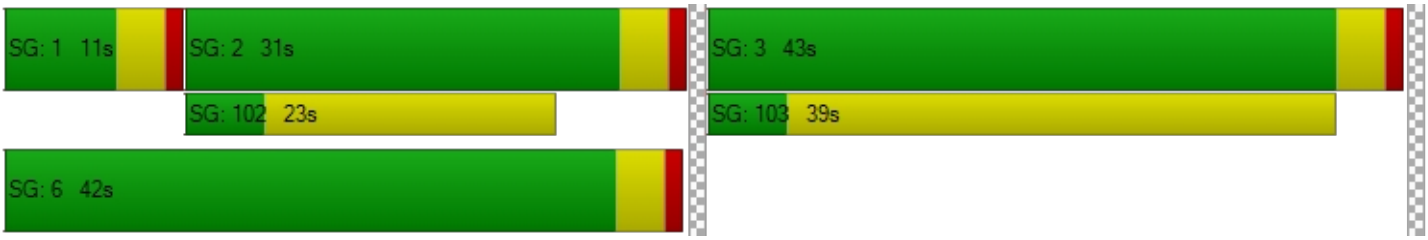
d_M, Delay for Movement [s/veh]	39.15	39.29	3.64	2.99	42.75	1.64
Movement LOS	D	D	A	A	D	A
d_A, Approach Delay [s/veh]	39.21		3.60		2.74	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	4.38					
Intersection LOS	A					
Intersection V/C	0.286					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
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]	33.99	33.99	0.00
l_p,int, Pedestrian LOS Score for Intersection	1.986	3.114	0.000
Crosswalk LOS	A	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	917	635	894
d_b, Bicycle Delay [s]	12.46	19.80	13.01
l_b,int, Bicycle LOS Score for Intersection	1.560	2.149	2.199
Bicycle LOS	A	B	B

Sequence

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



Intersection Level Of Service Report
Intersection 2: Nason St (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	23.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.456

Intersection Setup

Name	Nason St			Nason St			Iris Ave			Iris Ave		
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	1	0	0	2	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	208.00	100.00	100.00	263.00	100.00	207.00	174.00	100.00	163.00
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			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Nason St			Nason St			Iris Ave			Iris Ave		
Base Volume Input [veh/h]	13	15	13	100	27	328	267	655	30	25	703	131
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
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	5	0	0	0	28	0	0	27	5
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]	14	16	14	109	28	341	278	709	31	26	758	141
Peak Hour Factor	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502
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	4	4	29	7	90	73	187	8	7	199	37
Total Analysis Volume [veh/h]	15	17	15	115	29	359	293	746	33	27	798	148
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	0	7	10	10	7	10	0	7	10	0
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	50	0	13	52	52	18	38	0	19	39	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	41	0	0	40	40	0	18	0	0	30	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	2.0	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	2.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, 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	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	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	7	9	13	31	14	84	84	4	74	74
g / C, Green / Cycle	0.02	0.06	0.08	0.11	0.26	0.12	0.70	0.70	0.04	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.01	0.02	0.06	0.02	0.23	0.08	0.15	0.02	0.02	0.16	0.09
s, saturation flow rate [veh/h]	1781	1727	1781	1870	1589	3459	5094	1589	1781	5094	1589
c, Capacity [veh/h]	43	104	135	210	417	405	3542	1105	63	3126	975
d1, Uniform Delay [s]	57.68	54.01	54.83	48.08	42.18	51.12	6.53	5.69	56.70	10.62	9.88
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]	4.89	1.65	13.90	0.30	5.37	2.46	0.14	0.05	4.50	0.20	0.33
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	0.35	0.31	0.85	0.14	0.86	0.72	0.21	0.03	0.43	0.26	0.15
d, Delay for Lane Group [s/veh]	62.58	55.66	68.74	48.38	47.55	53.58	6.67	5.74	61.20	10.82	10.21
Lane Group LOS	E	E	E	D	D	D	A	A	E	B	B
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.51	0.98	3.87	0.78	10.38	4.24	1.89	0.23	0.86	2.92	1.57
50th-Percentile Queue Length [ft/ln]	12.76	24.57	96.81	19.61	259.39	106.11	47.28	5.73	21.43	72.92	39.23
95th-Percentile Queue Length [veh/ln]	0.92	1.77	6.97	1.41	15.66	7.62	3.40	0.41	1.54	5.25	2.82
95th-Percentile Queue Length [ft/ln]	22.96	44.22	174.25	35.30	391.46	190.57	85.10	10.31	38.57	131.26	70.61

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.58	55.66	55.66	68.74	48.38	47.55	53.58	6.67	5.74	61.20	10.82	10.21
Movement LOS	E	E	E	E	D	D	D	A	A	E	B	B
d_A, Approach Delay [s/veh]	57.87			52.44			19.46			12.13		
Approach LOS	E			D			B			B		
d_I, Intersection Delay [s/veh]	23.80											
Intersection LOS	C											
Intersection V/C	0.456											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	51.35	51.35	51.35	51.35
l_p,int, Pedestrian LOS Score for Intersection	1.992	2.596	3.270	3.116
Crosswalk LOS	A	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]	766	800	567	583
d_b, Bicycle Delay [s]	22.83	21.61	30.83	30.12
l_b,int, Bicycle LOS Score for Intersection	1.637	2.390	2.149	2.095
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 3: Kaiser Hospital (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	8.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.290

Intersection Setup

Name	Kaiser Hospital		Iris Ave		Iris Ave	
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	1	0	1	0	0	1
Entry Pocket Length [ft]	110.00	100.00	195.00	100.00	100.00	200.00
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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Kaiser Hospital		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	72	39	108	632	643	25
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	33	32	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]	75	41	112	691	701	26
Peak Hour Factor	0.9642	0.9642	0.9642	0.9642	0.9642	0.9642
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	11	29	179	182	7
Total Analysis Volume [veh/h]	78	43	116	717	727	27
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Split	Overlap	Protected	Permissive	Permissive	Permissive
Signal Group	7	4	5	2	6	0
Auxiliary Signal Groups		4,5				
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	7	7	10	10	0
Maximum Green [s]	30	30	30	30	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	42	42	19	48	29	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	33	0	0	10	20	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	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No	No	No	No	
Maximum Recall	No	No	No	No	No	
Pedestrian Recall	No	No	No	No	No	
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, 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	0.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	18	8	76	64	64
g / C, Green / Cycle	0.07	0.20	0.08	0.84	0.72	0.72
(v / s)_i Volume / Saturation Flow Rate	0.04	0.03	0.07	0.14	0.14	0.02
s, saturation flow rate [veh/h]	1781	1589	1781	5094	5094	1589
c, Capacity [veh/h]	121	312	150	4296	3642	1136
d1, Uniform Delay [s]	40.92	29.89	40.40	1.29	4.27	3.72
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.68	0.20	8.27	0.08	0.12	0.04
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	0.65	0.14	0.77	0.17	0.20	0.02
d, Delay for Lane Group [s/veh]	46.59	30.09	48.67	1.37	4.39	3.76
Lane Group LOS	D	C	D	A	A	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.88	0.79	2.72	0.06	0.98	0.10
50th-Percentile Queue Length [ft/ln]	46.90	19.73	67.91	1.61	24.46	2.58
95th-Percentile Queue Length [veh/ln]	3.38	1.42	4.89	0.12	1.76	0.19
95th-Percentile Queue Length [ft/ln]	84.43	35.51	122.24	2.90	44.03	4.64

Movement, Approach, & Intersection Results

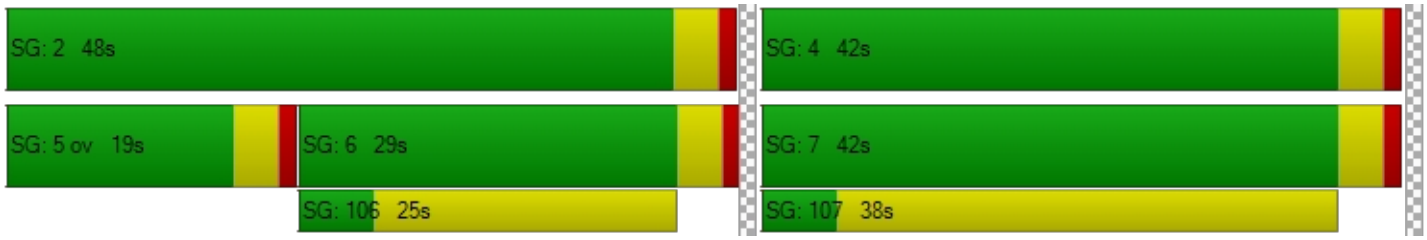
d_M, Delay for Movement [s/veh]	46.59	30.09	48.67	1.37	4.39	3.76
Movement LOS	D	C	D	A	A	A
d_A, Approach Delay [s/veh]	40.73		7.96		4.37	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	8.70					
Intersection LOS	A					
Intersection V/C	0.290					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
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]	36.46	36.46	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.013	2.968	0.000
Crosswalk LOS	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	844	978	555
d_b, Bicycle Delay [s]	15.03	11.76	23.48
I_b,int, Bicycle LOS Score for Intersection	1.560	2.018	1.974
Bicycle LOS	A	B	A

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Medical Offices (NS) at Iris Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.105

Intersection Setup

Name	Medical Offices		Iris Ave		Iris Ave	
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	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	280.00	100.00	100.00	192.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	25.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Medical Offices		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	0	55	15	679	630	12
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	33	32	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	57	16	739	687	12
Peak Hour Factor	0.9763	0.9763	0.9763	0.9763	0.9763	0.9763
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	15	4	189	176	3
Total Analysis Volume [veh/h]	0	58	16	757	704	12
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
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	0.00	0.11	0.03	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	12.31	11.93	0.00	0.00	0.00
Movement LOS		B	B	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.35	0.09	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	8.79	2.31	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.31		0.25		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.59					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: Oliver St (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	18.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.548

Intersection Setup

Name	Oliver St			Oliver St			Iris Ave				Iris Ave		
Approach	Northbound			Southbound			Eastbound				Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	52.00	100.00	100.00	100.00	235.0	100.0	100.0	200.0	249.00	100.00	200.00
No. of Lanes in Exit Pocket	0	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	0.00
Speed [mph]	25.00			35.00			50.00				50.00		
Grade [%]	0.00			0.00			0.00				0.00		
Curb Present	No			No			No				No		
Crosswalk	Yes			Yes			Yes				Yes		

Volumes

Name	Oliver St			Oliver St			Iris Ave				Iris Ave		
Base Volume Input [veh/h]	26	15	15	3	20	75	0	76	566	34	39	543	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	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	2.00
Proportion of CAVs [%]	0.00												
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.000	1.040	1.040	1.040	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	0	0	51	9	0	33	0	0	0	0	24	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	16	0	0	90	16	0	56	0	0	0	0	40	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	52	16	16	144	46	78	89	79	589	35	41	629	2
Peak Hour Factor	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.950	0.982	0.982	0.982	0.9820	0.9820	0.9820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	4	4	37	12	20	23	20	150	9	10	160	1
Total Analysis Volume [veh/h]	53	16	16	147	47	79	94	80	600	36	42	641	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	0
Local Bus Stopping Rate [/h]	0	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]	130
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Split	Split	Split	Split	Split	Split	Permi	Prote	Permi	Permi	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	0	5	2	0	1	6	0
Auxiliary Signal Groups													
Lead / Lag	-	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	0	7	10	0	7	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	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	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	37	0	0	37	0	0	25	35	0	21	31	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	0	17	0	0	22	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	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	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	0.0	2.0	2.0	0.0	2.0	2.0	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	
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	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	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	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	R	C	R	L	C	R	L	C	R
C, Cycle Length [s]	49	49	49	49	49	49	49	49	49	49
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
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
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
g_i, Effective Green Time [s]	7	7	10	10	6	13	13	3	10	10
g / C, Green / Cycle	0.14	0.14	0.20	0.20	0.13	0.27	0.27	0.06	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.04	0.01	0.11	0.05	0.10	0.12	0.02	0.02	0.13	0.00
s, saturation flow rate [veh/h]	1801	1589	1802	1589	1781	5094	1589	1781	5094	1589
c, Capacity [veh/h]	255	225	358	316	234	1383	432	113	1038	324
d1, Uniform Delay [s]	18.88	18.34	17.72	16.64	20.61	14.82	13.38	22.13	17.86	15.64
k, delay calibration	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00
d2, Incremental Delay [s]	0.57	0.13	1.27	0.41	4.67	0.22	0.08	2.02	0.60	0.01
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
Rp, platoon ratio	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

Lane Group Results

X, volume / capacity	0.27	0.07	0.54	0.25	0.74	0.43	0.08	0.37	0.62	0.01
d, Delay for Lane Group [s/veh]	19.45	18.47	18.99	17.05	25.28	15.03	13.46	24.15	18.47	15.64
Lane Group LOS	B	B	B	B	C	B	B	C	B	B
Critical Lane Group	Yes	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.69	0.15	1.83	0.69	1.86	1.42	0.24	0.45	1.79	0.01
50th-Percentile Queue Length [ft/ln]	17.26	3.87	45.67	17.15	46.50	35.54	5.91	11.26	44.65	0.37
95th-Percentile Queue Length [veh/ln]	1.24	0.28	3.29	1.23	3.35	2.56	0.43	0.81	3.21	0.03
95th-Percentile Queue Length [ft/ln]	31.07	6.97	82.20	30.87	83.70	63.98	10.64	20.26	80.37	0.67

Movement, Approach, & Intersection Results

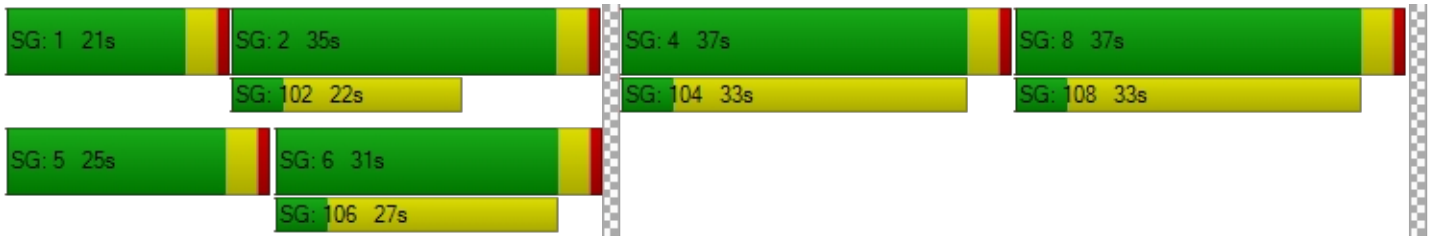
d_M, Delay for Movement [s/veh]	19.45	19.45	18.47	18.99	18.99	17.05	25.28	25.28	15.03	13.46	24.15	18.47	15.64
Movement LOS	B	B	B	B	B	B	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	19.26			18.43			17.16				18.81		
Approach LOS	B			B			B				B		
d_I, Intersection Delay [s/veh]	18.05												
Intersection LOS	B												
Intersection V/C	0.548												

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	16.39	16.39	16.39	16.39
l_p,int, Pedestrian LOS Score for Intersection	1.967	2.206	3.016	2.989
Crosswalk LOS	A	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]	1344	1344	1262	1099
d_b, Bicycle Delay [s]	2.65	2.65	3.34	4.98
l_b,int, Bicycle LOS Score for Intersection	1.700	2.010	1.961	1.936
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 6: Via Del Lago (NS) at Moreno Beach Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	8.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.349

Intersection Setup

Name	Via Del Lago			Via Del Lago			Iris Ave			Moreno Beach Dr		
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	0	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	93.00	100.00	100.00	100.00	100.00	100.00	110.00	100.00	231.00	315.00	100.00	202.00
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]	35.00			25.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Via Del Lago			Via Del Lago			Iris Ave			Moreno Beach Dr		
Base Volume Input [veh/h]	18	1	21	3	1	12	11	541	27	30	551	7
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	5	0	0	0	0	0	0	46	5	0	19	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]	24	1	22	3	1	12	11	609	33	31	592	7
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	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	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	0	6	1	0	3	3	157	9	8	153	2
Total Analysis Volume [veh/h]	25	1	23	3	1	12	11	629	34	32	612	7
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	10	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	46	46	11	45	0	11	32	0	11	32	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	37	37	0	36	0	0	23	0	0	21	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	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

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	R
C, Cycle Length [s]	30	30	30	30	30	30	30	30	30	30	30
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	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	1	2	8	0	1	1	10	10	2	11	11
g / C, Green / Cycle	0.05	0.07	0.26	0.01	0.04	0.02	0.33	0.33	0.06	0.37	0.37
(v / s)_i Volume / Saturation Flow Rate	0.01	0.00	0.01	0.00	0.01	0.01	0.12	0.02	0.02	0.12	0.00
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1608	1781	5094	1589	1781	5094	1589
c, Capacity [veh/h]	83	143	423	12	59	40	1683	525	103	1863	581
d1, Uniform Delay [s]	13.95	12.92	8.27	14.95	14.16	14.55	7.74	6.93	13.68	6.92	6.11
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00	1.00
d2, Incremental Delay [s]	2.01	0.02	0.05	9.63	1.86	3.71	0.14	0.05	1.71	0.10	0.01
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
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	0.30	0.01	0.05	0.24	0.22	0.28	0.37	0.06	0.31	0.33	0.01
d, Delay for Lane Group [s/veh]	15.96	12.94	8.32	24.57	16.01	18.26	7.88	6.98	15.39	7.02	6.12
Lane Group LOS	B	B	A	C	B	B	A	A	B	A	A
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.17	0.01	0.08	0.05	0.10	0.09	0.45	0.07	0.18	0.37	0.01
50th-Percentile Queue Length [ft/ln]	4.25	0.13	1.93	1.26	2.53	2.24	11.31	1.75	4.56	9.19	0.30
95th-Percentile Queue Length [veh/ln]	0.31	0.01	0.14	0.09	0.18	0.16	0.81	0.13	0.33	0.66	0.02
95th-Percentile Queue Length [ft/ln]	7.65	0.24	3.48	2.26	4.56	4.03	20.35	3.15	8.20	16.54	0.54

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	15.96	12.94	8.32	24.57	16.01	16.01	18.26	7.88	6.98	15.39	7.02	6.12
Movement LOS	B	B	A	C	B	B	B	A	A	B	A	A
d_A, Approach Delay [s/veh]	12.31			17.62			8.00			7.42		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	7.99											
Intersection LOS	A											
Intersection V/C	0.349											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	7.40	7.40	7.40	7.40
l_p,int, Pedestrian LOS Score for Intersection	2.102	1.887	2.932	2.928
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]	2789	2723	1859	1859
d_b, Bicycle Delay [s]	2.34	1.97	0.07	0.07
l_b,int, Bicycle LOS Score for Intersection	1.640	1.586	1.930	1.918
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 7: Moreno Beach Dr (NS) at John F Kennedy Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	16.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.682

Intersection Setup

Name	Moreno Beach Dr			Moreno Beach Dr			John F Kennedy Dr			John F Kennedy Dr		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	282.00	100.00	248.00	350.00	100.00	186.00	100.00	100.00	190.00	320.00	100.00	196.00
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]	50.00			50.00			35.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Moreno Beach Dr			Moreno Beach Dr			John F Kennedy Dr			John F Kennedy Dr		
Base Volume Input [veh/h]	114	319	61	10	319	240	307	24	66	41	12	4
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	28	18	0	9	9	0	0	0	10	10	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]	119	360	81	10	341	259	319	25	69	53	22	4
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
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]	32	97	22	3	92	70	86	7	19	14	6	1
Total Analysis Volume [veh/h]	129	389	88	11	369	280	345	27	75	57	24	4
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	10	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	35	35	11	32	0	29	49	0	25	45	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	23	23	0	23	0	0	40	0	0	36	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	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

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	R	L	C	R	L	C	R
C, Cycle Length [s]	48	48	48	48	48	48	48	48	48	48	48	48
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	0.00	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	16	24	1	12	12	12	11	11	4	3	3
g / C, Green / Cycle	0.12	0.34	0.50	0.02	0.24	0.24	0.24	0.23	0.23	0.08	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.07	0.08	0.06	0.01	0.07	0.18	0.19	0.01	0.05	0.03	0.01	0.00
s, saturation flow rate [veh/h]	1781	5094	1589	1781	5094	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	214	1739	799	36	1231	384	430	428	363	140	124	105
d1, Uniform Delay [s]	20.18	11.36	6.33	23.35	15.00	16.89	17.27	14.60	15.10	21.21	21.37	21.15
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.71	0.06	0.06	4.57	0.14	2.67	3.55	0.06	0.28	1.89	0.75	0.15
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	0.60	0.22	0.11	0.30	0.30	0.73	0.80	0.06	0.21	0.41	0.19	0.04
d, Delay for Lane Group [s/veh]	22.89	11.42	6.39	27.93	15.13	19.55	20.82	14.66	15.38	23.10	22.12	21.29
Lane Group LOS	C	B	A	C	B	B	C	B	B	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.27	0.71	0.28	0.15	0.86	2.44	3.44	0.20	0.60	0.59	0.24	0.04
50th-Percentile Queue Length [ft/ln]	31.74	17.87	6.99	3.73	21.45	61.11	85.96	5.12	14.90	14.73	6.07	1.00
95th-Percentile Queue Length [veh/ln]	2.29	1.29	0.50	0.27	1.54	4.40	6.19	0.37	1.07	1.06	0.44	0.07
95th-Percentile Queue Length [ft/ln]	57.14	32.17	12.58	6.71	38.62	110.00	154.73	9.22	26.82	26.51	10.93	1.80

Movement, Approach, & Intersection Results

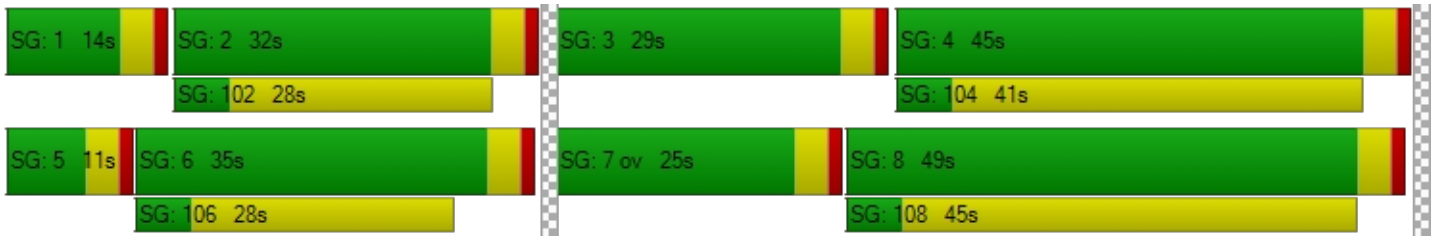
d_M, Delay for Movement [s/veh]	22.89	11.42	6.39	27.93	15.13	19.55	20.82	14.66	15.38	23.10	22.12	21.29
Movement LOS	C	B	A	C	B	B	C	B	B	C	C	C
d_A, Approach Delay [s/veh]	13.13			17.22			19.54			22.74		
Approach LOS	B			B			B			C		
d_I, Intersection Delay [s/veh]	16.68											
Intersection LOS	B											
Intersection V/C	0.682											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	15.91	15.91	15.91	15.91
l_p,int, Pedestrian LOS Score for Intersection	2.919	2.978	2.350	2.330
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1288	1163	1870	1703
d_b, Bicycle Delay [s]	3.05	4.21	0.10	0.53
l_b,int, Bicycle LOS Score for Intersection	1.893	1.923	2.297	1.700
Bicycle LOS	A	A	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 8: Oliver St (NS) at John F Kennedy Dr (EW)

Control Type:	All-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.232

Intersection Setup

Name	Oliver St		Oliver St		John F Kennedy Dr	
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	1	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]	35.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Oliver St		Oliver St		John F Kennedy Dr	
Base Volume Input [veh/h]	81	22	87	49	21	34
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	9	19	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]	84	23	91	60	41	35
Peak Hour Factor	0.8750	0.8750	0.8750	0.8750	0.8750	0.8750
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	7	26	17	12	10
Total Analysis Volume [veh/h]	96	26	104	69	47	40
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	733	781	747	628	794
Degree of Utilization, x	0.08	0.08	0.23	0.07	0.05

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.27	0.25	0.89	0.24	0.16
95th-Percentile Queue Length [ft]	6.79	6.34	22.34	6.05	3.97
Approach Delay [s/veh]	7.88		9.27	8.25	
Approach LOS	A		A	A	
Intersection Delay [s/veh]	8.59				
Intersection LOS	A				

Intersection Level Of Service Report
Intersection 9: Oliver St (NS) at Filaree Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.048

Intersection Setup

Name	Oliver St		Oliver St		Filaree Ave	
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]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Filaree Ave	
Base Volume Input [veh/h]	76	0	0	67	26	26
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	1.0404	1.0000	1.0000	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	28	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]	79	0	0	98	27	27
Peak Hour Factor	0.7101	0.9500	0.9500	0.7101	0.7101	0.7101
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	0	0	35	10	10
Total Analysis Volume [veh/h]	111	0	0	138	38	38
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	0.00	0.00	0.00	0.00	0.05	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	9.77	8.74
Movement LOS	A			A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.15	0.12
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	3.77	2.96
d_A, Approach Delay [s/veh]	0.00		0.00		9.26	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.17					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 10: Oliver St (NS) at Shellie Way (EW)

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):	0.025

Intersection Setup

Name	Oliver St		Oliver St		Shellie Way	
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	1	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]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Shellie Way	
Base Volume Input [veh/h]	73	20	9	83	14	3
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	28	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]	76	21	9	114	15	3
Peak Hour Factor	0.7891	0.7891	0.7891	0.7891	0.7891	0.7891
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	24	7	3	36	5	1
Total Analysis Volume [veh/h]	96	27	11	144	19	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.01	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.48	0.00	9.87	8.77
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.01	0.09	0.09
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.46	0.23	2.24	2.24
d_A, Approach Delay [s/veh]	0.00		0.53		9.68	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.01					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 11: Oliver St (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.191

Intersection Setup

Name	Oliver St		Oliver St		Project Dwy	
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	0	0	0	1	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	2	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	74.61	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Project Dwy	
Base Volume Input [veh/h]	0	93	98	0	0	0
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	1.0404	1.0404	1.0404	1.0000	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	28	0	60
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	48	0	106
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	97	102	76	0	166
Peak Hour Factor	0.9500	0.9200	0.9200	0.9200	0.9500	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	26	28	21	0	45
Total Analysis Volume [veh/h]	0	105	111	83	0	180
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	0.00	0.00	0.00	0.00	0.00	0.19
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	9.73
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.71
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	17.63
d_A, Approach Delay [s/veh]	0.00		0.00		9.73	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.66					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 12: Project Dwy (NS) at Iris Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	13.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.178

Intersection Setup

Name	Project Dwy		Iris Ave		Iris Ave	
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	1
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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Dwy		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	0	0	0	679	644	0
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	1.0404	1.0000	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	32	0	33	0	66
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	56	0	56	0	112
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	88	0	795	670	178
Peak Hour Factor	0.9500	0.9200	0.9500	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	24	0	216	182	48
Total Analysis Volume [veh/h]	0	96	0	864	728	193
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
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	0.00	0.18	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	13.10	0.00	0.00	0.00	0.00
Movement LOS		B		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.64	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	16.02	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	13.10		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.67					
Intersection LOS	B					

OPENING YEAR (2025) WITHOUT PROJECT

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Grand Vista Dr (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	5.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.374

Intersection Setup

Name	Grand Vista Dr		Iris Ave		Iris Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	1	0
Entry Pocket Length [ft]	105.00	100.00	100.00	212.00	296.00	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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Grand Vista Dr		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	97	32	1144	51	12	1072
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	32	0	0	72
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]	101	33	1222	53	12	1187
Peak Hour Factor	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	9	327	14	3	317
Total Analysis Volume [veh/h]	108	35	1307	57	13	1270
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Permissive	Permissive	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	2	0	1	6
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	10	0	7	10
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	47	0	30	0	13	43
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	34	0	18	0	0	10
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	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, 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]	7	7	69	69	2	75
g / C, Green / Cycle	0.08	0.08	0.76	0.76	0.02	0.83
(v / s)_i Volume / Saturation Flow Rate	0.06	0.02	0.26	0.04	0.01	0.25
s, saturation flow rate [veh/h]	1781	1589	5094	1589	1781	5094
c, Capacity [veh/h]	149	133	3873	1209	41	4216
d1, Uniform Delay [s]	40.26	38.67	3.48	2.68	43.31	1.78
k, delay calibration	0.11	0.11	0.50	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.59	1.05	0.24	0.07	4.42	0.18
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	0.73	0.26	0.34	0.05	0.32	0.30
d, Delay for Lane Group [s/veh]	46.85	39.72	3.71	2.75	47.73	1.96
Lane Group LOS	D	D	A	A	D	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.60	0.76	1.36	0.15	0.32	0.36
50th-Percentile Queue Length [ft/ln]	65.07	19.10	33.97	3.83	8.01	8.94
95th-Percentile Queue Length [veh/ln]	4.69	1.38	2.45	0.28	0.58	0.64
95th-Percentile Queue Length [ft/ln]	117.13	34.38	61.15	6.90	14.42	16.10

Movement, Approach, & Intersection Results

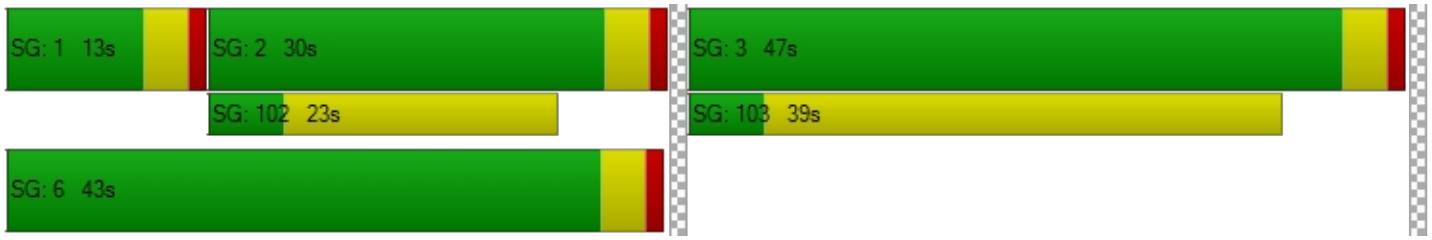
d_M, Delay for Movement [s/veh]	46.85	39.72	3.71	2.75	47.73	1.96
Movement LOS	D	D	A	A	D	A
d_A, Approach Delay [s/veh]	45.11		3.67		2.43	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	5.22					
Intersection LOS	A					
Intersection V/C	0.374					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
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]	36.46	36.46	0.00
I_p,int, Pedestrian LOS Score for Intersection	1.999	3.232	0.000
Crosswalk LOS	A	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	955	578	866
d_b, Bicycle Delay [s]	12.28	22.77	14.46
I_b,int, Bicycle LOS Score for Intersection	1.560	2.310	2.265
Bicycle LOS	A	B	B

Sequence

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



Intersection Level Of Service Report
Intersection 2: Nason St (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	26.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.520

Intersection Setup

Name	Nason St			Nason St			Iris Ave			Iris Ave		
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	1	0	0	2	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	208.00	100.00	100.00	263.00	100.00	207.00	174.00	100.00	163.00
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			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Nason St			Nason St			Iris Ave			Iris Ave		
Base Volume Input [veh/h]	17	38	9	128	17	298	336	811	16	11	730	114
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
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	32	0	0	72	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]	18	40	9	133	18	310	350	876	17	11	831	119
Peak Hour Factor	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380
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	11	2	35	5	83	93	233	5	3	221	32
Total Analysis Volume [veh/h]	19	43	10	142	19	330	373	934	18	12	886	127
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	0	7	10	10	7	10	0	7	10	0
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	50	0	14	53	53	17	41	0	15	39	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	41	0	0	40	40	0	18	0	0	30	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	2.0	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	2.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, 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	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	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	8	10	15	32	13	83	83	2	73	73
g / C, Green / Cycle	0.03	0.07	0.08	0.13	0.27	0.11	0.69	0.69	0.02	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.01	0.03	0.08	0.01	0.21	0.11	0.18	0.01	0.01	0.17	0.08
s, saturation flow rate [veh/h]	1781	1810	1781	1870	1589	3459	5094	1589	1781	5094	1589
c, Capacity [veh/h]	50	126	149	234	425	376	3534	1103	35	3082	962
d1, Uniform Delay [s]	57.33	53.53	54.76	46.39	40.67	53.46	6.89	5.69	58.06	11.34	10.18
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]	4.79	2.23	24.58	0.15	3.10	20.05	0.18	0.03	5.65	0.24	0.28
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	0.38	0.42	0.95	0.08	0.78	0.99	0.26	0.02	0.34	0.29	0.13
d, Delay for Lane Group [s/veh]	62.12	55.77	79.34	46.54	43.77	73.50	7.07	5.72	63.71	11.57	10.46
Lane Group LOS	E	E	E	D	D	E	A	A	E	B	B
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.64	1.63	5.18	0.50	9.06	6.47	2.50	0.12	0.40	3.41	1.37
50th-Percentile Queue Length [ft/ln]	15.94	40.67	129.53	12.52	226.45	161.65	62.44	3.12	10.10	85.34	34.20
95th-Percentile Queue Length [veh/ln]	1.15	2.93	8.91	0.90	13.99	10.64	4.50	0.22	0.73	6.14	2.46
95th-Percentile Queue Length [ft/ln]	28.69	73.21	222.86	22.54	349.85	265.91	112.38	5.61	18.19	153.62	61.56

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.12	55.77	55.77	79.34	46.54	43.77	73.50	7.07	5.72	63.71	11.57	10.46
Movement LOS	E	E	E	E	D	D	E	A	A	E	B	B
d_A, Approach Delay [s/veh]	57.45			54.16			25.75			12.04		
Approach LOS	E			D			C			B		
d_I, Intersection Delay [s/veh]	26.50											
Intersection LOS	C											
Intersection V/C	0.520											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	51.35	51.35	51.35	51.35
l_p,int, Pedestrian LOS Score for Intersection	1.988	2.618	3.327	3.169
Crosswalk LOS	A	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]	767	817	617	583
d_b, Bicycle Delay [s]	22.82	21.01	28.71	30.11
l_b,int, Bicycle LOS Score for Intersection	1.678	2.370	2.288	2.123
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 3: Kaiser Hospital (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	8.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.364

Intersection Setup

Name	Kaiser Hospital		Iris Ave		Iris Ave	
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	1	0	1	0	0	1
Entry Pocket Length [ft]	110.00	100.00	195.00	100.00	100.00	200.00
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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Kaiser Hospital		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	19	21	210	785	757	74
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	32	72	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]	20	22	218	849	860	77
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]	5	6	57	223	226	20
Total Analysis Volume [veh/h]	21	23	229	893	904	81
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]	95
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Split	Overlap	Protected	Permissive	Permissive	Permissive
Signal Group	7	4	5	2	6	0
Auxiliary Signal Groups		4,5				
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	7	7	10	10	0
Maximum Green [s]	30	30	30	30	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	42	42	24	53	29	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	33	0	0	10	20	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	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No	No	No	No	
Maximum Recall	No	No	No	No	No	
Pedestrian Recall	No	No	No	No	No	
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	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
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	0.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	21	14	84	66	66
g / C, Green / Cycle	0.03	0.23	0.15	0.88	0.69	0.69
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.13	0.18	0.18	0.05
s, saturation flow rate [veh/h]	1781	1589	1781	5094	5094	1589
c, Capacity [veh/h]	61	359	266	4491	3515	1097
d1, Uniform Delay [s]	44.85	28.90	39.43	0.81	5.55	4.81
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.35	0.07	7.96	0.10	0.18	0.13
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	0.35	0.06	0.86	0.20	0.26	0.07
d, Delay for Lane Group [s/veh]	48.20	28.97	47.39	0.91	5.72	4.94
Lane Group LOS	D	C	D	A	A	A
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.54	0.42	5.49	0.04	1.66	0.41
50th-Percentile Queue Length [ft/ln]	13.55	10.56	137.28	1.03	41.53	10.33
95th-Percentile Queue Length [veh/ln]	0.98	0.76	9.33	0.07	2.99	0.74
95th-Percentile Queue Length [ft/ln]	24.38	19.01	233.35	1.86	74.75	18.60

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	48.20	28.97	47.39	0.91	5.72	4.94
Movement LOS	D	C	D	A	A	A
d_A, Approach Delay [s/veh]	38.15		10.39		5.66	
Approach LOS	D		B		A	
d_I, Intersection Delay [s/veh]	8.79					
Intersection LOS	A					
Intersection V/C	0.364					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
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]	38.93	38.93	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.040	3.074	0.000
Crosswalk LOS	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	800	1032	526
d_b, Bicycle Delay [s]	17.10	11.14	25.79
I_b,int, Bicycle LOS Score for Intersection	1.560	2.177	2.101
Bicycle LOS	A	B	B

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 4: Medical Offices (NS) at Iris Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	15.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.141

Intersection Setup

Name	Medical Offices		Iris Ave		Iris Ave	
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	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	280.00	100.00	100.00	192.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	25.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Medical Offices		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	0	29	51	762	806	29
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	32	72	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	30	53	825	911	30
Peak Hour Factor	0.9524	0.9524	0.9524	0.9524	0.9524	0.9524
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	8	14	217	239	8
Total Analysis Volume [veh/h]	0	31	56	866	957	31
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
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	0.00	0.07	0.14	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	13.47	15.56	0.00	0.00	0.00
Movement LOS		B	C	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.22	0.49	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	5.45	12.19	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	13.47		0.95		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.66					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 5: Oliver St (NS) at Iris Ave (EW)

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):	0.722

Intersection Setup

Name	Oliver St			Oliver St			Iris Ave				Iris Ave		
Approach	Northbound			Southbound			Eastbound				Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	52.00	100.00	100.00	100.00	235.0	100.0	100.0	200.0	249.00	100.00	200.00
No. of Lanes in Exit Pocket	0	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	0.00
Speed [mph]	25.00			35.00			50.00				50.00		
Grade [%]	0.00			0.00			0.00				0.00		
Curb Present	No			No			No				No		
Crosswalk	Yes			Yes			Yes				Yes		

Volumes

Name	Oliver St			Oliver St			Iris Ave				Iris Ave		
Base Volume Input [veh/h]	41	51	28	8	38	278	0	231	495	19	26	521	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	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	2.00
Proportion of CAVs [%]	0.00												
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.000	1.040	1.040	1.040	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	47	0	0	13	10	9	0	0	41	2
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	43	53	29	55	40	289	13	250	524	20	27	583	11
Peak Hour Factor	0.9150	0.9150	0.9150	0.9150	0.9150	0.9150	0.950	0.915	0.915	0.915	0.9150	0.9150	0.9150
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	14	8	15	11	79	3	68	143	5	7	159	3
Total Analysis Volume [veh/h]	47	58	32	60	44	316	14	273	573	22	30	637	12
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	0
Local Bus Stopping Rate [/h]	0	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]	130
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Split	Split	Split	Split	Split	Split	Permi	Prote	Permi	Permi	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	0	5	2	0	1	6	0
Auxiliary Signal Groups													
Lead / Lag	-	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	0	7	10	0	7	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	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	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	37	0	0	37	0	0	25	35	0	21	31	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	0	17	0	0	22	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	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	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	0.0	2.0	2.0	0.0	2.0	2.0	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	
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	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	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	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	R	C	R	L	C	R	L	C	R
C, Cycle Length [s]	64	64	64	64	64	64	64	64	64	64
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
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
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
g_i, Effective Green Time [s]	9	9	15	15	13	21	21	3	11	11
g / C, Green / Cycle	0.14	0.14	0.24	0.24	0.20	0.33	0.33	0.05	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.06	0.02	0.06	0.20	0.16	0.11	0.01	0.02	0.13	0.01
s, saturation flow rate [veh/h]	1829	1589	1818	1589	1781	5094	1589	1781	5094	1589
c, Capacity [veh/h]	260	226	432	378	348	1665	520	81	902	281
d1, Uniform Delay [s]	25.20	24.24	19.90	23.41	24.91	16.48	14.83	29.90	24.98	22.02
k, delay calibration	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00
d2, Incremental Delay [s]	1.01	0.28	0.29	4.94	4.95	0.12	0.03	2.78	1.03	0.06
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
Rp, platoon ratio	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

Lane Group Results

X, volume / capacity	0.40	0.14	0.24	0.84	0.82	0.34	0.04	0.37	0.71	0.04
d, Delay for Lane Group [s/veh]	26.22	24.53	20.18	28.35	29.86	16.60	14.86	32.69	26.01	22.09
Lane Group LOS	C	C	C	C	C	B	B	C	C	C
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.49	0.43	1.20	4.67	4.11	1.79	0.19	0.47	2.74	0.14
50th-Percentile Queue Length [ft/ln]	37.13	10.80	29.89	116.75	102.63	44.86	4.72	11.69	68.43	3.42
95th-Percentile Queue Length [veh/ln]	2.67	0.78	2.15	8.21	7.39	3.23	0.34	0.84	4.93	0.25
95th-Percentile Queue Length [ft/ln]	66.84	19.43	53.79	205.35	184.73	80.75	8.50	21.05	123.18	6.16

Movement, Approach, & Intersection Results

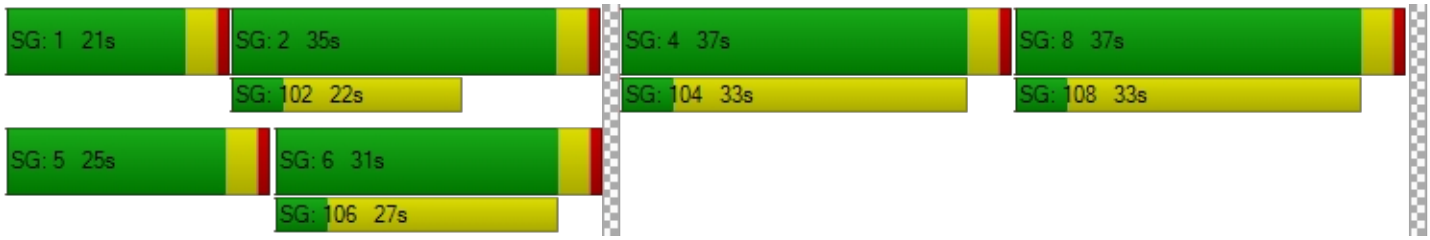
d_M, Delay for Movement [s/veh]	26.22	26.22	24.53	20.18	20.18	28.35	29.86	29.86	16.60	14.86	32.69	26.01	22.09
Movement LOS	C	C	C	C	C	C	C	C	B	B	C	C	C
d_A, Approach Delay [s/veh]	25.82			26.33			20.87				26.24		
Approach LOS	C			C			C				C		
d_I, Intersection Delay [s/veh]	23.99												
Intersection LOS	C												
Intersection V/C	0.722												

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	23.81	23.81	23.81	23.81
l_p,int, Pedestrian LOS Score for Intersection	1.988	2.332	3.092	2.983
Crosswalk LOS	A	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]	1025	1025	963	839
d_b, Bicycle Delay [s]	7.64	7.64	8.65	10.85
l_b,int, Bicycle LOS Score for Intersection	1.786	2.253	1.895	1.933
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 6: Via Del Lago (NS) at Moreno Beach Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	10.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.378

Intersection Setup

Name	Via Del Lago			Via Del Lago			Iris Ave			Moreno Beach Dr		
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	0	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	93.00	100.00	100.00	100.00	100.00	100.00	110.00	100.00	231.00	315.00	100.00	202.00
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]	35.00			25.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Via Del Lago			Via Del Lago			Iris Ave			Moreno Beach Dr		
Base Volume Input [veh/h]	31	0	31	6	0	30	15	500	30	24	489	7
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	22	0	23	0	0	0	0	46	10	10	21	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	0	55	6	0	31	16	566	41	35	530	7
Peak Hour Factor	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002
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]	15	0	15	2	0	9	4	157	11	10	147	2
Total Analysis Volume [veh/h]	60	0	61	7	0	34	18	629	46	39	589	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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	10	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	46	46	11	45	0	12	32	0	11	31	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	37	37	0	36	0	0	23	0	0	21	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	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

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	R
C, Cycle Length [s]	34	34	34	34	34	34	34	34	34	34	34
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	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	5	12	0	3	1	10	10	2	11	11
g / C, Green / Cycle	0.09	0.16	0.34	0.01	0.08	0.03	0.29	0.29	0.06	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.03	0.00	0.04	0.00	0.02	0.01	0.12	0.03	0.02	0.12	0.01
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1589	1781	5094	1589	1781	5094	1589
c, Capacity [veh/h]	162	300	545	25	132	60	1490	465	116	1652	516
d1, Uniform Delay [s]	14.61	0.00	7.68	16.69	14.69	16.14	9.76	8.81	15.27	8.83	7.85
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00	1.00
d2, Incremental Delay [s]	1.40	0.00	0.09	6.00	1.02	2.80	0.19	0.09	1.68	0.13	0.01
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
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	0.37	0.00	0.11	0.28	0.26	0.30	0.42	0.10	0.34	0.36	0.02
d, Delay for Lane Group [s/veh]	16.01	0.00	7.77	22.69	15.71	18.93	9.96	8.91	16.95	8.96	7.86
Lane Group LOS	B	A	A	C	B	B	A	A	B	A	A
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.40	0.00	0.21	0.09	0.25	0.14	0.72	0.15	0.26	0.60	0.02
50th-Percentile Queue Length [ft/ln]	10.11	0.00	5.30	2.21	6.17	3.59	17.98	3.73	6.40	14.91	0.56
95th-Percentile Queue Length [veh/ln]	0.73	0.00	0.38	0.16	0.44	0.26	1.29	0.27	0.46	1.07	0.04
95th-Percentile Queue Length [ft/ln]	18.20	0.00	9.54	3.98	11.11	6.47	32.36	6.71	11.52	26.84	1.02

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.01	0.00	7.77	22.69	15.71	15.71	18.93	9.96	8.91	16.95	8.96	7.86
Movement LOS	B	A	A	C	B	B	B	A	A	B	A	A
d_A, Approach Delay [s/veh]	11.86			16.90			10.12			9.43		
Approach LOS	B			B			B			A		
d_I, Intersection Delay [s/veh]	10.15											
Intersection LOS	B											
Intersection V/C	0.378											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	9.23	9.23	9.23	9.23
l_p,int, Pedestrian LOS Score for Intersection	2.136	1.905	2.951	2.943
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]	2465	2406	1643	1585
d_b, Bicycle Delay [s]	0.92	0.70	0.54	0.73
l_b,int, Bicycle LOS Score for Intersection	1.759	1.627	1.941	1.909
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 7: Moreno Beach Dr (NS) at John F Kennedy Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	17.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.674

Intersection Setup

Name	Moreno Beach Dr			Moreno Beach Dr			John F Kennedy Dr			John F Kennedy Dr		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	282.00	100.00	248.00	350.00	100.00	186.00	100.00	100.00	190.00	320.00	100.00	196.00
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]	50.00			50.00			35.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Moreno Beach Dr			Moreno Beach Dr			John F Kennedy Dr			John F Kennedy Dr		
Base Volume Input [veh/h]	122	283	101	18	322	236	228	69	202	56	36	6
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	61	8	0	27	0	0	0	0	4	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]	127	355	113	19	362	246	237	72	210	62	37	6
Peak Hour Factor	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745
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]	36	101	32	5	103	70	68	21	60	18	11	2
Total Analysis Volume [veh/h]	145	406	129	22	414	281	271	82	240	71	42	7
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	10	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	37	37	11	32	0	28	54	0	23	45	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	23	23	0	23	0	0	40	0	0	36	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	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

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	R	L	C	R	L	C	R
C, Cycle Length [s]	48	48	48	48	48	48	48	48	48	48	48	48
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	0.00	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	16	24	2	12	12	9	10	10	4	5	5
g / C, Green / Cycle	0.13	0.33	0.51	0.04	0.24	0.24	0.20	0.21	0.21	0.09	0.10	0.10
(v / s)_i Volume / Saturation Flow Rate	0.08	0.08	0.08	0.01	0.08	0.18	0.15	0.04	0.15	0.04	0.02	0.00
s, saturation flow rate [veh/h]	1781	5094	1589	1781	5094	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	223	1692	804	67	1246	389	349	388	330	161	190	162
d1, Uniform Delay [s]	20.05	11.67	6.41	22.57	14.96	16.69	18.36	15.83	17.82	20.75	19.88	19.52
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.15	0.07	0.09	2.77	0.16	2.55	3.73	0.27	3.08	1.89	0.58	0.11
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	0.65	0.24	0.16	0.33	0.33	0.72	0.78	0.21	0.73	0.44	0.22	0.04
d, Delay for Lane Group [s/veh]	23.21	11.74	6.50	25.34	15.11	19.25	22.09	16.10	20.91	22.65	20.46	19.63
Lane Group LOS	C	B	A	C	B	B	C	B	C	C	C	B
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.44	0.76	0.41	0.25	0.96	2.42	2.80	0.67	2.39	0.72	0.39	0.06
50th-Percentile Queue Length [ft/ln]	35.92	19.07	10.34	6.32	24.04	60.50	69.88	16.71	59.76	17.94	9.79	1.60
95th-Percentile Queue Length [veh/ln]	2.59	1.37	0.74	0.46	1.73	4.36	5.03	1.20	4.30	1.29	0.70	0.12
95th-Percentile Queue Length [ft/ln]	64.65	34.33	18.61	11.38	43.27	108.90	125.78	30.08	107.57	32.29	17.62	2.88

Movement, Approach, & Intersection Results

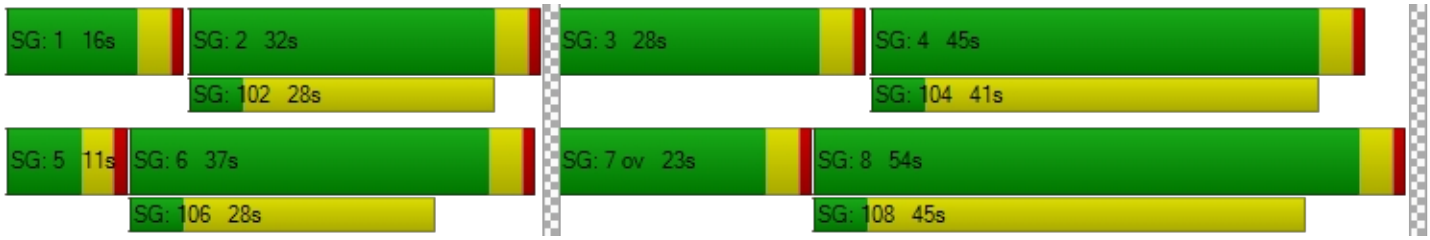
d_M, Delay for Movement [s/veh]	23.21	11.74	6.50	25.34	15.11	19.25	22.09	16.10	20.91	22.65	20.46	19.63
Movement LOS	C	B	A	C	B	B	C	B	C	C	C	B
d_A, Approach Delay [s/veh]	13.19			17.05			20.78			21.70		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	17.12											
Intersection LOS	B											
Intersection V/C	0.674											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	15.83	15.83	15.83	15.83
l_p,int, Pedestrian LOS Score for Intersection	2.979	2.978	2.401	2.371
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1376	1167	2085	1709
d_b, Bicycle Delay [s]	2.34	4.16	0.04	0.51
l_b,int, Bicycle LOS Score for Intersection	1.934	1.954	2.538	1.758
Bicycle LOS	A	A	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



Intersection Level Of Service Report
Intersection 8: Oliver St (NS) at John F Kennedy Dr (EW)

Control Type:	All-way stop	Delay (sec / veh):	16.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.752

Intersection Setup

Name	Oliver St		Oliver St		John F Kennedy Dr	
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	1	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]	35.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Oliver St		Oliver St		John F Kennedy Dr	
Base Volume Input [veh/h]	265	46	204	149	45	116
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	19	0	0	9	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]	295	48	212	164	47	121
Peak Hour Factor	0.7872	0.7872	0.7872	0.7872	0.7872	0.7872
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	94	15	67	52	15	38
Total Analysis Volume [veh/h]	375	61	269	208	60	154
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	619	641	634	491	589
Degree of Utilization, x	0.35	0.34	0.75	0.12	0.26

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.58	1.51	6.76	0.41	1.04
95th-Percentile Queue Length [ft]	39.57	37.64	169.12	10.35	26.03
Approach Delay [s/veh]	11.43		23.82	10.98	
Approach LOS	B		C	B	
Intersection Delay [s/veh]	16.59				
Intersection LOS	C				

Intersection Level Of Service Report
Intersection 9: Oliver St (NS) at Filaree Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	13.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.307

Intersection Setup

Name	Oliver St		Oliver St		Filaree Ave	
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]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Filaree Ave	
Base Volume Input [veh/h]	141	0	0	198	127	167
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	1.0404	1.0000	1.0000	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	19	0	0	9	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]	166	0	0	215	132	174
Peak Hour Factor	0.7220	0.9500	0.9500	0.7220	0.7220	0.7220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	57	0	0	74	46	60
Total Analysis Volume [veh/h]	230	0	0	298	183	241
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	0.00	0.00	0.00	0.00	0.31	0.26
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	13.70	10.33
Movement LOS	A			A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	1.30	1.06
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	32.44	26.46
d_A, Approach Delay [s/veh]	0.00		0.00		11.79	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.25					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 10: Oliver St (NS) at Shellie Way (EW)

Control Type:	Two-way stop	Delay (sec / veh):	18.3
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.218

Intersection Setup

Name	Oliver St		Oliver St		Shellie Way	
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	1	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]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Shellie Way	
Base Volume Input [veh/h]	126	164	52	272	52	18
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	19	0	0	9	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]	150	171	54	292	54	19
Peak Hour Factor	0.7070	0.7070	0.7070	0.7070	0.7070	0.7070
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	53	60	19	103	19	7
Total Analysis Volume [veh/h]	212	242	76	413	76	27
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.07	0.00	0.22	0.03
d_M, Delay for Movement [s/veh]	0.00	0.00	8.35	0.00	18.28	12.60
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.13	0.07	0.99	0.99
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.30	1.65	24.72	24.72
d_A, Approach Delay [s/veh]	0.00		1.30		16.79	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.26					
Intersection LOS	C					

PM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Grand Vista Dr (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	3.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.289

Intersection Setup

Name	Grand Vista Dr		Iris Ave		Iris Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	1	0
Entry Pocket Length [ft]	105.00	100.00	100.00	212.00	296.00	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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Grand Vista Dr		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	39	26	922	60	20	1039
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	54	0	0	41
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]	41	27	1013	62	21	1122
Peak Hour Factor	0.9714	0.9714	0.9714	0.9714	0.9714	0.9714
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	7	261	16	5	289
Total Analysis Volume [veh/h]	42	28	1043	64	22	1155
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Permissive	Permissive	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	2	0	1	6
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	10	0	7	10
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	43	0	30	0	13	43
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	34	0	18	0	0	10
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	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, 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	6	69	69	3	76
g / C, Green / Cycle	0.06	0.06	0.77	0.77	0.03	0.85
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.20	0.04	0.01	0.23
s, saturation flow rate [veh/h]	1781	1589	5094	1589	1781	5094
c, Capacity [veh/h]	116	104	3908	1219	61	4308
d1, Uniform Delay [s]	40.28	40.04	3.07	2.54	42.53	1.38
k, delay calibration	0.11	0.11	0.50	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.87	1.38	0.17	0.08	3.58	0.15
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	0.36	0.27	0.27	0.05	0.36	0.27
d, Delay for Lane Group [s/veh]	42.15	41.41	3.24	2.62	46.11	1.54
Lane Group LOS	D	D	A	A	D	A
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.95	0.63	0.94	0.16	0.51	0.09
50th-Percentile Queue Length [ft/ln]	23.80	15.76	23.38	4.03	12.86	2.15
95th-Percentile Queue Length [veh/ln]	1.71	1.13	1.68	0.29	0.93	0.15
95th-Percentile Queue Length [ft/ln]	42.85	28.37	42.08	7.25	23.15	3.87

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	42.15	41.41	3.24	2.62	46.11	1.54
Movement LOS	D	D	A	A	D	A
d_A, Approach Delay [s/veh]	41.86		3.20		2.37	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	3.93					
Intersection LOS	A					
Intersection V/C	0.289					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
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]	36.46	36.46	0.00
I_p,int, Pedestrian LOS Score for Intersection	1.984	3.130	0.000
Crosswalk LOS	A	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	866	578	866
d_b, Bicycle Delay [s]	14.46	22.77	14.46
I_b,int, Bicycle LOS Score for Intersection	1.560	2.168	2.207
Bicycle LOS	A	B	B

Sequence

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

Intersection Level Of Service Report
Intersection 2: Nason St (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	23.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.459

Intersection Setup

Name	Nason St			Nason St			Iris Ave			Iris Ave		
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	1	0	0	2	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	208.00	100.00	100.00	263.00	100.00	207.00	174.00	100.00	163.00
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			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Nason St			Nason St			Iris Ave			Iris Ave		
Base Volume Input [veh/h]	13	15	13	100	27	328	267	655	30	25	703	131
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
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	54	0	0	41	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]	14	16	14	104	28	341	278	735	31	26	772	136
Peak Hour Factor	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502
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	4	4	27	7	90	73	193	8	7	203	36
Total Analysis Volume [veh/h]	15	17	15	109	29	359	293	774	33	27	812	143
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	0	7	10	10	7	10	0	7	10	0
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	50	0	13	52	52	18	38	0	19	39	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	41	0	0	40	40	0	18	0	0	30	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	2.0	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	2.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, 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	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	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	7	9	13	31	14	84	84	4	74	74
g / C, Green / Cycle	0.02	0.06	0.08	0.11	0.26	0.12	0.70	0.70	0.04	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.01	0.02	0.06	0.02	0.23	0.08	0.15	0.02	0.02	0.16	0.09
s, saturation flow rate [veh/h]	1781	1727	1781	1870	1589	3459	5094	1589	1781	5094	1589
c, Capacity [veh/h]	43	104	135	210	417	405	3542	1105	63	3126	975
d1, Uniform Delay [s]	57.68	54.00	54.65	48.08	42.18	51.12	6.57	5.69	56.70	10.66	9.85
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]	4.89	1.64	10.94	0.30	5.37	2.46	0.14	0.05	4.50	0.20	0.32
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	0.35	0.31	0.81	0.14	0.86	0.72	0.22	0.03	0.43	0.26	0.15
d, Delay for Lane Group [s/veh]	62.58	55.64	65.58	48.38	47.55	53.58	6.71	5.74	61.20	10.86	10.16
Lane Group LOS	E	E	E	D	D	D	A	A	E	B	B
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.51	0.98	3.57	0.78	10.38	4.24	1.98	0.23	0.86	2.98	1.51
50th-Percentile Queue Length [ft/ln]	12.76	24.56	89.37	19.61	259.39	106.11	49.38	5.73	21.43	74.45	37.77
95th-Percentile Queue Length [veh/ln]	0.92	1.77	6.43	1.41	15.66	7.62	3.56	0.41	1.54	5.36	2.72
95th-Percentile Queue Length [ft/ln]	22.96	44.21	160.86	35.30	391.46	190.57	88.88	10.31	38.57	134.01	67.98

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.58	55.64	55.64	65.58	48.38	47.55	53.58	6.71	5.74	61.20	10.86	10.16
Movement LOS	E	E	E	E	D	D	D	A	A	E	B	B
d_A, Approach Delay [s/veh]	57.86			51.55			19.17			12.14		
Approach LOS	E			D			B			B		
d_I, Intersection Delay [s/veh]	23.36											
Intersection LOS	C											
Intersection V/C	0.459											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	51.35	51.35	51.35	51.35
l_p,int, Pedestrian LOS Score for Intersection	1.992	2.593	3.277	3.123
Crosswalk LOS	A	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]	766	800	567	583
d_b, Bicycle Delay [s]	22.83	21.61	30.83	30.12
l_b,int, Bicycle LOS Score for Intersection	1.637	2.380	2.165	2.100
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 3: Kaiser Hospital (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	8.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.292

Intersection Setup

Name	Kaiser Hospital		Iris Ave		Iris Ave	
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	1	0	1	0	0	1
Entry Pocket Length [ft]	110.00	100.00	195.00	100.00	100.00	200.00
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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Kaiser Hospital		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	72	39	108	632	643	25
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	54	41	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]	75	41	112	712	710	26
Peak Hour Factor	0.9642	0.9642	0.9642	0.9642	0.9642	0.9642
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	11	29	185	184	7
Total Analysis Volume [veh/h]	78	43	116	738	736	27
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Split	Overlap	Protected	Permissive	Permissive	Permissive
Signal Group	7	4	5	2	6	0
Auxiliary Signal Groups		4,5				
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	7	7	10	10	0
Maximum Green [s]	30	30	30	30	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	42	42	19	48	29	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	33	0	0	10	20	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	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No	No	No	No	
Maximum Recall	No	No	No	No	No	
Pedestrian Recall	No	No	No	No	No	
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, 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	0.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	18	8	76	64	64
g / C, Green / Cycle	0.07	0.20	0.08	0.84	0.72	0.72
(v / s)_i Volume / Saturation Flow Rate	0.04	0.03	0.07	0.14	0.14	0.02
s, saturation flow rate [veh/h]	1781	1589	1781	5094	5094	1589
c, Capacity [veh/h]	121	312	150	4296	3642	1136
d1, Uniform Delay [s]	40.92	29.89	40.40	1.29	4.28	3.72
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	5.68	0.20	8.27	0.09	0.13	0.04
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	0.65	0.14	0.77	0.17	0.20	0.02
d, Delay for Lane Group [s/veh]	46.59	30.09	48.67	1.38	4.40	3.76
Lane Group LOS	D	C	D	A	A	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.88	0.79	2.72	0.07	0.99	0.10
50th-Percentile Queue Length [ft/ln]	46.90	19.73	67.91	1.66	24.82	2.58
95th-Percentile Queue Length [veh/ln]	3.38	1.42	4.89	0.12	1.79	0.19
95th-Percentile Queue Length [ft/ln]	84.43	35.51	122.24	3.00	44.67	4.64

Movement, Approach, & Intersection Results

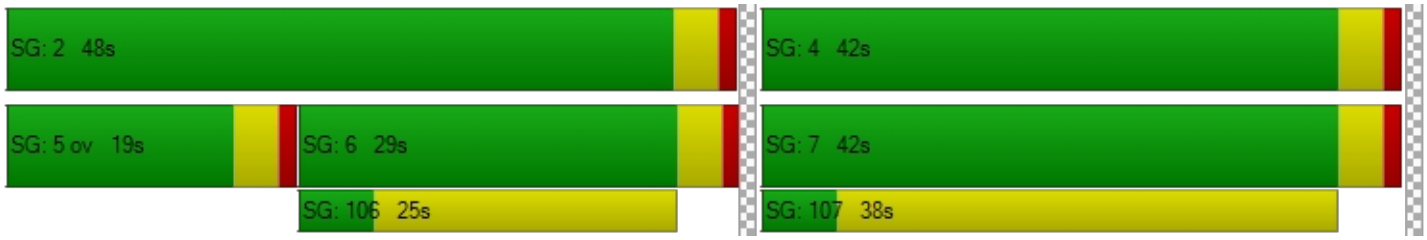
d_M, Delay for Movement [s/veh]	46.59	30.09	48.67	1.38	4.40	3.76
Movement LOS	D	C	D	A	A	A
d_A, Approach Delay [s/veh]	40.73		7.80		4.38	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	8.59					
Intersection LOS	A					
Intersection V/C	0.292					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
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]	36.46	36.46	0.00
I_p,int, Pedestrian LOS Score for Intersection	2.013	2.975	0.000
Crosswalk LOS	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	844	978	555
d_b, Bicycle Delay [s]	15.03	11.76	23.48
I_b,int, Bicycle LOS Score for Intersection	1.560	2.029	1.979
Bicycle LOS	A	B	A

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Medical Offices (NS) at Iris Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.106

Intersection Setup

Name	Medical Offices		Iris Ave		Iris Ave	
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	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	280.00	100.00	100.00	192.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	25.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Medical Offices		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	0	55	15	679	630	12
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	54	41	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	57	16	760	696	12
Peak Hour Factor	0.9763	0.9763	0.9763	0.9763	0.9763	0.9763
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	15	4	195	178	3
Total Analysis Volume [veh/h]	0	58	16	778	713	12
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
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	0.00	0.11	0.03	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	12.37	12.00	0.00	0.00	0.00
Movement LOS		B	B	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.35	0.09	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	8.86	2.33	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.37		0.24		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.58					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: Oliver St (NS) at Iris Ave (EW)

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):	0.406

Intersection Setup

Name	Oliver St			Oliver St			Iris Ave				Iris Ave		
Approach	Northbound			Southbound			Eastbound				Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	52.00	100.00	100.00	100.00	235.0	100.0	100.0	200.0	249.00	100.00	200.00
No. of Lanes in Exit Pocket	0	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	0.00
Speed [mph]	25.00			35.00			50.00				50.00		
Grade [%]	0.00			0.00			0.00				0.00		
Curb Present	No			No			No				No		
Crosswalk	Yes			Yes			Yes				Yes		

Volumes

Name	Oliver St			Oliver St			Iris Ave				Iris Ave		
Base Volume Input [veh/h]	26	15	15	3	20	75	0	76	566	34	39	543	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	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	2.00
Proportion of CAVs [%]	0.00												
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.000	1.040	1.040	1.040	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	25	0	0	19	15	20	0	0	46	2
Diverted Trips [veh/h]	0	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	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	16	16	28	21	78	19	94	609	35	41	611	4
Peak Hour Factor	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.950	0.982	0.982	0.982	0.9820	0.9820	0.9820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	4	4	7	5	20	5	24	155	9	10	156	1
Total Analysis Volume [veh/h]	27	16	16	29	21	79	20	96	620	36	42	622	4
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	0
Local Bus Stopping Rate [/h]	0	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]	130
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Split	Split	Split	Split	Split	Split	Permi	Prote	Permi	Permi	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	0	5	2	0	1	6	0
Auxiliary Signal Groups													
Lead / Lag	-	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	0	7	10	0	7	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	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	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	37	0	0	37	0	0	25	35	0	21	31	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	0	17	0	0	22	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	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	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	0.0	2.0	2.0	0.0	2.0	2.0	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	
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	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	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	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	R	C	R	L	C	R	L	C	R
C, Cycle Length [s]	45	45	45	45	45	45	45	45	45	45
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
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
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
g_i, Effective Green Time [s]	5	5	8	8	5	13	13	3	10	10
g / C, Green / Cycle	0.12	0.12	0.18	0.18	0.12	0.28	0.28	0.06	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.02	0.01	0.03	0.05	0.07	0.12	0.02	0.02	0.12	0.00
s, saturation flow rate [veh/h]	1813	1589	1817	1589	1781	5094	1589	1781	5094	1589
c, Capacity [veh/h]	216	189	328	287	216	1420	443	117	1137	355
d1, Uniform Delay [s]	17.88	17.63	15.53	15.89	18.58	13.32	11.97	20.11	15.46	13.61
k, delay calibration	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00
d2, Incremental Delay [s]	0.45	0.19	0.21	0.51	2.06	0.21	0.08	1.84	0.41	0.01
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
Rp, platoon ratio	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

Lane Group Results

X, volume / capacity	0.20	0.08	0.15	0.28	0.54	0.44	0.08	0.36	0.55	0.01
d, Delay for Lane Group [s/veh]	18.33	17.82	15.74	16.41	20.64	13.54	12.05	21.95	15.87	13.62
Lane Group LOS	B	B	B	B	C	B	B	C	B	B
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.39	0.14	0.38	0.63	1.01	1.24	0.20	0.40	1.43	0.02
50th-Percentile Queue Length [ft/ln]	9.82	3.61	9.60	15.76	25.26	31.11	5.00	9.93	35.71	0.62
95th-Percentile Queue Length [veh/ln]	0.71	0.26	0.69	1.13	1.82	2.24	0.36	0.71	2.57	0.04
95th-Percentile Queue Length [ft/ln]	17.68	6.49	17.27	28.36	45.47	55.99	9.00	17.87	64.27	1.11

Movement, Approach, & Intersection Results

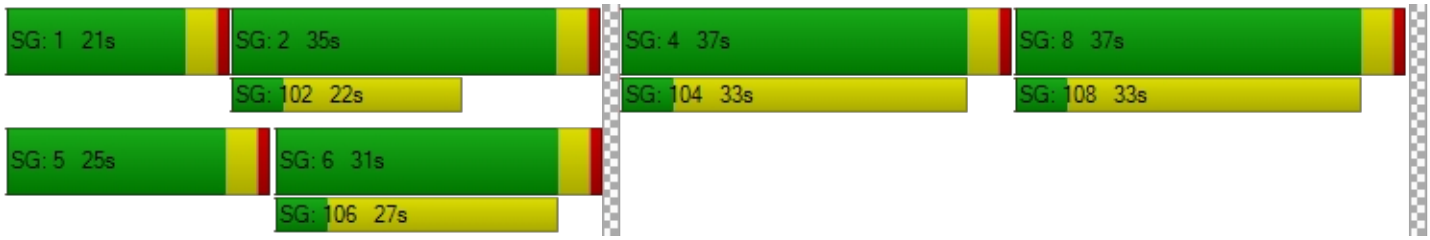
d_M, Delay for Movement [s/veh]	18.33	18.33	17.82	15.74	15.74	16.41	20.64	20.64	13.54	12.05	21.95	15.87	13.62
Movement LOS	B	B	B	B	B	B	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	18.19			16.15			14.53				16.24		
Approach LOS	B			B			B				B		
d_I, Intersection Delay [s/veh]	15.50												
Intersection LOS	B												
Intersection V/C	0.406												

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	14.30	14.30	14.30	14.30
l_p,int, Pedestrian LOS Score for Intersection	1.947	2.165	2.994	2.960
Crosswalk LOS	A	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]	1474	1474	1384	1206
d_b, Bicycle Delay [s]	1.55	1.55	2.12	3.53
l_b,int, Bicycle LOS Score for Intersection	1.657	1.772	1.931	1.927
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Via Del Lago (NS) at Moreno Beach Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	8.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.356

Intersection Setup

Name	Via Del Lago			Via Del Lago			Iris Ave			Moreno Beach Dr		
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	0	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	93.00	100.00	100.00	100.00	100.00	100.00	110.00	100.00	231.00	315.00	100.00	202.00
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]	35.00			25.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Via Del Lago			Via Del Lago			Iris Ave			Moreno Beach Dr		
Base Volume Input [veh/h]	18	1	21	3	1	12	11	541	27	30	551	7
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	17	0	16	0	0	0	0	23	22	22	31	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]	36	1	38	3	1	12	11	586	50	53	604	7
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	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	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	0	10	1	0	3	3	151	13	14	156	2
Total Analysis Volume [veh/h]	37	1	39	3	1	12	11	605	52	55	624	7
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	10	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	46	46	11	45	0	11	32	0	11	32	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	37	37	0	36	0	0	23	0	0	21	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	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

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	R
C, Cycle Length [s]	32	32	32	32	32	32	32	32	32	32	32
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	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	3	10	0	1	1	10	10	3	12	12
g / C, Green / Cycle	0.06	0.10	0.31	0.01	0.04	0.02	0.31	0.31	0.09	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.02	0.00	0.02	0.00	0.01	0.01	0.12	0.03	0.03	0.12	0.00
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1608	1781	5094	1589	1781	5094	1589
c, Capacity [veh/h]	115	183	493	12	65	39	1582	494	157	1918	599
d1, Uniform Delay [s]	14.40	13.12	7.86	15.91	14.96	15.50	8.69	7.91	13.82	7.13	6.29
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00	1.00
d2, Incremental Delay [s]	1.61	0.01	0.07	9.85	1.51	3.77	0.15	0.09	1.33	0.10	0.01
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
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	0.01	0.08	0.24	0.20	0.28	0.38	0.11	0.35	0.33	0.01
d, Delay for Lane Group [s/veh]	16.01	13.13	7.93	25.76	16.47	19.26	8.84	8.01	15.15	7.23	6.30
Lane Group LOS	B	B	A	C	B	B	A	A	B	A	A
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.25	0.01	0.13	0.05	0.10	0.10	0.56	0.14	0.30	0.43	0.01
50th-Percentile Queue Length [ft/ln]	6.22	0.14	3.28	1.31	2.61	2.39	13.92	3.46	7.61	10.82	0.34
95th-Percentile Queue Length [veh/ln]	0.45	0.01	0.24	0.09	0.19	0.17	1.00	0.25	0.55	0.78	0.02
95th-Percentile Queue Length [ft/ln]	11.20	0.25	5.91	2.36	4.70	4.31	25.05	6.22	13.69	19.48	0.61

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.01	13.13	7.93	25.76	16.47	16.47	19.26	8.84	8.01	15.15	7.23	6.30
Movement LOS	B	B	A	C	B	B	B	A	A	B	A	A
d_A, Approach Delay [s/veh]	11.88			18.21			8.95			7.86		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	8.69											
Intersection LOS	A											
Intersection V/C	0.356											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	8.29	8.29	8.29	8.29
l_p,int, Pedestrian LOS Score for Intersection	2.126	1.892	2.940	2.938
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]	2621	2559	1747	1747
d_b, Bicycle Delay [s]	1.54	1.25	0.26	0.26
l_b,int, Bicycle LOS Score for Intersection	1.687	1.586	1.927	1.937
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report

Intersection 7: Moreno Beach Dr (NS) at John F Kennedy Dr (EW)

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):	0.681

Intersection Setup

Name	Moreno Beach Dr			Moreno Beach Dr			John F Kennedy Dr			John F Kennedy Dr		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	282.00	100.00	248.00	350.00	100.00	186.00	100.00	100.00	190.00	320.00	100.00	196.00
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]	50.00			50.00			35.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Moreno Beach Dr			Moreno Beach Dr			John F Kennedy Dr			John F Kennedy Dr		
Base Volume Input [veh/h]	114	319	61	10	319	240	307	24	66	41	12	4
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	34	5	0	47	0	0	0	0	6	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]	119	366	68	10	379	250	319	25	69	49	12	4
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
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]	32	99	18	3	102	68	86	7	19	13	3	1
Total Analysis Volume [veh/h]	129	396	74	11	410	270	345	27	75	53	13	4
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	10	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	35	35	11	32	0	28	54	0	25	45	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	23	23	0	23	0	0	40	0	0	36	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	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

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	R	L	C	R	L	C	R
C, Cycle Length [s]	46	46	46	46	46	46	46	46	46	46	46	46
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	0.00	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	16	23	1	11	11	11	10	10	3	2	2
g / C, Green / Cycle	0.12	0.34	0.51	0.02	0.24	0.24	0.24	0.21	0.21	0.08	0.04	0.04
(v / s)_i Volume / Saturation Flow Rate	0.07	0.08	0.05	0.01	0.08	0.17	0.19	0.01	0.05	0.03	0.01	0.00
s, saturation flow rate [veh/h]	1781	5094	1589	1781	5094	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	221	1755	807	36	1227	383	433	393	334	136	81	69
d1, Uniform Delay [s]	18.99	10.70	5.83	22.17	14.40	15.95	16.32	14.53	15.03	20.20	21.16	21.07
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.43	0.06	0.05	4.53	0.16	2.39	3.39	0.07	0.34	1.82	0.91	0.35
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	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	0.58	0.23	0.09	0.30	0.33	0.71	0.80	0.07	0.22	0.39	0.16	0.06
d, Delay for Lane Group [s/veh]	21.42	10.76	5.88	26.70	14.56	18.33	19.71	14.60	15.36	22.02	22.07	21.41
Lane Group LOS	C	B	A	C	B	B	B	B	B	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.17	0.66	0.20	0.14	0.89	2.16	3.19	0.20	0.58	0.52	0.13	0.04
50th-Percentile Queue Length [ft/ln]	29.21	16.49	5.05	3.54	22.21	53.96	79.84	4.94	14.41	12.88	3.32	1.03
95th-Percentile Queue Length [veh/ln]	2.10	1.19	0.36	0.26	1.60	3.89	5.75	0.36	1.04	0.93	0.24	0.07
95th-Percentile Queue Length [ft/ln]	52.59	29.69	9.09	6.38	39.98	97.13	143.72	8.90	25.94	23.18	5.98	1.85

Movement, Approach, & Intersection Results

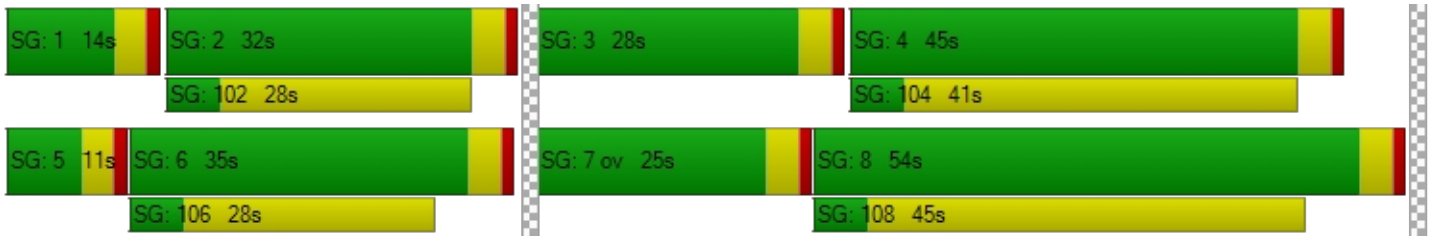
d_M, Delay for Movement [s/veh]	21.42	10.76	5.88	26.70	14.56	18.33	19.71	14.60	15.36	22.02	22.07	21.41
Movement LOS	C	B	A	C	B	B	B	B	B	C	C	C
d_A, Approach Delay [s/veh]	12.46			16.23			18.67			22.00		
Approach LOS	B			B			B			C		
d_I, Intersection Delay [s/veh]	15.80											
Intersection LOS	B											
Intersection V/C	0.681											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	14.75	14.75	14.75	14.75
l_p,int, Pedestrian LOS Score for Intersection	2.922	2.982	2.341	2.318
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1356	1225	2187	1794
d_b, Bicycle Delay [s]	2.37	3.43	0.20	0.24
l_b,int, Bicycle LOS Score for Intersection	1.889	1.940	2.297	1.675
Bicycle LOS	A	A	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Oliver St (NS) at John F Kennedy Dr (EW)

Control Type:	All-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.234

Intersection Setup

Name	Oliver St		Oliver St		John F Kennedy Dr	
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	1	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]	35.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Oliver St		Oliver St		John F Kennedy Dr	
Base Volume Input [veh/h]	81	22	87	49	21	34
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	0	13	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	23	91	64	22	35
Peak Hour Factor	0.8750	0.8750	0.8750	0.8750	0.8750	0.8750
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	7	26	18	6	10
Total Analysis Volume [veh/h]	109	26	104	73	25	40
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	743	787	756	624	789
Degree of Utilization, x	0.09	0.09	0.23	0.04	0.05

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.30	0.28	0.91	0.12	0.16
95th-Percentile Queue Length [ft]	7.47	7.01	22.66	3.12	4.00
Approach Delay [s/veh]	7.87		9.22	7.97	
Approach LOS	A		A	A	
Intersection Delay [s/veh]	8.52				
Intersection LOS	A				

Intersection Level Of Service Report
Intersection 9: Oliver St (NS) at Filaree Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.048

Intersection Setup

Name	Oliver St		Oliver St		Filaree Ave	
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]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Filaree Ave	
Base Volume Input [veh/h]	76	0	0	67	26	26
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	1.0404	1.0000	1.0000	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	0	13	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]	90	0	0	83	27	27
Peak Hour Factor	0.7101	0.9500	0.9500	0.7101	0.7101	0.7101
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	32	0	0	29	10	10
Total Analysis Volume [veh/h]	127	0	0	117	38	38
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	0.00	0.00	0.00	0.00	0.05	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	9.81	8.79
Movement LOS	A			A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.15	0.12
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	3.80	3.00
d_A, Approach Delay [s/veh]	0.00		0.00		9.30	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.21					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 10: Oliver St (NS) at Shellie Way (EW)

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):	0.025

Intersection Setup

Name	Oliver St		Oliver St		Shellie Way	
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	1	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]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Shellie Way	
Base Volume Input [veh/h]	73	20	9	83	14	3
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	0	13	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	21	9	99	15	3
Peak Hour Factor	0.7891	0.7891	0.7891	0.7891	0.7891	0.7891
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	7	3	31	5	1
Total Analysis Volume [veh/h]	110	27	11	125	19	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.01	0.00	0.03	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.50	0.00	9.90	8.81
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.01	0.09	0.09
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.46	0.23	2.26	2.26
d_A, Approach Delay [s/veh]	0.00		0.61		9.71	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.03					
Intersection LOS	A					

OPENING YEAR (2025) WITH PROJECT

AM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Grand Vista Dr (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	5.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.383

Intersection Setup

Name	Grand Vista Dr		Iris Ave		Iris Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	1	0
Entry Pocket Length [ft]	105.00	100.00	100.00	212.00	296.00	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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Grand Vista Dr		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	97	32	1144	51	12	1072
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	8	48	0	8	87
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]	101	41	1238	53	20	1202
Peak Hour Factor	0.9350	0.9350	0.9350	0.9350	0.9350	0.9350
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	11	331	14	5	321
Total Analysis Volume [veh/h]	108	44	1324	57	21	1286
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Permissive	Permissive	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	2	0	1	6
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	10	0	7	10
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	53	0	27	0	11	38
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	34	0	18	0	0	10
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	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, 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]	8	8	68	68	3	74
g / C, Green / Cycle	0.08	0.08	0.75	0.75	0.03	0.83
(v / s)_i Volume / Saturation Flow Rate	0.06	0.03	0.26	0.04	0.01	0.25
s, saturation flow rate [veh/h]	1781	1589	5094	1589	1781	5094
c, Capacity [veh/h]	150	134	3818	1191	59	4212
d1, Uniform Delay [s]	40.19	38.83	3.82	2.93	42.60	1.80
k, delay calibration	0.11	0.11	0.50	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.34	1.41	0.25	0.08	3.63	0.19
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	0.72	0.33	0.35	0.05	0.36	0.31
d, Delay for Lane Group [s/veh]	46.54	40.25	4.07	3.01	46.23	1.99
Lane Group LOS	D	D	A	A	D	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.59	0.97	1.55	0.17	0.49	0.37
50th-Percentile Queue Length [ft/ln]	64.82	24.23	38.70	4.25	12.32	9.37
95th-Percentile Queue Length [veh/ln]	4.67	1.74	2.79	0.31	0.89	0.67
95th-Percentile Queue Length [ft/ln]	116.67	43.61	69.66	7.64	22.18	16.87

Movement, Approach, & Intersection Results

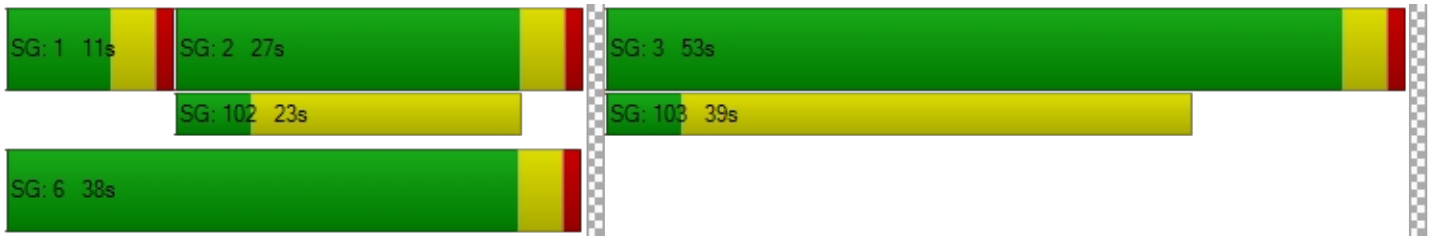
d_M, Delay for Movement [s/veh]	46.54	40.25	4.07	3.01	46.23	1.99
Movement LOS	D	D	A	A	D	A
d_A, Approach Delay [s/veh]	44.72		4.02		2.70	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	5.59					
Intersection LOS	A					
Intersection V/C	0.383					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
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]	36.46	36.46	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.004	3.240	0.000
Crosswalk LOS	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1089	511	755
d_b, Bicycle Delay [s]	9.35	24.95	17.43
l_b,int, Bicycle LOS Score for Intersection	1.560	2.319	2.278
Bicycle LOS	A	B	B

Sequence

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



Intersection Level Of Service Report
Intersection 2: Nason St (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	26.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.526

Intersection Setup

Name	Nason St			Nason St			Iris Ave			Iris Ave		
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	1	0	0	2	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	208.00	100.00	100.00	263.00	100.00	207.00	174.00	100.00	163.00
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			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Nason St			Nason St			Iris Ave			Iris Ave		
Base Volume Input [veh/h]	17	38	9	128	17	298	336	811	16	11	730	114
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
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	4	0	0	0	56	0	0	95	4
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]	18	40	9	137	18	310	350	900	17	11	854	123
Peak Hour Factor	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380	0.9380
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	11	2	37	5	83	93	240	5	3	228	33
Total Analysis Volume [veh/h]	19	43	10	146	19	330	373	959	18	12	910	131
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	0	7	10	10	7	10	0	7	10	0
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	50	0	14	53	53	17	41	0	15	39	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	41	0	0	40	40	0	18	0	0	30	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	2.0	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	2.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, 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	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	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	8	10	15	32	13	83	83	2	73	73
g / C, Green / Cycle	0.03	0.07	0.08	0.13	0.27	0.11	0.69	0.69	0.02	0.61	0.61
(v / s)_i Volume / Saturation Flow Rate	0.01	0.03	0.08	0.01	0.21	0.11	0.19	0.01	0.01	0.18	0.08
s, saturation flow rate [veh/h]	1781	1810	1781	1870	1589	3459	5094	1589	1781	5094	1589
c, Capacity [veh/h]	50	126	149	234	425	376	3534	1103	35	3082	962
d1, Uniform Delay [s]	57.33	53.53	54.90	46.39	40.67	53.46	6.93	5.69	58.06	11.40	10.20
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]	4.79	2.23	29.77	0.15	3.10	20.05	0.19	0.03	5.65	0.24	0.29
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	0.38	0.42	0.98	0.08	0.78	0.99	0.27	0.02	0.34	0.30	0.14
d, Delay for Lane Group [s/veh]	62.12	55.77	84.67	46.54	43.77	73.50	7.12	5.72	63.71	11.64	10.50
Lane Group LOS	E	E	F	D	D	E	A	A	E	B	B
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.64	1.63	5.52	0.50	9.06	6.47	2.58	0.12	0.40	3.53	1.42
50th-Percentile Queue Length [ft/ln]	15.94	40.67	138.10	12.52	226.45	161.65	64.50	3.12	10.10	88.17	35.38
95th-Percentile Queue Length [veh/ln]	1.15	2.93	9.38	0.90	13.99	10.64	4.64	0.22	0.73	6.35	2.55
95th-Percentile Queue Length [ft/ln]	28.69	73.21	234.46	22.54	349.85	265.91	116.10	5.61	18.19	158.70	63.68

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.12	55.77	55.77	84.67	46.54	43.77	73.50	7.12	5.72	63.71	11.64	10.50
Movement LOS	E	E	E	F	D	D	E	A	A	E	B	B
d_A, Approach Delay [s/veh]	57.45			55.94			25.44			12.10		
Approach LOS	E			E			C			B		
d_I, Intersection Delay [s/veh]	26.57											
Intersection LOS	C											
Intersection V/C	0.526											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	51.35	51.35	51.35	51.35
l_p,int, Pedestrian LOS Score for Intersection	1.988	2.620	3.336	3.181
Crosswalk LOS	A	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]	767	817	617	583
d_b, Bicycle Delay [s]	22.82	21.01	28.71	30.11
l_b,int, Bicycle LOS Score for Intersection	1.678	2.376	2.302	2.139
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 3: Kaiser Hospital (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	8.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.373

Intersection Setup

Name	Kaiser Hospital		Iris Ave		Iris Ave	
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	1	0	1	0	0	1
Entry Pocket Length [ft]	110.00	100.00	195.00	100.00	100.00	200.00
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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Kaiser Hospital		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	19	21	210	785	757	74
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	60	99	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]	20	22	218	877	887	77
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]	5	6	57	231	233	20
Total Analysis Volume [veh/h]	21	23	229	922	933	81
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]	95
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Split	Overlap	Protected	Permissive	Permissive	Permissive
Signal Group	7	4	5	2	6	0
Auxiliary Signal Groups		4				
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	7	7	10	10	0
Maximum Green [s]	30	30	30	30	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	42	42	24	53	29	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	33	0	0	10	20	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	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No	No	No	No	
Maximum Recall	No	No	No	No	No	
Pedestrian Recall	No	No	No	No	No	
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	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
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]	3	3	14	84	66	66
g / C, Green / Cycle	0.03	0.03	0.15	0.88	0.69	0.69
(v / s)_i Volume / Saturation Flow Rate	0.01	0.01	0.13	0.18	0.18	0.05
s, saturation flow rate [veh/h]	1781	1589	1781	5094	5094	1589
c, Capacity [veh/h]	61	54	266	4491	3517	1097
d1, Uniform Delay [s]	44.85	44.97	39.47	0.81	5.57	4.80
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.35	5.19	8.09	0.10	0.18	0.13
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	0.35	0.42	0.86	0.21	0.27	0.07
d, Delay for Lane Group [s/veh]	48.20	50.16	47.56	0.92	5.76	4.93
Lane Group LOS	D	D	D	A	A	A
Critical Lane Group	No	Yes	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.54	0.61	5.50	0.04	1.72	0.41
50th-Percentile Queue Length [ft/ln]	13.55	15.28	137.55	1.08	43.07	10.31
95th-Percentile Queue Length [veh/ln]	0.98	1.10	9.35	0.08	3.10	0.74
95th-Percentile Queue Length [ft/ln]	24.38	27.50	233.72	1.94	77.53	18.57

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	48.20	50.16	47.56	0.92	5.76	4.93
Movement LOS	D	D	D	A	A	A
d_A, Approach Delay [s/veh]	49.22		10.20		5.69	
Approach LOS	D		B		A	
d_I, Intersection Delay [s/veh]	8.91					
Intersection LOS	A					
Intersection V/C	0.373					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
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]	38.93	38.93	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.040	3.087	0.000
Crosswalk LOS	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	800	1032	526
d_b, Bicycle Delay [s]	17.10	11.14	25.79
l_b,int, Bicycle LOS Score for Intersection	1.560	2.193	2.117
Bicycle LOS	A	B	B

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 4: Medical Offices (NS) at Iris Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	16.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.146

Intersection Setup

Name	Medical Offices		Iris Ave		Iris Ave	
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	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	280.00	100.00	100.00	192.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	25.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Medical Offices		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	0	29	51	762	806	29
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	60	99	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	30	53	853	938	30
Peak Hour Factor	0.9524	0.9524	0.9524	0.9524	0.9524	0.9524
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	8	14	224	246	8
Total Analysis Volume [veh/h]	0	31	56	896	985	31
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
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	0.00	0.07	0.15	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	13.66	15.95	0.00	0.00	0.00
Movement LOS		B	C	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.22	0.51	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	5.57	12.63	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	13.66		0.94		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.66					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 5: Oliver St (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	28.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.795

Intersection Setup

Name	Oliver St			Oliver St			Iris Ave				Iris Ave		
Approach	Northbound			Southbound			Eastbound				Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	52.00	100.00	100.00	100.00	235.0	100.0	100.0	200.0	249.00	100.00	200.00
No. of Lanes in Exit Pocket	0	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	0.00
Speed [mph]	25.00			35.00			50.00				50.00		
Grade [%]	0.00			0.00			0.00				0.00		
Curb Present	No			No			No				No		
Crosswalk	Yes			Yes			Yes				Yes		

Volumes

Name	Oliver St			Oliver St			Iris Ave				Iris Ave		
Base Volume Input [veh/h]	41	51	28	8	38	278	0	231	495	19	26	521	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	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	2.00
Proportion of CAVs [%]	0.00												
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.000	1.040	1.040	1.040	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	8	0	0	89	8	0	41	10	9	0	0	61	2
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	19	0	0	106	19	0	67	0	0	0	0	48	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	70	53	29	203	67	289	108	250	524	20	27	651	11
Peak Hour Factor	0.9150	0.9150	0.9150	0.9150	0.9150	0.9150	0.950	0.915	0.915	0.915	0.9150	0.9150	0.9150
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	14	8	55	18	79	28	68	143	5	7	178	3
Total Analysis Volume [veh/h]	77	58	32	222	73	316	114	273	573	22	30	711	12
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	0
Local Bus Stopping Rate [/h]	0	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]	130
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Split	Split	Split	Split	Split	Split	Permi	Prote	Permi	Permi	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	0	5	2	0	1	6	0
Auxiliary Signal Groups													
Lead / Lag	-	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	0	7	10	0	7	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	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	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	37	0	0	37	0	0	25	35	0	21	31	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	0	17	0	0	22	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	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	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	0.0	2.0	2.0	0.0	2.0	2.0	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	
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	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	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	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	R	C	R	L	C	R	L	C	R
C, Cycle Length [s]	77	77	77	77	77	77	77	77	77	77
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
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
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
g_i, Effective Green Time [s]	10	10	18	18	19	30	30	3	14	14
g / C, Green / Cycle	0.13	0.13	0.24	0.24	0.25	0.39	0.39	0.04	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.07	0.02	0.16	0.20	0.22	0.11	0.01	0.02	0.14	0.01
s, saturation flow rate [veh/h]	1818	1589	1802	1589	1781	5094	1589	1781	5094	1589
c, Capacity [veh/h]	230	201	424	374	439	1974	616	77	940	293
d1, Uniform Delay [s]	31.77	30.01	26.94	28.12	27.96	16.28	14.65	35.86	29.77	25.81
k, delay calibration	0.11	0.11	0.11	0.11	0.13	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	1.00	1.00
d2, Incremental Delay [s]	2.39	0.37	2.07	5.28	6.88	0.08	0.02	3.18	1.27	0.06
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
Rp, platoon ratio	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

Lane Group Results

X, volume / capacity	0.59	0.16	0.70	0.85	0.88	0.29	0.04	0.39	0.76	0.04
d, Delay for Lane Group [s/veh]	34.15	30.38	29.01	33.40	34.84	16.36	14.68	39.04	31.04	25.87
Lane Group LOS	C	C	C	C	C	B	B	D	C	C
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.49	0.54	4.91	5.77	6.93	2.02	0.21	0.58	3.86	0.17
50th-Percentile Queue Length [ft/ln]	62.15	13.58	122.76	144.15	173.17	50.39	5.29	14.40	96.61	4.23
95th-Percentile Queue Length [veh/ln]	4.47	0.98	8.54	9.70	11.24	3.63	0.38	1.04	6.96	0.30
95th-Percentile Queue Length [ft/ln]	111.87	24.44	213.61	242.60	281.08	90.70	9.51	25.92	173.90	7.62

Movement, Approach, & Intersection Results

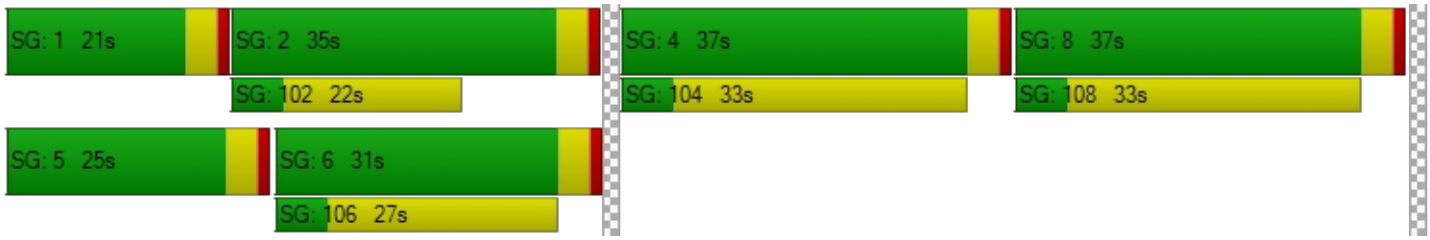
d_M, Delay for Movement [s/veh]	34.15	34.15	30.38	29.01	29.01	33.40	34.84	34.84	16.36	14.68	39.04	31.04	25.87
Movement LOS	C	C	C	C	C	C	C	C	B	B	D	C	C
d_A, Approach Delay [s/veh]	33.43			31.28			23.61				31.27		
Approach LOS	C			C			C				C		
d_I, Intersection Delay [s/veh]	28.42												
Intersection LOS	C												
Intersection V/C	0.795												

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	29.98	29.98	29.98	29.98
l_p,int, Pedestrian LOS Score for Intersection	2.013	2.396	3.143	3.040
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]	858	858	806	702
d_b, Bicycle Delay [s]	12.53	12.53	13.70	16.19
l_b,int, Bicycle LOS Score for Intersection	1.835	2.568	1.950	1.974
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Via Del Lago (NS) at Moreno Beach Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	10.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.396

Intersection Setup

Name	Via Del Lago			Via Del Lago			Iris Ave			Moreno Beach Dr		
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	0	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	93.00	100.00	100.00	100.00	100.00	100.00	110.00	100.00	231.00	315.00	100.00	202.00
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]	35.00			25.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Via Del Lago			Via Del Lago			Iris Ave			Moreno Beach Dr		
Base Volume Input [veh/h]	31	0	31	6	0	30	15	500	30	24	489	7
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	26	0	23	0	0	0	0	84	14	10	37	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]	58	0	55	6	0	31	16	604	45	35	546	7
Peak Hour Factor	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002	0.9002
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]	16	0	15	2	0	9	4	168	12	10	152	2
Total Analysis Volume [veh/h]	64	0	61	7	0	34	18	671	50	39	607	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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	10	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	46	46	11	45	0	12	37	0	11	36	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	37	37	0	36	0	0	23	0	0	21	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	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

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	R
C, Cycle Length [s]	34	34	34	34	34	34	34	34	34	34	34
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	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	6	12	0	3	1	10	10	2	11	11
g / C, Green / Cycle	0.09	0.16	0.34	0.01	0.08	0.03	0.29	0.29	0.06	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.04	0.00	0.04	0.00	0.02	0.01	0.13	0.03	0.02	0.12	0.01
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1589	1781	5094	1589	1781	5094	1589
c, Capacity [veh/h]	170	308	550	25	132	60	1482	463	116	1644	513
d1, Uniform Delay [s]	14.60	0.00	7.65	16.79	14.78	16.23	9.96	8.93	15.36	8.95	7.93
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00	1.00
d2, Incremental Delay [s]	1.37	0.00	0.09	5.99	1.02	2.79	0.22	0.10	1.68	0.14	0.01
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
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	0.38	0.00	0.11	0.28	0.26	0.30	0.45	0.11	0.34	0.37	0.02
d, Delay for Lane Group [s/veh]	15.97	0.00	7.74	22.78	15.79	19.03	10.17	9.03	17.04	9.09	7.94
Lane Group LOS	B	A	A	C	B	B	B	A	B	A	A
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.43	0.00	0.21	0.09	0.25	0.14	0.79	0.17	0.26	0.63	0.02
50th-Percentile Queue Length [ft/ln]	10.76	0.00	5.30	2.22	6.21	3.62	19.74	4.13	6.45	15.74	0.58
95th-Percentile Queue Length [veh/ln]	0.78	0.00	0.38	0.16	0.45	0.26	1.42	0.30	0.46	1.13	0.04
95th-Percentile Queue Length [ft/ln]	19.38	0.00	9.54	3.99	11.18	6.51	35.53	7.44	11.61	28.32	1.04

Movement, Approach, & Intersection Results

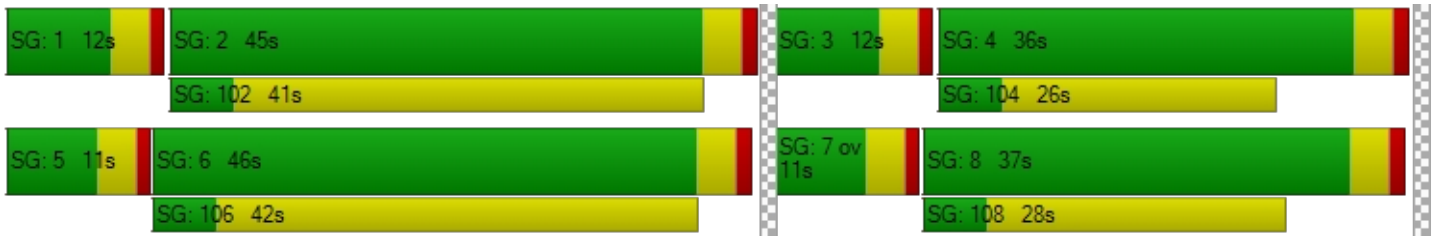
d_M, Delay for Movement [s/veh]	15.97	0.00	7.74	22.78	15.79	15.79	19.03	10.17	9.03	17.04	9.09	7.94
Movement LOS	B	A	A	C	B	B	B	B	A	B	A	A
d_A, Approach Delay [s/veh]	11.95			16.99			10.31			9.55		
Approach LOS	B			B			B			A		
d_I, Intersection Delay [s/veh]	10.30											
Intersection LOS	B											
Intersection V/C	0.396											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	9.32	9.32	9.32	9.32
l_p,int, Pedestrian LOS Score for Intersection	2.139	1.905	2.966	2.955
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]	2451	2393	1926	1867
d_b, Bicycle Delay [s]	0.87	0.66	0.02	0.08
l_b,int, Bicycle LOS Score for Intersection	1.766	1.627	1.966	1.919
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 7: Moreno Beach Dr (NS) at John F Kennedy Dr (EW)

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):	0.679

Intersection Setup

Name	Moreno Beach Dr			Moreno Beach Dr			John F Kennedy Dr			John F Kennedy Dr		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	282.00	100.00	248.00	350.00	100.00	186.00	100.00	100.00	190.00	320.00	100.00	196.00
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]	50.00			50.00			35.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Moreno Beach Dr			Moreno Beach Dr			John F Kennedy Dr			John F Kennedy Dr		
Base Volume Input [veh/h]	122	283	101	18	322	236	228	69	202	56	36	6
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	84	23	0	35	8	0	0	0	12	8	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]	127	378	128	19	370	254	237	72	210	70	45	6
Peak Hour Factor	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745	0.8745
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]	36	108	37	5	106	73	68	21	60	20	13	2
Total Analysis Volume [veh/h]	145	432	146	22	423	290	271	82	240	80	51	7
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	10	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	35	35	13	32	0	22	49	0	18	45	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	23	23	0	23	0	0	40	0	0	36	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	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

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	R	L	C	R	L	C	R
C, Cycle Length [s]	50	50	50	50	50	50	50	50	50	50	50	50
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	17	17	2	12	12	10	10	10	5	6	6
g / C, Green / Cycle	0.12	0.33	0.33	0.04	0.25	0.25	0.19	0.21	0.21	0.10	0.11	0.11
(v / s)_i Volume / Saturation Flow Rate	0.08	0.08	0.09	0.01	0.08	0.18	0.15	0.04	0.15	0.04	0.03	0.00
s, saturation flow rate [veh/h]	1781	5094	1589	1781	5094	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	218	1699	530	67	1266	395	347	397	337	170	210	179
d1, Uniform Delay [s]	20.86	12.08	12.18	23.34	15.33	17.19	19.03	16.16	18.20	21.33	20.16	19.69
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.44	0.08	0.28	2.80	0.15	2.66	3.83	0.26	2.79	2.03	0.59	0.09
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	0.66	0.25	0.28	0.33	0.33	0.73	0.78	0.21	0.71	0.47	0.24	0.04
d, Delay for Lane Group [s/veh]	24.30	12.16	12.45	26.14	15.48	19.85	22.86	16.41	20.98	23.36	20.75	19.78
Lane Group LOS	C	B	B	C	B	B	C	B	C	C	C	B
Critical Lane Group	Yes	No	No	No	No	Yes	No	No	Yes	Yes	No	No
50th-Percentile Queue Length [veh/ln]	1.52	0.86	0.91	0.26	1.03	2.62	2.92	0.69	2.45	0.84	0.49	0.07
50th-Percentile Queue Length [ft/ln]	37.91	21.49	22.67	6.57	25.67	65.46	73.01	17.31	61.27	21.01	12.21	1.63
95th-Percentile Queue Length [veh/ln]	2.73	1.55	1.63	0.47	1.85	4.71	5.26	1.25	4.41	1.51	0.88	0.12
95th-Percentile Queue Length [ft/ln]	68.23	38.68	40.81	11.83	46.20	117.83	131.42	31.16	110.28	37.81	21.98	2.94

Movement, Approach, & Intersection Results

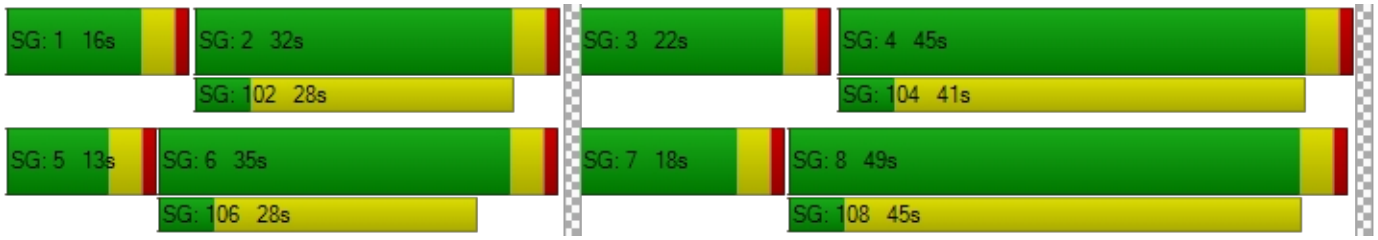
d_M, Delay for Movement [s/veh]	24.30	12.16	12.45	26.14	15.48	19.85	22.86	16.41	20.98	23.36	20.75	19.78
Movement LOS	C	B	B	C	B	B	C	B	C	C	C	B
d_A, Approach Delay [s/veh]	14.65			17.53			21.21			22.21		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	17.87											
Intersection LOS	B											
Intersection V/C	0.679											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	16.60	16.60	16.60	16.60
l_p,int, Pedestrian LOS Score for Intersection	2.993	2.989	2.408	2.383
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1251	1130	1816	1655
d_b, Bicycle Delay [s]	3.47	4.69	0.21	0.74
l_b,int, Bicycle LOS Score for Intersection	1.957	1.964	2.538	1.787
Bicycle LOS	A	A	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Oliver St (NS) at John F Kennedy Dr (EW)

Control Type:	All-way stop	Delay (sec / veh):	17.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.778

Intersection Setup

Name	Oliver St		Oliver St		John F Kennedy Dr	
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	1	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]	35.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Oliver St		Oliver St		John F Kennedy Dr	
Base Volume Input [veh/h]	265	46	204	149	45	116
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	19	0	0	17	16	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]	295	48	212	172	63	121
Peak Hour Factor	0.7872	0.7872	0.7872	0.7872	0.7872	0.7872
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	94	15	67	55	20	38
Total Analysis Volume [veh/h]	375	61	269	218	80	154
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	607	629	625	488	584
Degree of Utilization, x	0.36	0.35	0.78	0.16	0.26

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	1.63	1.55	7.38	0.58	1.05
95th-Percentile Queue Length [ft]	40.63	38.67	184.55	14.54	26.32
Approach Delay [s/veh]	11.67		25.96	11.21	
Approach LOS	B		D	B	
Intersection Delay [s/veh]	17.59				
Intersection LOS	C				

Intersection Level Of Service Report
Intersection 9: Oliver St (NS) at Filaree Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	14.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.314

Intersection Setup

Name	Oliver St		Oliver St		Filaree Ave	
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]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Filaree Ave	
Base Volume Input [veh/h]	141	0	0	198	127	167
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	1.0404	1.0000	1.0000	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	19	0	0	32	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]	166	0	0	238	132	174
Peak Hour Factor	0.7220	0.9500	0.9500	0.7220	0.7220	0.7220
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	57	0	0	82	46	60
Total Analysis Volume [veh/h]	230	0	0	330	183	241
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	0.00	0.00	0.00	0.00	0.31	0.26
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	13.99	10.33
Movement LOS	A			A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	1.34	1.06
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	33.49	26.46
d_A, Approach Delay [s/veh]	0.00		0.00		11.91	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.13					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 10: Oliver St (NS) at Shellie Way (EW)

Control Type:	Two-way stop	Delay (sec / veh):	18.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.223

Intersection Setup

Name	Oliver St		Oliver St		Shellie Way	
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	1	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]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Shellie Way	
Base Volume Input [veh/h]	126	164	52	272	52	18
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	19	0	0	32	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]	150	171	54	315	54	19
Peak Hour Factor	0.7070	0.7070	0.7070	0.7070	0.7070	0.7070
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	53	60	19	111	19	7
Total Analysis Volume [veh/h]	212	242	76	446	76	27
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.07	0.00	0.22	0.03
d_M, Delay for Movement [s/veh]	0.00	0.00	8.35	0.00	18.70	12.75
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.13	0.07	1.02	1.02
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.30	1.65	25.41	25.41
d_A, Approach Delay [s/veh]	0.00		1.22		17.14	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.22					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 11: Oliver St (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	11.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.254

Intersection Setup

Name	Oliver St		Oliver St		Project Dwy	
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	0	0	0	1	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	2	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	74.61	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Project Dwy	
Base Volume Input [veh/h]	0	291	324	0	0	0
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	1.0404	1.0404	1.0404	1.0000	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	12	47	23	0	50
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	58	0	125
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	315	384	81	0	175
Peak Hour Factor	0.9500	0.9200	0.9200	0.9200	0.9500	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	86	104	22	0	48
Total Analysis Volume [veh/h]	0	342	417	88	0	190
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	0.00	0.00	0.00	0.00	0.00	0.25
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	11.45
Movement LOS		A	A	A		B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	1.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	25.22
d_A, Approach Delay [s/veh]	0.00		0.00		11.45	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.10					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 12: Project Dwy (NS) at Iris Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	15.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.235

Intersection Setup

Name	Project Dwy		Iris Ave		Iris Ave	
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	1
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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Dwy		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	0	0	0	762	840	0
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	1.0404	1.0000	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	27	0	60	54	56
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	68	0	67	0	134
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	95	0	920	928	190
Peak Hour Factor	0.9500	0.9200	0.9500	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	26	0	250	252	52
Total Analysis Volume [veh/h]	0	103	0	1000	1009	207
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
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	0.00	0.23	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	15.70	0.00	0.00	0.00	0.00
Movement LOS		C		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.90	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	22.52	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	15.70		0.00		0.00	
Approach LOS	C		A		A	
d_I, Intersection Delay [s/veh]	0.70					
Intersection LOS	C					

PM PEAK HOUR

Intersection Level Of Service Report
Intersection 1: Grand Vista Dr (NS) at Iris Ave (EW)

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):	0.296

Intersection Setup

Name	Grand Vista Dr		Iris Ave		Iris Ave	
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	1	0
Entry Pocket Length [ft]	105.00	100.00	100.00	212.00	296.00	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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Grand Vista Dr		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	39	26	922	60	20	1039
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	9	73	0	9	59
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]	41	36	1032	62	30	1140
Peak Hour Factor	0.9714	0.9714	0.9714	0.9714	0.9714	0.9714
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	9	266	16	8	293
Total Analysis Volume [veh/h]	42	37	1062	64	31	1174
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]	85
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Permissive	Permissive	Permissive	Permissive	Protected	Permissive
Signal Group	3	0	2	0	1	6
Auxiliary Signal Groups						
Lead / Lag	Lead	-	-	-	Lead	-
Minimum Green [s]	7	0	10	0	7	10
Maximum Green [s]	30	0	30	0	30	30
Amber [s]	3.0	0.0	3.0	0.0	3.0	3.0
All red [s]	1.0	0.0	1.0	0.0	1.0	1.0
Split [s]	43	0	31	0	11	42
Vehicle Extension [s]	3.0	0.0	3.0	0.0	3.0	3.0
Walk [s]	5	0	5	0	0	5
Pedestrian Clearance [s]	34	0	18	0	0	10
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	0.0	2.0	0.0	2.0	2.0
I2, Clearance Lost Time [s]	2.0	0.0	2.0	0.0	2.0	2.0
Minimum Recall	No		No		No	No
Maximum Recall	No		No		No	No
Pedestrian Recall	No		No		No	No
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	R	C	R	L	C
C, Cycle Length [s]	85	85	85	85	85	85
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	6	63	63	4	71
g / C, Green / Cycle	0.07	0.07	0.75	0.75	0.04	0.84
(v / s)_i Volume / Saturation Flow Rate	0.02	0.02	0.21	0.04	0.02	0.23
s, saturation flow rate [veh/h]	1781	1589	5094	1589	1781	5094
c, Capacity [veh/h]	126	113	3790	1183	78	4254
d1, Uniform Delay [s]	37.61	37.60	3.52	2.90	39.55	1.50
k, delay calibration	0.11	0.11	0.50	0.50	0.11	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.53	1.68	0.18	0.09	3.20	0.16
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	0.33	0.33	0.28	0.05	0.39	0.28
d, Delay for Lane Group [s/veh]	39.15	39.29	3.70	2.99	42.75	1.66
Lane Group LOS	D	D	A	A	D	A
Critical Lane Group	Yes	No	No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	0.88	0.78	1.06	0.18	0.66	0.11
50th-Percentile Queue Length [ft/ln]	22.10	19.60	26.49	4.42	16.57	2.70
95th-Percentile Queue Length [veh/ln]	1.59	1.41	1.91	0.32	1.19	0.19
95th-Percentile Queue Length [ft/ln]	39.78	35.28	47.68	7.96	29.83	4.86

Movement, Approach, & Intersection Results

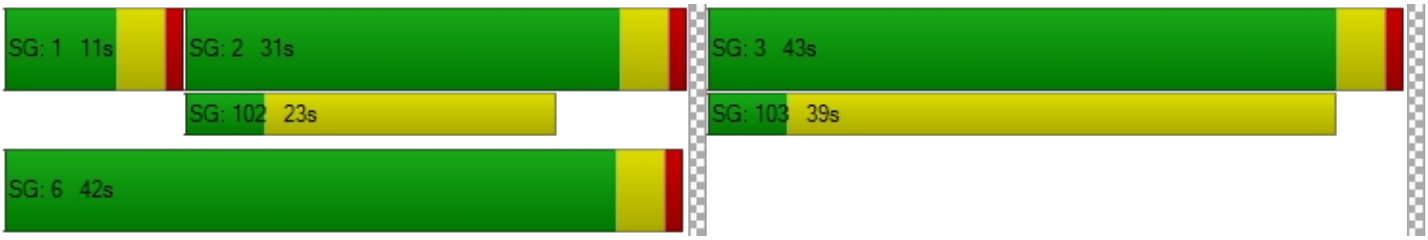
d_M, Delay for Movement [s/veh]	39.15	39.29	3.70	2.99	42.75	1.66
Movement LOS	D	D	A	A	D	A
d_A, Approach Delay [s/veh]	39.21		3.66		2.72	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	4.36					
Intersection LOS	A					
Intersection V/C	0.296					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
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]	33.99	33.99	0.00
I_p,int, Pedestrian LOS Score for Intersection	1.986	3.136	0.000
Crosswalk LOS	A	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	917	635	894
d_b, Bicycle Delay [s]	12.46	19.80	13.01
I_b,int, Bicycle LOS Score for Intersection	1.560	2.179	2.222
Bicycle LOS	A	B	B

Sequence

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



Intersection Level Of Service Report
Intersection 2: Nason St (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	25.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.469

Intersection Setup

Name	Nason St			Nason St			Iris Ave			Iris Ave		
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	1	0	0	2	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	208.00	100.00	100.00	263.00	100.00	207.00	174.00	100.00	163.00
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			45.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Nason St			Nason St			Iris Ave			Iris Ave		
Base Volume Input [veh/h]	13	15	13	100	27	328	267	655	30	25	703	131
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
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	5	0	0	0	82	0	0	68	5
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]	14	16	14	109	28	341	278	763	31	26	799	141
Peak Hour Factor	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502	0.9502
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	4	4	29	7	90	73	201	8	7	210	37
Total Analysis Volume [veh/h]	15	17	15	115	29	359	293	803	33	27	841	148
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	4	5	2	0	1	6	0
Auxiliary Signal Groups						4,5						
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	0	7	10	10	7	10	0	7	10	0
Maximum Green [s]	30	30	0	30	30	30	30	30	0	30	30	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	11	50	0	16	55	55	15	38	0	16	39	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	5	0	5	0	0	5	0
Pedestrian Clearance [s]	0	41	0	0	40	40	0	18	0	0	30	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	2.0	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	2.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	C	L	C	R	L	C	R	L	C	R
C, 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	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	0.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	3	7	10	14	29	11	83	83	4	76	76
g / C, Green / Cycle	0.02	0.06	0.08	0.12	0.24	0.09	0.69	0.69	0.04	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate	0.01	0.02	0.06	0.02	0.23	0.08	0.16	0.02	0.02	0.17	0.09
s, saturation flow rate [veh/h]	1781	1727	1781	1870	1589	3459	5094	1589	1781	5094	1589
c, Capacity [veh/h]	43	103	142	215	383	319	3526	1100	63	3237	1010
d1, Uniform Delay [s]	57.68	54.09	54.38	47.74	44.70	54.05	6.76	5.81	56.70	9.56	8.80
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]	4.89	1.69	10.60	0.28	11.03	10.65	0.15	0.05	4.50	0.20	0.31
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	0.35	0.31	0.81	0.13	0.94	0.92	0.23	0.03	0.43	0.26	0.15
d, Delay for Lane Group [s/veh]	62.58	55.78	64.98	48.02	55.73	64.69	6.91	5.86	61.20	9.75	9.11
Lane Group LOS	E	E	E	D	E	E	A	A	E	A	A
Critical Lane Group	Yes	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.51	0.98	3.75	0.78	11.26	4.71	2.10	0.23	0.86	2.86	1.45
50th-Percentile Queue Length [ft/ln]	12.76	24.60	93.82	19.52	281.56	117.76	52.43	5.82	21.43	71.48	36.18
95th-Percentile Queue Length [veh/ln]	0.92	1.77	6.75	1.41	16.77	8.27	3.77	0.42	1.54	5.15	2.60
95th-Percentile Queue Length [ft/ln]	22.96	44.29	168.87	35.13	419.15	206.75	94.37	10.47	38.57	128.67	65.12

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	62.58	55.78	55.78	64.98	48.02	55.73	64.69	6.91	5.86	61.20	9.75	9.11
Movement LOS	E	E	E	E	D	E	E	A	A	E	A	A
d_A, Approach Delay [s/veh]	57.95			57.40			21.87			11.03		
Approach LOS	E			E			C			B		
d_I, Intersection Delay [s/veh]	25.04											
Intersection LOS	C											
Intersection V/C	0.469											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	51.35	51.35	51.35	51.35
l_p,int, Pedestrian LOS Score for Intersection	1.992	2.596	3.288	3.137
Crosswalk LOS	A	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]	766	850	567	583
d_b, Bicycle Delay [s]	22.83	19.85	30.83	30.12
l_b,int, Bicycle LOS Score for Intersection	1.637	2.390	2.181	2.118
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 3: Kaiser Hospital (NS) at Iris Ave (EW)

Control Type:	Signalized	Delay (sec / veh):	8.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.298

Intersection Setup

Name	Kaiser Hospital		Iris Ave		Iris Ave	
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	1	0	1	0	0	1
Entry Pocket Length [ft]	110.00	100.00	195.00	100.00	100.00	200.00
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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Curb Present	No		No		No	
Crosswalk	Yes		Yes		No	

Volumes

Name	Kaiser Hospital		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	72	39	108	632	643	25
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	87	73	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]	75	41	112	745	742	26
Peak Hour Factor	0.9642	0.9642	0.9642	0.9642	0.9642	0.9642
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	19	11	29	193	192	7
Total Analysis Volume [veh/h]	78	43	116	773	770	27
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]	95
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Split	Overlap	Protected	Permissive	Permissive	Permissive
Signal Group	7	4	5	2	6	0
Auxiliary Signal Groups		4,5				
Lead / Lag	Lead	-	Lead	-	-	-
Minimum Green [s]	7	7	7	10	10	0
Maximum Green [s]	30	30	30	30	30	0
Amber [s]	3.0	3.0	3.0	3.0	3.0	0.0
All red [s]	1.0	1.0	1.0	1.0	1.0	0.0
Split [s]	47	47	19	48	29	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0
Walk [s]	5	0	0	5	5	0
Pedestrian Clearance [s]	33	0	0	10	20	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	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	2.0	2.0	2.0	0.0
Minimum Recall	No	No	No	No	No	
Maximum Recall	No	No	No	No	No	
Pedestrian Recall	No	No	No	No	No	
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
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	L	R	L	C	C	R
C, Cycle Length [s]	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
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	0.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	18	8	81	69	69
g / C, Green / Cycle	0.06	0.19	0.08	0.85	0.73	0.73
(v / s)_i Volume / Saturation Flow Rate	0.04	0.03	0.07	0.15	0.15	0.02
s, saturation flow rate [veh/h]	1781	1589	1781	5094	5094	1589
c, Capacity [veh/h]	115	302	148	4335	3697	1154
d1, Uniform Delay [s]	43.45	32.04	42.73	1.24	4.21	3.63
k, delay calibration	0.11	0.11	0.11	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.73	0.21	8.76	0.09	0.13	0.04
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	0.68	0.14	0.78	0.18	0.21	0.02
d, Delay for Lane Group [s/veh]	50.18	32.25	51.49	1.33	4.33	3.67
Lane Group LOS	D	C	D	A	A	A
Critical Lane Group	Yes	No	Yes	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.01	0.85	2.89	0.08	1.08	0.11
50th-Percentile Queue Length [ft/ln]	50.31	21.14	72.31	1.91	27.03	2.66
95th-Percentile Queue Length [veh/ln]	3.62	1.52	5.21	0.14	1.95	0.19
95th-Percentile Queue Length [ft/ln]	90.56	38.06	130.16	3.44	48.66	4.78

Movement, Approach, & Intersection Results

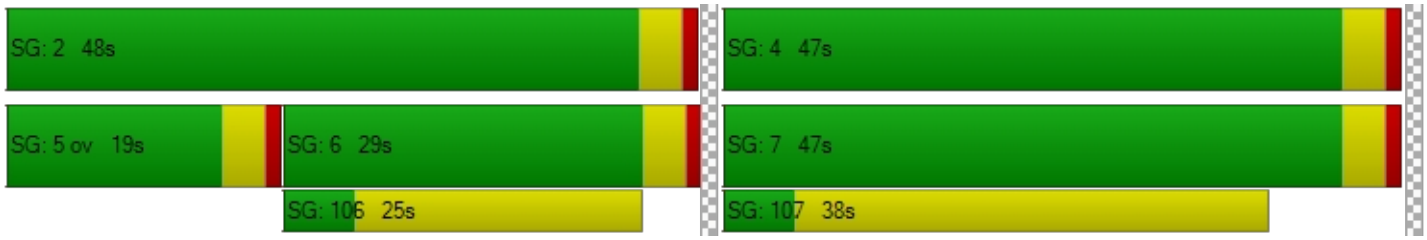
d_M, Delay for Movement [s/veh]	50.18	32.25	51.49	1.33	4.33	3.67
Movement LOS	D	C	D	A	A	A
d_A, Approach Delay [s/veh]	43.81		7.88		4.31	
Approach LOS	D		A		A	
d_I, Intersection Delay [s/veh]	8.71					
Intersection LOS	A					
Intersection V/C	0.298					

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0
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]	38.93	38.93	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.016	2.993	0.000
Crosswalk LOS	B	C	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	905	926	526
d_b, Bicycle Delay [s]	14.23	13.69	25.79
l_b,int, Bicycle LOS Score for Intersection	1.560	2.049	1.998
Bicycle LOS	A	B	A

Sequence

Ring 1	-	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: Medical Offices (NS) at Iris Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.109

Intersection Setup

Name	Medical Offices		Iris Ave		Iris Ave	
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	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	280.00	100.00	100.00	192.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	25.00		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Medical Offices		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	0	55	15	679	630	12
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	87	73	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	57	16	793	728	12
Peak Hour Factor	0.9763	0.9763	0.9763	0.9763	0.9763	0.9763
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	15	4	203	186	3
Total Analysis Volume [veh/h]	0	58	16	812	746	12
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
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	0.00	0.11	0.03	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	12.57	12.27	0.00	0.00	0.00
Movement LOS		B	B	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.36	0.10	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	9.10	2.42	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	12.57		0.24		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.56					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 5: Oliver St (NS) at Iris Ave (EW)

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):	0.601

Intersection Setup

Name	Oliver St			Oliver St			Iris Ave				Iris Ave		
Approach	Northbound			Southbound			Eastbound				Westbound		
Lane Configuration													
Turning Movement	Left	Thru	Right	Left	Thru	Right	U-tu	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	12.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0	1	0	0	1	1	0	1
Entry Pocket Length [ft]	100.00	100.00	52.00	100.00	100.00	100.00	235.0	100.0	100.0	200.0	249.00	100.00	200.00
No. of Lanes in Exit Pocket	0	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	0.00
Speed [mph]	25.00			35.00			50.00				50.00		
Grade [%]	0.00			0.00			0.00				0.00		
Curb Present	No			No			No				No		
Crosswalk	Yes			Yes			Yes				Yes		

Volumes

Name	Oliver St			Oliver St			Iris Ave				Iris Ave		
Base Volume Input [veh/h]	26	15	15	3	20	75	0	76	566	34	39	543	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	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	2.00
Proportion of CAVs [%]	0.00												
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.000	1.040	1.040	1.040	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	0	0	76	9	0	52	15	20	0	0	70	2
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	16	0	0	90	16	0	56	0	0	0	0	40	0
Existing Site Adjustment Volume [veh/h]	0	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	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	52	16	16	169	46	78	108	94	609	35	41	675	4
Peak Hour Factor	0.9820	0.9820	0.9820	0.9820	0.9820	0.9820	0.950	0.982	0.982	0.982	0.9820	0.9820	0.9820
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.000	1.000	1.000	1.000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	13	4	4	43	12	20	28	24	155	9	10	172	1
Total Analysis Volume [veh/h]	53	16	16	172	47	79	114	96	620	36	42	687	4
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	0
Local Bus Stopping Rate [/h]	0	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]	130
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Split	Split	Split	Split	Split	Split	Permi	Prote	Permi	Permi	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	0	5	2	0	1	6	0
Auxiliary Signal Groups													
Lead / Lag	-	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	0	7	10	0	7	10	0
Maximum Green [s]	0	30	0	0	30	0	0	30	30	0	30	30	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	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	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	37	0	0	37	0	0	25	35	0	21	31	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	28	0	0	28	0	0	0	17	0	0	22	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	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	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	0.0	2.0	2.0	0.0	2.0	2.0	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	
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	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	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	1.00

Exclusive Pedestrian Phase

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

Lane Group Calculations

Lane Group	C	R	C	R	L	C	R	L	C	R
C, Cycle Length [s]	51	51	51	51	51	51	51	51	51	51
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
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
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
g_i, Effective Green Time [s]	7	7	10	10	8	15	15	3	10	10
g / C, Green / Cycle	0.14	0.14	0.19	0.19	0.15	0.29	0.29	0.06	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.04	0.01	0.12	0.05	0.12	0.12	0.02	0.02	0.13	0.00
s, saturation flow rate [veh/h]	1801	1589	1799	1589	1781	5094	1589	1781	5094	1589
c, Capacity [veh/h]	249	220	346	306	275	1502	469	111	1033	322
d1, Uniform Delay [s]	19.81	19.25	19.05	17.61	20.79	14.53	13.05	23.10	18.85	16.35
k, delay calibration	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00
d2, Incremental Delay [s]	0.60	0.14	1.91	0.44	4.35	0.18	0.07	2.10	0.74	0.02
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
Rp, platoon ratio	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

Lane Group Results

X, volume / capacity	0.28	0.07	0.63	0.26	0.76	0.41	0.08	0.38	0.67	0.01
d, Delay for Lane Group [s/veh]	20.41	19.39	20.96	18.05	25.14	14.71	13.12	25.20	19.60	16.37
Lane Group LOS	C	B	C	B	C	B	B	C	B	B
Critical Lane Group	Yes	No	Yes	No	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	0.73	0.16	2.27	0.73	2.29	1.49	0.24	0.48	2.07	0.03
50th-Percentile Queue Length [ft/ln]	18.24	4.09	56.70	18.31	57.31	37.33	5.97	11.88	51.70	0.79
95th-Percentile Queue Length [veh/ln]	1.31	0.29	4.08	1.32	4.13	2.69	0.43	0.86	3.72	0.06
95th-Percentile Queue Length [ft/ln]	32.83	7.36	102.05	32.96	103.15	67.19	10.74	21.38	93.05	1.42

Movement, Approach, & Intersection Results

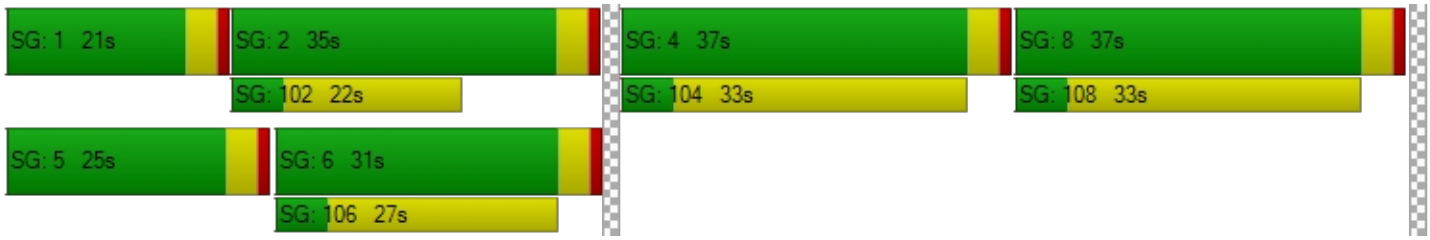
d_M, Delay for Movement [s/veh]	20.41	20.41	19.39	20.96	20.96	18.05	25.14	25.14	14.71	13.12	25.20	19.60	16.37
Movement LOS	C	C	B	C	C	B	C	C	B	B	C	B	B
d_A, Approach Delay [s/veh]	20.22			20.19			17.17				19.90		
Approach LOS	C			C			B				B		
d_I, Intersection Delay [s/veh]	18.77												
Intersection LOS	B												
Intersection V/C	0.601												

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	17.37	17.37	17.37	17.37
l_p,int, Pedestrian LOS Score for Intersection	1.969	2.221	3.040	3.010
Crosswalk LOS	A	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]	1290	1290	1212	1056
d_b, Bicycle Delay [s]	3.22	3.22	3.97	5.70
l_b,int, Bicycle LOS Score for Intersection	1.700	2.051	1.983	1.963
Bicycle LOS	A	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Via Del Lago (NS) at Moreno Beach Dr (EW)

Control Type:	Signalized	Delay (sec / veh):	8.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.379

Intersection Setup

Name	Via Del Lago			Via Del Lago			Iris Ave			Moreno Beach Dr		
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	0	0	0	1	0	1	1	0	1
Entry Pocket Length [ft]	93.00	100.00	100.00	100.00	100.00	100.00	110.00	100.00	231.00	315.00	100.00	202.00
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]	35.00			25.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Via Del Lago			Via Del Lago			Iris Ave			Moreno Beach Dr		
Base Volume Input [veh/h]	18	1	21	3	1	12	11	541	27	30	551	7
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	22	0	16	0	0	0	0	69	27	22	50	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]	41	1	38	3	1	12	11	632	55	53	623	7
Peak Hour Factor	0.9680	0.9680	0.9680	0.9680	0.9680	0.9680	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	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	0	10	1	0	3	3	163	14	14	161	2
Total Analysis Volume [veh/h]	42	1	39	3	1	12	11	653	57	55	644	7
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6,7									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	10	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	12	46	46	11	45	0	11	37	0	11	36	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	37	37	0	36	0	0	23	0	0	21	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	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

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	R
C, Cycle Length [s]	32	32	32	32	32	32	32	32	32	32	32
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	0.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	2	3	10	0	1	1	10	10	3	12	12
g / C, Green / Cycle	0.07	0.10	0.31	0.01	0.04	0.02	0.31	0.31	0.09	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.02	0.00	0.02	0.00	0.01	0.01	0.13	0.04	0.03	0.13	0.00
s, saturation flow rate [veh/h]	1781	1870	1589	1781	1608	1781	5094	1589	1781	5094	1589
c, Capacity [veh/h]	127	189	497	12	59	40	1577	492	157	1913	597
d1, Uniform Delay [s]	14.29	13.09	7.84	15.99	15.15	15.57	8.85	8.00	13.89	7.22	6.34
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00	1.00
d2, Incremental Delay [s]	1.50	0.01	0.07	9.82	1.87	3.75	0.17	0.10	1.33	0.10	0.01
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
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	0.33	0.01	0.08	0.24	0.22	0.28	0.41	0.12	0.35	0.34	0.01
d, Delay for Lane Group [s/veh]	15.79	13.10	7.90	25.81	17.02	19.32	9.02	8.10	15.22	7.33	6.35
Lane Group LOS	B	B	A	C	B	B	A	A	B	A	A
Critical Lane Group	Yes	No	No	No	Yes	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.28	0.01	0.13	0.05	0.11	0.10	0.62	0.15	0.31	0.46	0.01
50th-Percentile Queue Length [ft/ln]	6.92	0.14	3.29	1.31	2.72	2.40	15.44	3.86	7.66	11.44	0.35
95th-Percentile Queue Length [veh/ln]	0.50	0.01	0.24	0.09	0.20	0.17	1.11	0.28	0.55	0.82	0.02
95th-Percentile Queue Length [ft/ln]	12.46	0.25	5.92	2.36	4.89	4.32	27.79	6.95	13.78	20.59	0.62

Movement, Approach, & Intersection Results

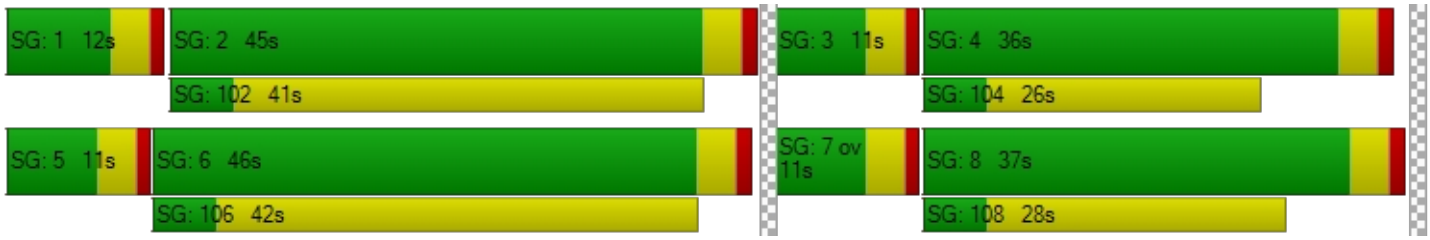
d_M, Delay for Movement [s/veh]	15.79	13.10	7.90	25.81	17.02	17.02	19.32	9.02	8.10	15.22	7.33	6.35
Movement LOS	B	B	A	C	B	B	B	A	A	B	A	A
d_A, Approach Delay [s/veh]	12.01			18.67			9.11			7.93		
Approach LOS	B			B			A			A		
d_I, Intersection Delay [s/veh]	8.82											
Intersection LOS	A											
Intersection V/C	0.379											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	8.35	8.35	8.35	8.35
l_p,int, Pedestrian LOS Score for Intersection	2.129	1.892	2.956	2.952
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]	2609	2547	2050	1988
d_b, Bicycle Delay [s]	1.49	1.20	0.01	0.00
l_b,int, Bicycle LOS Score for Intersection	1.695	1.586	1.956	1.948
Bicycle LOS	A	A	A	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report

Intersection 7: Moreno Beach Dr (NS) at John F Kennedy Dr (EW)

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):	0.680

Intersection Setup

Name	Moreno Beach Dr			Moreno Beach Dr			John F Kennedy Dr			John F Kennedy Dr		
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	1	1	0	1	1	0	1
Entry Pocket Length [ft]	282.00	100.00	248.00	350.00	100.00	186.00	100.00	100.00	190.00	320.00	100.00	196.00
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]	50.00			50.00			35.00			45.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Moreno Beach Dr			Moreno Beach Dr			John F Kennedy Dr			John F Kennedy Dr		
Base Volume Input [veh/h]	114	319	61	10	319	240	307	24	66	41	12	4
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	62	23	0	56	9	0	0	0	16	10	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]	119	394	86	10	388	259	319	25	69	59	22	4
Peak Hour Factor	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250	0.9250
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]	32	106	23	3	105	70	86	7	19	16	6	1
Total Analysis Volume [veh/h]	129	426	93	11	419	280	345	27	75	64	24	4
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
Coordination Type	Time of Day Pattern Isolated
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

Control Type	Protecte	Permiss	Overlap	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	1	6	6	5	2	0	3	8	0	7	4	0
Auxiliary Signal Groups			6									
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	7	10	10	7	10	0	7	10	0	7	10	0
Maximum Green [s]	30	30	30	30	30	0	30	30	0	30	30	0
Amber [s]	3.0	3.0	3.0	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	1.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	16	35	35	13	32	0	22	49	0	18	45	0
Vehicle Extension [s]	3.0	3.0	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	5	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	23	23	0	23	0	0	40	0	0	36	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	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	2.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	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	
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
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

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	R	L	C	R	L	C	R
C, Cycle Length [s]	48	48	48	48	48	48	48	48	48	48	48	48
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	17	17	1	12	12	12	11	11	4	3	3
g / C, Green / Cycle	0.12	0.34	0.34	0.02	0.24	0.24	0.24	0.22	0.22	0.08	0.07	0.07
(v / s)_i Volume / Saturation Flow Rate	0.07	0.08	0.06	0.01	0.08	0.18	0.19	0.01	0.05	0.04	0.01	0.00
s, saturation flow rate [veh/h]	1781	5094	1589	1781	5094	1589	1781	1870	1589	1781	1870	1589
c, Capacity [veh/h]	214	1748	546	36	1242	387	429	416	353	151	124	105
d1, Uniform Delay [s]	20.28	11.43	11.13	23.45	15.14	16.86	17.36	14.90	15.41	21.11	21.46	21.24
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.11	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	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.74	0.07	0.15	4.59	0.16	2.56	3.58	0.06	0.30	1.89	0.76	0.15
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	0.60	0.24	0.17	0.30	0.34	0.72	0.80	0.06	0.21	0.42	0.19	0.04
d, Delay for Lane Group [s/veh]	23.02	11.50	11.27	28.04	15.30	19.43	20.93	14.97	15.71	23.00	22.22	21.38
Lane Group LOS	C	B	B	C	B	B	C	B	B	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.28	0.79	0.52	0.15	0.99	2.44	3.46	0.21	0.61	0.66	0.24	0.04
50th-Percentile Queue Length [ft/ln]	31.97	19.78	12.98	3.75	24.70	61.03	86.53	5.22	15.18	16.47	6.11	1.01
95th-Percentile Queue Length [veh/ln]	2.30	1.42	0.93	0.27	1.78	4.39	6.23	0.38	1.09	1.19	0.44	0.07
95th-Percentile Queue Length [ft/ln]	57.54	35.61	23.36	6.75	44.45	109.85	155.76	9.39	27.32	29.65	11.00	1.81

Movement, Approach, & Intersection Results

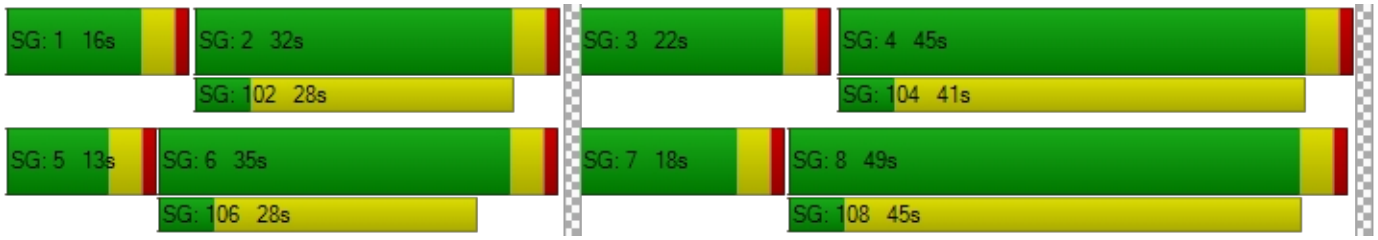
d_M, Delay for Movement [s/veh]	23.02	11.50	11.27	28.04	15.30	19.43	20.93	14.97	15.71	23.00	22.22	21.38
Movement LOS	C	B	B	C	B	B	C	B	B	C	C	C
d_A, Approach Delay [s/veh]	13.76			17.12			19.70			22.73		
Approach LOS	B			B			B			C		
d_I, Intersection Delay [s/veh]	16.85											
Intersection LOS	B											
Intersection V/C	0.680											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
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]	16.01	16.01	16.01	16.01
l_p,int, Pedestrian LOS Score for Intersection	2.939	2.996	2.350	2.334
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1282	1158	1862	1696
d_b, Bicycle Delay [s]	3.11	4.28	0.12	0.56
l_b,int, Bicycle LOS Score for Intersection	1.916	1.950	2.297	1.711
Bicycle LOS	A	A	B	A

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 8: Oliver St (NS) at John F Kennedy Dr (EW)

Control Type:	All-way stop	Delay (sec / veh):	8.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.251

Intersection Setup

Name	Oliver St		Oliver St		John F Kennedy Dr	
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	1	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]	35.00		35.00		35.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		Yes		Yes	

Volumes

Name	Oliver St		Oliver St		John F Kennedy Dr	
Base Volume Input [veh/h]	81	22	87	49	21	34
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	0	22	19	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	23	91	73	41	35
Peak Hour Factor	0.8750	0.8750	0.8750	0.8750	0.8750	0.8750
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	27	7	26	21	12	10
Total Analysis Volume [veh/h]	109	26	104	83	47	40
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Lanes

Capacity per Entry Lane [veh/h]	730	773	745	621	783
Degree of Utilization, x	0.09	0.09	0.25	0.08	0.05

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.30	0.29	0.99	0.25	0.16
95th-Percentile Queue Length [ft]	7.61	7.15	24.76	6.13	4.03
Approach Delay [s/veh]	7.97		9.44	8.32	
Approach LOS	A		A	A	
Intersection Delay [s/veh]	8.71				
Intersection LOS	A				

Intersection Level Of Service Report
Intersection 9: Oliver St (NS) at Filaree Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.050

Intersection Setup

Name	Oliver St		Oliver St		Filaree Ave	
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]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Filaree Ave	
Base Volume Input [veh/h]	76	0	0	67	26	26
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	1.0404	1.0000	1.0000	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	0	41	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]	90	0	0	111	27	27
Peak Hour Factor	0.7101	0.9500	0.9500	0.7101	0.7101	0.7101
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	32	0	0	39	10	10
Total Analysis Volume [veh/h]	127	0	0	156	38	38
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	0.00	0.00	0.00	0.00	0.05	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	9.95	8.79
Movement LOS	A			A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.16	0.12
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	3.92	3.00
d_A, Approach Delay [s/veh]	0.00		0.00		9.37	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.98					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 10: Oliver St (NS) at Shellie Way (EW)

Control Type:	Two-way stop	Delay (sec / veh):	10.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.026

Intersection Setup

Name	Oliver St		Oliver St		Shellie Way	
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	1	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]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Shellie Way	
Base Volume Input [veh/h]	73	20	9	83	14	3
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	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	11	0	0	41	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	21	9	127	15	3
Peak Hour Factor	0.7891	0.7891	0.7891	0.7891	0.7891	0.7891
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	7	3	40	5	1
Total Analysis Volume [veh/h]	110	27	11	161	19	4
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
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	0.01	0.00	0.03	0.00
d_M, Delay for Movement [s/veh]	0.00	0.00	7.50	0.00	10.04	8.82
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.02	0.01	0.09	0.09
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.46	0.23	2.31	2.31
d_A, Approach Delay [s/veh]	0.00		0.48		9.82	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.93					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 11: Oliver St (NS) at Project Dwy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.194

Intersection Setup

Name	Oliver St		Oliver St		Project Dwy	
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	0	0	0	1	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	2	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	74.61	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name	Oliver St		Oliver St		Project Dwy	
Base Volume Input [veh/h]	0	93	98	0	0	0
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	1.0404	1.0404	1.0404	1.0000	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	17	25	28	0	60
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	48	0	105
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	114	127	76	0	165
Peak Hour Factor	0.9500	0.9200	0.9200	0.9200	0.9500	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	31	35	21	0	45
Total Analysis Volume [veh/h]	0	124	138	83	0	179
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	0.00	0.00	0.00	0.00	0.00	0.19
d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	0.00	0.00	9.84
Movement LOS		A	A	A		A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.72
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	17.94
d_A, Approach Delay [s/veh]	0.00		0.00		9.84	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.36					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 12: Project Dwy (NS) at Iris Ave (EW)

Control Type:	Two-way stop	Delay (sec / veh):	13.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.189

Intersection Setup

Name	Project Dwy		Iris Ave		Iris Ave	
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	1
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		50.00		50.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name	Project Dwy		Iris Ave		Iris Ave	
Base Volume Input [veh/h]	0	0	0	679	644	0
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	1.0404	1.0000	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	32	0	87	65	66
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	57	0	56	0	112
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	89	0	849	735	178
Peak Hour Factor	0.9500	0.9200	0.9500	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	24	0	231	200	48
Total Analysis Volume [veh/h]	0	97	0	923	799	193
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
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	0.00	0.19	0.00	0.01	0.01	0.00
d_M, Delay for Movement [s/veh]	0.00	13.65	0.00	0.00	0.00	0.00
Movement LOS		B		A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.69	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	17.27	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	13.65		0.00		0.00	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	0.66					
Intersection LOS	B					

APPENDIX E

CAR WASH DRIVE-THROUGH QUEUEING ANALYSIS

Drive-Through Queue Generation

Mike Spack, PE, PTOE, Max Moreland, EIT, Lindsay de Leeuw, Nate Hood

1.0 Introduction

This report provides queuing data for businesses with drive-through services. It is intended to be an aid for site designers and reviewers, similar to the Institute of Transportation Engineers' *Trip Generation* and *Parking Generation* reports. The data presentation is modeled on the *Parking Generation* report and data is provided based on at least six sites, similar to data sets marked as statistically significant in *Trip Generation*.

Businesses with drive-through lanes are very common in the United States and having data that gives usage information for drive-through lanes will assist designers as well as cities in determining the appropriate amount of storage needed for proposed drive-through businesses. Data for drive-through queues was published by the ITE Technical Council Committee 5D-10 in 1995 based on information collected between the late 1960's and the 1990's. A paper was also published in 2009 by Mark Stuecheli, PTP giving updated information for bank and coffee shop drive-through lanes. The results from the 2009 study are incorporated into this paper (thank you Mark for your assistance).

2.0 Data Collection

Data was collected using COUNTcam video recording systems at a total of 30 drive-through locations in Minneapolis, MN and several surrounding suburbs between 2010 and 2012 (26 of the 30 videos were recorded in February of 2012, which should represent peak usage in the cold Minnesota winter). Videos of drive-through lanes were collected at banks, car washes, coffee shops, fast food restaurants and pharmacies. A total of six locations were selected for each of the five different land uses. Each location was recorded for between one and five days where the majority of locations were recorded for two consecutive days. The days of the week that each video was recorded on varies.

The 24-hour videos were watched at high speeds with the PC-TAS counting software and maximum queues throughout the day were noted. Most of the COUNTcams were set up such that the entire queue lane could be seen, but at a few locations the drive-through lanes wrapped around the building in a way that the entire queue length would not be able to be seen. For these situations, the COUNTcams were set up so that the ordering window and back of the queue could be seen and it was noted how many vehicles could fit between the ordering window and the front of the queue. For drive-through locations with multiple lanes, the number of lanes was noted but the maximum queue is defined as the sum of the queues at each lane for any given point in time, not the queue per lane. This approach provides overall demand, which may assist designers in determining how many drive through lanes are appropriate in addition to determining how long they should be.

The data for Kansas banks was collected between 4:30pm and 6:00pm. While many of the maximum queues for the data collected in Minnesota were between these times, maximum queues occurred between 8:30am and 5:30pm so it is possible that some of the Kansas data does not capture the actual maximum queues for the day.

The number of available lanes at banks, not including the ATM lane, ranged from two to seven lanes (though the most open at one time was five lanes). Even though plenty of lanes were available, cars often stacked at the lane closest to the building, thus additional lanes may not result in shorter queues. With an 85th percentile maximum queue of eight vehicles, the data suggests that banks with drive-through lanes should be able to accommodate 160 feet of vehicle stacking.

3.2 Car Washes

Data collection was done at six car washes with drive-through services (including one full-service car wash) in February 2012. Twelve days of data were collected. The car washes were located in the cities of Falcon Heights, Hopkins, Minneapolis, Roseville and St. Louis Park, MN. Five of the six car washes (excluding the full-service car wash) were located at gas stations. Only the vehicles waiting in line were counted; vehicles being washed were not added to the queue.

Table 3.2 – Drive-Through Car Wash Maximum Queue Statistics

Number of Data Points	**12**
Average Maximum Queue (Vehicles)	**4.42**
Standard Deviation (Vehicles)	**2.31**
Coefficient of Variation	**52%**
Range (Vehicles)	**1 to 10**
85th Percentile (Vehicles)	**6.20**
33rd Percentile (Vehicles)	**3.00**

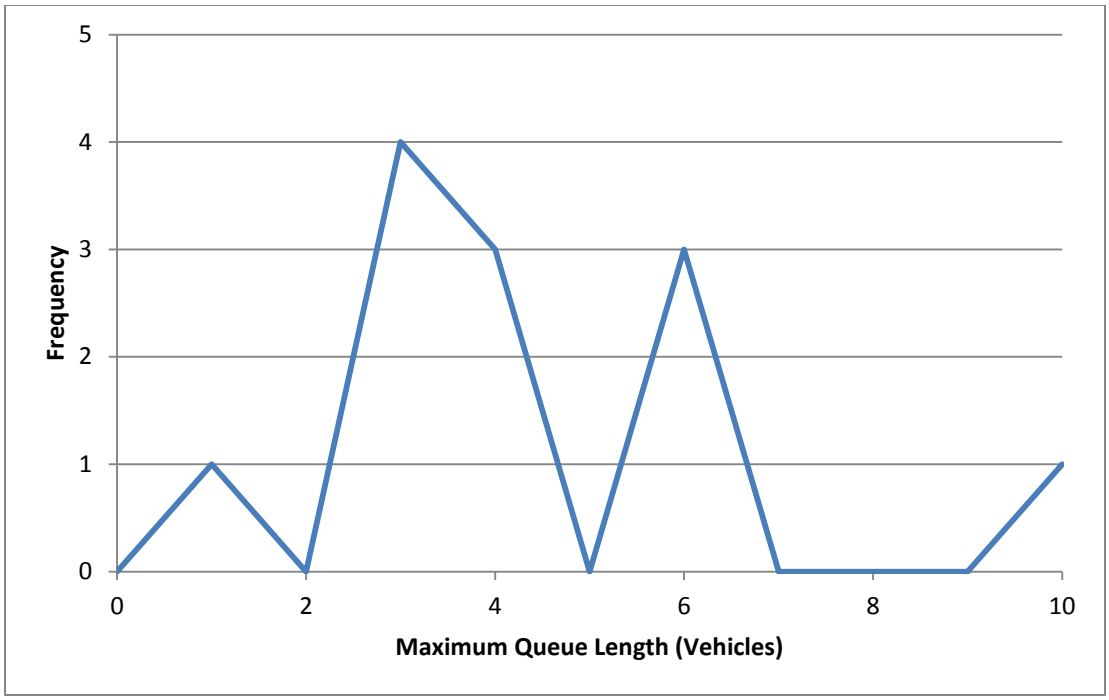


Figure 3.2 – Drive-Through Car Wash Maximum Queue Frequency

Two of the car washes had two lanes while the other four were one lane car washes. The full-service car wash had two lanes and also produced the highest maximum queue of 10 vehicles. The maximum queues for car washes were spread throughout the afternoon from 12:30pm to 8:30pm. With an 85th percentile maximum queue of more than six vehicles, the data suggests that car washes with drive-through lanes should be able to accommodate 140 feet of vehicle stacking throughout the day.

3.3 Coffee Shops

Data collection was done at six coffee shops with drive-through services in November 2010, August 2011 and February 2012. Fourteen days of data were collected. The coffee shops were located in the cities of Edina, Hopkins, Minneapolis, Roseville and St. Louis Park, MN. Vehicles being served were counted as being in the queue. Twelve days of data from the Kansas City, Kansas area is also included.

Table 3.3 – Drive-Through Coffee Shop Maximum Queue Statistics

	Minnesota Data	Minnesota + Kansas Data
Number of Data Points	14	26
Average Maximum Queue (Vehicles)	11.00	10.23
Standard Deviation (Vehicles)	2.25	2.76
Coefficient of Variation	20%	27%
Range (Vehicles)	7 to 16	3 to 16
85th Percentile (Vehicles)	13.50	13.00
33rd Percentile (Vehicles)	10.00	9.91

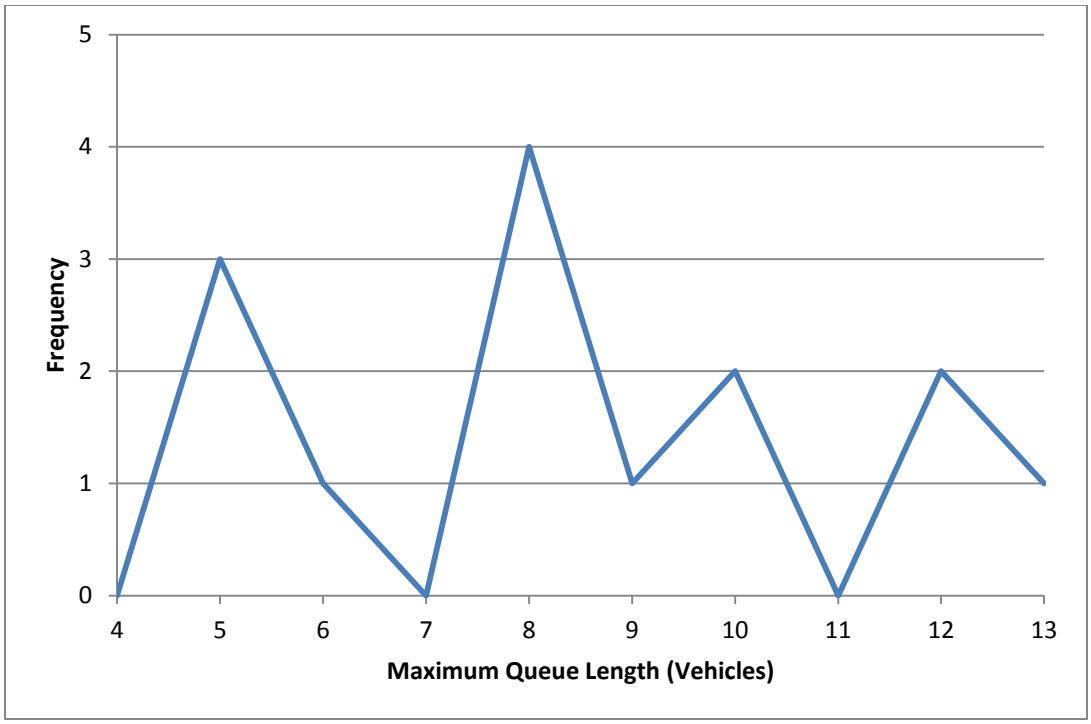


Figure 3.4 – Drive-Through Fast Food Restaurant Maximum Queue Frequency

The maximum queues for fast food restaurants were spread throughout the day from 8:00am to 10:00pm. With an 85th percentile maximum queue of 12 vehicles, the data suggests that fast food restaurants with drive-through lanes should be able to accommodate 240 feet of vehicle stacking throughout the day.

3.5 Pharmacies

Data collection was done at six pharmacies with drive-through services in February 2012. Twelve days of data were collected. The pharmacies were located in the cities of Hopkins, Minneapolis, New Hope and Robbinsdale, MN. Vehicles being served were counted as being in the queue.

Table 3.5 – Drive-Through Pharmacy Maximum Queue Statistics

Number of Data Points	**12**
Average Maximum Queue (Vehicles)	**2.92**
Standard Deviation (Vehicles)	**1.16**
Coefficient of Variation	**40%**
Range (Vehicles)	**1-5**
85th Percentile (Vehicles)	**4.05**
33rd Percentile (Vehicles)	**2.00**

Figure 3.5 – Drive-Through Pharmacy Maximum Queue Frequency

The maximum queues for pharmacies were spread throughout the day from 8:00am to 10:00pm. With an 85th percentile maximum queue of more than 4 vehicles, the data suggests that pharmacies with drive-through lanes should be able to accommodate 100 feet of vehicle stacking throughout the day.

4.0 Conclusions

The 85th percentile maximum queue lengths for each land use are: 160 feet for banks (eight vehicles), 140 feet for car washes (seven vehicles), 260 feet for coffee shops (13 vehicles), 240 feet for fast food restaurants (12 vehicles) and 100 feet for pharmacies (five vehicles).

While some of the locations observed have an excess of space dedicated to drive-through lanes (i.e. some banks and pharmacies), others could occasionally use additional space for drive-through lanes (i.e. coffee shops in the morning).

Fast food restaurants and coffee shops have the longest maximum queues of the five land uses observed. Coffee shops have a tendency for the morning queues to build so long that they spill out onto the street, though, as is expected, their afternoon and evening queues are minimal. Fast food restaurants also have large queues, but they tended to have enough dedicated space that stacking did not go beyond the designated queuing area.

January 20, 2021

Mr. Dennis Lee, Project Manager
LEEDCO ENGINEERS, INC.
3380 Flair Drive Avenue, Suite 225
El Monte, CA 91731

RE: 300 South Atlantic Boulevard Express Car Wash Drive-Through Queuing Study
19270

Dear Mr. Dennis Lee:

INTRODUCTION

Ganddini Group, Inc. is pleased to provide this drive-through queuing study for the proposed 300 South Atlantic Boulevard Express Car Wash project located at 300 South Atlantic Boulevard in the County of Los Angeles. This study assesses the proposed project's the drive-through lane queuing length based on observations at other similar express car wash facilities that are part of a gas station. The estimated peak queuing length for the proposed project is formulated based on the highest hourly 85th-percentile queue length observed at other similar express car wash facilities within a gas station.

PROJECT DESCRIPTION

The project site is located south of Beverly Boulevard between Atlantic Boulevard and an alley way. The site is currently occupied by an existing Shell gas station with a 1,961 square foot convenience market including 12 fueling positions and 8 parking stalls. The southern portion of the project site is a separate vacant lot which is currently fenced off, and the vacant lot is currently not part of the existing gas station. The proposed project will reconfigure the parking lot of the existing gas station by removing 7 parking spaces and redevelop the vacant site to add a modern car wash facility that is equipped with 2 automatic pay stations and a vehicle drying area with vacuum posts. The proposed drive-through lane configuration provides queuing storage for approximately 6 vehicles from the two pay stations and 3 more vehicles before the car wash tunnel entrance, for a total storage length of 9 vehicles. There will be a drying area with 4 parking stalls that are equipped with vacuum posts for vehicle interior cleaning and drying the vehicle exterior after the vehicles have traveled through the car wash tunnel. The gas station currently has 8 parking stalls, and the proposed project will reconfigure the parking lot so that there will be one accessible parking stall and 4 parking stalls with vacuums. The number of fueling position for the gas station will remain the same at 12 pumps. The project is proposed to have one car wash tunnel that could accommodate approximately 3 vehicles through different stages of the car wash. Appendix A contains the proposed project site plan and site photo.

SIMILAR CAR WASH SITE OBSERVATIONS AND COUNTS

This study estimates the drive-through lane queuing demand for the proposed project based on new observations at 3 existing similar express car wash facilities within a gas station. These 3 similar car wash facilities were chosen as survey sites because they are comparable to the proposed project site in terms of

site configuration, typical operations, and available amenities. Field observations of drive-through lane queues were conducted at the following 3 existing express car wash facility locations within a gas station:

1. Shell Gas Orange – 883 North Tustin Street, Orange CA (6 vacuum stalls and 8 gas pumps).
2. Shell Gas Northridge – 8900 Corbin Avenue, Northridge, CA (5 vacuum stalls and 12 gas pumps).
3. 76 Gas Tustin – 3017 Edinger Avenue, Tustin, CA (5 vacuum stalls and 12 gas pumps).

The drive-through vehicular queues were observed in 15-minute intervals from 7:00 AM to 8:00 PM during typical weekdays (Tuesday, October 6, 2020 and Thursday October 8, 2020) and typical Saturdays (October 3 and October 10, 2020). The observations were conducted using field surveys with technicians on-site. Appendix B contains the site survey data sheets.

It should be noted that the 3 observed car wash sites are slightly larger in size in comparison to the proposed car wash addition to the existing Shell gas station. In terms of length of the car wash tunnel, all 3 surveys have car wash tunnel lengths that are similar in length of the proposed car wash tunnel. In terms of the number of vacuum stalls, these 3 survey sites have one or two more vacuum stalls in comparison to the proposed project's 4 vacuum stalls. Furthermore, the proposed car wash project will also have similar number of fueling positions of the gas station at 12 pumps. Therefore, it should be reasonable to assume that the proposed project will experience queue lengths that are similar or less than the observed peak queue lengths from the 3 survey sites.

OBSERVED QUEUE LENGTH

Table 1 and Table 2 summarize the results of the observed drive-through lane vehicular queue data collected at the 3 similar car wash facility locations during typical weekdays and typical Saturdays, respectively. The drive-through queue length summary in Table 1 and Table 2 present the observed average, 85th-percentile, and peak queue length.

As shown in Table 1, the peak activity at each similar car wash facility were observed to occur intermittently during the late morning time period that coincided with the beginning of a typical work day and the afternoon peak period that coincided with the end of a typical work day. The queuing length receded during less active times throughout the day. The peak queue length within each 15-minute interval were observed to be sustained for only a few minutes at a time.

As shown in Table 1, the weekday maximum peak vehicular queue length observed was 2 vehicles at the Shell Gas Orange site, 3 vehicles at the Shell Gas Northridge site, and 4 vehicles at the 76 Gas Tustin site. The maximum hourly average queue for the weekday counts for the 3 survey sites is 2.0 vehicles during the afternoon peak period. The maximum hourly 85th-percentile queue is 2.8 vehicles during the mid-day peak period. Figure 1 shows graphical results of the weekday average queue, the 85th-percentile queue, and the peak queue for each time period throughout the day.

As shown in Table 2, the Saturday maximum peak vehicular queue length observed was 4 vehicles at the Shell Gas Orange site, 4 vehicles at the Shell Gas Northridge site, and 4 vehicles at the 76 Gas Tustin site. The maximum hourly average queue for the Saturday counts for the 3 survey sites is 3.3 vehicles during the afternoon peak period. The maximum hourly 85th-percentile queue is 4.0 vehicles during the afternoon peak period. Figure 2 shows graphical results of the Saturday average queue, the 85th-percentile queue, and the peak queue for each time period throughout the day.

Mr. Dennis Lee
LEEDCO ENGINEERS, INC.
January 20, 2021

PROJECTED QUEUE LANE REQUIREMENT FOR THE PROPOSED PROJECT

It should be noted that the 3 observed car wash sites are similar in size in comparison to the proposed car wash addition to the existing Shell gas station. In terms of length of the car wash tunnel, all 3 surveys have car wash tunnel lengths that are similar in length of the proposed car wash tunnel. In terms of the number of vacuum stalls, these 3 survey sites have one or two more vacuum stalls in comparison to the proposed project's 4 vacuum stalls. Furthermore, the proposed car wash project will have similar number of fueling positions of the gas station at 12 pumps. Therefore, it should be reasonable to assume that the proposed project will experience queue lengths that are similar or less than the observed peak queue lengths from the 3 survey sites.

Assuming the proposed 300 South Atlantic Boulevard Express Car Wash project would experience queuing activity that are similar to the 3 survey sites, the proposed car wash project is estimated to have a peak queuing length of 4 vehicles in comparison to the observed peak queuing length which is approximately 4.0 vehicles from the pay station during peak periods based on the highest 85th-percentile queue length. Since the proposed project provides a vehicular queue storage capacity for approximately 9 vehicles, the drive-through storage capacity is forecast to be adequate.

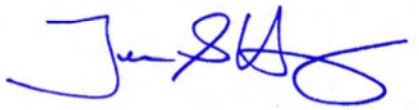
CONCLUSION

Since the proposed project provides a vehicular queue storage capacity for approximately 9 vehicles, the drive-through storage capacity is forecast to be adequate in comparison to the anticipated peak queuing length of 4 vehicles.

It has been a pleasure to service your needs on the proposed 300 South Atlantic Boulevard Express Car Wash project. Should you have any questions or if we can be of further assistance, please do not hesitate to call at (714) 795-3100.

Sincerely,

GANDDINI GROUP, INC.



Tom Huang, TE
Senior Traffic Engineer

Table 1

Summary of Weekday Queuing Length Observation (October 6 & 8, 2020)

Time Period	Shell Gas Orange	Shell Gas Northridge	76 Gas Tustin	Hourly Peak	Hourly Average	Hourly 85th Percentile
7:00 AM - 7:15 AM	0	0	0	0	0.0	0.0
7:15 AM - 7:30 AM	0	0	0	0	0.0	0.0
7:30 AM - 7:45 AM	0	0	0	0	0.0	0.0
7:45 AM - 8:00 AM	1	0	0	1	0.3	0.7
8:00 AM - 8:15 AM	0	0	0	0	0.0	0.0
8:15 AM - 8:30 AM	0	0	1	1	0.3	0.7
8:30 AM - 8:45 AM	0	1	1	1	0.7	1.0
8:45 AM - 9:00 AM	0	0	0	0	0.0	0.0
9:00 AM - 9:15 AM	0	0	0	0	0.0	0.0
9:15 AM - 9:30 AM	0	1	1	1	0.7	1.0
9:30 AM - 9:45 AM	0	1	2	2	1.0	1.7
9:45 AM - 10:00 AM	0	0	1	1	0.3	0.7
10:00 AM - 10:15 AM	0	0	0	0	0.0	0.0
10:15 AM - 10:30 AM	0	0	1	1	0.3	0.7
10:30 AM - 10:45 AM	1	1	3	3	1.7	2.4
10:45 AM - 11:00 AM	1	0	2	2	1.0	1.7
11:00 AM - 11:15 AM	1	0	0	1	0.3	0.7
11:15 AM - 11:30 AM	1	1	1	1	1.0	1.0
11:30 AM - 11:45 AM	0	0	2	2	0.7	1.4
11:45 AM - 12:00 PM	0	1	1	1	0.7	1.0
12:00 PM - 12:15 PM	0	0	4	4 *	1.3	2.8 *
12:15 PM - 12:30 PM	0	0	2	2	0.7	1.4
12:30 PM - 12:45 PM	0	0	1	1	0.3	0.7
12:45 PM - 1:00 PM	2	1	1	2	1.3	1.7
1:00 PM - 1:15 PM	0	1	1	1	0.7	1.0
1:15 PM - 1:30 PM	2	1	1	2	1.3	1.7
1:30 PM - 1:45 PM	0	2	3	3	1.7	2.7
1:45 PM - 2:00 PM	0	1	1	1	0.7	1.0
2:00 PM - 2:15 PM	0	1	0	1	0.3	0.7
2:15 PM - 2:30 PM	0	1	1	1	0.7	1.0
2:30 PM - 2:45 PM	2	3	1	3	2.0 *	2.7
2:45 PM - 3:00 PM	0	1	1	1	0.7	1.0
3:00 PM - 3:15 PM	0	0	1	1	0.3	0.7
3:15 PM - 3:30 PM	0	0	3	3	1.0	2.1
3:30 PM - 3:45 PM	1	1	1	1	1.0	1.0
3:45 PM - 4:00 PM	1	0	2	2	1.0	1.7
4:00 PM - 4:15 PM	1	0	1	1	0.7	1.0
4:15 PM - 4:30 PM	1	2	0	2	1.0	1.7
4:30 PM - 4:45 PM	1	1	2	2	1.3	1.7
4:45 PM - 5:00 PM	1	2	1	2	1.3	1.7
5:00 PM - 5:15 PM	1	0	2	2	1.0	1.7
5:15 PM - 5:30 PM	1	1	2	2	1.3	1.7
5:30 PM - 5:45 PM	0	1	2	2	1.0	1.7
5:45 PM - 6:00 PM	0	0	1	1	0.3	0.7
6:00 PM - 6:15 PM	1	2	0	2	1.0	1.7
6:15 PM - 6:30 PM	1	0	0	1	0.3	0.7
6:30 PM - 6:45 PM	0	0	0	0	0.0	0.0
6:45 PM - 7:00 PM	0	0	0	0	0.0	0.0
7:00 PM - 7:15 PM	0	0	0	0	0.0	0.0
7:15 PM - 7:30 PM	0	1	0	1	0.3	0.7
7:30 PM - 7:45 PM	0	0	0	0	0.0	0.0
7:45 PM - 8:00 PM	0	0	0	0	0.0	0.0
Site Peak	2	3	4			
Site Average	0.4	0.6	1.0			
Site 85th Percentile	1.0	1.0	2.0			
Survey Date	*10/6/2020*	*10/6/2020*	*10/8/2020*			
Number of Gas Fueling Pumps	*8*	*12*	*12*			
Number of Vacuum Stalls	*6*	*5*	*5*			

Table 2

Summary of Saturday Queuing Length Observation (October 3 & 10, 2020)

Time Period	Shell Gas Orange	Shell Gas Northridge	76 Gas Tustin	Hourly Peak	Hourly Average	Hourly 85th Percentile
7:00 AM - 7:15 AM	0	0	0	0	0.0	0.0
7:15 AM - 7:30 AM	0	0	0	0	0.0	0.0
7:30 AM - 7:45 AM	1	0	0	1	0.3	0.7
7:45 AM - 8:00 AM	0	1	0	1	0.3	0.7
8:00 AM - 8:15 AM	0	0	0	0	0.0	0.0
8:15 AM - 8:30 AM	0	1	0	1	0.3	0.7
8:30 AM - 8:45 AM	0	1	0	1	0.3	0.7
8:45 AM - 9:00 AM	1	0	1	1	0.7	1.0
9:00 AM - 9:15 AM	3	2	2	3	2.3	2.7
9:15 AM - 9:30 AM	4	2	1	4 *	2.3	3.4
9:30 AM - 9:45 AM	3	2	2	3	2.3	2.7
9:45 AM - 10:00 AM	2	1	1	2	1.3	1.7
10:00 AM - 10:15 AM	2	2	2	2	2.0	2.0
10:15 AM - 10:30 AM	2	1	3	3	2.0	2.7
10:30 AM - 10:45 AM	1	1	1	1	1.0	1.0
10:45 AM - 11:00 AM	1	3	2	3	2.0	2.7
11:00 AM - 11:15 AM	2	4	3	4 *	3.0	3.7
11:15 AM - 11:30 AM	2	2	1	2	1.7	2.0
11:30 AM - 11:45 AM	1	1	2	2	1.3	1.7
11:45 AM - 12:00 PM	2	4	1	4 *	2.3	3.4
12:00 PM - 12:15 PM	4	2	2	4 *	2.7	3.4
12:15 PM - 12:30 PM	2	2	1	2	1.7	2.0
12:30 PM - 12:45 PM	1	3	4	4 *	2.7	3.7
12:45 PM - 1:00 PM	1	3	2	3	2.0	2.7
1:00 PM - 1:15 PM	2	2	2	2	2.0	2.0
1:15 PM - 1:30 PM	2	4	4	4 *	3.3 *	4.0 *
1:30 PM - 1:45 PM	1	3	4	4 *	2.7	3.7
1:45 PM - 2:00 PM	3	1	3	3	2.3	3.0
2:00 PM - 2:15 PM	3	2	1	3	2.0	2.7
2:15 PM - 2:30 PM	4	2	2	4 *	2.7	3.4
2:30 PM - 2:45 PM	3	1	1	3	1.7	2.4
2:45 PM - 3:00 PM	2	2	3	3	2.3	2.7
3:00 PM - 3:15 PM	1	1	2	2	1.3	1.7
3:15 PM - 3:30 PM	3	1	1	3	1.7	2.4
3:30 PM - 3:45 PM	2	1	1	2	1.3	1.7
3:45 PM - 4:00 PM	1	2	1	2	1.3	1.7
4:00 PM - 4:15 PM	1	2	3	3	2.0	2.7
4:15 PM - 4:30 PM	1	3	3	3	2.3	3.0
4:30 PM - 4:45 PM	1	2	3	3	2.0	2.7
4:45 PM - 5:00 PM	2	1	2	2	1.7	2.0
5:00 PM - 5:15 PM	1	1	2	2	1.3	1.7
5:15 PM - 5:30 PM	1	1	1	1	1.0	1.0
5:30 PM - 5:45 PM	1	3	1	3	1.7	2.4
5:45 PM - 6:00 PM	2	2	1	2	1.7	2.0
6:00 PM - 6:15 PM	1	1	2	2	1.3	1.7
6:15 PM - 6:30 PM	2	2	0	2	1.3	2.0
6:30 PM - 6:45 PM	1	1	0	1	0.7	1.0
6:45 PM - 7:00 PM	0	0	0	0	0.0	0.0
7:00 PM - 7:15 PM	0	0	0	0	0.0	0.0
7:15 PM - 7:30 PM	0	0	0	0	0.0	0.0
7:30 PM - 7:45 PM	0	0	0	0	0.0	0.0
7:45 PM - 8:00 PM	0	0	0	0	0.0	0.0
Site Peak	4	4	4			
Site Average	1.5	1.5	1.4			
Site 85th Percentile	3.0	3.0	3.0			
Survey Date	*10/3/2020*	*10/3/2020*	*10/10/2020*			
Number of Gas Fueling Pumps	*8*	*12*	*12*			
Number of Vacuum Stalls	*6*	*5*	*5*			

Figure 1

Weekday Hourly Queue Length Observation

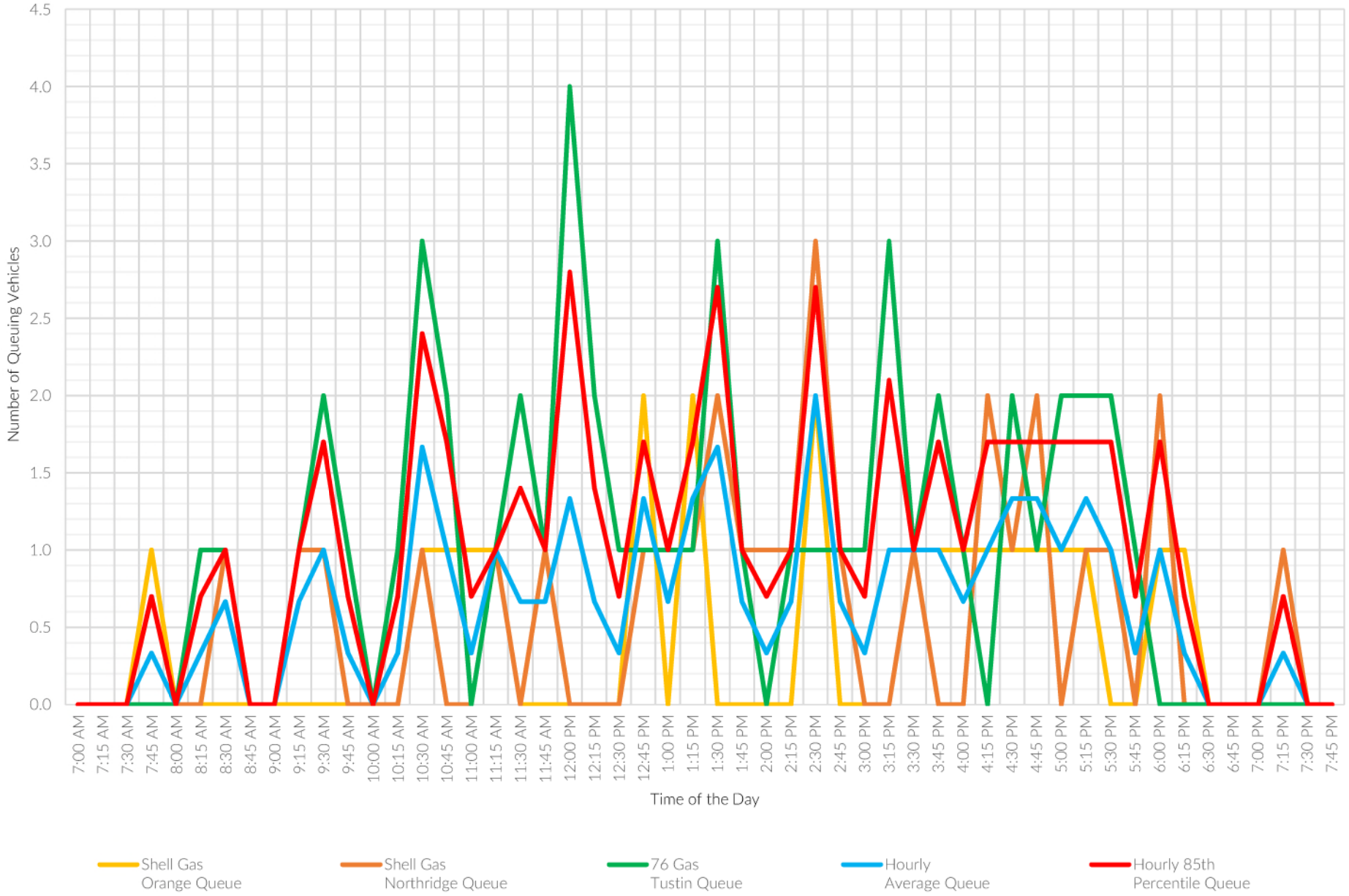
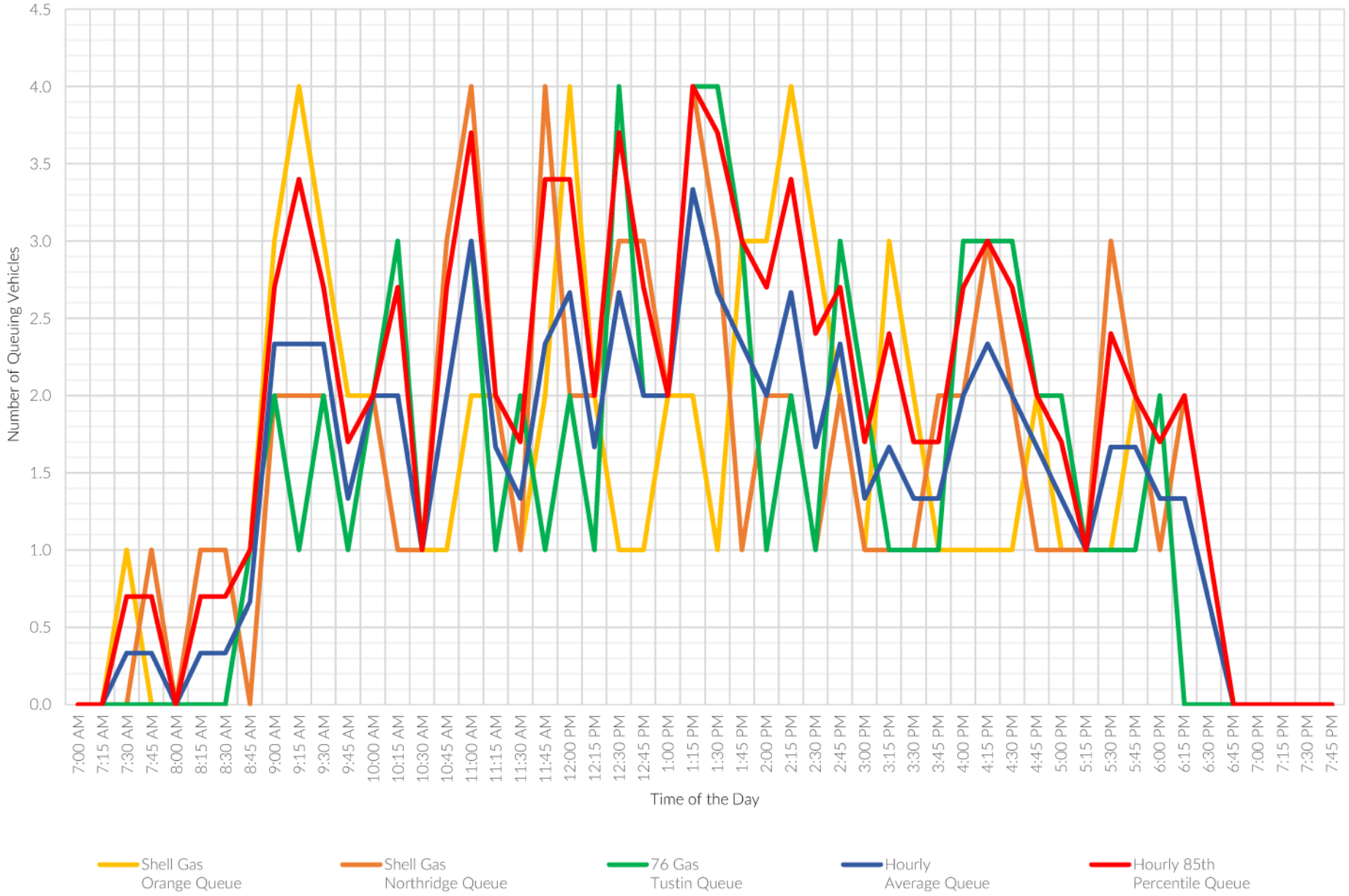


Figure 2

Saturday Hourly Queue Length Observation



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