APPENDIX I

North City Project TIS—Realignment of Morena Pipelines and Transportation Impact Study

CHEN RYAN

February 26, 2018

Mr. Shawn Shamlou
DUDEK
605 Third Street
Encinitas, CA 92024

SUBJECT: North City Project TIS – Realignment of Morena Pipelines

Dear Shawn:

Based on the latest information received, the proposed Morena Pipelines will be realigned at its southern section running through the Bay Park neighborhood. The pipeline alignment segments that will change are the following:

- Morena Blvd, between Ingulf Street and Littlefield Street; and
- Ingulf Street, between Denver Street and Morena Blvd.

The new pipeline alignment will run through the following roadway segments:

- Jellett Street, between Morena Blvd and Denver Street; and
- Denver Street, between Jellett Street and Ingulf Street.

Traffic volumes along Jellett Street are estimated to be low considering its residential collector nature, therefore, it is not estimated to be impacted by the proposed project's construction traffic.

Table 1 displays the roadway segment analysis under Near-Term Year 2022 both without and with the anticipated construction traffic conditions reflecting the changes to the current Morena Pipelines alignment.

CHEN RYAN

TABLE 1
ROADWAY SEGMENT LOS RESULTS
NEAR-TERM YEAR 2022 TRAFFIC CONDITIONS – MORENA PIPELINES

		Near-Term Year 2022 Base + Construction Traffic					Near-Term Year 2022 Base						
Roadway	Segment	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS	Change in V/C	SI?
Denver Street	Clairemont Drive and Jellett Street	2-Lane Collector (Full closure during work hours)	8,000	10,696[1]	1.337	F	2-Lane Collector	8,000	11,000	1.375	F	-0.038	N
Ingulf Street	Galveston Street and West Morena Boulevard	2-Lane Collector	8,000	6,770	0.846	E	2-Lane Collector	8,000	6,700	0.838	E	0.009	N
Galveston Street	Clairemont Drive and Jellet Street	2-Lane Collector	8,000	4,238[2]	0.530	C	2-Lane Collector	8,000	3,600	0.450	C	0.080	N
	Jellet Street and Lister Street	2-Lane Collector	8,000	4,025[2]	0.503	C	2-Lane Collector	8,000	3,600	0.450	C	0.053	N
	Lister Street and Milton Street	2-Lane Collector	8,000	3,813[2]	0.477	C	2-Lane Collector	8,000	3,600	0.450	C	0.027	N

CHEN RYAN

TABLE 1
ROADWAY SEGMENT LOS RESULTS
NEAR-TERM YEAR 2022 TRAFFIC CONDITIONS – MORENA PIPELINES

		Near-Term Year 2022 Base + Construction Traffic					Near-Term Year 2022 Base						
Roadway	Segment	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS	Change in V/C	SI?
Jellet Street	Galveston Street and West Morena Boulevard	2-Lane Collector (Full closure during work hours)	8,000	3,715[1]	0.464	C	2-Lane Collector	8,000	3,600	0.450	C	0.014	N
Lister Street	Galveston Street and West Morena Boulevard	2-Lane Collector	8,000	3,970[2]	0.496	C	2-Lane Collector	8,000	3,900	0.488	C	0.009	N
Milton Street	Galveston Street and West Morena Boulevard	2-Lane Collector	8,000	3,970[2]	0.496	C	2-Lane Collector	8,000	3,900	0.488	C	0.009	N
West Morena Boulevard	Jellett Street and Littlefield Street	4-Lane Major Arterial	40,000	17,724	0.443	B	4-Lane Major Arterial	40,000	17,400	0.435	B	0.008	N

Source: Chen Ryan Associates; February 2018

Notes:
Bold letter indicates substandard LOS E or F.
SI? = Significant Impact?
[1] Traffic volume in this segment excludes traffic during the work hours (9 pm to 5 am) and includes construction traffic.
[2] Traffic along Ingulf Street and Denver Street rerouted onto this roadway segment.

CHEN RYAN

As seen in Table 1, the results found in the North City Project TIS, dated July 7, 2017 would not change by the proposed realignment of the Morena Pipelines.

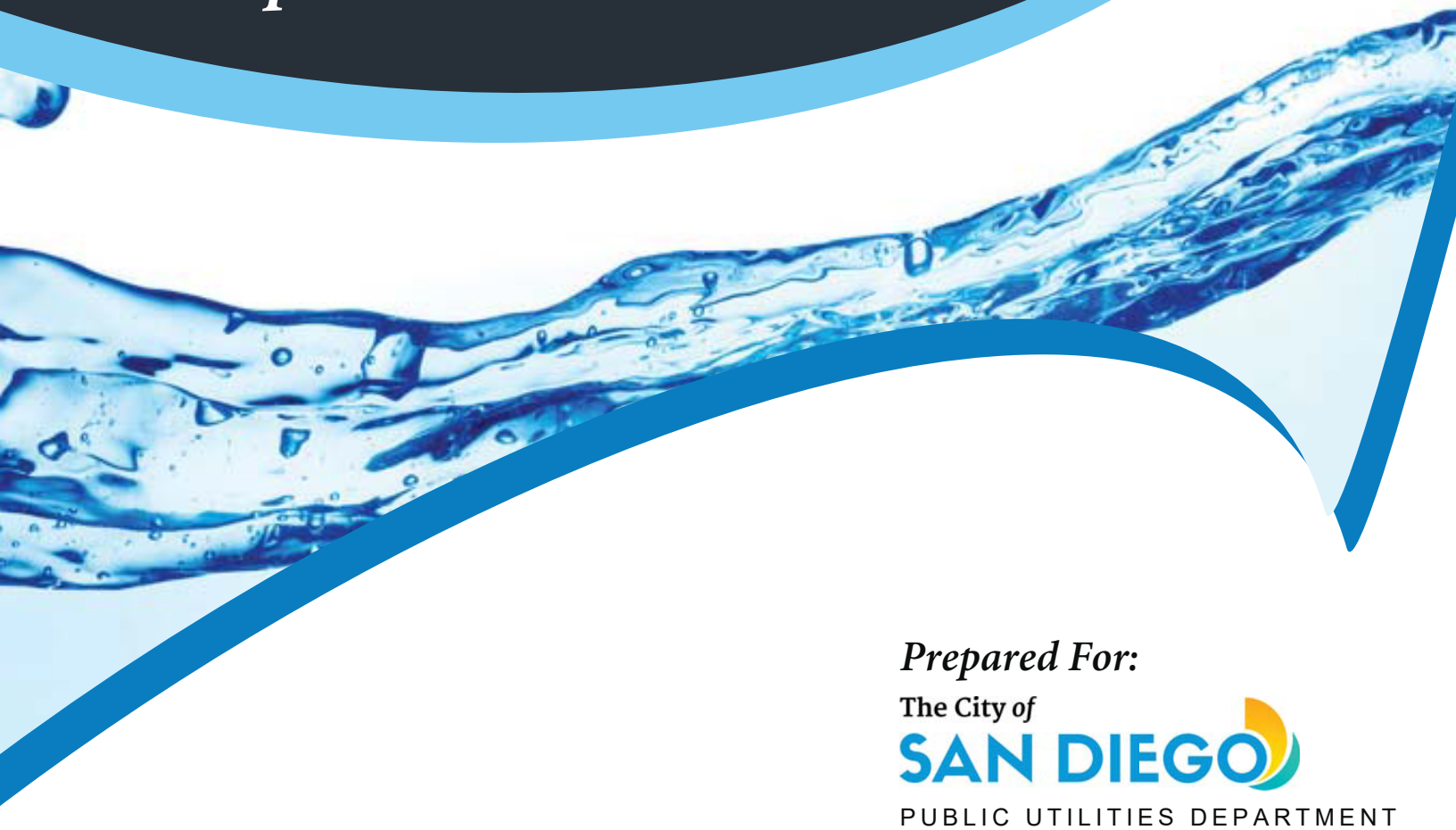
Please feel free to contact me with any questions and/or comments.

Sincerely,

Jonathan Sanchez

North City Project
Transportation Impact Study

Final Report



Prepared For:

The City of SAN DIEGO

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Transportation Impact Study

North City Project

Final Report

Prepared for:

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July 7, 2017

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EXECUTIVE SUMMARY

ES.1 Purpose of the Report

The purpose of this Transportation Impact Study (TIS) is to identify and document potential transportation related impacts associated with the North City project, as well as to recommend mitigation measures, as necessary. Three different components of impact assessments were conducted for this project: (1) permanent transportation impacts associated with the new or improved facilities, such as new North City Pure Water Facility (NCPWF), upgrades and expansion to existing water reclamation facilities, and new pump stations and pipelines; (2) temporary transportation impacts associated with the construction of the two potential pipeline alignment alternatives: Miramar and San Vicente between NCPWF and one of the reservoirs; and (3) temporary transportation impacts associated with the construction of the Morena Wastewater Forcemain and Brine/Centrate Line (Morena Pipelines) between the Morena Pump Station and NCPWF.

ES. 2 Project Background

The North City Project would use advanced water purification technology to produce potable water from recycled water and provide a safe, reliable, and cost-effective drinking water supply for San Diego. The North City Project would create up to 30 million gallons per day (MGD) of locally controlled potable water and reduce flows to the Point Loma Wastewater Treatment Plant (PLWTP), which in turn would reduce total suspended solids (TSS) discharged to the ocean.

The North City Project consists of the design and construction of a new 399,381 square-foot NCPWF, a total of 1,528,043 square-foot expansion upgrades to existing water reclamation facilities, and design and construction of new pump stations and pipelines. The North City Project would construct the NCPWF adjacent to the existing North City Water Reclamation Plant (NCWRP). Upgrades would occur at the existing NCWRP in order to provide sufficient tertiary influent for the NCPWF as well as to connect the existing centrate line with the proposed brine line. Pump station and pipeline facilities would convey different types of flows to and from the treatment facilities for: (1) diverting wastewater flows to NCWRP, (2) conveying recycled water to the NCPWF, (3) conveying purified water from the NCPWF to a reservoir, and (4) transporting waste flows (brine and sludge) from treatment processes to solids handling facilities or back into the Metropolitan Sewerage System (Metro System). Upgrades would also occur at the Metropolitan Biosolids Center (MBC) to handle the additional brine and sludge produced by the NCWRP expansion and advanced water purification process. A new renewable energy facility would be constructed at the NCWRP, which would receive landfill gas from the City's Miramar Landfill gas collection system via a new gas pipeline.

Two North City Project Alternatives (Project Alternatives) are proposed. The North City Purified Water Pipeline (North City Pipeline) would construct the NCPWF and would pipe purified water to Miramar Reservoir. The San Vicente Purified Water Pipeline (San Vicente Pipeline) would also construct the proposed NCPWF, but would include fewer treatment processes at the facility and would pipe purified water to the San Vicente Reservoir rather than the Miramar Reservoir. The

San Vicente Pipeline would also include an additional pump station, the Mission Trails Booster Station (MTBS), along the San Vicente Pipeline. The North City Purified Water Pipeline would include improvements at the Miramar Water Treatment Plant (Miramar WTP).

ES.3 New North City Pure Water Facility (NCPWF) and North City Water Reclamation Facility Expansion – Permanent Traffic

From a TIS perspective, the following project components were examined for the North City Project:

1. New North City Pure Water Facility (NCPWF) – this facility is to be located on the north side of Eastgate Mall, across from the existing NCWRP and the entrance will be across the street from the entrance to the NCWRP and proposed to be signalized. **(45 employees total, permanent facility)**
2. Expansion of the existing North City Water Reclamation Plant (NCWRP) - this facility is currently located on the south side of Eastgate Mall, and takes access off of Eastgate Mall through the existing entrance. There is also a gated emergency access off of Miramar Road. **(15 additional employees total, permanent facility)**
3. Morena Pump Station and Pipelines – No permanent staff required with scheduled maintenance checks. **(0 staff, permanent facilities)**
4. NCPWF Influent Pump Station and Conveyance – one part time employee only. **(1 employee, permanent facilities)**
5. North City Pure Water Pipeline (North City Pipeline) and North City Pump Station - one part time employee only. **(1 employee, permanent facilities)**
6. Pure Water Dechlorination Facility – 2 trips per week by offsite staff and 2 trips per month for chemical delivery. **(2 employees, permanent facility)**

Project Trip Generation

Out of the six project components identified above, construction of the new NCPWF (399,381 square feet) and expansion of the current NCWRP (1,528,043 square feet) would generate permanent traffic on a regular/daily basis due to the additional staffing needed to run and operate these facilities, therefore, included in the traffic impact analyses from this point forward. All other uses are considered negligible traffic generator and are not included in this TIS. The following information was provided by City of San Diego Public Utilities Department, regarding projected additional staffing at both NCPWF and NCWRP expansion, which was utilized to derive trip generation for the project:

NCPWF

- 37 employees during regular day shift (6:00 am to 3:00 pm)
- 8 employees after regular day shift (3:00 pm to 6:00 am)

NCWRP

- 9 employees during regular day shift (6:00 am to 3:00 pm)
- 6 employees after regular day shift (3:00 pm to 6:00 am)

Table ES.1 displays the anticipated daily and peak hour project trip generation. Note that the 3 trips per employee trip rate was based on each employee commuting to and from work (2 trips a day) and the assumption of approximately 50% of employees making two extra trips (inbound and outbound) during their shift for reasons such as meetings, lunch, etc.

TABLE ES.1
PROJECT TRIP GENERATION

Land Use	Quantity (employees)	Trip Rate	Daily Trips	AM Peak Hour (5 AM to 6 AM)	PM Peak Hour (3 PM to 4 PM)
				Trips	Trips
North City Pure Water Facility	45	3 / employee	135	41 (37-in / 4-out)	41 (4-in / 37-out)
North City Water Reclamation Plant - Expansion	15	3 / employee	45	12 (9-in / 3-out)	12 (3-in / 9-out)
Total			**180**	**53 (46-in / 7-out)**	**53 (7-in / 46-out)**

Source: City of San Diego; May 2017.

As shown, the proposed project would generate a total of 180 daily trips, 53 trips (46-in / 7-out) during the AM peak hour, and 53 trips (7-in / 46-out) during the PM peak hour.

Based on input from the City of San Diego Public Utilities Department, employees who work after the regular day shift (6:00 AM to 3:00 PM) are divided into two shifts at 4-person per shift at the NCPWF and two shifts at 3-person per shift at NCWRP and would work from 3:00 PM to 11:00 PM and from 11:00 PM to 6:00 AM.

It is important to note that the proposed work shift for the majority of the workers at these facilities is from 6:00 AM to 3:00 PM. After review of the traffic counts on the roadway facilities in the study area, it was determined that the commute hours for this specific project did not coincide with the regular commute hours of 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM. Even if 20 percent of the workers were to arrive to/depart the project site during regular commute hours, this would result in an addition of 12 trips (10-in / 2-out) during the AM peak hour and 12 trips (2-out / 10-in) during the PM peak hour. This amount of peak hour trips less than the 50-peak hour trip requirement for a traffic impact study, per the City of San Diego *Traffic Impact Study Manual, July 1998.* Therefore, a peak hour intersection analysis was not performed as part of the analysis of this project.

Project Trip Distribution

Trip distribution for the proposed project was developed based on existing traffic patterns, surrounding land uses, as well as access to freeways.

Project Study Area

Based on the City of San Diego Traffic Impact Study Manual requirements and project trip assignment, the following key study area roadway segments were analyzed:

Eastgate Mall between

- Towne Center Drive & Judicial Drive
- Judicial Drive & 280 feet west of I-805 Overpass
- 280 feet west of I-805 Overpass & NCWRP Driveway
- NCWRP Driveway & Eastgate Drive
- Eastgate Drive & Miramar Road

Towne Center Drive between

- Eastgate Mall & Executive Drive
- Executive Drive & La Jolla Village Drive

La Jolla Village Drive between

- Towne Center Drive & I-805 SB Ramps

Miramar Road between

- I-805 SB Ramps & I-805 NB Ramps
- I-805 NB Ramps & Nobel Drive
- Nobel Drive & Eastgate Mall

The proposed project is not anticipated to contribute more than 50 peak hour trips on Interstate 805 (I-805) in either direction nor 20 or more peak hour trips on I-805 freeway metered on-ramps; therefore, a freeway impact analysis nor a ramp metering analysis was conducted.

Project Impacts and Mitigation Measures

Direct Impact

The traffic generated by the proposed project is not anticipated to create a direct impact at any of the analyzed roadway facilities.

Cumulative Impact

The traffic generated by the proposed project is not anticipated to create a cumulative impact at any of the analyzed roadway facilities.

Project Site Access

Access to the new NCPWF and the expanded NCWRP is proposed to be located off of Eastgate Mall via a signalized intersection. According to City of San Diego Public Utilities Department, two options involving a full size and small tunnel were also considered as an alternative to the project driveway signalization, in order to allow staff to travel between the two plants. These two tunnels would house the utilities and provide enough space for carts (no full-size vehicles) to travel between the two plants. Both options would require extensive excavation and triggered the need for a basement in the NCPWF's O&M building. Since both alternative options would be costly, the traffic signal option is determined to be the least costly option that would provide a protected crossing for both pedestrians and heavy vehicles.

It is important to note that the proposed project driveway did not meet the Peak Hour traffic signal warrant nor the ADT traffic signal warrant per California's Manual on Uniform Traffic Control Devices 2014 Edition, Revision 1 – Section 4C.01. This result was due to low volumes on the minor approach. However, considering the expected heavy vehicles entering, exiting, and crossing between the two plants and that the closest controlled pedestrian crossing is located approximately 500 feet to the east of the proposed project driveway at the signalized intersection of Eastgate Mall/Eastgate Drive, and approximately 2,200 feet to the west at the signalized intersection of Eastgate Mall/Judicial Drive, it is the preference of City of San Diego Public Utilities Department to signalize the proposed project driveway.

The project driveway should be designed in accordance to City of San Diego standards and should provide sufficient storage for traffic entering the two plants. The project driveway would be signalized and would require the appropriate signing and striping plans per City of San Diego standards.

ES. 4 North City Pipeline – Construction Traffic

The North City Pipeline connects the NCPWF and NCWRP sites at I-805 and Eastgate Mall to the Miramar Reservoir via Eastgate Mall, Miramar Road, Kearny Villa Road, Candida Street, Via Pasar, Via Excelencia, under I-15 to Businesspark Avenue, Carroll Canyon Road, Hoyt Park Drive, and Meanley Drive. It is anticipated that approximately 39,400 LF (7.5 miles) of 48" steel pipeline will be installed along with approximately 4,800 LF (0.91 mile) of subaqueous polyethylene (PE) pipeline ranging in diameter from 20" to 40" with 14 branches of various lengths in the ravines of the reservoir. Construction of the North City Pipeline is anticipated to take place between November 2018 and October 2021. **Table ES.2** displays the work hours proposed for the roadway segments analyzed for the North City Pipeline construction.

TABLE ES.2
WORK HOURS ON ROADWAY SEGMENTS ALONG NORTH CITY PIPELINE ALIGNMENT

Roadway	Segment	Work hours
Eastgate Mall	NCPWF & NCWRP Driveway and Miramar Rd	9:00 PM to 5:00 AM
Miramar Road	Eastgate Mall and Camino Santa Fe	9:00 PM to 5:00 AM
	Camino Santa Fe and Carroll Rd	9:00 PM to 5:00 AM
	Carroll Rd and Camino Ruiz	9:00 PM to 5:00 AM
	Camino Ruiz and Black Mountain Rd	9:00 PM to 5:00 AM
	Black Mountain Rd and Kearny Villa Rd	9:00 PM to 5:00 AM
Kearny Villa Road	Black Mountain Rd/Carroll Centre Rd and Miramar Rd	9:00 PM to 5:00 AM
Candida Street	Kearny Villa Rd and Via Pasar	9:00 PM to 5:00 AM
Via Pasar	Via Excelencia and Candida St	9:00 PM to 5:00 AM
Via Excelencia	east of Via Pasar	9:00 PM to 5:00 AM
Businesspark Avenue	south of Willow Creek Rd	9:00 PM to 5:00 AM
	Carrol Canyon Rd and Willow Creek Rd	9:00 PM to 5:00 AM
Carroll Canyon Rd	Businesspark Ave and Scripps Ranch Blvd	9:00 PM to 5:00 AM
Scripps Ranch Blvd	Carroll Canyon Rd Hoyt Park Dr	9:00 PM to 5:00 AM
Hoyt Park Dr	Scripps Ranch Blvd and Meanley Dr	9:00 PM to 5:00 AM

Source: City of San Diego Public Utilities Department and Construction Management and Field Services Department, May 2017.

Project Impacts and Mitigation Measures

Construction traffic associated with the North City Pipeline would result in significant traffic impact to the following roadway segment:

- Eastgate Mall, between the NCPWF & NCWRP driveway and Miramar Road – LOS F.

However, based on information provided by City of San Diego Public Utilities Department, construction of the pipeline would be performed 75 LF per day, and the impacted area at any one time would encompass the work area as well as the traffic control setup length. Therefore, this project impact would be temporary in nature (approximately 64[1] working days) and since the construction will occur during nighttime when there is less traffic on the road, this roadway should function at reasonable operations. Therefore, since the impact would be temporary, no mitigation measure is required.

Table ES.3 displays the projected amount of days for which construction would take place at the identified impacted roadway above as well as on roadways adjacent to residential areas. Nighttime work hours may be modified/reduced or work may be performed during weekends on roadways near residential areas.

TABLE ES.3
SUMMARY OF IMPACT DURATION – NORTH CITY PIPELINE

Roadway	Segment	Length (ft)	Approximate Duration of Impact (days)
Eastgate Mall	NCPWF & NCWRP Driveway and Miramar Rd	4,800	64
Miramar Road	Camino Ruiz and Black Mountain Road	3,000	40
	Black Mountain Rd and Kearny Villa Rd	1,000	14

Source: Chen Ryan Associates; May 2017.

The duration of the impacts is based on the anticipated 75 LF of pipeline installation per day. It is important to note that these impacts would not occur concurrently, but rather at different points in time depending on the location of pipeline construction[1], and the impacted area at any one time would encompass the work area as well as the traffic control setup length. Therefore, the project impacts shown above would be temporary in nature and no mitigation measures are required.

[1] The impacted roadway segment of Eastgate Mall, between NCPWF & NCWRP driveway and Miramar Road and Willow Road, between SR-67 and Moreno Avenue would be approximately 4,800 feet and 1,300 feet in length respectively, and at 75 feet of installation per day, it is estimated that it would take approximately 64 days and 17 days to complete, respectively. After the pipeline installation is complete at the first 75 LF, the next 75 LF of construction would begin to be under construction, etc.

ES. 5 San Vicente Pipeline – Construction Traffic

The San Vicente Pipeline connects the NCPWF and NCWRP sites at I-805 and Eastgate Mall to the San Vicente Reservoir traversing a number of local jurisdictions, including the cities of San Diego and Santee, and the community of Lakeside in unincorporated San Diego County. This is a much longer pipeline when compared to the North City Pipeline, covering approximately 190,600 LF (36 miles). San Vicente Pipeline, construction is anticipated to take place between December 2018 and May 2021. **Table ES.4** displays the work hours proposed for the roadway segments analyzed for the San Vicente Pipeline construction.

TABLE ES.4
WORK HOURS ON ROADWAY SEGMENTS ALONG SAN VICENTE PIPELINE ALIGNMENT

Roadway	Segment	Work hours
Section 1A		
Eastgate Mall	NCPWF & NCWRP Driveway and Miramar Rd	9:00 PM to 5:00 AM
Miramar Rd	Nobel Dr and Eastgate Mall	9:00 PM to 5:00 AM
Copley Dr	Hickman Field Dr and Copley Park Pl	9:00 PM to 5:00 AM
Copley Park Pl	Copley Dr and Convoy St	9:00 PM to 5:00 AM
Convoy St	Copley Park Pl and Convoy Ct	9:00 PM to 5:00 AM
Convoy Ct	east of Convoy St	9:00 PM to 5:00 AM
Section 1B		
Ronson Rd	Ronson Ct and Kearny Mesa Rd	9:00 PM to 5:00 AM
Lightwave Ave	Kearny Villa Rd and Ruffin Rd	9:00 PM to 5:00 AM
Ruffin Rd	Clairemont Mesa Blvd and Lightwave Ave	9:00 PM to 5:00 AM
Clairemont Mesa Blvd	Ruffin Rd and Murphy Canyon Rd	9:00 PM to 5:00 AM
Murphy Canyon Rd	Clairemont Mesa Blvd and 1650 ft South of Clairemont Mesa Blvd	9:00 PM to 5:00 AM
Clairemont Mesa Blvd	1300 ft East of I-15 NB Ramps and Santo Rd	9:00 PM to 5:00 AM
Santo Rd	Clairemont Mesa Blvd and Tierrasanta Blvd	9:00 PM to 5:00 AM
Tierrasanta Blvd	Santo Rd and Copperleaf Ln	9:00 PM to 5:00 AM
Princess View Dr	north of Mission Gorge Rd	9:00 PM to 5:00 AM
Section 2		
Mission Gorge Rd	Princess View Dr and Golfcrest Dr	9:00 PM to 5:00 AM
	Golfcrest Dr and Rockyridge Rd	9:00 PM to 5:00 AM
	Rockyridge Rd and W Hills Pkwy	9:00 PM to 5:00 AM
W Hills Pkwy	Mission Gorge Rd and Carlton Oaks Dr	9:00 PM to 5:00 AM
Section 3		
Carlton Oaks Dr	W Hills Pkwy and Fanita Pkwy	9:00 PM to 5:00 AM
	400 ft West of Fanita Pkwy and Stoyer Dr	9:00 PM to 5:00 AM
Halberns Blvd	Stoyer Dr and Mast Blvd	9:00 PM to 5:00 AM
Section 4		
Mast Blvd	Halberns Blvd and Magnolia Ave	9:00 PM to 5:00 AM
	Magnolia Ave and Eastern Terminus	9:00 PM to 5:00 AM

TABLE ES.4
WORK HOURS ON ROADWAY SEGMENTS ALONG SAN VICENTE PIPELINE ALIGNMENT

Roadway	Segment	Work hours
Mast Blvd	Western Terminus and Riverford Rd	9:00 PM to 5:00 AM
Riverside Dr	Riverford Rd and Valle Vista Rd	9:00 PM to 5:00 AM
Lakeside Ave	Valle Vista Rd and Lakeside Ave/Channel Rd	9:00 PM to 5:00 AM
	Lakeside Ave/Channel Rd and SR-67	9:00 PM to 5:00 AM
Willow Rd	SR-67 and Moreno Ave	9:00 PM to 5:00 AM
Moreno Ave	San Vicente Reservoir and Willow Rd	9:00 PM to 5:00 AM

Source: City of San Diego Public Utilities Department and Construction Management and Field Services Department, May 2017.

Project Impacts and Mitigation Measures

Construction traffic associated with the San Vicente Alignment would result in a significant traffic impact to the following two roadway segments:

- Eastgate Mall, between the NCPWF & NCWRP driveway and Miramar Road – LOS F; and
- Willow Road, between SR-67 and Moreno Avenue – LOS F.

However, based on information provided by City of San Diego Public Utilities Department, construction of the pipeline would be performed 75 LF per day, and the impacted area at any one time would encompass the work area as well as the traffic control setup length. Therefore, these project impacts would be temporary in nature (approximately 64[1] working days and 17[1] working days, respectively) and since the construction will occur during nighttime when there is less traffic on the road, this roadway should function at reasonable operations. Therefore, since the impact would be temporary, no mitigation measures are required.

Table ES.5 displays the projected amount of days for which construction would take place at the identified impacted roadways above as well as on roadways adjacent to residential areas. Nighttime work hours may be modified/reduced or work may be performed during weekends on roadways near residential areas.

TABLE ES.5
SUMMARY OF IMPACT DURATION – SAN VICENTE PIPELINE

Roadway	Segment	Length (ft)	Approximate Duration of Impact (days)
Section 1B			
Eastgate Mall	NCPWF & NCWRP Driveway and Miramar Rd	4,800	64
Lightwave Avenue	Kearny Villa Rd and Ruffin Rd	4,800	64
Ruffin Rd	Clairemont Mesa Blvd and Lightwave Ave	880	12
Clairemont Mesa Blvd	1300 ft East of I-15 NB Ramps	1,300	18
Santo Rd	Clairemont Mesa Blvd and Tierrasanta Blvd	2,070	28
Tierrasanta Blvd	Santo Rd and Cooperleaf Ln	8,000	107
Section 2			
Mission Gorge Rd	Princess View Dr and Golfcrest Dr	11,300	151
	1160 ft west of Rockyridge Rd	1,160	16
	Rockyridge Rd and W Hills Pkwy	3,000	40

TABLE ES.5
SUMMARY OF IMPACT DURATION – SAN VICENTE PIPELINE

Roadway	Segment	Length (ft)	Approximate Duration of Impact (days)
W Hills Pkwy	Mission Gorge Rd and Carlton Oaks Dr	2,200	30
Section 3			
Carlton Oaks Dr	W Hills Pkwy and Fanita Pkwy	6,500	87
	400 ft West of Fanita Pkwy and Stoyer Dr	4,400	59
Halberns Blvd	Stoyer Dr and Mast Blvd	1,600	22
Section 4			
Mast Blvd	Halberns Blvd and Magnolia Ave	6,850	92
	Magnolia Ave and Eastern Terminus	4,000	54
	Western Terminus and Riverford Rd	2,500	32
Riverside Dr	Riverford Rd and Valle Vista Rd	5,400	72
Lakeside Dr	Valle Vista Rd and Lakeside Ave/Channel Rd	1,125	15
	Lakeside Ave/Channel Rd and SR-67	2,600	35
Willow Rd	SR-67 and Moreno Ave	1,300	17
Moreno Ave	San Vicente Reservoir and Willow Rd	9,600	125

Source: Chen Ryan Associates; May 2017.

The duration of the impacts is based on the anticipated 75 LF of pipeline installation per day. It is important to note that these impacts would not occur concurrently, but rather at different points in time depending on the location of pipeline construction[1], and the impacted area at any one time would encompass the work area as well as the traffic control setup length. Therefore, the project impacts shown above would be temporary in nature and no mitigation measures are required.

[1] The impacted roadway segment of Eastgate Mall, between NCPWF & NCWRP driveway and Miramar Road and Willow Road, between SR-67 and Moreno Avenue would be approximately 4,800 feet and 1,300 feet in length respectively, and at 75 feet of installation per day, it is estimated that it would take approximately 64 days and 17 days to complete, respectively. After the pipeline installation is complete at the first 75 LF, the next 75 LF of construction would begin to be under construction, etc.

ES. 6 Morena Pipelines – Construction Traffic

The Morena Pipelines propose the construction of two pipelines, a 30-inch brine pipeline and a 48-inch wastewater forcemain, running parallel to each other in a common pipe trench, connecting the Morena Pump Station which is to be located on a parcel currently owned by the San Diego Humane Society and the Society for the Prevention of Cruelty to Animals, to the NCWRP. The pipelines will connect the new pump station to the NCWRP, via Sherman Street, Morena Boulevard, West Morena Boulevard, Ingulf Street, Denver Street, Clairemont Drive, Clairemont Mesa Boulevard, Genesee Avenue, Nobel Drive, Towne Centre Drive, and Executive Drive, traversing the communities of Linda Vista, Clairemont Mesa, and University. This pipeline is approximately 11 miles. Construction of the Morena Pipelines is anticipated to take place between March 2019 and July 2021.

Pipeline construction is proposed largely to be open-trench, covering approximately 50,890 linear feet or 93% of the total alignment, while the tunneling sections cover approximately 4,105 linear feet or 7% of the total alignment. Based on information provided by City of San Diego Public Utilities Department and Construction Management and Field Services, the majority of the pipeline construction work hours are proposed to be during nighttime, between 9:00 pm and 5:00 am, with daytime construction along some roadway segments along the pipelines alignment. **Table ES.6** displays the work hours proposed for the roadway segments analyzed for the Morena Pipelines construction.

TABLE ES.6
WORK HOURS ON ROADWAY SEGMENTS ALONG MORENA PIPELINES ALIGNMENT

Roadway	Segment	Work Hours
Executive Drive	End of cul-de-sac and Judicial Drive	9:00 PM to 5:00 AM
Executive Drive	Judicial Drive and Towne Centre Drive	9:00 PM to 5:00 AM
Towne Centre Drive	Executive Drive and La Jolla Village Drive	9:00 PM to 5:00 AM
Towne Centre Drive	La Jolla Village Drive and Golden Haven Drive	8:30 AM to 3:30 PM
Towne Centre Drive	Golden Haven Drive and Nobel Drive	8:30 AM to 3:30 PM
Nobel Drive	Towne Centre Drive and Genesee Avenue	8:30 AM to 3:30 PM
Genesee Ave	Nobel Drive to Governor Drive	9:00 PM to 5:00 AM
Genesee Ave	Governor Drive and SR-52 WB Ramps	9:00 PM to 5:00 AM
Genesee Ave	SR-52 WB Ramps and SR-52 EB Ramps	9:00 PM to 5:00 AM
Genesee Ave	SR-52 EB Ramps and Appleton Street	9:00 PM to 5:00 AM
Genesee Ave	Appleton Street and Clairemont Mesa Blvd	(NB) 9:00 PM to 5:00 AM, (SB) 7:30 AM to 2:30 PM
Clairemont Mesa Blvd	Genesee Avenue and Clairemont Drive	8:30 AM to 3:30 PM
Clairemont Drive	Clairemont Mesa Boulevard and Lakehurst Avenue	7:30 AM to 4:30 PM
Clairemont Drive	Lakehurst Avenue and Clairemont Mesa Boulevard	7:30 AM to 4:30 PM
Clairemont Drive	Clairemont Mesa Boulevard and Balboa Avenue	7:30 AM to 4:30 PM
Clairemont Drive	Balboa Avenue to Rappahannock Avenue	7:30 AM to 4:30 PM
Clairemont Drive	Rappahannock Avenue to Iroquois Avenue	7:30 AM to 4:30 PM
Clairemont Drive	Iroquois Avenue to Burgener Drive	9:00 PM to 5:00 AM

TABLE ES.6
WORK HOURS ON ROADWAY SEGMENTS ALONG MORENA PIPELINES ALIGNMENT

Roadway	Segment	Work Hours
Clairemont Drive	Burgener Drive to Denver Street	9:00 PM to 5:00 AM
Denver St	Clairemont Drive and Ingulf Street	9:00 PM to 5:00 AM
Ingulf St	Denver Street and West Morena Boulevard	9:00 PM to 5:00 AM
West Morena Boulevard	Ingulf Street to Littlefield Street	9:00 PM to 5:00 AM
West Morena Boulevard	Littlefield Street to Morena Blvd	9:00 PM to 5:00 AM
West Morena Boulevard	Morena Boulevard and Tecolote Road Overpass	9:00 PM to 5:00 AM
West Morena Boulevard	Tecolote Road Overpass and Vega Street	9:00 PM to 5:00 AM
West Morena Boulevard	Vega Street and Morena Boulevard	9:00 PM to 5:00 AM

Source: City of San Diego Public Utilities Department and Construction Management and Field Services Department, May 2017.

The construction of the pipelines will also require the closure to through traffic of two roadways, Ingulf Street and Denver Street. The closure of the aforementioned roadways segments will result in the following traffic detours:

- Closure of Ingulf Street between West Morena Boulevard and Denver Street - Detour signs shall be placed redirecting traffic to travel on alternative routes along Milton Street, Lister Street, Jellett Street and Galveston Street.

- Closure of Denver Street between Ingulf Street and Clairemont Drive – Detour signs shall be placed redirecting traffic to travel on alternative routes along Milton Street, Lister Street, Jellett Street and Galveston Street.

It is important to note that the Morena Pipelines alignment coincides with the alignment for the construction of the Mid-Coast Trolley alignment (along West Morena Boulevard), therefore, close coordination is necessary between these two projects.

Project Impacts and Mitigation Measures

Roadway Segments

The construction traffic would result in significant traffic impact to thirteen (13) of studied roadway segments along the Morena Pipelines:

- Executive Drive, between end of cul-de-sac and Judicial Drive – LOS E;
- Towne Centre Drive, between La Jolla Village Drive and Golden Haven Drive – LOS F;
- Towne Centre Drive, between Golden Haven Drive and Nobel Drive – LOS F;
- Nobel Drive, between Towne Centre Drive and Genesee Avenue – LOS F;
- Genesee Avenue, between Governor Drive and SR-52 WB Ramps – LOS F;
- Genesee Avenue, between Appleton Street and Clairemont Mesa Boulevard – LOS F;
- Clairemont Mesa Boulevard, between Genesee Avenue and Clairemont Drive – LOS F;
- Clairemont Drive, between Clairemont Mesa Boulevard and Lakehurst Avenue – LOS F;
- Clairemont Drive, between Lakehurst Avenue and Clairemont Mesa Boulevard – LOS F;
- Clairemont Drive, between Clairemont Mesa Boulevard and Balboa Avenue – LOS F;
- Clairemont Drive, between Balboa Avenue and Rappahannock Avenue – LOS F;
- Clairemont Drive, between Rappahannock Avenue and Iroquois Avenue – LOS F; and
- Clairemont Drive, between Burgener Drive and Denver Street – LOS F.

Table ES.7 displays the projected amount of days for which construction would take place at the identified impacted roadways above as well as on roadways adjacent to residential areas. Nighttime work hours may be modified/reduced or work may be performed during weekends on roadways near residential areas.

TABLE ES.7
SUMMARY OF IMPACT DURATION – MORENA PIPELINES

Roadway	Segment	Length (ft)	Approximate Duration of Impact (days)
Executive Drive	End of cul-de-sac and Judicial Drive	1,000	13
	Judicial Drive and Towne Centre Drive	550	7
Towne Centre Drive	Executive Drive and La Jolla Village Drive	880	12
	La Jolla Village Drive and Golden Haven Drive	1,300	26[1]
	Golden Haven Drive and Nobel Drive	1,700	34[1]
Nobel Drive	Towne Center Drive and Genesee Avenue	1,650	33[1]
Genesee Avenue	Nobel Drive and Governor Drive	5,320	71
	Governor Drive and SR-52 WB Ramps	2,112	28
	SR-52 EB Ramps and Appleton Street	2,855	38
	Appleton Street and Clairemont Mesa Blvd	1,166	19[2]
Clairemont Mesa Boulevard	Genesee Avenue and Clairemont Drive	2,112	28

TABLE ES.7
SUMMARY OF IMPACT DURATION – MORENA PIPELINES

Roadway	Segment	Length (ft)	Approximate Duration of Impact (days)
Clairemont Drive	Clairemont Mesa Boulevard and Lakehurst Avenue	2,112	28
	Lakehurst Avenue and Clairemont Mesa Boulevard	1,056	14
	Clairemont Mesa Boulevard and Balboa Avenue	6,336	85
Clairemont Drive	Balboa Avenue and Rappahannock Avenue	2,112	28
	Rappahannock Avenue and Iroquois Avenue	3,696	49
	Iroquois Avenue and Burgener Blvd	1,160	15
	Burgener Blvd and Denver Street	3,168	42
Denver Street	Clairemont Drive and Ingulf Street	330	4
Ingulft Street	Denver Street and West Morena Boulevard	660	9
West Morena Boulevard	Ingulf Street to Littlefield Street	3,370	45
	Littlefield Street and Morena Boulevard	1,970	26
	Morena Boulevard and Tecolote Road Overpass	1,660	22
	Tecolote Road Overpass and Vega Street	300	4
	Vega Street and Morena Boulevard	1,700	23

Source: Chen Ryan Associates; June 2017.

Notes:
[1] Duration of Impact calculated based on 50 LF of pipeline installation per day due to restricted working hours.
[2] Duration of Impact calculated based on 60 LF of pipeline installation per day due to restricted working hours.

The duration of the impacts is based on the anticipated 75 LF of pipeline installation per day. It is important to note that these impacts would not occur concurrently, but rather at different points in time depending on the location of pipeline construction[1], and the impacted area at any one time would encompass the work area as well as the traffic control setup area. Therefore, the project impacts shown above would be temporary in nature and no mitigation measures are required.

[1] A roadway segment that measures 750 feet in length, at 75 feet of installation per day it is estimated that it would take approximately 10 days to complete. After the pipeline installation is complete at the first 75 LF, the next 75 LF of the roadway segment would to be impacted, etc.

Intersections

The construction traffic would result in significant traffic impact to six (6) intersections along the Morena Pipelines:

- Towne Centre Drive & Nobel Drive – LOS F during the PM peak hour;
- Genesee Avenue & Nobel Drive – LOS F during both the AM and PM peak hours;
- Genesee Avenue & Appleton Street/Lehrer Drive – LOS F during both the AM and PM peak hours;
- Genesee Avenue & Clairemont Mesa Boulevard – LOS F during both the AM and PM peak hours;
- Clairemont Mesa Boulevard & Clairemont Drive/Kleefeld Avenue – LOS F during both the AM and PM peak hours; and
- Clairemont Drive & Clairemont Mesa Boulevard – LOS F during both the AM and PM peak hours.

Since project construction conditions are temporary in nature, no physical mitigation measures are recommended. Instead, it is recommended that a Transportation Demand Management Plan is developed to limit the number of construction worker trips that travel through the impacted intersection during peak periods. The following lists a series of TDM strategies that would be appropriate during project construction.

- Implementation of a ride-sharing program to encourage carpooling amongst workers.
- Adjusting work schedules so workers do not access the site during the peak hours.
- Provide off-site parking locations for workers outside of the area with shuttle services to bring them on-site.
- Provide subsidized transit passes for construction workers

In order to help reduce the temporary transportation and parking related impacts associated with project construction, it is recommended that the project applicant develop a TDM plan utilizing one or multiple of the strategies listed above during the construction of the proposed project.

1.0 Introduction

1.1 Purpose of the Report

The purpose of this Transportation Impact Study (TIS) is to identify and document potential transportation related impacts associated with the North City project, as well as to recommend mitigation measures, as necessary. Three different components of impact assessments were conducted for this project: (1) permanent transportation impacts associated with the new or improved facilities, such as new North City Pure Water Facility (NCPWF), upgrades and expansion to existing water reclamation facilities, and new pump stations and pipelines; (2) temporary transportation impacts associated with the construction of the two potential pipeline alignment alternatives: Miramar and San Vicente between NCPWF and one of the reservoirs; and (3) temporary transportation impacts associated with the construction of the Morena Wastewater Forcemain and Brine/Centrate Line (Morena Pipelines) between the Morena Pump Station and NCPWF.

1.2 Project Background

On average, 85% of City's water supply is imported from the Colorado River and Northern California. This reliance on imported water causes San Diego to be vulnerable to supply shortages and price increases.

With few local water supply options, the City has explored potable and non-potable reuse options of treated wastewater. In 2011, the City started operating one million gallons per day (MGD) demonstration-scale advanced water purification facility at the NCWRP site and confirmed that the purified water complied with all federal and state drinking water standards.

On April 29, 2014, the City Council adopted a resolution (R-308906) supporting the implementation of the Pure Water Program. On November 18, 2014, the City Council unanimously supported the application to renew the NPDES permit for the Point Loma Wastewater Treatment Plant (WWTP); the application included key elements of the City's Pure Water Program to implement potable reuse.

The Pure Water Program will ultimately produce 83 MGD of locally controlled water, and will be implemented in phases over a 20-year period, grouped by geographical area: North City, Central Area, and South Bay. The North City Project will produce 30 MGD of purified water and is scheduled to be operational in 2021. The Central Area project and/or South Bay projects are scheduled to be completed by December 31, 2035, and will produce a combined total up to 53 MGD.

1.3 Project Description

The North City Project would use advanced water purification technology to produce potable water from recycled water and provide a safe, reliable, and cost-effective drinking water supply for San Diego. The North City Project would create up to 30 MGD of locally controlled potable water and reduce flows to the PLWTP, which in turn would reduce total suspended solids (TSS) discharged to the ocean.

The North City Project consists of the design and construction of a new 399,381 square-foot NCPWF, 1,528,043 square-foot upgrades to existing water reclamation facilities, and design and construction of new pump stations and pipelines. The North City Project would construct the NCPWF adjacent to the existing North City Water Reclamation Plant (NCWRP). Upgrades would occur at the existing NCWRP in order to provide sufficient tertiary influent for the NCPWF as well as to connect the existing centrate line with the proposed brine line. Pump station and pipeline facilities would convey different types of flows to and from the treatment facilities for: (1) diverting wastewater flows to NCWRP, (2) conveying recycled water to the NCPWF, (3) conveying purified water from the NCPWF to a reservoir, and (4) transporting waste flows (brine and sludge) from treatment processes to solids handling facilities or back into the Metropolitan Sewerage System (Metro System). Upgrades would also occur at the Metropolitan Biosolids Center (MBC) to handle the additional brine and sludge produced by the NCWRP expansion and advanced water purification process. A new renewable energy facility would be constructed at the NCWRP, which would receive landfill gas from the City's Miramar Landfill gas collection system via a new gas pipeline.

Two North City Project Alternatives (Project Alternatives) are proposed. The North City Purified Water Pipeline (North City Pipeline) would construct the NCPWF and would pipe purified water to Miramar Reservoir. The San Vicente Purified Water Pipeline (San Vicente Pipeline) would also construct the proposed NCPWF, but would include fewer treatment processes at the facility and would pipe purified water to the San Vicente Reservoir rather than the Miramar Reservoir. The San Vicente Pipeline would also include an additional pump station, the Mission Trails Booster Station (MTBS), along the San Vicente Pipeline alignment. The North City Pipeline would include improvements at the Miramar Water Treatment Plant (Miramar WTP).

From a TIS perspective, the following project components were examined for the North City Project:

1. New North City Pure Water Facility (NCPWF) – this facility is to be located on the north side of Eastgate Mall, across from the existing NCWRP and the entrance will be across the street from the entrance to the NCWRP and proposed to be signalized. **(45 employees total, permanent facility)**
2. Expansion of the existing North City Water Reclamation Plant (NCWRP) - this facility is currently located on the south side of Eastgate Mall, and takes access off of Eastgate Mall through the existing entrance. There is also a gated emergency access off of Miramar Road. **(15 additional employees total, permanent facility)**

3. Morena Pump Station and Pipelines – No permanent staff required with scheduled maintenance checks; **(0 staff, permanent facilities)**
4. NCPWF Influent Pump Station and Conveyance – one part time employee only; **(1 employee, permanent facilities)**
5. North City Pure Water Pipeline (North City Pipeline) and North City Pump Station - one part time employee only; **(1 employee, permanent facilities)**
6. Pure Water Dechlorination Facility – 2 trips per week by offsite staff and 2 trips per month for chemical delivery. **(2 employees, permanent facility)**

The project site is located in San Diego, California. The regional location of the proposed project is displayed in **Figure 1-1**.

1.4 Report Organization

Following this introduction chapter, this report is organized into the following chapters:

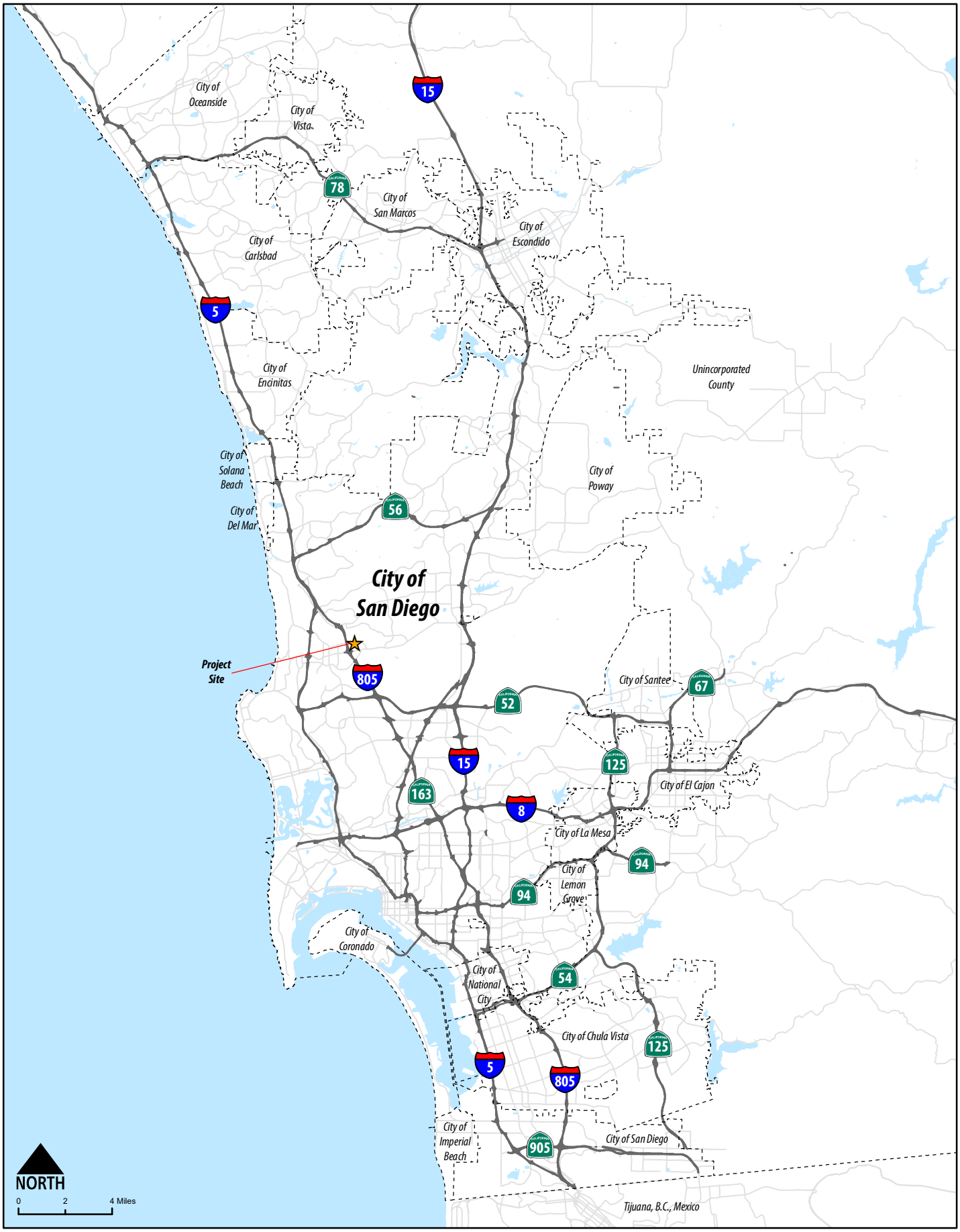
2.0 Analysis Methodology – This chapter describes the methodologies and standards utilized to analyze roadway and intersection traffic conditions.

3.0 North City Pure Water Facility – This chapter describes the proposed project including project trip generation, trip distribution patterns, and project trip assignments. It also documents existing, near-term year 2022, and future year 2035 traffic operations both with and without the proposed project. Mitigation measures, if necessary, for project-related impacts are also identified.

4.0 Purified Water Pipelines – This chapter describes potential traffic impacts during pipeline construction for both the North City Pipeline and the San Vicente Pipeline alignment alternatives.

5.0 Morena Wastewater Forcemain and Brine/Centrate Line – This chapters discusses potential construction traffic impacts associated with pipelines connecting the expanded NCWRP and the Morena Pump Station.

6.0 Findings – This chapter provide a summary of project findings in terms of potential transportation related impacts and recommended mitigation measures.



North City Project
Transportation Impact Study

CHEN RYAN

Figure 1-1
Project Regional Location

2.0 Analysis Methodology

This TIS was performed in accordance with the requirements of the City of San Diego *Traffic Impact Study Manual* and the District's California Environmental Quality Act (CEQA) project review process. Detailed information on roadway segment analysis methodologies, standards, and thresholds are discussed in the following sections.

2.1 Level of Service Definition

Level of Service (LOS) is a quantitative measure describing operational conditions within a traffic stream, and the motorist's and/or passengers' perception of operations. A LOS definition generally describes these conditions in terms of such factors as delay, speed, travel time, freedom to maneuver, interruptions in traffic flow, queuing, comfort, and convenience. **Table 2.1** describes generalized definitions of the various LOS categories (A through F) as applied to roadway operations.

TABLE 2.1
LEVEL OF SERVICE DEFINITIONS

LOS Category	Definition of Operation
A	This LOS represents a completely free-flow condition, where the operation of vehicles is virtually unaffected by the presence of other vehicles and only constrained by the geometric features of the highway and by driver preferences.
B	This LOS represents a relatively free-flow condition, although the presence of other vehicles becomes noticeable. Average travel speeds are the same as in LOS A, but drivers have slightly less freedom to maneuver.
C	At this LOS, the influence of traffic density on operations becomes marked. The ability to maneuver within the traffic stream is clearly affected by other vehicles.
D	At this LOS, the ability to maneuver is notably restricted due to traffic congestion, and only minor disruptions can be absorbed without extensive queues forming and the service deteriorating.
E	This LOS represents operations at or near capacity. LOS E is an unstable level, with vehicles operating with minimum spacing for maintaining uniform flow. At LOS E, disruptions cannot be dissipated readily thus causing deterioration down to LOS F.
F	At this LOS, forced or breakdown of traffic flow occurs, although operations appear to be at capacity, queues form behind these breakdowns. Operations within queues are highly unstable, with vehicles experiencing brief periods of movement followed by stoppages.

Source: Highway Capacity Manual 2010

2.2 Roadway Segment LOS Standards and Thresholds

Roadway segment LOS standards and thresholds provide the basis for analysis of arterial roadway segment performance. The analysis of roadway segment LOS is based on the functional classification of the roadway, the maximum capacity, roadway geometrics, and existing or forecast Average Daily Traffic (ADT) volumes. **Table 2.2** presents the roadway segment capacity and LOS standards utilized to analyze roadways evaluated in this report.

TABLE 2.2
CITY OF SAN DIEGO ROADWAY CLASSIFICATIONS AND LOS STANDARDS

Roadway Classification	LOS A	LOS B	LOS C	LOS D	LOS E
Expressway (6 lanes)	< 30,000	< 42,000	< 60,000	**< 70,000**	< 80,000
Primary Arterial (6 lanes)	< 25,000	< 35,000	< 50,000	**< 55,000**	< 60,000
Major Arterial (6-lane, divided)	< 20,000	< 28,000	< 40,000	**< 45,000**	< 50,000
Major Arterial (4-lane, divided)	< 15,000	< 21,000	< 30,000	**< 35,000**	< 40,000
Collector (4-lane w/ center lane)	< 10,000	< 14,000	< 20,000	**< 25,000**	< 30,000
Collector (4-lane w/o center lane)	< 5,000	< 7,000	< 10,000	**< 13,000**	< 15,000
Collector (2-lane w/ continuous left-turn lane)	< 5,000	< 7,000	< 10,000	**< 13,000**	< 15,000
Collector (2-lane no fronting property)	< 4,000	< 5,500	< 7,500	**< 9,000**	< 10,000
Collector (2-lane commercial-industrial fronting)	<2,500	< 3,500	< 5,000	**< 6,500**	< 8,000
Collector (2-lane multi-family)	<2,500	< 3,500	< 5,000	**< 6,500**	< 8,000
Sub-Collector (2-lane single family)	-	-	< 2,200	-	**-**

Source: City of San Diego, Traffic Impact Study Manual, July 1998

Note:
Bold numbers indicate the ADT thresholds for acceptable LOS.

These standards are generally used as long-range planning guidelines to determine the functional classification of roadways. The actual capacity of a roadway facility varies according to its physical attributes. Typically, the performance and LOS of a roadway segment is heavily influenced by the ability of its intersections to accommodate peak hour traffic volumes. For the purposes of this traffic analysis, LOS D is considered acceptable for the analyzed roadway segments.

2.3 Peak Hour Intersection LOS Standards and Thresholds

This section presents the methodologies used to perform peak hour intersection capacity analysis for signalized intersections. The following assumptions were utilized in conducting all intersection LOS analyses:

- *Pedestrian Calls per Hour:* 10 calls per hour for each pedestrian movement was assumed.
- *Signal Timing:* Based on existing signal timing plans (as of November, 2016), provided in **Appendix A.**
- *Peak Hour Factor*: Based on existing peak hour count data for existing conditions included in Appendix A, and 0.92 for all Near-Term Year 2022 conditions.

Signalized Intersection Analysis

The analysis of signalized intersections utilized the procedures outlined in the *2010 Highway Capacity Manual (HCM)*. This method defines LOS in terms of delay, or more specifically, average stopped delay per vehicle. Delay is a measure of driver and/or passenger discomfort, frustration, fuel consumption and lost travel time. This technique uses 1,900 vehicles per hour per lane (VPHPL) as the maximum saturation volume of an intersection. This saturation volume is adjusted to account for lane width, on-street parking, pedestrians, traffic composition (i.e., percentage trucks) and shared lane movements (i.e. through and right-turn movements originating from the same lane). The LOS criteria used for this technique are described in **Table 2.3**. The computerized analysis of intersection operations was performed utilizing *Synchro 9.0* traffic analysis software.

TABLE 2.3
SIGNALIZED INTERSECTION LOS CRITERIA

Average Stopped Delay Per Vehicle (seconds)	Level of Service (LOS) Characteristics
<10.0	*LOS A* describes operations with very low delay. This occurs when progression is extremely favorable, and most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
10.1 – 20.0	*LOS B* describes operations with generally good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.
20.1 – 35.0	*LOS C* describes operations with higher delays, which may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
35.1 – 55.0	*LOS D* describes operations with high delay, resulting from some combination of unfavorable progression, long cycle lengths, or high volumes. The influence of congestion becomes more noticeable, and individual cycle failures are noticeable.
55.1 – 80.0	*LOS E* is considered the limit of acceptable delay. Individual cycle failures are frequent occurrences.
>80.0	*LOS F* describes a condition of excessively high delay, considered unacceptable to most drivers. This condition often occurs when arrival flow rates exceed the LOS D capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes to such delay.

Source: Highway Capacity Manual 2010

Unsignalized Intersection Analysis

Unsignalized intersections, including two-way and all-way stop controlled intersections were analyzed using the *2010 HCM* unsignalized intersection analysis methodology. The Synchro 9.0 software supports this methodology and was utilized to produce LOS results. The LOS for a side-street stop controlled (SSSC) intersection is determined by the computed or measured control delay and is defined for the minor movement. **Table 2.4** summarizes the level of service criteria for unsignalized intersections. Consistent with City policy, LOS E was used in this study as the minimum acceptable LOS for peak hour intersection operations.

TABLE 2.4
LEVEL OF SERVICE CRITERIA FOR STOP CONTROLLED UNSIGNALIZED INTERSECTIONS

Average Control Delay (sec/veh)	Level of Service (LOS)
≤10.0	A
10.1 – 15.0	B
15.1 – 25.0	C
25.1 – 35.0	D
35.1 – 50.0	E
>50.0	F

Source: Highway Capacity Manual, Transportation Research Board (2010)

2.4 Determination of Significant Impacts

The City of San Diego Significance Determination Thresholds, January 2011 defines project impact thresholds by facility type. These thresholds are generally based upon an acceptable increase in the Volume / Capacity (V/C) ratio for roadway and freeway segments, and upon increases in vehicle delays at intersections and ramps.

Within the City of San Diego's jurisdiction, LOS D is considered acceptable for roadway and intersection operations. A project is considered to have a significant impact if it degrades the operations of a roadway or intersection from an acceptable LOS (D or better) to an unacceptable LOS (E or F), or if it adds additional delay to a facility already operating at an unacceptable level. **Table 2.5** summarizes the impact significant thresholds as identified within the City of San Diego's guidelines beyond which mitigation measures are required.

TABLE 2.5
MEASURE OF SIGNIFICANT PROJECT TRAFFIC IMPACTS

Level of Service (LOS) with Project*	Allowable Change Due to Impact**					
	Freeways		Roadway Segments		Intersections	Ramp Metering
	V/C	Speed (mph)	V/C	Speed (mph)	Delay (sec)	Delay (min.)
LOS E (or ramp meter delays > 15 min.)	0.010	1.0	0.02	1.0	2.0	2.0
LOS F (or ramp meter delays > 15 min.)	0.005	0.5	0.01	0.5	1.0	1.0

Source: City of San Diego, Significance Determination Thresholds (January 2011)

Note 1: The allowable increase in delay at a ramp meter with more than 15 minutes of delay and freeway LOS E is 2 minutes.
Note 2: The allowable increase in delay at a ramp meter with more than 15 minutes of delay and freeway LOS F is 1 minute.

* All level of service (LOS) measurements are based upon HCM procedures for peak-hour conditions. However, vehicle to capacity (V/C) ratios for roadway segments may be estimated on an ADT/24-hour traffic volume basis (using Table 2.1 or a similar LOS chart for each jurisdiction). The acceptable LOS for freeways, roadways, and intersections is generally "D" ("C" for undeveloped or not densely developed locations per jurisdiction definitions). For metered freeway ramps, LOS does not apply. However, ramp meter delays above 15 minutes are considered excessive.

** If a proposed project's traffic causes the values shown in the table to be exceeded, the impacts are determined to be significant. These impact changes may be measured from appropriate computer programs or expanded manual spreadsheets. The project applicant shall then identify feasible mitigation (within the Traffic Impact Study report) that will maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable (see above * note), or if the project adds a significant amount of peak-hour trips to cause any traffic queues to exceed on- or off-ramp storage capacities, the project applicant shall be responsible for mitigating significant impact changes.

3.0 North City Pure Water Facility

This chapter describes the proposed project, including land uses and estimated trip generation, trip distribution, trip assignment, and project study area. It also documents existing, near-term year 2022, and future year 2035 traffic operations both with and without the proposed project. Mitigation measures, if necessary, for project-related impacts are also identified. Construction of the NCPWF is anticipated to take place between October 2018 and November 2021, while for the expansion of the NCWRP, construction is anticipated to take place between October 2018 and December 2021.

3.1 Project Description

The North City Project would use advanced water purification technology to produce potable water from recycled water and provide a safe, reliable, and cost-effective drinking water supply for San Diego. The North City Project would create up to 30 MGD of locally controlled potable water and reduce flows to the PLWTP, which in turn would reduce total suspended solids (TSS) discharged to the ocean.

The North City Project would construct the NCPWF adjacent to the existing NCWRP. Upgrades would occur at the existing NCWRP in order to provide sufficient tertiary influent for the NCPWF as well as to connect the existing centrate line with the proposed brine line. Pump station and pipeline facilities would convey different types of flows to and from the treatment facilities for: (1) diverting wastewater flows to NCWRP, (2) conveying recycled water to the NCPWF, (3) conveying purified water from the NCPWF to a reservoir, and (4) transporting waste flows (brine and sludge) from treatment processes to solids handling facilities or back into the Metropolitan Sewerage System (Metro System). Upgrades would also occur at the Metropolitan Biosolids Center (MBC) to handle the additional brine and sludge produced by the NCWRP expansion and advanced water purification process. A new renewable energy facility would be constructed at the NCWRP, which would receive landfill gas from the City's Miramar Landfill gas collection system via a new gas pipeline.

3.2 Project Trip Generation, Distribution, and Assignment

Project Trip Generation

Construction of the new 399,381 square-foot NCPWF and 1,528,043 square-foot expansion of the current NCWRP would generate permanent traffic on a regular/daily basis due to the additional staffing needed to run and operate these facilities, therefore, included in the traffic impact analyses from this point forward. All other uses are considered negligible traffic generators and are not included in this TIS. The following information was provided by City of San Diego Public Utilities Department, regarding projected additional staffing at both NCPWF and NCWRP expansion, which was utilized to derive trip generation for the project:

NCPWF

- 37 employees during regular day shift (6:00 am to 3:00 pm)
- 8 employees after regular day shift (3:00 pm to 6:00 am)

NCWRP

- 9 employees during regular day shift (6:00 am to 3:00 pm)
- 6 employees after regular day shift (3:00 pm to 6:00 am)

Table 3.1 displays the anticipated daily and peak hour project trip generation. Note that the 3 trips per employee trip rate was based on each employee commuting to and from work (2 trips a day) and the assumption of approximately 50% of employees making two extra trips (inbound and outbound) during their shift for reasons such as meetings, lunch, etc.

TABLE 3.1
PROJECT TRIP GENERATION

Land Use	Quantity (employees)	Trip Rate	Daily Trips	AM Peak Hour (5 AM to 6 AM)	PM Peak Hour (3 PM to 4 PM)
				Trips	Trips
North City Pure Water Facility	45	3 / employee	135	41 (37-in / 4-out)	41 (4-in / 37-out)
North City Water Reclamation Plant - Expansion	15	3 / employee	45	12 (9-in / 3-out)	12 (3-in / 9-out)
		Total	**180**	**53 (46-in / 7-out)**	**53 (7-in / 46-out)**

Source: City of San Diego; May 2017.

As shown, the proposed project would generate a total of 180 daily trips, 53 trips (46-in / 7-out) during the AM peak hour, and 53 trips (7-in / 46-out) during the PM peak hour.

Based on input from the City of San Diego Public Utilities Department, employees who work after the regular day shift (6:00 AM to 3:00 PM) are divided into two shifts at 4-person per shift at the NCPWF and two shifts at 3-person per shift at NCWRP and would work from 3:00 PM to 11:00 PM and from 11:00 PM to 6:00 AM.

It is important to note that the proposed work shift for the majority of the workers at these facilities is from 6:00 AM to 3:00 PM. After review of the daily traffic counts in 15-min intervals on the roadway facilities in the study area, it was determined that the commute hours for this specific project did not coincide with the regular commute hours of 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM. Hence, the new NCPWF and expansion of the current NCWRP would not likely contribute traffic to the study area during the regular commute hours. Furthermore, even if 20 percent of the workers were to arrive to/depart the project site during regular commute hours, this would result in approximately 12 trips during the AM peak hour and 12 trips during the PM peak hour. This amount of peak hour traffic is less than the 50-peak hour trip requirement for a traffic impact study, per the City of San Diego *Traffic Impact Study Manual, July 1998.* Therefore, a peak hour intersection analysis was not performed as part of the analysis of this project.

Project Trip Distribution

Trip distribution for the proposed project was developed based on existing traffic patterns, surrounding land uses, as well as access to freeways, and it is displayed in **Figure 3-1**.

Project Trip Assignment

Based upon the assumed project trip distribution (Figure 3-1), as well as the anticipated project trip generation (Table 3.1), daily project trips were assigned to the adjacent roadway network, as displayed in **Figure 3-2.**

3.3 Project Study Area

This TIS was performed in accordance with the requirements of the City of San Diego Traffic Impact Study Manual, July 1998 requirements. The City of San Diego Traffic Impact Study Manual requires that the defined study area include all regionally significant arterial system segments and intersections where the proposed project would add 50 or more peak hour trips in either direction, mainline freeway locations where the project would add 150 or more peak hour trips in either direction, and metered freeway on-ramps where the proposed project would add 20 or more peak hour trips. Additionally, it provides a methodology for determining potentially affected roadway segments using ADT and roadway capacity.

Based on the City of San Diego Traffic Impact Study Manual requirements, the expected project trips, and trip assignment, no intersection peak hour analysis or roadway segment analysis is required. However, the following key study area roadway segments were analyzed to show project does not result in impacting any of the roadway segments within the study area:

Eastgate Mall between

- Towne Center Drive & Judicial Drive
- Judicial Drive & 280 feet west of I-805 Overpass
- 280 feet west of I-805 Overpass & NCWRP Driveway
- NCWRP Driveway & Eastgate Drive
- Eastgate Drive & Miramar Road

Towne Center Drive between

- Eastgate Mall & Executive Drive
- Executive Drive & La Jolla Village Drive

La Jolla Village Drive between

- Towne Center Drive & I-805 SB Ramps

Miramar Road between

- I-805 SB Ramps & I-805 NB Ramps
- I-805 NB Ramps & Nobel Drive
- Nobel Drive & Eastgate Mall

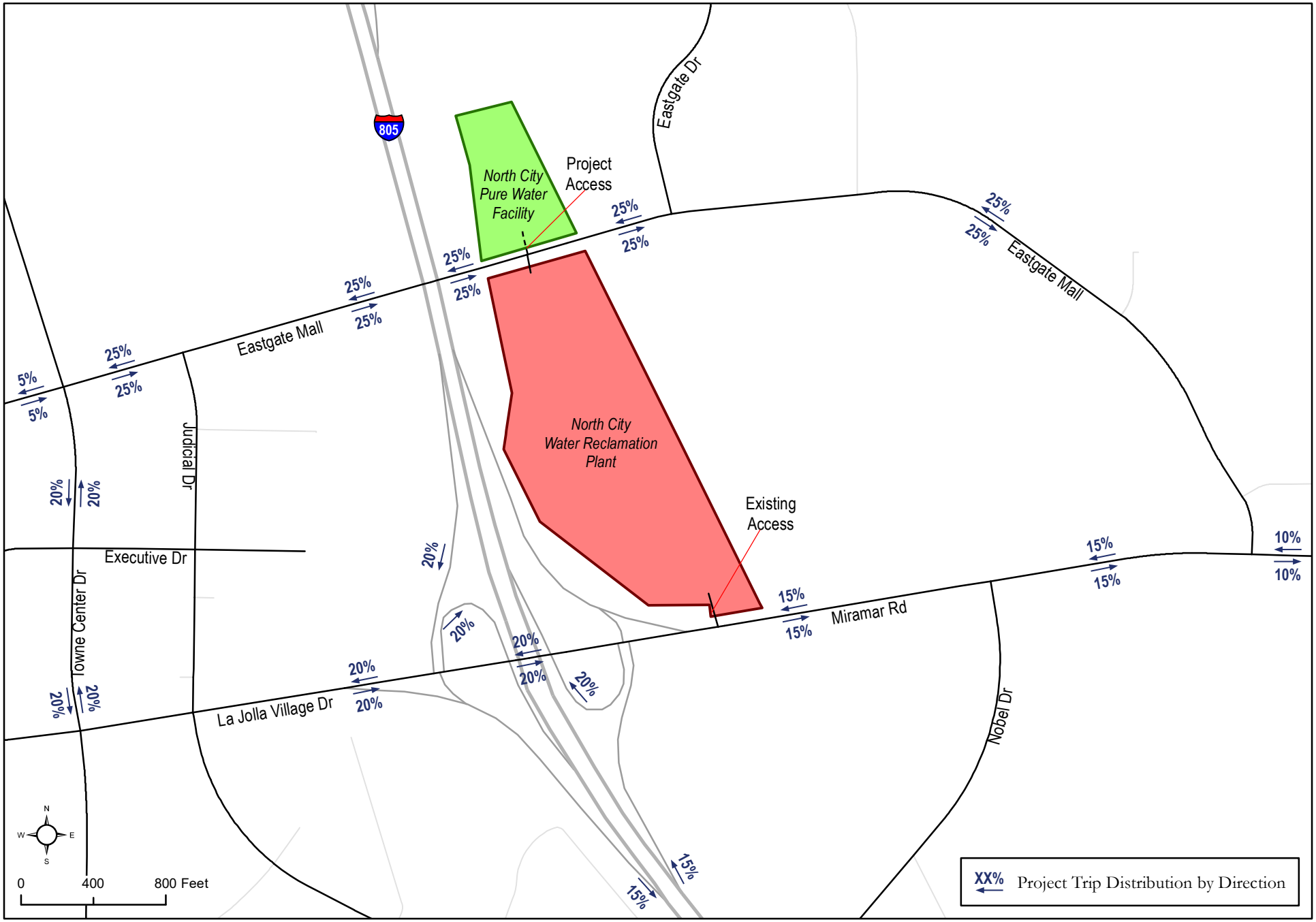


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Figure 3-1
Project Trip Distribution

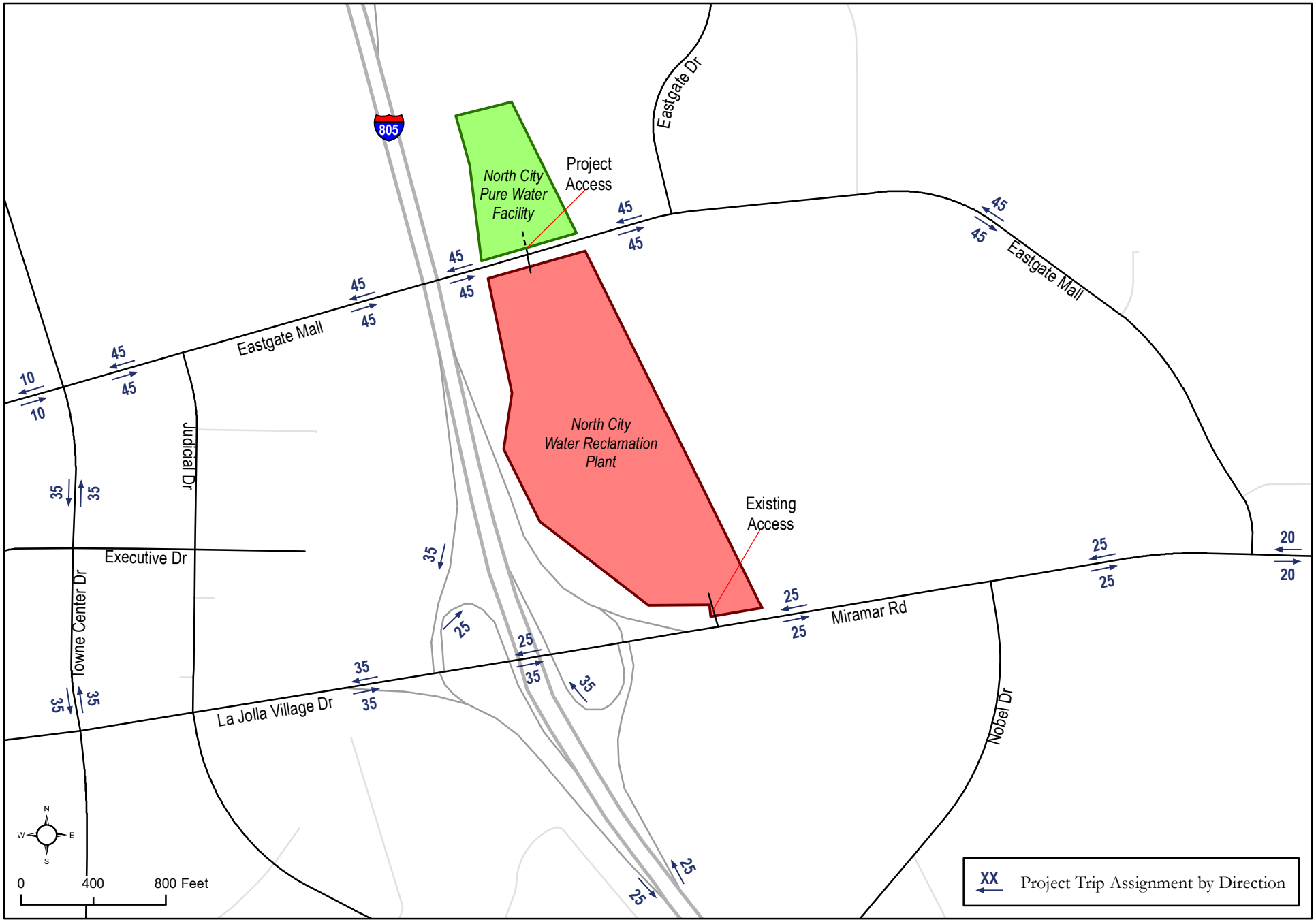

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Figure 3-2
Project Trip Assignment

The proposed project is not anticipated to contribute more than 50 peak hour trips on Interstate 805 (I-805) in either direction nor 20 or more peak hour trips on I-805 freeway metered on-ramps; therefore, a freeway impact analysis nor a ramp metering analysis was conducted. **Figure 3-3** illustrates the project study area.

3.4 Existing Conditions

This section provides an analysis of the current traffic conditions.

Existing Roadway Network

Four locally significant roadways traverse the study area. Each of the key roadways included in the study area are discussed below.

North-South Facilities

Towne Center Drive – Within the project study area, Towne Center Drive is a four-lane roadway with a raised median and a posted speed limit of 40 mph between Eastgate Mall and La Jolla Village Drive. Parallel parking is generally permitted on both sides of the roadway between Eastgate Mall and Executive Drive, while between Executive Drive and La Jolla Village Drive parallel parking is prohibited on both sides of the roadway. Within the project study area, sidewalks are present on both sides of the roadway. Bicycle facilities are not present on either side of the roadway between Eastgate Mall and Executive Drive, while a Class II bicycle lane is present on both sides of the roadway between Executive Drive and La Jolla Village Drive. Towne Center Drive is classified as a four-lane Major Arterial roadway in the currently adopted *University Community Plan,* last updated December 2016.

East-West Facilities

Eastgate Mall – Within the project study area, Eastgate Mall is a four-lane roadway with a raised median between Towne Center Drive and just west (approximately 280 feet) of the I-805 overpass. Sidewalks and Class II bicycle lanes are present on both sides of the roadway. Between 280 feet west of the I-805 freeway overpass and the North City Water Reclamation Plan driveway, the roadway transitions from a four-lane roadway with a raised median into an undivided two-lane roadway. Just east of the I-805 overpass, unpaved shoulders are present, providing space for potential roadway widening in the event that this roadway needs to be widened and restriped to include left-turn pockets. Sidewalks are generally present on the south side of the roadway while Class II bicycle lanes are present on both sides. East of the NCWRP driveway, Eastgate Mall is a two-lane roadway with a center left-turn lane between Eastgate Drive and Miramar Road with a posted limit of 45 mph. Parallel parking is allowed in some segments with a sidewalk on the westbound side and parallel and perpendicular parking in the dirt shoulder on the eastbound side. Eastgate Mall is classified as a four-lane Collector roadway between Towne Centre Drive and Miramar Road in the currently adopted *University Community Plan,* last updated December 2016.

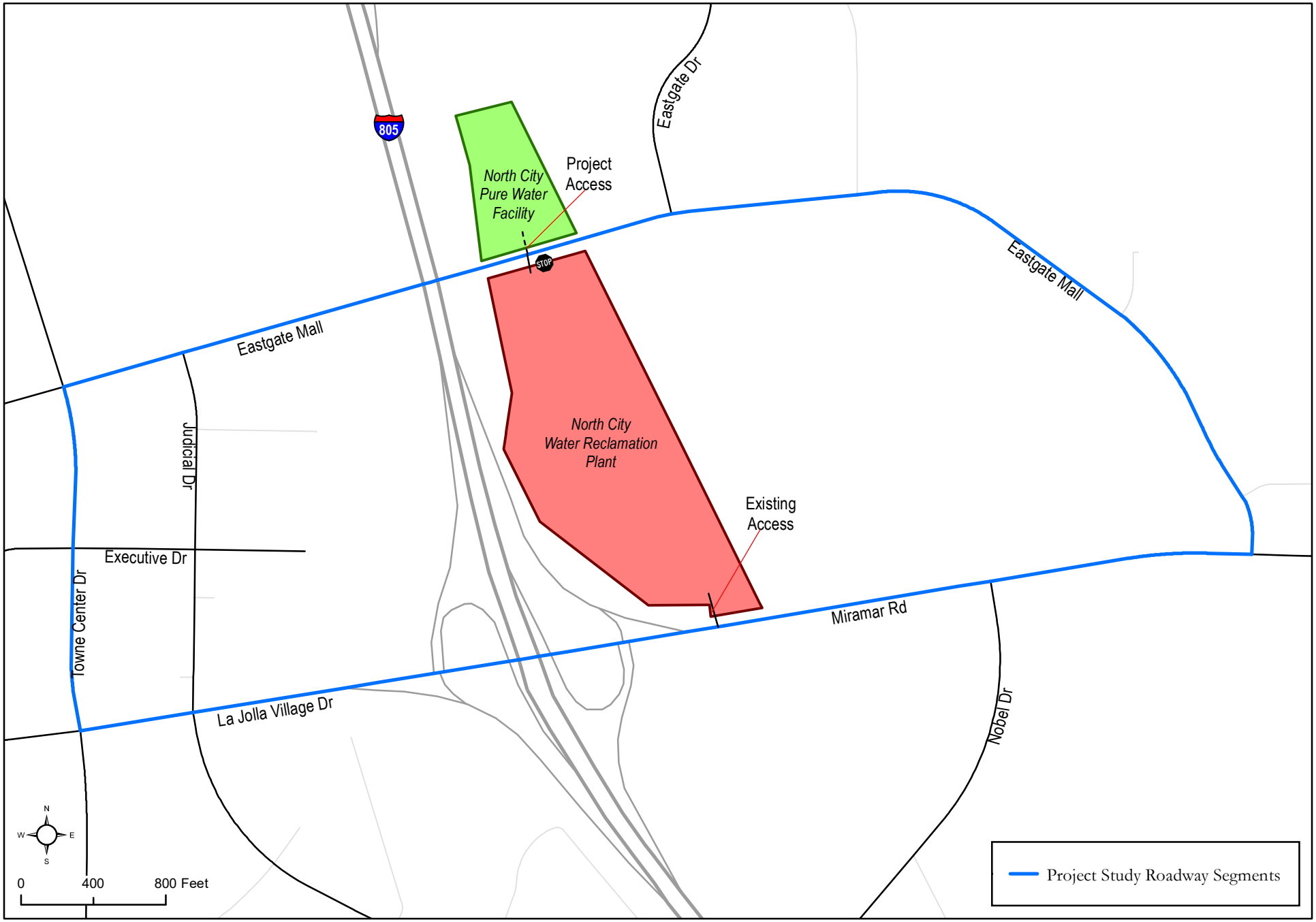

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Figure 3-3
Project Study Area

La Jolla Village Drive – Within the project study area, La Jolla Village drive is an eight-lane roadway with a landscaped raised median and a posted speed limit of 50 mph between Towne Center Drive and the I-805 southbound ramps. Sidewalks are present on both sides and a Class II bicycle lane is present in the north side of the roadway. Parking is prohibited on both sides of the roadway. La Jolla Village Drive is classified as an eight-lane Primary Arterial roadway between Towne Center Drive and the I-805 SB Ramps, in the currently adopted *University Community Plan,* last updated December 2016.

Miramar Road – Within the project study area, Miramar Road is a six-lane roadway with a raised median and a posted speed limit of 50 mph between the I-805 SB Ramps and the I-805 NB ramps. East of the I-805 NB Ramps, Miramar Road transitions from a six-lane roadway into an eight-lane roadway until reaching Nobel Drive, where it drops a lane and becomes a seven-lane roadway until reaching Eastgate Mall. Sidewalks and Class II bicycle lanes are present on both sides along the entire roadway, with the exception of approximately 300 feet of sidewalk on the south side of the roadway between the I-805 NB Ramps and Nobel Drive. Parking is prohibited on both sides of the roadway. Miramar Road is classified as a six-lane Primary Arterial between the I-805 SB Ramps and Eastgate Mall, in the currently adopted *University Community Plan,* last updated December 2016.

Figure 3-4 displays the existing cross-sections/functional classifications for the key study area roadway segments.

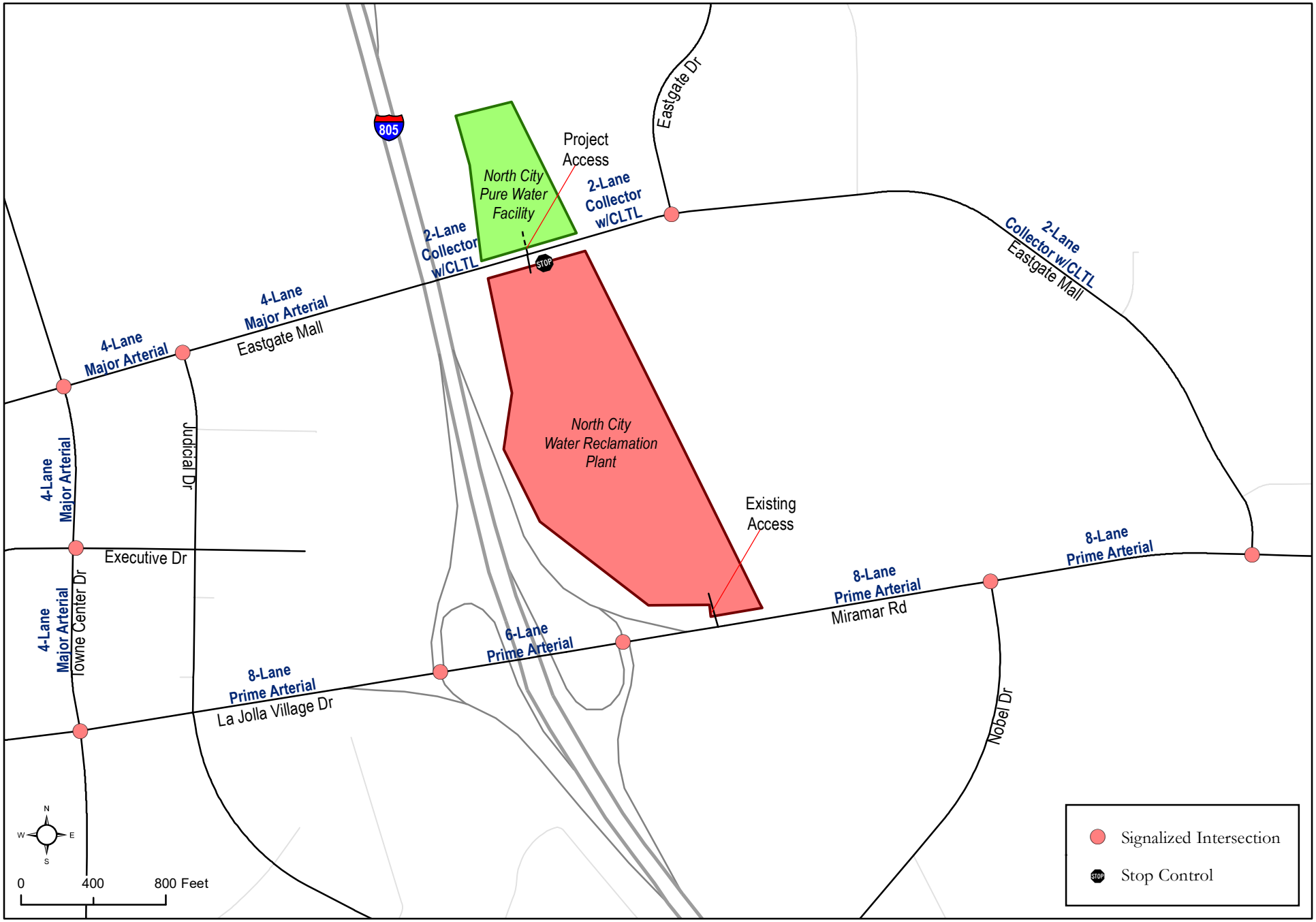

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Figure 3-4
Roadway Geometrics - Existing Conditions

Existing Roadway Traffic Volumes

Existing traffic volumes are displayed in **Figure 3-5.** Roadway segment traffic counts were obtained from the *University Community Plan Amendment Transportation Impact Study* prepared by Kimley-Horn and Associates, Inc. dated June 2016. These counts were collection in April and May 2015 and count worksheets are provided in Appendix A.

Existing Roadway Level of Service Analysis

Level of Service analyses under Existing conditions were conducted using the methodologies described in Chapter 2.0. Roadway segment LOS analysis is discussed below.

Table 3.2 displays the LOS analysis results for key study area roadway segments under Existing conditions.

TABLE 3.2
ROADWAY SEGMENT LOS RESULTS - EXISTING CONDITIONS

Roadway	Segment	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS
Towne Center Drive	Eastgate Mall and Executive Drive	4-Lane Major Arterial	40,000	20,120	0.503	B
	Executive Drive and La Jolla Village Drive	4-Lane Major Arterial	40,000	20,120	0.503	B
Eastgate Mall	Towne Center Drive and Judicial Drive	4-Lane Major Arterial	40,000	11,120	0.278	A
	Judicial Drive and 280 feet west of I-805 Overpass	4-Lane Major Arterial	40,000	10,100	0.253	A
	280 feet west of I-805 Overpass and NCWRP Driveway	2-Lane Collector W/ CLTL	15,000	10,100	0.673	D
	NCWRP Driveway and Eastgate Drive	2-Lane Collector W/ CLTL	15,000	10,100	0.673	D
	Eastgate Drive and Miramar Road	2-Lane Collector W/ CLTL	15,000	14,670	0.978	**E**
La Jolla Village Drive	Towne Center Drive and I-805 SB Ramps	8-Lane Prime Arterial	80,000	58,830	0.735	C
Miramar Road	I-805 SB Ramps and I-805 NB Ramps	6-Lane Prime Arterial	60,000	66,140	1.102	**F**
	I-805 NB Ramps and Nobel Drive	8-Lane Prime Arterial	80,000	47,990	0.600	C
	Nobel Drive and Eastgate Mall	7-Lane Prime Arterial	70,000[1]	64,560	0.922	**E**

Source: University Community Plan Amendment Transportation Impact Study, Chen Ryan Associates; May 2017.

Notes:
V/C = Volume to Capacity Ratio.
Bold letter indicates substandard LOS E or F.
CLTL = Continuous Left-Turn Lane.
[1] Based on the Capacity of an 8-Ln Prime Arterial, reduced to exclude a lane. (7/8*80,000 = 70,000)

As shown in Table 3.2, all the key study area roadway segments currently operate at acceptable LOS D or better with the following three (3) exceptions:

- Eastgate Mall, between Eastgate Drive and Miramar Road – LOS E;
- Miramar Road, between I-805 SB Ramps and I-805 NB Ramps – LOS F; and Miramar Road, between Nobel Drive and Eastgate Mall – LOS E.

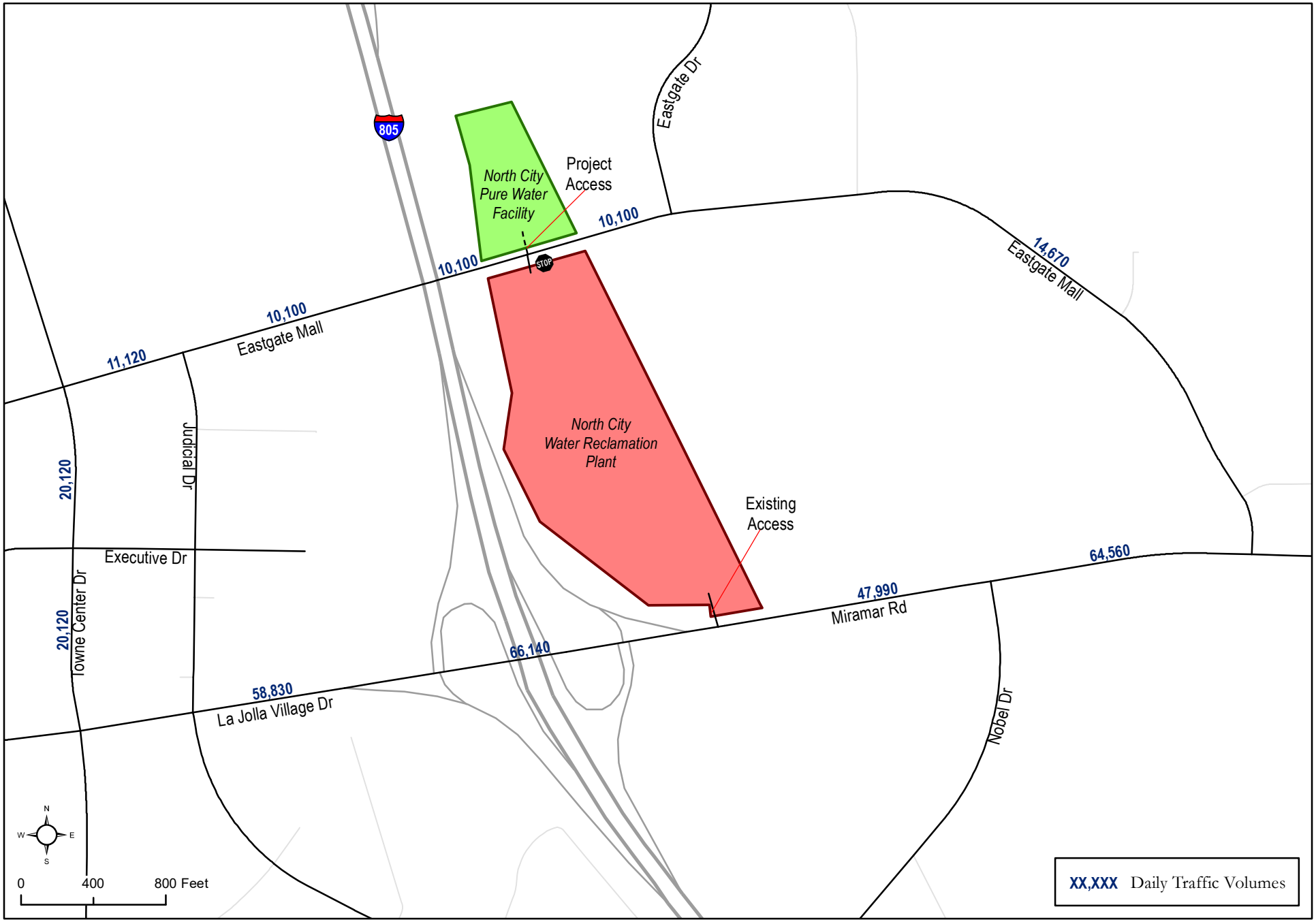

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Figure 3-5
Traffic Volumes - Existing Conditions

3.5 Existing Plus Project Conditions

This section provides an analysis of Existing traffic conditions with the addition of project traffic generated by the new NCPWF and the NCWRP expansion.

Existing Plus Project Roadway Network and Traffic Volumes

The roadway network under Existing Plus Project conditions is assumed to be identical to the Existing conditions (shown in Figure 3-4). Existing Plus Project traffic volumes were derived by combining the existing traffic volumes (displayed in Figure 3-5) with the project trip assignment volumes (displayed in Figure 3-2). Daily roadway volumes are displayed in **Figure 3-6.**

Existing Plus Project Roadway Level of Service Analysis

Analyses were conducted using the methodologies described in Chapter 2.0. Roadway segment LOS analysis results are discussed below. **Table 3.3** displays the LOS analysis results for key roadway segments under Existing Plus Project conditions.

TABLE 3.3
ROADWAY SEGMENT LOS RESULTS - EXISTING PLUS PROJECT CONDITIONS

Roadway	Segment	Functional Classification	Threshold (LOS E)	Existing + Project			Existing	Δ	SI?
				ADT	V/C	LOS	ADT / V/C / LOS		
Towne Center Drive	Eastgate Mall and Executive Drive	4-Lane Major Arterial	40,000	20,190	0.505	B	20,120 / 0.503 / B	0.002	N
	Executive Drive and La Jolla Village Drive	4-Lane Major Arterial	40,000	20,190	0.505	B	20,120 / 0.503 / B	0.002	N
Eastgate Mall	Towne Center Drive and Judicial Drive	4-Lane Major Arterial	40,000	11,210	0.280	A	11,120 / 0.278 / A	0.002	N
	Judicial Drive and 280 feet west of I-805 Overpass	4-Lane Major Arterial	40,000	10,190	0.255	A	10,100 / 0.253 / A	0.002	N
	280 feet west of I-805 Overpass and NCWRP Driveway	2-Lane Collector W/ CLTL	15,000	10,190	0.679	D	10,100 / 0.673 / D	0.006	N
	NCWRP Driveway and Eastgate Drive	2-Lane Collector W/ CLTL	15,000	10,190	0.679	D	10,100 / 0.673 / D	0.006	N
	Eastgate Drive and Miramar Road	2-Lane Collector W/ CLTL	15,000	14,760	0.984	**E**	14,670 / 0.978 / **E**	0.006 *<0.02*	N

TABLE 3.3
ROADWAY SEGMENT LOS RESULTS - EXISTING PLUS PROJECT CONDITIONS

Roadway	Segment	Functional Classification	Threshold (LOS E)	Existing + Project			Existing	Δ	SI?
				ADT	V/C	LOS	ADT / V/C / LOS		
La Jolla Village Drive	Towne Center Drive and I-805 SB Ramps	8-Lane Prime Arterial	80,000	58,900	0.736	C	58,830 / 0.735 / C	0.001	N
Miramar Road	I-805 SB Ramps and I-805 NB Ramps	6-Lane Prime Arterial	60,000	66,210	1.104	**F**	66,140 / 1.102 / **F**	0.001 *<0.01*	N
	I-805 NB Ramps and Nobel Drive	8-Lane Prime Arterial	80,000	48,040	0.601	C	47,990 / 0.600 / C	0.001	N
	Nobel Drive and Eastgate Mall	7-Lane Prime Arterial	70,000	64,610	0.923	**E**	64,560 / 0.922 / **E**	0.001 <0.02	N

Source: Chen Ryan Associates; May 2017.

Notes:
Bold letter indicates substandard LOS E or F.
CLTL = Continuous Left-Turn Lane.
SI? = Significant Impact?
[1] Based on the Capacity of an 8-Ln Prime Arterial, reduced to exclude a lane. (7/8*80,000 = 70,000)

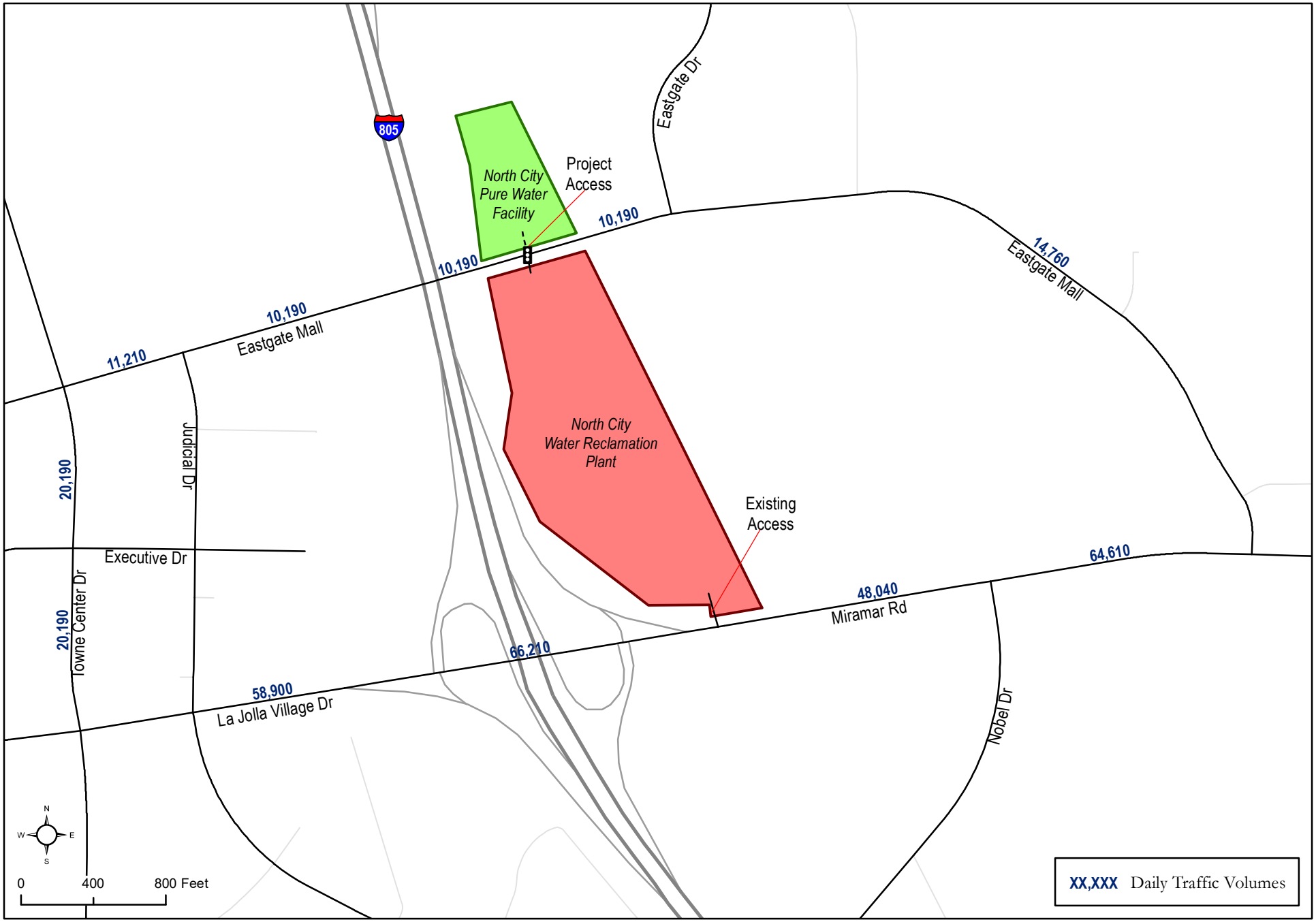

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Figure 3-6
Traffic Volumes - Existing Plus Project Conditions

As shown in the Table 3.3, similar to existing conditions, all of the roadways within the study area would continue to operate at acceptable LOS D or better under Existing Plus Project conditions, with the following three (3) exceptions:

- Eastgate Mall, between Eastgate Drive and Miramar Road – LOS E;
- Miramar Road, between I-805 SB Ramps and I-805 NB Ramps – LOS F; and
- Miramar Road, between Nobel Drive and Eastgate Mall – LOS E.

Project Impacts and Mitigation Measures

Based upon the significance criteria presented in Section 2.4 of this report, the addition of project traffic would not result in any significant traffic related impacts to the study area roadway segments under Existing Plus Project condition.

3.6 Near-Term Year 2022 Base Traffic Conditions

Based on review of the Project Data Summary (PDSS) Draft prepared by HDR dated on 9/28/2016, it was determined that the proposed project would be in operations by year 2022. This section provides an analysis of Near-Term Year 2022 traffic conditions without the proposed project.

Cumulative Project Traffic

Chen Ryan Associates has obtained a list of potential cumulative projects (within one mile of the proposed project) from the City of San Diego's website (http://opendsd.sandiego.gov/web/maps/approvalsdiscretionary). This list was then carefully reviewed and discussed with Development Services Department in order to develop the following twelve (12) cumulative projects which are anticipated to contribute traffic to the project study area. These cumulative projects (listed in **Table 3.4**) are included in the near-term year 2022 base scenario to provide an accurate background for comparing traffic impacts associated with the proposed project.

Table 3.4 displays the trip generation for the cumulative projects previously described. All trip generation rates for the cumulative projects were derived from the City of San Diego *Land Use Development Code – Trip Generation Manual – Revised May 2003.*

Separate distributions were developed (included in **Appendix B**) for each of the cumulative projects in order to accurately reflect the associated travel patterns. The distribution patterns were based on the location of cumulative project access points to the regional roadway network and predicted travel patterns. **Figure 3-7** displays assignment of the cumulative project trips to the study area roadways.

TABLE 3.4
CUMULATIVE PROJECTS TRIP GENERATION

Project ID	Project Location	Project Description	Daily Trip Generation
1	4570 Executive Drive	Construct a 95,609 square-foot commercial building with two (2) commercial condominium units on a 3.36-acre site	1,632
2	4589 La Jolla Village Drive	Add approximately 483,000 square feet of retail space, 300 residential units, associated parking structures and the Transit Center encompasses 75.86 acres	21,906
3	4770 Eastgate Mall	Construct a 62,805 square-foot three-story office building over sub-level parking.	1,188
4	4755 Nexus Centre Drive	Construct a new 78,000 square-foot research & development three-story building, with subterranean parking, on a 11.27-acre site.	624
5	4767 Nexus Centre Drive	Demolish a 69,000 square-foot building and construct a 122,015 square-foot four story research & development building.	425
6	4775 Executive Drive	Construct a 250,000 square-foot office and research & development building over 3 level below grade parking on a 7.07-acre site.	2,000
7	6320 Miramar Road	Construct a 21,000 square-foot retail/warehouse building on a vacant 1.5-acre site.	105
8	9923 1/3 Olson Drive	Change in use from an existing equipment and materials storage facility for the development of a private parking facility for utilization by the adjacent FedEx Building site 13.61-acre site.	817
9	5909 Nancy Ridge Drive	Construct two level pads for an outdoor storage yard and an access road on a 13.95-acre site.	837
10	6162 Nancy Ridge Drive	Construct a 47,228 square-foot four story research & development/Office building and a five-story parking structure on a 3-acre site.	378
11	9198 Genesee Avenue	Construction of 560 multi-family dwelling units.	3,360
12	9015 Judicial Drive	Construct 309 residential condominiums with deviation to building height and remove Prime Industrial Lands designation on a 7.93-acre site.	1,854
		Total	**35,126**

Source: City of San Diego, Chen Ryan Associates, May 2017.

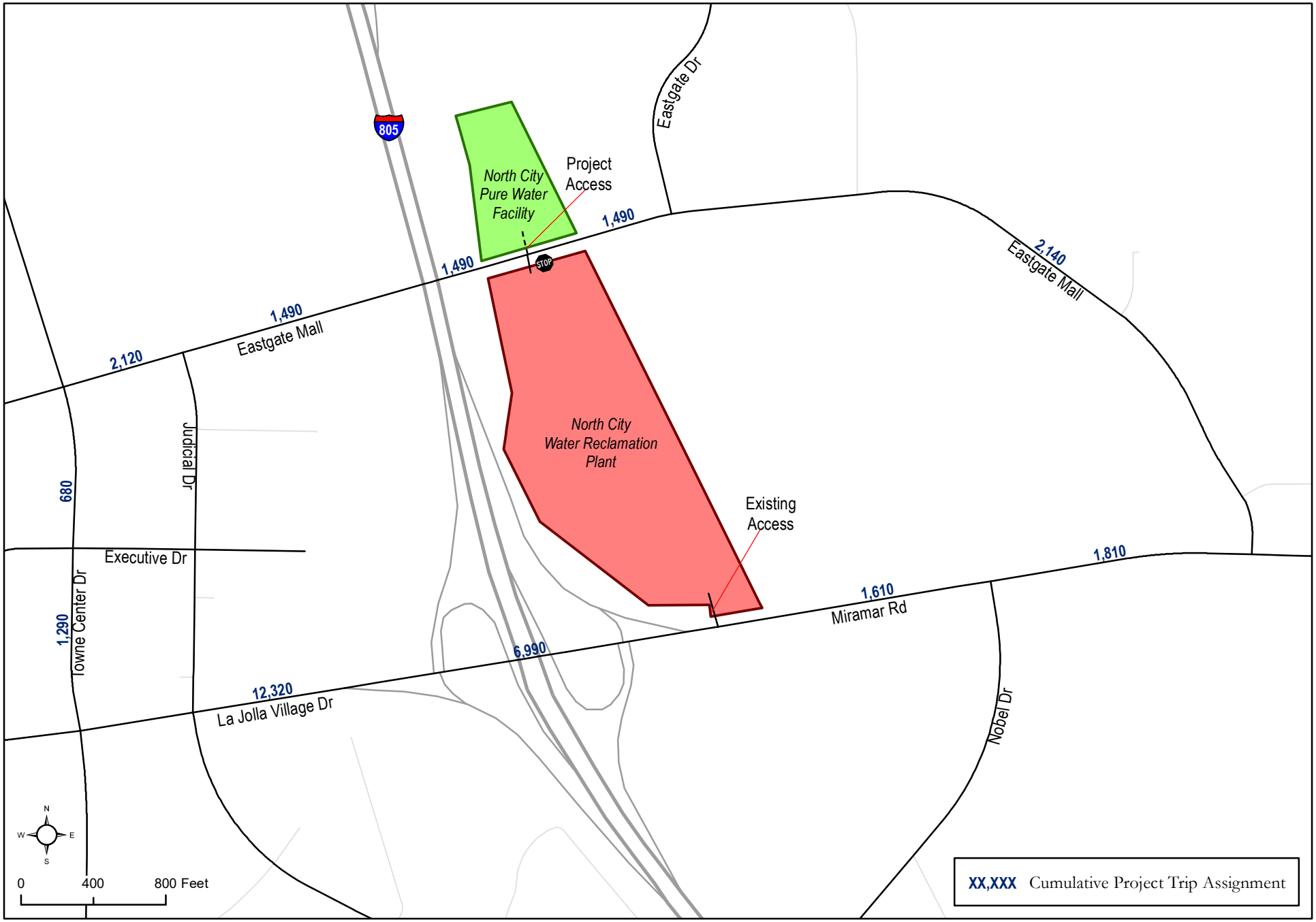

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Figure 3-7
Cumulative Project Trip Assignment

Near-Term Year 2022 Base Roadway Network and Traffic Volumes

It is assumed that roadway geometrics under Near-Term Year 2022 Base conditions would be identical to those under Existing conditions, as previously displayed in in Figure 3-4.

Near-Term Year 2022 Base traffic volumes were derived by adding the additional trips generated by the cumulative projects (shown in Figure 3-7) to the existing traffic volumes (displayed in Figure 3-5). **Figure 3-8** displays average daily traffic volumes for the study roadway segments under the Near-Term Year 2022 Base conditions.

Near-Term Year 2022 Base Roadway Level of Service Analysis

LOS analyses for Near-Term Year 2022 Base Conditions were conducted using the methodologies described in Chapter 2.0. Roadway segment LOS analysis is discussed below. **Table 3.5** displays the LOS analysis results for key roadway segments under the Near-Term Year 2022 Base Conditions.

TABLE 3.5
ROADWAY SEGMENT LOS RESULTS - NEAR-TERM YEAR 2022 BASE CONDITIONS

Roadway	Segment	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS
Towne Center Drive	Eastgate Mall and Executive Drive	4-Lane Major Arterial	40,000	20,800	0.520	B
	Executive Drive and La Jolla Village Drive	4-Lane Major Arterial	40,000	21,410	0.535	C
Eastgate Mall	Towne Center Drive and Judicial Drive	4-Lane Major Arterial	40,000	13,240	0.331	A
	Judicial Drive and 280 feet west of I-805 Overpass	4-Lane Major Arterial	40,000	11,590	0.290	A
	280 feet west of I-805 Overpass and NCWRP Driveway	2-Lane Collector W/ CLTL	15,000	11,590	0.773	D
	NCWRP Driveway and Eastgate Drive	2-Lane Collector W/ CLTL	15,000	11,590	0.773	D
	Eastgate Drive and Miramar Road	2-Lane Collector W/ CLTL	15,000	16,810	1.121	**F**
La Jolla Village Drive	Towne Center Drive and I-805 SB Ramps	8-Lane Prime Arterial	80,000	71,150	0.889	D
Miramar Road	I-805 SB Ramps and I-805 NB Ramps	6-Lane Prime Arterial	60,000	73,130	1.219	**F**
	I-805 NB Ramps and Nobel Drive	8-Lane Prime Arterial	80,000	49,600	0.620	C
	Nobel Drive and Eastgate Mall	7-Lane Prime Arterial	70,000	66,370	0.948	**E**

Source: Chen Ryan Associates; May 2017.

Notes:
Bold letter indicates substandard LOS E or F.
CLTL = Continuous Left-Turn Lane.
[1] Based on the Capacity of an 8-Ln Prime Arterial, reduced to exclude a lane. (7/8*80,000 = 70,000)

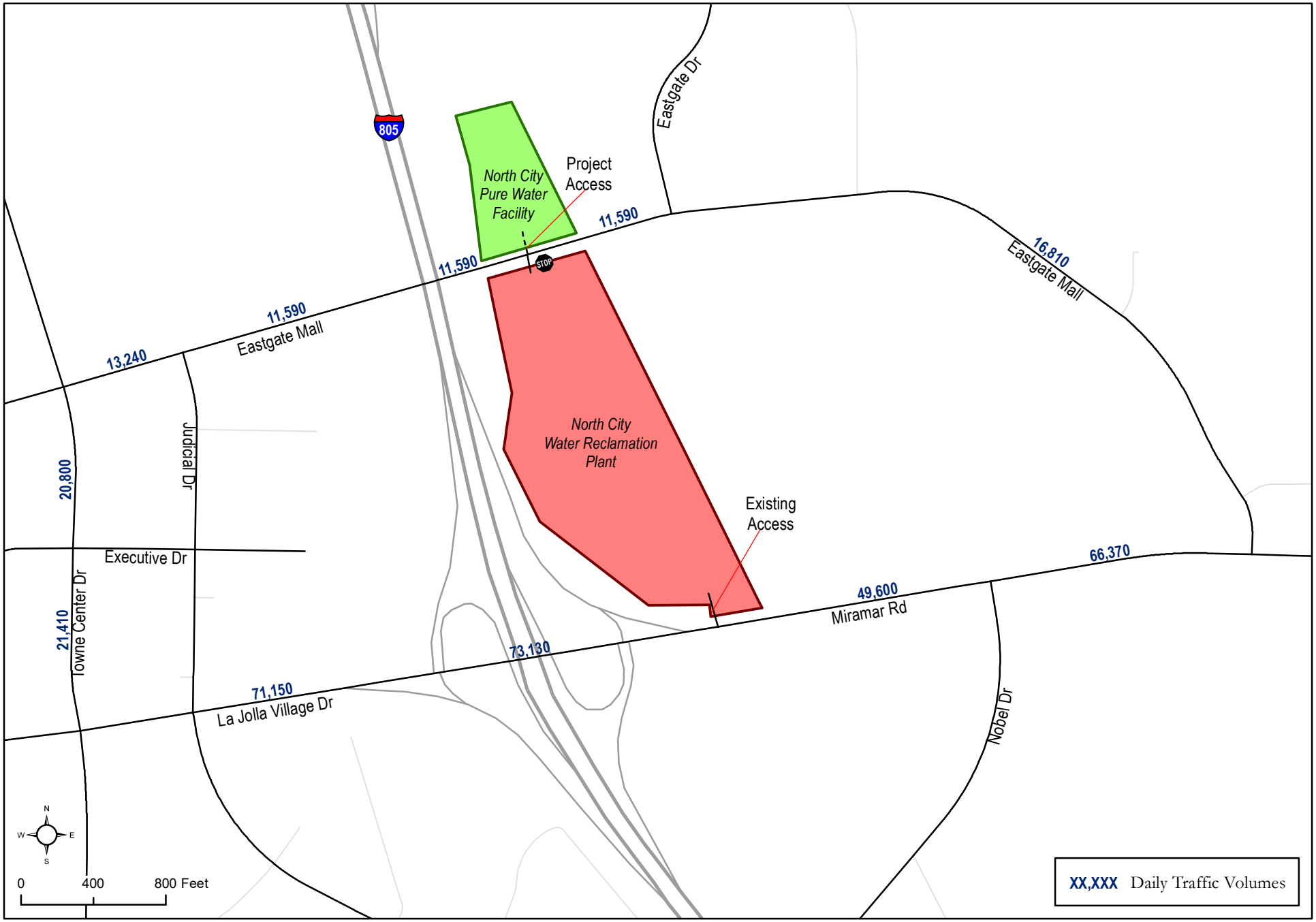

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Figure 3-8
Traffic Volumes - Near-Term Year 2022 Base Conditions

As shown in Table 3.5, all of the roadways within the study area are projected to operate at acceptable LOS D or better under Near-Term Year 2022 Base Conditions, with the following three (3) exceptions:

- Eastgate Mall, between Eastgate Drive and Miramar Road – LOS F;
- Miramar Road, between I-805 SB Ramps and I-805 NB Ramps – LOS F; and
- Miramar Road, between Nobel Drive and Eastgate Mall – LOS E.

3.7 Near-Term Year 2022 Base Plus Project Traffic Conditions

This section provides an analysis of Near-Term Year 2022 Base traffic conditions with the addition of project traffic generated by the new NCPWF and the NCWRP expansion.

Near-Term Year 2022 Base Plus Project Roadway Network and Traffic Volumes
It is assumed that roadway geometrics under Near-Term Year 2022 Base Plus Project conditions would be identical to those under Existing conditions, as previously displayed in in Figure 3-4.

Near-Term Year 2022 Base Plus Project traffic volumes were derived by combining the Near-Term Year 2022 Base traffic volumes (displayed in Figure 3-8) and the project trip assignment volumes (displayed in Figures 3-2). Daily traffic segment volumes for this scenario are displayed in **Figure 3-9.**

Near-Term Year 2022 Base Plus Project Roadway Level of Service Analysis
Roadway Segment LOS analyses were conducted using the methodologies described in Chapter 2.0. Roadway segment LOS analysis is discussed below.

Table 3.6 displays the LOS analysis results for key roadway segments under Near-Term Year 2022 Base Plus Project conditions.

As shown in the table, similar to the Near-Term Year 2022 Base conditions, all key study roadway segments are projected to operate at LOS D or better under Near-Term Year 2022 Plus Project conditions, with the following three (3) exceptions:

- Eastgate Mall, between Eastgate Drive and Miramar Road – LOS F;
- Miramar Road, between I-805 SB Ramps and I-805 NB Ramps – LOS F; and
- Miramar Road, between Nobel Drive and Eastgate Mall – LOS E.

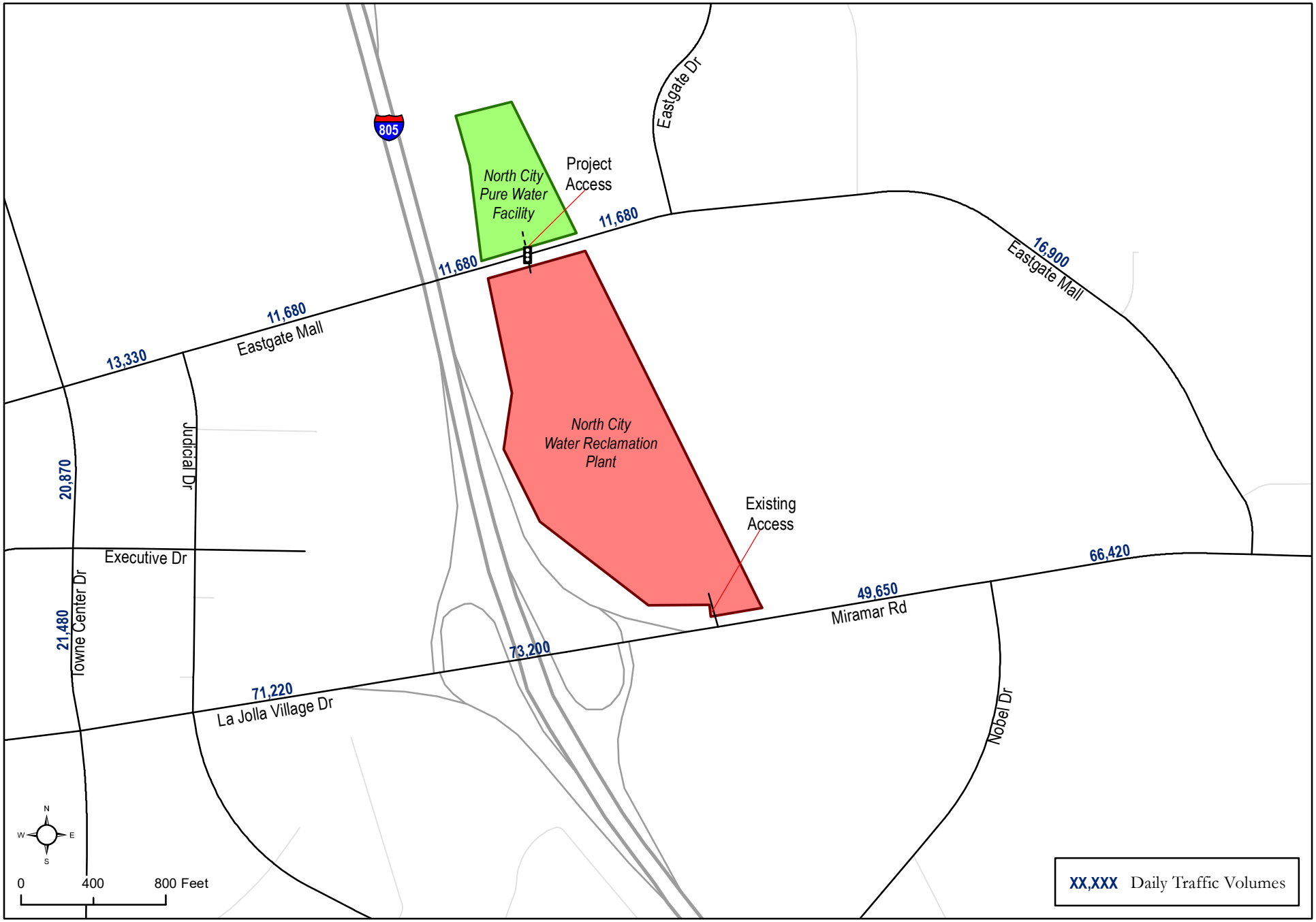

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Figure 3-9
Traffic Volumes - Near-Term Year 2022 Base Plus Project Conditions

TABLE 3.6
ROADWAY SEGMENT LOS RESULTS
NEAR-TERM YEAR 2022 BASE PLUS PROJECT CONDITIONS

Roadway	Segment	Functional Classification	Threshold (LOS E)	2022 Base + Project			2022 Base	Δ	SI?
				ADT	V/C	LOS	ADT / V/C / LOS		
Towne Center Drive	Eastgate Mall and Executive Drive	4-Lane Major Arterial	40,000	20,870	0.522	B	20,800 / 0.520 / B	0.002	N
	Executive Drive and La Jolla Village Drive	4-Lane Major Arterial	40,000	21,480	0.537	C	21,410 / 0.535 / C	0.002	N
Eastgate Mall	Towne Center Drive and Judicial Drive	4-Lane Major Arterial	40,000	13,330	0.333	A	13,240 / 0.331 / A	0.002	N
	Judicial Drive and 280 feet west of I-805 Overpass	4-Lane Major Arterial	40,000	11,680	0.292	A	11,590 / 0.290 / A	0.002	N
	280 feet west of I-805 Overpass and NCWRP Driveway	2-Lane Collector W/ CLTL	15,000	11,680	0.779	D	11,590 / 0.773 / D	0.006	N
	NCWRP Driveway and Eastgate Drive	2-Lane Collector W/ CLTL	15,000	11,680	0.779	D	11,590 / 0.773 / D	0.006	N
	Eastgate Drive and Miramar Road	2-Lane Collector W/ CLTL	15,000	16,900	1.127	**F**	16,810 / 1.121 / **F**	0.006 *<0.01*	N
La Jolla Village Drive	Towne Center Drive and I-805 SB Ramps	8-Lane Prime Arterial	80,000	71,220	0.890	D	71,150 / 0.889 / D	0.001	N
Miramar Road	I-805 SB Ramps and I-805 NB Ramps	6-Lane Prime Arterial	60,000	73,200	1.220	**F**	73,130 / 1.219 / **F**	0.001 *<0.01*	N
	I-805 NB Ramps and Nobel Drive	8-Lane Prime Arterial	80,000	49,650	0.621	C	49,600 / 0.620 / C	0.001	N
	Nobel Drive and Eastgate Mall	7-Lane Prime Arterial	70,000	66,420	0.949	**E**	66,370 / 0.948 / **E**	0.001 *<0.02*	N

Source: Chen Ryan Associates; May 2017.

Notes:
Bold letter indicates substandard LOS E or F.
CLTL = Continuous Left-Turn Lane.
SI? = Significant Impact?
[1] Based on the Capacity of an 8-Ln Prime Arterial, reduced to exclude a lane. (7/8*80,000 = 70,000).

Project Impacts and Mitigation Measures

Based upon the significance criteria presented in Section 2.4 of this report, the addition of project traffic would not result in any significant traffic related impacts to the study area roadway segments under Near-Term Year 2022 Plus Project conditions.

3.8 Horizon Year 2035 Base Traffic Conditions

This section provides an analysis of Horizon Year 2035 traffic conditions without the proposed project.

Horizon Year 2035 Base Roadway Network and Traffic Volumes

The roadway network under Existing Plus Project conditions is assumed to be identical to Existing conditions (shown in Figure 3-4), while traffic volumes under Horizon Year 2035 Base conditions were assumed to be identical to the *University Community Plan Amendment.* Detailed traffic volume information was obtained from the City of San Diego Planning Department, as displayed in **Figure 3-10**. Trip generation, distribution, and assignment did not change under this scenario.

Horizon Year 2035 Base Roadway Level of Service Analysis

LOS analyses for Horizon Year 2035 Base conditions were conducted using the methodologies described in Chapter 2.0. Roadway segment LOS analysis results is discussed below. **Table 3.7** displays the LOS analysis results for key roadway segments under the Horizon Year 2035 Base conditions.

TABLE 3.7
ROADWAY SEGMENT LOS RESULTS - HORIZON YEAR 2035 BASE CONDITIONS

Roadway	Segment	Designated Classification	Threshold (LOS E)	ADT	V/C	LOS
Towne Center Drive	Eastgate Mall and Executive Drive	4-Lane Major Arterial	40,000	21,600	0.540	C
	Executive Drive and La Jolla Village Drive	4-Lane Major Arterial	40,000	21,600	0.540	C
Eastgate Mall	Towne Center Drive and Judicial Drive	4-Lane Major Arterial	40,000	14,300	0.358	A
	Judicial Drive and 280 feet west of I-805 Overpass	4-Lane Major Arterial	40,000	19,500	0.488	B
	280 feet west of I-805 Overpass and NCWRP Driveway	2-Lane Collector W/ CLTL	15,000	19,500	1.300	**F**
	NCWRP Driveway and Eastgate Drive	2-Lane Collector W/ CLTL	15,000	19,500	1.300	**F**
	Eastgate Drive and Miramar Road	2-Lane Collector W/ CLTL	15,000	29,200	1.947	**F**
La Jolla Village Drive	Towne Center Drive and I-805 SB Ramps	8-Lane Prime Arterial	80,000	69,500	0.869	D
Miramar Road	I-805 SB Ramps and I-805 NB Ramps	6-Lane Prime Arterial	60,000	66,000	1.100	**F**
	I-805 NB Ramps and Nobel Drive	8-Lane Prime Arterial	80,000	50,300	0.629	C
	Nobel Drive and Eastgate Mall	7-Lane Prime Arterial	70,000	69,100	0.987	**E**

Source: City of San Diego Planning Department, Chen Ryan Associates; May 2017.

Notes:
Bold letter indicates substandard LOS E or F.
CLTL = Continuous Left-Turn Lane.
[1] Based on the Capacity of an 8-Ln Prime Arterial, reduced to exclude a lane. (7/8*80,000 = 70,000).

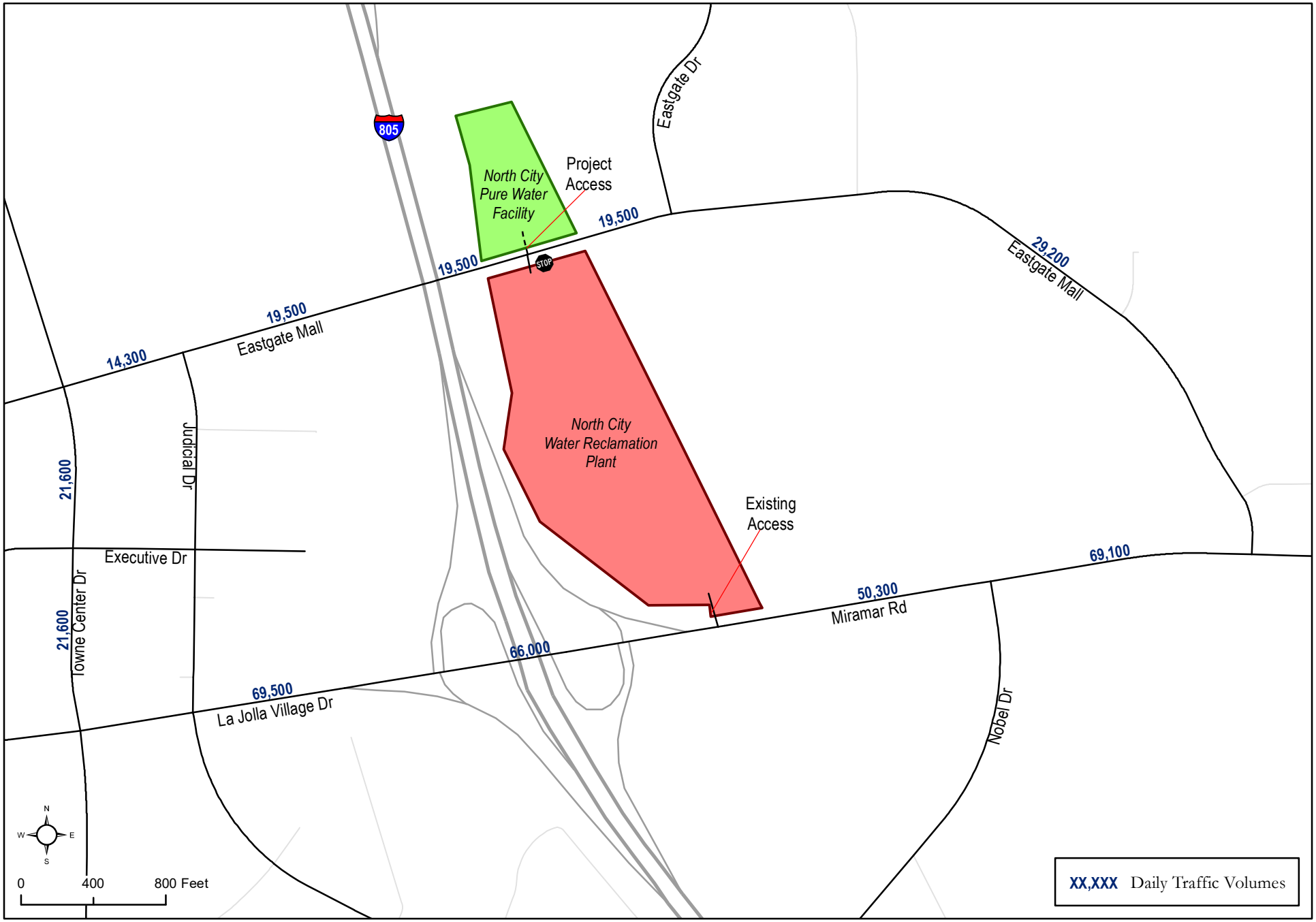

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Figure 3-10
Traffic Volumes - Horizon Year 2035 Base Conditions

As shown in Table 3.7, all of the roadways within the study area are projected to operate at acceptable LOS D or better under Horizon Year 2035 Base traffic Conditions, with the following five (5) exceptions:

- Eastgate Mall, between 280 feet west of I-805 Overpass and NCWRP Driveway – LOS F;
- Eastgate Mall, between NCWRP Driveway and Eastgate Drive – LOS F;
- Eastgate Mall, between Eastgate Drive and Miramar Road – LOS F;
- Miramar Road, between I-805 SB Ramps and I-805 NB Ramps – LOS F; and
- Miramar Road, between Nobel Drive and Eastgate Mall – LOS E.

3.9 Horizon Year 2035 Base Plus Project Conditions

This section provides an analysis of Horizon Year 2035 Base traffic conditions with the addition of project traffic generated by the new NCPWF and the NCWRP expansion.

Horizon Year 2035 Base Plus Project Roadway Network and Traffic Volumes

It is assumed that roadway geometrics under Horizon Year 2035 Base Plus Project conditions would be identical to those under the Existing Conditions, as previously displayed in in Figure 3-4.

Horizon Year 2035 Base Plus Project traffic volumes were derived by combining the Horizon Year 2035 Base traffic volumes (displayed in Figure 3-10) and the project trip assignment volumes (displayed in Figures 3-2). Daily traffic segment volumes for this scenario are displayed in **Figure 3-11**.

Horizon Year 2035 Base Plus Project Roadway Level of Service Analysis

Roadway Segment LOS analyses were conducted using the methodologies described in Chapter 2.0. Roadway segment LOS analysis is discussed below. **Table 3.8** displays the LOS analysis results for key roadway segments under Horizon Year 2035 Base Plus Project conditions.

TABLE 3.8
ROADWAY SEGMENT LOS RESULTS - HORIZON YEAR 2035 BASE PLUS PROJECT CONDITIONS

Roadway	Segment	Designated Classification	Threshold (LOS E)	2035 Base + Project			2035 Base	Δ	SI?
				ADT	V/C	LOS	ADT / V/C / LOS		
Towne Center Drive	Eastgate Mall and Executive Drive	4-Lane Major Arterial	40,000	21,670	0.542	C	21,600 / 0.540 / C	0.002	N
	Executive Drive and La Jolla Village Drive	4-Lane Major Arterial	40,000	21,670	0.542	C	21,600 / 0.540 / C	0.002	N
Eastgate Mall	Towne Center Drive and Judicial Drive	4-Lane Major Arterial	40,000	14,390	0.360	A	14,300 / 0.358 / A	0.002	N
Eastgate Mall	Judicial Drive and 280 feet west of I-805 Overpass	4-Lane Major Arterial	40,000	19,590	0.490	B	19,500 / 0.488 / B	0.002	N

TABLE 3.8
ROADWAY SEGMENT LOS RESULTS - HORIZON YEAR 2035 BASE PLUS PROJECT CONDITIONS

Roadway	Segment	Designated Classification	Threshold (LOS E)	2035 Base + Project			2035 Base	Δ	SI?
				ADT	V/C	LOS	ADT / V/C / LOS		
	280 feet west of I-805 Overpass and NCWRP Driveway	2-Lane Collector W/ CLTL	15,000	19,590	1.306	**F**	19,500 / 1.300 / **F**	0.006 <0.01	N
	NCWRP Driveway and Eastgate Drive	2-Lane Collector W/ CLTL	15,000	19,590	1.306	**F**	19,500 / 1.300 / **F**	0.006 *<0.01*	N
	Eastgate Drive and Miramar Road	2-Lane Collector W/ CLTL	15,000	29,290	1.953	**F**	29,200 / 1.947 / **F**	0.006 *<0.01*	N
La Jolla Village Drive	Towne Center Drive and I-805 SB Ramps	8-Lane Prime Arterial	80,000	69,570	0.870	D	69,500 / 0.869 / D	0.001	N
Miramar Road	I-805 SB Ramps and I-805 NB Ramps	6-Lane Prime Arterial	60,000	66,070	1.101	**F**	66,000 / 1.100 / **F**	0.001 *<0.01*	N
	I-805 NB Ramps and Nobel Drive	8-Lane Prime Arterial	80,000	50,350	0.629	C	50,300 / 0.629 / C	0.001	N
	Nobel Drive and Eastgate Mall	7-Lane Prime Arterial	70,000	69,150	0.988	**E**	69,100 / 0.987 / **E**	0.001 <0.02	N

Source: Chen Ryan Associates; May 2017.

Notes:
Bold letter indicates substandard LOS E or F.
CLTL = Continuous Left-Turn Lane.
SI? = Significant Impact?
[1] Based on the Capacity of an 8-Ln Prime Arterial, reduced to exclude a lane. (7/8*80,000 = 70,000).

As shown in Table 3.8, similar to Horizon Year 2035 Base conditions, all of the key study roadway segments are projected to operate at acceptable LOS D or better under Horizon Year 2035 Plus Project Conditions with the following five (5) exceptions:

- Eastgate Mall, between 280 feet west of I-805 Overpass and NCWRP Driveway – LOS F;
- Eastgate Mall, between NCWRP Driveway and Eastgate Drive – LOS F;
- Eastgate Mall, between Eastgate Drive and Miramar Road – LOS F;
- La Jolla Village Drive/Miramar Road, between I-805 SB Ramps and I-805 NB Ramps – LOS F; and
- Miramar Road, between Nobel Drive and Eastgate Mall – LOS E.

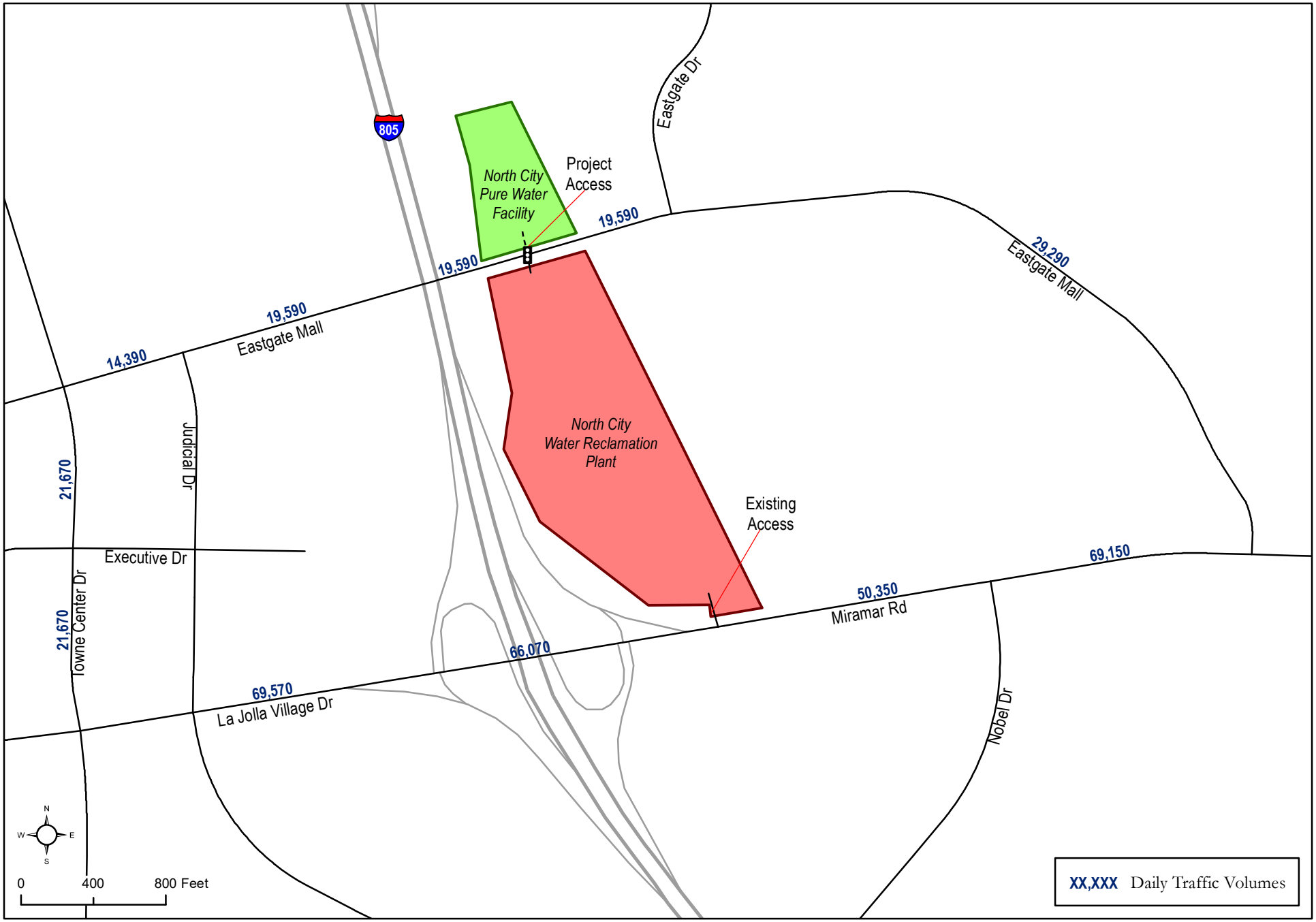

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Figure 3-11
Traffic Volumes - Horizon Year 2035 Base Plus Project Conditions

Project Impacts and Mitigation Measures

Based upon the significance criteria presented in Section 2.4 of this report, the addition of project traffic would not result in any significant traffic related impacts to the study area roadway segments under Horizon Year 2035 Plus Project conditions.

3.10 Project Site Access

Access to the new NCPWF and the expanded NCWRP is proposed to be located off of Eastgate Mall via a signalized intersection. According to City of San Diego Public Utilities Department, two options involving a full size and small tunnel were also considered as an alternative to the project driveway signalization, in order to allow staff to travel between the two plants. These two tunnels would house the utilities and provide enough space for carts (no full-size vehicles) to travel between the two plants. Both options would require extensive excavation and triggered the need for a basement in the NCPWF's O&M building. Since both alternative options would be costlythe traffic signal option is determined to be the least costly option that would provide a protected crossing for both pedestrians and heavy vehicles.

It is important to note that the proposed project driveway did not meet the Peak Hour traffic signal warrant nor the ADT traffic signal warrant per California's Manual on Uniform Traffic Control Devices 2014 Edition, Revision 1 – Section 4C.01. This result was due to low volumes on the minor approach. However, considering the expected heavy vehicles entering, exiting, and crossing between the two plants and that the closest controlled pedestrian crossing is located approximately 500 feet to the east of the proposed project driveway at the signalized intersection of Eastgate Mall/Eastgate Drive, and approximately 2,200 feet to the west at the signalized intersection of Eastgate Mall/Judicial Drive, it is the preference of City of San Diego Public Utilities Department to signalize the proposed project driveway. **Appendix C** provides traffic signal warrant analysis worksheets.

The project driveway should be designed in accordance to City of San Diego standards and should have sufficient storage for traffic entering the two plants. The project driveway would be signalized and would require the appropriate signing and striping plans per City of San Diego standards.

4.0 Purified Water Pipelines

As mentioned previously, in addition to analyzing the permanent traffic impacts associated with the proposed North City project, this TIS also includes the evaluation of the temporary pipeline construction traffic impacts. Two potential pipeline alignment alternatives were evaluated in this report: the North City Pipeline and the San Vicente Pipeline. The North City Pipeline would construct the NCPWF – Miramar Reservoir (NCPWF-MR) and would pipe purified water to Miramar Reservoir. The San Vicente Pipeline would construct the NCPWF – San Vicente Reservoir (NCPWF-SVR) at the same location as the NCPWF-MR, but would include fewer treatment processes and would pipe purified water to the San Vicente Reservoir rather than the Miramar Reservoir. Construction of the North City Pipeline is anticipated to take place between November 2018 and October 2021, while for the San Vicente Pipeline, construction is anticipated to take place between December 2018 and May 2021.

4.1 Pipeline Construction Trip Generation

Pipeline construction is proposed largely to be open-trench and during nighttime (between 9:00 pm and 5:00 am), with trenches backfilled and steel plated in order to open travel lanes during the day. As a result, typical commute AM and PM peak hour (7:00 am to 9:00 am and 4:00 pm to 6:00 pm) trips are not anticipated to coincide with the construction of the proposed project, thus no peak hour intersection analysis was conducted. It is assumed that truck trips (excavation, material transport, utility trucks, etc.) and worker trips will be generated during construction. Based on City of San Diego Public Utilities Department input, the open-trench excavation will be approximately 10’ deep and 6’ wide and 75’ long per day, and the same number of workers and heavy vehicles will be required per day throughout the construction duration under the two different pipeline alignment alternatives. As a worst-case scenario, it was assumed that all workers would drive individual vehicles to the project site.

Table 4.1 displays the assumed daily vehicle trip generation during construction.

TABLE 4.1
CONSTRUCTION TRIP GENERATION

Trip Type	Unit	Rate	Daily Generation	Passenger Car Equivalent	Daily Vehicle Trips
Construction Workers	20 workers	3 / worker	60 vehicle trips	1	60
Construction Trucks	44 trucks	2 / truck	88 truck trips	2.5	220
				Total	**280**

Source: City of San Diego, Chen Ryan Associates; May 2017.

As shown, the proposed project construction is anticipated to generate approximately 280 daily trips.

4.2 North City Pipeline

The North City Pipeline connects the NCPWF and NCWRP sites at I-805 and Eastgate Mall to the Miramar Reservoir via Eastgate Mall, Miramar Road, Kearny Villa Road, Candida Street, Via Pasar, Via Excelencia, under I-15 to Businesspark Avenue, Carroll Canyon Road, Hoyt Park Drive, and Meanley Drive. It is anticipated that approximately 39,400 LF (7.5 miles) of 48" steel pipeline will be installed along with approximately 4,800 LF (0.91 mile) of subaqueous polyethylene (PE) pipeline ranging in diameter from 20" to 40" with 14 branches of various lengths in the ravines of the reservoir.

Based on information provided by the City of San Diego, construction staging areas were assumed to be located at the NCWRP site off Eastgate Mall, Scripps Technology Ranch property, Miramar Water Treatment Plant (near tunnel shaft opening west of clearwells), and Miramar Reservoir (near the boat dock). Vulcan in Mira Mesa will be the main site as the origin or the designation of construction materials. **Table 4.2** displays the work hours proposed for the roadway segments analyzed for the North City Pipeline construction.

TABLE 4.2
WORK HOURS ON ROADWAY SEGMENTS ALONG NORTH CITY PIPELINE ALIGNMENT

Roadway	Segment	Work hours
Eastgate Mall	NCPWF & NCWRP Driveway and Miramar Rd	9:00 PM to 5:00 AM
Miramar Road	Eastgate Mall and Camino Santa Fe	9:00 PM to 5:00 AM
	Camino Santa Fe and Carroll Rd	9:00 PM to 5:00 AM
	Carroll Rd and Camino Ruiz	9:00 PM to 5:00 AM
	Camino Ruiz and Black Mountain Rd	9:00 PM to 5:00 AM
	Black Mountain Rd and Kearny Villa Rd	9:00 PM to 5:00 AM
Kearny Villa Road	Black Mountain Rd/Carroll Centre Rd and Miramar Rd	9:00 PM to 5:00 AM
Candida Street	Kearny Villa Rd and Via Pasar	9:00 PM to 5:00 AM
Via Pasar	Via Excelencia and Candida St	9:00 PM to 5:00 AM
Via Excelencia	east of Via Pasar	9:00 PM to 5:00 AM
Businesspark Avenue	south of Willow Creek Rd	9:00 PM to 5:00 AM
	Carrol Canyon Rd and Willow Creek Rd	9:00 PM to 5:00 AM
Carroll Canyon Rd	Businesspark Ave and Scripps Ranch Blvd	9:00 PM to 5:00 AM
Scripps Ranch Blvd	Carroll Canyon Rd Hoyt Park Dr	9:00 PM to 5:00 AM
Hoyt Park Dr	Scripps Ranch Blvd and Meanley Dr	9:00 PM to 5:00 AM

Source: City of San Diego Public Utilities Department and Construction Management and Field Services Department, May 2017.

Existing Conditions

The section below discusses the existing traffic conditions along roadways serving the North City Pipeline. **Figure 4-1** displays the existing traffic volumes, while **Table 4.3** displays the daily roadway segment LOS results under Existing conditions. Roadway segment traffic counts were collected on November 15 and 16 (Tuesday/Wednesday) 2016 and are provided in Appendix A.

As should in the table, the following five (5) roadway segments are currently operating at a substandard LOS E or F:

- Eastgate Mall, between the NCPWF & NCWRP driveway and Miramar Road – LOS E;
- Miramar Road, between Eastgate Mall and Camino Santa Fe – LOS F;
- Miramar Road, between Carroll Road and Camino Ruiz – LOS E;
- Miramar Road, between Camino Ruiz and Black Mountain Road – LOS F; and
- Miramar Road, between Black Mountain Road and Kearny Villa Road – LOS F.

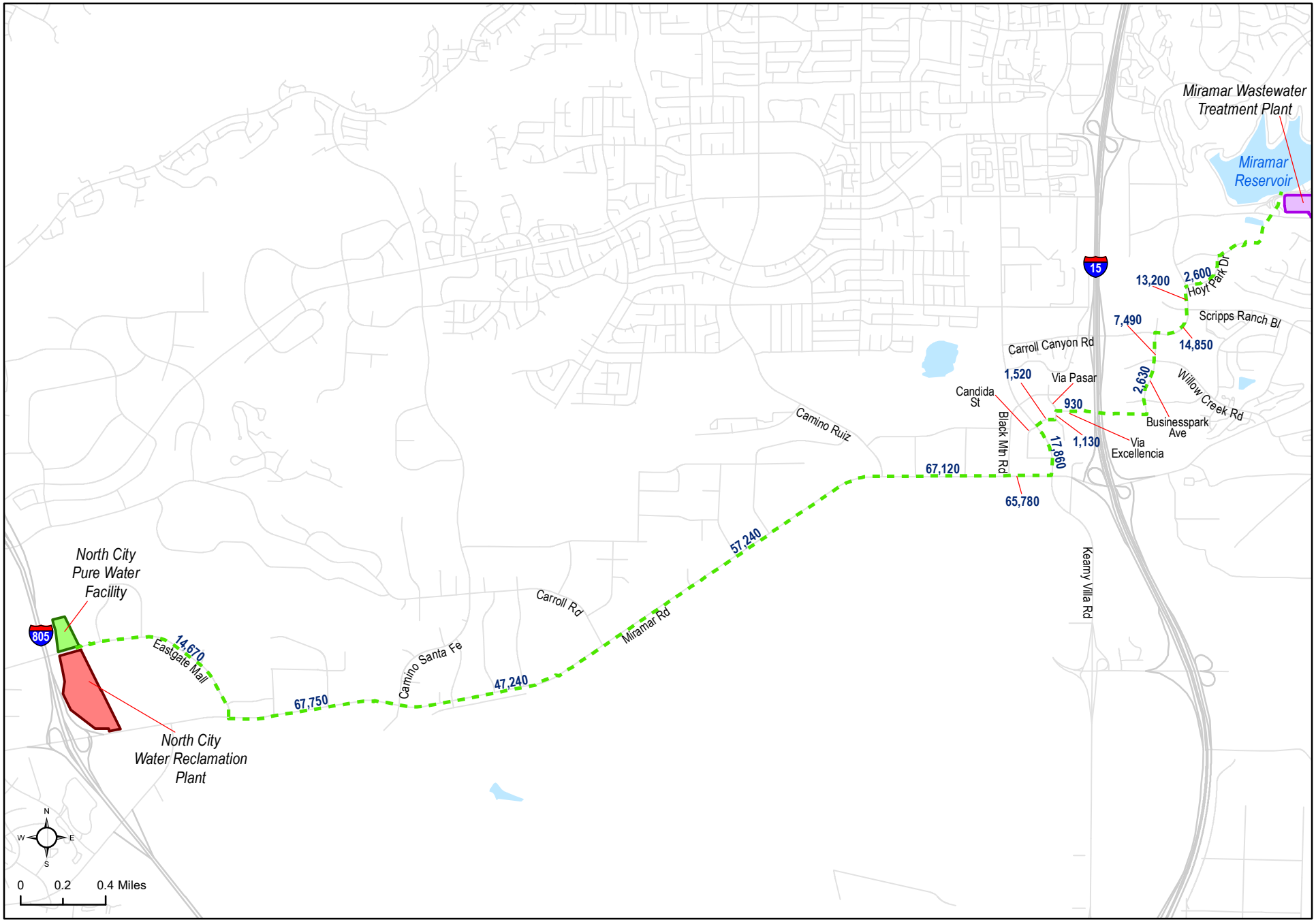

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Figure 4-1
Traffic Volumes - Existing Conditions
(North City Pipeline)

TABLE 4.3
ROADWAY SEGMENT LOS RESULTS
EXISTING CONDITIONS – NORTH CITY PIPELINE

Roadway	Segment	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS
Eastgate Mall	NCPWF & NCWRP Driveway and Miramar Rd	2-Lane Collector W/ CLTL	15,000	14,670	0.978	**E**
Miramar Road	Eastgate Mall and Camino Santa Fe	6-Lane Prime Arterial	60,000	67,750	1.129	**F**
	Camino Santa Fe and Carroll Rd	6-Lane Prime Arterial	60,000	47,240	0.787	C
	Carroll Rd and Camino Ruiz	6-Lane Prime Arterial	60,000	57,240	0.954	**E**
	Camino Ruiz and Black Mountain Rd	6-Lane Prime Arterial	60,000	67,120	1.119	**F**
	Black Mountain Rd and Kearny Villa Rd	6-Lane Prime Arterial	60,000	65,780	1.096	**F**
Kearny Villa Road	Black Mountain Rd/Carroll Centre Rd and Miramar Rd	4-Lane Collector W/ CLTL	30,000	17,860	0.595	C
Candida Street	Kearny Villa Rd and Via Pasar	2-Lane Collector	8,000	1,520	0.190	A
Via Pasar	Via Excelencia and Candida St	2-Lane Collector	8,000	1,130	0.141	A
Via Excelencia	east of Via Pasar	2-Lane Collector	8,000	930	0.117	A
Businesspark Avenue	south of Willow Creek Rd	2-Lane Collector	8,000	2,630	0.329	B
	Carrol Canyon Rd and Willow Creek Rd	3-Lane Collector (1SB &2 NB)	12,000	7,490	0.624	C
Carroll Canyon Rd	Businesspark Ave and Scripps Ranch Blvd	4-Lane Collector W/ CLTL	30,000	14,850	0.495	C
Scripps Ranch Blvd	Carroll Canyon Rd Hoyt Park Dr	4-Lane Major Arterial	40,000	13,200	0.330	A
Hoyt Park Dr	Scripps Ranch Blvd and Meanley Dr	2-Lane Collector	10,000	2,600	0.260	A

Source: Chen Ryan Associates; May 2017

Note:
Bold letter indicates substandard LOS E or F.

Construction Traffic Analysis

It is assumed that the North City project will be in operations by Year 2022, for a worst-case analysis, construction traffic was added to the Year 2022 Base traffic volumes. Near-Term Year 2022 volumes were derived by comparing SANDAG Series 13 Year 2035 and Year 2020 forecast volumes, as well as the existing traffic counts. Growth factors were developed and applied to existing traffic volumes for each specific roadway segments. **Figure 4-2** displays the Near-Term Year 2022 Base traffic volumes, while **Figure 4-3** displays the Year 2022 Base Plus Construction Traffic.

Table 4.4 displays the daily roadway segment LOS results under both Near-Term Year 2022 Base and Near-Term Year 2022 Base Plus Construction Traffic conditions.

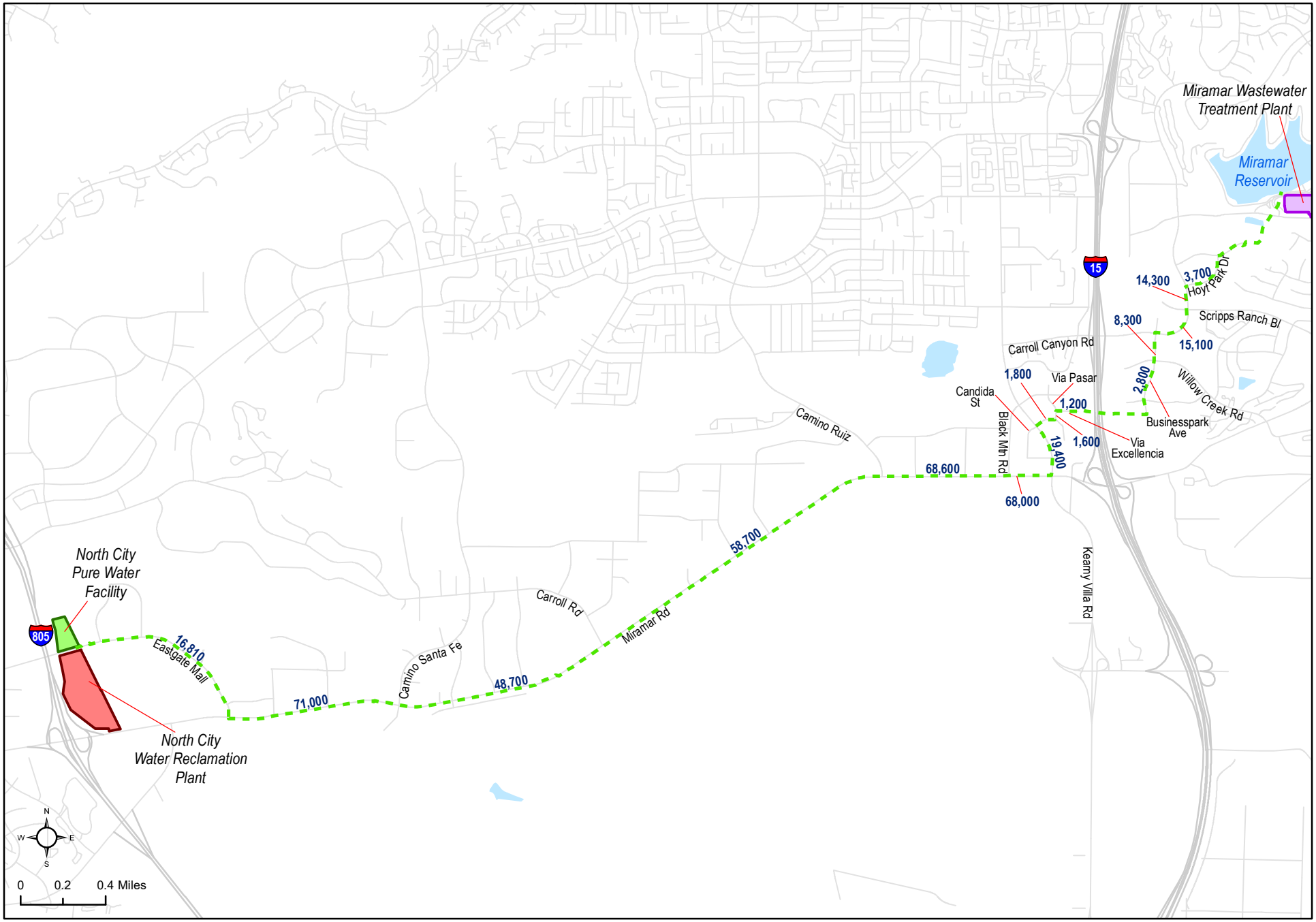

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Figure 4-2
Traffic Volumes - Near-Term Year 2022 Base Conditions
(North City Pipeline)

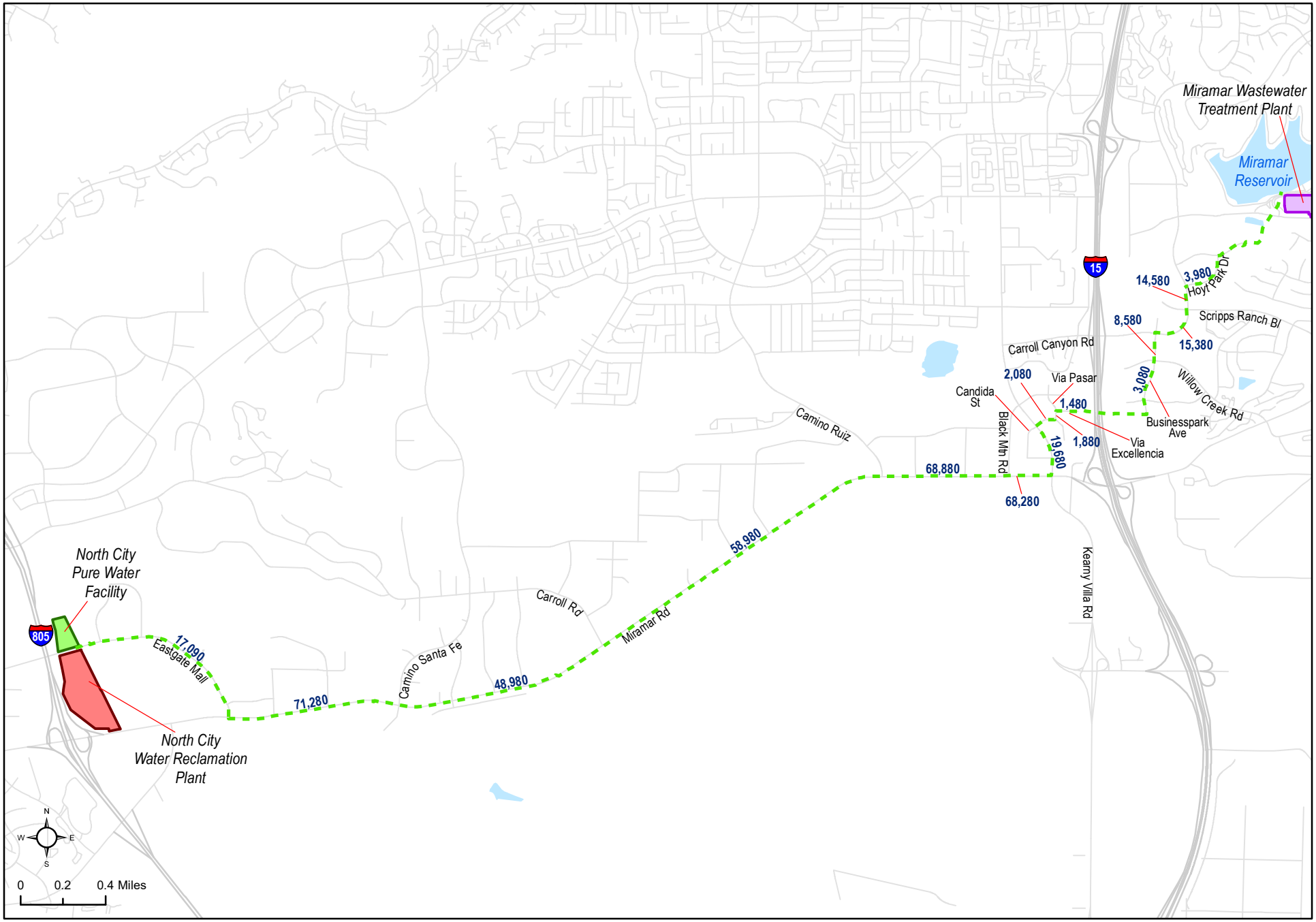

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Figure 4-3
Traffic Volumes - Near-Term Year 2022 Base Plus Construction Traffic Conditions (North City Pipeline)

TABLE 4.4
ROADWAY SEGMENT LOS RESULTS
NEAR-TERM YEAR 2022 TRAFFIC CONDITIONS – NORTH CITY PIPELINE

Roadway	Segment	Functional Classification	Threshold (LOS E)	Near-Term 2022 Base + Construction Traffic			Near-Term Year 2022 Base			Change in V/C	SI?
				ADT	V/C	LOS	ADT	V/C	LOS		
Eastgate Mall	NCPWF & NCWRP Driveway and Miramar Rd	2-Lane Collector W/ CLTL	15,000	17,090	1.139	**F**	16,810	1.121	**F**	0.019 *>0.01*	**Y**
Miramar Road	Eastgate Mall and Camino Santa Fe	6-Lane Prime Arterial	60,000	71,280	1.188	**F**	71,000	1.183	**F**	0.005 *<0.01*	N
	Camino Santa Fe and Carroll Rd	6-Lane Prime Arterial	60,000	48,980	0.816	C	48,700	0.812	C	0.005	N
	Carroll Rd and Camino Ruiz	6-Lane Prime Arterial	60,000	58,980	0.983	**E**	58,700	0.978	**E**	0.005 *<0.02*	N
	Camino Ruiz and Black Mountain Rd	6-Lane Prime Arterial	60,000	68,880	1.148	**F**	68,600	1.143	**F**	0.005 *<0.01*	N
	Black Mountain Rd and Kearny Villa Rd	6-Lane Prime Arterial	60,000	68,280	1.138	**F**	68,000	1.133	**F**	0.005 *<0.01*	N
Kearny Villa Road	Black Mountain Rd/Carroll Centre Rd and Miramar Rd	4-Lane Collector W/ CLTL	30,000	19,680	0.656	C	19,400	0.647	C	0.009	N
Candida Street	Kearny Villa Rd and Via Pasar	2-Lane Collector	8,000	2,080	0.260	A	1,800	0.225	A	0.035	N
Via Pasar	Via Excelencia and Candida St	2-Lane Collector	8,000	1,880	0.235	A	1,600	0.200	A	0.035	N
Via Excelencia	east of Via Pasar	2-Lane Collector	8,000	1,480	0.185	A	1,200	0.150	A	0.035	N
Businesspark Avenue	south of Willow Creek Rd	2-Lane Collector	8,000	3,080	0.385	B	2,800	0.350	B	0.035	N
	Carrol Canyon Rd and Willow Creek Rd	3-Lane Collector (1SB &2 NB)	12,000	8,580	0.715	D	8,300	0.692	D	0.023	N
Carroll Canyon Rd	Businesspark Ave and Scripps Ranch Blvd	4-Lane Collector W/ CLTL	30,000	15,380	0.513	C	15,100	0.503	C	0.009	N
Scripps Ranch Blvd	Carroll Canyon Rd and Hoyt Park Dr	4-Lane Major Arterial	40,000	14,580	0.365	A	14,300	0.358	A	0.007	N
Hoyt Park Drive	Scripps Ranch Blvd and Meanley Dr	2-Lane Collector (no fronting property)	10,000	3,980	0.398	A	3,700	0.370	A	0.028	N

Source: Chen Ryan Associates; May 2017.

Notes:
Bold letter indicates substandard LOS E or F.
SI? = Significant Impact?

As shown in the Table 4.4, the following five (5) roadway segments are projected to operate at substandard LOS E or F both with and without construction traffic under Near-Term Year 2022:

- Eastgate Mall, between the NCPWF & NCWRP driveway and Miramar Road – LOS F;
- Miramar Road, between Eastgate Mall and Camino Santa Fe – LOS F;
- Miramar Road, between Carroll Road and Camino Ruiz – LOS E;
- Miramar Road, between Camino Ruiz and Black Mountain Road – LOS F;
- Miramar Road, between Black Mountain Road and Kearny Villa Road – LOS F; and

Project Impacts and Mitigation Measures

Based upon the significance criteria presented in Section 2.4 of this report, the construction traffic would result in significant traffic impact to the following roadway segment:

- Eastgate Mall, between the NCPWF & NCWRP driveway and Miramar Road – LOS F.

However, based on information provided by City of San Diego Public Utilities Department, construction of the pipeline would be performed 75 LF per day, and the impacted area at any one time would encompass the work area as well as the traffic control setup area. Therefore, this project impact would be temporary in nature (approximately 64 working days[1]) and since the construction will occur during nighttime when there is less traffic on the road, this roadway should function at reasonable operations. Therefore, since the impact would be temporary no mitigation measure is required.

Table 4.5 displays the projected amount of days for which construction would take place at the identified impacted roadway above as well as on roadways adjacent to residential areas. Nighttime work hours may be modified/reduced or work may be performed during weekends on roadways near residential areas.

TABLE 4.5
SUMMARY OF IMPACT DURATION – NORTH CITY PIPELINE

Roadway	Segment	Length (ft)	Approximate Duration of Impact (days)
Eastgate Mall	NCPWF & NCWRP Driveway and Miramar Rd	4,800	64
Miramar Road	Camino Ruiz and Black Mountain Road	3,000	40
	Black Mountain Rd and Kearny Villa Rd	1,000	14

Source: Chen Ryan Associates; May 2017.

The duration of the impacts is based on the anticipated 75 LF of pipeline installation per day. It is important to note that these impacts would not occur concurrently, but rather at different points in time depending on the location of pipeline construction[1], and the impacted area at any one time would encompass the work area as well as the traffic control setup length. Therefore, the project impacts shown above would be temporary in nature and no mitigation measures are required.

[1] The impacted roadway segment of Eastgate Mall, between NCPWF & NCWRP driveway and Miramar Road would be approximately 4,800 feet in length, and at 75 feet of installation per day, it is estimated that it would take approximately 64 days. After the pipeline installation is complete at the first 75 LF, the next 75 LF of construction would begin to be under construction, etc

4.3 San Vicente Pipeline

The San Vicente Pipeline connects the NCPWF and NCWRP sites at I-805 and Eastgate Mall to the San Vicente Reservoir traversing a number of local jurisdictions, including the cities of San Diego and Santee, and the community of Lakeside in unincorporated San Diego County. This is a much longer pipeline when compare to the Miramar Reservoir Alignment, covering approximately 190,600 LF (36 miles). **Table 4.6** displays the work hours proposed for the roadway segments analyzed for the San Vicente Pipeline construction.

TABLE 4.6
WORK HOURS ON ROADWAY SEGMENTS ALONG SAN VICENTE PIPELINE ALIGNMENT

Roadway	Segment	Work hours
Section 1A		
Eastgate Mall	NCPWF & NCWRP Driveway and Miramar Rd	9:00 PM to 5:00 AM
Miramar Rd	Nobel Dr and Eastgate Mall	9:00 PM to 5:00 AM
Copley Dr	Hickman Field Dr and Copley Park Pl	9:00 PM to 5:00 AM
Copley Park Pl	Copley Dr and Convoy St	9:00 PM to 5:00 AM
Convoy St	Copley Park Pl and Convoy Ct	9:00 PM to 5:00 AM
Convoy Ct	east of Convoy St	9:00 PM to 5:00 AM
Section 1B		
Ronson Rd	Ronson Ct and Kearny Mesa Rd	9:00 PM to 5:00 AM
Lightwave Ave	Kearny Villa Rd and Ruffin Rd	9:00 PM to 5:00 AM
Ruffin Rd	Clairemont Mesa Blvd and Lightwave Ave	9:00 PM to 5:00 AM
Clairemont Mesa Blvd	Ruffin Rd and Murphy Canyon Rd	9:00 PM to 5:00 AM
Murphy Canyon Rd	Clairemont Mesa Blvd and 1650 ft South of Clairemont Mesa Blvd	9:00 PM to 5:00 AM
Clairemont Mesa Blvd	1300 ft East of I-15 NB Ramps and Santo Rd	9:00 PM to 5:00 AM
Santo Rd	Clairemont Mesa Blvd and Tierrasanta Blvd	9:00 PM to 5:00 AM
Tierrasanta Blvd	Santo Rd and Copperleaf Ln	9:00 PM to 5:00 AM
Princess View Dr	north of Mission Gorge Rd	9:00 PM to 5:00 AM
Section 2		
Mission Gorge Rd	Princess View Dr and Golfcrest Dr	9:00 PM to 5:00 AM
	Golfcrest Dr and Rockyridge Rd	9:00 PM to 5:00 AM
	Rockyridge Rd and W Hills Pkwy	9:00 PM to 5:00 AM
W Hills Pkwy	Mission Gorge Rd and Carlton Oaks Dr	9:00 PM to 5:00 AM
Section 3		
Carlton Oaks Dr	W Hills Pkwy and Fanita Pkwy	9:00 PM to 5:00 AM
	400 ft West of Fanita Pkwy and Stoyer Dr	9:00 PM to 5:00 AM
Halberns Blvd	Stoyer Dr and Mast Blvd	9:00 PM to 5:00 AM
Section 4		
Mast Blvd	Halberns Blvd and Magnolia Ave	9:00 PM to 5:00 AM
	Magnolia Ave and Eastern Terminus	9:00 PM to 5:00 AM
	Western Terminus and Riverford Rd	9:00 PM to 5:00 AM

TABLE 4.6
WORK HOURS ON ROADWAY SEGMENTS ALONG SAN VICENTE PIPELINE ALIGNMENT

Roadway	Segment	Work hours
Riverside Dr	Riverford Rd and Valle Vista Rd	9:00 PM to 5:00 AM
Lakeside Ave	Valle Vista Rd and Lakeside Ave/Channel Rd	9:00 PM to 5:00 AM
	Lakeside Ave/Channel Rd and SR-67	9:00 PM to 5:00 AM
Willow Rd	SR-67 and Moreno Ave	9:00 PM to 5:00 AM
Moreno Ave	San Vicente Reservoir and Willow Rd	9:00 PM to 5:00 AM

Source: City of San Diego Public Utilities Department and Construction Management and Field Services Department, May 2017.

Existing Conditions

The section below discusses the existing traffic conditions along roadways serving the San Vicente Pipeline. **Figure 4-4** displays the existing traffic volumes, while **Table 4.7** displays the daily roadway segment LOS results under Existing conditions. Roadway segment traffic counts were obtained from a number of sources including the *City of Santee Circulation Element Update* project (late 2014), the *Kearny Mesa Community Plan Update* project (late 2016), as well as the SANDAG Series 13 base year traffic volumes. The count worksheets are provided in Appendix A.

As should in the table, the following two (2) roadway segments are currently operating at a substandard LOS E or F:

- Eastgate Mall, between the NCPWF & NCWRP driveway and Miramar Road – LOS E; and
- Willow Road, between SR-67 and Moreno Avenue – LOS F.

[1] After the pipeline installation is complete at the first 75 LF, the next 75 LF of the roadway segment would to be under construction, etc. The roadway segment of Eastgate Mall, between NCPWF & NCWRP driveway and Miramar Road would be approximately 4,800 feet in length and at 75 feet installation per day it's estimated that it would take approximately 64 days to complete.

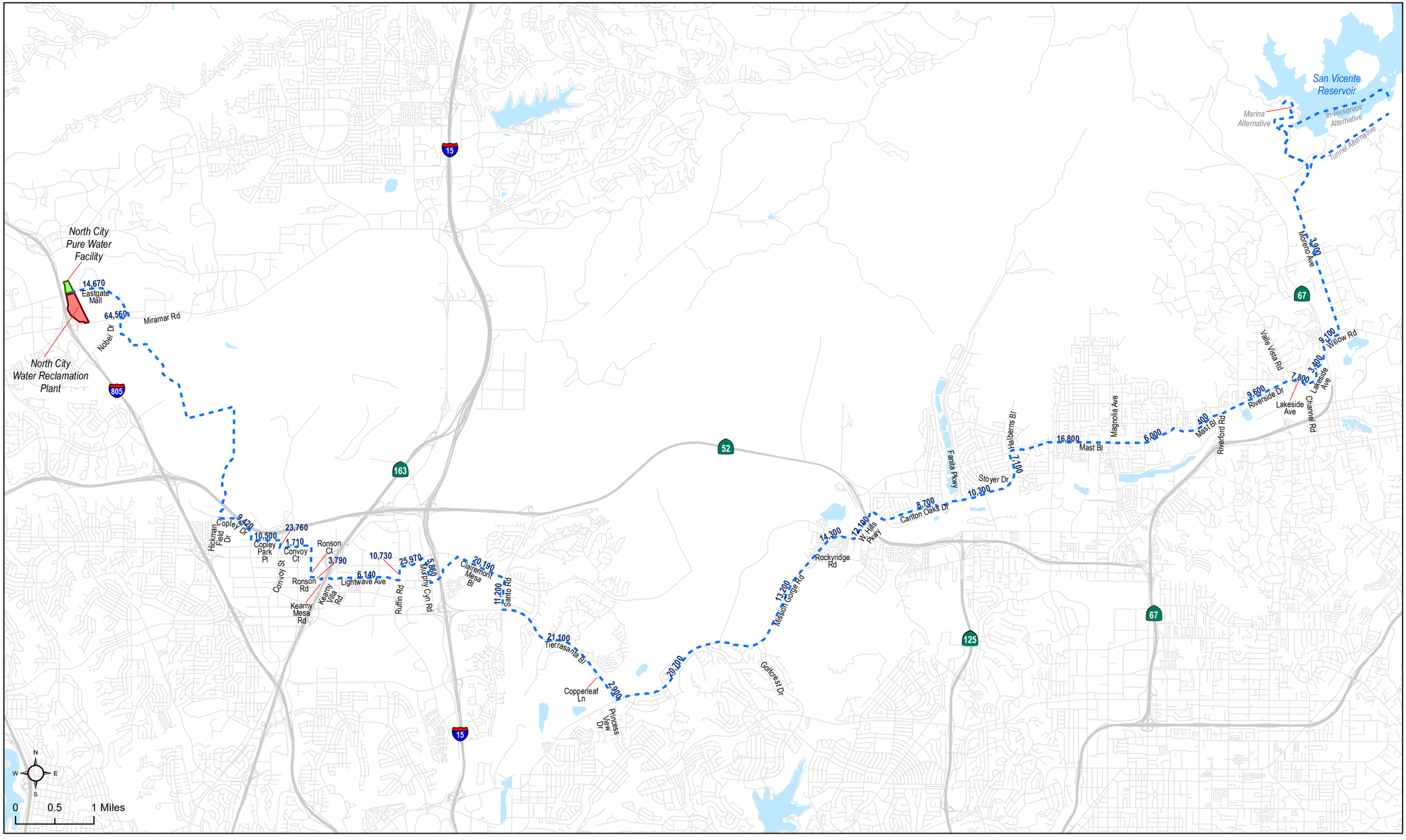

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Figure 4-4
Traffic Volumes - Existing Conditions
(San Vicente Pipeline)

TABLE 4.7
ROADWAY SEGMENT LOS RESULTS
EXISTING CONDITIONS – SAN VICENTE PIPELINE

Roadway	Segment	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS
Section 1A						
Eastgate Mall	NCPWF & NCWRP Driveway and Miramar Rd	2-Lane Collector W/ CLTL	15,000	14,670	0.978	**E**
Miramar Rd	Nobel Dr and Eastgate Mall	8-Lane Prime Arterial	80,000	64,560	0.807	C
Copley Dr	Hickman Field Dr and Copley Park Pl	4-Lane Collector	15,000	9,420	0.628	C
Copley Park Pl	Copley Dr and Convoy St	4-Lane Collector W/ CLTL	30,000	10,500	0.350	B
Convoy St	Copley Park Pl and Convoy Ct	4-Lane Collector W/ CLTL	30,000	23,760	0.792	D
Convoy Ct	east of Convoy St	2-Lane Collector	8,000	1,710	0.214	A
Section 1B						
Ronson Rd	Ronson Ct and Kearny Mesa Rd	2-Lane Collector	8,000	3,790	0.474	C
Lightwave Ave	Kearny Villa Rd and Ruffin Rd	4-Lane Collector W/ CLTL	30,000	6,140	0.205	A
Ruffin Rd	Clairemont Mesa Blvd and Lightwave Ave	4-Lane Major Arterial	40,000	10,730	0.268	A
Clairemont Mesa Blvd	Ruffin Rd and Murphy Canyon Rd	4-Lane Major Arterial	40,000	25,970	0.649	C
Murphy Canyon Rd	Clairemont Mesa Blvd and 1650 ft South of Clairemont Mesa Blvd	2-Lane Collector	8,000	5,860	0.733	D
Clairemont Mesa Blvd	1300 ft East of I-15 NB Ramps and Santo Rd	4-Lane Major Arterial	40,000	20,190	0.505	B
Santo Rd	Clairemont Mesa Blvd and Tierrasanta Blvd	4-Lane Major Arterial	40,000	11,200	0.280	A
Tierrasanta Blvd	Santo Rd and Copperleaf Ln	4-Lane Major Arterial	40,000	21,100	0.528	C
Princess View Dr	north of Mission Gorge Rd	2-Lane Collector	8,000	2,900	0.363	B
Section 2						
Mission Gorge Rd	Princess View Dr and Golfcrest Dr	6-Lane Prime Arterial	60,000	20,700	0.345	A
	Golfcrest Dr and Rockyridge Rd	5-Lane Prime Arterial (2EB & 3WB)	50,000	13,200	0.264	A
	Rockyridge Rd and W Hills Pkwy	4-Lane Major Arterial	40,000	14,300	0.358	A
W Hills Pkwy	Mission Gorge Rd and Carlton Oaks Dr	4-Lane Major Arterial	40,000	12,100	0.303	A
Section 3						
Carlton Oaks Dr	W Hills Pkwy and Fanita Pkwy	2-Lane Collector W/ CLTL	15,000	8,700	0.580	C
	400 ft West of Fanita Pkwy and Stoyer Dr	2-Lane Collector W/ CLTL	15,000	10,300	0.687	D

TABLE 4.7
ROADWAY SEGMENT LOS RESULTS
EXISTING CONDITIONS – SAN VICENTE PIPELINE

Roadway	Segment	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS
Halberns Blvd	Stoyer Dr and Mast Blvd	2-Lane Collector W/ CLTL	15,000	7,100	0.473	C
Section 4						
Mast Blvd	Halberns Blvd and Magnolia Ave	4-Lane Major Arterial	40,000	16,800	0.420	B
	Magnolia Ave and Eastern Terminus	2-Lane Collector W/ CLTL	15,000	6,000	0.400	B
	Western Terminus and Riverford Rd	2-Lane Collector	8,000	400	0.050	A
Riverside Dr	Riverford Rd and Valle Vista Rd	2-Lane Collector W/ CLTL	15,000	9,600	0.640	C
Lakeside Ave	Valle Vista Rd and Lakeside Ave/Channel Rd	2-Lane Collector W/ CLTL	15,000	7,800	0.520	C
	Lakeside Ave/Channel Rd and SR-67	2-Lane Collector	8,000	3,400	0.425	B
Willow Rd	SR-67 and Moreno Ave	2-Lane Collector	8,000	9,100	1.138	**F**
Moreno Ave	San Vicente Reservoir and Willow Rd	2-Lane Collector	8,000	3,900	0.488	C

Source: Chen Ryan Associates; May 2017

Note:
Bold letter indicates substandard LOS E or F.

Construction Traffic Analysis

It is assumed that the North City project will be in operations by Year 2022, for a worst-case analysis, construction traffic was added to the Year 2022 Base traffic volumes. Near-Term Year 2022 volumes were derived by comparing SANDAG Series 13 Year 2035 and Year 2020 forecast volumes, as well as the existing traffic counts. Growth factors were developed and applied to existing traffic volumes for each specific roadway segments. **Figure 4-5** displays the Near-Term Year 2022 Base traffic volumes, while **Figure 4-6** displays the Year 2022 Base Plus Construction Traffic.

Table 4.8 displays the daily roadway segment LOS results under both Near-Term Year 2022 Base and Near-Term Year 2022 Base Plus Construction Traffic conditions.

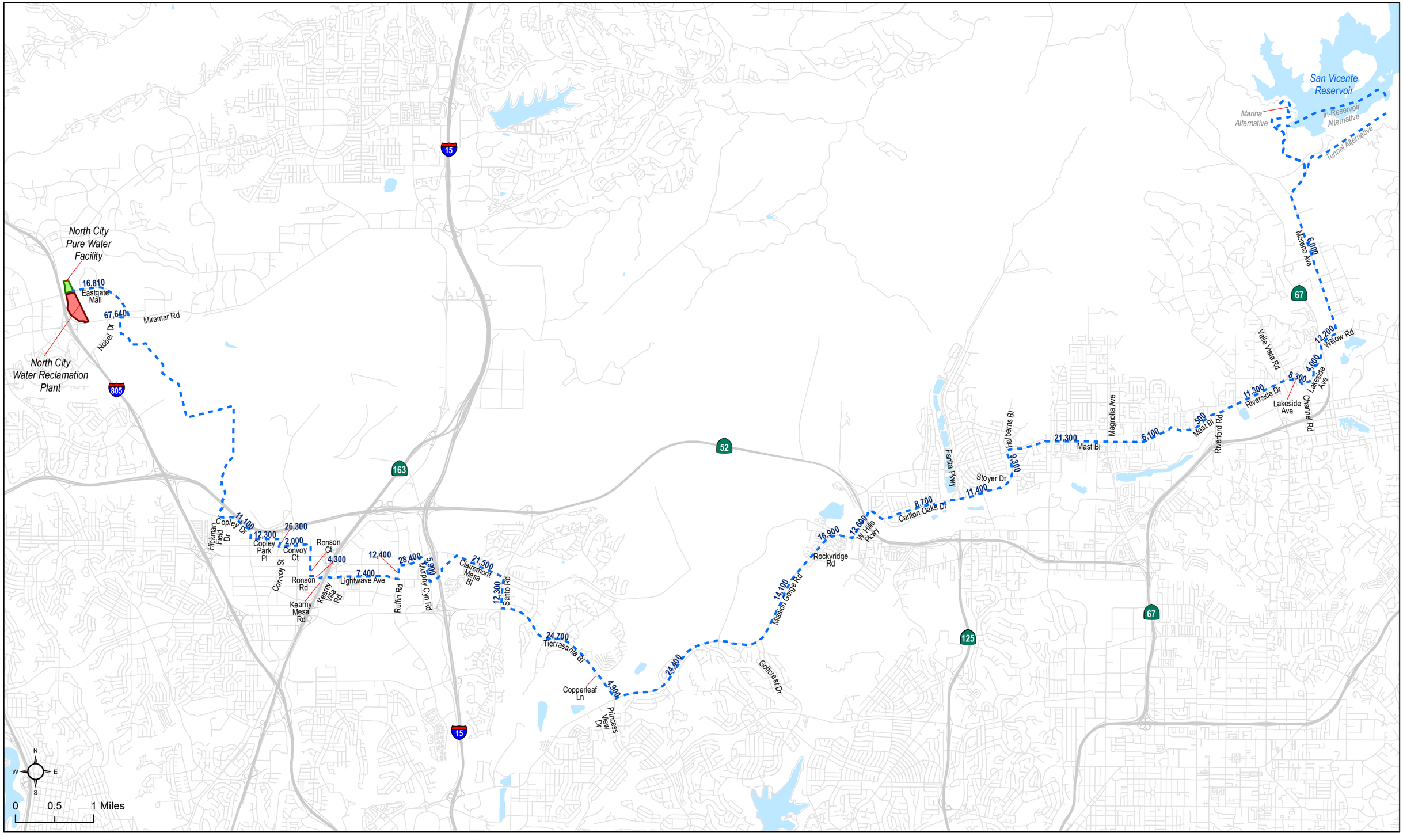

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Figure 4-5
Traffic Volumes - Near-Term Year 2022 Base Conditions
(San Vicente Pipeline)

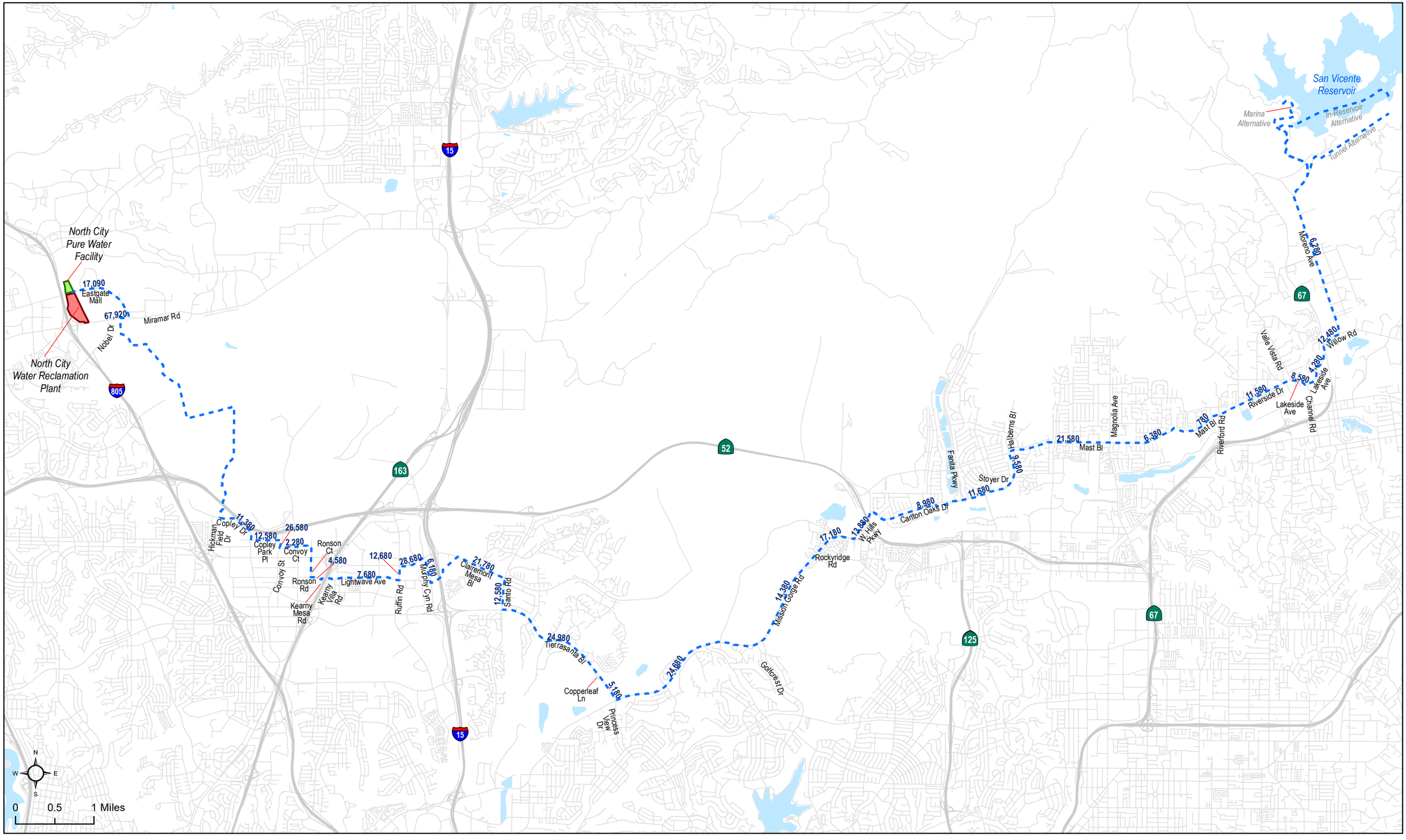

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Figure 4-6
Traffic Volumes - Near-Term Year 2022 Base Plus Construction Traffic Conditions (San Vincente Pipeline)

TABLE 4.8
ROADWAY SEGMENT LOS RESULTS
NEAR-TERM YEAR 2022 TRAFFIC CONDITIONS – SAN VICENTE PIPELINE

Roadway	Segment	Functional Classification	Threshold (LOS E)	Near-Term Year 2022 Base + Construction Traffic			Near-Term Year 2022 Base			Change in V/C	SI?
				ADT	V/C	LOS	ADT	V/C	LOS		
Section 1A											
Eastgate Mall	NCPWF & NCWRP Driveway and Miramar Rd	2-Lane Collector W/ CLTL	15,000	17,090	1.139	**F**	16,810	1.121	**F**	0.019 *> 0.01*	**Y**
Miramar Rd	Nobel Dr and Eastgate Mall	8-Lane Prime Arterial	80,000	67,920	0.849	D	67,640	0.846	D	0.003	N
Copley Dr	Hickman Field Dr and Copley Park Pl	4-Lane Collector	15,000	11,380	0.759	D	11,100	0.740	D	0.019	N
Copley Park Pl	Copley Dr and Convoy St	4-Lane Collector W/ CLTL	30,000	12,580	0.419	B	12,300	0.410	B	0.009	N
Convoy St	Copley Park Pl and Convoy Ct	4-Lane Collector W/ CLTL	30,000	26,580	0.886	**E**	26,300	0.877	**E**	0.009 *<0.02*	N
Convoy Ct	east of Convoy St	2-Lane Collector	8,000	2,280	0.285	A	2,000	0.250	A	0.035	N
Section 1B											
Ronson Rd	Ronson Ct and Kearny Mesa Rd	2-Lane Collector	8,000	4,580	0.573	C	4,300	0.538	C	0.035	N
Lightwave Ave	Kearny Villa Rd and Ruffin Rd	4-Lane Collector W/ CLTL	30,000	7,680	0.256	A	7,400	0.247	A	0.009	N
Ruffin Rd	Clairemont Mesa Blvd and Lightwave Ave	4-Lane Major Arterial	40,000	12,680	0.317	A	12,400	0.310	A	0.007	N
Clairemont Mesa Blvd	Ruffin Rd and Murphy Canyon Rd	4-Lane Major Arterial	40,000	28,680	0.717	C	28,400	0.710	C	0.007	N
Murphy Canyon Rd	Clairemont Mesa Blvd and 1650 ft South of Clairemont Mesa Blvd	2-Lane Collector	8,000	6,180	0.773	D	5,900	0.738	D	0.035	N
Clairemont Mesa Blvd	1300 ft East of I-15 NB Ramps and Santo Rd	4-Lane Major Arterial	40,000	21,780	0.545	C	21,500	0.538	C	0.007	N
Santo Rd	Clairemont Mesa Blvd and Tierrasanta Blvd	4-Lane Major Arterial	40,000	12,580	0.315	A	12,300	0.308	A	0.007	N
Tierrasanta Blvd	Santo Rd and Copperleaf Ln	4-Lane Major Arterial	40,000	24,980	0.625	C	24,700	0.618	C	0.007	N
Princess View Dr	north of Mission Gorge Rd	2-Lane Collector	8,000	5,180	0.648	D	4,900	0.613	C	0.035	N

TABLE 4.8
ROADWAY SEGMENT LOS RESULTS
NEAR-TERM YEAR 2022 TRAFFIC CONDITIONS – SAN VICENTE PIPELINE

Roadway	Segment	Functional Classification	Threshold (LOS E)	Near-Term Year 2022 Base + Construction Traffic			Near-Term Year 2022 Base			Change in V/C	SI?
				ADT	V/C	LOS	ADT	V/C	LOS		
Section 2											
Mission Gorge Rd	Princess View Dr and Golfcrest Dr	6-Lane Prime Arterial	60,000	24,680	0.411	A	24,400	0.407	A	0.005	N
	Golfcrest Dr and Rockyridge Rd	5-Lane Prime Arterial (2EB & 3WB)	50,000	14,380	0.288	A	14,100	0.282	A	0.006	N
	Rockyridge Rd and W Hills Pkwy	4-Lane Major Arterial	40,000	17,180	0.430	B	16,900	0.423	B	0.007	N
W Hills Pkwy	Mission Gorge Rd and Carlton Oaks Dr	4-Lane Major Arterial	40,000	13,880	0.347	A	13,600	0.340	A	0.007	N
Section 3											
Carlton Oaks Dr	W Hills Pkwy and Fanita Pkwy	2-Lane Collector W/ CLTL	15,000	8,980	0.599	C	8,700	0.580	C	0.019	N
	400 ft West of Fanita Pkwy and Stoyer Dr	2-Lane Collector W/ CLTL	15,000	11,680	0.779	D	11,400	0.760	D	0.019	N
Halberns Blvd	Stoyer Dr and Mast Blvd	2-Lane Collector W/ CLTL	15,000	9,580	0.639	C	9,300	0.620	C	0.019	N
Section 4											
Mast Blvd	Halberns Blvd and Magnolia Ave	4-Lane Major Arterial	40,000	21,580	0.540	C	21,300	0.533	C	0.007	N
	Magnolia Ave and Eastern Terminus	2-Lane Collector W/ CLTL	15,000	6,380	0.425	B	6,100	0.407	B	0.019	N
	Western Terminus and Riverford Rd	2-Lane Collector	8,000	780	0.098	A	500	0.063	A	0.035	N
Riverside Dr	Riverford Rd and Valle Vista Rd	2-Lane Collector W/ CLTL	15,000	11,580	0.772	D	11,300	0.753	D	0.019	N
Lakeside Ave	Valle Vista Rd and Lakeside Ave/Channel Rd	2-Lane Collector W/ CLTL	15,000	8,580	0.572	C	8,300	0.553	C	0.019	N
	Lakeside Ave/Channel Rd and SR-67	2-Lane Collector	8,000	4,280	0.535	C	4,000	0.500	C	0.035	N

TABLE 4.8
ROADWAY SEGMENT LOS RESULTS
NEAR-TERM YEAR 2022 TRAFFIC CONDITIONS – SAN VICENTE PIPELINE

Roadway	Segment	Functional Classification	Threshold (LOS E)	Near-Term Year 2022 Base + Construction Traffic			Near-Term Year 2022 Base			Change in V/C	SI?
				ADT	V/C	LOS	ADT	V/C	LOS		
Willow Rd	SR-67 and Moreno Ave	2-Lane Collector	8,000	12,480	1.560	**F**	12,200	1.525	**F**	0.035 *>0.01*	**Y**
Moreno Ave	San Vicente Reservoir and Willow Rd	2-Lane Collector	8,000	6,280	0.785	D	6,000	0.750	D	0.035	N

Source: Chen Ryan Associates; May 2017

Bold letter indicates substandard LOS E or F.
SI? = Significant Impact?

As shown in the Table 4.8, the following three (3) roadway segments are projected to operate at substandard LOS E or F both with and without construction traffic under Near-Term Year 2022:

- Eastgate Mall, between the NCPWF & NCWRP driveway and Miramar Road – LOS F;
- Convoy Street, between Copley Park Place and Convoy Court – LOS E; and
- Willow Road, between SR-67 and Moreno Avenue – LOS F.

Project Impacts and Mitigation Measures

Based upon the significance criteria presented in Section 2.4 of this report, the construction traffic would result in significant traffic impact to two of studied roadway segments along the San Vicente Pipeline:

- Eastgate Mall, between the NCPWF & NCWRP driveway and Miramar Road – LOS F; and
- Willow Road, between SR-67 and Moreno Avenue – LOS F.

However, based on information provided by City of San Diego Public Utilities Department, construction of the pipeline would be performed 75 LF per day, and the impacted area at any one time would encompass the work area as well as the traffic control setup length. Therefore, these project impacts would be temporary in nature (approximately 64[1] working days and 17[1] working days, respectively) and since the construction will occur during nighttime when there is only less traffic on the road, this roadway should function at reasonable operations. Therefore, since the impact would be temporary, no mitigation measures are required.

Table 4.9 displays the projected amount of days for which construction would take place at the identified impacted roadways above as well as on roadways adjacent to residential areas. Nighttime work hours may be modified/reduced or work may be performed during weekends on roadways near residential areas.

TABLE 4.9
SUMMARY OF IMPACT DURATION – SAN VICENTE PIPELINE

Roadway	Segment	Length (ft)	Approximate Duration of Impact (days)
Eastgate Mall	NCPWF & NCWRP Driveway and Miramar Rd	4,800	64
Lightwave Avenue	Kearny Villa Rd and Ruffin Rd	4,800	64
Ruffin Rd	Clairemont Mesa Blvd and Lightwave Ave	880	12
Clairemont Mesa Blvd	1300 ft East of I-15 NB Ramps	1,300	18
Santo Rd	Clairemont Mesa Blvd and Tierrasanta Blvd	2,070	28
Tierrasanta Blvd	Santo Rd and Cooperleaf Ln	8,000	107

TABLE 4.9
SUMMARY OF IMPACT DURATION – SAN VICENTE PIPELINE

Roadway	Segment	Length (ft)	Approximate Duration of Impact (days)
Section 2			
Mission Gorge Rd	Princess View Dr and Golfcrest Dr	11,300	151
	1160 ft west of Rockyridge Rd	1,160	16
	Rockyridge Rd and W Hills Pkwy	3,000	40
W Hills Pkwy	Mission Gorge Rd and Carlton Oaks Dr	2,200	30
Section 3			
Carlton Oaks Dr	W Hills Pkwy and Fanita Pkwy	6,500	87
	400 ft West of Fanita Pkwy and Stoyer Dr	4,400	59
Halberns Blvd	Stoyer Dr and Mast Blvd	1,600	22
Section 4			
Mast Blvd	Halberns Blvd and Magnolia Ave	6,850	92
	Magnolia Ave and Eastern Terminus	4,000	54
	Western Terminus and Riverford Rd	2,500	32
Riverside Dr	Riverford Rd and Valle Vista Rd	5,400	72
Lakeside Dr	Valle Vista Rd and Lakeside Ave/Channel Rd	1,125	15
	Lakeside Ave/Channel Rd and SR-67	2,600	35
Willow Rd	SR-67 and Moreno Ave	1,300	17
Moreno Ave	San Vicente Reservoir and Willow Rd	9,600	125

Source: Chen Ryan Associates; May 2017.

The duration of the impacts is based on the anticipated 75 LF of pipeline installation per day. It is important to note that these impacts would not occur concurrently, but rather at different points in time depending on the location of pipeline construction[1], and the impacted area at any one time would encompass the work area as well as the traffic control setup length. Therefore, the project impacts shown above would be temporary in nature and no mitigation measures are required.

[1] The impacted roadway segment of Eastgate Mall, between NCPWF & NCWRP driveway and Miramar Road and Willow Road, between SR-67 and Moreno Avenue would be approximately 4,800 feet and 1,300 feet in length respectively, and at 75 feet of installation per day, it is estimated that it would take approximately 64 days and 17 days to complete, respectively. After the pipeline installation is complete at the first 75 LF, the next 75 LF of construction would begin to be under construction, etc.

5.0 Morena Pipelines

The Morena Pipelines proposes the construction of two pipelines, a 30-inch brine pipeline and a 48-inch wastewater forcemain, running parallel to each other in a common pipe trench, connecting the Morena Pump Station which is to be located on a parcel currently owned by the San Diego Humane Society and the Society for the Prevention of Cruelty to Animals, to the NCWRP. The pipelines will connect the new pump station to the North City Water Reclamation Plant, via Sherman Street, Morena Boulevard, West Morena Boulevard, Ingulf Street, Denver Street, Clairemont Drive, Clairemont Mesa Boulevard, Genesee Avenue, Nobel Drive, Towne Centre Drive, and Executive Drive, traversing the communities of Linda Vista, Clairemont Mesa, and University. This pipeline is approximately 11 miles. Construction of the Morena Pipelines is anticipated to take place between March 2019 and July 2021.

Pipeline construction is proposed largely to be open-trench, covering approximately 50,890 linear feet or 93% of the total alignment, while the tunneling sections cover approximately 4,105 linear feet or 7% of the total alignment. Based on information provided by City of San Diego Public Utilities Department and Construction Management and Field Services, the majority of the pipeline construction work hours are proposed to be during nighttime, between 9:00 pm and 5:00 am, with daytime construction along some roadway segments along the pipelines alignment. **Table 5.1** displays the work hours proposed for the roadway segments analyzed for the Morena Pipelines construction.

TABLE 5.1
WORK HOURS ON ROADWAY SEGMENTS ALONG MORENA PIPELINES ALIGNMENT

Roadway	Segment	Work hours
Executive Drive	End of cul-de-sac and Judicial Drive	9:00 PM to 5:00 AM
Executive Drive	Judicial Drive and Towne Centre Drive	9:00 PM to 5:00 AM
Towne Centre Drive	Executive Drive and La Jolla Village Drive	9:00 PM to 5:00 AM
Towne Centre Drive	La Jolla Village Drive and Golden Haven Drive	8:30 AM to 3:30 PM
Towne Centre Drive	Golden Haven Drive and Nobel Drive	8:30 AM to 3:30 PM
Nobel Drive	Towne Centre Drive and Genesee Avenue	8:30 AM to 3:30 PM
Genesee Ave	Nobel Drive to Governor Drive	9:00 PM to 5:00 AM
Genesee Ave	Governor Drive and SR-52 WB Ramps	9:00 PM to 5:00 AM
Genesee Ave	SR-52 WB Ramps and SR-52 EB Ramps	9:00 PM to 5:00 AM
Genesee Ave	SR-52 EB Ramps and Appleton Street	9:00 PM to 5:00 AM

TABLE 5.1
WORK HOURS ON ROADWAY SEGMENTS ALONG MORENA PIPELINES ALIGNMENT

Roadway	Segment	Work hours
Genesee Ave	Appleton Street and Clairemont Mesa Blvd	(NB) 9:00 PM to 5:00 AM, (SB) 7:30 AM to 2:30 PM
Clairemont Mesa Blvd	Genesee Avenue and Clairemont Drive	8:30 AM to 3:30 PM
Clairemont Drive	Clairemont Mesa Boulevard and Lakehurst Avenue	7:30 AM to 4:30 PM
Clairemont Drive	Lakehurst Avenue and Clairemont Mesa Boulevard	7:30 AM to 4:30 PM
Clairemont Drive	Clairemont Mesa Boulevard and Balboa Avenue	7:30 AM to 4:30 PM
Clairemont Drive	Balboa Avenue to Rappahannock Avenue	7:30 AM to 4:30 PM
Clairemont Drive	Rappahannock Avenue to Iroquois Avenue	7:30 AM to 4:30 PM
Clairemont Drive	Iroquois Avenue to Burgener Drive	9:00 PM to 5:00 AM
Clairemont Drive	Burgener Drive to Denver Street	9:00 PM to 5:00 AM
Denver St	Clairemont Drive and Ingulf Street	9:00 PM to 5:00 AM
Ingulf St	Denver Street and West Morena Boulevard	9:00 PM to 5:00 AM
West Morena Boulevard	Ingulf Street to Littlefield Street	9:00 PM to 5:00 AM
West Morena Boulevard	Littlefield Street to Morena Blvd	9:00 PM to 5:00 AM
West Morena Boulevard	Morena Boulevard and Tecolote Road Overpass	9:00 PM to 5:00 AM
West Morena Boulevard	Tecolote Road Overpass and Vega Street	9:00 PM to 5:00 AM
West Morena Boulevard	Vega Street and Morena Boulevard	9:00 PM to 5:00 AM

Source: City of San Diego Public Utilities Department and Construction Management and Field Services Department, June 2017.

The construction of the pipelines will also require the closure to through traffic of two roadways, Ingulf Street and Denver Street. The closure of the aforementioned roadways segments will result in the following traffic detours:

- Closure of Ingulf Street between West Morena Boulevard and Denver Street - Detour signs shall be placed redirecting traffic to travel on alternative routes along Milton Street, Lister Street, Jellett Street and Galveston Street.

- Closure of Denver Street between Ingulf Street and Clairemont Drive – Detour signs shall be placed redirecting traffic to travel on alternative routes along Milton Street, Lister Street, Jellett Street and Galveston Street.

It is important to note that the Morena Pipelines coincide with the alignment for the construction of the Mid-Coast Trolley alignment (along West Morena Boulevard), therefore, close coordination is necessary between these two projects.

Both daily roadway segment and peak hour intersection analysis were conducted in the chapter to disclose all potential construction traffic impacts associated with these pipelines since daytime construction with lane and road closures are proposed.

5.1 Pipeline Construction Trip Generation

It is assumed that truck trips (excavation, material transport, utility trucks, ect.) and worker trips will be generated during construction. Based on review of the 10% Engineering Design Report for the Morena Pump Station, it is also assumed that the open-trench excavation will be approximately 10' deep, 8' wide, and 75' long per day, and the same number of workers and heavy vehicles will be required per day for the duration of the pipeline construction. As a worst-case scenario, it was assumed that all workers would drive individual vehicles to the project site.

Table 5.2 displays the assumed daily and peak hour vehicle trip generation during construction.

TABLE 5.2
CONSTRUCTION TRIP GENERATION

Trip Type	Unit	Rate	Daily Generation	Passenger Car Equivalent	Daily Vehicle Trips	AM Peak Hour	PM Peak Hour
Construction Workers	8 workers	3 / worker	24 vehicle trips	1	24	8 (8-in / 0-out)	8 (0-in / 8-out)
Construction Trucks	60 trucks	2 / truck	120 truck trips	2.5	300	38 (19-in / 19-out)	38 (19-in / 19-out)
				Total	**324**	**46 (27-in / 19-out)**	**46 (19-in / 27out)**

Source: Chen Ryan Associates; May 2017

As shown, the proposed project construction is anticipated to generate approximately 324 daily trips, as well as 46 trips during both the AM and PM peak hour.

5.2 Morena Pipelines Construction Trip Distribution, Trip Assignment & Staging Areas

Pipeline staging areas are proposed to be located within developed parking lots or other developed areas to minimize traffic and road disruptions and would move frequently as construction progresses along the alignment. No new access roads would be needed. Staging areas for open cut construction would range from 30 feet to 60 feet wide and would occupy half the roadway width. Staging areas for trenchless construction would range from 20 feet by 50 feet up to 100 feet by 150 feet.

A jacking pit would be constructed at the beginning of each trenchless pipeline segment and a receiving pit would be constructed at the end of each segment.

The Miramar Landfill would be the main site as the origin or the destination of material disposal trucks and SR-52 would be the main route.

5.3 Existing Conditions

The section below discusses the existing traffic conditions along roadways and intersections serving the Morena Pipelines.

Roadway Segment Analysis

Figure 5-1 displays the existing roadway traffic volumes. **Table 5.3** displays the daily roadway segment LOS results under Existing conditions. Roadway segment and intersection traffic counts were obtained from a number of sources including the *University Community Plan Amendment Existing Conditions Summary (late 2015)*, the *Morena Boulevard Station Area Planning Study (2014)*, as well as the Clairemont Mesa Community Plan Update (2016). The traffic count worksheets are provided in Appendix A.

As shown in the Table 5.3, the following four (4) roadway segments operate at substandard LOS E or F:

- Clairemont Mesa Boulevard, between Genesee Avenue and Clairemont Drive – LOS E;
- Clairemont Drive, between Clairemont Mesa Boulevard and Balboa Avenue – LOS F;
- Clairemont Drive, between Burgener Drive and Denver Street – LOS F;
- Denver Street, between Clairemont Drive and Ingulf Street – LOS F.

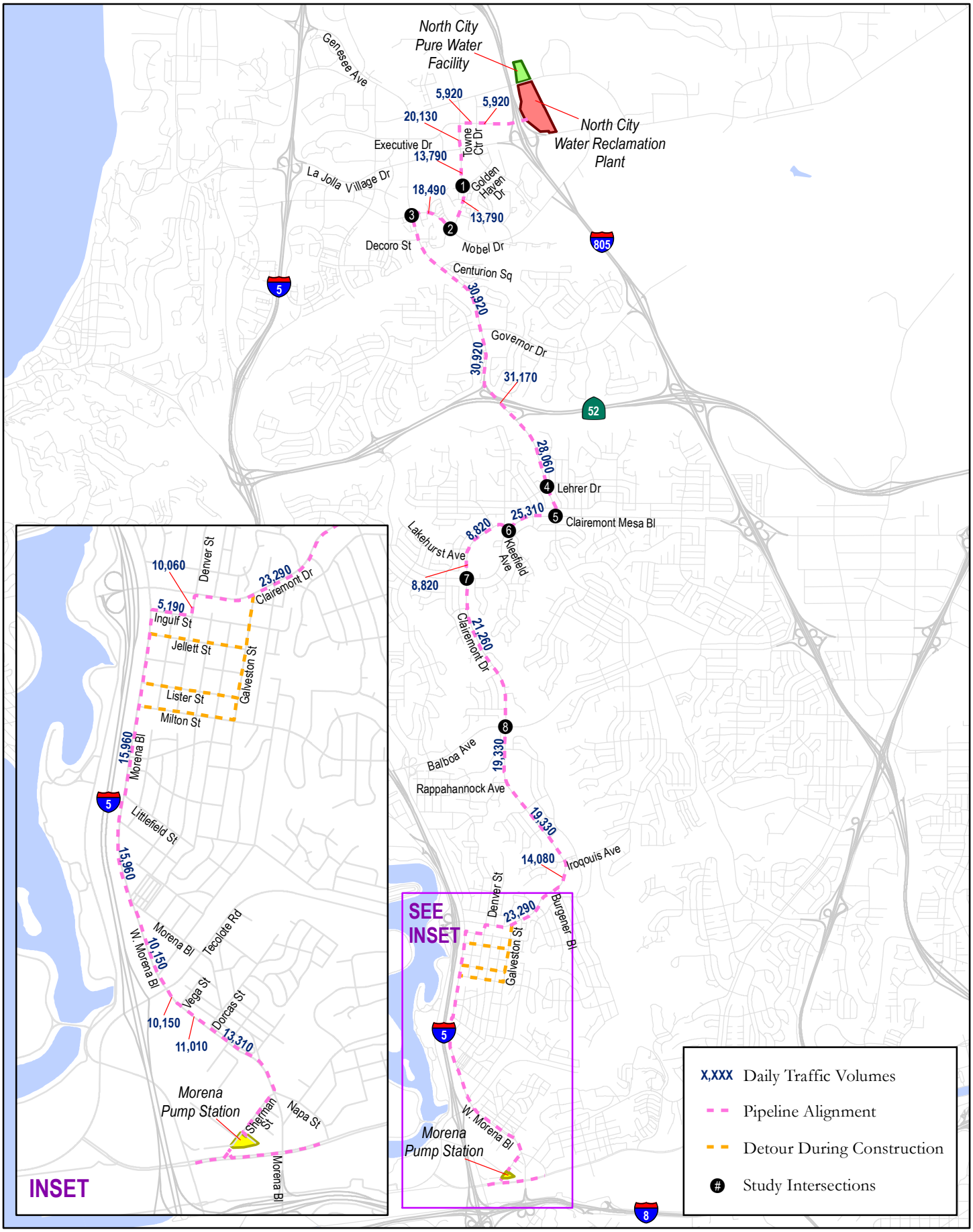

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Figure 5-1
Roadway Traffic Volumes - Existing Conditions
(Morena Pipelines)

TABLE 5.3
ROADWAY SEGMENT LOS RESULTS
EXISTING CONDITIONS – MORENA PIPELINES

Roadway	Segment	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS
Executive Drive	End of cul-de-sac and Judicial Drive	2-Lane Collector	8,000	5,920	0.739	D
	Judicial Drive and Towne Centre Drive	4-Lane Major Arterial	40,000	5,920	0.148	A
Towne Centre Drive	Executive Drive and La Jolla Village Drive	4-Lane Major Arterial	40,000	20,130	0.503	B
	La Jolla Village Drive and Golden Haven Drive	4-Lane Major Arterial	40,000	13,790	0.345	A
	Golden Haven Drive and Nobel Drive	4-Lane Major Arterial	40,000	13,790	0.345	A
Nobel Drive	Towne Centre Drive and Genesee Avenue	4-Lane Major Arterial	40,000	18,490	0.462	B
Genesee Avenue	Nobel Drive and Governor Drive	4-Lane Major Arterial	40,000	30,920	0.773	D
	Governor Drive and SR-52 WB Ramps	4-Lane Major Arterial	40,000	30,920	0.773	D
	SR-52 WB Ramps and SR-52 EB Ramps	4-Lane Major Arterial	40,000	31,170	0.779	D
	SR-52 EB Ramps and Appleton Street	4-Lane Major Arterial	40,000	28,060	0.702	C
	Appleton Street and Clairemont Mesa Boulevard	4-Lane Major Arterial	40,000	28,060	0.702	C
Clairemont Mesa Boulevard	Genesee Avenue and Clairemont Drive	4-Lane Collector with CLTL	30,000	25,310	0.844	**E**
Clairemont Drive	Clairemont Mesa Boulevard and Lakehurst Avenue	4-Lane Collector with CLTL	30,000	8,820	0.294	A
	Lakehurst Avenue and Clairemont Mesa Boulevard	4-Lane Collector with CLTL	30,000	8,820	0.294	A
	Clairemont Mesa Boulevard and Balboa Avenue	2-Lane Collector W/ CLTL	15,000	21,260	1.417	**F**
	Balboa Avenue and Rappahannock Avenue	4-Lane Major Arterial	40,000	19,330	0.483	B
	Rappahannock Avenue and Iroquois Avenue	4-Lane Collector with CLTL	30,000	19,330	0.644	C

TABLE 5.3
ROADWAY SEGMENT LOS RESULTS
EXISTING CONDITIONS – MORENA PIPELINES

Roadway	Segment	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS
Clairemont Drive	Iroquois Avenue and Burgener Drive	4-Lane Collector with CLTL	30,000	14,080	0.469	C
	Burgener Drive and Denver Street	2-Lane Collector W/ CLTL	15,000	23,290	1.553	**F**
Denver Street	Clairemont Drive and Ingulf Street	2-Lane Collector	8,000	10,060	1.258	**F**
Ingulf Street	Denver Street and West Morena Boulevard	2-Lane Collector	8,000	5,190	0.648	D
West Morena Boulevard	Ingulf Street and Littlefield Street	4-Lane Major Arterial	40,000	15,960	0.399	B
	Littlefield Street to Morena Boulevard	4-Lane Major Arterial	40,000	15,960	0.399	B
	Morena Boulevard and Tecolote Road Overpass	4-Lane Major Arterial	40,000	10,150	0.254	A
	Tecolote Road Overpass and Vega Street	4-Lane Major Arterial	40,000	10,150	0.254	A
	Vega Street and Morena Boulevard	5-Lane Major Arterial	50,000	13,310	0.266	A

Source: Chen Ryan Associates; May 2017

Note: Bold letter indicates substandard LOS E or F.

Intersection Analysis

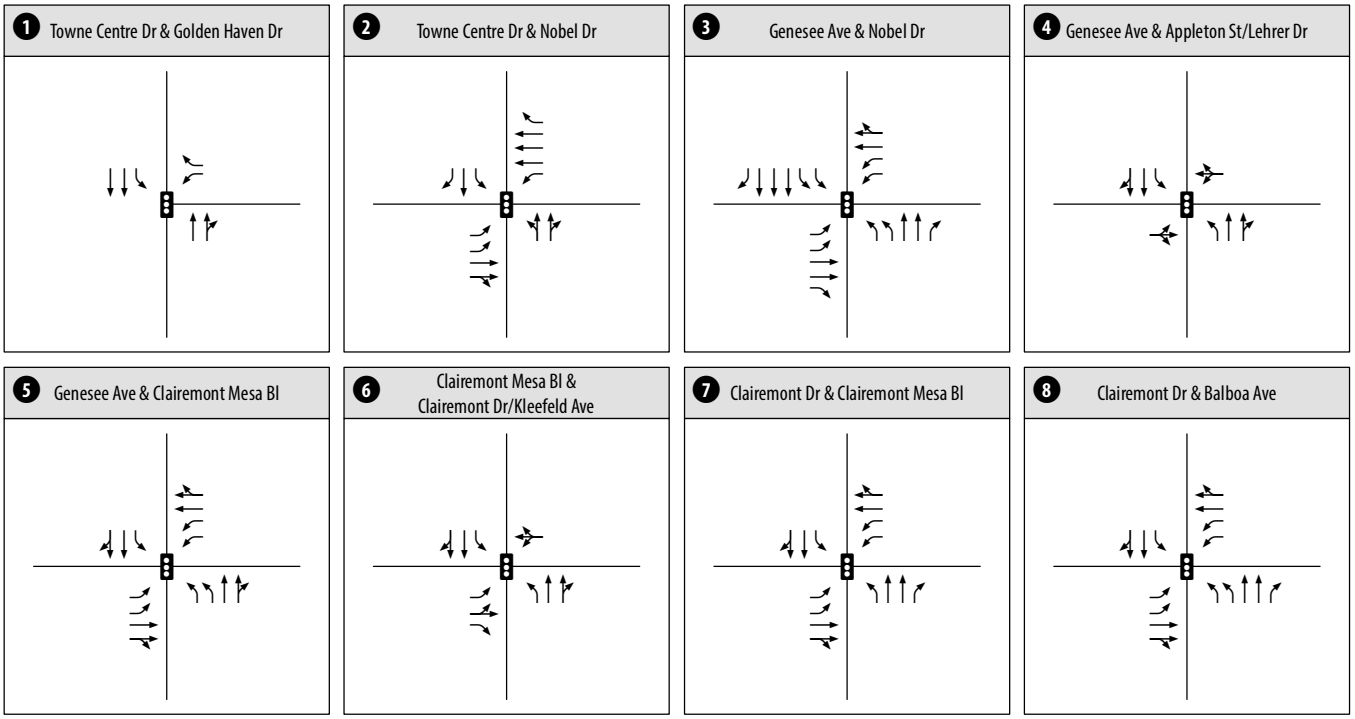
Figure 5-2 displays existing intersection geometry while **Figure 5-3** displays peak hour intersection volumes. **Table 5.4** displays intersection LOS results and average delay results for key study area intersections under Existing Conditions. LOS calculation worksheets for Existing Conditions are provided in **Appendix D**. It is important to note that the intersections analyzed for the Morena Pipelines are those that are found along roadway segments where daytime work is proposed.

TABLE 5.4
PEAK HOUR INTERSECTION LEVEL OF SERVICE RESULTS
EXISTING CONDITIONS – MORENA PIPELINES

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS
1. Towne Centre Drive & Golden Haven Drive	Signalized	14.9	B	9.7	A
2. Towne Centre Drive & Nobel Drive	Signalized	34.2	C	28.2	C
3. Genesee Avenue & Nobel Drive	Signalized	69.4	**E**	33.5	C
4. Genesee Avenue & Appleton Street/Lehrer Drive	Signalized	84.8	**F**	34.9	C
5. Genesee Avenue & Clairemont Mesa Boulevard	Signalized	46.0	D	56.1	**E**
6. Clairemont Mesa Boulevard & Clairemont Drive/Kleefeld Avenue	Signalized	413.7	**F**	672.1	**F**
7. Clairemont Drive & Clairemont Mesa Boulevard	Signalized	78.7	**E**	53.8	D
8. Clairemont Drive & Balboa Avenue	Signalized	51.4	D	71.0	**E**

Source: Chen Ryan Associates, May 2017

Notes:
Bold letter indicates substandard LOS E or F.
SSSC = Side-Street Stop Control.
For SSSC intersections, the delay shown is the worst delay experienced by any of the approaches.



Legend

- Study Intersection
- Lane Geometry
- Signalized Intersection

*Names of North-South cross-streets always listed first

NORTH

NOT TO SCALE

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Figure 5-2
Intersection Geometrics - Existing Conditions
(Morena Pipelines) (Intersections 1-8)

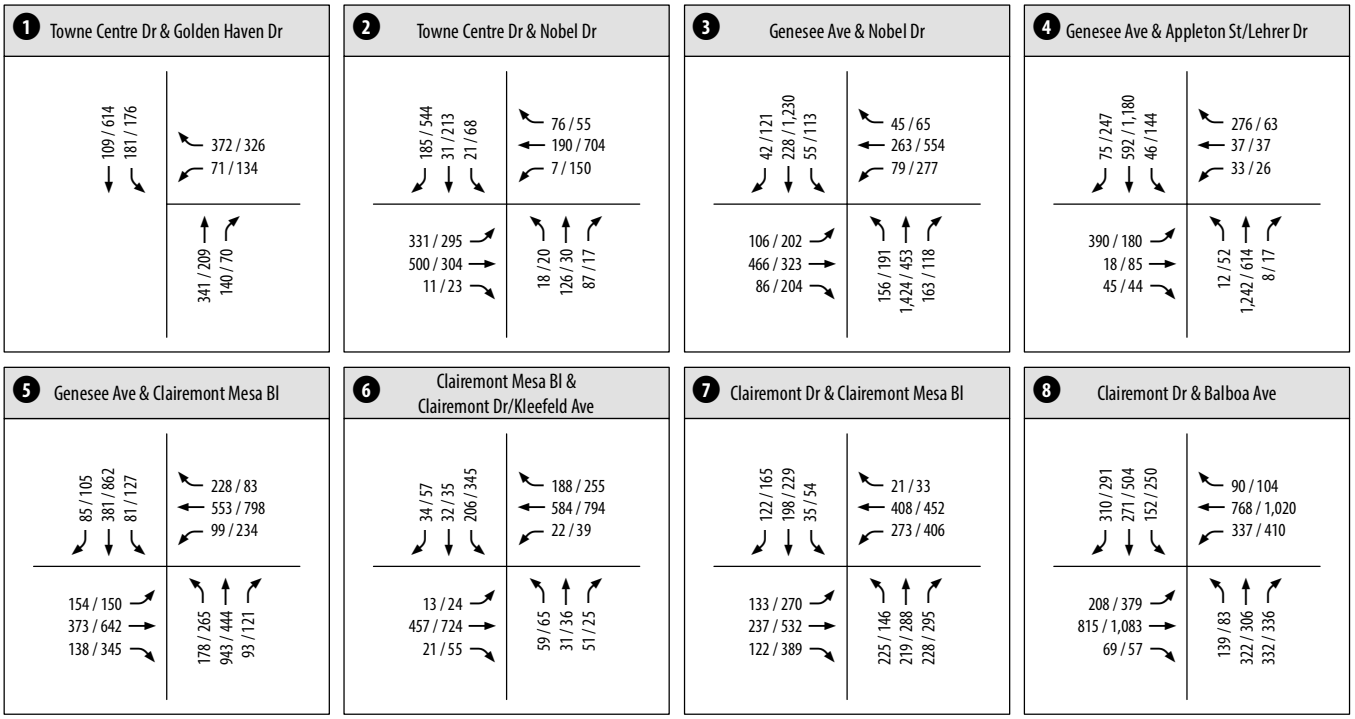

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Figure 5-3
Intersection Traffic Volumes - Existing Conditions
(Morena Pipelines) (Intersections 1-8)

As shown in Table 5.4, the following six (6) intersections currently operate under substandard LOS E or F during the peak hours:

- Genesee Avenue & Nobel Drive – LOS E during the AM peak hour;
- Genesee Avenue & Appleton Street/Lehrer Drive – LOS F during the AM peak hour;
- Genesee Avenue & Clairemont Mesa Boulevard – LOS E during the PM peak hour;
- Clairemont Mesa Boulevard & Clairemont Drive/Kleefeld Avenue – LOS F during both the AM and PM peak hour;
- Clairemont Drive & Clairemont Mesa Boulevard – LOS E during the AM peak hour;
- Clairemont Drive & Balboa Avenue – LOS E during the PM peak hour;

5.4 Construction Traffic Analysis (Near-Term Year 2022)

It is assumed that the North City project will be in operations by Year 2022, for a worst-case analysis, construction traffic was added to the Year 2022 Base traffic volumes. Near-Term Year 2022 volumes were derived by comparing SANDAG Series 13 Year 2035 and Year 2020 forecast volumes, as well as the existing traffic counts. Growth factors were developed and applied to existing traffic volumes for each specific roadway segments and connecting intersections.

Roadway Segment Analysis

Figure 5-4 displays the Near-Term Year 2022 Base traffic volumes, while **Figure 5-5** displays Near-Term Year 2022 Base with Construction traffic volumes along study area roadway segments.

Table 5.5 displays the daily roadway segment LOS results under both Near-Term Year 2022 Base and Near-Term Year 2022 Base with Construction Traffic conditions.

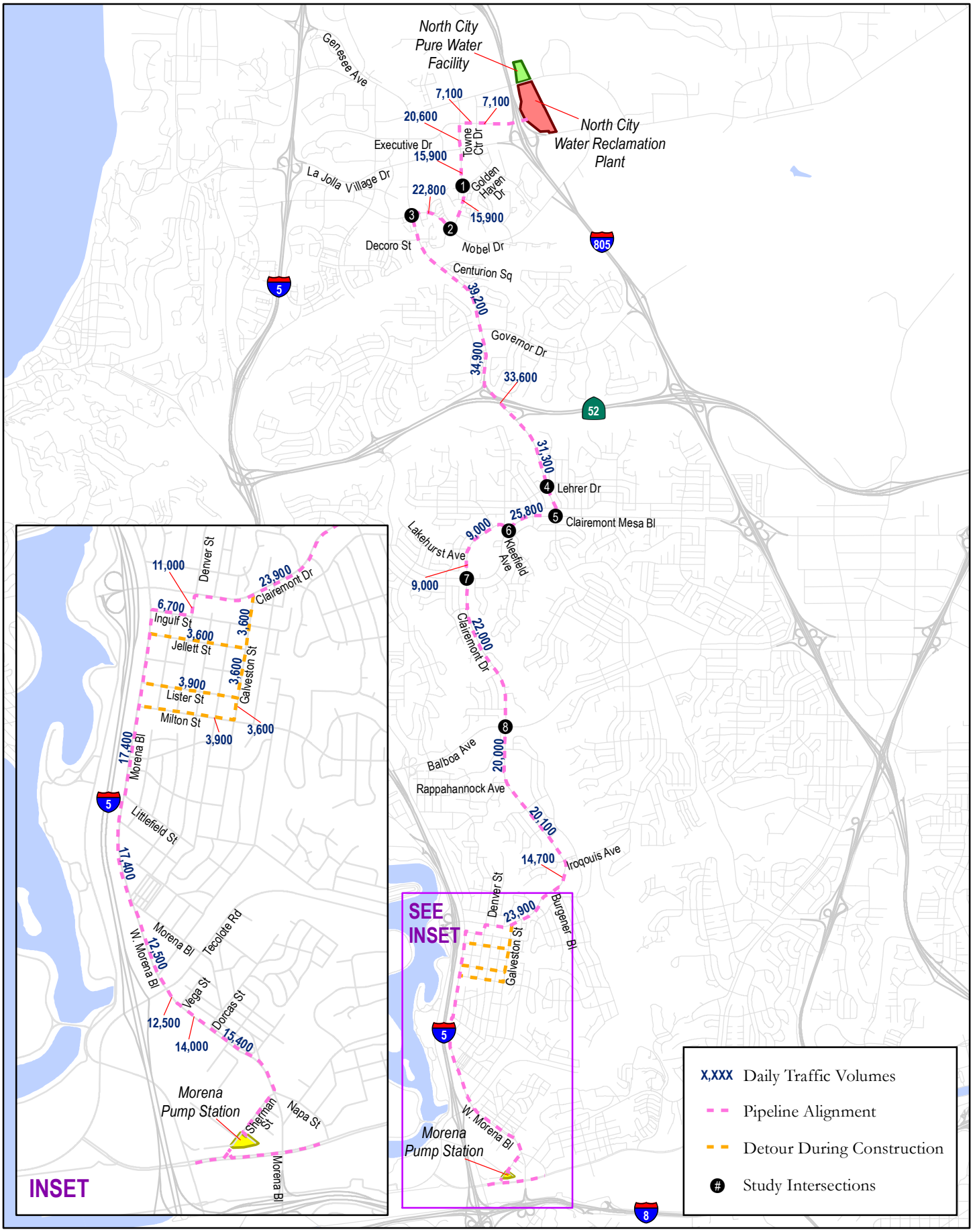

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Figure 5-4
Roadway Traffic Volumes - Near-Term Year 2022 Base Conditions (Morena Pipelines)

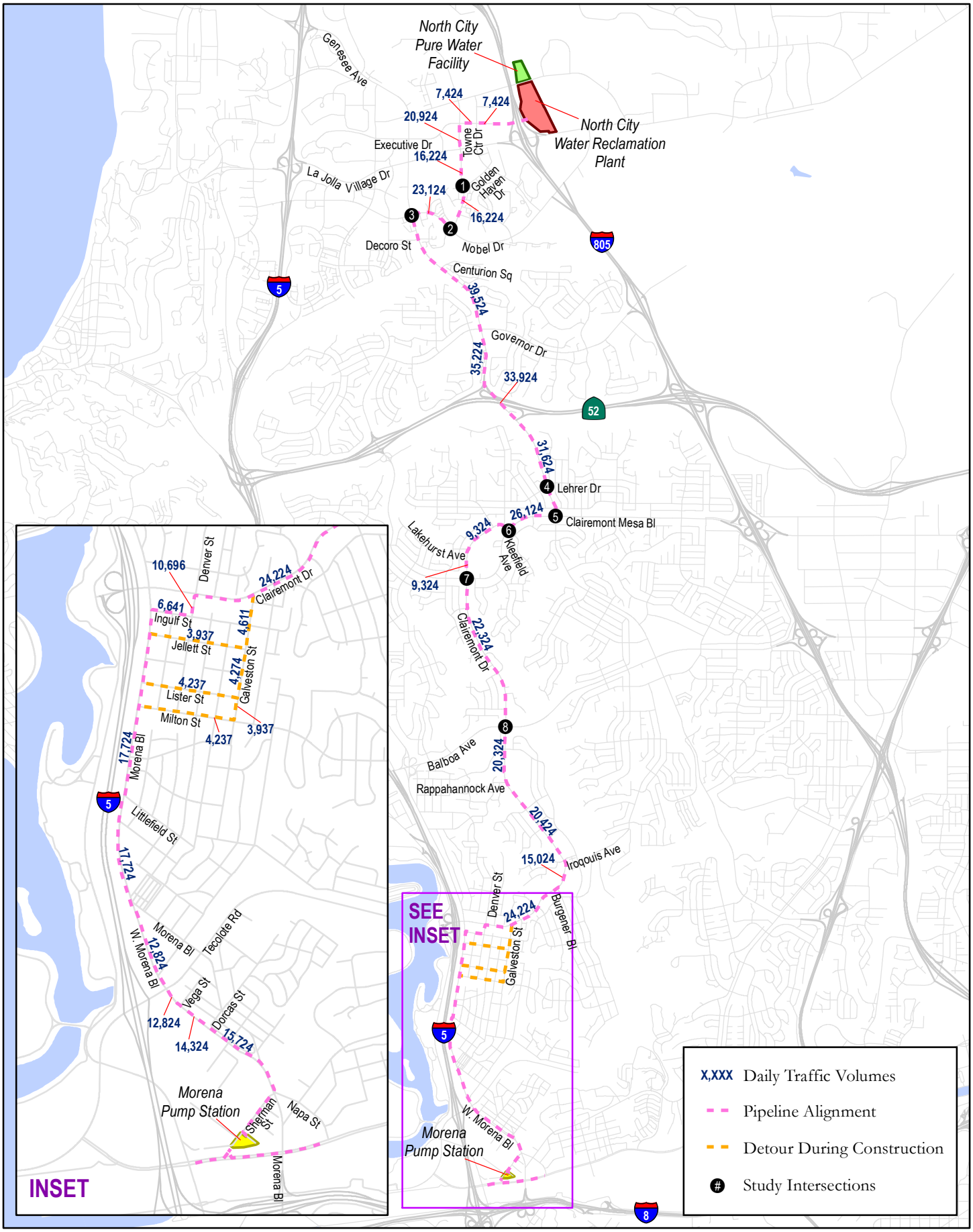

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Figure 5-5
Roadway Traffic Volumes - Near-Term Year 2022 Base Plus Construction Traffic Conditions (Morena Pipelines)

TABLE 5.5
ROADWAY SEGMENT LOS RESULTS
NEAR-TERM YEAR 2022 TRAFFIC CONDITIONS – MORENA PIPELINES

		Near-Term Year 2022 Base + Construction Traffic					Near-Term Year 2022 Base						
Roadway	Segment	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS	Change in V/C	SI?
Executive Drive	End of cul-de-sac and Judicial Drive	2-Lane Collector	8,000	7,424	0.928	**E**	2-Lane Collector	8,000	7,100	0.888	**E**	0.041	**Y**
	Judicial Drive and Towne Centre Drive	4-Lane Major Arterial	40,000	7,424	0.186	A	4-Lane Major Arterial	40,000	7,100	0.178	A	0.008	N
Towne Centre Drive	Executive Drive and La Jolla Village Drive	4-Lane Major Arterial	40,000	20,924	0.523	B	4-Lane Major Arterial	40,000	20,600	0.515	B	0.008	N
	La Jolla Village Drive and Golden Haven Drive	2-Lane Collector	8,000	16,224	2.028	**F**	4-Lane Major Arterial	40,000	15,900	0.398	B	1.631	**Y**
	Golden Haven Drive and Nobel Drive	2-Lane Collector	8,000	16,224	2.028	**F**	4-Lane Major Arterial	40,000	15,900	0.398	B	1.631	**Y**
Nobel Drive	Towne Centre Drive and Genesee Avenue	2-Lane Collector	8,000	23,124	2.891	**F**	4-Lane Major Arterial	40,000	22,800	0.570	C	2.321	**Y**
Genesee Avenue	Nobel Drive to Governor Drive	4-Lane Major Arterial	40,000	39,524	0.988	**E**	4-Lane Major Arterial	40,000	39,200	0.980	**E**	0.008	N
	Governor Drive and SR-52 WB Ramps	4-Lane Major Arterial	40,000	35,224	0.881	**E**	4-Lane Major Arterial	40,000	34,900	0.873	D	0.008	**Y**
	SR-52 WB Ramps and SR-52 EB Ramps	4-Lane Major Arterial	40,000	33,924	0.848	D	4-Lane Major Arterial	40,000	33,600	0.840	D	0.008	N
	SR-52 EB Ramps and Appleton Street	4-Lane Major Arterial	40,000	31,624	0.791	D	4-Lane Major Arterial	40,000	31,300	0.783	D	0.008	N
	Appleton Street and Clairemont Mesa Blvd	2-Lane Collector	8,000	31,624	3.953	**F**	4-Lane Major Arterial	40,000	31,300	0.783	D	3.171	**Y**

TABLE 5.5
ROADWAY SEGMENT LOS RESULTS
NEAR-TERM YEAR 2022 TRAFFIC CONDITIONS – MORENA PIPELINES

		Near-Term Year 2022 Base + Construction Traffic					Near-Term Year 2022 Base						
Roadway	Segment	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS	Change in V/C	SI?
Clairemont Mesa Boulevard	Genesee Avenue and Clairemont Drive	2-Lane Collector	8,000	26,124	3.266	**F**	4-Lane Secondary Arterial	30,000	25,800	0.860	**E**	2.406	**Y**
Clairemont Drive	Clairemont Mesa Boulevard and Lakehurst Avenue	2-Lane Collector	8,000	9,324	1.166	**F**	4-Lane Secondary Arterial	30,000	9,000	0.300	A	0.866	**Y**
	Lakehurst Avenue and Clairemont Mesa Boulevard	2-Lane Collector	8,000	9,324	1.166	**F**	4-Lane Secondary Arterial	30,000	9,000	0.300	A	0.866	**Y**
	Clairemont Mesa Boulevard and Balboa Avenue	2-Lane Collector	8,000	22,324	2.791	**F**	2-Lane Collector W/ CLTL	15,000	22,000	1.467	**F**	1.324	**Y**
	Balboa Avenue and Rappahannock Avenue	2-Lane Collector	8,000	20,324	2.541	**F**	4-Lane Major Arterial	40,000	20,000	0.500	B	2.041	**Y**
	Rappahannock Avenue and Iroquois Avenue	2-Lane Collector W/ CLTL	15,000	20,424	1.362	**F**	4-Lane Secondary Arterial	30,000	20,100	0.670	D	0.692	**Y**
	Iroquois Avenue and Burgener Drive	4-Lane Secondary Arterial	30,000	15,024	0.501	C	4-Lane Secondary Arterial	30,000	14,700	0.490	C	0.011	N
	Burgener Drive and Denver Street	2-Lane Collector W/ CLTL	15,000	24,224	1.615	**F**	2-Lane Collector W/ CLTL	15,000	23,900	1.593	**F**	0.022	**Y**

TABLE 5.5
ROADWAY SEGMENT LOS RESULTS
NEAR-TERM YEAR 2022 TRAFFIC CONDITIONS – MORENA PIPELINES

		Near-Term Year 2022 Base + Construction Traffic					Near-Term Year 2022 Base						
Roadway	Segment	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS	Change in V/C	SI?
Denver Street	Clairemont Drive and Ingulf Street	2-Lane Collector (Full closure during work hours)	8,000	10,696[1]	1.337	**F**	2-Lane Collector	8,000	11,000	1.375	**F**	-0.038	N
Ingulf Street	Denver Street and West Morena Boulevard	2-Lane Collector (Full closure during work hours)	8,000	6,641[1]	0.830	**E**	2-Lane Collector	8,000	6,700	0.838	**E**	-0.007	N
Galveston Street	Clairemont Drive and Jellet Street	2-Lane Collector	8,000	4,611[2]	0.576	C	2-Lane Collector	8,000	3,600	0.450	C	0.126	N
	Jellet Street and Lister Street	2-Lane Collector	8,000	4,274[2]	0.534	C	2-Lane Collector	8,000	3,600	0.450	C	0.084	N
	Lister Street and Milton Street	2-Lane Collector	8,000	3,937[2]	0.492	C	2-Lane Collector	8,000	3,600	0.450	C	0.042	N
Jellet Street	Galveston Street and West Morena Boulevard	2-Lane Collector	8,000	3,937[2]	0.492	C	2-Lane Collector	8,000	3,600	0.450	C	0.042	N
Lister Street	Galveston Street and West Morena Boulevard	2-Lane Collector	8,000	4,237[2]	0.530	C	2-Lane Collector	8,000	3,900	0.488	C	0.042	N
Milton Street	Galveston Street and West Morena Boulevard	2-Lane Collector	8,000	4,237[2]	0.530	C	2-Lane Collector	8,000	3,900	0.488	C	0.042	N

TABLE 5.5
ROADWAY SEGMENT LOS RESULTS
NEAR-TERM YEAR 2022 TRAFFIC CONDITIONS – MORENA PIPELINES

		Near-Term Year 2022 Base + Construction Traffic					Near-Term Year 2022 Base						
Roadway	Segment	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS	Functional Classification	Threshold (LOS E)	ADT	V/C	LOS	Change in V/C	SI?
West Morena Boulevard	Ingulf Street and Littlefield Street	4-Lane Major Arterial	40,000	17,724	0.443	B	4-Lane Major Arterial	40,000	17,400	0.435	B	0.008	N
	Littlefield Street to Morena Boulevard	4-Lane Major Arterial	40,000	17,724	0.443	B	4-Lane Major Arterial	40,000	17,400	0.435	B	0.008	N
	Morena Boulevard and Tecolote Road Overpass	4-Lane Major Arterial	40,000	12,824	0.321	A	4-Lane Major Arterial	40,000	12,500	0.313	A	0.008	N
	Tecolote Road Overpass and Vega Street	4-Lane Major Arterial	40,000	12,824	0.321	A	4-Lane Major Arterial	40,000	12,500	0.313	A	0.008	N
	Vega Street and North of Dorcas Street	5-Lane Major Arterial	50,000	14,324	0.286	A	5-Lane Major Arterial	50,000	14,000	0.280	A	0.006	N
	North of Dorcas Street and Morena Boulevard	5-Lane Major Arterial	50,000	15,724	0.314	A	5-Lane Major Arterial	50,000	15,400	0.308	A	0.006	N

Source: Chen Ryan Associates; May 2017

Notes:
Bold letter indicates substandard LOS E or F.
SI? = Significant Impact?
[1] Traffic volume in this segment excludes traffic during the work hours (9 pm to 5 am) and includes construction traffic.
[2] Traffic along Ingulf Street and Denver Street rerouted onto this roadway segment.

As shown in the Table 5.5, the following seven (7) roadway segments are projected to operate at substandard LOS E or F under Near-Term Year 2022 Conditions:

- Executive Drive, between End of cul-de-sac to Judicial Drive – LOS E;
- Genesee Avenue, between Nobel Drive and Governor Drive – LOS E;
- Clairemont Mesa Boulevard, between Genesee Avenue and Clairemont Drive – LOS E;
- Clairemont Drive, between Clairemont Mesa Boulevard and Balboa Avenue – LOS F;
- Clairemont Drive, between Burgener Drive and Denver Street – LOS F;
- Denver Street, between Clairemont Drive and Ingulf Street – LOS F; and
- Ingulf Street, between Denver Street and West Morena Boulevard – LOS E.

The following sixteen (16) roadway segments are projected to operate at substandard LOS E or F under Near-Term Year 2022 with Construction Conditions:

- Executive Drive, between End of cul-de-sac to Judicial Drive – LOS E;
- Towne Centre Drive, between La Jolla Village Drive and Golden Haven Drive – LOS F;
- Towne Centre Drive, between Golden Haven Drive and Nobel Drive – LOS F;
- Nobel Drive, between Towne Centre Drive and Genesee Avenue – LOS F;
- Genesee Avenue, between Nobel Drive and Governor Drive – LOS F;
- Genesee Avenue, between Governor Drive and SR-52 WB Ramps – LOS F;
- Genesee Avenue, between SR-52 EB Ramps and Clairemont Mesa Boulevard – LOS F;
- Clairemont Mesa Boulevard, between Appleton Street and Clairemont Mesa Blvd – LOS F;
- Clairemont Drive, between Clairemont Mesa Boulevard and Lakehurst Avenue – LOS F;
- Clairemont Drive, between Lakehurst Avenue and Clairemont Mesa Boulevard – LOS F;
- Clairemont Drive, between Clairemont Mesa Boulevard and Balboa Avenue – LOS F;
- Clairemont Drive, between Balboa Avenue and Rappahannock Avenue – LOS F;
- Clairemont Drive, between Rappahannock Avenue and Iroquois Avenue – LOS F;
- Clairemont Drive, between Burgener Drive and Denver Street – LOS F;
- Denver Street, between Clairemont Drive and Ingulf Street – LOS F;
- Ingulf Street, between Denver Street and West Morena Boulevard – LOS E;

Intersection Analysis

Intersection geometry under the Near-Term Year 2022 Base conditions is assumed to be identical as existing conditions, as shown in Figure 5-2. **Figure 5-6** displays peak hour intersection volumes during Near-Term Year 2022 Base traffic conditions. During the pipeline construction, intersection geometrics would change due to lane and road closures. **Figure 5-7** displays intersection geometry under Near-Term Year 2022 Base with Construction Conditions. **Figure 5-8** displays peak hour intersection volumes under Near-Term Year 2022 Base with Construction Conditions.

Table 5.6 displays intersection LOS results and average delay results for key study area intersections under Near-Term Year 2022 both with and without construction traffic scenarios.

Peak hour intersection calculation worksheets are provided in **Appendix E.** It is important to note that the intersections analyzed for the Morena Pipelines are those that are found along roadway segments where daytime work is proposed.

TABLE 5.6
PEAK HOUR INTERSECTION LOS RESULTS
NEAR-TERM YEAR 2022 TRAFFIC CONDITIONS – MORENA PIPELINES

Intersection	Traffic Control	Near-Term Year 2022 + Construction Traffic				Near-Term Year 2022 Base				Change in Delay	SI?
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour			
		Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS		
1. Towne Centre Drive & Golden Haven Drive	Signalized	26.7	C	30.0	C	14.5	B	16.7	B	12.2 / 13.3	N
2. Towne Centre Drive & Nobel Drive	Signalized	30.4	C	256.4	**F**	29.9	C	26.8	C	0.5 / 229.6	**Y**
3. Genesee Avenue & Nobel Drive	Signalized	424.1	**F**	133.8	**F**	72.6	**E**	33.1	C	351.5 / 100.7	**Y**
4. Genesee Avenue & Appleton Street/Lehrer Drive	Signalized	71.2	**E**	141.5	**F**	69.4	**E**	33.2	C	1.8 / 108.3	**Y**
5. Genesee Avenue & Clairemont Mesa Boulevard	Signalized	251.0	**F**	268.9	**F**	48.4	D	57.3	**E**	202.6 / 211.6	**Y**
6. Clairemont Mesa Boulevard & Clairemont Drive/Kleefeld Avenue	Signalized	342.8	**F**	N/A[1]	**F**	359.4	**F**	700.4	**F**	-16.6 / -26.2	**Y**
7. Clairemont Drive & Clairemont Mesa Boulevard	Signalized	97.1	**F**	199.9	**F**	72.2	**E**	56.9	**E**	24.9 / 143	**Y**
8. Clairemont Drive & Balboa Avenue	Signalized	44.5	D	75.2	**E**	44.3	D	74.9	**E**	0.2 / 0.3	N

Source: Chen Ryan Associates, May 2017

Notes:
Bold letter indicates substandard LOS E or F.
SSSC = Side-Street Stop Control.
For SSSC intersections, the delay shown is the worst delay experienced by any of the approaches.
[1]Exceeds maximum reasonable calculable delay of 600 seconds per Synchro 9.0 traffic analysis software.

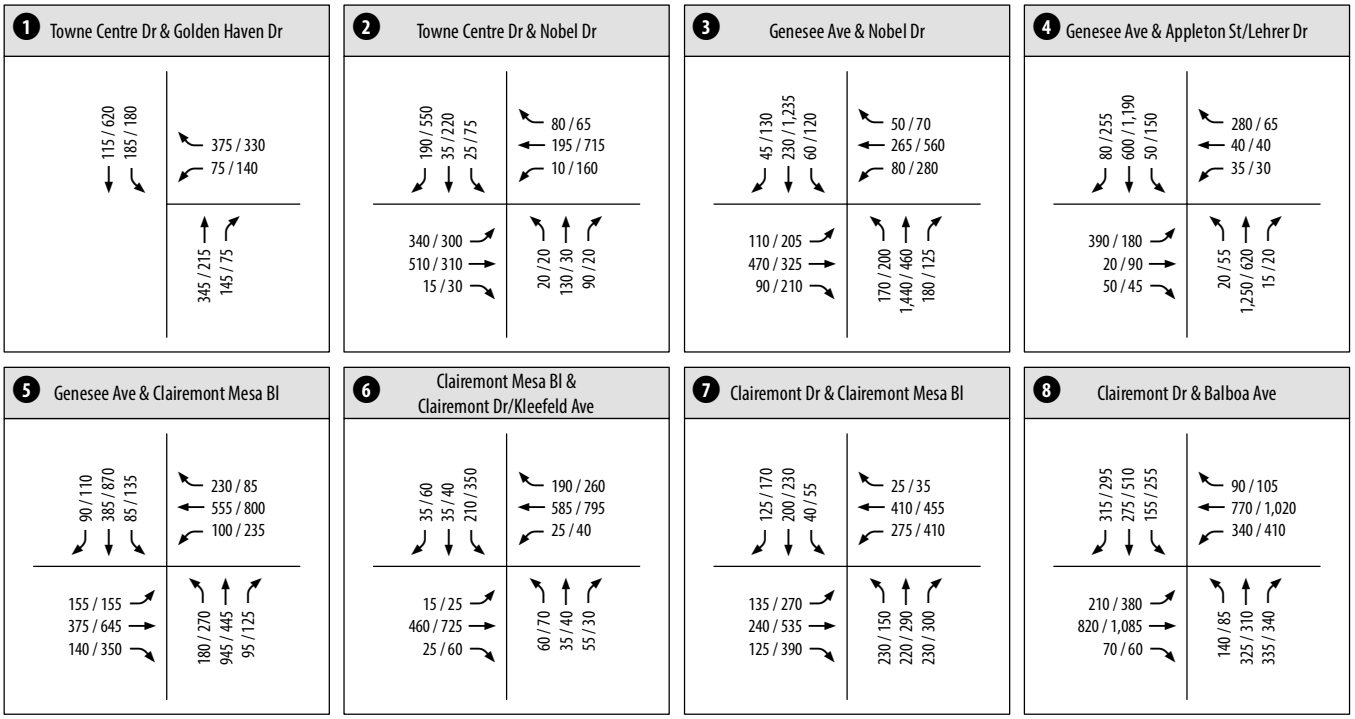

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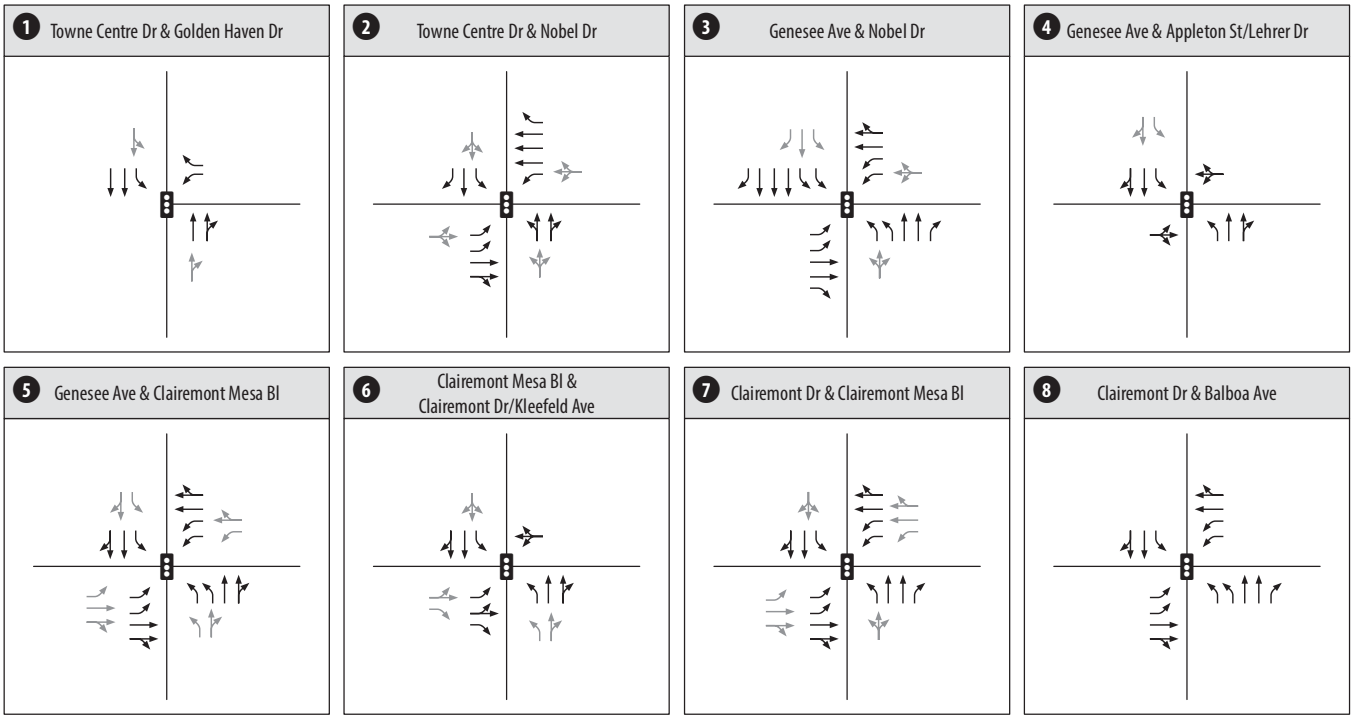
Figure 5-6
Intersection Traffic Volumes - Near-Term 2022 Base Conditions (Morena Pipelines) (Intersections 1-8)



Legend

- X Study Intersection
- Lane Geometry
- Lane Geometry during Construction
- Signalized Intersection

*Names of North-South cross-streets always listed first

NORTH

NOT TO SCALE

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Figure 5-7
Intersection Geometrics - Near-Term Year 2022 Base Plus Construction Traffic Conditions (Morena Pipelines) (Intersections 1-8)

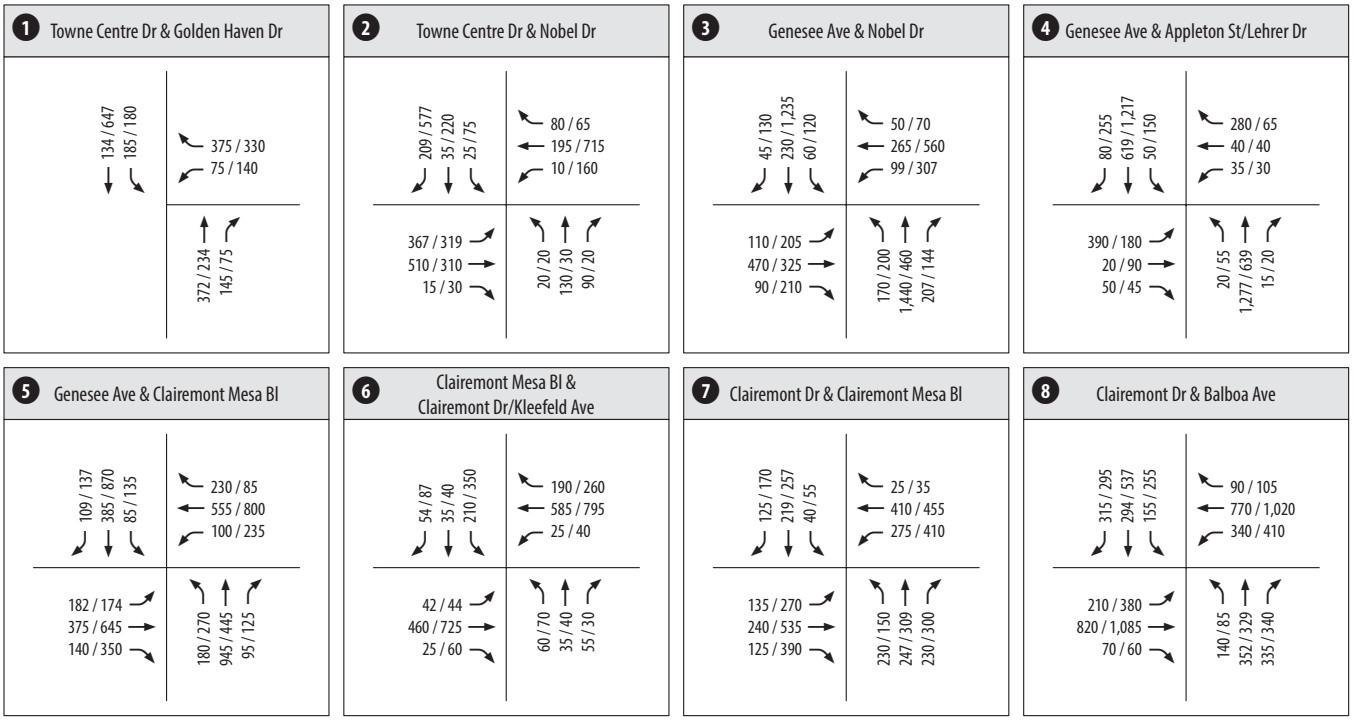

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Figure 5-8
Intersection Traffic Volumes - Near-Term 2022 Base Plus Construction Traffic Conditions (Morena Pipelines) (Intersections 1-8)

As shown in the Table 5.6, the following six (6) out of the eight (8) study intersections are projected to operate at substandard LOS E or F under Near-Term Year 2022 Base conditions:

- Genesee Avenue & Nobel Drive – LOS E during the AM peak hour;
- Genesee Avenue & Appleton Street/Lehrer Drive – LOS E during the AM peak hour;
- Genesee Avenue & Clairemont Mesa Boulevard – LOS E during the PM peak hour;
- Clairemont Mesa Boulevard & Clairemont Drive/Kleefeld Avenue – LOS F during both the AM and PM peak hour;
- Clairemont Drive & Clairemont Mesa Boulevard – LOS E during both the AM and PM peak hour;
- Clairemont Drive & Balboa Avenue – LOS E during the PM peak hour; and

Under Near-Term Year 2022 Base Plus Construction Traffic Conditions, seven (7) out of the eight (8) study intersections are projected to operate at substandard LOS E or F:

- Towne Centre Drive & Nobel Drive – LOS F during the PM peak hour;
- Genesee Avenue & Nobel Drive – LOS F during both the AM and PM peak hour;
- Genesee Avenue & Appleton Street/Lehrer Drive – LOS E during the AM peak hour and LOS F during the PM peak hour;
- Genesee Avenue & Clairemont Mesa Boulevard – LOS F during both the AM and PM peak hour;
- Clairemont Mesa Boulevard & Clairemont Drive/Kleefeld Avenue – LOS F during both the AM and PM peak hour;
- Clairemont Drive & Clairemont Mesa Boulevard – LOS F during both the AM and PM peak hour; and
- Clairemont Drive & Balboa Avenue – LOS E during the PM peak hour;

Impact Significance and Mitigation

Roadway Segments

Based upon the significance criteria presented in Section 2.4 of this report, the construction traffic would result in significant traffic impact to thirteen (13) of studied roadway segments along the Morena Pipelines:

- Executive Drive, between end of cul-de-sac and Judicial Drive – LOS E;
- Towne Centre Drive, between La Jolla Village Drive and Golden Haven Drive – LOS F;
- Towne Centre Drive, between Golden Haven Drive and Nobel Drive – LOS F;
- Nobel Drive, between Towne Centre Drive and Genesee Avenue – LOS F;
- Genesee Avenue, between Governor Drive and SR-52 WB Ramps – LOS F;
- Genesee Avenue, between Appleton Street and Clairemont Mesa Boulevard – LOS F;
- Clairemont Mesa Boulevard, between Genesee Avenue and Clairemont Drive – LOS F;
- Clairemont Drive, between Clairemont Mesa Boulevard and Lakehurst Avenue – LOS F;
- Clairemont Drive, between Lakehurst Avenue and Clairemont Mesa Boulevard – LOS F;
- Clairemont Drive, between Clairemont Mesa Boulevard and Balboa Avenue – LOS F;
- Clairemont Drive, between Balboa Avenue and Rappahannock Avenue – LOS F;
- Clairemont Drive, between Rappahannock Avenue and Iroquois Avenue – LOS F; and
- Clairemont Drive, between Burgener Drive and Denver Street – LOS F.

Table 5.7 displays the projected amount of days for which construction would take place at the identified impacted roadways above as well as on roadways adjacent to residential areas. Nighttime work hours may be modified/reduced or work may be performed during weekends on roadways near residential areas.

TABLE 5.7
SUMMARY OF IMPACT DURATION – MORENA PIPELINES

Roadway	Segment	Length (ft)	Approximate Duration of Impact (days)
Executive Drive	End of cul-de-sac and Judicial Drive	1,000	13
	Judicial Drive and Towne Centre Drive	550	7
Towne Centre Drive	Executive Drive and La Jolla Village Drive	880	12
	La Jolla Village Drive and Golden Haven Drive	1,300	26[1]
	Golden Haven Drive and Nobel Drive	1,700	34[1]
Nobel Drive	Towne Center Drive and Genesee Avenue	1,650	33[1]

TABLE 5.7
SUMMARY OF IMPACT DURATION – MORENA PIPELINES

Roadway	Segment	Length (ft)	Approximate Duration of Impact (days)
Genesee Avenue	Nobel Drive and Governor Drive	5,320	71
	Governor Drive and SR-52 WB Ramps	2,112	28
	SR-52 EB Ramps and Appleton Street	2,855	38
	Appleton Street and Clairemont Mesa Blvd	1,166	19[2]
Clairemont Mesa Boulevard	Genesee Avenue and Clairemont Drive	2,112	28
Clairemont Drive	Clairemont Mesa Boulevard and Lakehurst Avenue	2,112	28
	Lakehurst Avenue and Clairemont Mesa Boulevard	1,056	14
	Clairemont Mesa Boulevard and Balboa Avenue	6,336	85
	Balboa Avenue and Rappahannock Avenue	2,112	28
	Rappahannock Avenue and Iroquois Avenue	3,696	49
	Iroquois Avenue and Burgener Blvd	1,160	15
	Burgener Blvd and Denver Street	3,168	42
Denver Street	Clairemont Drive and Ingulf Street	330	4
Ingulft Street	Denver Street and West Morena Boulevard	660	9
West Morena Boulevard	Ingulf Street to Littlefield Street	3,370	45
	Littlefield Street and Morena Boulevard	1,970	26
	Morena Boulevard and Tecolote Road Overpass	1,660	22
	Tecolote Road Overpass and Vega Street	300	4
	Vega Street and Morena Boulevard	1,700	23

Source: Chen Ryan Associates; June 2017.

Notes:
[1] Duration of Impact calculated based on 50 LF of pipeline installation per day due to restricted working hours.
[2] Duration of Impact calculated based on 60 LF of pipeline installation per day due to restricted working hours.

The duration of the impacts is based on the anticipated 75 LF of pipeline installation per day. It is important to note that these impacts would not occur concurrently, but rather at different points in time depending on the location of pipeline construction[1], and the impacted area at any one time would encompass the work area as well as the traffic control setup length. Therefore, the project impacts shown above would be temporary in nature and no mitigation measures are required.

[1]After the pipeline installation is complete at the first 75 LF, the next 75 LF of the roadway segment would to be impacted, etc. A roadway segment that measures 750 feet in length, at 75 feet of installation per day it is estimated that it would take approximately 10 days to complete.

Intersections

Based upon the significance criteria presented in Section 2.4 of this report, the construction traffic would result in significant traffic impact to six (6) intersections along the Morena Pipelines:

- Towne Centre Drive & Nobel Drive – LOS F during the PM peak hour;
- Genesee Avenue & Nobel Drive – LOS F during both the AM and PM peak hour;
- Genesee Avenue & Appleton Street/Lehrer Drive – LOS F during the PM peak hour;
- Genesee Avenue & Clairemont Mesa Boulevard – LOS F during both the AM and PM peak hour;
- Clairemont Mesa Boulevard & Clairemont Drive/Kleefeld Avenue – LOS F during both the AM and PM peak hour; and
- Clairemont Drive & Clairemont Mesa Boulevard – LOS F during both the AM and PM peak hour.

Since project construction conditions are temporary in nature, no physical mitigation measures are recommended. Instead, it is recommended that a Transportation Demand Management (TDM) Plan is developed to limit the number of construction worker trips that travel through the impacted intersection during peak periods. The following lists a series of TDM strategies that would be appropriate during project construction:

- Implementation of a ride-sharing program to encourage carpooling amongst workers.
- Adjusting work schedules so workers do not access the site during the peak hours.
- Provide off-site parking locations for workers outside of the area with shuttle services to bring them on-site.
- Provide subsidized transit passes for construction workers

In order to help reduce the temporary transportation and parking related impacts associated with project construction, it is recommended that the project applicant develop a TDM plan utilizing one or multiple of the strategies listed above during the construction of the proposed project.

6.0 Findings

North City Project Operational Traffic Impacts – New NCPWF & NCWRP Expansion

The following transportation related impact were identified:

Direct Impact

The traffic generated by the proposed project is not anticipated to create a direct impact at any of the analyzed roadway segments.

Cumulative Impact

The traffic generated by the proposed project is not anticipated to create a direct impact at any of the analyzed roadway segments.

Construction Traffic Impacts – North City Pipeline

Transportation related impact was identified on Eastgate Mall, between the NCPWF & NCWRP driveway and Miramar Road. However, this impact is temporary in nature and since the construction will occur during nighttime when there is only minimal amount traffic on the road, it is determined that this roadway should function at reasonable operations even with the lane closure. Therefore, no mitigation measure is recommended.

Construction Traffic Impacts – San Vicente Pipeline

Transportation related impact was identified on Eastgate Mall, between the NCPWF & NCWRP driveway and Miramar Road, and Willow Road, between SR-67 and Moreno Avenue. However, these impacts are temporary in nature and since the construction will occur during nighttime when there is only minimal amount traffic on the road, it is determined that these roadways should function at reasonable operations even with the lane closure. Therefore, no mitigation measure is recommended.

Construction Traffic Impacts – Morena Pipelines

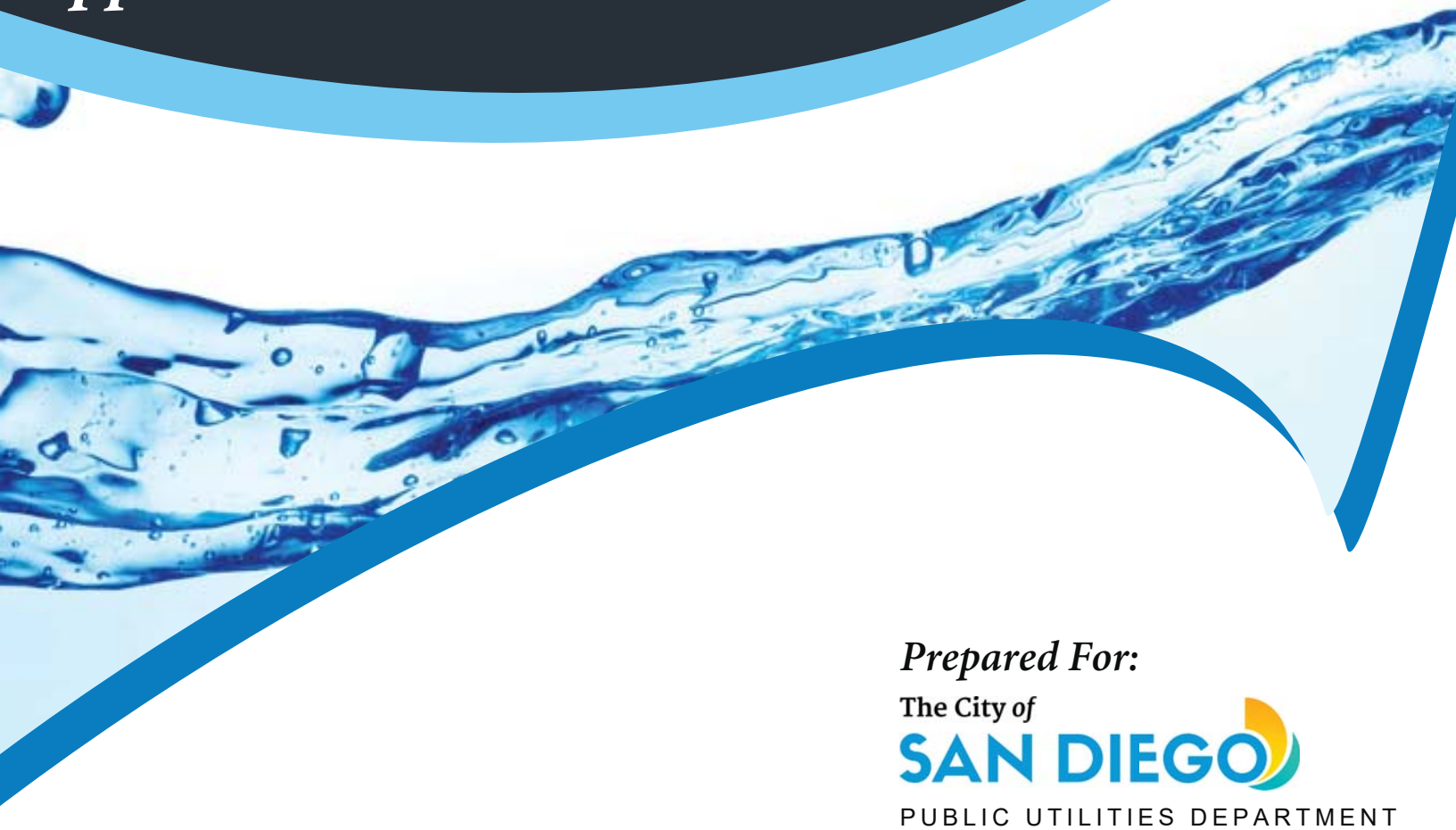
Transportation related impacts were identified on Executive Drive, Towne Centre Drive, Nobel Drive, Genesee Avenue, Clairemont Mesa Boulevard, and Clairemont Drive. However, since project construction conditions are temporary in nature, no physical mitigation measures are recommended. Instead, it is recommended that a Transportation Demand Management (TDM) Plan is developed to limit the number of construction worker trips that travel through the impacted intersection during peak periods. The following lists a series of TDM strategies that would be appropriate during project construction:

- *Implementation of a ride-sharing program to encourage carpooling amongst workers.*
- *Adjusting work schedules so workers do not access the site during the peak hours.*
- *Provide off-site parking locations for workers outside of the area with shuttle services to bring them on-site.*
- *Provide subsidized transit passes for construction workers*

In order to help reduce the temporary transportation and parking related impacts associated with project construction, it is recommended that the project applicant develop a TDM plan utilizing one or multiple of the strategies listed above during the construction of the proposed project.

North City Project
Transportation Impact Study

Appendices



Prepared For:

The City of SAN DIEGO

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Appendix A
Traffic Counts and Signal Timing Plans

Roadway Segment counts related to NCPWF

Table 7-2 Existing Conditions Summary of Roadway Segment ADT Based Analysis

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ADT (b)	V/C RATIO (c)	LOS
Eastgate Mall					
Regents Rd to Genesee Ave	2 Lane Collector (continuous left-turn lane)	15,000	6,187	0.412	B
Genesee Ave to Easter Way	4 Lane Collector	30,000	14,767	0.492	C
Easter Way to Judicial Dr	4 Lane Major Arterial	40,000	11,115	0.278	A
Judicial Dr to Eastgate Dr (Freeway Overpass)	2 Lane Collector (no fronting property)	10,000	10,096	1.010	**F**
Eastgate Dr to Miramar Rd	2 Lane Collector (continuous left-turn lane)	15,000	14,668	0.978	**E**
Executive Drive					
Regents Rd to Genesee Ave	4 Lane Collector (no center lane)	15,000	4,397	0.293	A
Genesee Ave to Judicial Dr	4 Lane Collector	30,000	5,914	0.197	A
Executive Way					
Executive Dr to La Jolla Village Dr	4 Lane Collector	30,000	5,923	0.197	A
Genesee Avenue					
N. Torrey Pines Rd to I-5 SB Ramps	6 Lane Prime Arterial	60,000	35,124	0.585	C
I-5 SB Ramps to I-5 NB Ramps	4 Lane Major Arterial	40,000	49,051	1.226	**F**
I-5 NB Ramps to Regents Rd	6 Lane Prime Arterial	60,000	48,542	0.809	C
Regents Rd to La Jolla Village Dr	6 Lane Prime Arterial	60,000	29,457	0.491	B
La Jolla Village Dr to Esplande Ct	4 Lane Major Arterial	40,000	28,054	0.701	C
Esplande Ct to Nobel Dr	6 Lane Major Arterial	50,000	23,744	0.475	B
Nobel Dr to Centurion Square	4 Lane Major Arterial	40,000	30,922	0.773	D
Centurion Square to SR-52 WB Ramps	4 Lane Major Arterial	40,000	30,325	0.758	D
SR-52 WB Ramps to SR-52 EB Ramps	4 Lane Major Arterial	40,000	31,170	0.779	D
SR-52 EB Ramps to Lehrer Dr	4 Lane Major Arterial	40,000	30,581	0.765	D
Gilman Drive					
UCSD Campus to La Jolla Village Dr	4 Lane Collector	30,000	10,069	0.336	B
La Jolla Village Dr to Via Alicante	4 Lane Collector	30,000	15,095	0.503	C
Via Alicante to I-5 SB Ramps	4 Lane Major Arterial	40,000	17,138	0.428	B
I-5 SB Ramps to I-5 NB Ramps	4 Lane Major Arterial	40,000	11,873	0.297	A
Golden Haven Drive					
Towne Centre Dr to Judicial Dr	4 Lane Major Arterial	40,000	6,712	0.168	A

Notes:
Bold values indicate roadway segments operating at LOS E or F.
(a) Existing road classifications are based on field work conducted May 13, 2015.
(b) Average Daily Traffic (ADT) volumes for the roadway segments were provided by Accurate Video Counts Inc and measured in April and May 2015.
(c) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

Table 7-2 Existing Conditions Summary of Roadway Segment ADT Based Analysis (Continued)

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ADT (b)	V/C RATIO (c)	LOS
Governor Drive					
Regents Rd to Genesee Ave	4 Lane Major Arterial	40,000	16,796	0.420	B
Genesee Ave to I-805 SB Ramps	4 Lane Major Arterial	40,000	19,737	0.493	B
I-805 SB Ramps to I-805 NB Ramps	4 Lane Major Arterial	40,000	10,417	0.260	A
Judicial Drive					
Eastgate Mall to La Jolla Village Dr	4 Lane Major Arterial	40,000	4,828	0.121	A
La Jolla Village Dr to Nobel Dr	4 Lane Major Arterial	40,000	6,574	0.164	A
La Jolla Scenic Drive					
La Jolla Village Dr to community boundary	4 Lane Major Arterial	40,000	7,928	0.198	A
La Jolla Village Drive					
Revelle College Dr to Villa La Jolla Dr	6 Lane Prime Arterial	60,000	44,520	0.742	C
Villa La Jolla Dr to I-5 SB Ramps	6 Lane Prime Arterial	60,000	62,258	1.038	**F**
I-5 SB Ramps to I-5 NB Ramps	6 Lane Major Arterial	50,000	51,391	1.028	**F**
I-5 NB Ramps to Lebon Dr	6 Lane Major Arterial	50,000	44,335	0.887	D
Lebon Dr to Regents Rd	6 Lane Major Arterial	50,000	42,863	0.857	D
Regents Rd to Genesee Ave	6 Lane Major Arterial	50,000	38,474	0.769	C
Genesee Ave to Towne Centre Dr	6 Lane Major Arterial	50,000	45,117	0.902	**E**
Towne Centre Dr to I-805 SB Ramps	7 Lane Major Arterial	55,000	58,833	1.070	**F**
Lebon Drive					
Palmilla Drive to Nobel Dr	4 Lane Major Arterial	40,000	11,192	0.280	A
Nobel Drive to La Jolla Village Dr	5 Lane Major Arterial	45,000	9,212	0.205	A
Miramar Road					
I-805 SB Ramps to I-805 NB Ramps	6 Lane Major Arterial	50,000	66,139	1.323	**F**
I-805 NB Ramps to Nobel Dr	8 Lane Prime Arterial	80,000	47,991	0.600	B
Nobel Dr to Eastgate Mall	8 Lane Prime Arterial	80,000	64,557	0.807	C
Eastgate Mall to Camino Santa Fe	6 Lane Prime Arterial	60,000	67,748	1.129	**F**
North Torrey Pines Road					
Science Park Rd to Genesee Ave	6 Lane Prime Arterial	60,000	29,303	0.488	B
Genesee Ave to Revelle College Dr	4 Lane Major Arterial	40,000	21,760	0.544	C

Notes:
Bold values indicate roadway segments operating at LOS E or F.
(a) Existing road classifications are based on field work conducted May 13, 2015.
(b) Average Daily Traffic (ADT) volumes for the roadway segments were provided by Accurate Video Counts Inc and measured in April and May 2015.
(c) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

Table 7-2 Existing Conditions Summary of Roadway Segment ADT Based Analysis (Continued)

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ADT (b)	V/C RATIO (c)	LOS
Nobel Drive					
Villa La Jolla Dr to I-5 SB On Ramp	4 Lane Major Arterial	40,000	26,284	0.657	C
I-5 SB On Ramp to I-5 NB Off Ramp/University Center Lane	4 Lane Major Arterial	40,000	27,642	0.691	C
I-5 NB Off Ramp/University Center Lane to Lebon Dr	6 Lane Major Arterial	50,000	21,546	0.431	B
Lebon Dr to Regents Rd	6 Lane Prime Arterial	60,000	21,256	0.354	A
Regents Rd to Genesee Ave	6 Lane Prime Arterial	60,000	19,772	0.33	A
Genesee Ave to Towne Centre Dr	4 Lane Major Arterial	40,000	18,484	0.462	B
Towne Centre Dr to Judicial Dr	6 Lane Prime Arterial	60,000	17,261	0.288	A
Judicial Dr to Avenue of Flags	5 Lane Major Arterial	45,000	24,125	0.536	B
Avenue of Flags to Miramar Rd	4 Lane Major Arterial	40,000	20,648	0.516	B
Regents Road					
Genesee Ave to Eastgate Mall	2 Lane Collector (continuous left-turn lane)	15,000	6,260	0.417	B
Eastgate Mall to La Jolla Village Dr	4 Lane Collector	30,000	15,245	0.508	C
La Jolla Village Dr to Nobel Dr	5 Lane Major Arterial	45,000	16,525	0.367	A
Nobel Dr to Rose Canyon (end)	4 Lane Major Arterial	40,000	10,688	0.267	A
Rose Canyon (end) to Governor Dr	2 Lane Collector (no fronting property)	10,000	1,940	0.194	A
Governor Dr to SR-52 WB Ramps	4 Lane Major Arterial	40,000	16,181	0.405	B
SR-52 WB Ramps to SR-52 EB Ramps	4 Lane Major Arterial	40,000	19,957	0.499	B
SR-52 EB Ramps to Luna Ave	4 Lane Major Arterial	40,000	21,268	0.532	C
Torrey Pines Road					
La Jolla Village Drive to community boundary	4 Lane Major Arterial	40,000	26,620	0.666	C
Towne Centre Drive					
End to La Jolla Village Dr	4 Lane Major Arterial	40,000	20,121	0.503	B
La Jolla Village Dr to Nobel Dr	4 Lane Major Arterial	40,000	13,785	0.345	A
Villa La Jolla Drive					
Gilman Dr (South) to Nobel Dr	4 Lane Major Arterial	40,000	6,896	0.172	A
Nobel Dr to La Jolla Village Dr	4 Lane Major Arterial	40,000	16,011	0.400	B
La Jolla Village Dr to VA Medical Center	4 Lane Major Arterial	40,000	19,865	0.497	B

Notes: **Bold** values indicate roadway segments operating at LOS E or F.
(a) Existing road classifications are based on field work conducted May 13, 2015.
(b) Average Daily Traffic (ADT) volumes for the roadway segments were provided by Accurate Video Counts Inc and measured in April and May 2015.
(c) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

Roadway Segment counts related to Miramar Reservoir Pipeline

Kimley»Horn

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 81. Miramar Rd, West of Camino Santa Fe

Orientation: *East-West*

Date of Count: *Wednesday, June 17, 2015*

Analysts: *DASH*

Weather: *Sunny*

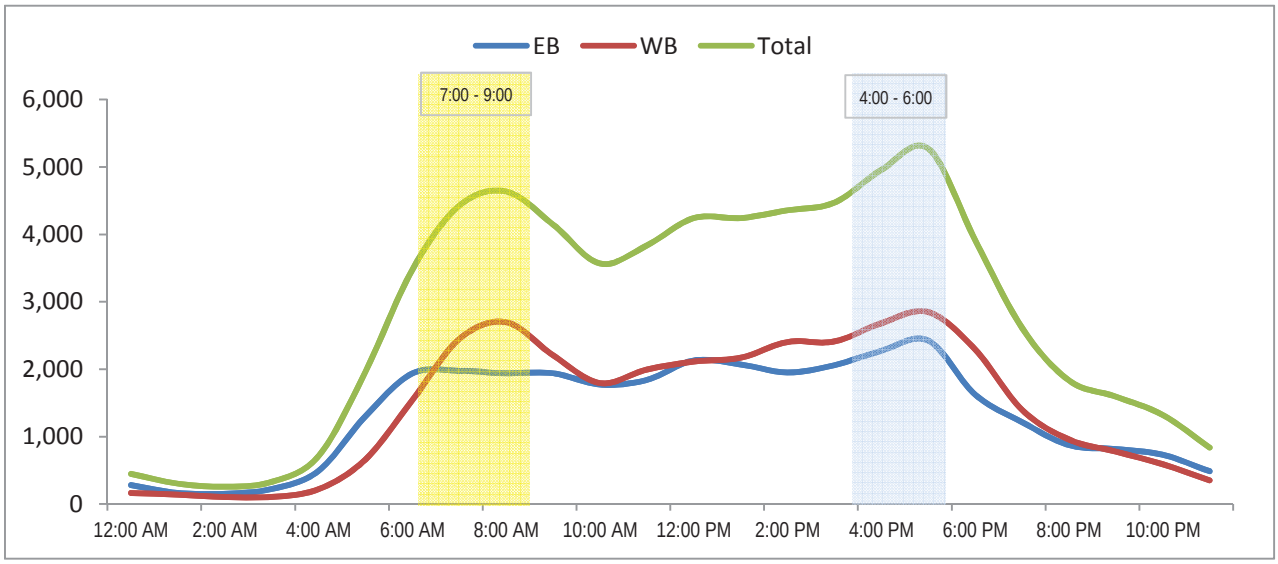
AVC Proj. No: *15-0345*

24 Hour Segment Volume			*67,748*

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	281	165	446
1:00 AM - 2:00 AM	163	140	303
2:00 AM - 3:00 AM	153	104	257
3:00 AM - 4:00 AM	222	107	329
4:00 AM - 5:00 AM	492	220	712
5:00 AM - 6:00 AM	1,303	660	1,963
6:00 AM - 7:00 AM	1,937	1,540	3,477
7:00 AM - 8:00 AM	1,978	2,448	4,426
8:00 AM - 9:00 AM	1,939	2,697	4,636
9:00 AM - 10:00 AM	1,940	2,206	4,146
10:00 AM - 11:00 AM	1,773	1,794	3,567
11:00 AM - 12:00 PM	1,841	1,995	3836
Total	**14,022**	**14,076**	**28,098**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	2,130	2,112	4,242
1:00 PM - 2:00 PM	2,071	2,171	4,242
2:00 PM - 3:00 PM	1,952	2,404	4,356
3:00 PM - 4:00 PM	2,060	2,411	4,471
4:00 PM - 5:00 PM	2,273	2,683	4,956
5:00 PM - 6:00 PM	2,424	2,848	5,272
6:00 PM - 7:00 PM	1,623	2,293	3,916
7:00 PM - 8:00 PM	1,216	1,396	2,612
8:00 PM - 9:00 PM	875	957	1,832
9:00 PM - 10:00 PM	816	777	1,593
10:00 PM - 11:00 PM	731	590	1,321
11:00 PM - 12:00 AM	486	351	837
Total	**18,657**	**20,993**	**39,650**

24-Hour	*EB*	*Volume*	*32,679*	*24-Hour*	*WB*	*Volume*	*35,069*



24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 2. Miramar Rd, btwn Camino Santa Fe and Carroll Rd

Orientation: *East-West*

Date of Count: *Tuesday, November 15, 2016*

Analysts: *DASH*

Weather: *Sunny*

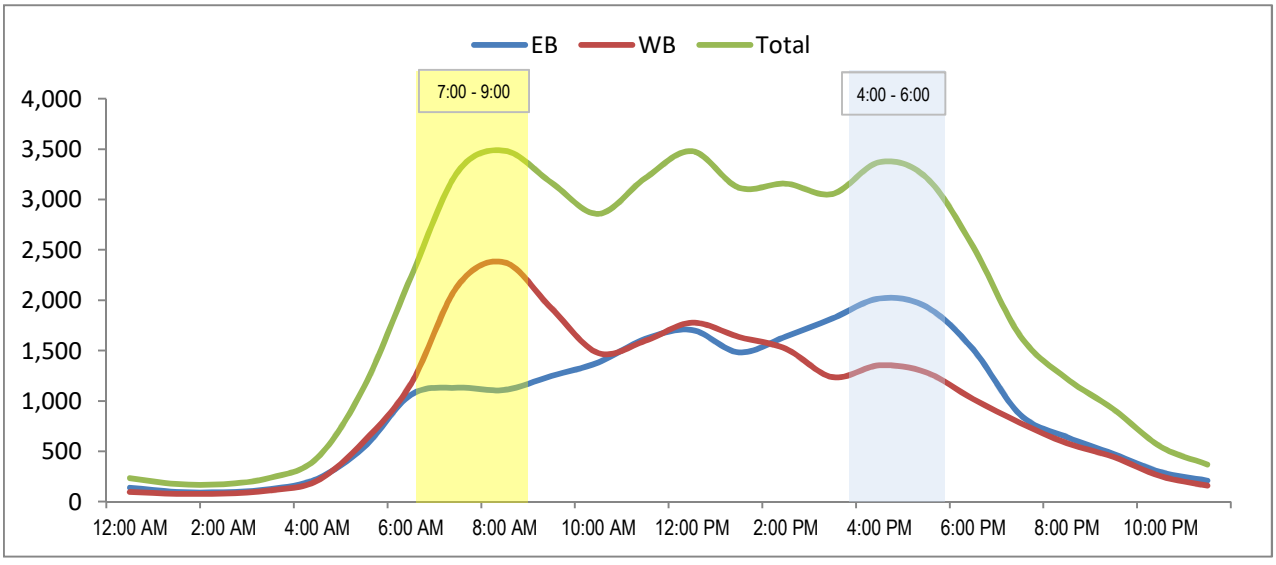
AVC Proj. No: *16-0591*

24 Hour Segment Volume			47,243

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	139	95	234
1:00 AM - 2:00 AM	97	78	175
2:00 AM - 3:00 AM	94	80	174
3:00 AM - 4:00 AM	125	112	237
4:00 AM - 5:00 AM	227	207	434
5:00 AM - 6:00 AM	540	600	1,140
6:00 AM - 7:00 AM	1,061	1,168	2,229
7:00 AM - 8:00 AM	1,131	2,144	3,275
8:00 AM - 9:00 AM	1,109	2,375	3,484
9:00 AM - 10:00 AM	1,248	1,918	3,166
10:00 AM - 11:00 AM	1,382	1,475	2,857
11:00 AM - 12:00 PM	1,615	1,596	3211
Total	**8,768**	**11,848**	**20,616**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	1,704	1,776	3,480
1:00 PM - 2:00 PM	1,482	1,635	3,117
2:00 PM - 3:00 PM	1,639	1,518	3,157
3:00 PM - 4:00 PM	1,819	1,236	3,055
4:00 PM - 5:00 PM	2,017	1,353	3,370
5:00 PM - 6:00 PM	1,935	1,283	3,218
6:00 PM - 7:00 PM	1,512	1,019	2,531
7:00 PM - 8:00 PM	865	783	1,648
8:00 PM - 9:00 PM	641	580	1,221
9:00 PM - 10:00 PM	473	443	916
10:00 PM - 11:00 PM	294	252	546
11:00 PM - 12:00 AM	209	159	368
Total	**14,590**	**12,037**	**26,627**

24-Hour EB Volume	23,358	24-Hour WB Volume	23,885



24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 3. Miramar Rd, btwn Carroll Rd and Camino Ruiz

Orientation: *East-West*

Date of Count: *Tuesday, November 15, 2016*

Analysts: *DASH*

Weather: *Sunny*

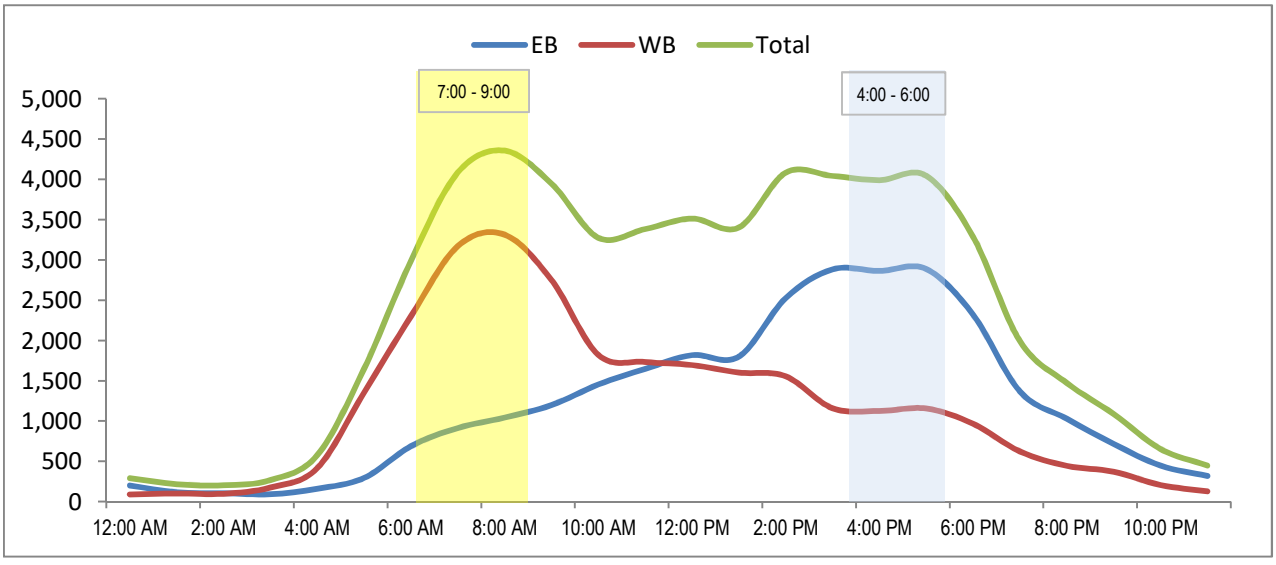
AVC Proj. No: *16-0591*

24 Hour Segment Volume			57,237

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	201	90	291
1:00 AM - 2:00 AM	116	101	217
2:00 AM - 3:00 AM	104	98	202
3:00 AM - 4:00 AM	92	175	267
4:00 AM - 5:00 AM	160	415	575
5:00 AM - 6:00 AM	294	1,354	1,648
6:00 AM - 7:00 AM	688	2,300	2,988
7:00 AM - 8:00 AM	913	3,171	4,084
8:00 AM - 9:00 AM	1,043	3,313	4,356
9:00 AM - 10:00 AM	1,197	2,750	3,947
10:00 AM - 11:00 AM	1,454	1,821	3,275
11:00 AM - 12:00 PM	1,648	1,734	3382
Total	**7,910**	**17,322**	**25,232**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	1,818	1,695	3,513
1:00 PM - 2:00 PM	1,800	1,602	3,402
2:00 PM - 3:00 PM	2,527	1,555	4,082
3:00 PM - 4:00 PM	2,883	1,159	4,042
4:00 PM - 5:00 PM	2,863	1,126	3,989
5:00 PM - 6:00 PM	2,887	1,156	4,043
6:00 PM - 7:00 PM	2,319	966	3,285
7:00 PM - 8:00 PM	1,367	623	1,990
8:00 PM - 9:00 PM	1,028	444	1,472
9:00 PM - 10:00 PM	716	371	1,087
10:00 PM - 11:00 PM	447	206	653
11:00 PM - 12:00 AM	319	128	447
Total	**20,974**	**11,031**	**32,005**

24-Hour EB Volume	28,884	24-Hour WB Volume	28,353



24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 4. Miramar Rd, btwn Camino Ruiz and Black Mountain Rd

Orientation: *East-West*

Date of Count: *Tuesday, November 15, 2016*

Analysts: *DASH*

Weather: *Sunny*

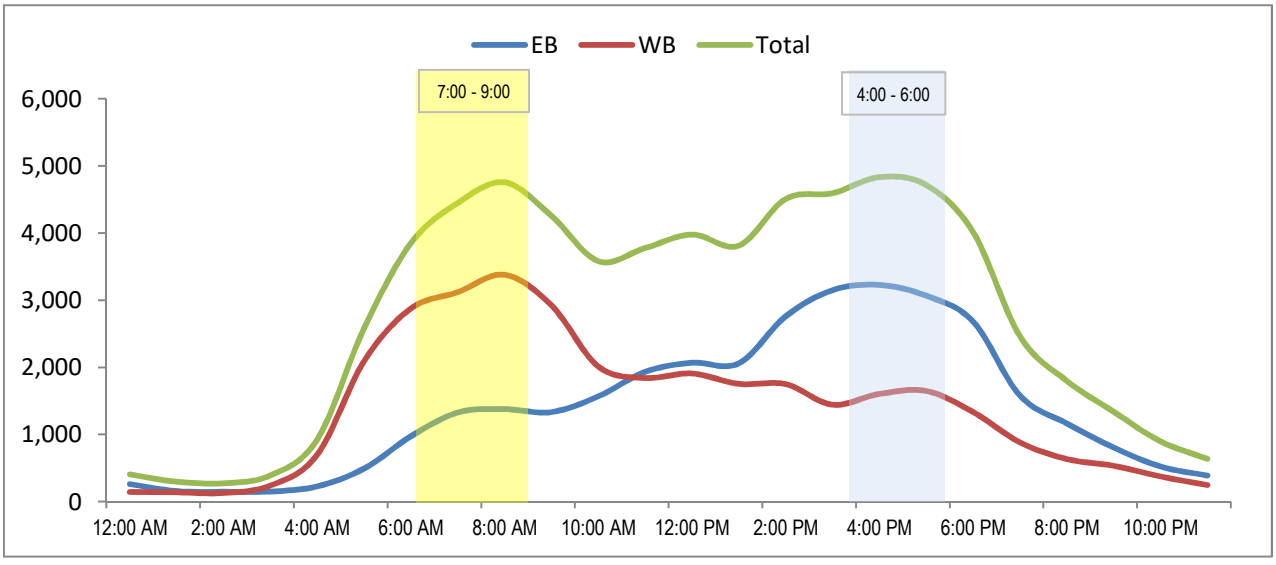
AVC Proj. No: *16-0591*

24 Hour Segment Volume			67,120

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	261	144	405
1:00 AM - 2:00 AM	157	138	295
2:00 AM - 3:00 AM	147	128	275
3:00 AM - 4:00 AM	151	239	390
4:00 AM - 5:00 AM	227	698	925
5:00 AM - 6:00 AM	491	2,091	2,582
6:00 AM - 7:00 AM	973	2,876	3,849
7:00 AM - 8:00 AM	1,327	3,120	4,447
8:00 AM - 9:00 AM	1,377	3,379	4,756
9:00 AM - 10:00 AM	1,333	2,923	4,256
10:00 AM - 11:00 AM	1,568	2,012	3,580
11:00 AM - 12:00 PM	1,933	1,843	3776
Total	**9,945**	**19,591**	**29,536**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	2,069	1,909	3,978
1:00 PM - 2:00 PM	2,060	1,753	3,813
2:00 PM - 3:00 PM	2,759	1,749	4,508
3:00 PM - 4:00 PM	3,150	1,443	4,593
4:00 PM - 5:00 PM	3,227	1,605	4,832
5:00 PM - 6:00 PM	3,066	1,648	4,714
6:00 PM - 7:00 PM	2,681	1,334	4,015
7:00 PM - 8:00 PM	1,579	882	2,461
8:00 PM - 9:00 PM	1,165	634	1,799
9:00 PM - 10:00 PM	805	533	1,338
10:00 PM - 11:00 PM	522	375	897
11:00 PM - 12:00 AM	389	247	636
Total	**23,472**	**14,112**	**37,584**

24-Hour EB Volume	33,417	24-Hour WB Volume	33,703



CHEN RYAN

24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 5. Miramar Road – Black Mountain Road to Kearny Villa Road

Orientation: *East-West*

Date of Count: *Tuesday, November 15, 2016*

Analysts: *DASH*

Weather: *Sunny*

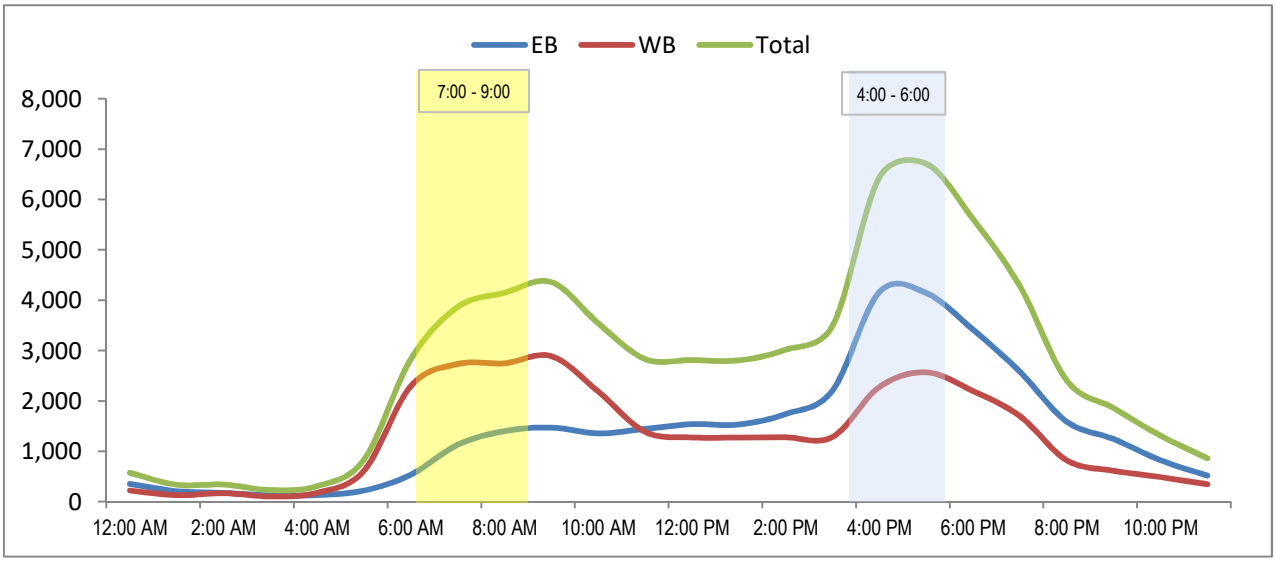
AVC Proj. No: *15-0591*

24 Hour Segment Volume			*65,781*

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	352	221	573
1:00 AM - 2:00 AM	208	127	335
2:00 AM - 3:00 AM	171	168	339
3:00 AM - 4:00 AM	126	104	230
4:00 AM - 5:00 AM	131	177	308
5:00 AM - 6:00 AM	220	616	836
6:00 AM - 7:00 AM	535	2,297	2,832
7:00 AM - 8:00 AM	1,131	2,734	3,865
8:00 AM - 9:00 AM	1,401	2,747	4,148
9:00 AM - 10:00 AM	1,471	2,888	4,359
10:00 AM - 11:00 AM	1,355	2,185	3,540
11:00 AM - 12:00 PM	1,445	1,385	2830
Total	**8,546**	**15,649**	**24,195**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	1,537	1,275	2,812
1:00 PM - 2:00 PM	1,532	1,273	2,805
2:00 PM - 3:00 PM	1,740	1,277	3,017
3:00 PM - 4:00 PM	2,208	1,284	3,492
4:00 PM - 5:00 PM	4,162	2,278	6,440
5:00 PM - 6:00 PM	4,141	2,567	6,708
6:00 PM - 7:00 PM	3,412	2,196	5,608
7:00 PM - 8:00 PM	2,577	1,696	4,273
8:00 PM - 9:00 PM	1,586	820	2,406
9:00 PM - 10:00 PM	1,242	614	1,856
10:00 PM - 11:00 PM	821	488	1,309
11:00 PM - 12:00 AM	516	344	860
Total	**25,474**	**16,112**	**41,586**

24-Hour	*EB*	*Volume*	*34,020*	*24-Hour*	*WB*	*Volume*	*31,761*



24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 6. Miramar Road – Kearny Villa Road to I-15 SB Ramps

Orientation: *East-West*

Date of Count: *Tuesday, November 15, 2016*

Analysts: *DASH*

Weather: *Sunny*

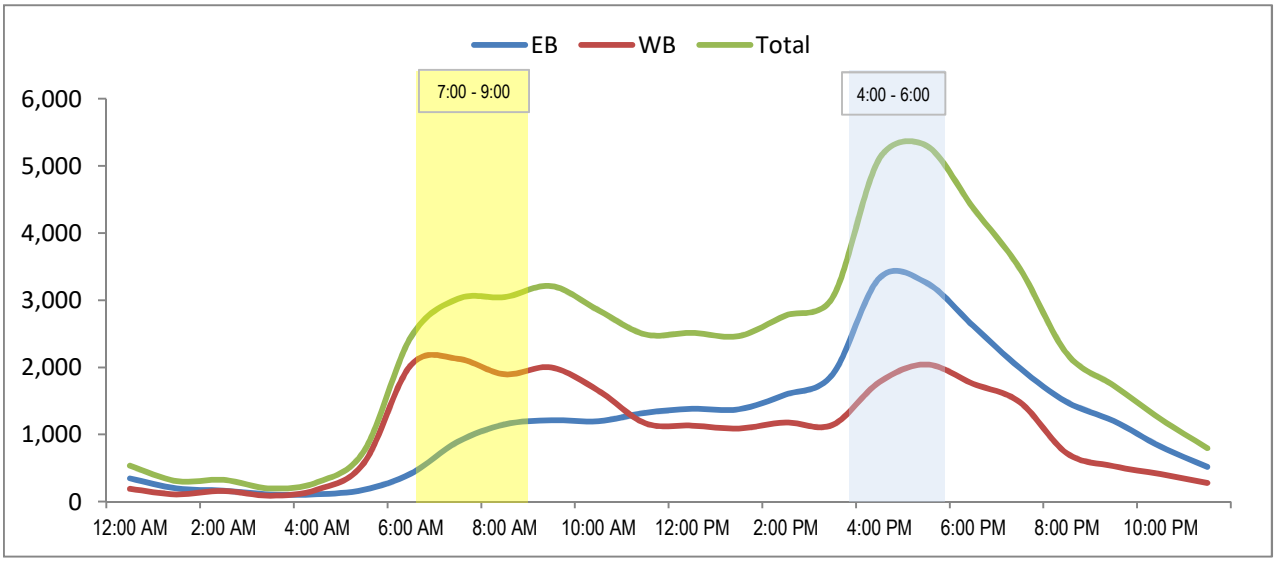
AVC Proj. No: *15-0591*

24 Hour Segment Volume			54,479

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	346	190	536
1:00 AM - 2:00 AM	197	108	305
2:00 AM - 3:00 AM	164	160	324
3:00 AM - 4:00 AM	108	88	196
4:00 AM - 5:00 AM	109	179	288
5:00 AM - 6:00 AM	177	578	755
6:00 AM - 7:00 AM	418	2,033	2,451
7:00 AM - 8:00 AM	892	2,128	3,020
8:00 AM - 9:00 AM	1,150	1,896	3,046
9:00 AM - 10:00 AM	1,213	1,997	3,210
10:00 AM - 11:00 AM	1,197	1,654	2,851
11:00 AM - 12:00 PM	1,323	1,168	2491
Total	**7,294**	**12,179**	**19,473**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	1,381	1,132	2,513
1:00 PM - 2:00 PM	1,376	1,090	2,466
2:00 PM - 3:00 PM	1,594	1,179	2,773
3:00 PM - 4:00 PM	1,896	1,143	3,039
4:00 PM - 5:00 PM	3,329	1,782	5,111
5:00 PM - 6:00 PM	3,260	2,043	5,303
6:00 PM - 7:00 PM	2,619	1,756	4,375
7:00 PM - 8:00 PM	1,987	1,480	3,467
8:00 PM - 9:00 PM	1,483	720	2,203
9:00 PM - 10:00 PM	1,201	528	1,729
10:00 PM - 11:00 PM	821	410	1,231
11:00 PM - 12:00 AM	517	279	796
Total	**21,464**	**13,542**	**35,006**

24-Hour EB Volume	28,758	24-Hour WB Volume	25,721



24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 7. Miramar Rd, btwn I-15 SB Ramps and I-15 NB Ramps

Orientation: *East-West*

Date of Count: *Tuesday, November 15, 2016*

Analysts: *DASH*

Weather: *Sunny*

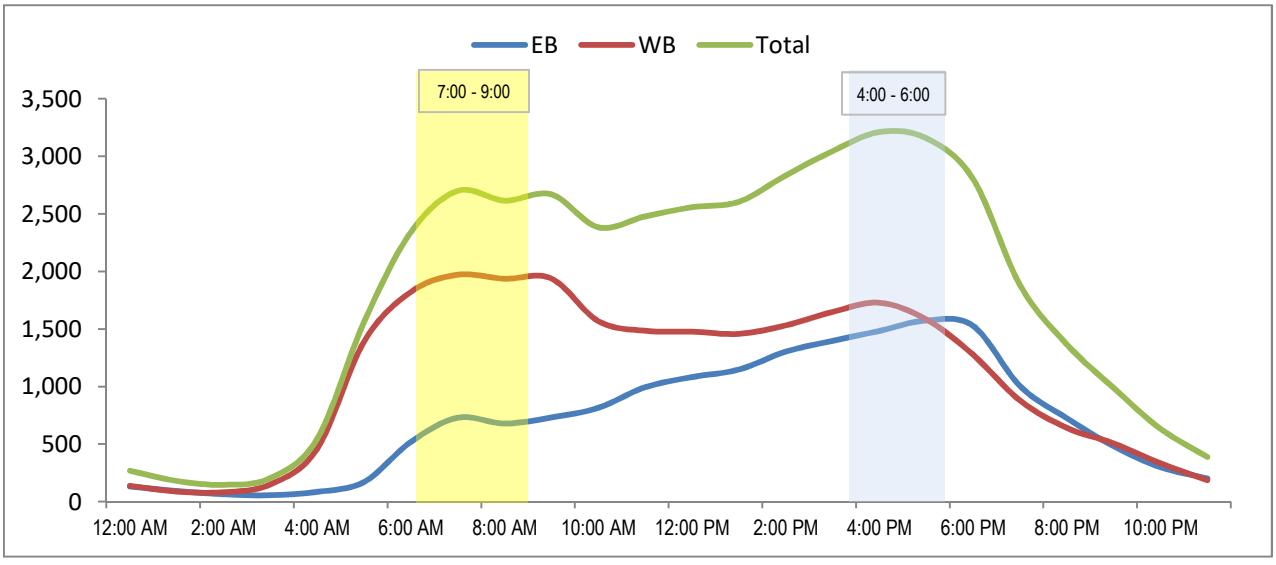
AVC Proj. No: *16-0591*

24 Hour Segment Volume			43,560

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	131	138	269
1:00 AM - 2:00 AM	92	88	180
2:00 AM - 3:00 AM	64	82	146
3:00 AM - 4:00 AM	55	150	205
4:00 AM - 5:00 AM	85	461	546
5:00 AM - 6:00 AM	171	1,390	1,561
6:00 AM - 7:00 AM	519	1,822	2,341
7:00 AM - 8:00 AM	729	1,971	2,700
8:00 AM - 9:00 AM	679	1,936	2,615
9:00 AM - 10:00 AM	731	1,938	2,669
10:00 AM - 11:00 AM	815	1,568	2,383
11:00 AM - 12:00 PM	994	1,484	2478
Total	**5,065**	**13,028**	**18,093**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	1,082	1,476	2,558
1:00 PM - 2:00 PM	1,147	1,458	2,605
2:00 PM - 3:00 PM	1,303	1,531	2,834
3:00 PM - 4:00 PM	1,397	1,648	3,045
4:00 PM - 5:00 PM	1,483	1,728	3,211
5:00 PM - 6:00 PM	1,574	1,583	3,157
6:00 PM - 7:00 PM	1,526	1,276	2,802
7:00 PM - 8:00 PM	1,004	878	1,882
8:00 PM - 9:00 PM	725	641	1,366
9:00 PM - 10:00 PM	481	506	987
10:00 PM - 11:00 PM	299	333	632
11:00 PM - 12:00 AM	202	186	388
Total	**12,223**	**13,244**	**25,467**

24-Hour EB Volume	17,288	24-Hour WB Volume	26,272



24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 8. Kearny Villa Road – Miramar Road to Black Mountain Road

Orientation: *North-South*

Date of Count: *Tuesday, November 15, 2016*

Analysts: *DASH*

Weather: *Sunny*

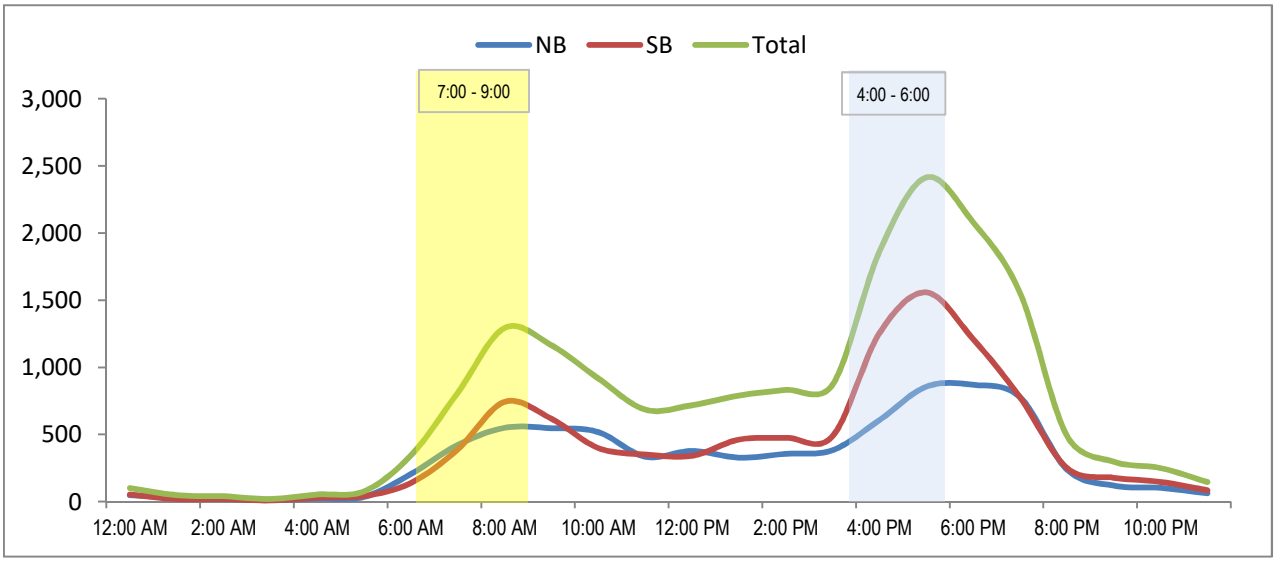
AVC Proj. No: *15-0591*

24 Hour Segment Volume			17,860

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	48	53	101
1:00 AM - 2:00 AM	29	19	48
2:00 AM - 3:00 AM	20	20	40
3:00 AM - 4:00 AM	11	9	20
4:00 AM - 5:00 AM	23	30	53
5:00 AM - 6:00 AM	35	42	77
6:00 AM - 7:00 AM	205	139	344
7:00 AM - 8:00 AM	422	389	811
8:00 AM - 9:00 AM	550	743	1,293
9:00 AM - 10:00 AM	547	617	1,164
10:00 AM - 11:00 AM	518	399	917
11:00 AM - 12:00 PM	334	351	685
Total	**2,742**	**2,811**	**5,553**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	377	341	718
1:00 PM - 2:00 PM	328	462	790
2:00 PM - 3:00 PM	356	476	832
3:00 PM - 4:00 PM	383	488	871
4:00 PM - 5:00 PM	607	1,255	1,862
5:00 PM - 6:00 PM	856	1,558	2,414
6:00 PM - 7:00 PM	870	1,210	2,080
7:00 PM - 8:00 PM	778	777	1,555
8:00 PM - 9:00 PM	240	252	492
9:00 PM - 10:00 PM	119	178	297
10:00 PM - 11:00 PM	103	147	250
11:00 PM - 12:00 AM	62	84	146
Total	**5,079**	**7,228**	**12,307**

24-Hour NB Volume	7,821	24-Hour SB Volume	10,039



24 Hour Segment Count

CHEN RYAN

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 9. Candida St, btwn Kearny Villa Rd and Via Pasar

Orientation: *East-West*

Date of Count: *Wednesday, November 16, 2016*

Analysts: *DASH*

Weather: *Sunny*

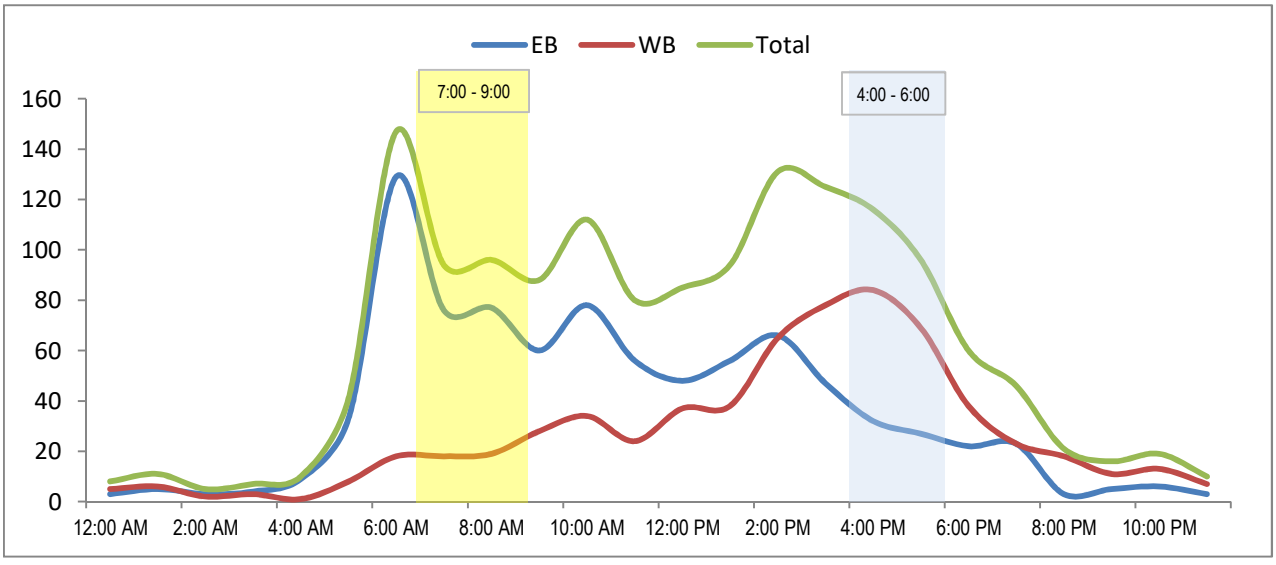
AVC Proj. No: *16-0591*

24 Hour Segment Volume			1,518

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	3	5	8
1:00 AM - 2:00 AM	5	6	11
2:00 AM - 3:00 AM	3	2	5
3:00 AM - 4:00 AM	4	3	7
4:00 AM - 5:00 AM	9	1	10
5:00 AM - 6:00 AM	33	8	41
6:00 AM - 7:00 AM	129	18	147
7:00 AM - 8:00 AM	76	18	94
8:00 AM - 9:00 AM	77	19	96
9:00 AM - 10:00 AM	60	28	88
10:00 AM - 11:00 AM	78	34	112
11:00 AM - 12:00 PM	56	24	80
Total	**533**	**166**	**699**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	48	37	85
1:00 PM - 2:00 PM	56	38	94
2:00 PM - 3:00 PM	66	65	131
3:00 PM - 4:00 PM	47	78	125
4:00 PM - 5:00 PM	32	84	116
5:00 PM - 6:00 PM	27	69	96
6:00 PM - 7:00 PM	22	38	60
7:00 PM - 8:00 PM	23	23	46
8:00 PM - 9:00 PM	3	18	21
9:00 PM - 10:00 PM	5	11	16
10:00 PM - 11:00 PM	6	13	19
11:00 PM - 12:00 AM	3	7	10
Total	**338**	**481**	**819**

24-Hour EB Volume	871	24-Hour WB Volume	647



24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 10. Via Pasar, btwn Candida St and Via Excelencia

Orientation: *North-South*

Date of Count: *Wednesday, November 16, 2016*

Analysts: *DASH*

Weather: *Sunny*

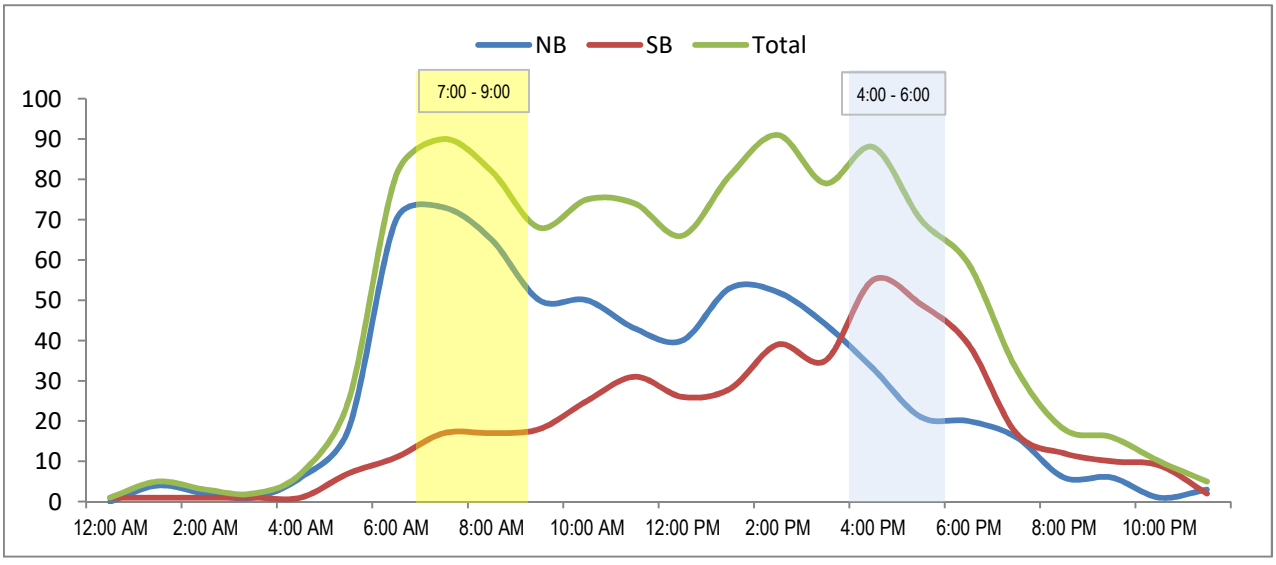
AVC Proj. No: *16-0591*

24 Hour Segment Volume			1,129

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	0	1	1
1:00 AM - 2:00 AM	4	1	5
2:00 AM - 3:00 AM	2	1	3
3:00 AM - 4:00 AM	1	1	2
4:00 AM - 5:00 AM	6	1	7
5:00 AM - 6:00 AM	18	7	25
6:00 AM - 7:00 AM	70	11	81
7:00 AM - 8:00 AM	73	17	90
8:00 AM - 9:00 AM	65	17	82
9:00 AM - 10:00 AM	50	18	68
10:00 AM - 11:00 AM	50	25	75
11:00 AM - 12:00 PM	43	31	74
Total	**382**	**131**	**513**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	40	26	66
1:00 PM - 2:00 PM	53	28	81
2:00 PM - 3:00 PM	52	39	91
3:00 PM - 4:00 PM	44	35	79
4:00 PM - 5:00 PM	33	55	88
5:00 PM - 6:00 PM	21	49	70
6:00 PM - 7:00 PM	20	39	59
7:00 PM - 8:00 PM	16	17	33
8:00 PM - 9:00 PM	6	12	18
9:00 PM - 10:00 PM	6	10	16
10:00 PM - 11:00 PM	1	9	10
11:00 PM - 12:00 AM	3	2	5
Total	**295**	**321**	**616**

24-Hour NB Volume	677	24-Hour SB Volume	452



24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 11. Via Excelencia, btwn Via Pasar and End of cul-de-sac

Orientation: *East-West*

Date of Count: *Wednesday, November 16, 2016*

Analysts: *DASH*

Weather: *Sunny*

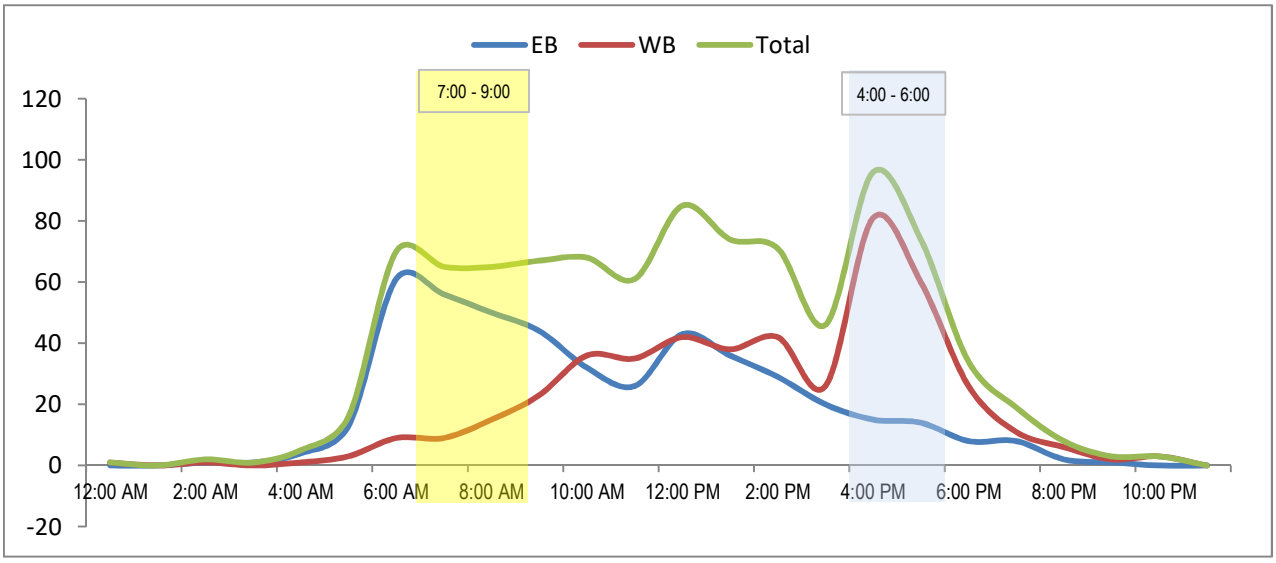
AVC Proj. No: *16-0591*

24 Hour Segment Volume			934

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	0	1	1
1:00 AM - 2:00 AM	0	0	0
2:00 AM - 3:00 AM	1	1	2
3:00 AM - 4:00 AM	1	0	1
4:00 AM - 5:00 AM	4	1	5
5:00 AM - 6:00 AM	13	3	16
6:00 AM - 7:00 AM	61	9	70
7:00 AM - 8:00 AM	56	9	65
8:00 AM - 9:00 AM	50	15	65
9:00 AM - 10:00 AM	44	23	67
10:00 AM - 11:00 AM	32	36	68
11:00 AM - 12:00 PM	26	35	61
Total	**288**	**133**	**421**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	43	42	85
1:00 PM - 2:00 PM	36	38	74
2:00 PM - 3:00 PM	29	42	71
3:00 PM - 4:00 PM	20	26	46
4:00 PM - 5:00 PM	15	81	96
5:00 PM - 6:00 PM	14	60	74
6:00 PM - 7:00 PM	8	26	34
7:00 PM - 8:00 PM	8	11	19
8:00 PM - 9:00 PM	2	6	8
9:00 PM - 10:00 PM	1	2	3
10:00 PM - 11:00 PM	0	3	3
11:00 PM - 12:00 AM	0	0	0
Total	**176**	**337**	**513**

24-Hour EB Volume	464	24-Hour WB Volume	470



24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 12. Bussinesspark Ave, btwn Willow Creek Rd and End of Street

Orientation: *North-South*

Date of Count: *Wednesday, November 16, 2016*

Analysts: *DASH*

Weather: *Sunny*

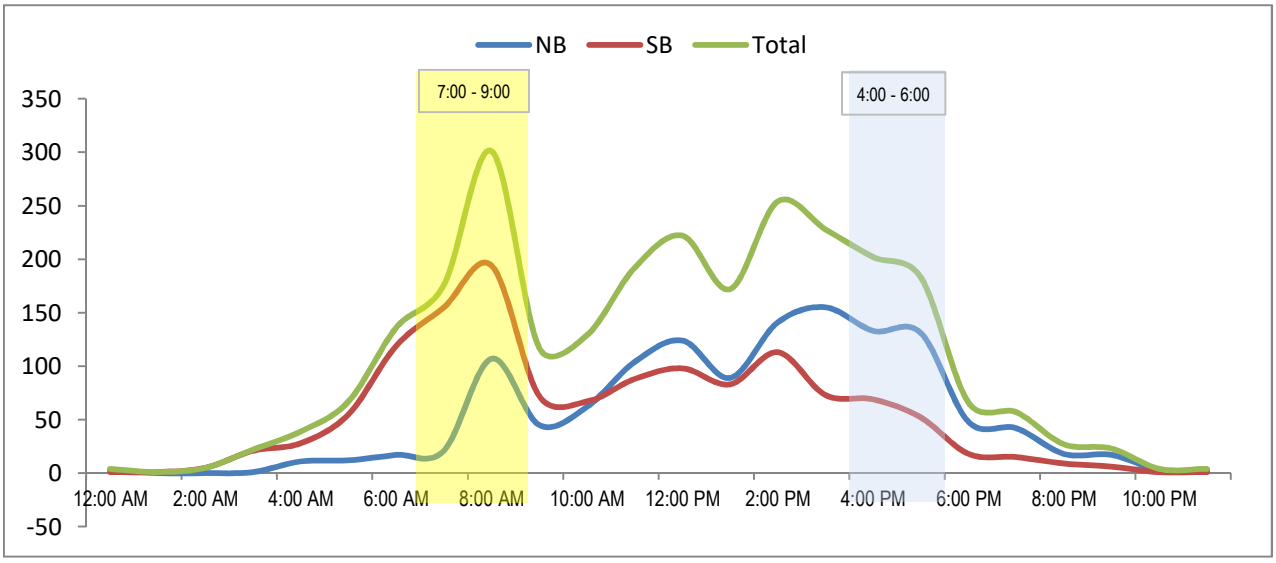
AVC Proj. No: *16-0591*

24 Hour Segment Volume			2,631

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	3	1	4
1:00 AM - 2:00 AM	0	1	1
2:00 AM - 3:00 AM	0	5	5
3:00 AM - 4:00 AM	1	21	22
4:00 AM - 5:00 AM	11	28	39
5:00 AM - 6:00 AM	12	55	67
6:00 AM - 7:00 AM	17	119	136
7:00 AM - 8:00 AM	21	155	176
8:00 AM - 9:00 AM	107	194	301
9:00 AM - 10:00 AM	45	72	117
10:00 AM - 11:00 AM	62	67	129
11:00 AM - 12:00 PM	104	88	192
Total	**383**	**806**	**1,189**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	124	98	222
1:00 PM - 2:00 PM	89	83	172
2:00 PM - 3:00 PM	141	113	254
3:00 PM - 4:00 PM	155	73	228
4:00 PM - 5:00 PM	133	69	202
5:00 PM - 6:00 PM	131	52	183
6:00 PM - 7:00 PM	48	18	66
7:00 PM - 8:00 PM	42	15	57
8:00 PM - 9:00 PM	18	9	27
9:00 PM - 10:00 PM	17	6	23
10:00 PM - 11:00 PM	3	1	4
11:00 PM - 12:00 AM	3	1	4
Total	**904**	**538**	**1,442**

24-Hour NB Volume	1,287	24-Hour SB Volume	1,344



24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 13. Bussinesspark Ave, btwn Carroll Canyon Rd and Willow Creek Rd

Orientation: *North-South*

Date of Count: *Wednesday, November 16, 2016*

Analysts: *DASH*

Weather: *Sunny*

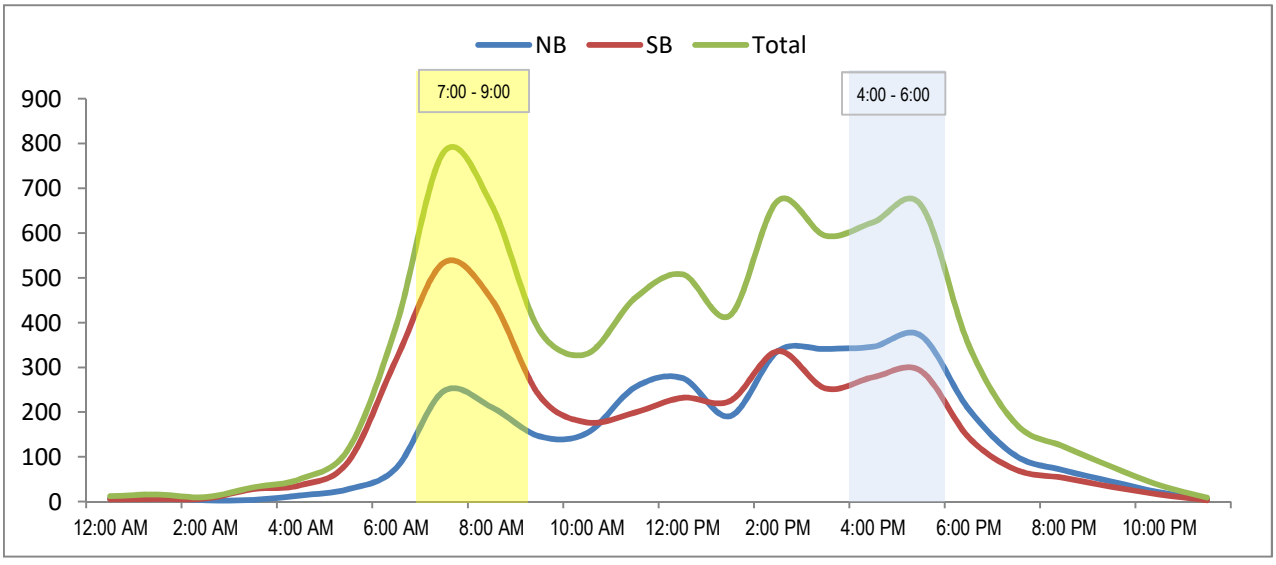
AVC Proj. No: *16-0591*

24 Hour Segment Volume			7,491

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	7	5	12
1:00 AM - 2:00 AM	10	6	16
2:00 AM - 3:00 AM	3	7	10
3:00 AM - 4:00 AM	4	28	32
4:00 AM - 5:00 AM	14	37	51
5:00 AM - 6:00 AM	28	90	118
6:00 AM - 7:00 AM	75	318	393
7:00 AM - 8:00 AM	247	534	781
8:00 AM - 9:00 AM	211	452	663
9:00 AM - 10:00 AM	146	237	383
10:00 AM - 11:00 AM	153	177	330
11:00 AM - 12:00 PM	255	199	454
Total	**1,153**	**2,090**	**3,243**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	276	232	508
1:00 PM - 2:00 PM	191	225	416
2:00 PM - 3:00 PM	336	336	672
3:00 PM - 4:00 PM	341	253	594
4:00 PM - 5:00 PM	346	278	624
5:00 PM - 6:00 PM	371	292	663
6:00 PM - 7:00 PM	207	144	351
7:00 PM - 8:00 PM	102	71	173
8:00 PM - 9:00 PM	70	53	123
9:00 PM - 10:00 PM	45	33	78
10:00 PM - 11:00 PM	21	16	37
11:00 PM - 12:00 AM	6	3	9
Total	**2,312**	**1,936**	**4,248**

24-Hour NB Volume	3,465	24-Hour SB Volume	4,026



24 Hour Segment Count

CHEN RYAN

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 14. Carroll Canyon Rd, btwn Bussinesspark Ave and Scripps Ranch Blvd

Orientation: *East-West*

Date of Count: *Wednesday, November 16, 2016*

Analysts: *DASH*

Weather: *Sunny*

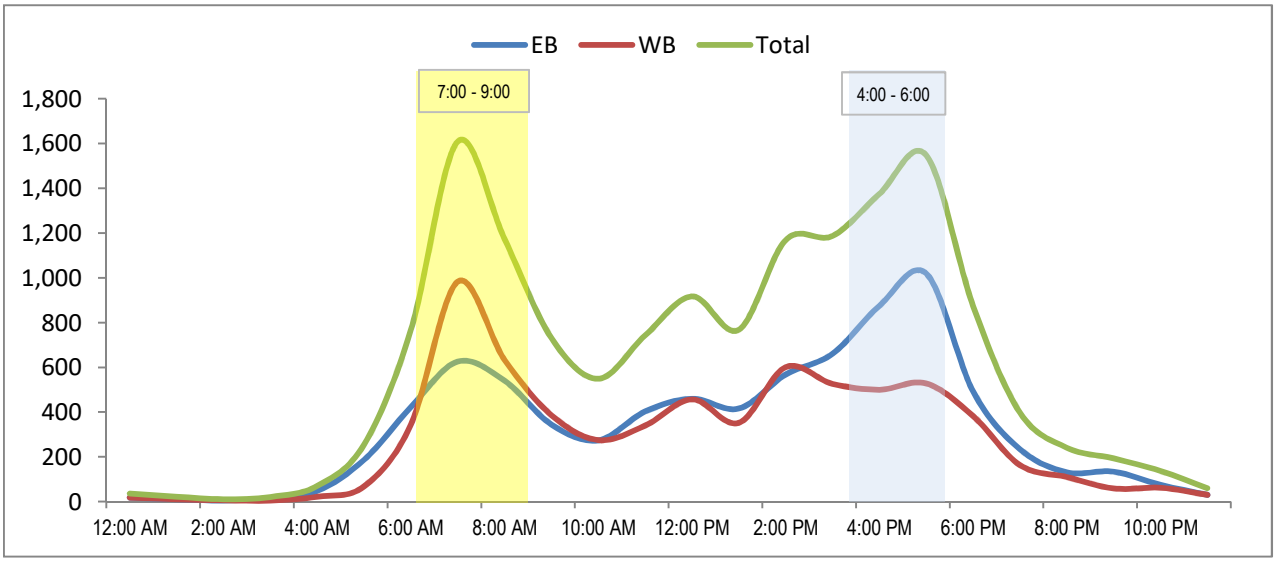
AVC Proj. No: *16-0591*

24 Hour Segment Volume			14,851

Time	Hourly Volume		
	EB	WB	Total
12:00 AM - 1:00 AM	18	18	36
1:00 AM - 2:00 AM	11	11	22
2:00 AM - 3:00 AM	5	6	11
3:00 AM - 4:00 AM	16	5	21
4:00 AM - 5:00 AM	48	22	70
5:00 AM - 6:00 AM	187	68	255
6:00 AM - 7:00 AM	422	345	767
7:00 AM - 8:00 AM	626	983	1,609
8:00 AM - 9:00 AM	540	633	1,173
9:00 AM - 10:00 AM	344	386	730
10:00 AM - 11:00 AM	274	275	549
11:00 AM - 12:00 PM	403	340	743
Total	**2,894**	**3,092**	**5,986**

Time	Hourly Volume		
	EB	WB	Total
12:00 PM - 1:00 PM	460	457	917
1:00 PM - 2:00 PM	416	352	768
2:00 PM - 3:00 PM	568	601	1,169
3:00 PM - 4:00 PM	661	526	1,187
4:00 PM - 5:00 PM	875	500	1,375
5:00 PM - 6:00 PM	1,019	528	1,547
6:00 PM - 7:00 PM	492	382	874
7:00 PM - 8:00 PM	234	163	397
8:00 PM - 9:00 PM	131	110	241
9:00 PM - 10:00 PM	134	59	193
10:00 PM - 11:00 PM	75	62	137
11:00 PM - 12:00 AM	30	30	60
Total	**5,095**	**3,770**	**8,865**

24-Hour EB Volume	7,989	24-Hour WB Volume	6,862



24 Hour Segment Count

Accurate Video Counts Inc
info@accuratevideocounts.com
(619) 987-5136

Location: 15. Carroll Canyon Rd, btwn Scripps Ranch Blvd and Meanley Dr

Orientation: *North-South*

Date of Count: *Wednesday, November 16, 2016*

Analysts: *DASH*

Weather: *Sunny*

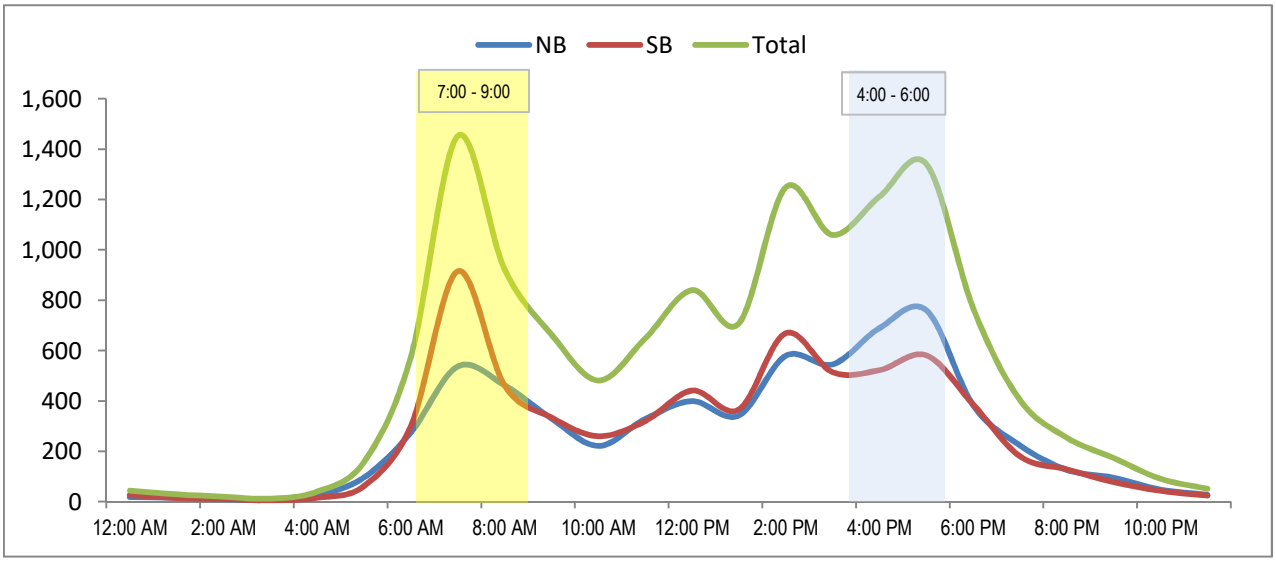
AVC Proj. No: *16-0591*

24 Hour Segment Volume			13,195

Time	Hourly Volume		
	NB	SB	Total
12:00 AM - 1:00 AM	18	26	44
1:00 AM - 2:00 AM	15	14	29
2:00 AM - 3:00 AM	9	11	20
3:00 AM - 4:00 AM	7	5	12
4:00 AM - 5:00 AM	25	15	40
5:00 AM - 6:00 AM	96	62	158
6:00 AM - 7:00 AM	275	301	576
7:00 AM - 8:00 AM	537	915	1,452
8:00 AM - 9:00 AM	462	461	923
9:00 AM - 10:00 AM	330	334	664
10:00 AM - 11:00 AM	221	260	481
11:00 AM - 12:00 PM	328	320	648
Total	**2,323**	**2,724**	**5,047**

Time	Hourly Volume		
	NB	SB	Total
12:00 PM - 1:00 PM	399	441	840
1:00 PM - 2:00 PM	342	366	708
2:00 PM - 3:00 PM	579	669	1,248
3:00 PM - 4:00 PM	545	514	1,059
4:00 PM - 5:00 PM	689	522	1,211
5:00 PM - 6:00 PM	760	581	1,341
6:00 PM - 7:00 PM	383	386	769
7:00 PM - 8:00 PM	223	180	403
8:00 PM - 9:00 PM	126	128	254
9:00 PM - 10:00 PM	95	78	173
10:00 PM - 11:00 PM	48	43	91
11:00 PM - 12:00 AM	27	24	51
Total	**4,216**	**3,932**	**8,148**

24-Hour NB Volume	6,539	24-Hour SB Volume	6,656



Roadway Segment counts related to San Vicente Reservoir Pipeline

Table 7-2 Existing Conditions Summary of Roadway Segment ADT Based Analysis

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ADT (b)	V/C RATIO (c)	LOS
Eastgate Mall					
Regents Rd to Genesee Ave	2 Lane Collector (continuous left-turn lane)	15,000	6,187	0.412	B
Genesee Ave to Easter Way	4 Lane Collector	30,000	14,767	0.492	C
Easter Way to Judicial Dr	4 Lane Major Arterial	40,000	11,115	0.278	A
Judicial Dr to Eastgate Dr (Freeway Overpass)	2 Lane Collector (no fronting property)	10,000	10,096	1.010	**F**
Eastgate Dr to Miramar Rd	2 Lane Collector (continuous left-turn lane)	15,000	14,668	0.978	**E**
Executive Drive					
Regents Rd to Genesee Ave	4 Lane Collector (no center lane)	15,000	4,397	0.293	A
Genesee Ave to Judicial Dr	4 Lane Collector	30,000	5,914	0.197	A
Executive Way					
Executive Dr to La Jolla Village Dr	4 Lane Collector	30,000	5,923	0.197	A
Genesee Avenue					
N. Torrey Pines Rd to I-5 SB Ramps	6 Lane Prime Arterial	60,000	35,124	0.585	C
I-5 SB Ramps to I-5 NB Ramps	4 Lane Major Arterial	40,000	49,051	1.226	**F**
I-5 NB Ramps to Regents Rd	6 Lane Prime Arterial	60,000	48,542	0.809	C
Regents Rd to La Jolla Village Dr	6 Lane Prime Arterial	60,000	29,457	0.491	B
La Jolla Village Dr to Esplande Ct	4 Lane Major Arterial	40,000	28,054	0.701	C
Esplande Ct to Nobel Dr	6 Lane Major Arterial	50,000	23,744	0.475	B
Nobel Dr to Centurion Square	4 Lane Major Arterial	40,000	30,922	0.773	D
Centurion Square to SR-52 WB Ramps	4 Lane Major Arterial	40,000	30,325	0.758	D
SR-52 WB Ramps to SR-52 EB Ramps	4 Lane Major Arterial	40,000	31,170	0.779	D
SR-52 EB Ramps to Lehrer Dr	4 Lane Major Arterial	40,000	30,581	0.765	D
Gilman Drive					
UCSD Campus to La Jolla Village Dr	4 Lane Collector	30,000	10,069	0.336	B
La Jolla Village Dr to Via Alicante	4 Lane Collector	30,000	15,095	0.503	C
Via Alicante to I-5 SB Ramps	4 Lane Major Arterial	40,000	17,138	0.428	B
I-5 SB Ramps to I-5 NB Ramps	4 Lane Major Arterial	40,000	11,873	0.297	A
Golden Haven Drive					
Towne Centre Dr to Judicial Dr	4 Lane Major Arterial	40,000	6,712	0.168	A

Notes:
Bold values indicate roadway segments operating at LOS E or F.
(a) Existing road classifications are based on field work conducted May 13, 2015.
(b) Average Daily Traffic (ADT) volumes for the roadway segments were provided by Accurate Video Counts Inc and measured in April and May 2015.
(c) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

Table 7-2 Existing Conditions Summary of Roadway Segment ADT Based Analysis (Continued)

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ADT (b)	V/C RATIO (c)	LOS
Governor Drive					
Regents Rd to Genesee Ave	4 Lane Major Arterial	40,000	16,796	0.420	B
Genesee Ave to I-805 SB Ramps	4 Lane Major Arterial	40,000	19,737	0.493	B
I-805 SB Ramps to I-805 NB Ramps	4 Lane Major Arterial	40,000	10,417	0.260	A
Judicial Drive					
Eastgate Mall to La Jolla Village Dr	4 Lane Major Arterial	40,000	4,828	0.121	A
La Jolla Village Dr to Nobel Dr	4 Lane Major Arterial	40,000	6,574	0.164	A
La Jolla Scenic Drive					
La Jolla Village Dr to community boundary	4 Lane Major Arterial	40,000	7,928	0.198	A
La Jolla Village Drive					
Revelle College Dr to Villa La Jolla Dr	6 Lane Prime Arterial	60,000	44,520	0.742	C
Villa La Jolla Dr to I-5 SB Ramps	6 Lane Prime Arterial	60,000	62,258	1.038	**F**
I-5 SB Ramps to I-5 NB Ramps	6 Lane Major Arterial	50,000	51,391	1.028	**F**
I-5 NB Ramps to Lebon Dr	6 Lane Major Arterial	50,000	44,335	0.887	D
Lebon Dr to Regents Rd	6 Lane Major Arterial	50,000	42,863	0.857	D
Regents Rd to Genesee Ave	6 Lane Major Arterial	50,000	38,474	0.769	C
Genesee Ave to Towne Centre Dr	6 Lane Major Arterial	50,000	45,117	0.902	**E**
Towne Centre Dr to I-805 SB Ramps	7 Lane Major Arterial	55,000	58,833	1.070	**F**
Lebon Drive					
Palmilla Drive to Nobel Dr	4 Lane Major Arterial	40,000	11,192	0.280	A
Nobel Drive to La Jolla Village Dr	5 Lane Major Arterial	45,000	9,212	0.205	A
Miramar Road					
I-805 SB Ramps to I-805 NB Ramps	6 Lane Major Arterial	50,000	66,139	1.323	**F**
I-805 NB Ramps to Nobel Dr	8 Lane Prime Arterial	80,000	47,991	0.600	B
Nobel Dr to Eastgate Mall	8 Lane Prime Arterial	80,000	64,557	0.807	C
Eastgate Mall to Camino Santa Fe	6 Lane Prime Arterial	60,000	67,748	1.129	**F**
North Torrey Pines Road					
Science Park Rd to Genesee Ave	6 Lane Prime Arterial	60,000	29,303	0.488	B
Genesee Ave to Revelle College Dr	4 Lane Major Arterial	40,000	21,760	0.544	C

Notes:
Bold values indicate roadway segments operating at LOS E or F.
(a) Existing road classifications are based on field work conducted May 13, 2015.
(b) Average Daily Traffic (ADT) volumes for the roadway segments were provided by Accurate Video Counts Inc and measured in April and May 2015.
(c) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

Prepared by NDS/ATD

VOLUME

Copley Dr Bet. Hickman Field Dr & Convoy Terrace/Copley Park Pl

Day: Wednesday
Date: 9/7/2016

City: Kearny Mesa
Project #: CA16_4215_002

DAILY TOTALS	NB	SB	EB	WB	Total
	4,814	4,842	0	0	9,656

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	1		1				2		12:00	82		91				173	
00:15	0		2				2		12:15	88		113				201	
00:30	1		2				3		12:30	80		95				175	
00:45	1	3	0	5			1	8	12:45	86	336	80	379			166	715
01:00	0		1				1		13:00	82		79				161	
01:15	1		7				8		13:15	98		63				161	
01:30	3		1				4		13:30	80		85				165	
01:45	1	5	1	10			2	15	13:45	68	328	69	296			137	624
02:00	2		1				3		14:00	78		79				157	
02:15	1		1				2		14:15	72		84				156	
02:30	1		2				3		14:30	75		87				162	
02:45	0	4	1	5			1	9	14:45	65	290	100	350			165	640
03:00	2		0				2		15:00	60		108				168	
03:15	0		0				0		15:15	58		115				173	
03:30	0		1				1		15:30	69		152				221	
03:45	6	8	0	1			6	9	15:45	70	257	148	523			218	780
04:00	1		0				1		16:00	58		181				239	
04:15	5		0				5		16:15	53		130				183	
04:30	4		0				4		16:30	58		178				236	
04:45	15	25	2	2			17	27	16:45	51	220	190	679			241	899
05:00	11		0				11		17:00	60		261				321	
05:15	17		1				18		17:15	64		144				208	
05:30	19		0				19		17:30	54		149				203	
05:45	38	85	4	5			42	90	17:45	54	232	97	651			151	883
06:00	38		5				43		18:00	57		106				163	
06:15	65		4				69		18:15	55		87				142	
06:30	90		10				100		18:30	40		95				135	
06:45	95	288	8	27			103	315	18:45	34	186	92	380			126	566
07:00	126		14				140		19:00	25		113				138	
07:15	165		12				177		19:15	18		47				65	
07:30	157		13				170		19:30	19		49				68	
07:45	202	650	18	57			220	707	19:45	18	80	83	292			101	372
08:00	198		18				216		20:00	19		67				86	
08:15	196		23				219		20:15	4		56				60	
08:30	116		28				144		20:30	6		40				46	
08:45	137	647	31	100			168	747	20:45	6	35	28	191			34	226
09:00	96		35				131		21:00	3		27				30	
09:15	128		35				163		21:15	1		19				20	
09:30	101		42				143		21:30	1		14				15	
09:45	109	434	39	151			148	585	21:45	4	9	10	70			14	79
10:00	68		83				151		22:00	0		3				3	
10:15	78		68				146		22:15	0		1				1	
10:30	88		63				151		22:30	1		4				5	
10:45	109	343	62	276			171	619	22:45	0	1	2	10			2	11
11:00	84		72				156		23:00	1		0				1	
11:15	89		92				181		23:15	1		1				2	
11:30	82		104				186		23:30	2		2				4	
11:45	87	342	110	378			197	720	23:45	2	6	1	4			3	10
TOTALS		2834		1017				**3851**	**TOTALS**		1980		3825				**5805**
SPLIT %		73.6%		26.4%				**39.9%**	**SPLIT %**		34.1%		65.9%				**60.1%**

DAILY TOTALS	NB	SB	EB	WB	Total
	4,814	4,842	0	0	9,656

AM Peak Hour	07:30	11:30					**07:30**		**PM Peak Hour**	12:30	16:30					**16:30**		
AM Pk Volume	753	418					**825**		**PM Pk Volume**	346	773					**1006**		
Pk Hr Factor	0.932	0.925					**0.938**		**Pk Hr Factor**	0.883	0.740					**0.783**		
7 - 9 Volume	1297	157	0	0			**1454**		**4 - 6 Volume**	452	1330	0	0			**1782**		
7 - 9 Peak Hour	07:30	08:00					**07:30**		**4 - 6 Peak Hour**	16:30	16:30					**16:30**		
7 - 9 Pk Volume	753	100	0	0			**825**		**4 - 6 Pk Volume**	233	773	0	0			**1006**		
Pk Hr Factor	0.932	0.806	0.000	0.000			**0.938**		**Pk Hr Factor**	0.910	0.740	0.000	0.000			**0.783**		

Prepared by NDS/ATD

VOLUME

Copley Dr Bet. Hickman Field Dr & Convoy Terrace/Copley Park Pl

Day: Thursday
Date: 9/8/2016

City: Kearny Mesa
Project #: CA16_4215_002

DAILY TOTALS	NB	SB	EB	WB	Total
	4,632	4,547	0	0	9,179

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	1		5				6		12:00	92		105				197	
00:15	0		4				4		12:15	85		99				184	
00:30	1		3				4		12:30	104		91				195	
00:45	0	2	1	13			1	15	12:45	139	420	98	393			237	813
01:00	1		0				1		13:00	98		86				184	
01:15	0		0				0		13:15	116		85				201	
01:30	1		3				4		13:30	127		94				221	
01:45	1	3	0	3			1	6	13:45	80	421	82	347			162	768
02:00	1		0				1		14:00	79		79				158	
02:15	1		0				1		14:15	65		95				160	
02:30	0		1				1		14:30	81		95				176	
02:45	1	3	0	1			1	4	14:45	61	286	112	381			173	667
03:00	1		2				3		15:00	36		93				129	
03:15	0		0				0		15:15	43		103				146	
03:30	0		0				0		15:30	49		146				195	
03:45	7	8	0	2			7	10	15:45	64	192	116	458			180	650
04:00	2		0				2		16:00	43		164				207	
04:15	3		0				3		16:15	46		128				174	
04:30	3		0				3		16:30	61		189				250	
04:45	13	21	1	1			14	22	16:45	60	210	149	630			209	840
05:00	4		0				4		17:00	44		251				295	
05:15	16		3				19		17:15	48		165				213	
05:30	22		2				24		17:30	44		139				183	
05:45	44	86	0	5			44	91	17:45	35	171	88	643			123	814
06:00	42		5				47		18:00	42		103				145	
06:15	70		9				79		18:15	52		79				131	
06:30	86		12				98		18:30	28		102				130	
06:45	123	321	9	35			132	356	18:45	28	150	68	352			96	502
07:00	128		10				138		19:00	23		69				92	
07:15	177		17				194		19:15	14		54				68	
07:30	149		25				174		19:30	16		36				52	
07:45	188	642	18	70			206	712	19:45	20	73	38	197			58	270
08:00	163		19				182		20:00	8		54				62	
08:15	177		20				197		20:15	6		33				39	
08:30	126		36				162		20:30	6		23				29	
08:45	117	583	36	111			153	694	20:45	3	23	34	144			37	167
09:00	121		29				150		21:00	3		22				25	
09:15	90		39				129		21:15	2		12				14	
09:30	82		37				119		21:30	0		14				14	
09:45	62	355	35	140			97	495	21:45	0	5	8	56			8	61
10:00	73		53				126		22:00	3		6				9	
10:15	69		57				126		22:15	2		4				6	
10:30	77		54				131		22:30	0		2				2	
10:45	65	284	63	227			128	511	22:45	2	7	4	16			6	23
11:00	55		67				122		23:00	1		0				1	
11:15	90		69				159		23:15	3		2				5	
11:30	100		106				206		23:30	0		3				3	
11:45	116	361	74	316			190	677	23:45	1	5	1	6			2	11
TOTALS		2669		924				**3593**	**TOTALS**		1963		3623				**5586**
SPLIT %		74.3%		25.7%				**39.1%**	**SPLIT %**		35.1%		64.9%				**60.9%**

DAILY TOTALS	NB	SB	EB	WB	Total
	4,632	4,547	0	0	9,179

AM Peak Hour	07:15	11:30			**11:30**	**PM Peak Hour**	12:45	16:30			**16:30**
AM Pk Volume	677	384			**777**	**PM Pk Volume**	480	754			**967**
Pk Hr Factor	0.900	0.906			**0.943**	**Pk Hr Factor**	0.863	0.751			**0.819**
7 - 9 Volume	1225	181	0	0	**1406**	**4 - 6 Volume**	381	1273	0	0	**1654**
7 - 9 Peak Hour	07:15	08:00			**07:30**	**4 - 6 Peak Hour**	16:30	16:30			**16:30**
7 - 9 Pk Volume	677	111	0	0	**759**	**4 - 6 Pk Volume**	213	754	0	0	**967**
Pk Hr Factor	0.900	0.771	0.000	0.000	**0.921**	**Pk Hr Factor**	0.873	0.751	0.000	0.000	**0.819**

Prepared by NDS/ATD

VOLUME

Copley Park Pl Bet. Copley Dr & Convoy St

Day: Wednesday
Date: 10/5/2016

City: Kearny Mesa
Project #: CA16_4215_007

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	4,987	5,769	10,756

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00					9		4		13		12:00					107		85		192	
00:15					3		3		6		12:15					105		105		210	
00:30					6		3		9		12:30					113		102		215	
00:45					4	22	1	11	5	33	12:45					88	413	110	402	198	815
01:00					2		3		5		13:00					79		121		200	
01:15					0		0		0		13:15					100		99		199	
01:30					2		1		3		13:30					97		81		178	
01:45					0	4	2	6	2	10	13:45					112	388	100	401	212	789
02:00					1		0		1		14:00					102		79		181	
02:15					4		1		5		14:15					86		94		180	
02:30					5		0		5		14:30					105		86		191	
02:45					4	14	2	3	6	17	14:45					93	386	70	329	163	715
03:00					1		1		2		15:00					130		62		192	
03:15					0		1		1		15:15					118		72		190	
03:30					3		0		3		15:30					144		65		209	
03:45					0	4	3	5	3	9	15:45					124	516	85	284	209	800
04:00					4		10		14		16:00					135		70		205	
04:15					2		7		9		16:15					118		79		197	
04:30					4		16		20		16:30					151		102		253	
04:45					5	15	26	59	31	74	16:45					125	529	117	368	242	897
05:00					4		16		20		17:00					155		107		262	
05:15					8		24		32		17:15					120		87		207	
05:30					6		47		53		17:30					98		67		165	
05:45					12	30	82	169	94	199	17:45					82	455	92	353	174	808
06:00					18		66		84		18:00					95		89		184	
06:15					22		87		109		18:15					65		71		136	
06:30					44		101		145		18:30					104		50		154	
06:45					29	113	145	399	174	512	18:45					62	326	41	251	103	577
07:00					26		159		185		19:00					85		46		131	
07:15					45		135		180		19:15					78		34		112	
07:30					49		156		205		19:30					62		33		95	
07:45					35	155	181	631	216	786	19:45					52	277	26	139	78	416
08:00					36		165		201		20:00					56		21		77	
08:15					40		163		203		20:15					52		13		65	
08:30					42		135		177		20:30					30		20		50	
08:45					37	155	142	605	179	760	20:45					30	168	4	58	34	226
09:00					34		118		152		21:00					18		9		27	
09:15					46		123		169		21:15					22		11		33	
09:30					45		112		157		21:30					52		5		57	
09:45					58	183	104	457	162	640	21:45					17	109	7	32	24	141
10:00					48		87		135		22:00					22		4		26	
10:15					67		101		168		22:15					5		2		7	
10:30					77		82		159		22:30					3		2		5	
10:45					90	282	110	380	200	662	22:45					6	36	6	14	12	50
11:00					89		82		171		23:00					10		7		17	
11:15					94		106		200		23:15					3		1		4	
11:30					91		103		194		23:30					5		4		9	
11:45					107	381	108	399	215	780	23:45					8	26	2	14	10	40
TOTALS						1358		3124		4482	TOTALS						3629		2645		6274
SPLIT %						30.3%		69.7%		41.7%	SPLIT %						57.8%		42.2%		58.3%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	4,987	5,769	10,756

AM Peak Hour			11:45	07:30	11:45	PM Peak Hour			16:30	12:15	16:30
AM Pk Volume			432	665	832	PM Pk Volume			551	438	964
Pk Hr Factor			0.956	0.919	0.967	Pk Hr Factor			0.889	0.905	0.920
7 - 9 Volume	0	0	310	1236	1546	4 - 6 Volume	0	0	984	721	1705
7 - 9 Peak Hour			07:15	07:30	07:30	4 - 6 Peak Hour			16:30	16:30	16:30
7 - 9 Pk Volume	0	0	165	665	825	4 - 6 Pk Volume	0	0	551	413	964
Pk Hr Factor	0.000	0.000	0.842	0.919	0.955	Pk Hr Factor	0.000	0.000	0.889	0.882	0.920

Prepared by NDS/ATD

VOLUME

Copley Park Pl Bet. Copley Dr & Convoy St

Day: Thursday
Date: 10/6/2016

City: Kearny Mesa
Project #: CA16_4215_007

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	4,769	5,480	10,249

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			3		2		5		12:00			100		107		207	
00:15			2		1		3		12:15			110		101		211	
00:30			5		2		7		12:30			113		92		205	
00:45			2	12	1	6	3	18	12:45			92	415	117	417	209	832
01:00			1		1		2		13:00			108		107		215	
01:15			4		2		6		13:15			95		101		196	
01:30			2		1		3		13:30			102		95		197	
01:45			2	9	2	6	4	15	13:45			114	419	101	404	215	823
02:00			0		0		0		14:00			136		107		243	
02:15			4		3		7		14:15			127		86		213	
02:30			1		1		2		14:30			100		82		182	
02:45			4	9	2	6	6	15	14:45			97	460	84	359	181	819
03:00			2		2		4		15:00			129		66		195	
03:15			0		3		3		15:15			123		71		194	
03:30			2		5		7		15:30			117		72		189	
03:45			2	6	4	14	6	20	15:45			118	487	68	277	186	764
04:00			2		7		9		16:00			131		83		214	
04:15			2		12		14		16:15			118		70		188	
04:30			7		12		19		16:30			128		87		215	
04:45			4	15	29	60	33	75	16:45			102	479	82	322	184	801
05:00			6		20		26		17:00			158		66		224	
05:15			8		24		32		17:15			97		88		185	
05:30			13		43		56		17:30			109		56		165	
05:45			10	37	71	158	81	195	17:45			94	458	51	261	145	719
06:00			19		64		83		18:00			86		47		133	
06:15			21		67		88		18:15			64		38		102	
06:30			47		100		147		18:30			61		39		100	
06:45			24	111	120	351	144	462	18:45			60	271	29	153	89	424
07:00			28		134		162		19:00			67		41		108	
07:15			42		146		188		19:15			38		42		80	
07:30			34		153		187		19:30			39		26		65	
07:45			45	149	184	617	229	766	19:45			40	184	17	126	57	310
08:00			43		157		200		20:00			34		19		53	
08:15			36		158		194		20:15			34		15		49	
08:30			40		135		175		20:30			21		10		31	
08:45			47	166	154	604	201	770	20:45			19	108	3	47	22	155
09:00			28		111		139		21:00			21		6		27	
09:15			46		115		161		21:15			4		6		10	
09:30			52		105		157		21:30			19		6		25	
09:45			57	183	91	422	148	605	21:45			13	57	10	28	23	85
10:00			57		84		141		22:00			13		6		19	
10:15			74		108		182		22:15			12		4		16	
10:30			55		103		158		22:30			8		1		9	
10:45			92	278	111	406	203	684	22:45			11	44	9	20	20	64
11:00			90		82		172		23:00			6		7		13	
11:15			97		99		196		23:15			10		3		13	
11:30			93		103		196		23:30			9		2		11	
11:45			102	382	114	398	216	780	23:45			5	30	6	18	11	48
TOTALS				1357		3048		**4405**	**TOTALS**				3412		2432		**5844**
SPLIT %				30.8%		69.2%		**43.0%**	**SPLIT %**				58.4%		41.6%		**57.0%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	4,769	5,480	10,249

AM Peak Hour			11:45	07:30	**11:45**	**PM Peak Hour**			16:15	12:45	**13:30**
AM Pk Volume			425	652	**839**	**PM Pk Volume**			506	420	**868**
Pk Hr Factor			0.940	0.886	**0.971**	**Pk Hr Factor**			0.801	0.897	**0.893**
7 - 9 Volume	0	0	315	1221	**1536**	**4 - 6 Volume**	0	0	937	583	**1520**
7 - 9 Peak Hour			08:00	07:30	**07:30**	**4 - 6 Peak Hour**			16:15	16:30	**16:15**
7 - 9 Pk Volume	0	0	166	652	**810**	**4 - 6 Pk Volume**	0	0	506	323	**811**
Pk Hr Factor	0.000	0.000	0.883	0.886	**0.884**	**Pk Hr Factor**	0.000	0.000	0.801	0.918	**0.905**

Prepared by NDS/ATD

DAILY TOTALS	NB	SB	EB	WB	To
	11,733	11,687	0	0	23,4

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOT
00:00	20		21		0	0	41		12:00	239		199		0	0	438
00:15	16		6		0	0	22		12:15	234		171		0	0	405
00:30	14		16		0	0	30		12:30	249		219		0	0	468
00:45	16	66	15	58	0	0	31	124	12:45	260	982	214	803	0	0	474
01:00	11		10		0	0	21		13:00	242		208		0	0	450
01:15	20		5		0	0	25		13:15	245		181		0	0	426
01:30	4		8		0	0	12		13:30	262		188		0	0	450
01:45	5	40	9	32	0	0	14	72	13:45	229	978	202	779	0	0	431
02:00	9		9		0	0	18		14:00	263		179		0	0	442
02:15	5		16		0	0	21		14:15	253		182		0	0	435
02:30	2		16		0	0	18		14:30	332		205		0	0	537
02:45	7	23	11	52	0	0	18	75	14:45	242	1090	187	753	0	0	429
03:00	11		12		0	0	23		15:00	264		193		0	0	457
03:15	9		7		0	0	16		15:15	245		195		0	0	440
03:30	2		10		0	0	12		15:30	289		205		0	0	494
03:45	7	29	13	42	0	0	20	71	15:45	213	1011	242	835	0	0	455
04:00	5		14		0	0	19		16:00	259		311		0	0	570
04:15	5		15		0	0	20		16:15	215		286		0	0	501
04:30	19		29		0	0	48		16:30	218		303		0	0	521
04:45	20	49	46	104	0	0	66	153	16:45	196	888	310	1210	0	0	506
05:00	13		43		0	0	56		17:00	192		304		0	0	496
05:15	23		58		0	0	81		17:15	176		291		0	0	467
05:30	15		78		0	0	93		17:30	186		273		0	0	459
05:45	27	78	104	283	0	0	131	361	17:45	200	754	264	1132	0	0	464
06:00	50		72		0	0	122		18:00	163		244		0	0	407
06:15	52		100		0	0	152		18:15	189		147		0	0	336
06:30	69		86		0	0	155		18:30	188		179		0	0	367
06:45	66	237	110	368	0	0	176	605	18:45	125	665	133	703	0	0	258
07:00	78		130		0	0	208		19:00	169		117		0	0	286
07:15	106		141		0	0	247		19:15	146		111		0	0	257
07:30	97		136		0	0	233		19:30	132		85		0	0	217
07:45	100	381	181	588	0	0	281	969	19:45	129	576	66	379	0	0	195
08:00	124		167		0	0	291		20:00	107		67		0	0	174
08:15	134		198		0	0	332		20:15	90		56		0	0	146
08:30	120		173		0	0	293		20:30	104		42		0	0	146
08:45	129	507	197	735	0	0	326	1242	20:45	126	427	38	203	0	0	164
09:00	160		176		0	0	336		21:00	107		30		0	0	137
09:15	172		172		0	0	344		21:15	87		41		0	0	128
09:30	150		160		0	0	310		21:30	81		32		0	0	113
09:45	157	639	209	717	0	0	366	1356	21:45	71	346	20	123	0	0	91
10:00	182		169		0	0	351		22:00	80		27		0	0	107
10:15	185		190		0	0	375		22:15	54		21		0	0	75
10:30	178		181		0	0	359		22:30	61		15		0	0	76
10:45	176	721	194	734	0	0	370	1455	22:45	51	246	25	88	0	0	76
11:00	182		223		0	0	405		23:00	48		23		0	0	71
11:15	227		208		0	0	435		23:15	42		20		0	0	62
11:30	206		237		0	0	443		23:30	34		18		0	0	52
11:45	238	853	222	890	0	0	460	1743	23:45	23	147	15	76	0	0	38
TOTALS		3623		4603				8226	TOTALS		8110		7084			
SPLIT %		44.0%		56.0%				35.1%	SPLIT %		53.4%		46.6%			

DAILY TOTALS	NB	SB	EB	WB	To
	11,733	11,687	0	0	23,4

AM Peak Hour	11:45	11:00			11:15	PM Peak Hour	14:15	16:00			
AM Pk Volume	960	890			1776	PM Pk Volume	1091	1210			
Pk Hr Factor	0.499	0.939			0.965	Pk Hr Factor	0.900	0.974			
7 - 9 Volume	888	1323	0	0	2211	4 - 6 Volume	1642	2342	0	0	
7 - 9 Peak Hour	08:00	08:00			08:00	4 - 6 Peak Hour	16:00	16:00			
7 - 9 Pk Volume	507	735	0	0	1242	4 - 6 Pk Volume	888	1210	0	0	
Pk Hr Factor	0.946	0.928	0.000	0.000	0.935	Pk Hr Factor	0.857	0.973	0.000	0.000	

Prepared by NDS/ATD

DAILY TOTALS	NB	SB	EB	WB	To
	11,891	12,210	0	0	24,

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOT
00:00	33		15		0	0	48		12:00	215		237		0	0	452
00:15	18		8		0	0	26		12:15	216		237		0	0	453
00:30	16		15		0	0	31		12:30	262		203		0	0	465
00:45	16	83	9	47	0	0	25	130	12:45	234	927	201	878	0	0	435
01:00	25		9		0	0	34		13:00	276		214		0	0	490
01:15	15		11		0	0	26		13:15	261		220		0	0	481
01:30	7		4		0	0	11		13:30	310		181		0	0	491
01:45	23	70	14	38	0	0	37	108	13:45	275	1122	179	794	0	0	454
02:00	10		7		0	0	17		14:00	276		205		0	0	481
02:15	4		4		0	0	8		14:15	281		189		0	0	470
02:30	3		15		0	0	18		14:30	340		162		0	0	502
02:45	8	25	11	37	0	0	19	62	14:45	291	1188	196	752	0	0	487
03:00	10		14		0	0	24		15:00	297		209		0	0	506
03:15	8		8		0	0	16		15:15	314		158		0	0	472
03:30	5		12		0	0	17		15:30	238		214		0	0	452
03:45	7	30	17	51	0	0	24	81	15:45	200	1049	268	849	0	0	468
04:00	5		4		0	0	9		16:00	272		300		0	0	572
04:15	13		10		0	0	23		16:15	165		307		0	0	472
04:30	13		28		0	0	41		16:30	211		282		0	0	493
04:45	15	46	33	75	0	0	48	121	16:45	178	826	286	1175	0	0	464
05:00	17		33		0	0	50		17:00	222		316		0	0	538
05:15	22		76		0	0	98		17:15	169		307		0	0	476
05:30	27		75		0	0	102		17:30	177		311		0	0	488
05:45	40	106	125	309	0	0	165	415	17:45	145	713	294	1228	0	0	439
06:00	57		83		0	0	140		18:00	159		231		0	0	390
06:15	67		104		0	0	171		18:15	166		195		0	0	361
06:30	81		103		0	0	184		18:30	154		178		0	0	332
06:45	62	267	134	424	0	0	196	691	18:45	139	618	170	774	0	0	309
07:00	93		170		0	0	263		19:00	163		157		0	0	320
07:15	121		125		0	0	246		19:15	141		121		0	0	262
07:30	127		133		0	0	260		19:30	149		90		0	0	239
07:45	113	454	179	607	0	0	292	1061	19:45	129	582	104	472	0	0	233
08:00	133		174		0	0	307		20:00	123		91		0	0	214
08:15	139		167		0	0	306		20:15	125		79		0	0	204
08:30	134		189		0	0	323		20:30	88		43		0	0	131
08:45	148	554	209	739	0	0	357	1293	20:45	126	462	40	253	0	0	166
09:00	140		194		0	0	334		21:00	111		35		0	0	146
09:15	160		191		0	0	351		21:15	118		35		0	0	153
09:30	188		192		0	0	380		21:30	80		42		0	0	122
09:45	152	640	223	800	0	0	375	1440	21:45	73	382	31	143	0	0	104
10:00	169		188		0	0	357		22:00	65		37		0	0	102
10:15	184		171		0	0	355		22:15	45		25		0	0	70
10:30	209		169		0	0	378		22:30	40		31		0	0	71
10:45	141	703	237	765	0	0	378	1468	22:45	58	208	24	117	0	0	82
11:00	40		188		0	0	228		23:00	54		29		0	0	83
11:15	213		194		0	0	407		23:15	29		13		0	0	42
11:30	204		195		0	0	399		23:30	42		14		0	0	56
11:45	217	674	234	811	0	0	451	1485	23:45	37	162	16	72	0	0	53
TOTALS		3652		4703				8355	TOTALS		8239		7507			
SPLIT %		43.7%		56.3%				34.7%	SPLIT %		52.3%		47.7%			

DAILY TOTALS	NB	SB	EB	WB	To
	11,891	12,210	0	0	24,

AM Peak Hour	11:45	11:45			11:45	PM Peak Hour	14:30	17:00			
AM Pk Volume	910	911			1821	PM Pk Volume	1242	1228			
Pk Hr Factor	0.498	0.497			0.499	Pk Hr Factor	0.835	0.829			
7 - 9 Volume	1008	1346	0	0	2354	4 - 6 Volume	1539	2403	0	0	
7 - 9 Peak Hour	08:00	08:00			08:00	4 - 6 Peak Hour	16:00	17:00			
7 - 9 Pk Volume	554	739	0	0	1293	4 - 6 Pk Volume	826	1228	0	0	
Pk Hr Factor	0.936	0.884	0.000	0.000	0.905	Pk Hr Factor	0.759	0.972	0.000	0.000	

Prepared by NDS/ATD

VOLUME

Convoy Ct Bet. Convoy St & End

Day: Wednesday
Date: 9/7/2016

City: Kearny Mesa
Project #: CA16_4215_011

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	927	769	1,696

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			0		0		0		12:00			26		18		44	
00:15			2		2		4		12:15			24		21		45	
00:30			1		0		1		12:30			27		18		45	
00:45			0	3	1	3	1	6	12:45			27	104	22	79	49	183
01:00			2		1		3		13:00			28		14		42	
01:15			0		1		1		13:15			25		18		43	
01:30			0		0		0		13:30			19		17		36	
01:45			3	5	1	3	4	8	13:45			17	89	22	71	39	160
02:00			1		0		1		14:00			19		19		38	
02:15			1		1		2		14:15			21		14		35	
02:30			0		0		0		14:30			18		26		44	
02:45			0	2	0	1	0	3	14:45			21	79	25	84	46	163
03:00			0		0		0		15:00			11		20		31	
03:15			0		0		0		15:15			20		18		38	
03:30			1		0		1		15:30			16		13		29	
03:45			1	2	0		1	2	15:45			5	52	14	65	19	117
04:00			0		0		0		16:00			14		32		46	
04:15			0		0		0		16:15			17		22		39	
04:30			1		0		1		16:30			11		16		27	
04:45			2	3	1	1	3	4	16:45			12	54	17	87	29	141
05:00			2		0		2		17:00			9		17		26	
05:15			0		0		0		17:15			11		14		25	
05:30			4		1		5		17:30			14		15		29	
05:45			4	10	1	2	5	12	17:45			24	58	3	49	27	107
06:00			7		2		9		18:00			11		12		23	
06:15			14		1		15		18:15			22		15		37	
06:30			3		6		9		18:30			13		10		23	
06:45			8	32	2	11	10	43	18:45			12	58	3	40	15	98
07:00			15		6		21		19:00			11		11		22	
07:15			11		2		13		19:15			5		12		17	
07:30			11		3		14		19:30			3		1		4	
07:45			22	59	3	14	25	73	19:45			3	22	3	27	6	49
08:00			15		3		18		20:00			1		4		5	
08:15			16		4		20		20:15			4		3		7	
08:30			17		4		21		20:30			9		14		23	
08:45			20	68	10	21	30	89	20:45			1	15	15	36	16	51
09:00			13		13		26		21:00			3		14		17	
09:15			19		10		29		21:15			3		6		9	
09:30			8		9		17		21:30			1		4		5	
09:45			14	54	6	38	20	92	21:45			3	10	7	31	10	41
10:00			16		7		23		22:00			2		2		4	
10:15			14		12		26		22:15			1		3		4	
10:30			20		11		31		22:30			1		1		2	
10:45			20	70	11	41	31	111	22:45			1	5	2	8	3	13
11:00			18		13		31		23:00			1		4		5	
11:15			15		16		31		23:15			2		0		2	
11:30			15		11		26		23:30			1		0		1	
11:45			20	68	12	52	32	120	23:45			1	5	1	5	2	10
TOTALS				376		187		**563**	**TOTALS**				551		582		**1133**
SPLIT %				66.8%		33.2%		**33.2%**	**SPLIT %**				48.6%		51.4%		**66.8%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	927	769	1,696

AM Peak Hour			11:45	11:45	**11:45**	**PM Peak Hour**			12:30	14:30	**12:00**
AM Pk Volume			97	69	**166**	**PM Pk Volume**			107	89	**183**
Pk Hr Factor			0.898	0.821	**0.922**	**Pk Hr Factor**			0.955	0.856	**0.934**
7 - 9 Volume	0	0	127	35	**162**	**4 - 6 Volume**	0	0	112	136	**248**
7 - 9 Peak Hour			07:45	08:00	**08:00**	**4 - 6 Peak Hour**			17:00	16:00	**16:00**
7 - 9 Pk Volume	0	0	70	21	**89**	**4 - 6 Pk Volume**	0	0	58	87	**141**
Pk Hr Factor	0.000	0.000	0.795	0.525	**0.742**	**Pk Hr Factor**	0.000	0.000	0.604	0.680	**0.766**

Prepared by NDS/ATD

VOLUME

Convoy Ct Bet. Convoy St & End

Day: Thursday
Date: 9/8/2016

City: Kearny Mesa
Project #: CA16_4215_011

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	912	806	1,718

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			1		1		2		12:00			22		16		38	
00:15			6		1		7		12:15			20		20		40	
00:30			0		1		1		12:30			16		21		37	
00:45			1	8	1	4	2	12	12:45			27	85	14	71	41	156
01:00			4		4		8		13:00			25		22		47	
01:15			1		1		2		13:15			26		22		48	
01:30			1		1		2		13:30			29		17		46	
01:45			0	6	0	6	0	12	13:45			19	99	13	74	32	173
02:00			1		0		1		14:00			17		18		35	
02:15			0		0		0		14:15			19		15		34	
02:30			1		1		2		14:30			12		18		30	
02:45			1	3	2	3	3	6	14:45			20	68	14	65	34	133
03:00			0		0		0		15:00			15		20		35	
03:15			1		1		2		15:15			13		31		44	
03:30			1		0		1		15:30			12		24		36	
03:45			0	2	0	1	0	3	15:45			24	64	13	88	37	152
04:00			0		0		0		16:00			15		32		47	
04:15			0		0		0		16:15			17		24		41	
04:30			3		1		4		16:30			12		21		33	
04:45			4	7	2	3	6	10	16:45			6	50	12	89	18	139
05:00			1		0		1		17:00			13		24		37	
05:15			2		1		3		17:15			13		17		30	
05:30			3		0		3		17:30			8		7		15	
05:45			6	12	3	4	9	16	17:45			14	48	5	53	19	101
06:00			6		2		8		18:00			6		17		23	
06:15			9		1		10		18:15			8		8		16	
06:30			14		5		19		18:30			8		11		19	
06:45			7	36	5	13	12	49	18:45			5	27	10	46	15	73
07:00			13		3		16		19:00			7		9		16	
07:15			16		10		26		19:15			9		8		17	
07:30			9		4		13		19:30			3		3		6	
07:45			13	51	4	21	17	72	19:45			2	21	5	25	7	46
08:00			22		3		25		20:00			6		4		10	
08:15			18		4		22		20:15			6		6		12	
08:30			15		4		19		20:30			6		6		12	
08:45			18	73	8	19	26	92	20:45			3	21	9	25	12	46
09:00			18		9		27		21:00			1		1		2	
09:15			21		9		30		21:15			1		8		9	
09:30			16		15		31		21:30			0		4		4	
09:45			33	88	8	41	41	129	21:45			5	7	1	14	6	21
10:00			13		12		25		22:00			3		3		6	
10:15			14		8		22		22:15			0		1		1	
10:30			16		11		27		22:30			1		1		2	
10:45			15	58	14	45	29	103	22:45			2	6	5	10	7	16
11:00			13		16		29		23:00			1		2		3	
11:15			15		22		37		23:15			1		3		4	
11:30			18		24		42		23:30			1		1		2	
11:45			22	68	17	79	39	147	23:45			1	4	1	7	2	11
TOTALS				412		239		**651**	**TOTALS**				500		567		**1067**
SPLIT %				63.3%		36.7%		**37.9%**	**SPLIT %**				46.9%		53.1%		**62.1%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	912	806	1,718

AM Peak Hour			09:00	11:00	**11:30**	**PM Peak Hour**			12:45	15:15	**12:45**
AM Pk Volume			88	79	**159**	**PM Pk Volume**			107	100	**182**
Pk Hr Factor			0.667	0.823	**0.946**	**Pk Hr Factor**			0.922	0.781	**0.948**
7 - 9 Volume	0	0	124	40	**164**	**4 - 6 Volume**	0	0	98	142	**240**
7 - 9 Peak Hour			08:00	07:00	**08:00**	**4 - 6 Peak Hour**			16:00	16:00	**16:00**
7 - 9 Pk Volume	0	0	73	21	**92**	**4 - 6 Pk Volume**	0	0	50	89	**139**
Pk Hr Factor	0.000	0.000	0.830	0.525	**0.885**	**Pk Hr Factor**	0.000	0.000	0.735	0.695	**0.739**

Prepared by NDS/ATD

VOLUME

Ronson Rd Bet. Mercury St & Kearny Mesa Rd

Day: 09/07/2016 0
Date: 09/07/2016 0

City: Kearny Mesa
Project #: CA16_4215_037

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,241	1,634	3,875

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			3		1		4		12:00			37		53		90	
00:15			0		0		0		12:15			45		37		82	
00:30			3		1		4		12:30			44		34		78	
00:45			3	9	0	2	3	11	12:45			54	180	37	161	91	341
01:00			1		1		2		13:00			47		46		93	
01:15			0		1		1		13:15			57		40		97	
01:30			3		0		3		13:30			48		45		93	
01:45			1	5	0	2	1	7	13:45			54	206	19	150	73	356
02:00			2		0		2		14:00			48		28		76	
02:15			0		0		0		14:15			33		32		65	
02:30			1		2		3		14:30			60		27		87	
02:45			1	4	0	2	1	6	14:45			64	205	33	120	97	325
03:00			0		0		0		15:00			44		52		96	
03:15			1		1		2		15:15			39		37		76	
03:30			4		1		5		15:30			49		53		102	
03:45			0	5	1	3	1	8	15:45			53	185	36	178	89	363
04:00			1		1		2		16:00			46		53		99	
04:15			5		2		7		16:15			36		41		77	
04:30			1		1		2		16:30			49		43		92	
04:45			3	10	0	4	3	14	16:45			29	160	43	180	72	340
05:00			2		1		3		17:00			44		56		100	
05:15			5		0		5		17:15			31		45		76	
05:30			3		0		3		17:30			29		30		59	
05:45			6	16	0	1	6	17	17:45			22	126	37	168	59	294
06:00			12		3		15		18:00			31		32		63	
06:15			18		7		25		18:15			17		21		38	
06:30			26		2		28		18:30			26		18		44	
06:45			36	92	9	21	45	113	18:45			28	102	9	80	37	182
07:00			34		10		44		19:00			16		25		41	
07:15			35		6		41		19:15			13		19		32	
07:30			35		13		48		19:30			10		20		30	
07:45			40	144	9	38	49	182	19:45			6	45	12	76	18	121
08:00			56		11		67		20:00			9		11		20	
08:15			49		16		65		20:15			1		6		7	
08:30			50		16		66		20:30			4		7		11	
08:45			54	209	14	57	68	266	20:45			2	16	5	29	7	45
09:00			57		21		78		21:00			1		6		7	
09:15			47		25		72		21:15			3		1		4	
09:30			49		31		80		21:30			2		2		4	
09:45			50	203	27	104	77	307	21:45			2	8	1	10	3	18
10:00			37		14		51		22:00			2		0		2	
10:15			37		24		61		22:15			3		0		3	
10:30			35		26		61		22:30			1		1		2	
10:45			39	148	34	98	73	246	22:45			2	8	1	2	3	10
11:00			36		28		64		23:00			3		2		5	
11:15			35		33		68		23:15			2		4		6	
11:30			42		44		86		23:30			0		4		4	
11:45			37	150	33	138	70	288	23:45			0	5	0	10	0	15
TOTALS				995		470		**1465**	**TOTALS**				1246		1164		**2410**
SPLIT %				67.9%		32.1%		**37.8%**	**SPLIT %**				51.7%		48.3%		**62.2%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,241	1,634	3,875

AM Peak Hour			08:15	11:30	**11:30**	**PM Peak Hour**			13:15	16:30	**12:45**
AM Pk Volume			210	167	**328**	**PM Pk Volume**			207	187	**374**
Pk Hr Factor			0.921	0.788	**0.911**	**Pk Hr Factor**			0.908	0.835	**0.964**
7 - 9 Volume	0	0	353	95	**448**	**4 - 6 Volume**	0	0	286	348	**634**
7 - 9 Peak Hour			08:00	08:00	**08:00**	**4 - 6 Peak Hour**			16:00	16:30	**16:15**
7 - 9 Pk Volume	0	0	209	57	**266**	**4 - 6 Pk Volume**	0	0	160	187	**341**
Pk Hr Factor	0.000	0.000	0.933	0.891	**0.978**	**Pk Hr Factor**	0.000	0.000	0.816	0.835	**0.853**

Prepared by NDS/ATD

VOLUME

Ronson Rd Bet. Mercury St & Kearny Mesa Rd

Day: #VALUE!
Date: #VALUE!

City: Kearny Mesa
Project #: CA16_4215_037

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,104	1,591	3,695

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00					1		0		1		12:00					50		37		87	
00:15					1		1		2		12:15					49		42		91	
00:30					0		0		0		12:30					39		28		67	
00:45					2	4	1	2	3	6	12:45					57	195	32	139	89	334
01:00					2		0		2		13:00					41		48		89	
01:15					5		1		6		13:15					45		44		89	
01:30					3		2		5		13:30					44		30		74	
01:45					0	10	0	3	0	13	13:45					57	187	26	148	83	335
02:00					2		0		2		14:00					45		34		79	
02:15					0		1		1		14:15					53		39		92	
02:30					3		0		3		14:30					58		44		102	
02:45					3	8	0	1	3	9	14:45					30	186	33	150	63	336
03:00					2		1		3		15:00					37		39		76	
03:15					1		1		2		15:15					46		29		75	
03:30					1		0		1		15:30					38		34		72	
03:45					3	7	0	2	3	9	15:45					38	159	47	149	85	308
04:00					1		1		2		16:00					38		41		79	
04:15					5		2		7		16:15					28		31		59	
04:30					0		2		2		16:30					40		38		78	
04:45					3	9	2	7	5	16	16:45					42	148	33	143	75	291
05:00					0		0		0		17:00					35		61		96	
05:15					4		6		10		17:15					24		38		62	
05:30					8		1		9		17:30					21		27		48	
05:45					7	19	3	10	10	29	17:45					37	117	30	156	67	273
06:00					10		4		14		18:00					26		45		71	
06:15					25		4		29		18:15					21		20		41	
06:30					24		3		27		18:30					23		12		35	
06:45					24	83	7	18	31	101	18:45					15	85	14	91	29	176
07:00					21		13		34		19:00					12		16		28	
07:15					33		13		46		19:15					9		13		22	
07:30					41		14		55		19:30					15		19		34	
07:45					38	133	17	57	55	190	19:45					5	41	4	52	9	93
08:00					44		27		71		20:00					6		7		13	
08:15					47		15		62		20:15					8		7		15	
08:30					55		25		80		20:30					2		10		12	
08:45					43	189	19	86	62	275	20:45					4	20	6	30	10	50
09:00					43		25		68		21:00					5		4		9	
09:15					54		22		76		21:15					3		3		6	
09:30					43		25		68		21:30					3		2		5	
09:45					57	197	22	94	79	291	21:45					1	12	3	12	4	24
10:00					38		31		69		22:00					5		2		7	
10:15					37		28		65		22:15					3		2		5	
10:30					36		19		55		22:30					3		1		4	
10:45					31	142	21	99	52	241	22:45					2	13	1	6	3	19
11:00					35		31		66		23:00					1		2		3	
11:15					34		25		59		23:15					2		3		5	
11:30					21		37		58		23:30					2		0		2	
11:45					44	134	38	131	82	265	23:45					1	6	0	5	1	11
TOTALS						935		510		1445	TOTALS						1169		1081		2250
SPLIT %						64.7%		35.3%		39.1%	SPLIT %						52.0%		48.0%		60.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,104	1,591	3,695

AM Peak Hour			09:00	11:30	11:45	PM Peak Hour			13:45	16:30	13:45
AM Pk Volume			197	154	327	PM Pk Volume			213	170	356
Pk Hr Factor			0.864	0.917	0.898	Pk Hr Factor			0.918	0.697	0.873
7 - 9 Volume	0	0	322	143	465	4 - 6 Volume	0	0	265	299	564
7 - 9 Peak Hour			08:00	08:00	08:00	4 - 6 Peak Hour			16:00	16:30	16:30
7 - 9 Pk Volume	0	0	189	86	275	4 - 6 Pk Volume	0	0	148	170	311
Pk Hr Factor	0.000	0.000	0.859	0.796	0.859	Pk Hr Factor	0.000	0.000	0.881	0.697	0.810

Prepared by NDS/ATD

VOLUME

Lightwave Ave Bet. Kearny Villa Rd & Overland Ave

Day: Tuesday
Date: 10/18/2016

City: Kearny Mesa
Project #: CA16_4215_038

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,687	2,411	5,098

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			2		3		5		12:00			70		54		124	
00:15			4		2		6		12:15			66		31		97	
00:30			3		2		5		12:30			64		55		119	
00:45			1	10	3	10	4	20	12:45			49	249	50	190	99	439
01:00			3		0		3		13:00			62		54		116	
01:15			2		1		3		13:15			51		43		94	
01:30			2		3		5		13:30			55		32		87	
01:45			2	9	2	6	4	15	13:45			46	214	44	173	90	387
02:00			3		2		5		14:00			34		28		62	
02:15			1		4		5		14:15			42		26		68	
02:30			4		2		6		14:30			43		27		70	
02:45			5	13	1	9	6	22	14:45			46	165	32	113	78	278
03:00			2		2		4		15:00			40		30		70	
03:15			5		0		5		15:15			40		36		76	
03:30			1		1		2		15:30			53		41		94	
03:45			5	13	2	5	7	18	15:45			48	181	36	143	84	324
04:00			4		4		8		16:00			74		44		118	
04:15			0		5		5		16:15			63		41		104	
04:30			3		7		10		16:30			66		55		121	
04:45			5	12	12	28	17	40	16:45			54	257	73	213	127	470
05:00			4		7		11		17:00			63		73		136	
05:15			7		13		20		17:15			67		64		131	
05:30			4		17		21		17:30			68		65		133	
05:45			8	23	16	53	24	76	17:45			47	245	57	259	104	504
06:00			22		17		39		18:00			57		35		92	
06:15			10		17		27		18:15			49		25		74	
06:30			25		25		50		18:30			53		23		76	
06:45			20	77	28	87	48	164	18:45			31	190	14	97	45	287
07:00			22		49		71		19:00			35		14		49	
07:15			28		47		75		19:15			28		11		39	
07:30			23		64		87		19:30			17		13		30	
07:45			28	101	58	218	86	319	19:45			31	111	16	54	47	165
08:00			21		54		75		20:00			19		9		28	
08:15			33		48		81		20:15			14		8		22	
08:30			40		49		89		20:30			16		7		23	
08:45			32	126	61	212	93	338	20:45			8	57	17	41	25	98
09:00			44		58		102		21:00			25		3		28	
09:15			33		33		66		21:15			21		11		32	
09:30			26		47		73		21:30			21		10		31	
09:45			29	132	37	175	66	307	21:45			30	97	2	26	32	123
10:00			34		46		80		22:00			17		6		23	
10:15			41		25		66		22:15			8		8		16	
10:30			41		34		75		22:30			4		2		6	
10:45			41	157	23	128	64	285	22:45			3	32	5	21	8	53
11:00			42		42		84		23:00			1		2		3	
11:15			48		32		80		23:15			4		1		5	
11:30			62		25		87		23:30			0		4		4	
11:45			58	210	42	141	100	351	23:45			1	6	2	9	3	15
TOTALS				883		1072		**1955**	**TOTALS**				1804		1339		**3143**
SPLIT %				45.2%		54.8%		**38.3%**	**SPLIT %**				57.4%		42.6%		**61.7%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,687	2,411	5,098

AM Peak Hour			11:45	07:30	**11:45**	**PM Peak Hour**			16:00	16:45	**16:45**
AM Pk Volume			258	224	**440**	**PM Pk Volume**			257	275	**527**
Pk Hr Factor			0.921	0.875	**0.887**	**Pk Hr Factor**			0.868	0.942	**0.969**
7 - 9 Volume	0	0	227	430	**657**	**4 - 6 Volume**	0	0	502	472	**974**
7 - 9 Peak Hour			08:00	07:30	**08:00**	**4 - 6 Peak Hour**			16:00	16:45	**16:45**
7 - 9 Pk Volume	0	0	126	224	**338**	**4 - 6 Pk Volume**	0	0	257	275	**527**
Pk Hr Factor	0.000	0.000	0.788	0.875	**0.909**	**Pk Hr Factor**	0.000	0.000	0.868	0.942	**0.969**

Prepared by NDS/ATD

VOLUME

Lightwave Ave Bet. Kearny Villa Rd & Overland Ave

Day: Wednesday
Date: 10/19/2016

City: Kearny Mesa
Project #: CA16_4215_038

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,635	2,359	4,994

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			3		0		3		12:00			67		33		100	
00:15			3		3		6		12:15			73		40		113	
00:30			0		2		2		12:30			64		45		109	
00:45			2	8	3	8	5	16	12:45			68	272	61	179	129	451
01:00			2		1		3		13:00			66		36		102	
01:15			3		2		5		13:15			49		33		82	
01:30			0		0		0		13:30			49		30		79	
01:45			3	8	2	5	5	13	13:45			37	201	35	134	72	335
02:00			0		1		1		14:00			42		28		70	
02:15			2		2		4		14:15			40		22		62	
02:30			4		1		5		14:30			39		16		55	
02:45			0	6	2	6	2	12	14:45			34	155	32	98	66	253
03:00			1		3		4		15:00			46		22		68	
03:15			3		0		3		15:15			40		42		82	
03:30			1		3		4		15:30			45		46		91	
03:45			3	8	1	7	4	15	15:45			59	190	28	138	87	328
04:00			1		4		5		16:00			70		46		116	
04:15			4		1		5		16:15			58		52		110	
04:30			2		3		5		16:30			69		70		139	
04:45			1	8	6	14	7	22	16:45			59	256	64	232	123	488
05:00			3		5		8		17:00			74		78		152	
05:15			3		12		15		17:15			62		71		133	
05:30			9		8		17		17:30			80		92		172	
05:45			15	30	18	43	33	73	17:45			40	256	52	293	92	549
06:00			10		17		27		18:00			42		38		80	
06:15			18		28		46		18:15			38		27		65	
06:30			15		18		33		18:30			32		16		48	
06:45			12	55	32	95	44	150	18:45			29	141	23	104	52	245
07:00			28		39		67		19:00			32		17		49	
07:15			22		44		66		19:15			22		25		47	
07:30			35		59		94		19:30			27		6		33	
07:45			25	110	63	205	88	315	19:45			20	101	11	59	31	160
08:00			34		60		94		20:00			33		11		44	
08:15			29		53		82		20:15			14		11		25	
08:30			31		54		85		20:30			23		8		31	
08:45			37	131	70	237	107	368	20:45			18	88	12	42	30	130
09:00			24		43		67		21:00			24		13		37	
09:15			20		35		55		21:15			14		11		25	
09:30			22		28		50		21:30			21		8		29	
09:45			40	106	33	139	73	245	21:45			27	86	7	39	34	125
10:00			31		19		50		22:00			13		7		20	
10:15			34		33		67		22:15			14		6		20	
10:30			38		24		62		22:30			8		2		10	
10:45			35	138	36	112	71	250	22:45			0	35	0	15	0	50
11:00			60		33		93		23:00			2		2		4	
11:15			47		41		88		23:15			5		0		5	
11:30			63		38		101		23:30			1		1		2	
11:45			66	236	37	149	103	385	23:45			2	10	3	6	5	16
TOTALS				844		1020		**1864**	**TOTALS**				1791		1339		**3130**
SPLIT %				45.3%		54.7%		**37.3%**	**SPLIT %**				57.2%		42.8%		**62.7%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,635	2,359	4,994

AM Peak Hour			11:45	08:00	**11:45**	**PM Peak Hour**			16:45	16:45	**16:45**
AM Pk Volume			270	237	**425**	**PM Pk Volume**			275	305	**580**
Pk Hr Factor			0.925	0.846	**0.940**	**Pk Hr Factor**			0.859	0.829	**0.843**
7 - 9 Volume	0	0	241	442	**683**	**4 - 6 Volume**	0	0	512	525	**1037**
7 - 9 Peak Hour			08:00	08:00	**08:00**	**4 - 6 Peak Hour**			16:45	16:45	**16:45**
7 - 9 Pk Volume	0	0	131	237	**368**	**4 - 6 Pk Volume**	0	0	275	305	**580**
Pk Hr Factor	0.000	0.000	0.885	0.846	**0.860**	**Pk Hr Factor**	0.000	0.000	0.859	0.829	**0.843**

Prepared by NDS/ATD

VOLUME

Lightwave Ave Bet. Overland Ave & Ruffin Rd

Day: Tuesday
Date: 9/13/2016

City: Kearny Mesa
Project #: CA16_4215_039

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,866	3,096	5,962

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			1		1		2		12:00			65		74		139	
00:15			1		0		1		12:15			45		62		107	
00:30			1		1		2		12:30			66		58		124	
00:45			2	5	4	6	6	11	12:45			64	240	68	262	132	502
01:00			0		0		0		13:00			76		60		136	
01:15			3		0		3		13:15			52		43		95	
01:30			3		0		3		13:30			51		49		100	
01:45			1	7	0		1	7	13:45			48	227	54	206	102	433
02:00			1		1		2		14:00			36		49		85	
02:15			1		0		1		14:15			35		43		78	
02:30			3		3		6		14:30			47		44		91	
02:45			2	7	2	6	4	13	14:45			38	156	46	182	84	338
03:00			3		0		3		15:00			45		42		87	
03:15			3		2		5		15:15			33		51		84	
03:30			5		3		8		15:30			62		42		104	
03:45			3	14	0	5	3	19	15:45			57	197	46	181	103	378
04:00			6		0		6		16:00			73		67		140	
04:15			8		1		9		16:15			74		54		128	
04:30			3		2		5		16:30			94		58		152	
04:45			8	25	17	20	25	45	16:45			88	329	56	235	144	564
05:00			3		15		18		17:00			110		55		165	
05:15			10		27		37		17:15			123		51		174	
05:30			8		11		19		17:30			98		50		148	
05:45			25	46	31	84	56	130	17:45			75	406	45	201	120	607
06:00			14		20		34		18:00			49		46		95	
06:15			30		24		54		18:15			27		46		73	
06:30			28		30		58		18:30			47		41		88	
06:45			29	101	37	111	66	212	18:45			33	156	27	160	60	316
07:00			30		49		79		19:00			24		43		67	
07:15			28		57		85		19:15			38		27		65	
07:30			40		54		94		19:30			28		35		63	
07:45			33	131	58	218	91	349	19:45			22	112	33	138	55	250
08:00			39		71		110		20:00			20		27		47	
08:15			47		76		123		20:15			11		18		29	
08:30			33		49		82		20:30			16		19		35	
08:45			23	142	55	251	78	393	20:45			17	64	35	99	52	163
09:00			39		48		87		21:00			11		10		21	
09:15			27		44		71		21:15			13		22		35	
09:30			36		47		83		21:30			6		25		31	
09:45			28	130	26	165	54	295	21:45			8	38	22	79	30	117
10:00			23		50		73		22:00			9		17		26	
10:15			33		27		60		22:15			9		7		16	
10:30			42		43		85		22:30			3		3		6	
10:45			38	136	55	175	93	311	22:45			0	21	4	31	4	52
11:00			33		53		86		23:00			4		5		9	
11:15			40		54		94		23:15			1		2		3	
11:30			35		77		112		23:30			4		1		5	
11:45			57	165	89	273	146	438	23:45			2	11	0	8	2	19
TOTALS				909		1314		**2223**	**TOTALS**				1957		1782		**3739**
SPLIT %				40.9%		59.1%		**37.3%**	**SPLIT %**				52.3%		47.7%		**62.7%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	2,866	3,096	5,962

AM Peak Hour				11:45		11:30		**11:45**	**PM Peak Hour**				16:45		12:00		**16:30**
AM Pk Volume				233		302		**516**	**PM Pk Volume**				419		262		**635**
Pk Hr Factor				0.883		0.848		**0.884**	**Pk Hr Factor**				0.852		0.885		**0.912**
7 - 9 Volume	0	0		273		469		**742**	**4 - 6 Volume**	0	0		735		436		**1171**
7 - 9 Peak Hour				07:30		07:30		**07:30**	**4 - 6 Peak Hour**				16:45		16:00		**16:30**
7 - 9 Pk Volume	0	0		159		259		**418**	**4 - 6 Pk Volume**	0	0		419		235		**635**
Pk Hr Factor	0.000	0.000		0.846		0.852		**0.850**	**Pk Hr Factor**	0.000	0.000		0.852		0.877		**0.912**

Prepared by NDS/ATD

VOLUME

Lightwave Ave Bet. Overland Ave & Ruffin Rd

Day: Wednesday
Date: 9/14/2016

City: Kearny Mesa
Project #: CA16_4215_039

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	3,059	3,254	6,313

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			1		3		4		12:00			59		113		172	
00:15			0		2		2		12:15			64		74		138	
00:30			1		3		4		12:30			63		63		126	
00:45			2	4	1	9	3	13	12:45			70	256	65	315	135	571
01:00			0		0		0		13:00			63		62		125	
01:15			0		1		1		13:15			61		50		111	
01:30			3		2		5		13:30			45		59		104	
01:45			3	6	2	5	5	11	13:45			52	221	57	228	109	449
02:00			2		2		4		14:00			40		30		70	
02:15			2		1		3		14:15			36		31		67	
02:30			3		1		4		14:30			36		51		87	
02:45			2	9	1	5	3	14	14:45			43	155	31	143	74	298
03:00			0		0		0		15:00			26		48		74	
03:15			3		0		3		15:15			43		50		93	
03:30			3		1		4		15:30			66		62		128	
03:45			3	9	2	3	5	12	15:45			48	183	54	214	102	397
04:00			3		2		5		16:00			84		50		134	
04:15			5		0		5		16:15			93		54		147	
04:30			3		6		9		16:30			120		58		178	
04:45			7	18	10	18	17	36	16:45			99	396	51	213	150	609
05:00			8		19		27		17:00			113		72		185	
05:15			7		27		34		17:15			128		69		197	
05:30			9		10		19		17:30			120		59		179	
05:45			18	42	16	72	34	114	17:45			72	433	41	241	113	674
06:00			17		25		42		18:00			56		53		109	
06:15			21		24		45		18:15			48		39		87	
06:30			35		32		67		18:30			40		38		78	
06:45			25	98	41	122	66	220	18:45			38	182	41	171	79	353
07:00			30		45		75		19:00			49		38		87	
07:15			38		61		99		19:15			26		33		59	
07:30			44		67		111		19:30			25		34		59	
07:45			36	148	44	217	80	365	19:45			20	120	21	126	41	246
08:00			48		55		103		20:00			22		19		41	
08:15			44		99		143		20:15			14		23		37	
08:30			30		37		67		20:30			19		32		51	
08:45			51	173	62	253	113	426	20:45			9	64	14	88	23	152
09:00			38		51		89		21:00			8		21		29	
09:15			33		48		81		21:15			9		23		32	
09:30			42		51		93		21:30			9		31		40	
09:45			31	144	31	181	62	325	21:45			11	37	20	95	31	132
10:00			40		59		99		22:00			9		12		21	
10:15			31		43		74		22:15			4		3		7	
10:30			39		41		80		22:30			1		2		3	
10:45			36	146	57	200	93	346	22:45			3	17	2	19	5	36
11:00			39		66		105		23:00			4		2		6	
11:15			51		55		106		23:15			3		0		3	
11:30			45		76		121		23:30			2		0		2	
11:45			53	188	115	312	168	500	23:45			1	10	2	4	3	14
TOTALS				985		1397		**2382**	**TOTALS**				2074		1857		**3931**
SPLIT %				41.4%		58.6%		**37.7%**	**SPLIT %**				52.8%		47.2%		**62.3%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	3,059	3,254	6,313

AM Peak Hour			11:45	11:30	**11:45**	**PM Peak Hour**			16:30	12:00	**16:45**
AM Pk Volume			239	378	**604**	**PM Pk Volume**			460	315	**711**
Pk Hr Factor			0.934	0.822	**0.878**	**Pk Hr Factor**			0.898	0.697	**0.902**
7 - 9 Volume	0	0	321	470	**791**	**4 - 6 Volume**	0	0	829	454	**1283**
7 - 9 Peak Hour			08:00	07:30	**07:30**	**4 - 6 Peak Hour**			16:30	16:45	**16:45**
7 - 9 Pk Volume	0	0	173	265	**437**	**4 - 6 Pk Volume**	0	0	460	251	**711**
Pk Hr Factor	0.000	0.000	0.848	0.669	**0.764**	**Pk Hr Factor**	0.000	0.000	0.898	0.872	**0.902**

Prepared by NDS/ATD

VOLUME

Ruffin Rd Bet. Clairemont Mesa Blvd & Lightwave Ave

Day: Wednesday
Date: 10/5/2016

City: Kearny Mesa
Project #: CA16_4215_159

DAILY TOTALS	NB	SB	EB	WB	Total
	5,037	5,893	0	0	10,930

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	4		5				9		12:00	159		72				231	
00:15	2		5				7		12:15	146		61				207	
00:30	4		8				12		12:30	137		81				218	
00:45	3	13	8	26			11	39	12:45	122	564	101	315			223	879
01:00	0		0				0		13:00	96		101				197	
01:15	1		11				12		13:15	87		62				149	
01:30	4		3				7		13:30	97		77				174	
01:45	1	6	4	18			5	24	13:45	88	368	55	295			143	663
02:00	3		5				8		14:00	111		48				159	
02:15	3		5				8		14:15	84		45				129	
02:30	2		6				8		14:30	91		39				130	
02:45	0	8	17	33			17	41	14:45	106	392	32	164			138	556
03:00	1		7				8		15:00	107		44				151	
03:15	0		7				7		15:15	96		92				188	
03:30	7		6				13		15:30	130		109				239	
03:45	1	9	6	26			7	35	15:45	105	438	127	372			232	810
04:00	1		6				7		16:00	133		115				248	
04:15	4		9				13		16:15	90		142				232	
04:30	6		10				16		16:30	125		135				260	
04:45	7	18	23	48			30	66	16:45	106	454	181	573			287	1027
05:00	3		32				35		17:00	125		136				261	
05:15	10		59				69		17:15	117		195				312	
05:30	18		34				52		17:30	110		157				267	
05:45	21	52	93	218			114	270	17:45	64	416	223	711			287	1127
06:00	11		87				98		18:00	65		162				227	
06:15	31		73				104		18:15	59		194				253	
06:30	27		75				102		18:30	72		121				193	
06:45	40	109	108	343			148	452	18:45	40	236	208	685			248	921
07:00	49		95				144		19:00	34		104				138	
07:15	64		104				168		19:15	35		64				99	
07:30	68		127				195		19:30	31		24				55	
07:45	62	243	149	475			211	718	19:45	24	124	33	225			57	349
08:00	55		149				204		20:00	24		12				36	
08:15	72		124				196		20:15	27		20				47	
08:30	49		136				185		20:30	20		22				42	
08:45	94	270	70	479			164	749	20:45	14	85	11	65			25	150
09:00	54		131				185		21:00	19		10				29	
09:15	69		79				148		21:15	17		3				20	
09:30	60		76				136		21:30	15		8				23	
09:45	79	262	57	343			136	605	21:45	17	68	7	28			24	96
10:00	76		46				122		22:00	13		10				23	
10:15	78		52				130		22:15	9		7				16	
10:30	68		63				131		22:30	10		4				14	
10:45	87	309	41	202			128	511	22:45	1	33	10	31			11	64
11:00	125		33				158		23:00	8		16				24	
11:15	122		53				175		23:15	4		8				12	
11:30	145		51				196		23:30	4		5				9	
11:45	146	538	51	188			197	726	23:45	6	22	1	30			7	52
TOTALS		1837		2399				**4236**	**TOTALS**		3200		3494				**6694**
SPLIT %		43.4%		56.6%				**38.8%**	**SPLIT %**		47.8%		52.2%				**61.2%**

DAILY TOTALS	NB	SB	EB	WB	Total
	5,037	5,893	0	0	10,930

AM Peak Hour	11:30	07:45			**11:45**	**PM Peak Hour**	12:00	17:15			**16:45**
AM Pk Volume	596	558			**853**	**PM Pk Volume**	564	737			**1127**
Pk Hr Factor	0.937	0.936			**0.923**	**Pk Hr Factor**	0.887	0.826			**0.903**
7 - 9 Volume	513	954	0	0	**1467**	**4 - 6 Volume**	870	1284	0	0	**2154**
7 - 9 Peak Hour	08:00	07:45			**07:30**	**4 - 6 Peak Hour**	16:30	17:00			**16:45**
7 - 9 Pk Volume	270	558	0	0	**806**	**4 - 6 Pk Volume**	473	711	0	0	**1127**
Pk Hr Factor	0.718	0.936	0.000	0.000	**0.955**	**Pk Hr Factor**	0.946	0.797	0.000	0.000	**0.903**

Prepared by NDS/ATD

VOLUME

Ruffin Rd Bet. Clairemont Mesa Blvd & Lightwave Ave

Day: Thursday
Date: 10/6/2016

City: Kearny Mesa
Project #: CA16_4215_159

DAILY TOTALS	NB	SB	EB	WB	Total
	5,078	5,444	0	0	10,522

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	6		3				9		12:00	137		62				199	
00:15	1		3				4		12:15	147		68				215	
00:30	3		10				13		12:30	135		66				201	
00:45	4	14	3	19			7	33	12:45	110	529	82	278			192	807
01:00	0		4				4		13:00	129		93				222	
01:15	2		3				5		13:15	115		68				183	
01:30	4		2				6		13:30	108		53				161	
01:45	0	6	1	10			1	16	13:45	96	448	28	242			124	690
02:00	2		1				3		14:00	103		29				132	
02:15	2		2				4		14:15	100		37				137	
02:30	1		2				3		14:30	98		40				138	
02:45	4	9	5	10			9	19	14:45	95	396	57	163			152	559
03:00	2		7				9		15:00	115		61				176	
03:15	1		4				5		15:15	103		99				202	
03:30	5		6				11		15:30	109		109				218	
03:45	1	9	5	22			6	31	15:45	125	452	123	392			248	844
04:00	2		9				11		16:00	114		112				226	
04:15	3		5				8		16:15	103		128				231	
04:30	5		6				11		16:30	118		114				232	
04:45	5	15	17	37			22	52	16:45	78	413	159	513			237	926
05:00	2		35				37		17:00	132		121				253	
05:15	12		48				60		17:15	110		153				263	
05:30	17		30				47		17:30	91		199				290	
05:45	17	48	79	192			96	240	17:45	88	421	174	647			262	1068
06:00	21		69				90		18:00	54		130				184	
06:15	31		85				116		18:15	46		155				201	
06:30	37		61				98		18:30	86		109				195	
06:45	43	132	102	317			145	449	18:45	33	219	230	624			263	843
07:00	42		82				124		19:00	30		100				130	
07:15	55		116				171		19:15	29		67				96	
07:30	66		80				146		19:30	25		29				54	
07:45	63	226	160	438			223	664	19:45	20	104	38	234			58	338
08:00	62		128				190		20:00	19		26				45	
08:15	81		137				218		20:15	22		14				36	
08:30	81		90				171		20:30	17		12				29	
08:45	60	284	100	455			160	739	20:45	18	76	12	64			30	140
09:00	79		73				152		21:00	10		16				26	
09:15	67		117				184		21:15	17		4				21	
09:30	71		68				139		21:30	7		5				12	
09:45	82	299	45	303			127	602	21:45	10	44	6	31			16	75
10:00	94		40				134		22:00	7		19				26	
10:15	64		75				139		22:15	8		13				21	
10:30	91		55				146		22:30	8		10				18	
10:45	89	338	45	215			134	553	22:45	7	30	7	49			14	79
11:00	135		30				165		23:00	8		8				16	
11:15	124		38				162		23:15	2		7				9	
11:30	143		33				176		23:30	5		4				9	
11:45	146	548	68	169			214	717	23:45	3	18	1	20			4	38
TOTALS		1928		2187				4115	TOTALS		3150		3257				6407
SPLIT %		46.9%		53.1%				39.1%	SPLIT %		49.2%		50.8%				60.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	5,078	5,444	0	0	10,522

AM Peak Hour	11:30	07:45			11:45	PM Peak Hour	12:00	17:30			17:00
AM Pk Volume	573	515			829	PM Pk Volume	529	658			1068
Pk Hr Factor	0.974	0.805			0.964	Pk Hr Factor	0.900	0.827			0.921
7 - 9 Volume	510	893	0	0	1403	4 - 6 Volume	834	1160	0	0	1994
7 - 9 Peak Hour	07:45	07:45			07:45	4 - 6 Peak Hour	16:30	17:00			17:00
7 - 9 Pk Volume	287	515	0	0	802	4 - 6 Pk Volume	438	647	0	0	1068
Pk Hr Factor	0.886	0.805	0.000	0.000	0.899	Pk Hr Factor	0.830	0.813	0.000	0.000	0.921

Prepared by NDS/ATD

VOLUME

Clairemont Mesa Blvd Bet. Ruffin Rd & Murphy Canyon Rd

Day: Wednesday
Date: 9/28/2016

City: Kearny Mesa
Project #: CA16_4215_028

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	12,353	13,953	26,306

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			6		27		33		12:00			184		237		421	
0:15			9		21		30		12:15			206		251		457	
0:30			11		37		48		12:30			232		237		469	
0:45			2	28	18	103	20	131	12:45			190	812	206	931	396	1743
1:00			5		13		18		13:00			203		219		422	
1:15			6		27		33		13:15			181		226		407	
1:30			12		25		37		13:30			178		239		417	
1:45			2	25	15	80	17	105	13:45			178	740	210	894	388	1634
2:00			12		15		27		14:00			179		272		451	
2:15			3		13		16		14:15			184		251		435	
2:30			7		27		34		14:30			183		288		471	
2:45			12	34	20	75	32	109	14:45			166	712	241	1052	407	1764
3:00			5		11		16		15:00			155		303		458	
3:15			6		5		11		15:15			186		342		528	
3:30			6		8		14		15:30			215		405		620	
3:45			24	41	7	31	31	72	15:45			179	735	353	1403	532	2138
4:00			24		10		34		16:00			204		407		611	
4:15			30		17		47		16:15			173		413		586	
4:30			40		5		45		16:30			206		359		565	
4:45			65	159	13	45	78	204	16:45			167	750	429	1608	596	2358
5:00			71		18		89		17:00			201		401		602	
5:15			96		14		110		17:15			161		376		537	
5:30			125		19		144		17:30			150		439		589	
5:45			175	467	32	83	207	550	17:45			147	659	388	1604	535	2263
6:00			176		38		214		18:00			145		329		474	
6:15			192		48		240		18:15			146		322		468	
6:30			190		66		256		18:30			128		290		418	
6:45			279	837	76	228	355	1065	18:45			126	545	196	1137	322	1682
7:00			275		95		370		19:00			119		204		323	
7:15			277		96		373		19:15			98		144		242	
7:30			320		89		409		19:30			81		131		212	
7:45			350	1222	104	384	454	1606	19:45			75	373	121	600	196	973
8:00			321		120		441		20:00			73		140		213	
8:15			314		117		431		20:15			62		100		162	
8:30			290		140		430		20:30			52		94		146	
8:45			324	1249	131	508	455	1757	20:45			43	230	82	416	125	646
9:00			270		130		400		21:00			52		83		135	
9:15			221		154		375		21:15			39		84		123	
9:30			188		145		333		21:30			39		88		127	
9:45			207	886	137	566	344	1452	21:45			42	172	76	331	118	503
10:00			201		161		362		22:00			37		87		124	
10:15			186		167		353		22:15			27		46		73	
10:30			148		157		305		22:30			25		52		77	
10:45			174	709	182	667	356	1376	22:45			14	103	33	218	47	321
11:00			178		185		363		23:00			24		35		59	
11:15			212		232		444		23:15			12		25		37	
11:30			214		220		434		23:30			12		28		40	
11:45			202	806	248	885	450	1691	23:45			11	59	16	104	27	163
TOTALS				6463		3655		**10118**	**TOTALS**				5890		10298		**16188**
SPLIT %				63.9%		36.1%		**38.5%**	**SPLIT %**				36.4%		63.6%		**61.5%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	12,353	13,953	26,306

AM Peak Hour			7:30	11:45	**11:45**	**PM Peak Hour**			12:15	16:45	**16:00**
AM Pk Volume			1305	973	**1797**	**PM Pk Volume**			831	1645	**2358**
Pk Hr Factor			0.932	0.969	**0.958**	**Pk Hr Factor**			0.895	0.937	**0.965**
7 - 9 Volume	0	0	2471	892	**3363**	**4 - 6 Volume**	0	0	1409	3212	**4621**
7 - 9 Peak Hour			7:30	8:00	**8:00**	**4 - 6 Peak Hour**			16:00	16:45	**16:00**
7 - 9 Pk Volume	0	0	1305	508	**1757**	**4 - 6 Pk Volume**	0	0	750	1645	**2358**
Pk Hr Factor	0.000	0.000	0.932	0.907	**0.965**	**Pk Hr Factor**	0.000	0.000	0.910	0.937	**0.965**

Prepared by NDS/ATD

VOLUME

Clairemont Mesa Blvd Bet. Ruffin Rd & Murphy Canyon Rd

Day: Thursday
Date: 9/29/2016

City: Kearny Mesa
Project #: CA16_4215_028

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	11,914	13,718	25,632

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			12		17		29		12:00			231		238		469	
0:15			7		15		22		12:15			253		221		474	
0:30			13		54		67		12:30			239		220		459	
0:45			6	38	15	101	21	139	12:45			224	947	212	891	436	1838
1:00			6		13		19		13:00			208		246		454	
1:15			7		21		28		13:15			166		221		387	
1:30			9		24		33		13:30			162		203		365	
1:45			4	26	7	65	11	91	13:45			184	720	206	876	390	1596
2:00			8		13		21		14:00			155		259		414	
2:15			3		10		13		14:15			146		206		352	
2:30			3		30		33		14:30			176		299		475	
2:45			5	19	11	64	16	83	14:45			168	645	260	1024	428	1669
3:00			10		8		18		15:00			180		321		501	
3:15			11		12		23		15:15			173		286		459	
3:30			16		7		23		15:30			205		354		559	
3:45			30	67	13	40	43	107	15:45			209	767	358	1319	567	2086
4:00			21		15		36		16:00			161		460		621	
4:15			31		8		39		16:15			185		411		596	
4:30			53		11		64		16:30			199		441		640	
4:45			66	171	7	41	73	212	16:45			155	700	428	1740	583	2440
5:00			84		17		101		17:00			174		385		559	
5:15			113		17		130		17:15			170		371		541	
5:30			133		24		157		17:30			156		405		561	
5:45			188	518	32	90	220	608	17:45			127	627	358	1519	485	2146
6:00			198		37		235		18:00			131		339		470	
6:15			190		48		238		18:15			125		363		488	
6:30			211		77		288		18:30			134		292		426	
6:45			269	868	67	229	336	1097	18:45			117	507	218	1212	335	1719
7:00			280		108		388		19:00			95		204		299	
7:15			294		92		386		19:15			78		152		230	
7:30			307		82		389		19:30			53		140		193	
7:45			345	1226	106	388	451	1614	19:45			42	268	110	606	152	874
8:00			306		103		409		20:00			43		129		172	
8:15			331		118		449		20:15			34		105		139	
8:30			267		110		377		20:30			40		95		135	
8:45			280	1184	124	455	404	1639	20:45			29	146	83	412	112	558
9:00			249		128		377		21:00			32		87		119	
9:15			229		120		349		21:15			21		90		111	
9:30			180		124		304		21:30			14		75		89	
9:45			197	855	153	525	350	1380	21:45			22	89	71	323	93	412
10:00			180		147		327		22:00			19		68		87	
10:15			151		155		306		22:15			12		38		50	
10:30			167		143		310		22:30			15		54		69	
10:45			168	666	168	613	336	1279	22:45			14	60	40	200	54	260
11:00			175		181		356		23:00			7		47		54	
11:15			200		227		427		23:15			10		27		37	
11:30			198		216		414		23:30			8		28		36	
11:45			197	770	238	862	435	1632	23:45			5	30	21	123	26	153
TOTALS				6408		3473		**9881**	**TOTALS**				5506		10245		**15751**
SPLIT %				64.9%		35.1%		**38.5%**	**SPLIT %**				35.0%		65.0%		**61.5%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	11,914	13,718	25,632

AM Peak Hour			7:30	11:15	**11:45**	**PM Peak Hour**			12:00	16:00	**16:00**
AM Pk Volume			1289	919	**1837**	**PM Pk Volume**			947	1740	**2440**
Pk Hr Factor			0.934	0.965	**0.969**	**Pk Hr Factor**			0.936	0.946	**0.953**
7 - 9 Volume	0	0	2410	843	**3253**	**4 - 6 Volume**	0	0	1327	3259	**4586**
7 - 9 Peak Hour			7:30	8:00	**7:30**	**4 - 6 Peak Hour**			16:15	16:00	**16:00**
7 - 9 Pk Volume	0	0	1289	455	**1698**	**4 - 6 Pk Volume**	0	0	713	1740	**2440**
Pk Hr Factor	0.000	0.000	0.934	0.917	**0.941**	**Pk Hr Factor**	0.000	0.000	0.896	0.946	**0.953**

Prepared by NDS/ATD

VOLUME

Murphy Canyon Rd Bet. 1300 ft S of Balboa Ave Overcrossing & 1600 ft S of Balboa Ave Overcrossing

Day: Wednesday
Date: 10/5/2016

City: Kearny Mesa
Project #: CA16_4215_177

DAILY TOTALS	NB	SB	EB	WB	Total
	2,260	2,644	0	0	4,904

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	2		2				4		12:00	31		30				61	
00:15	3		2				5		12:15	25		34				59	
00:30	4		2				6		12:30	30		41				71	
00:45	1	10	3	9			4	19	12:45	27	113	57	162			84	275
01:00	1		7				8		13:00	57		35				92	
01:15	2		2				4		13:15	50		34				84	
01:30	1		0				1		13:30	37		21				58	
01:45	1	5	4	13			5	18	13:45	26	170	29	119			55	289
02:00	2		2				4		14:00	22		32				54	
02:15	2		4				6		14:15	23		41				64	
02:30	0		0				0		14:30	33		39				72	
02:45	0	4	0	6			0	10	14:45	26	104	39	151			65	255
03:00	0		2				2		15:00	33		48				81	
03:15	2		1				3		15:15	25		55				80	
03:30	2		1				3		15:30	67		63				130	
03:45	4	8	2	6			6	14	15:45	37	162	61	227			98	389
04:00	3		1				4		16:00	37		98				135	
04:15	2		1				3		16:15	33		79				112	
04:30	12		1				13		16:30	34		71				105	
04:45	8	25	1	4			9	29	16:45	25	129	99	347			124	476
05:00	10		4				14		17:00	27		93				120	
05:15	14		1				15		17:15	34		85				119	
05:30	26		1				27		17:30	40		72				112	
05:45	18	68	1	7			19	75	17:45	28	129	69	319			97	448
06:00	29		8				37		18:00	19		78				97	
06:15	33		7				40		18:15	36		73				109	
06:30	44		9				53		18:30	34		66				100	
06:45	55	161	13	37			68	198	18:45	22	111	53	270			75	381
07:00	47		9				56		19:00	29		35				64	
07:15	51		32				83		19:15	10		29				39	
07:30	63		28				91		19:30	20		37				57	
07:45	76	237	44	113			120	350	19:45	12	71	35	136			47	207
08:00	63		30				93		20:00	14		23				37	
08:15	87		33				120		20:15	13		27				40	
08:30	55		42				97		20:30	12		24				36	
08:45	44	249	44	149			88	398	20:45	11	50	19	93			30	143
09:00	54		40				94		21:00	7		17				24	
09:15	49		23				72		21:15	12		17				29	
09:30	36		32				68		21:30	6		21				27	
09:45	42	181	21	116			63	297	21:45	8	33	29	84			37	117
10:00	28		16				44		22:00	7		8				15	
10:15	28		21				49		22:15	4		17				21	
10:30	17		21				38		22:30	6		9				15	
10:45	27	100	19	77			46	177	22:45	4	21	5	39			9	60
11:00	27		36				63		23:00	7		10				17	
11:15	20		24				44		23:15	2		4				6	
11:30	23		40				63		23:30	3		7				10	
11:45	35	105	34	134			69	239	23:45	2	14	5	26			7	40
TOTALS		1153		671				**1824**	**TOTALS**		1107		1973				**3080**
SPLIT %		63.2%		36.8%				**37.2%**	**SPLIT %**		35.9%		64.1%				**62.8%**

DAILY TOTALS	NB	SB	EB	WB	Total
	2,260	2,644	0	0	4,904

AM Peak Hour	07:30	08:15			**07:45**	**PM Peak Hour**	15:30	16:45			**16:00**
AM Pk Volume	289	159			**430**	**PM Pk Volume**	174	349			**476**
Pk Hr Factor	0.830	0.903			**0.896**	**Pk Hr Factor**	0.649	0.881			**0.881**
7 - 9 Volume	486	262	0	0	**748**	**4 - 6 Volume**	258	666	0	0	**924**
7 - 9 Peak Hour	07:30	07:45			**07:45**	**4 - 6 Peak Hour**	16:00	16:45			**16:00**
7 - 9 Pk Volume	289	149	0	0	**430**	**4 - 6 Pk Volume**	129	349	0	0	**476**
Pk Hr Factor	0.830	0.847	0.000	0.000	**0.896**	**Pk Hr Factor**	0.872	0.881	0.000	0.000	**0.881**

Prepared by NDS/ATD

VOLUME

Murphy Canyon Rd Bet. 1300 ft S of Balboa Ave Overcrossing & 1600 ft S of Balboa Ave Overcrossing

Day: Thursday
Date: 10/6/2016

City: Kearny Mesa
Project #: CA16_4215_177

DAILY TOTALS	NB	SB	EB	WB	Total
	2,269	2,666	0	0	4,935

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	1		4				5		12:00	26		30				56	
00:15	2		3				5		12:15	40		22				62	
00:30	0		3				3		12:30	32		34				66	
00:45	0	3	1	11			1	14	12:45	24	122	47	133			71	255
01:00	1		2				3		13:00	27		32				59	
01:15	0		2				2		13:15	24		19				43	
01:30	2		5				7		13:30	24		32				56	
01:45	4	7	3	12			7	19	13:45	22	97	22	105			44	202
02:00	0		2				2		14:00	22		32				54	
02:15	3		2				5		14:15	33		39				72	
02:30	4		4				8		14:30	22		37				59	
02:45	1	8	3	11			4	19	14:45	31	108	51	159			82	267
03:00	1		1				2		15:00	21		57				78	
03:15	1		2				3		15:15	26		89				115	
03:30	6		0				6		15:30	68		67				135	
03:45	3	11	1	4			4	15	15:45	70	185	70	283			140	468
04:00	2		3				5		16:00	32		89				121	
04:15	5		3				8		16:15	31		79				110	
04:30	7		0				7		16:30	22		76				98	
04:45	9	23	1	7			10	30	16:45	38	123	82	326			120	449
05:00	7		2				9		17:00	26		93				119	
05:15	19		2				21		17:15	32		99				131	
05:30	18		2				20		17:30	42		105				147	
05:45	16	60	3	9			19	69	17:45	31	131	86	383			117	514
06:00	26		6				32		18:00	26		67				93	
06:15	37		7				44		18:15	22		66				88	
06:30	42		9				51		18:30	44		54				98	
06:45	49	154	18	40			67	194	18:45	33	125	47	234			80	359
07:00	53		14				67		19:00	23		57				80	
07:15	49		18				67		19:15	14		49				63	
07:30	61		29				90		19:30	22		32				54	
07:45	75	238	42	103			117	341	19:45	21	80	33	171			54	251
08:00	79		30				109		20:00	14		30				44	
08:15	64		30				94		20:15	14		18				32	
08:30	71		35				106		20:30	11		21				32	
08:45	42	256	40	135			82	391	20:45	21	60	29	98			50	158
09:00	58		47				105		21:00	8		23				31	
09:15	40		21				61		21:15	10		11				21	
09:30	22		12				34		21:30	9		20				29	
09:45	36	156	23	103			59	259	21:45	12	39	18	72			30	111
10:00	37		20				57		22:00	9		18				27	
10:15	34		18				52		22:15	8		18				26	
10:30	27		21				48		22:30	9		12				21	
10:45	38	136	14	73			52	209	22:45	6	32	9	57			15	89
11:00	26		28				54		23:00	4		11				15	
11:15	19		21				40		23:15	0		8				8	
11:30	29		29				58		23:30	5		6				11	
11:45	25	99	30	108			55	207	23:45	7	16	4	29			11	45
TOTALS		1151		616				**1767**	**TOTALS**		1118		2050				**3168**
SPLIT %		65.1%		34.9%				**35.8%**	**SPLIT %**		35.3%		64.7%				**64.2%**

DAILY TOTALS	NB	SB	EB	WB	Total
	2,269	2,666	0	0	4,935

AM Peak Hour	07:45	08:15					**07:45**		**PM Peak Hour**	15:30	17:00					**16:45**		
AM Pk Volume	289	152					**426**		**PM Pk Volume**	201	383					**517**		
Pk Hr Factor	0.915	0.809					**0.910**		**Pk Hr Factor**	0.718	0.912					**0.879**		
7 - 9 Volume	494	238	0	0			**732**		**4 - 6 Volume**	254	709	0	0			**963**		
7 - 9 Peak Hour	07:45	07:45					**07:45**		**4 - 6 Peak Hour**	16:45	17:00					**16:45**		
7 - 9 Pk Volume	289	137	0	0			**426**		**4 - 6 Pk Volume**	138	383	0	0			**517**		
Pk Hr Factor	0.915	0.815	0.000	0.000			**0.910**		**Pk Hr Factor**	0.821	0.912	0.000	0.000			**0.879**		

Prepared by NDS/ATD

VOLUME

Murphy Canyon Rd Bet. 550 ft S of Balboa Ave Overcrossing & 1300 ft S of Balboa Ave Overcrossing

Day: Wednesday
Date: 10/5/2016

City: Kearny Mesa
Project #: CA16_4215_176

DAILY TOTALS	NB	SB	EB	WB	Total
	2,518	3,451	0	0	5,969

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	2		16				18		12:00	53		42				95	
00:15	3		8				11		12:15	41		53				94	
00:30	1		19				20		12:30	53		41				94	
00:45	3	9	11	54			14	63	12:45	57	204	57	193			114	397
01:00	0		5				5		13:00	44		60				104	
01:15	2		14				16		13:15	40		45				85	
01:30	1		17				18		13:30	51		44				95	
01:45	1	4	5	41			6	45	13:45	37	172	48	197			85	369
02:00	0		16				16		14:00	46		52				98	
02:15	0		2				2		14:15	28		37				65	
02:30	0		20				20		14:30	42		40				82	
02:45	3	3	10	48			13	51	14:45	46	162	50	179			96	341
03:00	0		8				8		15:00	47		64				111	
03:15	1		7				8		15:15	38		71				109	
03:30	1		2				3		15:30	52		104				156	
03:45	0	2	3	20			3	22	15:45	41	178	95	334			136	512
04:00	0		3				3		16:00	52		105				157	
04:15	4		4				8		16:15	51		96				147	
04:30	4		2				6		16:30	56		90				146	
04:45	9	17	10	19			19	36	16:45	67	226	74	365			141	591
05:00	8		5				13		17:00	94		84				178	
05:15	14		10				24		17:15	59		100				159	
05:30	14		11				25		17:30	52		89				141	
05:45	17	53	17	43			34	96	17:45	42	247	113	386			155	633
06:00	31		30				61		18:00	45		126				171	
06:15	26		20				46		18:15	24		111				135	
06:30	38		35				73		18:30	24		87				111	
06:45	42	137	28	113			70	250	18:45	16	109	118	442			134	551
07:00	50		31				81		19:00	17		113				130	
07:15	44		33				77		19:15	16		72				88	
07:30	37		33				70		19:30	21		22				43	
07:45	46	177	47	144			93	321	19:45	12	66	17	224			29	290
08:00	59		29				88		20:00	6		18				24	
08:15	40		22				62		20:15	16		8				24	
08:30	43		25				68		20:30	14		10				24	
08:45	55	197	35	111			90	308	20:45	8	44	8	44			16	88
09:00	49		19				68		21:00	9		16				25	
09:15	46		22				68		21:15	11		9				20	
09:30	46		22				68		21:30	11		13				24	
09:45	25	166	28	91			53	257	21:45	8	39	12	50			20	89
10:00	33		25				58		22:00	20		9				29	
10:15	34		24				58		22:15	10		15				25	
10:30	19		29				48		22:30	4		8				12	
10:45	32	118	30	108			62	226	22:45	1	35	6	38			7	73
11:00	30		33				63		23:00	1		13				14	
11:15	38		39				77		23:15	2		2				4	
11:30	42		46				88		23:30	4		9				13	
11:45	34	144	59	177			93	321	23:45	2	9	6	30			8	39
TOTALS		1027		969				1996	TOTALS		1491		2482				3973
SPLIT %		51.5%		48.5%				33.4%	SPLIT %		37.5%		62.5%				66.6%

DAILY TOTALS	NB	SB	EB	WB	Total
	2,518	3,451	0	0	5,969

AM Peak Hour	08:00	11:30			11:45	PM Peak Hour	16:30	18:00			17:00
AM Pk Volume	197	200			376	PM Pk Volume	276	442			633
Pk Hr Factor	0.835	0.847			0.989	Pk Hr Factor	0.734	0.877			0.889
7 - 9 Volume	374	255	0	0	629	4 - 6 Volume	473	751	0	0	1224
7 - 9 Peak Hour	08:00	07:00			07:15	4 - 6 Peak Hour	16:30	17:00			17:00
7 - 9 Pk Volume	197	144	0	0	328	4 - 6 Pk Volume	276	386	0	0	633
Pk Hr Factor	0.835	0.766	0.000	0.000	0.882	Pk Hr Factor	0.734	0.854	0.000	0.000	0.889

Prepared by NDS/ATD

VOLUME

Murphy Canyon Rd Bet. 550 ft S of Balboa Ave Overcrossing & 1300 ft S of Balboa Ave Overcrossing

Day: Thursday
Date: 10/6/2016

City: Kearny Mesa
Project #: CA16_4215_176

DAILY TOTALS	NB	SB	EB	WB	Total
	2,471	3,269	0	0	5,740

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	1		2				3		12:00	60		66				126	
00:15	4		4				8		12:15	52		38				90	
00:30	2		10				12		12:30	54		43				97	
00:45	1	8	7	23			8	31	12:45	50	216	63	210			113	426
01:00	0		2				2		13:00	43		51				94	
01:15	1		1				2		13:15	42		36				78	
01:30	2		6				8		13:30	37		42				79	
01:45	0	3	4	13			4	16	13:45	36	158	39	168			75	326
02:00	1		3				4		14:00	35		36				71	
02:15	0		4				4		14:15	38		57				95	
02:30	1		11				12		14:30	45		33				78	
02:45	3	5	3	21			6	26	14:45	36	154	49	175			85	329
03:00	1		7				8		15:00	41		92				133	
03:15	1		1				2		15:15	32		107				139	
03:30	1		1				2		15:30	55		92				147	
03:45	2	5	4	13			6	18	15:45	45	173	109	400			154	573
04:00	1		0				1		16:00	80		123				203	
04:15	3		5				8		16:15	42		82				124	
04:30	3		3				6		16:30	47		81				128	
04:45	2	9	2	10			4	19	16:45	67	236	85	371			152	607
05:00	6		5				11		17:00	127		100				227	
05:15	15		9				24		17:15	60		82				142	
05:30	15		11				26		17:30	35		83				118	
05:45	22	58	15	40			37	98	17:45	32	254	96	361			128	615
06:00	25		24				49		18:00	36		90				126	
06:15	23		22				45		18:15	32		101				133	
06:30	28		31				59		18:30	28		90				118	
06:45	42	118	35	112			77	230	18:45	34	130	109	390			143	520
07:00	35		26				61		19:00	22		107				129	
07:15	50		39				89		19:15	19		57				76	
07:30	31		34				65		19:30	13		39				52	
07:45	43	159	37	136			80	295	19:45	18	72	13	216			31	288
08:00	51		49				100		20:00	13		15				28	
08:15	57		39				96		20:15	12		10				22	
08:30	64		32				96		20:30	9		12				21	
08:45	38	210	32	152			70	362	20:45	7	41	8	45			15	86
09:00	45		34				79		21:00	10		6				16	
09:15	33		24				57		21:15	3		11				14	
09:30	27		22				49		21:30	5		9				14	
09:45	29	134	24	104			53	238	21:45	12	30	3	29			15	59
10:00	29		20				49		22:00	15		5				20	
10:15	32		27				59		22:15	3		6				9	
10:30	24		24				48		22:30	7		6				13	
10:45	22	107	24	95			46	202	22:45	3	28	4	21			7	49
11:00	40		44				84		23:00	3		4				7	
11:15	31		32				63		23:15	2		3				5	
11:30	31		35				66		23:30	3		0				3	
11:45	49	151	46	157			95	308	23:45	4	12	0	7			4	19
TOTALS		967		876				**1843**	**TOTALS**		1504		2393				**3897**
SPLIT %		52.5%		47.5%				**32.1%**	**SPLIT %**		38.6%		61.4%				**67.9%**

DAILY TOTALS	NB	SB	EB	WB	Total
	2,471	3,269	0	0	5,740

AM Peak Hour	07:45	11:45					**11:45**		**PM Peak Hour**	16:30	15:15					**16:30**		
AM Pk Volume	215	193					**408**		**PM Pk Volume**	301	431					**649**		
Pk Hr Factor	0.840	0.731					**0.810**		**Pk Hr Factor**	0.593	0.876					**0.715**		
7 - 9 Volume	369	288	0	0			**657**		**4 - 6 Volume**	490	732	0	0			**1222**		
7 - 9 Peak Hour	07:45	07:15					**07:45**		**4 - 6 Peak Hour**	16:30	16:00					**16:30**		
7 - 9 Pk Volume	215	159	0	0			**372**		**4 - 6 Pk Volume**	301	371	0	0			**649**		
Pk Hr Factor	0.840	0.811	0.000	0.000			**0.930**		**Pk Hr Factor**	0.593	0.754	0.000	0.000			**0.715**		

Prepared by NDS/ATD

VOLUME

Murphy Canyon Rd Bet. Clairemont Mesa Blvd & 550 ft S of Balboa Ave Overcrossing

Day: Wednesday
Date: 10/5/2016

City: Kearny Mesa
Project #: CA16_4215_175

DAILY TOTALS	NB	SB	EB	WB	Total
	2,441	3,345	0	0	5,786

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	1		14				15		12:00	59		43				102	
00:15	3		9				12		12:15	49		49				98	
00:30	1		20				21		12:30	63		43				106	
00:45	3	8	7	50			10	58	12:45	49	220	53	188			102	408
01:00	0		6				6		13:00	29		49				78	
01:15	2		13				15		13:15	36		48				84	
01:30	1		17				18		13:30	38		36				74	
01:45	1	4	5	41			6	45	13:45	44	147	51	184			95	331
02:00	0		16				16		14:00	52		43				95	
02:15	0		2				2		14:15	30		38				68	
02:30	0		21				21		14:30	47		39				86	
02:45	3	3	10	49			13	52	14:45	46	175	47	167			93	342
03:00	0		5				5		15:00	54		62				116	
03:15	1		7				8		15:15	49		61				110	
03:30	1		3				4		15:30	54		91				145	
03:45	0	2	4	19			4	21	15:45	50	207	89	303			139	510
04:00	0		3				3		16:00	61		85				146	
04:15	2		6				8		16:15	55		86				141	
04:30	5		4				9		16:30	84		67				151	
04:45	6	13	5	18			11	31	16:45	77	277	68	306			145	583
05:00	4		8				12		17:00	69		75				144	
05:15	5		9				14		17:15	63		79				142	
05:30	10		11				21		17:30	63		79				142	
05:45	11	30	16	44			27	74	17:45	52	247	101	334			153	581
06:00	12		33				45		18:00	49		123				172	
06:15	17		21				38		18:15	26		94				120	
06:30	32		38				70		18:30	31		83				114	
06:45	36	97	35	127			71	224	18:45	21	127	117	417			138	544
07:00	47		33				80		19:00	26		111				137	
07:15	30		34				64		19:15	18		64				82	
07:30	27		49				76		19:30	20		16				36	
07:45	33	137	57	173			90	310	19:45	13	77	16	207			29	284
08:00	46		42				88		20:00	6		16				22	
08:15	28		42				70		20:15	13		7				20	
08:30	28		31				59		20:30	13		10				23	
08:45	47	149	44	159			91	308	20:45	10	42	8	41			18	83
09:00	28		26				54		21:00	9		13				22	
09:15	22		28				50		21:15	10		11				21	
09:30	44		31				75		21:30	11		10				21	
09:45	17	111	43	128			60	239	21:45	10	40	11	45			21	85
10:00	31		39				70		22:00	18		8				26	
10:15	38		21				59		22:15	11		14				25	
10:30	24		29				53		22:30	3		8				11	
10:45	30	123	32	121			62	244	22:45	1	33	5	35			6	68
11:00	32		41				73		23:00	2		8				10	
11:15	43		42				85		23:15	2		2				4	
11:30	50		35				85		23:30	4		9				13	
11:45	37	162	47	165			84	327	23:45	2	10	5	24			7	34
TOTALS		839		1094				1933	TOTALS		1602		2251				3853
SPLIT %		43.4%		56.6%				33.4%	SPLIT %		41.6%		58.4%				66.6%

DAILY TOTALS	NB	SB	EB	WB	Total
	2,441	3,345	0	0	5,786

AM Peak Hour	11:45	07:30				11:45	PM Peak Hour	16:30	18:00				17:15
AM Pk Volume	208	190				390	PM Pk Volume	293	417				609
Pk Hr Factor	0.825	0.833				0.920	Pk Hr Factor	0.872	0.848				0.885
7 - 9 Volume	286	332	0	0		618	4 - 6 Volume	524	640	0	0		1164
7 - 9 Peak Hour	08:00	07:30				07:30	4 - 6 Peak Hour	16:30	17:00				16:00
7 - 9 Pk Volume	149	190	0	0		324	4 - 6 Pk Volume	293	334	0	0		583
Pk Hr Factor	0.793	0.833	0.000	0.000		0.900	Pk Hr Factor	0.872	0.827	0.000	0.000		0.965

Prepared by NDS/ATD

VOLUME

Murphy Canyon Rd Bet. Clairemont Mesa Blvd & 550 ft S of Balboa Ave Overcrossing

Day: Thursday
Date: 10/6/2016

City: Kearny Mesa
Project #: CA16_4215_175

DAILY TOTALS	NB	SB	EB	WB	Total
	2,356	3,177	0	0	5,533

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
00:00	2		2				4		12:00	59		46				105	
00:15	4		3				7		12:15	53		40				93	
00:30	1		10				11		12:30	51		45				96	
00:45	1	8	6	21			7	29	12:45	39	202	72	203			111	405
01:00	0		2				2		13:00	44		47				91	
01:15	1		1				2		13:15	39		37				76	
01:30	1		5				6		13:30	32		44				76	
01:45	0	2	4	12			4	14	13:45	47	162	39	167			86	329
02:00	1		3				4		14:00	35		36				71	
02:15	0		4				4		14:15	47		50				97	
02:30	1		10				11		14:30	49		34				83	
02:45	1	3	4	21			5	24	14:45	43	174	48	168			91	342
03:00	2		6				8		15:00	47		84				131	
03:15	1		1				2		15:15	36		84				120	
03:30	2		2				4		15:30	71		79				150	
03:45	1	6	4	13			5	19	15:45	44	198	109	356			153	554
04:00	0		0				0		16:00	92		108				200	
04:15	3		5				8		16:15	54		76				130	
04:30	3		4				7		16:30	65		66				131	
04:45	1	7	3	12			4	19	16:45	80	291	74	324			154	615
05:00	2		4				6		17:00	78		62				140	
05:15	8		14				22		17:15	45		75				120	
05:30	10		9				19		17:30	44		71				115	
05:45	13	33	15	42			28	75	17:45	39	206	81	289			120	495
06:00	13		27				40		18:00	51		78				129	
06:15	17		25				42		18:15	37		97				134	
06:30	26		33				59		18:30	33		88				121	
06:45	36	92	41	126			77	218	18:45	39	160	101	364			140	524
07:00	31		26				57		19:00	26		98				124	
07:15	34		49				83		19:15	23		60				83	
07:30	23		41				64		19:30	14		34				48	
07:45	26	114	57	173			83	287	19:45	19	82	12	204			31	286
08:00	30		62				92		20:00	17		9				26	
08:15	38		49				87		20:15	14		8				22	
08:30	43		38				81		20:30	10		10				20	
08:45	26	137	45	194			71	331	20:45	8	49	7	34			15	83
09:00	34		50				84		21:00	9		5				14	
09:15	26		43				69		21:15	5		10				15	
09:30	19		25				44		21:30	6		8				14	
09:45	20	99	23	141			43	240	21:45	12	32	3	26			15	58
10:00	23		24				47		22:00	14		5				19	
10:15	29		32				61		22:15	3		4				7	
10:30	25		23				48		22:30	7		6				13	
10:45	22	99	27	106			49	205	22:45	3	27	4	19			7	46
11:00	37		38				75		23:00	3		3				6	
11:15	37		32				69		23:15	3		3				6	
11:30	33		37				70		23:30	3		0				3	
11:45	53	160	48	155			101	315	23:45	4	13	1	7			5	20
TOTALS		760		1016				1776	TOTALS		1596		2161				3757
SPLIT %		42.8%		57.2%				32.1%	SPLIT %		42.5%		57.5%				67.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	2,356	3,177	0	0	5,533

AM Peak Hour	11:45	07:15					11:45	PM Peak Hour	16:00	18:15					15:30
AM Pk Volume	216	209					395	PM Pk Volume	291	384					633
Pk Hr Factor	0.915	0.843					0.940	Pk Hr Factor	0.791	0.950					0.791
7 - 9 Volume	251	367	0	0			618	4 - 6 Volume	497	613	0	0			1110
7 - 9 Peak Hour	07:45	07:15					07:45	4 - 6 Peak Hour	16:00	16:00					16:00
7 - 9 Pk Volume	137	209	0	0			343	4 - 6 Pk Volume	291	324	0	0			615
Pk Hr Factor	0.797	0.843	0.000	0.000			0.932	Pk Hr Factor	0.791	0.750	0.000	0.000			0.769

Prepared by NDS/ATD

VOLUME

Clairemont Mesa Blvd Bet. I-15 NB Ramps & Antigua Blvd

Day: Wednesday
Date: 9/14/2016

City: Kearny Mesa
Project #: CA16_4215_031

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	11,260	8,807	20,067

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			34		7		41		12:00			146		200		346	
00:15			25		9		34		12:15			126		168		294	
00:30			19		8		27		12:30			114		145		259	
00:45			15	93	8	32	23	125	12:45			132	518	159	672	291	1190
01:00			18		8		26		13:00			112		162		274	
01:15			20		4		24		13:15			145		135		280	
01:30			9		4		13		13:30			142		164		306	
01:45			10	57	3	19	13	76	13:45			139	538	146	607	285	1145
02:00			7		1		8		14:00			133		119		252	
02:15			8		4		12		14:15			153		153		306	
02:30			4		4		8		14:30			147		152		299	
02:45			8	27	4	13	12	40	14:45			171	604	123	547	294	1151
03:00			4		3		7		15:00			213		133		346	
03:15			3		7		10		15:15			247		110		357	
03:30			5		11		16		15:30			307		107		414	
03:45			5	17	10	31	15	48	15:45			335	1102	105	455	440	1557
04:00			5		12		17		16:00			331		159		490	
04:15			3		12		15		16:15			396		124		520	
04:30			7		17		24		16:30			370		80		450	
04:45			3	18	34	75	37	93	16:45			397	1494	97	460	494	1954
05:00			8		43		51		17:00			411		108		519	
05:15			11		35		46		17:15			392		94		486	
05:30			7		78		85		17:30			428		114		542	
05:45			20	46	46	202	66	248	17:45			431	1662	128	444	559	2106
06:00			28		83		111		18:00			372		106		478	
06:15			34		118		152		18:15			363		96		459	
06:30			63		140		203		18:30			304		110		414	
06:45			78	203	191	532	269	735	18:45			247	1286	116	428	363	1714
07:00			107		184		291		19:00			168		105		273	
07:15			178		225		403		19:15			162		85		247	
07:30			97		332		429		19:30			160		92		252	
07:45			84	466	325	1066	409	1532	19:45			119	609	79	361	198	970
08:00			79		234		313		20:00			130		64		194	
08:15			91		216		307		20:15			125		51		176	
08:30			89		167		256		20:30			112		56		168	
08:45			76	335	197	814	273	1149	20:45			100	467	50	221	150	688
09:00			83		141		224		21:00			91		56		147	
09:15			59		163		222		21:15			74		42		116	
09:30			83		145		228		21:30			70		35		105	
09:45			72	297	132	581	204	878	21:45			69	304	30	163	99	467
10:00			72		108		180		22:00			67		26		93	
10:15			82		126		208		22:15			51		16		67	
10:30			94		110		204		22:30			35		24		59	
10:45			92	340	110	454	202	794	22:45			32	185	27	93	59	278
11:00			83		121		204		23:00			33		26		59	
11:15			125		120		245		23:15			22		12		34	
11:30			142		119		261		23:30			29		12		41	
11:45			145	495	115	475	260	970	23:45			13	97	12	62	25	159
TOTALS				2394		4294		**6688**	**TOTALS**				8866		4513		**13379**
SPLIT %				35.8%		64.2%		**33.3%**	**SPLIT %**				66.3%		33.7%		**66.7%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	11,260	8,807	20,067

AM Peak Hour			11:30	07:15	**07:15**	**PM Peak Hour**			17:00	12:00	**17:00**
AM Pk Volume			559	1116	**1554**	**PM Pk Volume**			1662	672	**2106**
Pk Hr Factor			0.957	0.840	**0.906**	**Pk Hr Factor**			0.964	0.840	**0.942**
7 - 9 Volume	0	0	801	1880	**2681**	**4 - 6 Volume**	0	0	3156	904	**4060**
7 - 9 Peak Hour			07:00	07:15	**07:15**	**4 - 6 Peak Hour**			17:00	16:00	**17:00**
7 - 9 Pk Volume	0	0	466	1116	**1554**	**4 - 6 Pk Volume**	0	0	1662	460	**2106**
Pk Hr Factor	0.000	0.000	0.654	0.840	**0.906**	**Pk Hr Factor**	0.000	0.000	0.964	0.723	**0.942**

Prepared by NDS/ATD

VOLUME

Clairemont Mesa Blvd Bet. I-15 NB Ramps & Antigua Blvd

Day: Thursday
Date: 9/15/2016

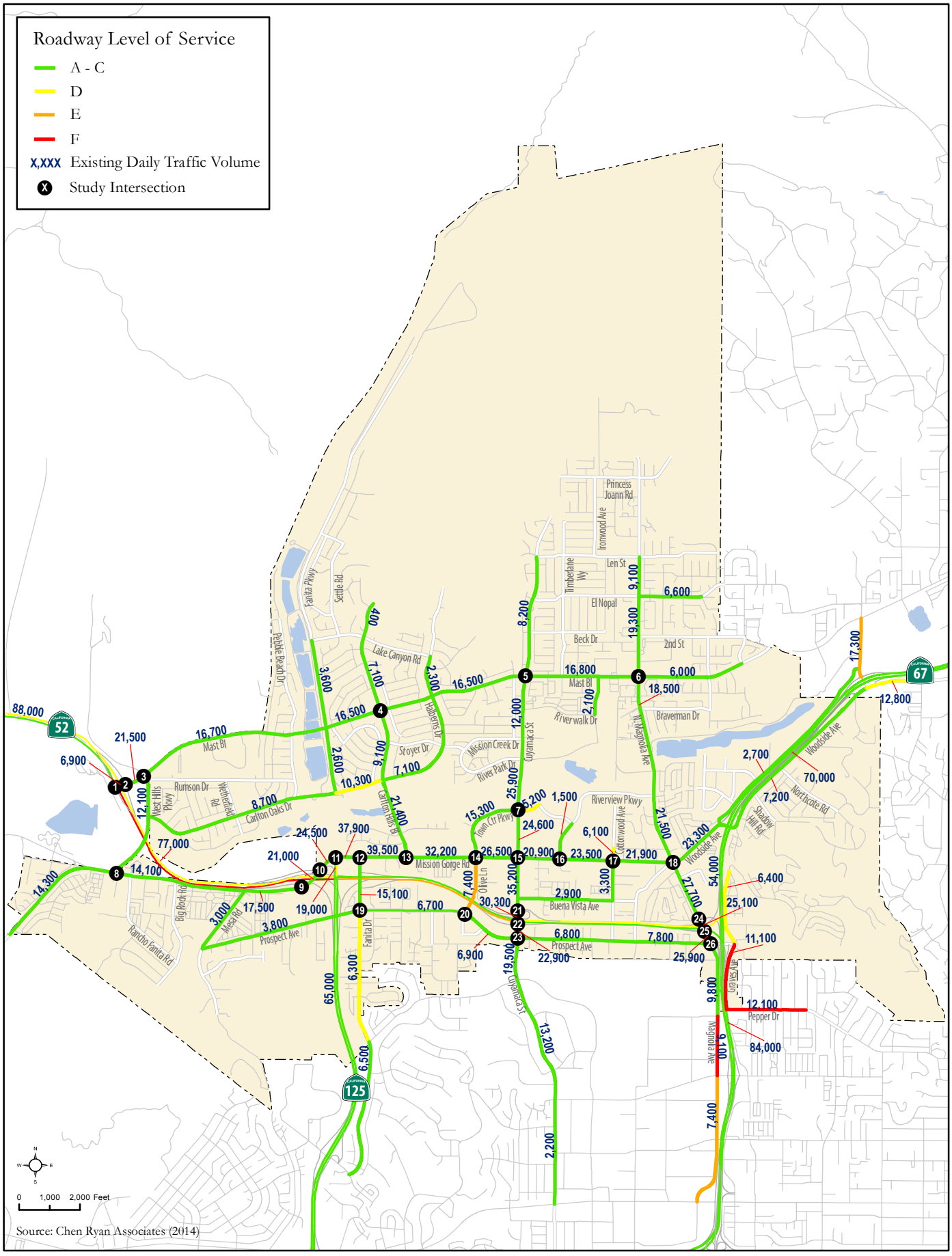
City: Kearny Mesa
Project #: CA16_4215_031

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	11,471	8,843	20,314

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
00:00			15		8		23		12:00			131		226		357	
00:15			21		7		28		12:15			132		171		303	
00:30			13		1		14		12:30			134		169		303	
00:45			11	60	6	22	17	82	12:45			111	508	181	747	292	1255
01:00			9		3		12		13:00			133		138		271	
01:15			5		6		11		13:15			125		148		273	
01:30			4		9		13		13:30			114		156		270	
01:45			3	21	3	21	6	42	13:45			162	534	135	577	297	1111
02:00			5		3		8		14:00			160		133		293	
02:15			3		4		7		14:15			182		155		337	
02:30			9		5		14		14:30			156		175		331	
02:45			4	21	7	19	11	40	14:45			196	694	138	601	334	1295
03:00			4		4		8		15:00			229		144		373	
03:15			6		5		11		15:15			244		153		397	
03:30			10		11		21		15:30			262		106		368	
03:45			3	23	5	25	8	48	15:45			340	1075	123	526	463	1601
04:00			4		13		17		16:00			376		117		493	
04:15			5		14		19		16:15			408		102		510	
04:30			5		17		22		16:30			380		95		475	
04:45			8	22	33	77	41	99	16:45			432	1596	91	405	523	2001
05:00			6		35		41		17:00			422		116		538	
05:15			6		53		59		17:15			409		106		515	
05:30			9		51		60		17:30			429		97		526	
05:45			19	40	68	207	87	247	17:45			441	1701	102	421	543	2122
06:00			27		62		89		18:00			368		103		471	
06:15			38		102		140		18:15			316		110		426	
06:30			60		142		202		18:30			303		97		400	
06:45			70	195	190	496	260	691	18:45			244	1231	92	402	336	1633
07:00			105		193		298		19:00			160		100		260	
07:15			199		239		438		19:15			174		86		260	
07:30			108		315		423		19:30			165		84		249	
07:45			80	492	285	1032	365	1524	19:45			134	633	107	377	241	1010
08:00			86		209		295		20:00			145		125		270	
08:15			91		196		287		20:15			126		76		202	
08:30			95		205		300		20:30			111		52		163	
08:45			104	376	211	821	315	1197	20:45			96	478	58	311	154	789
09:00			71		155		226		21:00			108		44		152	
09:15			89		115		204		21:15			72		37		109	
09:30			65		134		199		21:30			73		35		108	
09:45			86	311	111	515	197	826	21:45			61	314	33	149	94	463
10:00			79		111		190		22:00			61		31		92	
10:15			74		95		169		22:15			47		27		74	
10:30			80		99		179		22:30			42		21		63	
10:45			95	328	115	420	210	748	22:45			17	167	17	96	34	263
11:00			121		110		231		23:00			32		14		46	
11:15			138		119		257		23:15			24		9		33	
11:30			148		131		279		23:30			21		6		27	
11:45			152	559	171	531	323	1090	23:45			15	92	16	45	31	137
TOTALS				2448		4186		**6634**	**TOTALS**				9023		4657		**13680**
SPLIT %				36.9%		63.1%		**32.7%**	**SPLIT %**				66.0%		34.0%		**67.3%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	11,471	8,843	20,314

AM Peak Hour			11:15	07:15	**07:00**	**PM Peak Hour**			17:00	12:00	**17:00**
AM Pk Volume			569	1048	**1524**	**PM Pk Volume**			1701	747	**2122**
Pk Hr Factor			0.936	0.832	**0.870**	**Pk Hr Factor**			0.964	0.826	**0.977**
7 - 9 Volume	0	0	868	1853	**2721**	**4 - 6 Volume**	0	0	3297	826	**4123**
7 - 9 Peak Hour			07:00	07:15	**07:00**	**4 - 6 Peak Hour**			17:00	17:00	**17:00**
7 - 9 Pk Volume	0	0	492	1048	**1524**	**4 - 6 Pk Volume**	0	0	1701	421	**2122**
Pk Hr Factor	0.000	0.000	0.618	0.832	**0.870**	**Pk Hr Factor**	0.000	0.000	0.964	0.907	**0.977**



City of Santee
Circulation Element Update
CHEN RYAN

Figure 3-16
Existing Roadway Traffic Volumes and Levels of Service

Roadway Segment counts and Intersection counts related to Morena Pump Station Pipelines

Table 7-2 Existing Conditions Summary of Roadway Segment ADT Based Analysis

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ADT (b)	V/C RATIO (c)	LOS
Eastgate Mall					
Regents Rd to Genesee Ave	2 Lane Collector (continuous left-turn lane)	15,000	6,187	0.412	B
Genesee Ave to Easter Way	4 Lane Collector	30,000	14,767	0.492	C
Easter Way to Judicial Dr	4 Lane Major Arterial	40,000	11,115	0.278	A
Judicial Dr to Eastgate Dr (Freeway Overpass)	2 Lane Collector (no fronting property)	10,000	10,096	1.010	**F**
Eastgate Dr to Miramar Rd	2 Lane Collector (continuous left-turn lane)	15,000	14,668	0.978	**E**
Executive Drive					
Regents Rd to Genesee Ave	4 Lane Collector (no center lane)	15,000	4,397	0.293	A
Genesee Ave to Judicial Dr	4 Lane Collector	30,000	5,914	0.197	A
Executive Way					
Executive Dr to La Jolla Village Dr	4 Lane Collector	30,000	5,923	0.197	A
Genesee Avenue					
N. Torrey Pines Rd to I-5 SB Ramps	6 Lane Prime Arterial	60,000	35,124	0.585	C
I-5 SB Ramps to I-5 NB Ramps	4 Lane Major Arterial	40,000	49,051	1.226	**F**
I-5 NB Ramps to Regents Rd	6 Lane Prime Arterial	60,000	48,542	0.809	C
Regents Rd to La Jolla Village Dr	6 Lane Prime Arterial	60,000	29,457	0.491	B
La Jolla Village Dr to Esplande Ct	4 Lane Major Arterial	40,000	28,054	0.701	C
Esplande Ct to Nobel Dr	6 Lane Major Arterial	50,000	23,744	0.475	B
Nobel Dr to Centurion Square	4 Lane Major Arterial	40,000	30,922	0.773	D
Centurion Square to SR-52 WB Ramps	4 Lane Major Arterial	40,000	30,325	0.758	D
SR-52 WB Ramps to SR-52 EB Ramps	4 Lane Major Arterial	40,000	31,170	0.779	D
SR-52 EB Ramps to Lehrer Dr	4 Lane Major Arterial	40,000	30,581	0.765	D
Gilman Drive					
UCSD Campus to La Jolla Village Dr	4 Lane Collector	30,000	10,069	0.336	B
La Jolla Village Dr to Via Alicante	4 Lane Collector	30,000	15,095	0.503	C
Via Alicante to I-5 SB Ramps	4 Lane Major Arterial	40,000	17,138	0.428	B
I-5 SB Ramps to I-5 NB Ramps	4 Lane Major Arterial	40,000	11,873	0.297	A
Golden Haven Drive					
Towne Centre Dr to Judicial Dr	4 Lane Major Arterial	40,000	6,712	0.168	A

Notes:
Bold values indicate roadway segments operating at LOS E or F.
(a) Existing road classifications are based on field work conducted May 13, 2015.
(b) Average Daily Traffic (ADT) volumes for the roadway segments were provided by Accurate Video Counts Inc and measured in April and May 2015.
(c) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

Table 7-2 Existing Conditions Summary of Roadway Segment ADT Based Analysis (Continued)

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	ADT (b)	V/C RATIO (c)	LOS
Governor Drive					
Regents Rd to Genesee Ave	4 Lane Major Arterial	40,000	16,796	0.420	B
Genesee Ave to I-805 SB Ramps	4 Lane Major Arterial	40,000	19,737	0.493	B
I-805 SB Ramps to I-805 NB Ramps	4 Lane Major Arterial	40,000	10,417	0.260	A
Judicial Drive					
Eastgate Mall to La Jolla Village Dr	4 Lane Major Arterial	40,000	4,828	0.121	A
La Jolla Village Dr to Nobel Dr	4 Lane Major Arterial	40,000	6,574	0.164	A
La Jolla Scenic Drive					
La Jolla Village Dr to community boundary	4 Lane Major Arterial	40,000	7,928	0.198	A
La Jolla Village Drive					
Revelle College Dr to Villa La Jolla Dr	6 Lane Prime Arterial	60,000	44,520	0.742	C
Villa La Jolla Dr to I-5 SB Ramps	6 Lane Prime Arterial	60,000	62,258	1.038	**F**
I-5 SB Ramps to I-5 NB Ramps	6 Lane Major Arterial	50,000	51,391	1.028	**F**
I-5 NB Ramps to Lebon Dr	6 Lane Major Arterial	50,000	44,335	0.887	D
Lebon Dr to Regents Rd	6 Lane Major Arterial	50,000	42,863	0.857	D
Regents Rd to Genesee Ave	6 Lane Major Arterial	50,000	38,474	0.769	C
Genesee Ave to Towne Centre Dr	6 Lane Major Arterial	50,000	45,117	0.902	**E**
Towne Centre Dr to I-805 SB Ramps	7 Lane Major Arterial	55,000	58,833	1.070	**F**
Lebon Drive					
Palmilla Drive to Nobel Dr	4 Lane Major Arterial	40,000	11,192	0.280	A
Nobel Drive to La Jolla Village Dr	5 Lane Major Arterial	45,000	9,212	0.205	A
Miramar Road					
I-805 SB Ramps to I-805 NB Ramps	6 Lane Major Arterial	50,000	66,139	1.323	**F**
I-805 NB Ramps to Nobel Dr	8 Lane Prime Arterial	80,000	47,991	0.600	B
Nobel Dr to Eastgate Mall	8 Lane Prime Arterial	80,000	64,557	0.807	C
Eastgate Mall to Camino Santa Fe	6 Lane Prime Arterial	60,000	67,748	1.129	**F**
North Torrey Pines Road					
Science Park Rd to Genesee Ave	6 Lane Prime Arterial	60,000	29,303	0.488	B
Genesee Ave to Revelle College Dr	4 Lane Major Arterial	40,000	21,760	0.544	C

Notes:
Bold values indicate roadway segments operating at LOS E or F.
(a) Existing road classifications are based on field work conducted May 13, 2015.
(b) Average Daily Traffic (ADT) volumes for the roadway segments were provided by Accurate Video Counts Inc and measured in April and May 2015.
(c) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

PREPARED BY: PACIFIC TECHNICAL DATA, LLC

DATE: 12/08/16 THURSDAY
JOB #: PTD-16-1202-01

CITY: CLAIREMONT
LOCATION: GENESEE BTN SR-52 & LEHRER

AM	NORTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	22	0	0	0	0	0	0	0	0	0	0	0	22
0:15	0	17	2	0	0	0	0	0	0	0	0	0	0	19
0:30	0	15	2	0	0	0	0	0	0	0	0	0	0	17
0:45	0	12	0	0	0	0	0	0	0	0	0	0	0	12
1:00	0	12	0	0	0	1	0	0	0	0	0	0	0	13
1:15	0	7	0	0	0	0	0	0	0	0	0	0	0	7
1:30	0	2	1	0	0	0	0	0	0	0	0	0	0	3
1:45	0	8	0	0	0	0	0	0	0	0	0	0	0	8
2:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
2:15	0	9	0	0	0	0	0	0	0	0	0	0	0	9
2:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
2:45	0	11	0	0	0	0	0	0	0	0	0	0	0	11
3:00	0	3	2	0	0	1	0	0	0	0	0	0	0	6
3:15	0	7	0	0	0	0	0	0	0	0	0	0	0	7
3:30	0	9	1	0	0	0	0	0	1	0	0	0	0	11
3:45	0	13	1	0	0	0	0	0	0	0	0	0	0	14
4:00	0	16	0	0	1	0	0	0	0	0	0	0	0	17
4:15	0	22	2	0	1	0	0	0	0	0	0	0	0	25
4:30	0	27	3	0	1	0	0	0	0	0	0	0	0	31
4:45	0	38	4	0	1	0	0	0	0	0	0	0	0	43
5:00	1	56	3	0	3	0	0	0	0	0	0	0	0	63
5:15	0	53	11	1	2	0	0	0	0	0	0	0	0	67
5:30	2	86	11	0	1	0	0	0	1	0	0	0	0	101
5:45	1	112	15	3	4	0	0	0	1	0	0	0	0	136
6:00	1	122	16	1	7	1	0	0	0	0	0	0	0	148
6:15	0	164	30	1	5	1	0	1	0	0	0	0	0	202
6:30	1	268	38	2	7	3	0	0	0	0	1	0	0	320
6:45	1	310	30	1	8	6	1	0	1	0	0	0	0	358
7:00	7	376	22	3	10	8	1	0	1	0	1	1	1	431
7:15	7	387	30	1	8	7	1	0	1	0	1	0	0	443
7:30	5	401	38	1	6	11	1	0	0	0	0	0	0	463
7:45	8	388	24	2	9	10	0	0	2	0	1	3	1	448
8:00	5	372	15	3	5	11	1	0	1	0	0	0	1	414
8:15	6	361	20	2	3	8	1	0	1	0	0	1	2	405
8:30	5	404	29	2	8	9	1	0	0	0	1	0	0	459
8:45	0	360	22	2	12	5	3	0	0	0	1	0	0	405
9:00	4	305	24	3	7	3	0	0	0	0	0	0	0	346
9:15	3	230	20	3	3	5	0	0	0	0	0	0	0	264
9:30	4	262	16	3	12	3	1	0	0	0	0	0	1	302
9:45	1	217	17	1	5	6	1	0	0	0	0	0	0	248
10:00	1	180	16	2	5	0	0	0	0	0	0	0	0	204
10:15	0	181	21	1	4	3	0	0	1	0	0	0	0	211
10:30	5	189	20	2	1	1	0	0	0	0	1	0	0	219
10:45	5	195	12	0	6	2	0	1	1	0	0	0	0	222
11:00	2	171	16	2	9	1	0	0	1	0	0	0	0	202
11:15	6	210	20	2	5	6	0	0	0	0	0	0	0	249
11:30	1	202	9	1	4	1	0	0	0	0	0	2	0	220
11:45	2	197	14	0	5	1	2	0	0	0	0	0	0	221
TOTAL	84	7,016	577	45	168	114	14	2	13	0	7	7	6	8,053

AM PEAK HOUR	7:00 AM
AM PEAK VOLUME	1,785

PM	NORTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	1	206	13	3	4	1	0	0	0	0	0	0	0	228
12:15	3	201	19	3	2	5	0	0	1	0	0	0	0	234
12:30	0	196	13	1	10	3	0	0	0	0	0	1	0	224
12:45	1	225	17	0	10	4	0	1	0	0	0	0	0	258
13:00	1	193	15	1	5	2	0	0	0	0	0	0	0	217
13:15	0	183	19	3	6	3	1	1	1	0	1	0	0	218
13:30	0	217	19	3	2	4	0	0	0	0	0	0	0	245
13:45	3	214	15	0	6	3	1	1	0	0	0	1	0	244
14:00	3	211	11	2	9	1	0	0	0	0	0	0	0	237
14:15	3	221	19	2	4	4	0	0	1	0	1	0	0	255
14:30	2	228	9	2	2	2	0	0	1	0	0	0	0	246
14:45	2	224	11	2	2	3	0	0	0	0	0	0	0	244
15:00	2	240	17	1	3	3	0	0	0	0	0	0	0	266
15:15	2	189	12	1	2	2	0	0	0	0	0	0	0	208
15:30	1	196	16	2	2	5	0	0	0	0	0	0	0	222
15:45	3	175	11	1	7	4	0	1	0	1	0	1	0	204
16:00	2	181	8	2	4	0	0	0	0	0	0	0	0	197
16:15	1	169	10	1	3	1	0	0	0	0	0	0	0	185
16:30	1	166	11	2	2	2	0	0	0	0	0	0	0	184
16:45	1	169	6	1	3	2	0	0	0	0	1	0	0	183
17:00	2	154	10	2	4	3	1	0	0	0	0	0	0	176
17:15	0	152	5	0	2	1	0	1	0	0	0	0	0	161
17:30	0	137	7	2	3	1	0	0	0	0	0	0	0	150
17:45	1	129	5	1	4	1	0	0	0	0	0	0	0	141
18:00	1	138	5	2	0	2	0	1	0	0	0	0	0	149
18:15	1	150	6	2	1	0	0	0	0	0	0	0	0	160
18:30	1	140	7	2	1	2	1	0	0	0	0	0	0	154
18:45	1	136	8	1	2	3	0	0	0	0	0	0	0	151
19:00	0	130	2	1	2	2	0	0	0	0	0	0	0	137
19:15	0	137	3	1	0	0	0	0	0	0	0	0	0	141
19:30	0	129	8	0	3	1	0	0	0	0	0	0	0	141
19:45	0	134	2	1	0	1	0	0	0	0	0	0	0	138
20:00	0	112	2	0	0	1	0	0	0	0	0	0	0	115
20:15	0	137	8	1	0	0	0	0	0	0	0	0	0	146
20:30	0	108	5	0	2	0	0	0	0	0	0	0	0	115
20:45	0	105	6	1	1	2	0	0	0	0	0	0	0	115
21:00	0	96	4	0	2	0	0	0	0	0	0	0	0	102
21:15	0	113	2	0	1	0	0	0	0	0	0	0	0	116
21:30	0	96	3	1	0	1	0	0	0	0	0	0	0	101
21:45	0	74	1	1	1	1	0	0	0	0	0	0	0	78
22:00	1	81	2	0	1	0	0	0	0	0	0	0	0	85
22:15	0	61	1	1	1	0	0	0	0	0	0	0	0	64
22:30	0	59	2	1	0	0	0	0	0	0	0	0	0	62
22:45	0	33	0	1	0	0	0	0	0	0	0	0	0	34
23:00	0	30	1	0	0	0	0	0	0	0	0	0	0	31
23:15	0	43	0	1	0	0	0	0	0	0	0	0	0	44
23:30	0	23	0	0	0	0	0	0	0	0	0	0	0	23
23:45	0	30	1	0	0	0	0	0	0	0	0	0	0	31
TOTAL	40	6,871	377	56	119	76	4	6	4	1	3	3	0	7,560

PM PEAK HOUR	2:15 PM
PM PEAK VOLUME	1,011

CLASS 1	MOTORCYCLES	**CLASS 8**	FOUR OR LESS AXLE TRAILER
CLASS 2	PASSENGER VEHICLES	**CLASS 9**	5-AXLE TRACTOR SEMITRAILER
CLASS 3	FOUR TIRE SINGLE UNIT	**CLASS 10**	6 OR MORE AXLE SINGLE TRAILER
CLASS 4	BUSSES	**CLASS 11**	5-OR MORE AXLE MULTI TRAILER
CLASS 5	TWO AXLE SIX TIRE	**CLASS 12**	6-AXLE MULTI TRAILER
CLASS 6	THREE AXLE SINGLE UNIT	**CLASS 13**	7-OR MORE AXLE MULTI TRAILER
CLASS 7	FOR OR MORE AXLE SINGLE UNIT		

	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
TOTAL: AM+PM	124	13,887	954	101	287	190	18	8	17	1	10	10	6	15,613
% OF TOTAL	0.8%	88.9%	6.1%	0.6%	1.8%	1.2%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%	0.0%	100.0%

	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
TOTAL: ALL	288	24,443	###	248	577	352	95	38	66	21	28	42	71	28,064
% OF TOTAL	1.8%	156.6%	11.5%	1.6%	3.7%	2.3%	0.6%	0.2%	0.4%	0.1%	0.2%	0.3%	0.5%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

PREPARED BY: PACIFIC TECHNICAL DATA, LLC

DATE: 12/08/16 THURSDAY
JOB #: PTD-16-1202-01

CITY: CLAIREMONT
LOCATION: GENESEE BTN SR-52 & LEHRER

AM	SOUTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	1	7	0	0	0	1	0	0	0	0	0	0	0	9
0:15	0	6	1	0	0	0	0	0	0	0	0	0	0	7
0:30	0	5	1	0	0	0	0	0	0	0	0	0	0	6
0:45	0	9	1	0	0	0	0	0	0	0	0	0	0	10
1:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
1:15	0	3	0	0	0	0	0	0	1	0	0	0	0	4
1:30	0	6	0	0	0	0	0	0	0	0	0	0	0	6
1:45	0	5	0	1	0	0	0	0	0	0	0	0	0	6
2:00	0	6	2	0	1	0	0	0	0	0	0	0	0	9
2:15	0	3	0	0	1	0	0	0	0	0	0	0	0	4
2:30	0	11	1	0	1	0	0	0	0	0	0	0	0	13
2:45	0	13	2	0	2	0	0	0	0	0	0	0	0	17
3:00	0	17	3	1	2	1	0	0	1	0	0	0	0	25
3:15	0	24	5	1	3	1	0	0	0	0	0	0	0	34
3:30	0	30	3	2	2	0	0	0	0	0	0	0	0	37
3:45	0	35	6	0	3	0	1	0	0	0	0	0	0	45
4:00	0	42	10	2	3	0	1	0	0	0	0	0	0	58
4:15	0	108	9	3	2	2	0	0	0	0	0	0	0	124
4:30	0	124	9	2	6	0	0	0	0	0	0	0	0	141
4:45	0	118	14	3	2	1	2	0	0	0	0	0	0	140
5:00	1	127	15	1	1	0	1	0	0	0	0	0	0	146
5:15	0	133	14	2	4	1	0	0	0	0	0	0	0	154
5:30	0	100	10	1	9	2	1	0	0	0	0	0	0	123
5:45	0	104	14	2	7	0	1	0	0	0	0	0	0	128
6:00	0	129	6	1	5	0	0	0	0	0	0	0	0	141
6:15	1	118	15	3	2	1	0	0	2	0	0	0	0	142
6:30	1	148	14	2	4	0	1	0	0	0	0	0	0	170
6:45	1	135	12	1	3	1	1	0	0	0	0	0	0	154
7:00	2	145	16	1	2	1	0	0	1	0	1	0	0	169
7:15	2	136	18	2	7	1	0	1	0	0	0	0	0	167
7:30	1	136	14	1	3	0	3	0	0	0	1	0	0	159
7:45	0	137	15	2	6	1	1	0	0	0	0	0	0	162
8:00	2	160	12	1	6	1	1	1	0	0	0	0	0	184
8:15	1	176	19	1	3	1	2	0	2	0	0	0	0	205
8:30	0	191	20	2	8	4	0	0	1	0	0	1	0	227
8:45	1	177	18	0	7	1	2	0	0	0	0	0	0	206
9:00	1	188	16	2	7	3	1	0	0	0	0	0	0	218
9:15	1	172	11	2	4	1	1	0	0	0	0	1	0	193
9:30	4	205	20	1	5	1	1	0	0	0	0	1	0	238
9:45	0	185	14	1	7	0	2	0	0	0	0	0	0	209
10:00	1	159	13	2	6	3	0	0	0	0	0	0	0	184
10:15	1	172	16	1	3	1	1	0	0	0	0	0	0	195
10:30	0	180	16	2	4	0	0	0	0	0	0	0	0	202
10:45	1	180	13	1	6	2	0	1	0	0	0	0	0	204
11:00	2	175	12	3	4	3	0	0	0	0	0	0	0	199
11:15	0	199	13	1	3	2	1	0	0	0	0	1	0	220
11:30	0	238	22	1	3	7	0	0	0	0	0	0	0	271
11:45	2	236	20	1	4	2	1	1	0	0	0	0	0	267
TOTAL	27	5,117	485	56	161	46	26	4	8	0	2	4	0	5,936

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	957

PM	SOUTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	2	246	19	1	4	3	1	0	0	0	0	0	0	276
12:15	2	294	25	3	9	3	0	0	1	0	0	1	1	339
12:30	5	283	24	3	10	5	2	0	1	1	1	0	0	335
12:45	3	326	29	3	6	11	4	0	1	0	0	0	0	383
13:00	3	288	24	0	4	2	2	0	0	0	0	0	0	323
13:15	3	297	25	2	5	12	2	0	0	0	0	0	0	346
13:30	15	298	22	3	5	15	4	1	0	1	0	3	0	367
13:45	11	75	5	4	8	10	3	4	2	1	0	0	8	131
14:00	10	71	5	10	10	3	6	5	7	2	1	4	6	140
14:15	11	69	5	8	14	5	3	4	1	1	2	5	8	136
14:30	4	81	9	7	3	3	2	2	2	2	2	1	9	127
14:45	10	141	7	2	4	5	2	4	2	2	2	2	5	188
15:00	11	77	4	8	6	6	5	2	6	3	1	3	8	140
15:15	9	69	6	9	2	4	2	0	8	3	3	5	10	130
15:30	8	65	2	13	12	4	4	2	6	2	3	1	6	128
15:45	5	143	6	0	1	3	5	1	1	2	1	1	4	173
16:00	9	283	15	2	5	4	0	0	0	0	0	0	0	318
16:15	7	227	15	2	2	5	0	0	1	0	0	2	0	261
16:30	1	187	12	0	1	1	0	0	0	0	0	0	0	202
16:45	2	165	5	1	1	0	0	0	1	0	0	0	0	175
17:00	0	157	5	1	0	0	2	0	0	0	0	0	0	165
17:15	0	148	10	0	2	0	1	0	0	0	0	0	0	161
17:30	1	122	8	2	1	2	0	0	0	0	0	0	0	136
17:45	0	110	10	1	1	1	0	0	0	0	0	0	0	123
18:00	0	118	3	0	1	1	0	0	1	0	0	0	0	124
18:15	0	106	8	1	2	0	0	0	0	0	0	0	0	117
18:30	1	115	5	0	1	3	0	0	0	0	0	0	0	125
18:45	0	92	5	1	1	0	1	0	0	0	0	0	0	100
19:00	1	91	5	0	0	1	0	0	0	0	0	0	0	98
19:15	1	103	3	1	2	2	0	0	0	0	0	0	0	112
19:30	0	90	5	0	3	1	0	0	0	0	0	0	0	99
19:45	2	67	2	1	0	0	0	0	0	0	0	0	0	72
20:00	0	54	4	1	0	0	0	0	0	0	0	0	0	59
20:15	0	49	3	1	1	0	0	0	0	0	0	0	0	54
20:30	0	48	3	0	0	0	0	0	0	0	0	0	0	51
20:45	0	38	1	0	0	0	0	0	0	0	0	0	0	39
21:00	0	46	3	0	1	0	0	0	0	0	0	0	0	50
21:15	0	40	1	0	0	0	0	0	0	0	0	0	0	41
21:30	0	28	1	0	0	1	0	0	0	0	0	0	0	30
21:45	0	26	1	0	0	0	0	0	0	0	0	0	0	27
22:00	0	24	1	0	1	0	0	1	0	0	0	0	0	27
22:15	0	20	1	0	0	0	0	0	0	0	0	0	0	21
22:30	0	7	0	0	0	0	0	0	0	0	0	0	0	7
22:45	0	15	0	0	0	0	0	0	0	0	0	0	0	15
23:00	0	10	3	0	0	0	0	0	0	0	0	0	0	13
23:15	0	14	1	0	0	0	0	0	0	0	0	0	0	15
23:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5
23:45	0	11	0	0	0	0	0	0	0	0	0	0	0	11
TOTAL	137	5,439	356	91	129	116	51	26	41	20	16	28	65	6,515

PM PEAK HOUR	12:45 PM
PM PEAK VOLUME	1,419

CLASS 1	MOTORCYCLES	**CLASS 8**	FOUR OR LESS AXLE TRAILER
CLASS 2	PASSENGER VEHICLES	**CLASS 9**	5-AXLE TRACTOR SEMITRAILER
CLASS 3	FOUR TIRE SINGLE UNIT	**CLASS 10**	6 OR MORE AXLE SINGLE TRAILER
CLASS 4	BUSSES	**CLASS 11**	5-OR MORE AXLE MULTI TRAILER
CLASS 5	TWO AXLE SIX TIRE	**CLASS 12**	6-AXLE MULTI TRAILER
CLASS 6	THREE AXLE SINGLE UNIT	**CLASS 13**	7-OR MORE AXLE MULTI TRAILER
CLASS 7	FOR OR MORE AXLE SINGLE UNIT		

TOTAL: AM+PM	164	10,556	841	147	290	162	77	30	49	20	18	32	65	12,451
% OF TOTAL	1.3%	84.8%	6.8%	1.2%	2.3%	1.3%	0.6%	0.2%	0.4%	0.2%	0.1%	0.3%	0.5%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

PREPARED BY: PACIFIC TECHNICAL DATA, LLC

DATE: 11/29/16 TUESDAY
JOB #: PTD-16-1202-01

CITY: CLAIREMONT
LOCATION: CLAIREMONT MESA BLVD BTN KLEEFIELD & GENESEE

AM	EASTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	19	1	1	0	0	0	0	0	0	0	0	0	21
0:15	0	13	1	0	0	0	0	0	0	0	0	0	0	14
0:30	0	12	0	0	0	0	0	0	0	0	0	0	0	12
0:45	0	14	0	0	0	0	0	1	0	0	0	0	0	15
1:00	0	6	0	0	0	0	0	0	1	0	0	0	0	7
1:15	0	8	0	0	1	0	0	0	0	0	0	0	0	9
1:30	0	9	0	0	0	0	0	0	0	0	0	0	0	9
1:45	0	5	0	0	0	0	0	0	0	0	0	0	0	5
2:00	0	10	1	0	0	0	0	0	0	0	0	0	0	11
2:15	0	7	0	0	1	0	0	0	0	0	0	0	0	8
2:30	0	8	0	0	0	0	0	0	0	0	0	0	0	8
2:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
3:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
3:15	0	6	1	1	0	0	0	0	0	0	0	0	0	8
3:30	0	4	1	0	1	0	0	0	0	0	0	0	0	6
3:45	0	8	1	0	0	0	0	0	0	0	0	0	0	9
4:00	0	7	2	0	1	0	0	0	0	0	0	0	0	10
4:15	0	15	1	1	0	0	0	0	0	0	0	0	0	17
4:30	0	11	4	0	0	0	0	0	0	0	0	0	0	15
4:45	0	14	1	1	0	0	0	0	0	0	0	0	0	16
5:00	0	27	1	0	1	0	0	0	0	0	0	0	0	29
5:15	0	22	5	2	2	0	0	0	1	0	0	0	0	32
5:30	0	42	4	0	1	1	0	0	0	0	0	0	0	48
5:45	0	29	6	2	0	0	0	0	0	0	0	0	0	37
6:00	0	36	8	1	3	0	0	0	0	0	0	0	0	48
6:15	0	44	6	2	3	0	0	0	0	0	0	0	0	55
6:30	0	69	10	1	2	3	0	0	0	0	0	0	1	86
6:45	1	90	11	1	1	1	0	0	0	0	0	0	0	105
7:00	3	124	9	1	3	4	2	0	0	1	1	1	0	149
7:15	3	118	16	2	4	2	3	0	0	0	0	0	0	148
7:30	4	161	17	2	11	3	0	0	0	0	1	0	0	199
7:45	4	128	17	1	4	3	0	1	1	0	0	0	0	159
8:00	0	133	9	3	5	2	0	0	1	0	0	0	0	153
8:15	5	134	15	2	5	2	0	0	0	0	1	0	0	164
8:30	0	163	11	2	4	5	1	0	0	0	0	0	0	186
8:45	2	162	10	5	9	3	0	0	0	0	0	1	0	192
9:00	4	148	11	5	14	3	1	1	1	1	0	0	0	189
9:15	1	123	12	3	4	5	0	0	1	0	0	0	0	149
9:30	2	114	12	2	8	4	0	1	0	0	0	0	0	143
9:45	1	139	15	2	3	6	0	1	0	0	0	0	0	167
10:00	4	165	7	1	7	0	1	0	0	0	0	0	0	185
10:15	6	150	9	1	5	1	0	0	0	0	0	1	0	173
10:30	2	146	18	3	5	1	0	1	1	0	0	1	0	178
10:45	5	168	17	1	4	2	1	0	1	0	0	0	0	199
11:00	10	165	18	1	3	2	0	0	1	0	0	0	0	200
11:15	4	179	8	2	5	2	1	1	0	1	0	3	0	206
11:30	2	185	23	2	5	4	1	0	0	0	0	0	1	223
11:45	5	168	11	2	6	3	3	0	0	0	0	1	0	199
TOTAL	68	3,514	330	56	131	62	14	7	9	3	3	8	2	4,207

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	828

PM	EASTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	4	182	14	2	6	3	1	1	0	0	0	1	0	214
12:15	11	171	16	0	3	4	1	1	0	0	0	0	0	207
12:30	7	190	22	2	5	7	2	0	0	0	0	1	0	236
12:45	8	200	12	2	5	2	3	0	0	0	0	0	0	232
13:00	7	195	20	0	3	5	1	0	2	0	0	0	0	233
13:15	6	185	14	2	3	7	1	0	1	0	0	1	0	220
13:30	9	205	10	2	4	6	0	1	0	0	1	1	0	239
13:45	14	176	18	1	9	5	2	0	0	0	0	2	0	227
14:00	10	204	16	1	5	7	2	0	0	0	1	0	0	246
14:15	12	182	20	0	3	3	1	0	0	0	0	0	0	221
14:30	2	196	20	4	3	10	0	1	0	1	0	1	0	238
14:45	9	193	16	1	1	7	1	0	0	0	0	1	0	229
15:00	8	202	18	1	4	9	1	0	0	0	0	0	0	243
15:15	11	193	12	0	3	6	1	1	0	0	0	0	0	227
15:30	6	212	12	1	2	5	0	0	0	0	0	1	0	239
15:45	3	217	22	5	12	2	0	0	0	0	0	0	0	261
16:00	14	206	18	2	8	6	2	0	0	0	0	0	0	256
16:15	9	200	15	1	5	5	1	0	0	1	0	0	0	237
16:30	3	235	17	4	5	5	0	0	0	2	1	1	1	274
16:45	3	209	12	1	2	6	1	1	0	1	0	0	0	236
17:00	8	244	12	2	5	2	1	0	0	4	0	0	0	278
17:15	11	262	14	1	2	8	1	1	0	0	0	2	1	303
17:30	4	244	13	1	5	4	0	0	0	0	0	0	1	272
17:45	3	204	12	1	3	6	1	0	0	1	0	1	0	232
18:00	5	176	15	5	1	3	1	4	0	0	0	1	0	211
18:15	3	172	20	3	1	5	1	0	0	2	0	0	0	207
18:30	11	162	10	0	4	2	3	1	0	0	0	0	0	193
18:45	2	169	13	2	3	1	0	0	0	0	0	0	1	191
19:00	6	155	7	1	3	0	0	0	0	0	1	0	0	173
19:15	3	171	11	0	2	2	0	0	0	0	0	0	0	189
19:30	0	132	10	0	3	0	0	0	0	0	0	0	0	145
19:45	0	124	5	1	1	0	0	0	0	0	0	0	0	131
20:00	2	138	5	0	1	1	0	0	0	0	0	0	0	147
20:15	0	106	7	2	3	1	0	0	0	0	0	0	0	119
20:30	1	110	5	0	2	0	0	0	0	0	0	0	0	118
20:45	4	105	4	1	3	0	0	0	0	0	0	0	0	117
21:00	0	109	2	0	2	2	0	0	0	0	0	0	0	115
21:15	2	103	2	2	2	0	0	0	0	0	0	0	0	111
21:30	0	97	1	0	0	2	0	0	0	0	0	0	0	100
21:45	0	85	3	0	0	1	0	0	0	0	0	0	0	89
22:00	1	74	2	0	2	0	0	0	0	0	0	0	0	79
22:15	0	49	3	1	0	0	0	0	0	0	0	0	0	53
22:30	0	51	4	2	0	0	0	0	0	0	0	0	0	57
22:45	0	46	1	0	0	0	0	0	0	0	0	0	0	47
23:00	0	35	0	1	0	1	0	0	0	0	0	0	0	37
23:15	0	23	2	0	0	0	0	0	0	0	0	0	0	25
23:30	0	16	0	0	0	0	0	0	0	0	0	0	0	16
23:45	0	20	2	0	0	0	0	0	0	0	0	0	0	22
TOTAL	222	7,335	509	58	139	151	29	12	3	12	4	14	4	8,492

PM PEAK HOUR	4:30 PM
PM PEAK VOLUME	1,091

CLASS 1	MOTORCYCLES	CLASS 8	FOUR OR LESS AXLE TRAILER
CLASS 2	PASSENGER VEHICLES	CLASS 9	5-AXLE TRACTOR SEMITRAILER
CLASS 3	FOUR TIRE SINGLE UNIT	CLASS 10	6 OR MORE AXLE SINGLE TRAILER
CLASS 4	BUSSES	CLASS 11	5-OR MORE AXLE MULTI TRAILER
CLASS 5	TWO AXLE SIX TIRE	CLASS 12	6-AXLE MULTI TRAILER
CLASS 6	THREE AXLE SINGLE UNIT	CLASS 13	7-OR MORE AXLE MULTI TRAILER
CLASS 7	FOR OR MORE AXLE SINGLE UNIT		

TOTAL: AM+PM	290	10,849	839	114	270	213	43	19	12	15	7	22	6	12,699
% OF TOTAL	2.3%	85.4%	6.6%	0.9%	2.1%	1.7%	0.3%	0.1%	0.1%	0.1%	0.1%	0.2%	0.0%	100.0%

TOTAL: ALL	514	22,498	###	162	503	277	86	40	29	24	11	34	18	25,310
% OF TOTAL	4.0%	177.2%	8.8%	1.3%	4.0%	2.2%	0.7%	0.3%	0.2%	0.2%	0.1%	0.3%	0.1%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

PREPARED BY: PACIFIC TECHNICAL DATA, LLC

DATE: 11/29/16 TUESDAY
JOB #: PTD-16-1202-01

CITY: CLAIREMONT
LOCATION: CLAIREMONT MESA BLVD BTN KLEEFIELD & GENESEE

AM	WESTBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	2	24	1	0	1	0	0	0	0	0	0	0	0	28
0:15	0	9	1	0	0	0	0	0	0	0	0	0	0	10
0:30	0	21	0	0	1	0	0	0	0	0	0	0	0	22
0:45	0	10	0	0	0	0	0	0	0	0	0	0	0	10
1:00	0	10	0	0	0	0	0	0	0	0	0	0	0	10
1:15	0	11	0	0	1	0	0	0	0	0	0	0	0	12
1:30	0	8	0	0	0	0	0	0	0	0	1	0	0	9
1:45	0	11	0	0	0	0	0	0	0	0	0	0	0	11
2:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
2:15	0	6	0	0	0	0	0	0	0	0	0	0	0	6
2:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5
2:45	0	8	0	0	1	0	0	0	0	0	0	0	0	9
3:00	0	7	0	0	0	0	0	0	0	0	0	0	0	7
3:15	0	5	1	0	1	0	0	0	0	0	0	0	0	7
3:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5
3:45	0	10	1	0	0	0	0	0	1	0	0	0	0	12
4:00	0	4	0	0	1	0	0	0	0	0	0	0	0	5
4:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4
4:30	0	8	0	0	0	0	0	0	0	0	0	0	0	8
4:45	0	19	1	0	1	0	0	0	0	0	0	0	0	21
5:00	0	14	0	0	0	0	0	0	0	0	0	0	0	14
5:15	0	20	0	0	1	1	0	0	0	0	0	0	0	22
5:30	0	23	0	0	1	0	0	0	0	1	0	0	0	25
5:45	0	35	0	0	3	0	0	0	1	0	0	0	0	39
6:00	0	37	1	1	1	0	0	0	0	0	0	0	0	40
6:15	0	31	3	0	4	0	0	0	0	0	0	0	0	38
6:30	0	67	2	1	2	0	0	0	0	0	0	0	0	72
6:45	0	71	3	1	6	1	1	0	1	0	0	0	0	84
7:00	0	93	2	0	7	0	1	1	1	0	0	0	1	106
7:15	8	103	6	0	5	0	0	0	0	1	0	0	0	123
7:30	1	125	2	0	5	1	1	0	0	0	0	0	0	135
7:45	0	154	2	0	8	3	0	0	2	0	0	0	0	169
8:00	1	140	6	0	7	0	0	0	0	0	0	0	0	154
8:15	0	150	5	0	6	1	1	0	0	0	0	0	0	163
8:30	1	139	2	0	5	3	2	4	0	0	0	2	0	158
8:45	9	183	3	0	11	1	1	0	1	0	0	0	0	209
9:00	9	141	2	0	5	0	1	0	0	0	0	0	0	158
9:15	3	169	4	0	5	2	0	0	1	0	0	0	0	184
9:30	2	156	4	0	6	0	1	1	0	0	0	0	0	170
9:45	4	173	2	1	2	1	0	0	0	0	0	1	0	184
10:00	3	170	3	0	6	2	2	1	1	0	0	0	0	188
10:15	3	175	8	0	4	1	1	0	0	0	0	1	0	193
10:30	0	185	7	1	3	1	0	0	0	0	0	0	0	197
10:45	5	194	3	1	2	1	0	0	0	1	0	0	0	207
11:00	4	217	4	1	4	0	3	0	0	0	0	0	0	233
11:15	9	195	3	0	2	0	2	0	1	0	0	0	0	212
11:30	0	212	6	1	2	2	0	0	0	0	0	0	0	223
11:45	7	212	6	1	4	1	0	0	0	0	0	0	0	231
TOTAL	71	3,775	94	9	124	22	17	7	10	3	1	4	1	4,138

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	899

PM	WESTBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	8	218	5	2	0	0	1	0	0	0	0	0	0	234
12:15	0	226	8	1	3	0	0	0	1	0	0	0	0	239
12:30	1	205	6	3	1	1	1	0	0	0	0	0	1	219
12:45	3	188	6	0	1	0	0	0	0	0	0	0	0	198
13:00	3	220	6	2	3	1	0	0	0	0	0	0	0	235
13:15	8	188	7	1	1	0	1	0	0	0	0	0	0	206
13:30	1	195	5	2	1	0	0	1	0	0	0	1	0	206
13:45	9	195	4	1	6	1	0	1	0	1	0	1	0	219
14:00	0	181	13	1	3	1	1	2	0	0	1	0	1	204
14:15	1	249	6	1	4	1	0	0	0	1	0	0	2	265
14:30	7	227	3	3	9	3	0	0	0	0	0	0	0	252
14:45	7	216	6	0	2	3	0	0	0	0	0	0	2	236
15:00	3	243	3	2	5	0	0	0	0	0	0	0	0	256
15:15	7	229	6	1	3	1	1	0	2	0	0	0	0	250
15:30	5	221	8	2	4	2	0	1	1	0	1	0	1	246
15:45	9	209	5	1	4	5	1	2	0	1	0	0	0	237
16:00	9	265	12	0	2	2	3	1	0	1	0	2	2	299
16:15	2	275	6	2	2	2	0	1	0	0	0	1	0	291
16:30	13	242	12	1	2	1	1	0	0	1	0	0	0	273
16:45	8	268	5	3	4	2	1	0	0	0	1	0	0	292
17:00	6	229	4	1	4	2	1	0	0	1	0	0	0	248
17:15	3	288	5	1	1	2	2	1	0	0	0	0	0	303
17:30	4	239	8	2	2	3	3	0	0	0	0	0	2	263
17:45	3	232	10	0	3	2	0	0	1	0	0	1	0	252
18:00	1	202	5	1	0	1	2	0	0	0	0	1	0	213
18:15	3	212	1	0	2	2	3	0	0	0	0	0	0	223
18:30	2	189	2	2	0	0	0	0	1	0	0	0	0	196
18:45	4	175	1	1	3	1	0	1	0	0	0	0	0	186
19:00	1	180	2	1	3	0	1	0	1	0	0	0	0	189
19:15	2	161	2	1	4	0	0	1	0	0	0	0	0	171
19:30	6	155	2	0	3	0	0	0	0	0	0	0	0	166
19:45	3	112	2	0	7	0	1	1	0	0	0	0	0	126
20:00	3	127	1	0	2	1	0	0	0	0	0	0	0	134
20:15	2	104	0	0	3	0	0	0	0	0	0	0	0	109
20:30	0	99	1	0	1	0	0	0	0	0	0	0	0	101
20:45	0	105	0	0	0	0	1	0	0	0	0	0	0	106
21:00	2	91	2	0	0	0	1	0	0	0	0	1	0	97
21:15	1	80	0	0	2	0	0	0	0	0	0	0	0	83
21:30	0	77	0	0	1	1	0	0	0	0	0	0	0	79
21:45	1	66	1	0	2	1	0	0	0	0	0	0	0	71
22:00	0	52	0	0	1	0	0	0	0	0	0	0	0	53
22:15	0	50	0	0	3	0	0	0	0	0	0	0	0	53
22:30	1	43	0	0	1	0	0	0	0	0	0	0	0	45
22:45	0	42	0	0	0	0	0	0	0	0	0	0	0	42
23:00	0	30	0	0	1	0	0	1	0	0	0	0	0	32
23:15	1	31	0	0	0	0	0	0	0	0	0	0	0	32
23:30	0	22	0	0	0	0	0	0	0	0	0	0	0	22
23:45	0	21	0	0	0	0	0	0	0	0	0	0	0	21
TOTAL	153	7,874	181	39	109	42	26	14	7	6	3	8	11	8,473

PM PEAK HOUR	4:00 PM
PM PEAK VOLUME	1,155

CLASS 1	MOTORCYCLES	**CLASS 8**	FOUR OR LESS AXLE TRAILER
CLASS 2	PASSENGER VEHICLES	**CLASS 9**	5-AXLE TRACTOR SEMITRAILER
CLASS 3	FOUR TIRE SINGLE UNIT	**CLASS 10**	6 OR MORE AXLE SINGLE TRAILER
CLASS 4	BUSSES	**CLASS 11**	5-OR MORE AXLE MULTI TRAILER
CLASS 5	TWO AXLE SIX TIRE	**CLASS 12**	6-AXLE MULTI TRAILER
CLASS 6	THREE AXLE SINGLE UNIT	**CLASS 13**	7-OR MORE AXLE MULTI TRAILER
CLASS 7	FOR OR MORE AXLE SINGLE UNIT		

TOTAL: AM+PM	224	11,649	275	48	233	64	43	21	17	9	4	12	12	12,611
% OF TOTAL	1.8%	92.4%	2.2%	0.4%	1.8%	0.5%	0.3%	0.2%	0.1%	0.1%	0.0%	0.1%	0.1%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

PREPARED BY: PACIFIC TECHNICAL DATA, LLC

DATE: 12/08/16 THURSDAY
JOB #: PTD-16-1202-01

CITY: CLAIREMONT
LOCATION: CLAIREMONT DRIVE BTN LAKEHURST & CLAIREMONT MESA

AM	NORTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	3	0	1	0	0	0	0	0	0	0	0	0	4
0:15	0	4	0	0	0	0	0	0	0	0	0	0	0	4
0:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5
0:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4
1:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
1:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
1:30	0	4	1	0	0	0	0	0	0	0	0	0	0	5
1:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
2:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5
2:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
3:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
3:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
3:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:15	0	0	0	1	0	0	0	0	0	0	0	0	0	1
4:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
4:45	0	3	2	1	0	0	0	0	0	0	0	0	0	6
5:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
5:15	0	6	1	1	0	0	0	0	0	0	0	0	0	8
5:30	0	5	1	0	0	0	0	0	0	0	0	0	0	6
5:45	0	8	1	1	0	0	0	0	0	0	0	0	0	10
6:00	0	10	3	0	1	0	0	0	0	0	0	0	0	14
6:15	0	19	2	1	1	1	0	0	1	0	0	0	0	25
6:30	0	11	1	1	4	0	0	0	0	0	0	0	0	17
6:45	0	12	2	1	2	1	0	0	0	0	0	0	0	18
7:00	0	25	2	1	2	0	1	0	0	0	0	0	0	31
7:15	0	37	3	1	0	0	0	0	0	0	0	0	0	41
7:30	0	29	8	3	1	0	0	0	0	0	0	0	0	41
7:45	0	44	4	0	0	0	0	0	0	0	0	0	0	48
8:00	0	47	2	2	0	0	0	0	1	0	0	0	0	52
8:15	0	41	6	1	2	1	1	0	0	0	0	0	0	52
8:30	1	88	2	1	0	1	0	0	0	0	0	0	0	93
8:45	0	94	3	1	2	0	0	0	0	0	0	0	0	100
9:00	0	63	6	2	1	1	0	0	0	0	0	0	0	73
9:15	0	58	5	0	2	2	1	0	0	0	0	0	0	68
9:30	1	56	2	2	1	0	0	0	0	0	0	0	0	62
9:45	1	50	3	0	2	0	0	0	0	0	0	0	0	56
10:00	0	49	6	0	3	0	0	0	0	0	0	0	0	58
10:15	0	47	6	1	1	0	0	0	0	0	0	0	0	55
10:30	1	51	5	1	1	0	0	0	0	0	0	0	0	59
10:45	3	52	8	1	0	1	0	0	0	0	0	0	0	65
11:00	0	41	5	1	4	0	0	0	0	0	0	0	0	51
11:15	1	71	8	1	3	1	0	0	0	0	0	0	0	85
11:30	0	62	4	1	2	1	0	0	0	0	0	0	0	70
11:45	1	69	7	2	5	0	0	0	0	0	0	0	0	84
TOTAL	9	1,196	110	30	40	10	3	0	2	0	0	0	0	1,400

AM PEAK HOUR	8:30 AM
AM PEAK VOLUME	334

PM	NORTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	1	67	3	1	2	0	0	0	0	0	0	0	0	74
12:15	4	67	3	1	1	0	1	0	0	0	0	0	0	77
12:30	0	66	1	2	2	0	0	0	0	0	0	0	0	71
12:45	0	61	5	1	1	2	0	0	0	0	0	0	0	70
13:00	2	60	4	3	0	0	0	0	0	0	0	0	0	69
13:15	0	65	7	2	1	1	1	0	0	0	0	0	0	77
13:30	2	72	5	3	2	2	1	0	0	0	0	0	0	87
13:45	4	68	4	0	1	2	0	0	0	0	0	0	0	79
14:00	0	69	4	0	1	0	0	0	0	0	0	0	0	74
14:15	1	59	3	1	1	1	0	0	0	0	0	0	0	66
14:30	2	70	6	2	1	1	0	0	0	0	0	0	0	82
14:45	2	78	4	2	0	1	0	0	0	0	0	0	0	87
15:00	0	78	8	1	1	1	0	0	0	0	0	0	0	89
15:15	0	64	4	0	1	2	0	0	0	0	0	0	0	71
15:30	4	90	9	1	3	0	1	0	0	0	0	0	0	108
15:45	2	101	6	2	0	1	1	0	0	0	0	1	0	114
16:00	0	135	10	1	3	0	0	0	0	0	0	0	0	149
16:15	0	105	13	0	2	2	0	0	0	0	0	0	0	122
16:30	2	101	3	1	2	1	1	0	0	0	0	0	0	111
16:45	0	121	13	1	3	0	0	0	0	0	0	0	0	138
17:00	2	88	5	1	1	0	1	0	1	0	0	0	0	99
17:15	1	94	5	0	1	0	0	0	0	0	0	0	0	101
17:30	0	62	5	1	0	0	1	0	0	0	0	0	0	69
17:45	0	75	3	1	0	0	0	0	0	0	0	0	0	79
18:00	0	62	6	1	1	1	0	0	0	0	0	0	0	71
18:15	2	65	6	2	0	0	0	0	0	0	0	0	0	75
18:30	1	70	1	2	0	1	0	0	1	0	0	0	0	76
18:45	0	42	2	0	1	1	1	0	0	0	0	0	0	47
19:00	0	36	2	0	0	2	0	0	0	0	0	0	0	40
19:15	0	30	6	2	0	0	0	0	0	0	0	0	0	38
19:30	0	29	3	1	0	1	0	0	0	0	0	0	0	34
19:45	0	23	4	1	0	0	0	0	0	0	0	0	0	28
20:00	0	23	2	0	0	0	0	0	0	0	0	0	0	25
20:15	2	47	0	1	1	0	0	0	1	0	0	0	0	52
20:30	0	27	2	2	0	0	0	0	0	0	0	0	0	31
20:45	0	28	0	1	0	0	0	0	0	0	0	0	0	29
21:00	1	29	1	0	0	0	0	0	0	0	0	0	0	31
21:15	0	22	0	2	0	0	0	0	0	0	0	0	0	24
21:30	0	23	1	1	0	0	0	0	0	0	0	0	0	25
21:45	0	19	2	0	0	0	0	0	0	0	0	0	0	21
22:00	0	21	0	0	0	0	0	0	0	0	0	0	0	21
22:15	0	5	1	1	0	0	0	0	0	0	0	0	0	7
22:30	0	14	0	0	0	0	0	0	0	0	0	0	0	14
22:45	0	11	1	0	0	0	0	0	0	0	0	0	0	12
23:00	0	7	0	1	0	0	0	0	0	0	0	0	0	8
23:15	0	11	0	0	0	0	0	0	0	0	0	0	0	11
23:30	0	8	0	0	0	0	0	0	1	0	0	0	0	9
23:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4
TOTAL	35	2,572	173	46	33	23	9	0	4	0	0	1	0	2,896

PM PEAK HOUR	4:00 PM
PM PEAK VOLUME	520

CLASS 1	MOTORCYCLES	CLASS 8	FOUR OR LESS AXLE TRAILER
CLASS 2	PASSENGER VEHICLES	CLASS 9	5-AXLE TRACTOR SEMITRAILER
CLASS 3	FOUR TIRE SINGLE UNIT	CLASS 10	6 OR MORE AXLE SINGLE TRAILER
CLASS 4	BUSSES	CLASS 11	5-OR MORE AXLE MULTI TRAILER
CLASS 5	TWO AXLE SIX TIRE	CLASS 12	6-AXLE MULTI TRAILER
CLASS 6	THREE AXLE SINGLE UNIT	CLASS 13	7-OR MORE AXLE MULTI TRAILER
CLASS 7	FOR OR MORE AXLE SINGLE UNIT		

TOTAL: AM+PM	44	3,768	283	76	73	33	12	0	6	0	0	1	0	4,296
% OF TOTAL	1.0%	87.7%	6.6%	1.8%	1.7%	0.8%	0.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	100.0%

TOTAL: ALL	96	7,812	611	80	129	53	26	1	11	0	0	3	0	8,822
% OF TOTAL	2.2%	181.8%	14.2%	1.9%	3.0%	1.2%	0.6%	0.0%	0.3%	0.0%	0.0%	0.1%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

PREPARED BY: PACIFIC TECHNICAL DATA, LLC

DATE: 12/08/16 THURSDAY
JOB #: PTD-16-1202-01

CITY: CLAIREMONT
LOCATION: CLAIREMONT DRIVE BTN LAKEHURST & CLAIREMONT MESA

AM	SOUTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
0:15	0	7	0	0	0	0	0	0	0	0	0	0	0	7
0:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0:45	0	5	0	0	0	0	0	0	0	0	0	0	0	5
1:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
1:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
1:30	0	3	0	0	0	0	0	0	0	0	0	0	0	3
1:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
2:15	0	2	0	0	0	0	0	0	0	0	0	0	0	2
2:30	0	1	0	0	0	0	0	0	0	0	0	0	0	1
2:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4
3:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
3:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30	0	3	0	0	0	0	0	0	0	0	0	0	0	3
3:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15	0	2	1	0	0	0	0	0	0	0	0	0	0	3
4:30	0	7	1	0	0	0	0	0	0	0	0	0	0	8
4:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4
5:00	0	9	0	1	0	0	0	0	0	0	0	0	0	10
5:15	0	7	1	0	0	0	0	0	0	0	0	0	0	8
5:30	0	10	1	0	0	0	0	0	0	0	0	0	0	11
5:45	0	14	3	0	0	0	0	0	0	0	0	0	0	17
6:00	0	12	0	0	0	0	0	0	0	0	0	0	0	12
6:15	0	24	1	0	0	0	0	0	0	0	0	0	0	25
6:30	0	31	8	0	0	0	0	1	0	0	0	0	0	40
6:45	0	26	4	0	1	0	0	0	0	0	0	0	0	31
7:00	2	53	6	0	3	1	0	0	0	0	0	0	0	65
7:15	0	73	5	0	3	0	0	0	1	0	0	0	0	82
7:30	1	78	7	0	0	0	0	0	0	0	0	0	0	86
7:45	2	72	12	0	3	1	0	0	0	0	0	0	0	90
8:00	2	71	6	0	1	0	0	0	0	0	0	0	0	80
8:15	1	56	4	0	0	0	0	0	0	0	0	0	0	61
8:30	0	99	6	0	1	1	0	0	0	0	0	0	0	107
8:45	0	68	4	0	1	0	0	0	0	0	0	0	0	73
9:00	2	60	5	1	2	2	0	0	0	0	0	0	0	72
9:15	0	63	4	0	1	0	1	0	0	0	0	0	0	69
9:30	0	71	3	0	0	0	1	0	0	0	0	0	0	75
9:45	0	59	7	0	1	0	0	0	0	0	0	0	0	67
10:00	0	72	5	0	0	0	0	0	0	0	0	0	0	77
10:15	0	49	3	0	1	0	0	0	0	0	0	0	0	53
10:30	0	60	6	0	1	0	0	0	1	0	0	0	0	68
10:45	2	54	4	0	1	1	1	0	0	0	0	0	0	63
11:00	0	66	6	0	0	0	0	0	0	0	0	0	0	72
11:15	4	75	3	1	1	0	0	0	0	0	0	0	0	84
11:30	0	61	7	0	1	1	0	0	0	0	0	0	0	70
11:45	1	55	8	0	2	0	1	0	0	0	0	0	0	67
TOTAL	17	1,501	132	3	24	7	4	1	2	0	0	0	0	1,691

AM PEAK HOUR	7:45 AM
AM PEAK VOLUME	338

PM	SOUTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	1	80	5	0	4	1	0	0	0	0	0	0	0	91
12:15	0	64	6	0	1	0	0	0	0	0	0	0	0	71
12:30	0	72	4	0	1	0	0	0	0	0	0	0	0	77
12:45	0	63	7	0	1	0	0	0	0	0	0	0	0	71
13:00	2	68	3	0	1	1	0	0	1	0	0	0	0	76
13:15	1	61	6	0	1	1	1	0	0	0	0	0	0	71
13:30	1	78	8	0	1	0	0	0	0	0	0	0	0	88
13:45	4	56	6	1	1	0	0	0	0	0	0	0	0	68
14:00	1	70	3	0	3	0	1	0	0	0	0	0	0	78
14:15	1	83	2	0	0	1	1	0	0	0	0	1	0	89
14:30	3	68	3	0	3	0	1	0	0	0	0	0	0	78
14:45	1	68	7	0	0	0	1	0	0	0	0	0	0	77
15:00	0	77	6	0	1	0	0	0	0	0	0	0	0	84
15:15	1	66	5	0	2	1	1	0	0	0	0	0	0	76
15:30	2	78	8	0	0	0	0	0	0	0	0	0	0	88
15:45	0	81	7	0	0	2	1	0	0	0	0	0	0	91
16:00	4	87	6	0	1	2	0	0	0	0	0	0	0	100
16:15	2	76	8	0	0	0	0	0	1	0	0	0	0	87
16:30	3	73	12	0	1	0	2	0	0	0	0	0	0	91
16:45	1	108	11	0	1	0	0	0	0	0	0	1	0	122
17:00	3	101	5	0	1	0	0	0	0	0	0	0	0	110
17:15	0	101	4	0	2	2	0	0	0	0	0	0	0	109
17:30	2	86	6	0	0	1	0	0	0	0	0	0	0	95
17:45	1	100	9	0	0	1	1	0	0	0	0	0	0	112
18:00	0	79	5	0	0	0	0	0	0	0	0	0	0	84
18:15	0	66	7	0	1	0	0	0	0	0	0	0	0	74
18:30	0	71	7	0	1	0	0	0	0	0	0	0	0	79
18:45	0	51	4	0	1	0	0	0	0	0	0	0	0	56
19:00	0	43	5	0	1	0	0	0	0	0	0	0	0	49
19:15	0	31	0	0	0	0	0	0	0	0	0	0	0	31
19:30	0	44	2	0	0	0	0	0	1	0	0	0	0	47
19:45	0	36	1	0	0	0	0	0	0	0	0	0	0	37
20:00	0	26	4	0	1	0	0	0	0	0	0	0	0	31
20:15	0	29	3	0	1	0	0	0	0	0	0	0	0	33
20:30	0	18	2	0	0	0	0	0	0	0	0	0	0	20
20:45	0	25	0	0	0	0	0	0	0	0	0	0	0	25
21:00	0	21	1	0	0	0	0	0	0	0	0	0	0	22
21:15	0	21	0	0	0	0	0	0	0	0	0	0	0	21
21:30	0	14	1	0	0	0	0	0	0	0	0	0	0	15
21:45	1	26	0	0	0	0	0	0	0	0	0	0	0	27
22:00	0	19	0	0	0	0	0	0	0	0	0	0	0	19
22:15	0	19	2	0	0	0	0	0	0	0	0	0	0	21
22:30	0	12	2	0	0	0	0	0	0	0	0	0	0	14
22:45	0	9	1	0	0	0	0	0	0	0	0	0	0	10
23:00	0	4	1	0	0	0	0	0	0	0	0	0	0	5
23:15	0	7	0	0	0	0	0	0	0	0	0	0	0	7
23:30	0	0	1	0	0	0	0	0	0	0	0	0	0	1
23:45	0	7	0	0	0	0	0	0	0	0	0	0	0	7
TOTAL	35	2,543	196	1	32	13	10	0	3	0	0	2	0	2,835

PM PEAK HOUR	4:45 PM
PM PEAK VOLUME	436

CLASS 1	MOTORCYCLES	**CLASS 8**	FOUR OR LESS AXLE TRAILER
CLASS 2	PASSENGER VEHICLES	**CLASS 9**	5-AXLE TRACTOR SEMITRAILER
CLASS 3	FOUR TIRE SINGLE UNIT	**CLASS 10**	6 OR MORE AXLE SINGLE TRAILER
CLASS 4	BUSSES	**CLASS 11**	5-OR MORE AXLE MULTI TRAILER
CLASS 5	TWO AXLE SIX TIRE	**CLASS 12**	6-AXLE MULTI TRAILER
CLASS 6	THREE AXLE SINGLE UNIT	**CLASS 13**	7-OR MORE AXLE MULTI TRAILER
CLASS 7	FOR OR MORE AXLE SINGLE UNIT		

TOTAL: AM+PM	52	4,044	328	4	56	20	14	1	5	0	0	2	0	4,526
% OF TOTAL	1.1%	89.4%	7.2%	0.1%	1.2%	0.4%	0.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

PREPARED BY: PACIFIC TECHNICAL DATA, LLC

DATE: 12/06/16 TUESDAY
JOB #: PTD-16-1202-01

CITY: CLAIREMONT
LOCATION: CLAIREMONT DRIVE BTN IROQUIS & BURGENER

AM	NORTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	17	0	0	0	0	0	0	0	0	0	0	0	17
0:15	0	12	0	0	1	0	0	0	0	0	0	0	0	13
0:30	0	10	0	0	0	0	1	0	0	0	0	0	0	11
0:45	0	15	0	0	0	0	0	0	0	0	0	0	0	15
1:00	1	11	0	0	0	0	0	0	0	0	0	0	0	12
1:15	0	6	0	0	0	0	0	0	0	0	0	0	0	6
1:30	0	7	0	0	0	1	0	0	0	0	0	0	0	8
1:45	0	8	0	0	0	0	0	0	0	0	0	0	0	8
2:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
2:15	0	6	0	0	0	0	0	0	0	0	0	0	0	6
2:30	0	6	1	0	0	0	0	0	0	0	0	0	0	7
2:45	0	2	0	0	0	0	0	0	0	0	0	0	0	2
3:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
3:15	0	6	0	0	0	0	0	0	1	0	0	0	0	7
3:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
3:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:15	0	8	0	0	1	0	0	0	0	0	0	0	0	9
4:30	0	3	1	0	0	0	0	0	0	0	0	0	0	4
4:45	0	14	0	0	0	0	0	0	0	0	0	0	0	14
5:00	0	6	0	0	1	1	0	0	0	0	0	0	0	8
5:15	0	7	0	0	1	0	0	0	0	0	0	0	0	8
5:30	0	9	0	0	0	0	0	0	0	0	0	0	0	9
5:45	0	19	0	0	2	1	0	0	0	0	0	0	0	22
6:00	0	20	0	0	0	0	0	0	0	0	0	0	0	20
6:15	0	38	1	0	2	1	1	0	0	0	0	0	0	43
6:30	0	30	1	0	1	0	0	0	0	0	0	0	0	32
6:45	0	61	1	0	3	1	0	0	0	0	0	0	0	66
7:00	0	82	1	0	4	1	0	0	1	0	0	0	0	89
7:15	3	49	4	1	4	0	1	0	0	0	0	0	0	62
7:30	0	54	2	0	4	2	0	0	0	0	0	1	0	63
7:45	1	67	3	0	6	0	2	2	0	1	0	0	1	83
8:00	1	81	0	0	6	0	1	0	1	0	0	0	0	90
8:15	0	87	2	0	2	2	3	1	1	0	0	0	1	99
8:30	5	87	0	0	11	0	3	0	0	0	0	1	0	107
8:45	0	105	1	0	10	0	0	0	1	0	0	0	0	117
9:00	1	107	1	0	1	2	2	0	0	0	0	1	0	115
9:15	1	74	0	0	2	3	2	1	0	0	0	1	0	84
9:30	0	78	0	0	5	3	2	0	1	0	0	0	0	89
9:45	6	57	2	0	4	2	0	0	0	0	1	0	0	72
10:00	1	72	2	0	2	1	0	0	0	1	0	0	0	79
10:15	1	71	0	0	2	0	0	0	0	0	0	0	0	74
10:30	2	72	0	0	6	3	1	0	0	0	0	1	0	85
10:45	0	66	1	0	2	2	3	0	0	0	0	0	0	74
11:00	4	81	0	0	3	1	0	0	0	0	0	0	0	89
11:15	2	78	4	0	2	2	1	1	1	0	0	0	1	92
11:30	0	81	3	0	4	5	2	0	1	0	0	0	0	96
11:45	0	80	3	1	4	0	4	0	1	1	0	0	0	94
TOTAL	29	1,863	34	2	96	34	29	5	9	3	1	5	3	2,113

AM PEAK HOUR	8:15 AM
AM PEAK VOLUME	438

PM	NORTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	3	86	3	1	1	2	1	0	1	0	0	0	1	99
12:15	6	86	0	0	3	2	3	0	0	0	0	0	1	101
12:30	4	83	3	0	2	3	2	0	1	0	0	0	1	99
12:45	0	81	2	0	0	1	5	0	3	0	0	0	0	92
13:00	0	76	2	1	3	2	3	0	0	0	0	1	1	89
13:15	1	92	1	0	5	3	5	0	0	0	0	0	1	108
13:30	2	108	0	0	2	2	1	1	0	0	0	0	0	116
13:45	1	92	2	1	2	2	2	0	1	0	0	0	1	104
14:00	1	89	2	0	3	4	4	0	1	0	0	0	3	107
14:15	2	82	2	0	6	1	4	0	3	0	0	0	1	101
14:30	1	81	1	0	3	2	4	1	0	0	0	0	1	94
14:45	2	113	1	0	4	3	1	0	1	0	0	0	0	125
15:00	0	90	0	0	1	1	4	0	2	1	0	1	2	102
15:15	0	97	1	1	7	5	2	0	1	0	0	3	1	118
15:30	7	123	3	1	12	2	2	0	0	0	1	0	1	152
15:45	8	131	2	1	15	3	4	1	0	0	1	1	1	168
16:00	1	108	4	0	4	2	2	0	0	0	1	1	1	124
16:15	7	104	0	0	4	3	4	0	0	0	0	0	1	123
16:30	0	102	1	0	5	0	7	0	0	1	0	2	1	119
16:45	5	93	1	1	3	1	6	0	1	0	0	0	1	112
17:00	3	116	2	1	5	9	5	0	0	0	0	0	0	141
17:15	4	113	2	0	8	2	4	1	0	0	0	1	0	135
17:30	5	114	2	1	5	4	5	1	2	0	0	0	1	140
17:45	2	113	0	0	4	1	2	0	0	0	0	0	0	122
18:00	1	120	1	1	5	1	3	0	2	0	0	1	1	136
18:15	2	90	0	0	2	0	3	0	0	0	0	1	0	98
18:30	2	91	0	1	6	4	2	0	0	0	0	0	1	107
18:45	1	83	1	0	2	0	2	0	1	2	0	0	0	92
19:00	0	99	0	0	2	2	3	0	1	0	0	2	0	109
19:15	1	74	1	0	0	1	2	0	0	1	0	0	0	80
19:30	0	72	2	0	1	0	4	1	0	0	0	0	0	80
19:45	0	61	0	0	1	1	5	0	0	0	0	0	1	69
20:00	2	62	0	0	3	1	3	0	0	0	0	1	0	72
20:15	2	70	2	0	2	1	0	0	1	0	0	0	0	78
20:30	0	58	0	0	1	1	1	0	0	0	0	0	0	61
20:45	0	83	0	0	0	0	0	0	1	0	0	0	0	84
21:00	0	61	0	0	1	0	3	0	0	0	0	0	0	65
21:15	0	54	0	0	1	0	1	0	0	1	0	0	0	57
21:30	0	52	0	0	1	0	1	0	0	1	0	1	0	56
21:45	0	51	0	0	0	0	2	0	0	0	0	0	0	53
22:00	1	54	0	0	0	0	1	0	0	0	0	0	0	56
22:15	0	38	0	0	1	0	2	0	0	0	0	0	0	41
22:30	0	28	0	0	1	0	0	0	0	0	0	0	0	29
22:45	0	32	0	0	1	0	1	0	0	0	0	0	0	34
23:00	1	28	0	0	0	1	0	0	0	0	0	0	0	30
23:15	0	12	0	0	1	1	0	0	0	0	0	0	0	14
23:30	2	26	0	0	0	0	0	0	0	0	0	0	0	28
23:45	0	20	0	0	0	0	1	0	0	0	0	0	0	21
TOTAL	80	3,792	44	11	139	74	122	6	23	7	3	16	24	4,341

PM PEAK HOUR	3:30 PM
PM PEAK VOLUME	567

CLASS 1	MOTORCYCLES	CLASS 8	FOUR OR LESS AXLE TRAILER
CLASS 2	PASSENGER VEHICLES	CLASS 9	5-AXLE TRACTOR SEMITRAILER
CLASS 3	FOUR TIRE SINGLE UNIT	CLASS 10	6 OR MORE AXLE SINGLE TRAILER
CLASS 4	BUSSES	CLASS 11	5-OR MORE AXLE MULTI TRAILER
CLASS 5	TWO AXLE SIX TIRE	CLASS 12	6-AXLE MULTI TRAILER
CLASS 6	THREE AXLE SINGLE UNIT	CLASS 13	7-OR MORE AXLE MULTI TRAILER
CLASS 7	FOR OR MORE AXLE SINGLE UNIT		

TOTAL: AM+PM	109	5,655	78	13	235	108	151	11	32	10	4	21	27	6,454
% OF TOTAL	1.7%	87.6%	1.2%	0.2%	3.6%	1.7%	2.3%	0.2%	0.5%	0.2%	0.1%	0.3%	0.4%	100.0%

TOTAL: ALL	188	12,450	594	85	319	154	163	15	37	14	6	21	29	14,075
% OF TOTAL	2.9%	192.9%	9.2%	1.3%	4.9%	2.4%	2.5%	0.2%	0.6%	0.2%	0.1%	0.3%	0.4%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

PREPARED BY: PACIFIC TECHNICAL DATA, LLC

DATE: 12/06/16 TUESDAY
JOB #: PTD-16-1202-01

CITY: CLAIREMONT
LOCATION: CLAIREMONT DRIVE BTN IROQUIS & BURGENER

AM	SOUTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8
0:15	0	11	0	1	0	0	0	0	0	0	0	0	0	12
0:30	0	6	0	0	0	0	0	0	0	0	0	0	0	6
0:45	0	7	0	0	0	0	0	0	0	0	0	0	0	7
1:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8
1:15	0	3	0	0	0	0	0	0	0	0	0	0	0	3
1:30	0	2	1	0	0	0	0	0	0	0	0	0	0	3
1:45	0	3	1	0	0	0	0	0	0	0	0	0	0	4
2:00	0	9	1	0	0	0	0	0	0	0	0	0	0	10
2:15	0	3	2	0	0	0	0	0	0	0	0	0	0	5
2:30	0	5	0	0	0	0	0	0	0	0	0	0	0	5
2:45	0	3	1	0	0	0	0	0	0	0	0	0	0	4
3:00	0	4	0	0	0	0	0	0	0	0	0	0	0	4
3:15	0	7	0	0	0	0	0	0	0	0	0	0	0	7
3:30	0	6	0	0	0	0	0	0	0	0	0	0	0	6
3:45	0	5	0	0	0	0	0	0	0	0	0	0	0	5
4:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8
4:15	0	11	1	0	0	0	0	0	0	0	0	0	0	12
4:30	0	14	2	0	0	0	0	0	0	0	0	0	0	16
4:45	0	18	4	0	0	0	0	0	0	0	0	0	0	22
5:00	1	20	1	1	0	0	0	1	0	0	0	0	0	24
5:15	0	25	4	0	0	0	0	0	0	0	0	0	0	29
5:30	1	40	8	1	2	0	0	0	0	0	0	0	0	52
5:45	0	54	9	1	1	0	0	0	0	0	0	0	0	65
6:00	2	53	5	1	0	0	0	0	0	0	0	0	0	61
6:15	0	68	10	0	2	0	0	0	0	0	0	0	0	80
6:30	0	92	10	2	2	2	0	0	0	0	0	0	0	108
6:45	0	86	6	2	4	0	0	0	0	0	0	0	0	98
7:00	2	118	14	1	1	1	1	0	0	0	0	0	0	138
7:15	0	154	4	2	3	3	0	0	0	0	0	0	0	166
7:30	1	135	7	1	0	2	0	0	0	0	0	0	0	146
7:45	1	132	12	2	0	0	1	0	0	0	0	0	0	148
8:00	5	103	11	1	1	0	0	0	0	0	0	0	0	121
8:15	0	135	8	4	0	0	0	0	0	0	0	0	0	147
8:30	4	150	9	2	3	0	0	0	0	1	0	0	0	169
8:45	3	148	12	2	3	0	0	1	0	0	0	0	0	169
9:00	0	127	9	1	0	0	0	0	0	0	0	0	0	137
9:15	0	105	3	1	0	0	0	0	1	0	0	0	0	110
9:30	0	87	9	1	0	1	0	0	0	0	0	0	0	98
9:45	0	72	9	0	2	2	0	0	0	0	0	0	0	85
10:00	0	75	11	1	0	2	1	0	0	0	0	0	0	90
10:15	1	69	10	1	0	2	0	0	0	0	0	0	0	83
10:30	2	84	9	1	2	0	1	0	1	0	0	0	0	100
10:45	2	83	13	0	1	1	1	0	0	0	0	0	0	101
11:00	0	89	5	2	3	0	0	1	0	0	0	0	0	100
11:15	0	91	7	1	3	0	0	0	0	0	0	0	0	102
11:30	0	97	8	1	3	1	1	0	0	0	0	0	0	111
11:45	1	86	10	0	1	1	0	0	0	0	0	0	0	99
TOTAL	26	2,719	246	34	37	18	6	3	2	1	0	0	0	3,092

AM PEAK HOUR	8:15 AM
AM PEAK VOLUME	622

PM	SOUTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	1	100	9	1	0	0	0	0	0	0	1	0	0	112
12:15	0	99	6	1	3	0	0	0	0	0	0	0	0	109
12:30	1	96	7	1	6	0	0	0	0	0	0	0	0	111
12:45	4	87	12	0	1	1	0	0	0	0	0	0	0	105
13:00	0	81	5	0	1	3	0	1	0	0	0	0	0	91
13:15	0	85	6	2	1	1	0	0	0	0	0	0	0	95
13:30	1	96	7	1	0	1	0	0	0	0	1	0	0	107
13:45	2	101	4	0	0	1	0	0	0	0	0	0	0	108
14:00	0	104	11	1	2	0	1	0	0	0	0	0	0	119
14:15	2	120	5	2	3	3	2	0	0	0	0	0	0	137
14:30	1	112	12	3	4	3	1	0	0	0	0	0	0	136
14:45	1	121	4	1	4	2	0	0	0	0	0	0	1	134
15:00	2	112	10	0	0	1	0	0	0	0	0	0	0	125
15:15	0	142	10	2	0	0	0	0	0	0	0	0	0	154
15:30	4	133	12	0	5	1	0	0	1	0	0	0	0	156
15:45	0	172	13	6	3	0	0	0	0	0	0	0	0	194
16:00	3	133	11	2	5	0	1	0	0	0	0	0	0	155
16:15	2	127	13	1	0	1	0	0	0	0	0	0	0	144
16:30	1	116	9	0	0	2	0	0	0	1	0	0	0	129
16:45	2	132	8	1	1	2	0	0	0	0	0	0	0	146
17:00	6	116	9	1	1	0	1	0	1	0	0	0	0	135
17:15	0	136	9	1	1	1	0	0	0	0	0	0	0	148
17:30	2	124	10	1	1	0	0	0	0	0	0	0	0	138
17:45	0	128	7	1	0	0	0	0	0	0	0	0	0	136
18:00	0	120	8	1	2	0	0	0	0	0	0	0	0	131
18:15	7	148	5	1	0	0	0	0	0	0	0	0	0	161
18:30	2	108	7	0	1	1	0	0	0	0	0	0	0	119
18:45	0	99	5	2	1	2	0	0	0	1	0	0	1	111
19:00	0	85	5	0	0	0	0	0	0	1	0	0	0	91
19:15	3	67	4	1	0	0	0	0	0	0	0	0	0	75
19:30	2	66	1	0	0	0	0	0	0	0	0	0	0	69
19:45	2	50	1	1	0	0	0	0	0	0	0	0	0	54
20:00	1	76	5	0	0	1	0	0	0	0	0	0	0	83
20:15	0	51	2	0	0	0	0	0	0	0	0	0	0	53
20:30	0	58	4	0	0	0	0	0	0	0	0	0	0	62
20:45	0	52	4	1	0	0	0	0	0	0	0	0	0	57
21:00	0	49	2	0	0	0	0	0	0	0	0	0	0	51
21:15	0	36	1	0	0	0	0	0	0	0	0	0	0	37
21:30	0	47	1	0	0	1	0	0	0	0	0	0	0	49
21:45	0	41	0	1	0	0	0	0	0	0	0	0	0	42
22:00	1	25	2	0	0	0	0	0	0	0	0	0	0	28
22:15	0	31	1	0	0	0	0	0	1	0	0	0	0	33
22:30	0	17	0	0	0	0	0	0	0	0	0	0	0	17
22:45	0	23	1	0	0	0	0	0	0	0	0	0	0	24
23:00	0	21	1	0	0	0	0	0	0	0	0	0	0	22
23:15	0	18	1	0	1	0	0	0	0	0	0	0	0	20
23:30	0	7	0	1	0	0	0	0	0	0	0	0	0	8
23:45	0	8	0	0	0	0	0	0	0	0	0	0	0	8
TOTAL	53	4,076	270	38	47	28	6	1	3	3	2	0	2	4,529

PM PEAK HOUR	3:15 PM
PM PEAK VOLUME	659

CLASS 1	MOTORCYCLES	**CLASS 8**	FOUR OR LESS AXLE TRAILER
CLASS 2	PASSENGER VEHICLES	**CLASS 9**	5-AXLE TRACTOR SEMITRAILER
CLASS 3	FOUR TIRE SINGLE UNIT	**CLASS 10**	6 OR MORE AXLE SINGLE TRAILER
CLASS 4	BUSSES	**CLASS 11**	5-OR MORE AXLE MULTI TRAILER
CLASS 5	TWO AXLE SIX TIRE	**CLASS 12**	6-AXLE MULTI TRAILER
CLASS 6	THREE AXLE SINGLE UNIT	**CLASS 13**	7-OR MORE AXLE MULTI TRAILER
CLASS 7	FOR OR MORE AXLE SINGLE UNIT		

TOTAL: AM+PM	79	6,795	516	72	84	46	12	4	5	4	2	0	2	7,621
% OF TOTAL	1.0%	89.2%	6.8%	0.9%	1.1%	0.6%	0.2%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	100.0%

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

PREPARED BY: PACIFIC TECHNICAL DATA, LLC

DATE: 12/06/16 TUESDAY
JOB #: PTD-16-1202-01

CITY: CLAIREMONT
LOCATION: CLAIREMONT DRIVE BTN HARTFORD & GALVENSTON

AM	NORTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	24	0	0	0	0	0	0	0	0	0	0	0	24
0:15	0	21	0	0	1	0	0	0	0	0	0	0	0	22
0:30	0	23	0	0	0	0	0	0	0	0	0	0	0	23
0:45	0	19	0	0	1	0	0	0	0	0	0	0	0	20
1:00	0	14	1	0	0	0	0	0	0	0	0	0	0	15
1:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
1:30	0	13	1	0	0	0	0	0	0	0	0	0	0	14
1:45	0	8	0	0	0	0	0	0	0	0	0	0	0	8
2:00	0	5	2	0	0	0	0	0	0	0	0	0	0	7
2:15	0	9	0	0	0	0	0	0	0	0	0	0	0	9
2:30	0	5	0	0	1	0	0	0	0	0	0	0	0	6
2:45	0	5	0	0	0	0	0	0	0	0	0	0	0	5
3:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8
3:15	0	3	1	0	0	0	0	0	1	0	0	0	0	5
3:30	0	1	1	0	0	0	0	0	0	0	0	0	0	2
3:45	0	4	0	0	0	0	0	0	0	0	0	0	0	4
4:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
4:15	0	7	1	0	1	0	0	0	0	0	0	0	0	9
4:30	0	4	0	0	0	0	0	0	0	0	0	0	0	4
4:45	0	15	1	0	1	0	0	0	0	0	0	0	0	17
5:00	0	8	1	1	0	0	0	0	0	0	0	0	0	10
5:15	0	8	0	0	0	0	0	0	0	0	0	0	0	8
5:30	0	18	2	1	0	1	0	0	0	0	0	0	0	22
5:45	0	33	1	1	0	0	0	0	0	0	0	0	0	35
6:00	0	31	3	0	1	1	0	0	0	0	0	0	0	36
6:15	0	56	5	1	1	0	0	0	0	0	0	0	0	63
6:30	0	49	7	0	1	0	0	0	0	0	0	0	0	57
6:45	0	70	3	1	2	0	0	0	0	0	0	0	0	76
7:00	0	85	6	0	2	0	0	0	0	0	0	0	0	93
7:15	0	90	7	0	4	1	0	0	0	0	0	0	0	102
7:30	0	93	5	0	4	0	0	0	0	0	0	0	0	102
7:45	0	113	8	1	2	0	0	0	0	0	0	0	0	124
8:00	0	139	17	0	2	1	0	0	0	0	0	0	0	159
8:15	0	145	10	2	3	0	0	0	0	0	0	0	0	160
8:30	0	149	5	3	5	0	0	0	0	0	0	0	0	162
8:45	0	174	13	2	4	0	0	0	0	0	0	0	0	193
9:00	1	169	11	0	1	0	0	0	0	0	0	0	0	182
9:15	0	116	11	2	1	1	0	0	0	0	0	0	0	131
9:30	0	109	10	1	2	1	0	0	0	0	0	0	0	123
9:45	0	90	5	0	1	1	0	1	0	0	0	0	0	98
10:00	0	107	11	0	1	0	0	0	0	0	0	0	0	119
10:15	0	113	7	1	3	0	0	0	0	0	0	0	0	124
10:30	0	138	12	0	3	0	0	2	0	0	0	0	0	155
10:45	0	123	19	1	0	0	0	0	0	0	0	0	0	143
11:00	1	118	10	0	3	0	0	0	0	0	0	0	0	132
11:15	0	152	9	1	2	0	0	0	0	0	0	0	0	164
11:30	1	130	9	0	1	0	0	0	0	0	0	0	0	141
11:45	0	141	11	0	2	0	0	0	0	0	0	0	0	154
TOTAL	3	2,963	226	19	56	7	0	3	1	0	0	0	0	3,278

AM PEAK HOUR	8:15 AM
AM PEAK VOLUME	697

PM	NORTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	0	176	16	1	2	0	0	1	0	0	0	0	0	196
12:15	0	171	16	1	2	0	0	0	0	0	0	0	0	190
12:30	0	160	12	0	4	0	0	0	0	0	0	0	0	176
12:45	0	172	12	0	3	0	0	0	0	0	0	0	0	187
13:00	0	156	12	0	3	1	0	0	0	0	0	0	0	172
13:15	0	144	9	2	3	0	0	0	0	0	0	0	0	158
13:30	0	143	8	0	1	0	0	0	0	0	0	0	0	152
13:45	0	165	17	0	4	0	0	0	0	0	0	0	0	186
14:00	2	176	20	1	4	1	0	0	0	0	0	0	0	204
14:15	0	185	11	1	2	0	0	0	0	0	0	0	0	199
14:30	0	190	17	0	0	0	0	0	0	0	0	0	0	207
14:45	0	209	17	1	4	0	0	0	0	0	0	0	0	231
15:00	1	202	18	0	0	0	0	0	0	0	0	0	0	221
15:15	0	239	20	4	3	0	0	0	0	0	0	0	0	266
15:30	0	268	27	1	2	1	0	1	0	0	0	0	0	300
15:45	0	296	16	2	6	0	0	0	0	0	0	0	0	320
16:00	0	222	16	0	3	0	0	0	0	0	0	0	0	241
16:15	0	234	21	1	2	0	0	0	0	0	0	0	0	258
16:30	0	251	19	1	2	0	0	0	0	0	0	0	0	273
16:45	1	251	18	1	0	0	0	0	0	0	0	0	0	271
17:00	0	257	10	1	3	0	0	1	0	0	0	0	0	272
17:15	1	274	19	2	3	1	0	0	0	0	0	0	0	300
17:30	0	272	13	1	1	0	0	0	0	0	0	0	0	287
17:45	0	219	14	1	1	0	0	0	0	0	0	0	0	235
18:00	1	210	7	1	1	0	0	0	0	0	0	0	0	220
18:15	0	178	11	1	0	1	0	1	0	0	0	0	0	192
18:30	0	194	11	0	0	0	0	0	0	0	0	1	0	206
18:45	0	158	8	0	0	1	0	0	0	0	0	0	0	167
19:00	1	175	7	0	1	0	1	0	0	0	0	0	0	185
19:15	0	159	6	1	0	0	0	0	0	0	0	0	0	166
19:30	0	134	13	0	1	0	0	0	0	0	0	0	0	148
19:45	0	103	9	0	0	0	0	0	0	0	0	0	0	112
20:00	0	145	8	0	0	0	0	0	0	0	0	0	0	153
20:15	0	119	3	1	1	0	0	0	1	0	0	0	0	125
20:30	0	106	3	0	1	0	0	0	0	0	0	0	0	110
20:45	0	124	5	0	0	0	0	0	0	0	0	0	0	129
21:00	1	102	8	0	2	0	0	0	0	0	0	0	0	113
21:15	0	106	5	0	0	1	0	0	0	0	0	0	0	112
21:30	0	89	2	0	0	0	0	0	0	0	0	0	0	91
21:45	0	72	1	0	0	0	0	0	0	0	0	0	0	73
22:00	0	89	1	0	0	0	0	0	0	0	0	0	0	90
22:15	0	64	4	1	0	0	0	0	0	0	0	0	0	69
22:30	0	48	0	0	0	0	0	0	0	0	0	0	0	48
22:45	0	50	5	0	0	0	0	0	0	0	0	0	0	55
23:00	1	40	1	0	0	0	0	0	0	0	0	0	0	42
23:15	0	28	1	0	1	0	0	0	0	0	0	0	0	30
23:30	0	43	3	0	0	0	0	0	0	0	0	0	0	46
23:45	0	36	1	0	0	0	0	0	0	0	0	0	0	37
TOTAL	9	7,604	501	27	66	7	1	4	1	0	0	1	0	8,221

PM PEAK HOUR	4:45 PM
PM PEAK VOLUME	1,130

TOTAL: AM+PM	12	10,567	727	46	122	14	1	7	2	0	0	1	0	11,499
% OF TOTAL	0.1%	91.9%	6.3%	0.4%	1.1%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

TOTAL: ALL	49	19,795	###	107	###	28	2	18	6	0	0	2	0	23,294
% OF TOTAL	0.4%	172.1%	19.5%	0.9%	9.1%	0.2%	0.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	100.0%

CLASS 1	MOTORCYCLES	**CLASS 8**	FOUR OR LESS AXLE TRAILER
CLASS 2	PASSENGER VEHICLES	**CLASS 9**	5-AXLE TRACTOR SEMITRAILER
CLASS 3	FOUR TIRE SINGLE UNIT	**CLASS 10**	6 OR MORE AXLE SINGLE TRAILER
CLASS 4	BUSSES	**CLASS 11**	5-OR MORE AXLE MULTI TRAILER
CLASS 5	TWO AXLE SIX TIRE	**CLASS 12**	6-AXLE MULTI TRAILER
CLASS 6	THREE AXLE SINGLE UNIT	**CLASS 13**	7-OR MORE AXLE MULTI TRAILER
CLASS 7	FOR OR MORE AXLE SINGLE UNIT		

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

PREPARED BY: PACIFIC TECHNICAL DATA, LLC

DATE: 12/06/16 TUESDAY
JOB #: PTD-16-1202-01

CITY: CLAIREMONT
LOCATION: CLAIREMONT DRIVE BTN HARTFORD & GALVENSTON

AM	SOUTHBOUND													
TIME	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
0:00	0	10	2	0	1	0	0	0	0	0	0	0	0	13
0:15	0	8	0	1	0	0	0	0	0	0	0	0	0	9
0:30	0	11	3	1	0	0	0	0	0	0	0	0	0	15
0:45	0	9	3	0	1	0	0	0	0	0	0	0	0	13
1:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
1:15	0	5	0	0	0	0	0	0	0	0	0	0	0	5
1:30	0	4	0	0	1	0	0	0	0	0	0	0	0	5
1:45	0	5	0	0	1	0	0	0	0	0	0	0	0	6
2:00	0	8	0	0	2	0	0	0	0	0	0	0	0	10
2:15	0	4	1	0	2	0	0	0	0	0	0	0	0	7
2:30	0	10	0	0	0	0	0	0	0	0	0	0	0	10
2:45	0	3	1	0	1	0	0	0	0	0	0	0	0	5
3:00	0	5	1	0	0	0	0	0	0	0	0	0	0	6
3:15	0	11	0	0	0	0	0	0	0	0	0	0	0	11
3:30	0	8	1	0	0	0	0	0	0	0	0	0	0	9
3:45	0	4	2	0	0	0	0	0	0	0	0	0	0	6
4:00	0	11	0	0	0	0	0	0	0	0	0	0	0	11
4:15	2	12	2	0	1	0	0	0	0	0	0	0	0	17
4:30	0	19	3	0	3	0	0	0	0	0	0	0	0	25
4:45	0	19	5	0	5	0	0	0	0	0	0	0	0	29
5:00	1	24	3	0	1	0	0	0	0	0	0	0	0	29
5:15	0	45	7	0	6	0	0	0	0	0	0	0	0	58
5:30	2	60	8	0	14	0	0	1	0	0	0	0	0	85
5:45	0	58	17	0	17	0	0	1	0	0	0	0	0	93
6:00	1	74	17	1	6	0	0	0	0	0	0	0	0	99
6:15	0	111	15	0	14	0	0	0	0	0	0	0	0	140
6:30	1	155	33	1	20	1	0	0	0	0	0	0	0	211
6:45	2	152	30	1	22	0	0	0	0	0	0	0	0	207
7:00	3	198	41	1	24	0	0	0	0	0	0	0	0	267
7:15	1	215	36	1	20	1	0	0	0	0	0	0	0	274
7:30	1	256	35	1	10	2	0	0	0	0	0	0	0	305
7:45	0	202	33	1	21	1	0	0	0	0	0	0	0	258
8:00	2	173	33	1	14	0	0	0	0	0	0	0	0	223
8:15	0	207	22	2	13	0	0	0	0	0	0	1	0	245
8:30	3	237	32	1	28	0	0	0	0	0	0	0	0	301
8:45	0	224	39	4	25	0	0	0	0	0	0	0	0	292
9:00	0	199	31	0	14	0	1	0	0	0	0	0	0	245
9:15	1	142	23	1	9	0	0	0	0	0	0	0	0	176
9:30	0	137	22	1	13	0	0	0	0	0	0	0	0	173
9:45	0	136	16	0	13	0	0	0	0	0	0	0	0	165
10:00	0	119	22	1	15	1	0	0	1	0	0	0	0	159
10:15	1	104	24	2	13	1	0	0	0	0	0	0	0	145
10:30	0	101	23	1	15	0	0	0	0	0	0	0	0	140
10:45	0	128	20	1	20	0	0	1	0	0	0	0	0	170
11:00	0	110	26	0	18	0	0	1	0	0	0	0	0	155
11:15	1	105	26	1	11	0	0	1	0	0	0	0	0	145
11:30	0	124	26	0	16	1	0	0	0	0	0	0	0	167
11:45	0	121	18	0	14	0	0	0	0	0	0	0	0	153
TOTAL	22	4,085	702	25	444	8	1	5	1	0	0	1	0	5,294

AM PEAK HOUR	7:00 AM
AM PEAK VOLUME	1,104

PM	SOUTHBOUND													
Time	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
12:00	1	113	18	0	12	0	0	0	0	0	0	0	0	144
12:15	1	145	24	3	11	0	0	0	1	0	0	0	0	185
12:30	1	136	20	2	23	0	0	0	0	0	0	0	0	182
12:45	0	131	18	0	17	0	0	1	0	0	0	0	0	167
13:00	0	92	15	0	12	1	0	0	0	0	0	0	0	120
13:15	0	122	20	2	16	0	0	0	0	0	0	0	0	160
13:30	2	122	33	2	12	0	0	0	0	0	0	0	0	171
13:45	0	142	27	0	12	0	0	1	0	0	0	0	0	182
14:00	0	140	21	1	19	0	0	0	0	0	0	0	0	181
14:15	0	140	29	3	20	0	0	1	0	0	0	0	0	193
14:30	0	145	29	1	22	0	0	0	0	0	0	0	0	197
14:45	0	149	24	2	8	0	0	0	0	0	0	0	0	183
15:00	1	168	28	0	23	1	0	0	0	0	0	0	0	221
15:15	0	188	35	1	11	0	0	0	0	0	0	0	0	235
15:30	0	198	27	0	32	0	0	0	0	0	0	0	0	257
15:45	0	197	34	5	28	1	0	0	0	0	0	0	0	265
16:00	3	150	27	2	17	1	0	1	0	0	0	0	0	201
16:15	0	149	32	0	19	0	0	1	0	0	0	0	0	201
16:30	1	164	28	1	13	0	0	0	0	0	0	0	0	207
16:45	1	151	33	1	18	0	0	1	0	0	0	0	0	205
17:00	0	168	22	1	14	0	0	0	0	0	0	0	0	205
17:15	0	149	22	0	7	0	0	0	0	0	0	0	0	178
17:30	0	175	22	2	15	1	0	0	0	0	0	0	0	215
17:45	1	170	19	0	10	0	0	0	0	0	0	0	0	200
18:00	0	145	31	1	6	0	0	0	0	0	0	0	0	183
18:15	0	141	20	0	9	1	0	0	0	0	0	0	0	171
18:30	0	139	17	1	12	0	0	0	0	0	0	0	0	169
18:45	0	117	11	1	10	0	0	0	0	0	0	0	0	139
19:00	0	116	17	0	5	0	0	0	0	0	0	0	0	138
19:15	0	91	6	0	2	0	0	0	0	0	0	0	0	99
19:30	0	70	5	0	5	0	0	0	0	0	0	0	0	80
19:45	0	53	10	1	3	0	0	0	0	0	0	0	0	67
20:00	1	90	12	0	5	0	0	0	0	0	0	0	0	108
20:15	0	51	12	0	7	0	0	0	0	0	0	0	0	70
20:30	0	60	5	0	5	0	0	0	0	0	0	0	0	70
20:45	0	62	12	1	6	0	0	0	0	0	0	0	0	81
21:00	0	59	8	0	3	0	0	0	1	0	0	0	0	71
21:15	0	45	9	0	5	0	0	0	0	0	0	0	0	59
21:30	0	62	6	0	2	0	0	0	0	0	0	0	0	70
21:45	0	49	5	1	1	0	0	0	0	0	0	0	0	56
22:00	0	37	2	0	1	0	0	0	0	0	0	0	0	40
22:15	2	36	3	0	0	0	0	0	0	0	0	0	0	41
22:30	0	23	1	0	0	0	0	0	0	0	0	0	0	24
22:45	0	24	2	0	1	0	0	0	0	0	0	0	0	27
23:00	0	28	1	0	2	0	0	0	1	0	0	0	0	32
23:15	0	20	3	0	1	0	0	0	0	0	0	0	0	24
23:30	0	12	2	1	1	0	0	0	0	0	0	0	0	16
23:45	0	9	1	0	1	0	0	0	0	0	0	0	0	11
TOTAL	15	5,143	808	36	484	6	0	6	3	0	0	0	0	6,501

PM PEAK HOUR	3:00 PM
PM PEAK VOLUME	978

CLASS 1	MOTORCYCLES	**CLASS 8**	FOUR OR LESS AXLE TRAILER
CLASS 2	PASSENGER VEHICLES	**CLASS 9**	5-AXLE TRACTOR SEMITRAILER
CLASS 3	FOUR TIRE SINGLE UNIT	**CLASS 10**	6 OR MORE AXLE SINGLE TRAILER
CLASS 4	BUSSES	**CLASS 11**	5-OR MORE AXLE MULTI TRAILER
CLASS 5	TWO AXLE SIX TIRE	**CLASS 12**	6-AXLE MULTI TRAILER
CLASS 6	THREE AXLE SINGLE UNIT	**CLASS 13**	7-OR MORE AXLE MULTI TRAILER
CLASS 7	FOR OR MORE AXLE SINGLE UNIT		

TOTAL: AM+PM	37	9,228	1,510	61	928	14	1	11	4	0	0	1	0	11,795
% OF TOTAL	0.3%	78.2%	12.8%	0.5%	7.9%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%

4.1.4 Segment Peak Day Volumes

24-hour traffic volumes were determined based on machine counts conducted February 12-17, 2013 (see Appendix C for detailed count sheets for each day). Table 4-1 summarizes the "Peak Daily Traffic Volume" at each of the 33 count locations. (Note: the volumes shown here are based on the "peak" day for each segment, not based on the multi-day "average").

Based on those counts:

Traffic volumes on most of the study segments are relatively low:

- Less than 16,000 daily vehicles on most segments of Morena (north of Tecolote) and on all segments of West Morena.
- This level of traffic can be easily accommodated with just one travel lane in each direction.

Traffic volumes are highest where traffic passes through the edges of the study area:

- Clairemont (at the north edge of the study area) carries 30,000 daily vehicles, consistent with a 4-lane configuration.
- Short segments of Morena, Napa and Linda Vista in the southern portion of the study area carry "pass-through" traffic to and from Linda Vista Road (resulting in high volume of southbound left-turn movements at the intersection of Morena/Napa and Napa/Linda Vista).
- Intersection geometries where the three streets intersect result in three closely spaced intersections in a triangle configuration. This requires a lengthy 136-second signal cycle during the PM peak hour, thus requiring additional storage capacity, while left-turn volumes result in a high portion of conflicting movements.

#	Street Name	Segment Location	DIRECTIONAL VOLUMES ON PEAK DAY				24-HOUR 2-WAY TRAFFIC VOLUME (PEAK DAY OF COUNT PERIOD)
			N/S Streets		E/W Streets		
			NB	SB	EB	WB	
1	Gesner St.	(Morena Bl - Denver St)			1,876	1,680	3,556
2	Clairemont Dr.	(I-5 NB Ramps - Denver St)			14,873	15,953	30,826
3	Ingulf St.	(Morena Bl - Denver St)			2,902	2,283	5,185
4	Denver St.	(Clairemont Dr - Ingulf St)	5,240	4,824			10,064
5	Morena Bl.	(North of Gesner St)	6,593	6,915			13,508
6	Morena Bl.	(Gesner St - Ingulf St)	5,916	5,481			11,397
7	Morena Bl.	(Ingulf St - Milton St)	7,816	6,989			14,805
8	Morena Bl.	(Milton St - Ashton St)	8,277	7,687			15,964
9	Morena Bl.	(Ashton St - Morena Bl N Split)	8,137	7,461			15,598
10	W Morena Bl.	(Morena Bl N Split - Vega St)	4,689	5,460			10,149
11	W Morena Bl.	(Vega St - Buenos Ave)	5,162	5,852			11,014
12	W Morena Bl.	(Buenos Ave - Morena Bl)	6,551	6,761			13,312
13	Morena Bl.	(W Morena Bl - Napa St)	14,938	14,985			29,923
14	Morena Bl.	(Napa/Sherman St - Linda Vista Rd)	10,856	12,167			23,023
15	Morena Bl.	(South of Linda Vista Rd)	19,362	19,021			38,383
16	Morena Bl.	(W Morena Bl - Knoxville St)	5,083	4,088			9,171
17	Morena Bl.	(Knoxville St - Tecolote Rd)	8,832	8,637			17,469
18	Morena Bl.	(Tecolote Rd - Buenos Ave)	8,417	7,603			16,020
19	Morena Bl.	(Buenos Ave - Morena Bl S Split)	8,455	8,148			16,603
20	Napa St.	(Morena Blvd - Linda Vista Rd)	15,611	9,201			24,812
21	Napa St.	(Linda Vista Rd - Riley St)	8,722	8,959			17,681
22	Napa St.	(Riley St - Friars Rd)	7,647	6,273			13,920
23	Milton St.	(East of Morena Bl)			1,614	2,207	3,821
24	Knoxville St.	(Morena Bl - Savannah St)			560	589	1,149
25	Sea World Dr.	(Morena Bl - I-5 NB Ramps)			12,458	12,055	24,513
26	Buenos Ave.	(South of Cudahy Pl)	657	517			1,174
27	Cudahy Pl.	(East of Buenos Ave)			610	510	1,120
28	Sherman St.	(Morena Bl - Grant St)	3,935	3,454			7,389
29	Linda Vista Rd.	(Morena Bl - Napa St)			11,322	11,281	22,603
30	Linda Vista Rd.	(Napa St - Marian Wy)			13,538	13,330	26,868
31	Riley St.	(Napa St - Lautetta St)			852	935	1,787
32	Friars Rd.	(Napa St - Colussa St)			10,025	9,525	19,550
33	Friars Rd.	(West of Napa St)			7,332	2,023	9,355

*Volumes shown are for the peak day of the count period (not average volumes).

Table 4-1: Peak Daily Traffic Volumes

1

		949 / 240
		443 / 494
		Genesee Avenue
401 / 825	N. Torrey Pines Road	
321 / 824		
471 / 561		293 / 388

2

18 / 117	82 / 541	821 / 103
	John Hopkins Drive (S)	1371 / 616
		1 / 0
		Genesee Avenue
87 / 37		
607 / 1176		

3

15 / 70	27 / 281	275 / 300
	Science Center Drive	2177 / 629
		3 / 11
		Genesee Avenue
75 / 80		
616 / 1637		

4

712 / 338		1617 / 548
0 / 3	I-5 SB Ramps	85 / 312
971 / 850		Genesee Avenue
419 / 1281		
184 / 671		

5

	I-5 NB Ramps	405 / 969
		482 / 541
		Genesee Avenue
188 / 854		
1241 / 1277		
1193 / 319	8 / 4	566 / 99

6

490 / 99		
1458 / 1496	5 / 7	U
Scripps Hospital	Genesee Avenue	
60 / 444		
116 / 242		
		208 / 85
		824 / 1059

7

469 / 139		52 / 283
700 / 1551	Genesee Avenue	12 / 25
325 / 59		19 / 381
		Campus Point Drive
152 / 323		
13 / 9		
96 / 339		
380 / 183	921 / 536	371 / 41

8

		1277 / 638
		94 / 36
		Genesee Avenue
89 / 44		
643 / 1574		U
99 / 649	Regents Road	
190 / 103		77 / 59

9

96 / 60		411 / 194
371 / 889	Genesee Avenue	285 / 239
206 / 482		64 / 206
		Eastgate Mall
56 / 48		
190 / 177		
55 / 63		
180 / 27	1110 / 423	249 / 101

10

23 / 45		84 / 90
346 / 1261	Genesee Avenue	69 / 213
56 / 103		31 / 117
		Executive Drive
21 / 21		
113 / 105		
22 / 66		
61 / 72	1170 / 335	275 / 65

11

18 / 13		9 / 15
376 / 1435	Genesee Avenue	4 / 10
12 / 6		9 / 127
		Executive Square
13 / 29		
3 / 2		
36 / 172		
281 / 37	1483 / 425	208 / 12

12

52 / 253		365 / 110
165 / 877	Genesee Avenue	1550 / 1342
180 / 512		112 / 344
		La Jolla Village Drive
368 / 114		
1491 / 1122		
79 / 197		
170 / 233	1017 / 241	104 / 71

13

78 / 157		108 / 243
224 / 1031	Genesee Avenue	14 / 39
96 / 288		57 / 181
		Esplanade Court
98 / 148		
8 / 31		
30 / 74		
50 / 73	1464 / 487	100 / 170

14

42 / 121		45 / 65
228 / 1230	Genesee Avenue	263 / 554
55 / 113		79 / 277
		Nobel Drive
106 / 202		
466 / 323		
86 / 204		
156 / 191	1424 / 453	163 / 118

15

41 / 49		22 / 15
521 / 1851	Genesee Avenue	24 / 38
8 / 16		55 / 245
		Decoro Street
24 / 21		
28 / 25		
173 / 208		
149 / 179	1702 / 724	121 / 29

16

578 / 2266		212 / 22
169 / 41	Genesee Avenue	
		300 / 85
		Centurion Square
		U
		0 / 1
		1752 / 901
		278 / 46

17

256 / 464		249 / 114
499 / 1376	Genesee Avenue	236 / 334
181 / 402		247 / 314
		Governor Drive
455 / 195		
306 / 279		
142 / 118		
71 / 189	1349 / 511	223 / 250

18

113 / 338		
887 / 1558	Genesee Avenue	
		852 / 351
SR-52 WB Ramps		
131 / 422		
420 / 331	942 / 455	

19

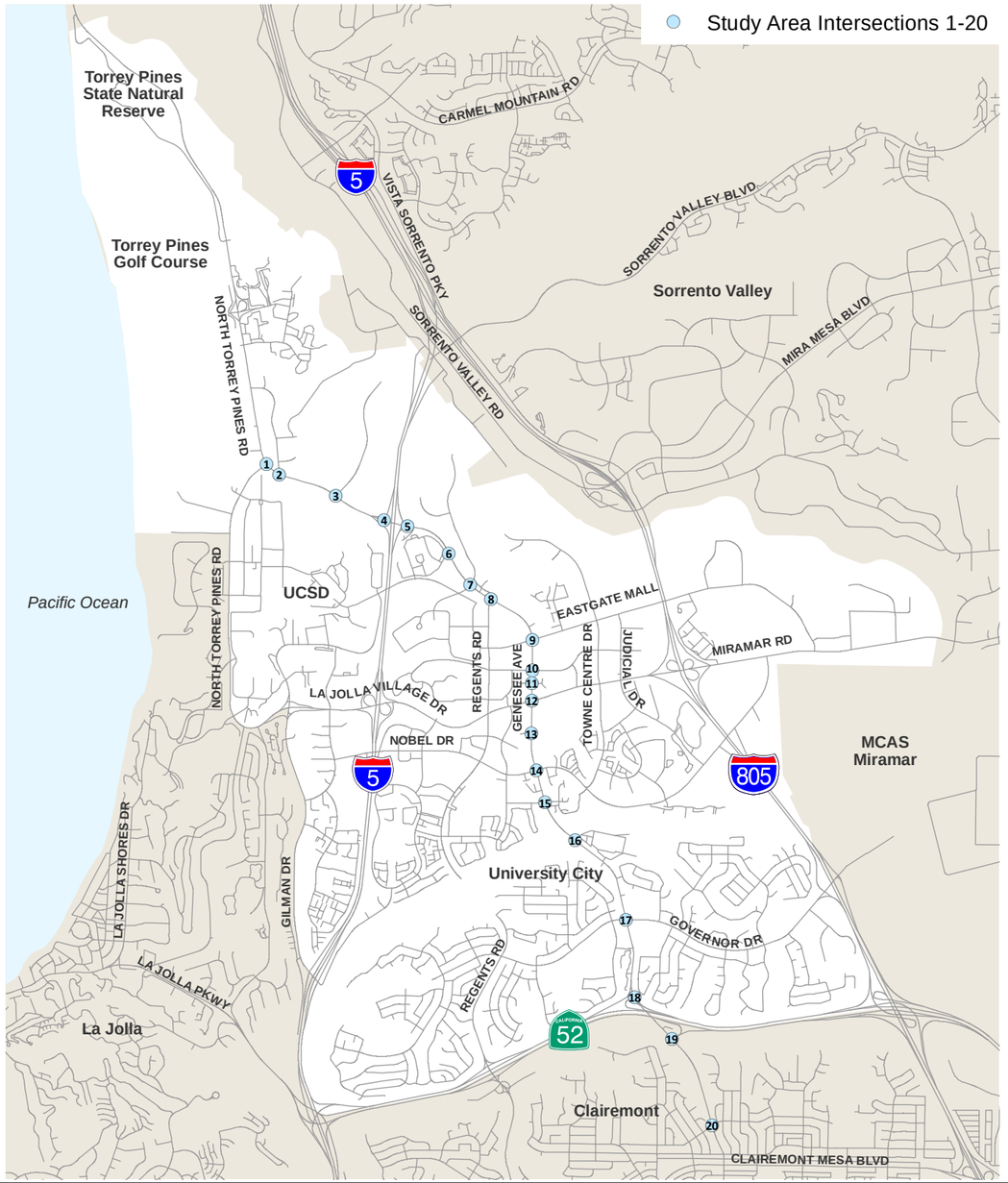
581 / 1220		170 / 225
437 / 760	Genesee Avenue	
		132 / 352
		SR-52 EB Ramps
1187 / 561	721 / 300	

20

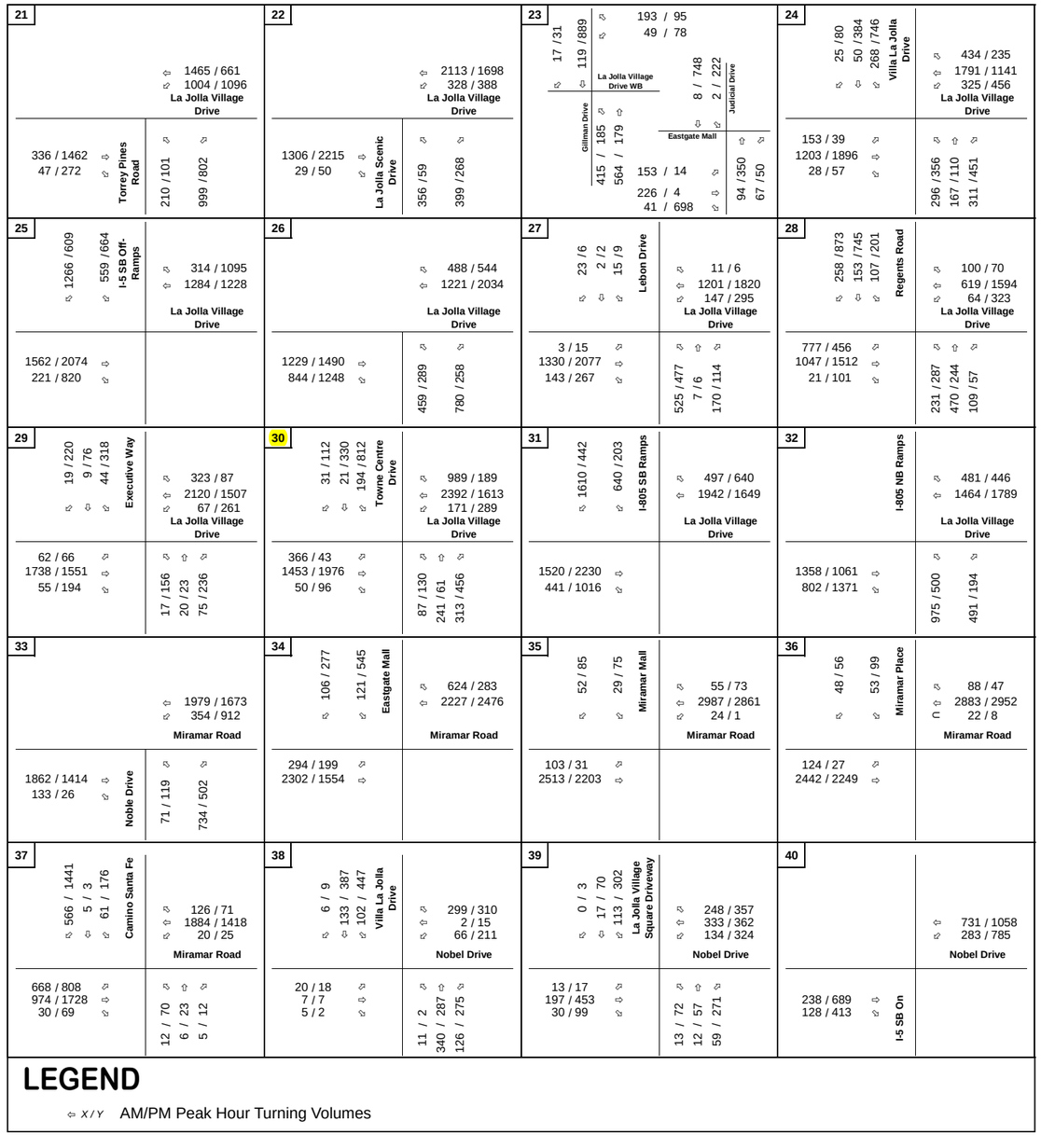
75 / 247		276 / 63
592 / 1180	Genesee Avenue	37 / 37
46 / 144		33 / 26
		Appleton Street
Lehrer Drive		
390 / 180		
18 / 85		
45 / 44		
12 / 52	1242 / 614	8 / 17

LEGEND

⇦ X / Y AM/PM Peak Hour Turning Volumes



Existing AM and PM Peak-Hour Intersection Turning Movement Volumes Intersections 1-20



Existing AM and PM Peak-Hour Intersection Turning Movement Volumes Intersections 21-40

41

	83 / 253	
University Center Lane/I-5 NB Off		
0 / 2		
242 / 723		

	19 / 10	
Nobel Drive	654 / 1284	
277 / 306		
159 / 50		
338 / 270		

42

	36 / 41	
	4 / 2	
Caminito Plaza Centro	3 / 7	
41 / 64		
523 / 942		
70 / 35		

	15 / 32	
Nobel Drive	567 / 1123	
31 / 68	46 / 20	
1 / 7		
15 / 56		

43

	53 / 173	
	74 / 259	
Lebon Drive	43 / 111	
38 / 73		
444 / 627		
50 / 127		

	102 / 69	
Nobel Drive	424 / 732	
144 / 115	66 / 127	
287 / 159		
96 / 65		

44

	44 / 237	
	195 / 478	
Regents Road	58 / 259	
167 / 166		
429 / 631		
42 / 66		

	125 / 82	
Nobel Drive	348 / 762	
77 / 76	145 / 203	
275 / 120		
166 / 102		

45

	77 /105	
	29 /53	
Costa verde Boulevard/Cargill Ave	81 /107	
Cargill Ave		
121 / 179		
433 / 609		
21 / 65		

	80 / 85	
Nobel Drive	455 / 691	
54 / 59	39 / 103	
45 / 44		
38 /56		

46

	25 /190	
Lombard Place	41 /65	
55 / 202		
752 / 492		
14 / 29		

	25 / 77	
Nobel Drive	464 / 1142	
32 /21	7 / 21	
0 /5		
18 / 7		

47

	185 /544	
	31 /213	
Towne Centre Drive	21 /68	
331 / 295		
500 / 304		
11 / 23		

	76 / 55	
Nobel Drive	190 / 704	
18 /20	7 / 150	
126 /30		
87 /17		

48

	23 /38	
	1 /7	
Shoreline Drive	144 /68	
9 / 56		
619 / 277		
6 / 32		

	44 / 205	
Nobel Drive	202 / 811	
29 /15	7 / 37	
6 /5		
56 /10		

49

	28 /223	
	206 /471	
Judicial Drive		
195 / 47		
625 / 309		
0%		

	814 / 218	
Nobel Drive	220 / 829	
	4 / 0	

50

	988 /974	
Nobel Drive	157 /286	

I-805 SB On-Ramp		
313 /369		
523 /385		

51

	418 /708	
Nobel Drive		

	666 / 436	
I-805 N Off-Ramp	727 / 552	
313 /369		

52

	503 /741	
Nobel Drive	2 /7	
#REF!		

	1 / 4	
Avenue of Flags	1 / 5	
941 /901		
5 /3		

53

	111 / 19	
	91 / 666	
Regents Road	16 / 6	
Health Science Drive		
20 / 51		
0 / 2		
62 / 311		

	2 / 3	
County Day Ln	2 / 5	
656 / 190		
251 / 108		
32 / 10		

54

	145 / 872	
Regents Road	47 / 132	
0		

	231 / 53	
Eastgate Mall	157 / 263	
651 / 260		
208 / 87		

55

	251 / 1068	
	25 / 46	
	0 / 4	
Regents Road		
1 / 17		
2 / 8		
5 / 11		

	47 / 54	
Executive Drive	1 / 13	
4 / 6	27 / 230	
804 / 298		
101 / 65		

56

	29 / 26	
	235 / 1297	
	44 / 30	
	0 / 4	
Regents Road		
52 / 15		
6 / 3		
163 / 174		

	70 / 41	
Regents Park Row	17 / 4	
174 / 125	74 / 134	
776 / 378		
228 / 82		

57

	10 / 76	
	180 / ###	
Regents Road	16 / 78	
62 / 27		
8 / 13		
20 / 9		

	134 / 59	
	7 / 13	
Plaza De Palmas	28 / 31	
20 / 29		
652 / 271		
17 / 5		

58

	181 / 551	
	163 / 54	
Regents Road	81 / 95	
0		

	89 / 14	
Berino Court	74 / 29	
0 / 1		
243 / 185		
123 / 27		

59

	79 / 303	
	6 / 39	
	95 / 164	
	90 / 78	
Regents Road		
134 / 62		
89 / 141		
8 / 17		

	106 / 34	
Arriba Street	131 / 125	
6 / 15	4 / 12	
15 / 15		
15 / 21		

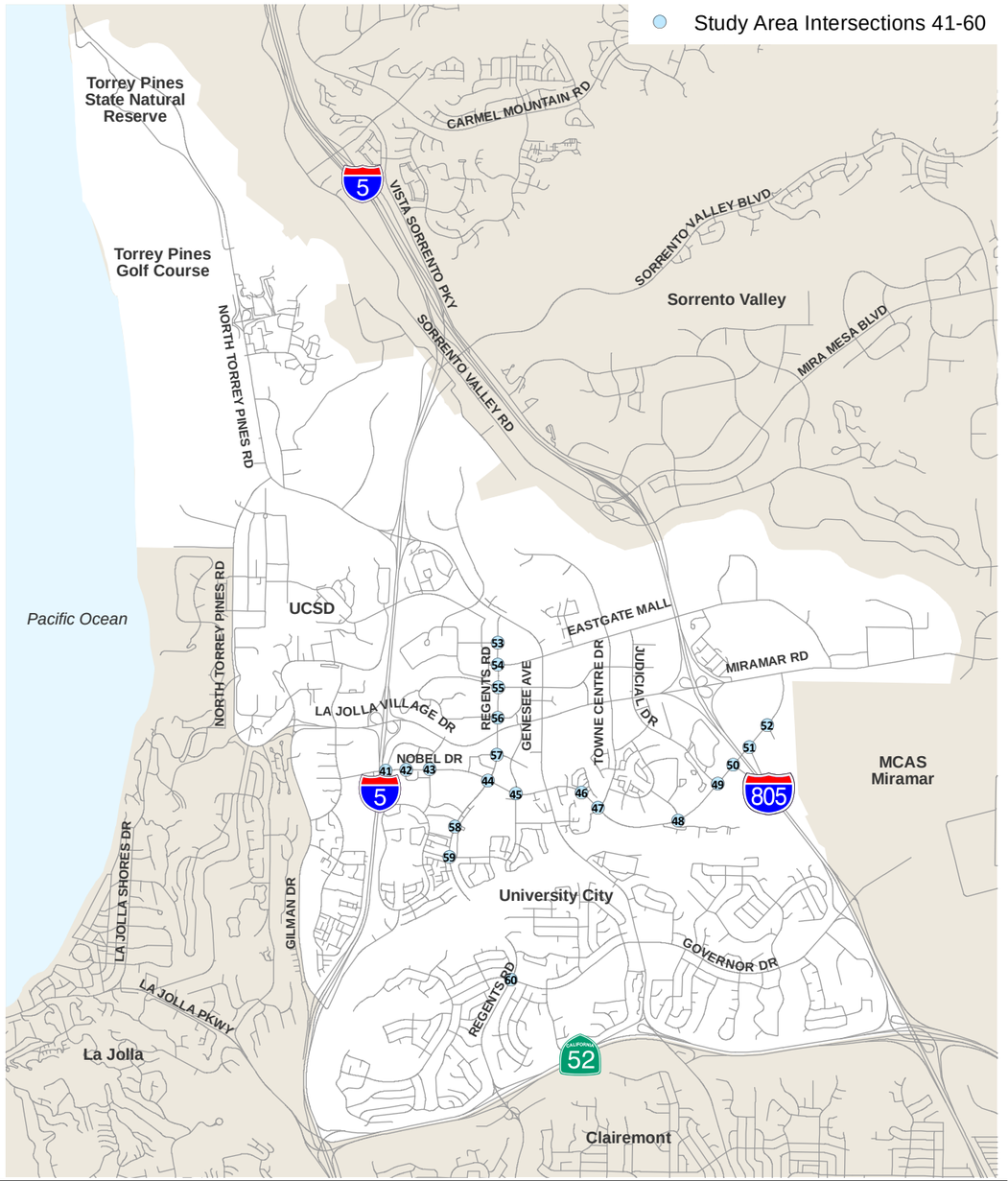
60

	15 / 2	
	43 / 36	
Regents Road	37 / 18	
12 / 12		
183 / 150		
43 / 34		

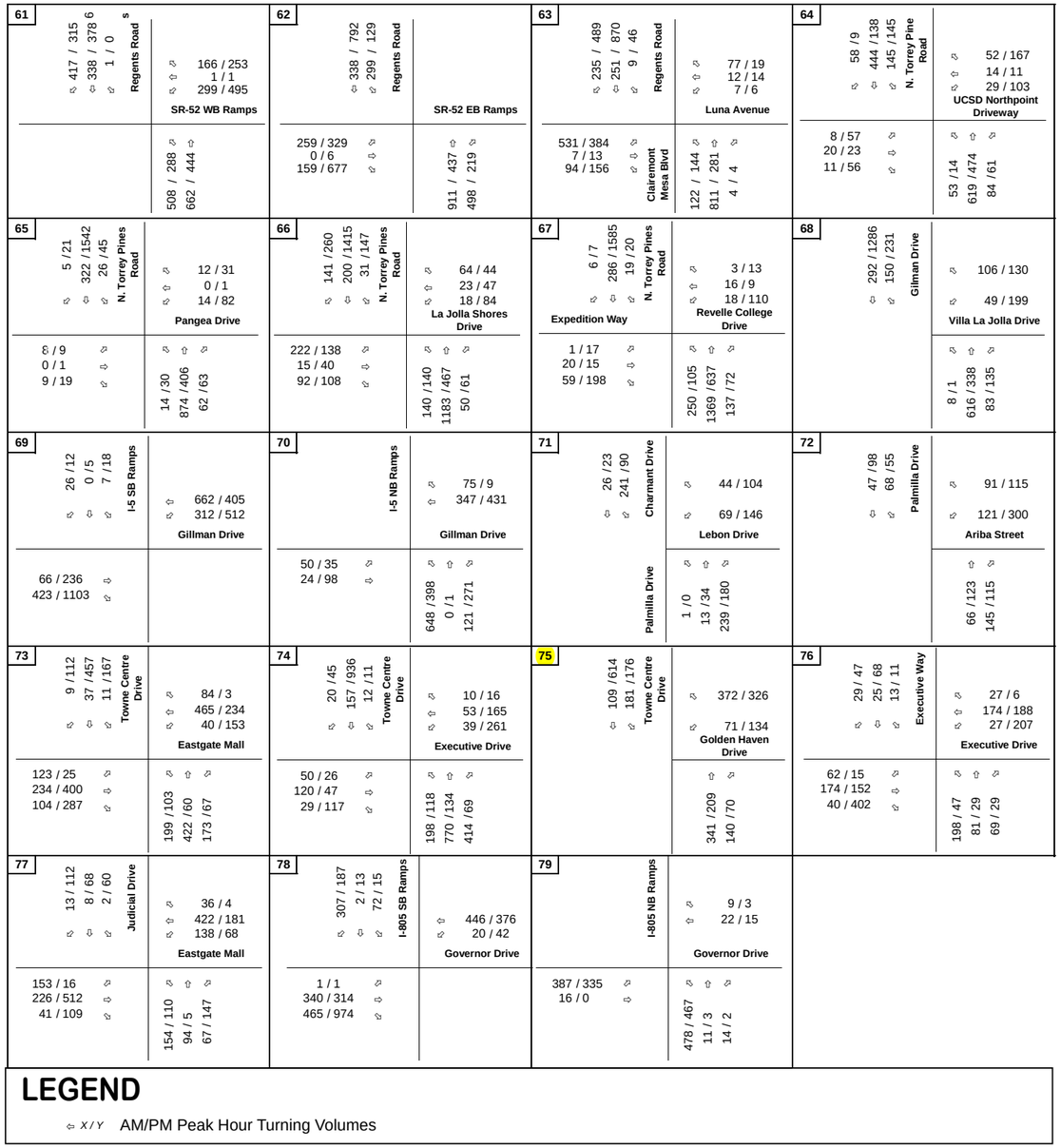
	6 / 7	
Governor Drive	150 / 227	
41 / 54	329 / 390	
75 / 81		
323 / 349		

LEGEND

⇦ X / Y AM/PM Peak Hour Turning Volumes

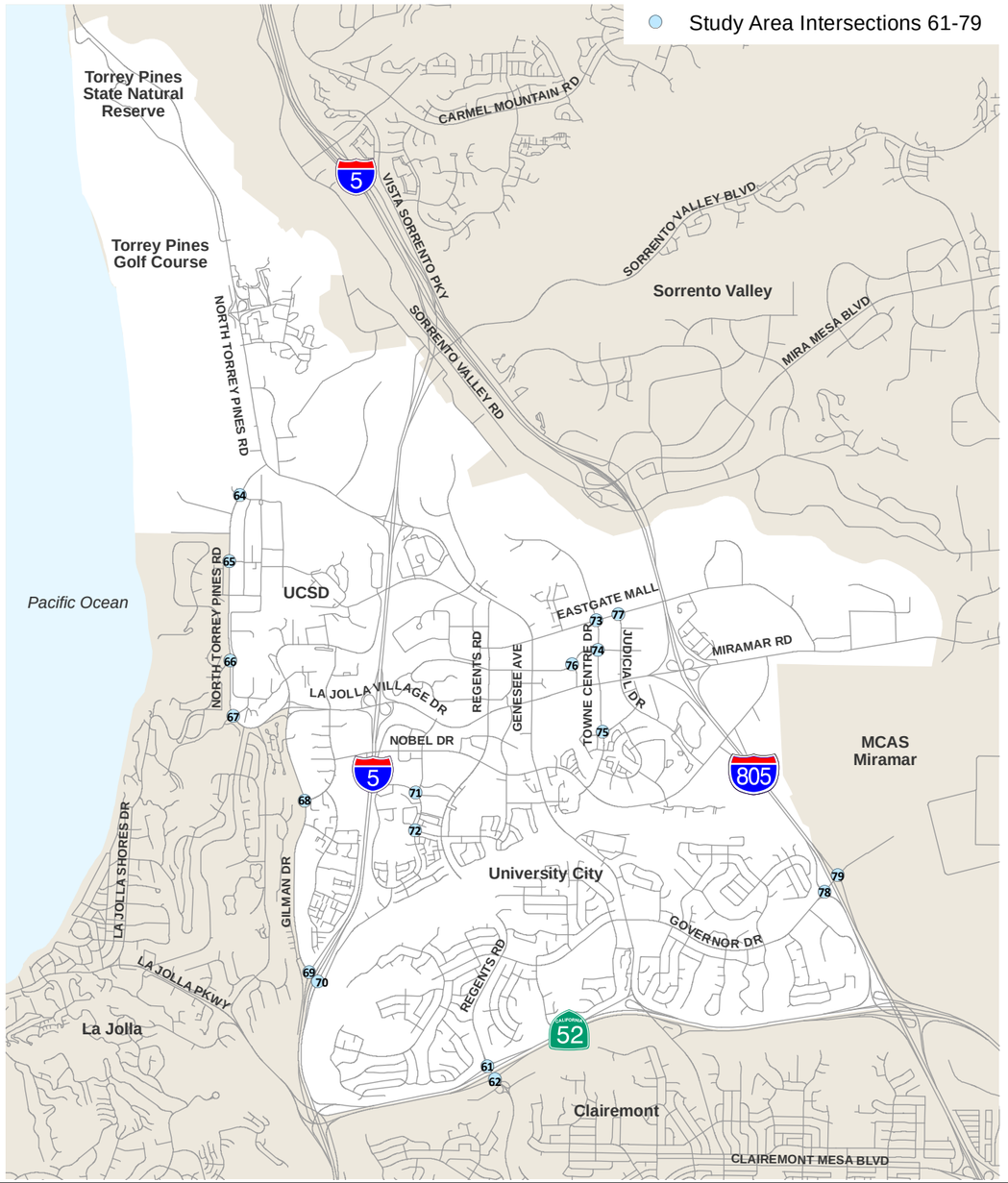


Existing AM and PM Peak-Hour Intersection Turning Movement Volumes Intersections 41-60



LEGEND

⇦ X / Y AM/PM Peak Hour Turning Volumes



Existing AM and PM Peak-Hour Intersection Turning Movement Volumes Intersections 61-79

INTERSECTION TURNING MOVEMENT COUNTS

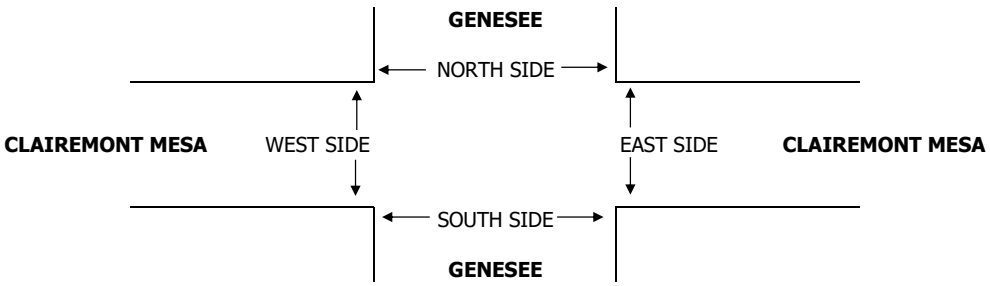
PREPARED BY: PACIFIC TECHNICAL DATA

DATE:	LOCATION:	CLAIREMONT	PROJECT #:	PTD16-1202-01
11/29/16	NORTH & SOUTH:	GENESEE	LOCATION #:	11
TUESDAY	EAST & WEST:	CLAIREMONT MESA	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND GENESEE			SOUTHBOUND GENESEE			EASTBOUND CLAIREMONT MESA			WESTBOUND CLAIREMONT MESA				U-TURNS				
	LANES:	NL 2	NT 2	NR 0	SL 1	ST 2	SR 0	EL 2	ET 2	ER 0	WL 2	WT 2	WR 0	TOTAL	NB X	SB X	EB X	WB X	TTL
AM	7:00 AM	23	223	17	25	64	14	41	110	19	15	107	42	700		1			1
	7:15 AM	23	202	18	19	81	15	47	125	23	22	102	48	725				4	4
	7:30 AM	20	242	15	30	99	21	60	108	26	32	130	59	842				1	1
	7:45 AM	35	267	13	30	84	19	34	97	34	37	137	61	848		1	2	3	6
	8:00 AM	36	214	25	16	119	11	42	95	29	25	132	56	800		3		3	6
	8:15 AM	34	238	31	12	89	21	32	93	39	21	120	56	786				4	4
	8:30 AM	48	252	19	13	94	20	33	101	38	32	157	55	862				5	5
	8:45 AM	60	239	18	40	79	33	47	84	32	21	144	61	858			1	1	2
	VOLUMES	279	1,877	156	185	709	154	336	813	240	205	1,029	438	6,421	0	5	3	21	29
	APPROACH %	12%	81%	7%	18%	68%	15%	24%	59%	17%	12%	62%	26%						
	APP/DEPART	2,312	/	2,651	1,048	/	1,154	1,389	/	1,154	1,672	/	1,462	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	178	943	93	81	381	85	154	373	138	99	553	228	3,306					
	APPROACH %	15%	78%	8%	15%	70%	16%	23%	56%	21%	11%	63%	26%						
	PEAK HR FACTOR		0.951			0.900			0.967			0.902		0.959					
	APP/DEPART	1,214	/	1,325	547	/	618	665	/	547	880	/	816	0					
PM	4:00 PM	75	134	31	35	185	41	49	158	68	49	187	25	1,037		2	2	1	5
	4:15 PM	81	117	36	37	216	25	27	144	62	53	194	23	1,015			4	3	7
	4:30 PM	68	109	36	29	209	22	44	158	87	58	179	24	1,023		1	3	3	7
	4:45 PM	69	118	26	29	222	26	29	153	82	58	205	18	1,035		1	1	2	4
	5:00 PM	54	114	31	45	223	34	33	167	92	56	211	15	1,075			3	3	6
	5:15 PM	74	103	28	24	208	23	44	164	84	62	203	26	1,043		1	3	5	9
	5:30 PM	53	81	20	34	214	30	35	144	91	61	191	17	971			2	8	10
	5:45 PM	67	102	31	40	232	23	34	141	74	46	159	24	973		1	2	4	7
	VOLUMES	541	878	239	273	1,709	224	295	1,229	640	443	1,529	172	8,172	0	6	20	29	55
	APPROACH %	33%	53%	14%	12%	77%	10%	14%	57%	30%	21%	71%	8%						
	APP/DEPART	1,658	/	1,345	2,206	/	2,792	2,164	/	1,741	2,144	/	2,294	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	265	444	121	127	862	105	150	642	345	234	798	83	4,176					
	APPROACH %	32%	53%	15%	12%	79%	10%	13%	56%	30%	21%	72%	7%						
	PEAK HR FACTOR		0.974			0.906			0.973			0.958		0.971					
	APP/DEPART	830	/	677	1,094	/	1,441	1,137	/	890	1,115	/	1,168	0					



		PEDESTRIAN CROSSINGS					PEDESTRIAN ACTIVATIONS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM	2	3	1	1	7					0					0
	7:15 AM	2	1		1	4					0			1	1	2
	7:30 AM		1	3	1	5					0				1	1
	7:45 AM	14	6	2	4	26					0					0
	8:00 AM	4	2	1	1	8					0		1			1
	8:15 AM	4	2	1	1	8					0					0
	8:30 AM	3	2	2	1	8					0					0
	8:45 AM	3	1	1	4	9					0					0
	TOTAL	32	18	11	14	75	0	0	0	0	0	0	1	1	2	4
PM	4:00 PM	5	1	4	5	15					0		1			1
	4:15 PM	4	4	2	4	14					0					0
	4:30 PM	1	4	2		7					0					0
	4:45 PM	2	6	3	5	16					0	1				1
	5:00 PM	1	5	3	1	10					0					0
	5:15 PM	7	9	8	7	31					0					0
	5:30 PM	6	3	3	4	16					0		1			1
	5:45 PM	10	4	4	7	25					0		1			1
	TOTAL	36	36	29	33	134	0	0	0	0	0	1	3	0	0	4

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: PACIFIC TECHNICAL DATA

DATE:	LOCATION:	CLAIREMONT	PROJECT #:	PTD16-1202-01
11/29/16	NORTH & SOUTH:	CLAIREMONT DRIVE - KLEEFELD	LOCATION #:	10
TUESDAY	EAST & WEST:	CLAIREMONT MESA	CONTROL:	SIGNAL

NOTES:

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

		NORTHBOUND CLAIREMONT DRIVE - KLEEFELD			SOUTHBOUND CLAIREMONT DRIVE - KLEEFELD			EASTBOUND CLAIREMONT MESA			WESTBOUND CLAIREMONT MESA			
	LANES:	NL 0	NT 1	NR 0	SL 1	ST 1	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
WEEKDAY AM	7:00 AM	9	5	17	46	8	6	1	106	5	12	98	33	346
	7:15 AM	1	4	25	44	7	4	1	115	15	17	89	35	357
	7:30 AM	11	5	16	44	3	4	1	136	33	7	97	35	392
	7:45 AM	25	9	16	53	8	6	4	79	14	9	127	25	375
	8:00 AM	11	10	13	46	10	16	2	110	3	6	125	40	392
	8:15 AM	14	5	15	43	3	6	3	108	7	5	137	25	371
	8:30 AM	23	7	18	52	10	10	2	125	6	7	160	51	471
	8:45 AM	11	9	5	65	9	2	6	114	5	4	162	72	464
	VOLUMES	105	54	125	393	58	54	20	893	88	67	995	316	3,168
	APPROACH %	37%	19%	44%	78%	11%	11%	2%	89%	9%	5%	72%	23%	
	APP/DEPART	284	/	390	505	/	213	1,001	/	1,411	1,378	/	1,154	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	59	31	51	206	32	34	13	457	21	22	584	188	1,698
	APPROACH %	42%	22%	36%	76%	12%	13%	3%	93%	4%	3%	74%	24%	
	PEAK HR FACTOR		0.734			0.895			0.923			0.834		0.901
	APP/DEPART	141	/	232	272	/	75	491	/	714	794	/	677	0
WEEKDAY AM	11:00 AM	3	5	8	86	8	13	5	124	13	10	186	55	516
	11:15 AM	12	7	3	66	6	12	1	152	6	1	158	60	484
	11:30 AM	13	8	4	91	11	16	5	133	7	1	176	62	527
	11:45 AM	10	3	7	66	3	25	3	130	9	5	170	65	496
	12:00 PM	8	6	5	73	10	15	6	150	7	5	193	58	536
	12:15 PM	4	3	6	71	5	20	4	140	6	5	184	56	504
	12:30 PM	14	2	4	78	6	11	7	166	3	0	190	45	526
	12:45 PM	5	5	4	97	6	15	7	135	6	2	152	58	492
	VOLUMES	69	39	41	628	55	127	38	1,130	57	29	1,409	459	4,081
	APPROACH %	46%	26%	28%	78%	7%	16%	3%	92%	5%	2%	74%	24%	
	APP/DEPART	149	/	536	810	/	141	1,225	/	1,799	1,897	/	1,605	0
	BEGIN PEAK HR		11:30 AM											
	VOLUMES	35	20	22	301	29	76	18	553	29	16	723	241	2,063
	APPROACH %	45%	26%	29%	74%	7%	19%	3%	92%	5%	2%	74%	25%	
	PEAK HR FACTOR		0.770			0.860			0.920			0.957		0.962
	APP/DEPART	77	/	279	406	/	74	600	/	876	980	/	834	0
WEEKDAY PM	4:00 PM	13	17	8	91	11	11	6	176	23	11	218	61	646
	4:15 PM	10	8	8	65	9	20	8	147	14	9	201	59	558
	4:30 PM	18	9	7	92	6	11	6	183	14	15	165	70	596
	4:45 PM	9	8	4	87	12	20	11	160	15	8	203	72	609
	5:00 PM	24	10	7	70	11	12	5	178	9	8	207	56	597
	5:15 PM	14	9	7	96	6	14	2	203	17	8	219	57	652
	5:30 PM	5	6	7	71	11	12	9	206	10	6	167	80	590
	5:45 PM	8	4	5	59	12	12	3	154	10	13	181	80	541
	6:00 PM													0
	6:15 PM													0
	6:30 PM													0
	6:45 PM													0
	7:00 PM													0
	7:15 PM													0
	7:30 PM													0
	7:45 PM													0
	8:00 PM													0
	8:15 PM													0
	8:30 PM													0
	8:45 PM													0
	VOLUMES	101	71	53	631	78	112	50	1,407	112	78	1,561	535	4,789
	APPROACH %	45%	32%	24%	77%	10%	14%	3%	90%	7%	4%	72%	25%	
	APP/DEPART	225	/	656	821	/	268	1,569	/	2,091	2,174	/	1,774	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	65	36	25	345	35	57	24	724	55	39	794	255	2,454
	APPROACH %	52%	29%	20%	79%	8%	13%	3%	90%	7%	4%	73%	23%	
	PEAK HR FACTOR		0.768			0.918			0.892			0.958		0.941
	APP/DEPART	126	/	315	437	/	129	803	/	1,094	1,088	/	916	0

U-TURNS

	NB	SB	EB	WB	TTL
	X	X	X	X	
7:00 AM				2	2
7:15 AM					0
7:30 AM				1	1
7:45 AM					0
8:00 AM				1	1
8:15 AM				2	2
8:30 AM				2	2
8:45 AM				1	1
	0	0	0	9	9
11:00 AM				2	2
11:15 AM				1	1
11:30 AM			1		1
11:45 AM				1	1
12:00 PM				3	3
12:15 PM				1	1
12:30 PM					0
12:45 PM			2	2	4
	0	0	3	10	13
4:00 PM			1	3	4
4:15 PM			1	1	2
4:30 PM			1	3	4
4:45 PM					0
5:00 PM				2	2
5:15 PM					0
5:30 PM			1	2	3
5:45 PM			1	1	2
6:00 PM					0
6:15 PM					0
6:30 PM					0
6:45 PM					0
7:00 PM					0
7:15 PM					0
7:30 PM					0
7:45 PM					0
8:00 PM					0
8:15 PM					0
8:30 PM					0
8:45 PM					0
	0	0	5	12	17

	PEDESTRIAN + BIKE CROSSINGS					PEDESTRIAN CROSSINGS					BICYCLE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
7:00 AM	0	2	0	0	2		2			2					0
7:15 AM	0	1	3	4	8			3	4	7		1			1
7:30 AM	1	0	3	1	5	1		3	1	5					0
7:45 AM	0	1	4	2	7		1	4	1	6				1	1
8:00 AM	1	0	3	3	7	1		3	2	6				1	1
8:15 AM	1	1	0	2	4	1	1		2	4					0
8:30 AM	4	0	5	3	12	4		5	2	11				1	1
8:45 AM	4	0	0	2	6	3			2	5	1				1
11:00 AM	4	0	2	2	8	4		2	2	8					0
11:15 AM	1	0	0	2	3	1			2	3					0
11:30 AM	3	5	0	4	12	3	2		4	9		3			3
11:45 AM	1	1	2	1	5	1	1	2		4				1	1
12:00 PM	6	1	0	0	7	6				6		1			1
12:15 PM	3	0	2	1	6	3		2		5				1	1
12:30 PM	0	1	4	0	5		1	4		5					0
12:45 PM	4	0	1	1	6	4		1	1	6					0
4:00 PM	4	2	0	4	10	4	2		4	10					0
4:15 PM	1	0	1	0	2	1		1		2					0
4:30 PM	3	1	5	3	12	3	1	5	3	12					0
4:45 PM	3	2	1	3	9	3	2	1	3	9					0
5:00 PM	1	1	2	2	6	1	1	2	2	6					0
5:15 PM	2	1	0	2	5	2	1		1	4				1	1
5:30 PM	0	2	1	0	3		2	1		3					0
5:45 PM	0	2	1	0	3		2	1		3					0
TOTAL	47	24	40	42	153	46	19	40	36	141	1	5	0	6	12

INTERSECTION TURNING MOVEMENT COUNTS

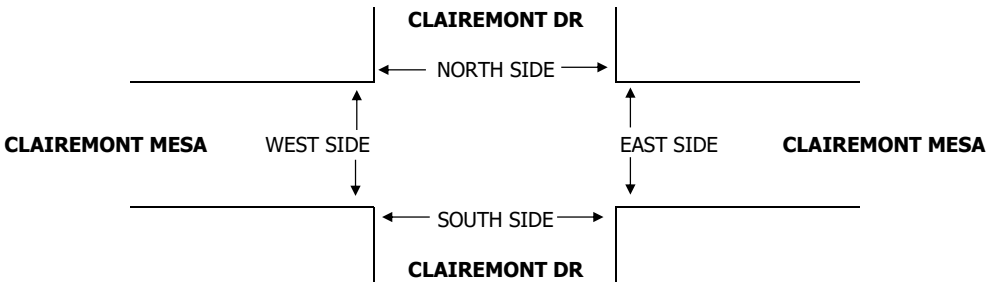
PREPARED BY: PACIFIC TECHNICAL DATA

DATE:	LOCATION:	CLAIREMONT	PROJECT #:	PTD16-1202-01
11/29/16	NORTH & SOUTH:	CLAIREMONT DR	LOCATION #:	8
TUESDAY	EAST & WEST:	CLAIREMONT MESA	CONTROL:	SIGNAL

NOTES:

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

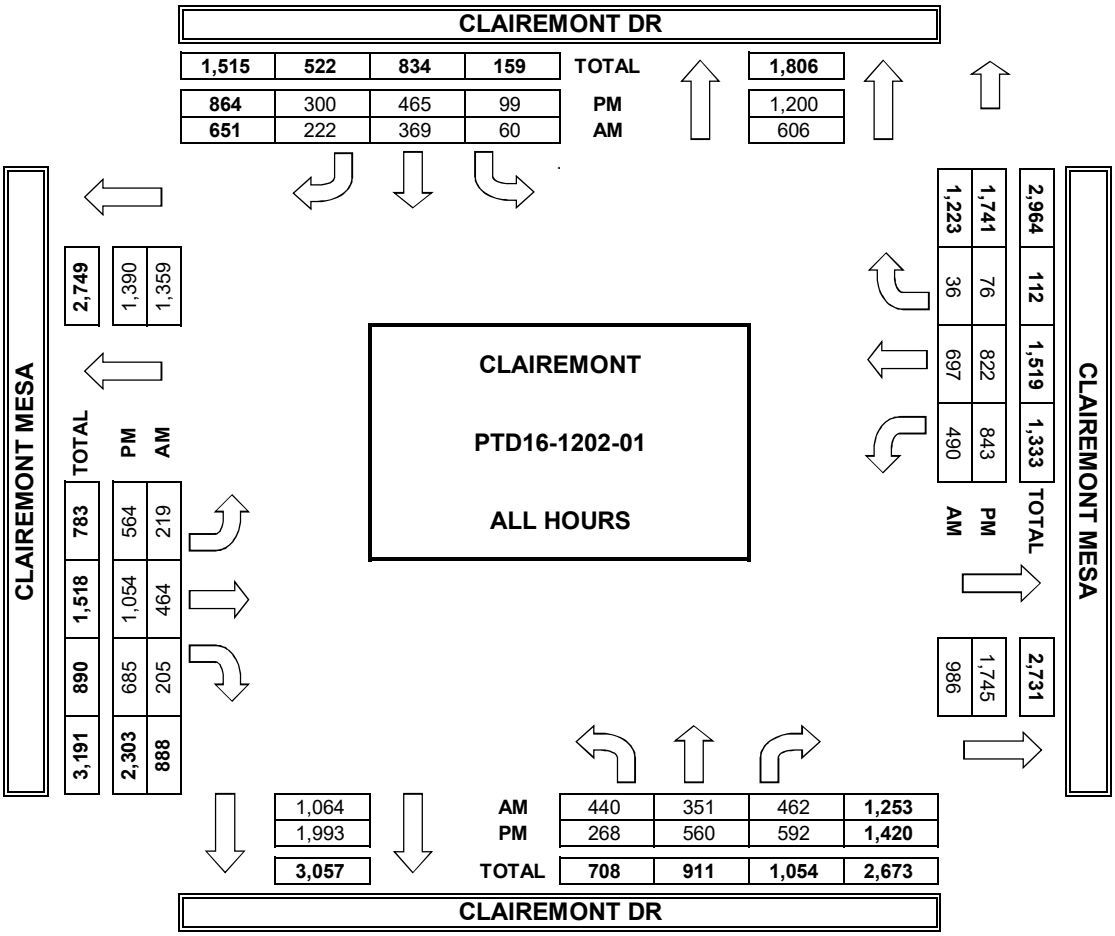
		NORTHBOUND CLAIREMONT DR			SOUTHBOUND CLAIREMONT DR			EASTBOUND CLAIREMONT MESA			WESTBOUND CLAIREMONT MESA				U-TURNS				
	LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 2	ET 2	ER 0	WL 2	WT 2	WR 0	TOTAL	NB X	SB X	EB X	WB X	TTL
AM	7:00 AM	57	22	47	7	39	19	21	55	33	49	66	6	421	1	3	4		8
	7:15 AM	43	41	68	7	36	33	20	51	22	44	69	2	436	1		4	1	6
	7:30 AM	53	33	63	6	45	23	22	62	17	63	65	2	454		3	6	1	10
	7:45 AM	62	36	56	5	51	25	23	59	11	61	89	5	483	1	2	4	1	8
	8:00 AM	60	44	53	6	50	26	25	47	32	74	92	3	512	2		7	2	11
	8:15 AM	43	44	54	5	39	23	29	62	25	64	93	3	484	2		2	2	6
	8:30 AM	69	62	68	13	60	37	44	59	33	69	113	6	633		2	10	1	13
	8:45 AM	53	69	53	11	49	36	35	69	32	66	110	9	592	3	5	1	5	14
	VOLUMES	440	351	462	60	369	222	219	464	205	490	697	36	4,015	10	15	38	13	76
	APPROACH %	35%	28%	37%	9%	57%	34%	25%	52%	23%	40%	57%	3%						
	APP/DEPART	1,253	/	606	651	/	1,064	888	/	986	1,223	/	1,359	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	225	219	228	35	198	122	133	237	122	273	408	21	2,221					
	APPROACH %	33%	33%	34%	10%	56%	34%	27%	48%	25%	39%	58%	3%						
	PEAK HR FACTOR		0.844			0.807			0.904			0.934		0.877					
	APP/DEPART	672	/	373	355	/	593	492	/	500	702	/	755	0					
PM	4:00 PM	35	94	95	14	45	36	106	136	53	120	120	12	866	5	4	14	2	25
	4:15 PM	32	79	68	12	50	42	65	122	69	103	41	9	692	1	6	7	6	20
	4:30 PM	24	50	69	11	62	21	56	137	92	107	118	10	757	1	1	6	3	11
	4:45 PM	33	67	71	13	59	52	73	124	87	93	114	15	801		2	2	5	9
	5:00 PM	39	81	70	14	45	35	63	128	110	100	110	4	799	2	5	8	1	16
	5:15 PM	37	72	78	11	64	36	63	147	92	105	121	10	836	7	2	11	6	26
	5:30 PM	37	68	76	16	61	42	71	133	100	108	107	4	823	7	5	8	4	24
	5:45 PM	31	49	65	8	79	36	67	127	82	107	91	12	754	3	4	9	4	20
	VOLUMES	268	560	592	99	465	300	564	1,054	685	843	822	76	6,328	26	29	65	31	151
	APPROACH %	19%	39%	42%	11%	54%	35%	24%	46%	30%	48%	47%	4%						
	APP/DEPART	1,420	/	1,200	864	/	1,993	2,303	/	1,745	1,741	/	1,390	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	146	288	295	54	229	165	270	532	389	406	452	33	3,259					
	APPROACH %	20%	40%	40%	12%	51%	37%	23%	45%	33%	46%	51%	4%						
	PEAK HR FACTOR		0.959			0.903			0.979			0.944		0.975					
	APP/DEPART	729	/	591	448	/	1,024	1,191	/	881	891	/	763	0					

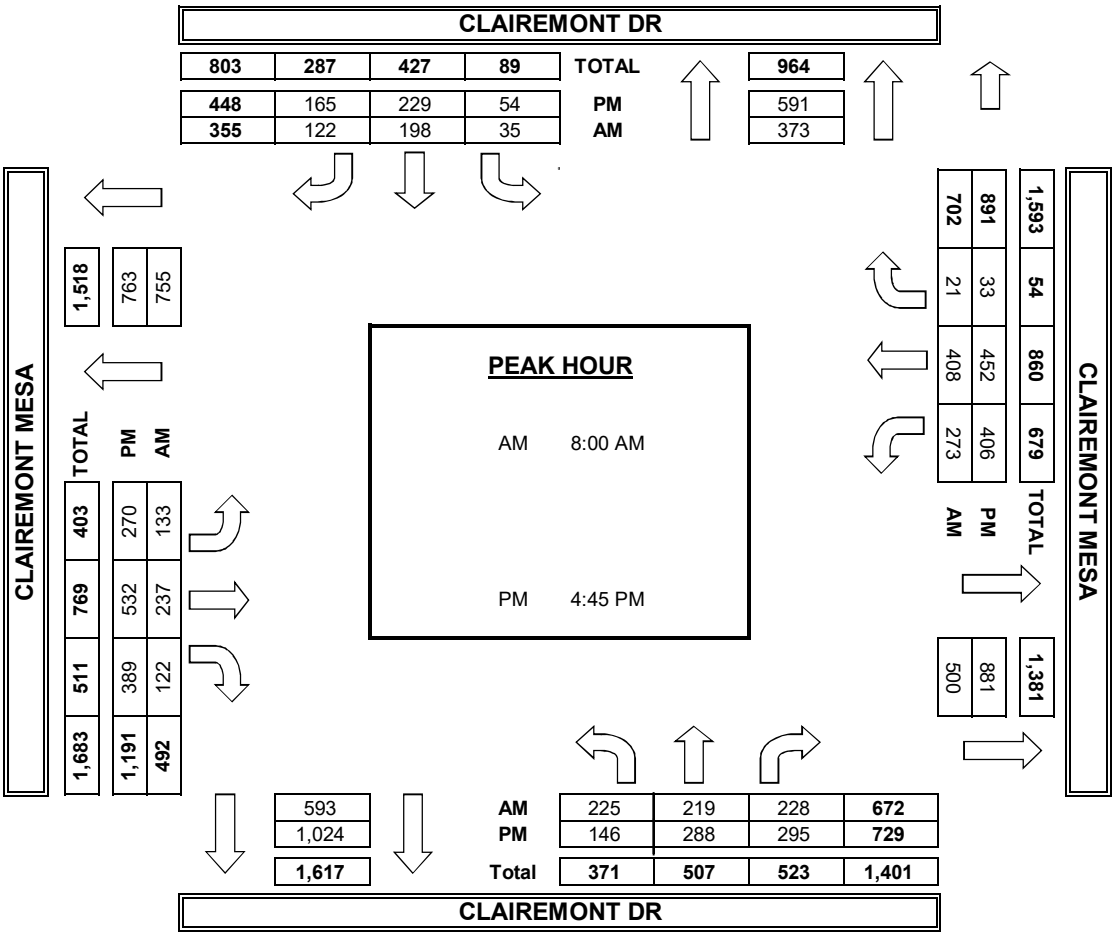


		PEDESTRIAN CROSSINGS					PEDESTRIAN ACTIVATIONS					BICYCLE CROSSINGS				
		N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	NS	SS	ES	WS	TOTAL
AM	7:00 AM					0					0					0
	7:15 AM	4	4	1	4	13					0	1				1
	7:30 AM	4	1		6	11					0		2			2
	7:45 AM	3		7	2	12					0					0
	8:00 AM	5	1	3	2	11					0					0
	8:15 AM	5	1		1	7					0	1		1		2
	8:30 AM	4	2	3	3	12					0					0
	8:45 AM	1		3		4					0					0
	TOTAL	26	9	17	18	70	0	0	0	0	0	2	2	1	0	5
PM	4:00 PM	5	2	3	6	16					0	1				1
	4:15 PM	4	9	9	9	31					0					0
	4:30 PM	5	5	3	3	16					0	1	1	2	1	5
	4:45 PM	6	4	5	5	20					0	4	1	1	3	9
	5:00 PM	6	4	5	5	20					0		1			1
	5:15 PM	8	5	2	10	25					0			1		1
	5:30 PM	2	4	3		9					0		3		1	4
	5:45 PM	3	6	6	4	19					0	1	1		2	4
	TOTAL	39	39	36	42	156	0	0	0	0	0	7	7	4	7	25

PACIFIC TECHNICAL DATA

TURNING MOVEMENT COUNTS





Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-4184-008 **Day:** Thursday

City: Pacific Beach **Date:** 6/9/2016

AM

NS/EW Streets:	Clairemont Dr			Clairemont Dr			Balboa Ave			Balboa Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 2	ET 2	ER 0	WL 2	WT 2	WR 0	TOTAL
7:00 AM	26	67	62	38	77	59	27	136	8	119	158	13	790
7:15 AM	33	79	74	22	59	80	49	174	11	62	177	20	840
7:30 AM	24	65	71	28	43	99	46	266	13	57	185	30	927
7:45 AM	31	75	69	43	42	91	46	185	6	48	215	31	882
8:00 AM	27	73	66	43	40	71	52	205	11	50	205	28	871
8:15 AM	22	67	66	35	54	80	64	195	14	85	185	23	890
8:30 AM	47	83	90	30	92	84	41	163	24	108	172	18	952
8:45 AM	43	99	110	44	85	75	51	252	20	94	206	21	1100
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	253	608	608	283	492	639	376	1576	107	623	1503	184	7252
APPROACH %'s :	17.22%	41.39%	41.39%	20.01%	34.79%	45.19%	18.26%	76.54%	5.20%	26.97%	65.06%	7.97%	
PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	139	322	332	152	271	310	208	815	69	337	768	90	3813
PEAK HR FACTOR :		0.787			0.890			0.845			0.931		0.867

UTURNS	NB	SB	EB	WB
	3	1	1	0
	3	0	5	0
	3	1	0	0
	6	0	1	0
	3	1	0	1
	5	0	3	0
	6	0	3	1
	4	0	1	0
	NB	SB	EB	WB
TOTAL VOLUMES :	33	3	14	2

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-4184-008 **Day:** Thursday

City: Pacific Beach **Date:** 6/9/2016

PM

NS/EW Streets:	Clairemont Dr			Clairemont Dr			Balboa Ave			Balboa Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 2	ET 2	ER 0	WL 2	WT 2	WR 0	TOTAL
4:00 PM	38	87	96	63	113	61	82	239	17	87	218	23	1124
4:15 PM	17	55	84	49	94	65	85	285	29	78	262	25	1128
4:30 PM	45	85	77	64	122	61	112	258	15	86	212	25	1162
4:45 PM	24	86	86	58	140	73	92	231	19	94	227	23	1153
5:00 PM	26	63	80	60	130	69	107	275	15	92	231	15	1163
5:15 PM	16	92	81	71	128	73	83	289	15	104	271	31	1254
5:30 PM	18	66	90	65	130	80	91	266	11	97	263	29	1206
5:45 PM	23	85	85	54	116	69	98	253	16	117	255	29	1200
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	207	619	679	484	973	551	750	2096	137	755	1939	200	9390
APPROACH %'s :	13.75%	41.13%	45.12%	24.10%	48.46%	27.44%	25.14%	70.26%	4.59%	26.09%	67.00%	6.91%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	83	306	336	250	504	291	379	1083	57	410	1020	104	4823
PEAK HR FACTOR :		0.939			0.950			0.957			0.945		0.962

UTURNS

NB	SB	EB	WB
5	1	3	2
5	0	1	0
5	1	6	1
2	0	6	0
2	0	0	1
3	0	2	0
3	0	2	0
3	3	1	3
NB	SB	EB	WB
28	5	21	7

CONTROL : Signalized

ITM Peak Hour Summary

Prepared by:

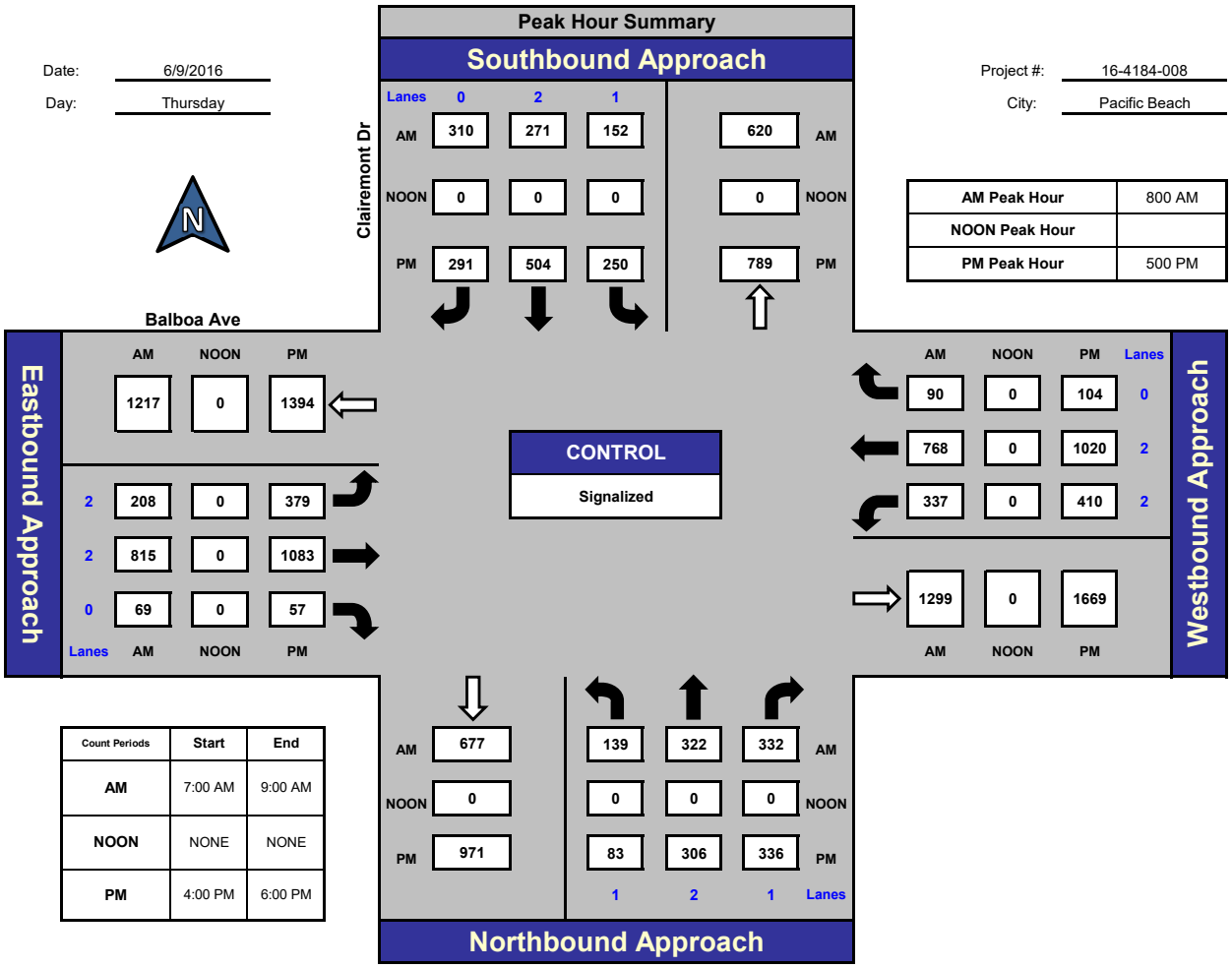
National Data & Surveying Services

Clairemont Dr and Balboa Ave , Pacific Beach

Date: 6/9/2016
Day: Thursday

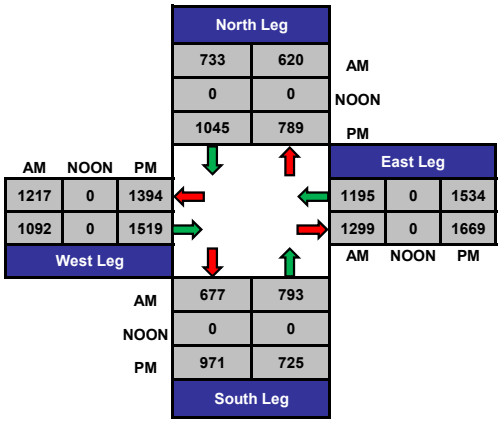
Project #: 16-4184-008
City: Pacific Beach

AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	500 PM



Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON	NONE	NONE
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg

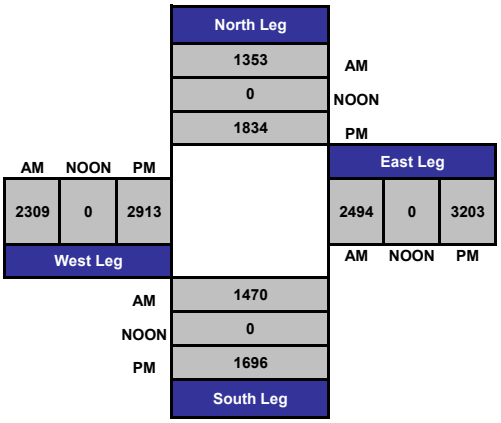


Table 7-3 Future Year Volume-Based Roadway Segment Analysis Summary

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	Existing			Future Alt A Regents Bridge 6-lane Genesee			Future Alt B Regents Bridge 4-lane Genesee			Future Alt C No Bridge 6-lane Genesee			Future Alt D No Bridge 4-lane Genesee		
			ADT (b)	V/C RATIO (c)	LOS	ADT (b)	V/C RATIO (c)	LOS	ADT (b)	V/C RATIO (c)	LOS	ADT (b)	V/C RATIO (c)	LOS	ADT (b)	V/C RATIO (c)	LOS
Eastgate Mall																	
Regents Rd to Genesee Ave	2 Lane Collector (continuous left-turn lane)	15,000	6,187	0.412	B	12,100	0.807	D	12,200	0.813	D	12,300	0.820	D	12,300	0.820	D
Genesee Ave to Easter Way	4 Lane Collector	30,000	14,767	0.492	C	25,000	0.833	**E**	25,100	0.837	**E**	24,900	0.830	D	25,400	0.847	**E**
Easter Way to Judicial Dr	4 Lane Major Arterial	40,000	11,115	0.278	A	14,100	0.353	A	14,300	0.358	A	14,000	0.350	A	14,300	0.358	A
Judicial Drive to Eastgate Dr (Freeway Overpass)	2 Lane Collector (no fronting property)	10,000	10,096	1.010	**F**	19,500	1.950	**F**	19,500	1.950	**F**	19,500	1.950	**F**	19,400	1.940	**F**
Eastgate Dr to Miramar Rd	2 Lane Collector (continuous left-turn lane)	15,000	14,668	0.978	**E**	28,800	1.920	**F**	28,700	1.913	**F**	29,000	1.933	**F**	29,200	1.947	**F**
Executive Drive																	
Regents Rd to Genesee Ave	4 Lane Collector (no center lane)	15,000	4,397	0.293	A	5,900	0.393	B	6,000	0.400	B	6,600	0.440	B	6,400	0.427	B
Genesee Ave to Judicial Dr	4 Lane Collector	30,000	5,914	0.197	A	8,900	0.297	A	8,700	0.290	A	9,300	0.310	A	9,300	0.310	A
Executive Way																	
Executive Dr to La Jolla Village Dr	4 Lane Collector	30,000	5,923	0.197	A	11,400	0.380	B	11,100	0.370	B	11,000	0.367	B	11,100	0.370	B
Genesee Avenue																	
N. Torrey Pines Rd to I-5 SB Ramps	6 Lane Prime Arterial	60,000	35,124	0.585	C	46,100	0.768	C	46,100	0.768	C	46,100	0.768	C	46,000	0.767	C
I-5 SB Ramps to I-5 NB Ramps	4 Lane Major Arterial	40,000	49,051	1.226	**F**												
	8 Lane Prime Arterial	80,000				62,100	0.776	C	62,200	0.778	C	62,300	0.779	C	62,100	0.776	C
I-5 NB Ramps to Regents Rd	6 Lane Prime Arterial	60,000	48,542	0.809	C	54,300	0.905	D	54,700	0.912	D	54,800	0.913	D	54,600	0.910	D
Regents Rd to La Jolla Village Dr	6 Lane Prime Arterial	60,000	29,457	0.589	C	40,600	0.812	D	40,300	0.806	D	40,700	0.814	D	40,800	0.816	D
La Jolla Village to Esplande Ct	4 Lane Major Arterial	40,000	28,054	0.701	C												
	6 Lane Major Arterial	50,000				41,800	0.836	D	41,900	0.838	D	46,500	0.930	**E**	46,400	0.928	**E**
Esplande Ct to Nobel Dr	6 Lane Major Arterial	50,000	23,744	0.475	B	27,300	0.546	B	27,400	0.548	B	30,300	0.606	C	29,700	0.594	C
Nobel Dr to Centurion Square	4 Lane Major Arterial	40,000	30,922	0.773	D				39,600	0.990	**E**				46,500	1.163	**F**
	6 Lane Major Arterial	50,000				39,600	0.792	C				49,400	0.988	**E**			
Centurion Square to Governor Dr	4 Lane Major Arterial	40,000	30,325	0.758	D				40,900	1.023	**F**				54,600	1.365	**F**
	6 Lane Major Arterial	50,000				43,900	0.878	D				58,200	1.164	**F**			
Governor Dr to SR-52 WB Ramps	4 Lane Major Arterial	40,000	30,325	0.758	D				44,300	1.108	**F**				43,500	1.088	**F**
	6 Lane Major Arterial	50,000				48,700	0.974	**E**				47,700	0.954	**E**			
SR-52 WB Ramps to SR-52 EB Ramps	4 Lane Major Arterial	40,000	31,170	0.779	D	37,300	0.933	**E**	36,500	0.913	**E**	39,000	0.975	**E**	38,000	0.950	**E**
SR-52 EB Ramps to Lehrer Dr	4 Lane Major Arterial	40,000	30,581	0.765	D	37,100	0.928	**E**	36,600	0.915	**E**	38,900	0.973	**E**	38,400	0.960	**E**
Gilman Drive																	
UCSD Campus to La Jolla Village Dr	4 Lane Collector	30,000	10,069	0.336	B	13,800	0.460	B	13,900	0.463	B	13,700	0.457	B	13,700	0.457	B
La Jolla Village Dr to Via Alicante	4 Lane Collector	30,000	15,095	0.503	C	21,800	0.727	D	21,800	0.727	D	21,000	0.700	D	20,700	0.690	D
Via Alicante to I-5 SB Ramps	4 Lane Major Arterial	40,000	17,138	0.428	B	24,300	0.608	C	24,500	0.613	C	24,000	0.600	C	23,400	0.585	C
I-5 SB Ramps to I-5 NB Ramps	4 Lane Major Arterial	40,000	11,873	0.297	A	14,900	0.373	A	15,000	0.375	B	16,800	0.420	B	16,500	0.413	B
Golden Haven Drive																	
Towne Center Dr to Judicial Dr	4 Lane Major Arterial	40,000	6,712	0.168	A	7,500	0.188	A	7,300	0.183	A	7,700	0.193	A	7,600	0.190	A

Notes:

Bold values indicate roadway segments operating at LOS E or F.

(a) Road classifications are based on _____

(b) Average Daily Traffic (ADT) volumes for the roadway segments were determined from SANDAG Modeling

(c) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

Table 7-3 Future Year Volume-Based Roadway Segment Analysis Summary (continued)

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	Existing			Future Alt A Regents Bridge 6-lane Genesee			Future Alt B Regents Bridge 4-lane Genesee			Future Alt C No Bridge 6-lane Genesee			Future Alt D No Bridge 4-lane Genesee		
			ADT (b)	V/C RATIO (c)	LOS	ADT (b)	V/C RATIO (c)	LOS	ADT (b)	V/C RATIO (c)	LOS	ADT (b)	V/C RATIO (c)	LOS	ADT (b)	V/C RATIO (c)	LOS
Governor Drive																	
Regents Road to Genesee Ave	4 Lane Major Arterial	40,000	16,796	0.420	B	11,400	0.285	A	10,700	0.268	A	23,200	0.580	C	23,000	0.575	C
Genesee Ave to I-805 SB Ramps	4 Lane Major Arterial	40,000	19,737	0.493	B	24,000	0.600	C	23,300	0.583	C	23,900	0.598	C	23,300	0.583	C
I-805 SB Ramps to I-805 NB Ramps	4 Lane Major Arterial	40,000	10,417	0.260	A	9,900	0.248	A	10,600	0.265	A	10,000	0.250	A	10,700	0.268	A
Judicial Drive																	
Eastgate Mall to La Jolla Village Dr	4 Lane Major Arterial	40,000	4,828	0.121	A	10,600	0.265	A	10,400	0.260	A	9,900	0.248	A	9,700	0.243	A
La Jolla Village Dr to Nobel Drive	4 Lane Major Arterial	40,000	6,574	0.164	A	9,300	0.233	A	9,300	0.233	A	9,500	0.238	A	9,400	0.235	A
La Jolla Scenic Drive																	
La Jolla Village Drive to South	4 Lane Major Arterial	40,000	7,928	0.198	A	12,900	0.323	A	12,900	0.323	A	14,100	0.353	A	14,100	0.353	A
La Jolla Village Drive																	
Revelle College Drive to Villa La Jolla	6 Lane Prime Arterial	60,000	44,520	0.742	C	54,300	0.905	D	54,100	0.902	D	55,100	0.918	**E**	55,000	0.917	**E**
Villa La Jolla Drive to I-5 SB Ramps	6 Lane Prime Arterial	60,000	62,258	1.038	**F**	76,400	1.273	**F**	76,400	1.273	**F**	76,600	1.277	**F**	76,800	1.280	**F**
I-5 SB Ramps to I-5 NB Ramps	6 Lane Major Arterial	50,000	51,391	1.028	**F**	59,400	1.188	**F**	60,100	1.202	**F**	61,200	1.224	**F**	60,900	1.218	**F**
I-5 NB Ramps to Lebon Dr	6 Lane Major Arterial	50,000	44,335	0.887	D	52,000	1.040	**F**	52,500	1.050	**F**	53,200	1.064	**F**	53,200	1.064	**F**
Lebon Dr to Regents Road	6 Lane Major Arterial	50,000	42,863	0.857	D	49,900	0.998	**E**	50,100	1.002	**F**	51,500	1.030	**F**	51,500	1.030	**F**
Regents Road to Genesee Ave	6 Lane Major Arterial	50,000	38,474	0.769	C	52,400	1.048	**F**	52,400	1.048	**F**	50,500	1.010	**F**	50,700	1.014	**F**
Genesee Ave to Executive Way	6 Lane Major Arterial	50,000	45,117	0.902	**E**	49,400	0.988	**E**	49,600	0.992	**E**	48,900	0.978	**E**	49,200	0.984	**E**
Executive Way to Towne Center Dr	6 Lane Major Arterial	50,000	45,117	0.902	**E**	67,600	1.352	**F**	68,700	1.374	**F**	69,300	1.386	**F**	69,500	1.390	**F**
Towne Center Dr to I-805 SB Ramps	8 Lane Prime Arterial	80,000	58,833	0.735	C	67,600	0.845	C	68,700	0.859	C	69,300	0.866	C	69,500	0.869	C
Lebon Drive																	
Palmilla Drive to Nobel Drive	4 Lane Major Arterial	40,000	11,192	0.280	A	16,100	0.403	B	16,000	0.400	B	12,300	0.308	A	12,400	0.310	A
Nobel Drive to La Jolla Village Drive	5 Lane Major Arterial	45,000	9,212	0.205	A	13,600	0.302	A	13,600	0.302	A	11,300	0.251	A	11,800	0.262	A
Miramar Road																	
I-805 SB Ramps to I-805 NB Ramps	6 Lane Prime Arterial	60,000	66,139	1.102	**F**	64,600	1.077	**F**	65,700	1.095	**F**	65,400	1.090	**F**	66,000	1.100	**F**
I-805 NB Ramps to Nobel Dr	8 Lane Prime Arterial	80,000	47,991	0.600	B	51,400	0.643	C	50,400	0.630	C	49,600	0.620	B	50,300	0.629	C
Nobel Dr to Eastgate Mall	8 Lane Prime Arterial	80,000	64,557	0.807	C	69,000	0.863	C	69,000	0.863	C	69,000	0.863	C	69,100	0.864	C
Eastgate Mall to Miramar Mall	6 Lane Prime Arterial	60,000	67,748	1.129	**F**												
	7 Lane Prime Arterial	70,000				72,200	1.031	**F**	72,300	1.033	**F**	72,200	1.031	**F**	72,200	1.031	**F**
Miramar Mall to Camino Santa Fe	6 Lane Prime Arterial	60,000	67,748	1.129	**F**	72,200	1.203	**F**	72,300	1.205	**F**	72,200	1.203	**F**	72,200	1.203	**F**

Notes:

Bold values indicate roadway segments operating at LOS E or F.

(a) Road classifications are based on _____

(b) Average Daily Traffic (ADT) volumes for the roadway segments were determined from SANDAG Modeling

(c) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

Table 7-3 Future Year Volume-Based Roadway Segment Analysis Summary (continued)

ROADWAY SEGMENT	ROADWAY CLASSIFICATION (a)	LOS E CAPACITY	Existing			Future Alt A Regents Bridge 6-lane Genesee			Future Alt B Regents Bridge 4-lane Genesee			Future Alt C No Bridge 6-lane Genesee			Future Alt D No Bridge 4-lane Genesee		
			ADT (b)	V/C RATIO (c)	LOS	ADT (b)	V/C RATIO (c)	LOS	ADT (b)	V/C RATIO (c)	LOS	ADT (b)	V/C RATIO (c)	LOS	ADT (b)	V/C RATIO (c)	LOS
North Torrey Pines Road																	
Science Park Rd to Genesee Ave	6 Lane Prime Arterial	60,000	29,303	0.488	B	40,400	0.673	C	40,600	0.677	C	41,300	0.688	C	42,100	0.702	C
Genesee Ave to UCSD Northpoint Dwy	6 Lane Major Arterial	50,000				23,700	0.474	B	23,700	0.474	B	23,800	0.476	B	23,900	0.478	B
UCSD Northpoint Dwy to Revelle College Dr	4 Lane Major Arterial	40,000	21,760	0.544	C	23,700	0.593	C	23,700	0.593	C	23,800	0.595	C	23,900	0.598	C
Nobel Drive																	
Villa La Jolla Dr to I-5 SB On Ramp	4 Lane Major Arterial	40,000	26,284	0.657	C	47,500	1.188	**F**	47,200	1.180	**F**	47,200	1.180	**F**	47,600	1.190	**F**
I-5 SB On Ramp to I-5 NB Off Ramp/University Center Lane	4 Lane Major Arterial	40,000	27,642	0.691	C	40,800	1.020	**F**	40,600	1.015	**F**	40,700	1.018	**F**	41,700	1.043	**F**
I-5 NB Off Ramp/University Center Lane to Lebon Dr	6 Lane Major Arterial	50,000	21,546	0.431	B	31,300	0.626	C	31,600	0.632	C	30,400	0.608	C	31,100	0.622	C
Lebon Dr to Regents Rd	6 Lane Major Arterial	50,000	21,256	0.425	B	27,300	0.546	B	27,800	0.556	B	30,700	0.614	C	31,300	0.626	C
Regents Rd to Genesee Ave	6 Lane Major Arterial	50,000	19,772	0.395	A	32,800	0.656	C	33,100	0.662	C	32,200	0.644	C	32,700	0.654	C
Genesee Ave to Towne Center Dr	4 Lane Major Arterial	40,000	18,484	0.462	B	32,400	0.810	D	30,400	0.760	D	32,000	0.800	D	30,800	0.770	D
Towne Center Dr to Judicial Dr	6 Lane Prime Arterial	60,000	17,261	0.288	A	25,000	0.417	B	24,900	0.415	A	25,000	0.417	B	26,200	0.437	B
Judicial Dr to Avenue of Flags	5 Lane Major Arterial	45,000	24,125	0.536	B	31,400	0.698	C	31,300	0.696	C	31,700	0.704	C	32,900	0.731	C
Avenue of Flags to Miramar Rd	4 Lane Prime Arterial	50,000	20,648	0.413	B	33,900	0.678	C	34,900	0.698	C	35,600	0.712	C	35,000	0.700	C
Regents Road																	
Genesee Ave to Eastgate Mall	2 Lane Collector (continuous left-turn lane)	15,000	6,260	0.417	B												
	4 Lane Collector	30,000				9,700	0.243	A	9,900	0.248	A	8,700	0.218	A	8,600	0.215	A
Eastgate Mall to La Jolla Village Dr	4 Lane Collector	30,000	15,245	0.508	C	18,900	0.630	C	19,100	0.637	C	16,000	0.533	C	16,100	0.537	C
La Jolla Village Dr to Nobel Dr	5 Lane Major Arterial	45,000	16,525	0.367	A	24,500	0.544	C	24,700	0.549	C	18,700	0.416	B	18,600	0.413	B
Nobel Dr to Rose Canyon	4 Lane Major Arterial	40,000	10,688	0.267	A	27,000	0.675	C	27,100	0.678	C	11,600	0.290	A	11,600	0.290	A
Rose Canyon to Governor Dr	2 Lane Collector (no fronting property)	10,000	1,940	0.194	A							2,400	0.240	A	2,400	0.240	A
	4 Lane Major Arterial	40,000				30,000	0.750	D	29,900	0.748	C						
Governor Dr to SR-52 WB Ramps	4 Lane Major Arterial	40,000	16,181	0.405	B	30,300	0.758	D	30,900	0.773	D	17,800	0.445	B	17,800	0.445	B
SR-52 WB Ramps to SR-52 EB Ramps	4 Lane Major Arterial	40,000	19,957	0.499	B	35,300	0.883	**E**	35,500	0.888	**E**	23,400	0.585	C	23,500	0.588	C
SR-52 EB Ramps to Luna Ave	4 Lane Major Arterial	40,000	21,268	0.532	C	40,600	1.015	**F**	40,800	1.020	**F**	25,500	0.638	C	25,600	0.640	C
Torrey Pines Road																	
La Jolla Village Drive to South	4 Lane Major Arterial	40,000	26,620	0.666	C	35,600	0.890	**E**	35,700	0.893	**E**	36,600	0.915	**E**	36,800	0.920	**E**
Towne Center Drive																	
End to La Jolla Village Dr	4 Lane Major Arterial	40,000	20,121	0.503	B	21,400	0.535	C	21,600	0.540	C	21,600	0.540	C	21,500	0.538	C
La Jolla Village Dr to Nobel Dr	4 Lane Major Arterial	40,000	13,785	0.345	A	18,600	0.465	B	19,500	0.488	B	20,700	0.518	B	19,800	0.495	B
Villa La Jolla Drive																	
Gilman Dr (South) to Nobel Dr	4 Lane Major Arterial	40,000	6,896	0.172	A	12,300	0.308	A	12,300	0.308	A	12,300	0.308	A	12,200	0.305	A
Nobel Dr to La Jolla Village Dr	4 Lane Major Arterial	40,000	16,011	0.400	B	24,300	0.608	C	24,100	0.603	C	23,700	0.593	C	23,700	0.593	C
La Jolla Village Dr to VA Medical Center	4 Lane Major Arterial	40,000	19,865	0.497	B	33,400	0.835	D	33,300	0.833	D	33,600	0.840	D	33,500	0.838	D

Notes:

Bold values indicate roadway segments operating at LOS E or F.

(a) Road classifications are based on _____

(b) Average Daily Traffic (ADT) volumes for the roadway segments were determined from SANDAG Modeling

(c) The v/c Ratio is calculated by dividing the ADT volume by each respective roadway segment's capacity.

INTERSECTION: GENESEE & NOBEL

233 Program

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street: GENESEE AVE
E/W Street: NOBEL DR

Timing sheets by: KT
Approved by: PLG
Timing implemented on:
Drawing Number: 22696-17-D

9

Row	Phase Numbers---->	1	2	3	4	5	6	7	8
			GENESEE		NOBEL		GENESEE		NOBEL
					Phase				
0	Ped Walk		7		7		7		7
1	Ped FDW		23		26		26		28
2	Min Green	4	10	4	10	4	10	4	10
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	2.0	4.3	2.0	4.0	2.0	4.0	2.0	3.1
6	Max Gap	2.0	4.3	2.0	4.0	2.0	4.0	2.0	3.1
7	Min Gap	2.0	0.2	2.0	0.2	2.0	0.2	2.0	0.2
8	Max Limit	30	60	30	50	30	60	30	50
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1		1		1		1
C	Cond Serv Check								
D	Reduce Every		0.7		0.8		0.8		1.0
E	Yellow Change	3.4	4.7	3.4	3.9	3.4	4.9	3.4	4.1
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 1 <F/1+Phase+Row>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	0
EV-B Clear	0
EV-C Delay	0
EV-C Clear	0
EV-D Delay	0
EV-D Clear	0
RR-2 Delay	
RR-2 Clear	
View EV Delay	- - -
View EV Clear	- - -
View RR Delay	- - -
View RR Clear	- - -

Preempt Timing <F/1+E+Row>

	F	Row
Permit	12245678	0
Red Lock		1
Yellow Lock		2
Min Recall	_2___6__	3
Ped Recall		4
View Set Peds	_2_4_6_8	5
Rest In Walk		6
Red Rest		7
Double Entry		8
Max Recall		9
Soft Recall		A
Max 2		B
Cond. Service		C
Man Cntrl Calls		D
Yellow Start	_2___6__	E
First Phases	__3___7_	F

Phase Functions <F/1+F+Row>

Current Calculated Cycle Length: C/0 + B + F

	9	A	B	C	D
	- - -	- - -	- - -	- - -	- - -
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <F/1+Column+Phase>

Drop Number	3	<C/0+0+0>
Zone Number	3	<C/0+0+1>
Area Number	4	<C/0+0+2>
Area Address	58	<C/0+0+3>
QuicNet Channel	COM47	(QuicNet)

Communication Addresses

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>

Start / Revert Times

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

(Outputs specified in Assignable Outputs at E/127+A+E & F)

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase

Manual Plan	0	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Free Lag	_2_4_6_8 <C/1+F+0>

How to Set Page Access Code:
F/1 -- C + 0 + F = 1

Notes: Superloop May, 2012

Row		Overlap 1	2	3	4	5	6	7	8
0	Load Switch Number								
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs.								
8									
9									
A									
B									
C									
D	Green Clear								
E	Yellow Change								
F	Red Clear								

Overlap Assignments <E/29+Column+Row>

	F	Row
Fast Green Flash Phase		0
Green Flash Phases		1
Flashing Walk Phases		2
Guaranteed Passage		3
Simultaneous Gap Term	12345678	4
Sequential Timing		5
Advance Walk Phases		6
Delay Walk Phases		7
External Recall		8
Start-up Overlap Green		9
Max Extension		A
Inhibit Ped Reservice		B
Semi-Actuated		C
Start-up Overlap Yellow		D
Start-up Vehicle Calls	12345678	E
Start-up Ped Calls	12345678	F

Specials <F/2+F+Row>

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4 7
C	EV-C Phases	1 6
D	EV-D Phases	3 8
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration <E/125+E+Row>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	4
Ped for 8P Output	8
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	7
Low Priority C Phases	6
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	34

Configuration <E/125+F+Row>

	C
EV-A	
EV-B	
EV-C	
EV-D	
RR-1 *	- - -
RR-2 *	- - -
SE-1	0
SE-2	0

<E/125+C+Row>

Preemption Priority

(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row
0
1
2
3
4
5
6
7
8
9
A
B
C
D
E
F

	2	Row
		0
Phase 1	0	1
Phase 2	0	2
Phase 3	0	3
Phase 4	0	4
Phase 5	0	5
Phase 6	0	6
Phase 7	0	7
Phase 8	0	8
		9
		A
		B
		C
		D
		E
		F

<C/5+2+Row>

Coordination Transition Minimums

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Split Ring

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Extra 2 Flags
1 = AWB During Initial
2 = LMU Installed
3 = Disable Min Walk
4 = QuicNet/4 System
5 = Ignore P/P on EV
6 =
7 = Reserved
8 =

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

8-0 Hour, Minute, Day-of-Week
8-1 Day-of-Month, Year, Month
8-F Seconds

Time and Date

Begin Month	0	<C/5+2+A>
Begin Week	0	<C/5+2+B>
End Month	0	<C/5+2+C>
End Week	0	<C/5+2+D>

Daylight Savings Time

Daylight Savings Date:
If set to all zeros, standard dates will be used.

Row	Detector Name	0 C1 Pin Number	1 Attributes	2 Phase(s)	3 Assign	1 Delay	3 Carry-Over
0	2I2U	39	45_7_	2	123 8		1.8
1	6J2U	40	45_7_	6	123 8		1.8
2	4I6U	41	45_7_	4	123 8		1.8
3	8J6U	42	45_7_	8	123 8		1.8
4		43	45_7_	2	123 8		
5		44	45_7_	6	123 8		
6	4I6L	45	45_7_	4	123 8	10.0	
7		46	45_7_	8	123 8		
8		47	67_	2	123 8		
9		48	67_	6	123 8		
A		49	67_	4	123 8		
B		50	67_	8	123 8		
C		55	45_7_	5	123 8		
D		56	45_7_	1	123 8		
E		57	45_7_	7	123 8		
F		58	45_7_	3	123 8		

Program Type:

Row	Detector Name	4 C1 Pin Number	5 Attributes	6 Phase(s)	7 Assign	2 Delay	4 Carry-Over
0		59	45_7_	5	123 8		
1		60	45_7_	1	123 8		
2		61	45_7_	7	123 8		
3		62	45_7_	3	123 8		
4		63	45_7_	2	123 8		
5		64	45_7_	6	123 8		
6		65	45_7_	4	123 8		
7		66	45_7_	8	123 8		
8		67	2	2	123 8		
9		68	2	6	123 8		
A		69	2	4	123 8		
B		70	2	8	123 8		
C		76	45_7_	2	123 8		
D		77	45_7_	6	123 8		
E		78	45_7_	4	123 8		
F		79	45_7_	8	123 8		

Detector Assignments <E/126+Column+Row> <D/0+Column+Row>

Detector Attributes
1 = Full Time Delay
2 = Ped Call
3 =
4 = Count
5 = Extension
6 = Type 3
7 = Calling
8 = Alternate

Det. Assignments
1 = Det. Set 1
2 = Det. Set 2
3 = Det. Set 3
4 =
5 =
6 = Failure - Min Recall
7 = Failure - Max Recall
8 = Report on Failure

	Ped / Phase / Overlap 1	2	3	4	5	6	7	8	Row
Walk									0
Don't Walk									1
Phase Green									2
Phase Yellow									3
Phase Red									4
Overlap Green									5
Overlap Yellow									6
Overlap Red									7

Redirect Phase Outputs <E/127+Column+Row>

Cabinet Type	0

<E/125+D+0>

Enable Redirection
(Enable Redirection = 30)

Max OFF (minutes)	20	<D/0+0+1>
Max ON (minutes)	7	<D/0+0+2>

Detector Failure Monitor

	D	Row
		0
Output Port 1		1
Output Port 2		2
Output Port 3		3
Output Port 4		4
Output Port 5		5
Output Port 6		6
Output Port 7		7

Dimming <E/125+D+Row>

	D
Number of Digits	
1 st Digit	
2 ed Digit	
3 ed Digit	
4 th Digit	
5 th Digit	
6 th Digit	
7 th Digit	
8 th Digit	
9 th Digit	
10 th Digit	
11 th Digit	
12 th Digit	
13 th Digit	
14 th Digit	
15 th Digit	

<C/5+D+Row>

Dial-Back Telephone Number

Disable Alarms
1 = Stop Time
2 = Flash Sense
3 = Keyboard Entry
4 = Manual Plan
5 = Police Control
6 = External Alarm
7 = Detector Failure
8 =

	B	Row
DELAY-A	1	A
DELAY-B	1	B
DELAY-C	0	C
DELAY-D	0	D
DELAY-E	0	E
DELAY-F	0	F

<D/0+B+Row> (seconds)

Delay Logic Times

Omit Alarm	

<C/5+F+0>

Disable Alarm Reporting

Time	10

<C/5+C+0>

Redial Time (minutes)
(View Redial Timer at E/2+D+6)

Row	Time	Plan	Offset	Day of Week
0	06 : 30	5	A	_23456_
1	10 : 00	6	A	_23456_
2	15 : 00	7	A	_23456_
3	19 : 00	E	A	1234567
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <9/0.1+Row>
(Bank 1)

Row	Time	Funct.	Day of Week
0			
1			
2			
3			
4			
5			
6			
7			
8			
9			
A			
B			
C			
D			
E			
F			

TOD Function <7/0.1+Row>

Row	Column 4 Phases/Bits
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
A	
B	
C	
D	
E	
F	

<E/27+4+Row>

Row	Day	Year	Month	Holiday Type
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

Holiday Dates <8/1.1+Row>
(Bank 1)

Row	Time	Plan	Offset	Holiday Type
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

Holiday Events <9/1.1+Row>
(Bank 1)

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <9/0.2+Row>
(Bank 2)

Row	Time	Funct.	Holiday Type
0			
1			
2			
3			
4			
5			
6			
7			
8			
9			
A			
B			
C			
D			
E			
F			

Holiday TOD Function <7/0.2+Row>

Row	Column 4 Phases/Bits
0	
1	
2	
3	
4	
5	
6	
7	
8	
9	
A	
B	
C	
D	
E	
F	

<E/28+Row>

Row	Day	Year	Month	Holiday Type
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

Holiday Dates <8/1.2+Row>
(Bank 2)

Row	Time	Plan	Offset	Holiday Type
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

Holiday Events <9/1.2+Row>
(Bank 2)

T.O.D. Functions:
0 =
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select:
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Month Select:
1 = January
2 = February
3 = March
4 = April
5 = May
6 = June
7 = July
8 = August
9 = September
A = October
B = November
C = December

Cycle Timer:
Master: C/0 + A + 0
Ring A: C/0 + B + 0
Ring B: C/0 + D + 0

Interval Timer:
Ring A: F/0 + A + Interval Row
Ring B: F/0 + B + Interval Row

Master Plan: C/0 + A + 2
Current Plan: C/0 + A + 3
TOD Plan: C/0 + A + 5

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Row	Plan Name ---->	1	2	3	4	5 AM	6 MID	7 PM	8	9	Row
0	Cycle Length					140	130	150			0
1	Phase 1 - ForceOff					17	86	86			1
2	Phase 2 - ForceOff					0	0	0			2
3	Phase 3 - ForceOff					35	27	31			3
4	Phase 4 - ForceOff					79	68	70			4
5	Phase 5 - ForceOff					113	88	90			5
6	Phase 6 - ForceOff					17	0	0			6
7	Phase 7 - ForceOff					38	27	20			7
8	Phase 8 - ForceOff					79	68	70			8
9	Ring Offset										9
A	Offset 1					65	83	132			A
B	Offset 2										B
C	Offset 3										C
D	Perm 1 - End					17	13	15			D
E	Hold Release					255	255	255			E
F	Zone Offset										F

Coordination - Timing Plans <C/1+Plan+Row>

Row		E	Row
0			0
1	Plan 1 - Sync		1
2	Plan 2 - Sync		2
3	Plan 3 - Sync		3
4	Plan 4 - Sync		4
5	Plan 5 - Sync	2	5
6	Plan 6 - Sync	2 6	6
7	Plan 7 - Sync	2 6	7
8	Plan 8 - Sync		8
9	Plan 9 - Sync		9
A	NEMA Sync		A
B	NEMA Hold		B
C			C
D			D
E	Coord Extra	78	E
F			F

Sync Phases <C/1+E+Row>

Row	Ped Adjustment	Perm 2 - Start	Perm 2 - End	Perm 3 - Start	Perm 3 - End	Reservice Time	Reservice Phases		Pretimed Phases	Max Recall	Perm 1 Veh Phase	Perm 1 Ped Phase	Perm 2 Veh Phase	Perm 2 Ped Phase	Perm 3 Veh Phase	Perm 3 Ped Phase	Row
0																	0
1																	1
2																	2
3																	3
4																	4
5																	5
6																	6
7																	7
8																	8
9																	9
A																	A
B																	B
C																	C
D																	D
E																	E
F																	F

Coordination - Parameters <C/2+Plan+Row>

Row		F	Row
0	Free Lag	2 4 6 8	0
1	Plan 1 - Lag		1
2	Plan 2 - Lag		2
3	Plan 3 - Lag		3
4	Plan 4 - Lag		4
5	Plan 5 - Lag	1 4 6 8	5
6	Plan 6 - Lag	2 4 6 8	6
7	Plan 7 - Lag	2 4 6 8	7
8	Plan 8 - Lag		8
9	Plan 9 - Lag		9
A	External Lag		A
B			B
C			C
D			D
E			E
F			F

Lag Phases <C/1+F+Row>

Coordination Timing By:

Row	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Spec. Funct. 1	NOT-3	Max 2	Pretimed	Set Monday	Dial 2 (7-Wire)	Sim Term 0	0
1	Spec. Funct. 2	NOT-4	System Det 1	Plan 1	Ext. Perm 1	Dial 3 (7-Wire)	EV-A 71	1
2	Spec. Funct. 3	OR-4 (a)	System Det 2	Plan 2	Ext. Perm 2	Offset 1 (7-Wire)	EV-B 72	2
3	Spec. Funct. 4	OR-4 (b)	System Det 3	Plan 3	Dimming	Offset 2 (7-Wire)	EV-C 73	3
4	NAND-3 (a)	OR-5 (a)	System Det 4	Plan 4	Set Clock	Offset 3 (7-Wire)	EV-D 74	4
5	NAND-3 (b)	OR-5 (b)	System Det 5	Plan 5	Stop Time 82	Free (7-Wire)	RR-1 51	5
6	NAND-4 (a)	OR-6 (a)	System Det 6	Plan 6	Flash Sense 81	Flash (7-Wire)	RR-2 52	6
7	NAND-4 (b)	OR-6 (b)	System Det 7	Plan 7	Manual Enable	Excl. Ped Omit	Spec. Event 1	7
8	OR-7 (a)	Fig 3 Diamond	System Det 8	Plan 8	Man. Advance	NOT-1	Spec. Event 2	8
9	OR-7 (b)	Fig 4 Diamond	Max Inhibit (nema)	Plan 9	External Alarm	NOT-2	External Lag	9
A	OR-7 (c)	AND-4 (a)	Force A (nema)	DELAY-A	Phase Bank 2	OR-1 (a)	AND-1 (a)	A
B	OR-7 (d)	AND-4 (b)	Force B (nema)	DELAY-B	Phase Bank 3	OR-1 (b)	AND-1 (b)	B
C	OR-8 (a)	NAND-1 (a)	C.N.A. (nema)	DELAY-C	Overlap Set 2	OR-2 (a)	AND-2 (a)	C
D	OR-8 (b)	NAND-1 (b)	Hold (nema)	DELAY-D	Overlap Set 3	OR-2 (b)	AND-2 (b)	D
E	OR-8 (c)	NAND-2 (a)	Max Recall	DELAY-E	Detector Set 2	OR-3 (a)	AND-3 (a)	E
F	OR-8 (d)	NAND-2 (b)	Min Recall	DELAY-F	Detector Set 3	OR-3 (b)	AND-3 (b)	F

Assignable Inputs **<E/126+Column+Row>**

Row	Column 9	Column A	Column B	Column C	Column D	Column E	Column F	Row
0	Phase ON - 1	Preempt Fail	Flasher 0	Free	NOT-1	TOD Out 1	Dial 2 (7-Wire)	0
1	Phase ON - 2	Sp Evnt Out 1	Flasher 1	Plan 1	OR-1	TOD Out 2	Dial 3 (7-Wire)	1
2	Phase ON - 3	Sp Evnt Out 2	Fast Flasher	Plan 2	OR-2	TOD Out 3	Offset 1 (7-Wire)	2
3	Phase ON - 4	Sp Evnt Out 3	Fig 3 Diamond	Plan 3	OR-3	TOD Out 4	Offset 2 (7-Wire)	3
4	Phase ON - 5	Sp Evnt Out 4	Fig 4 Diamond	Plan 4	AND-1	TOD Out 5	Offset 3 (7-Wire)	4
5	Phase ON - 6	Sp Evnt Out 5		Plan 5	AND-2	TOD Out 6	Free (7-Wire)	5
6	Phase ON - 7	Sp Evnt Out 6		Plan 6	AND-3	TOD Out 7	Flash (7-Wire)	6
7	Phase ON - 8	Sp Evnt Out 7		Plan 7	NOT-2	TOD Out 8	Preempt	7
8	Ph. Check - 1	Sp Evnt Out 8	NOT-3	Plan 8	EV-A	Adv. Warn - 1	Low Priority A	8
9	Ph. Check - 2		NOT-4	Plan 9	EV-B	Adv. Warn - 2	Low Priority B	9
A	Ph. Check - 3	Detector Fail	OR-4	Spec. Funct. 3	EV-C	DELAY-A	Low Priority C	A
B	Ph. Check - 4	Spec. Funct. 1	OR-5	Spec. Funct. 4	EV-D	DELAY-B	Low Priority D	B
C	Ph. Check - 5	Spec. Funct. 2	OR-6	NAND-3	RR-1	DELAY-C		C
D	Ph. Check - 6	Central Control	AND-4	NAND-4	RR-2	DELAY-D		D
E	Ph. Check - 7	Excl. Ped DW	NAND-1	OR-7	Spec. Event 1	DELAY-E		E
F	Ph. Check - 8	Excl. Ped WK	NAND-2	OR-8	Spec. Event 2	DELAY-F		F

Assignable Outputs **<E/127+Column+Row>**

Row		Phase 1	2	3	4	5	6	7	8
0	Ped Walk								
1	Ped FDW								
2	Min Green								
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension								
6	Max Gap								
7	Min Gap								
8	Max Limit								
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW								
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change								
F	Red Clear								

Phase Timing - Bank 2 <C+0+F=2>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing

Row		1	2	3	4	5	6	7	8
0	Ped Walk								
1	Ped FDW								
2	Min Green								
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension								
6	Max Gap								
7	Min Gap								
8	Max Limit								
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW								
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change								
F	Red Clear								

Phase Timing - Bank 3 <C+0+F=3>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing

Transition Type
0.X = Shortway
1.X = Lengthen
X.1 thru X.4 = Number of cycles when lengthing

Transition Type	0.3	<C/5+1+9>

TBC Transition

Lag Hold Phases		<C/5+1+A>

Coordinated Lag Hold Phases

Sync Output Time	0.0	<C/5+1+C>

7-Wire Master

Time B4 Yellow	0.0	<F/1+C+E>
Phase Number	0	<F/1+C+F>

Advance Warning Beacon - Sign 1

Time B4 Yellow	0.0	<F/1+D+E>
Phase Number	0	<F/1+D+F>

Advance Warning Beacon - Sign 2

Long Failure	0.7	<F/1+0+6>
Short Failure	0.7	<F/1+0+7>

Power Cycle Correction (Default = 0.7)

Min Time (seconds)	4	<F/1+0+8>

Min Green Before PE Force Off

Max Time (minutes)	4	<F/1+0+9>

Max Preempt Time Before Failure

Min Time (seconds)	0	<F/1+0+A>

Min Time Between Same Preempts
(Does Not Apply To Railroad Preempt)

Low Priority
1 = Channel A
2 = Channel B
3 = Channel C
4 = Channel D

Low Pri. Channel		<E/125+C+8>

Disable Low Priority Channel

Min Time (seconds) | 4 | <F/1+0+8>

Min Green Before PE Force Off

Max Time (minutes) | 4 | <F/1+0+9>

Max Preempt Time Before Failure

Min Time (seconds) | 0 | <F/1+0+A>

Min Time Between Same Preempts

(Does Not Apply To Railroad Preempt)

Low Pri. Channel | _____ | <E/125+C+8>

Disable Low Priority Channel

Low Priority
1 = Channel A
2 = Channel B
3 = Channel C
4 = Channel D

Delay Time (seconds) | 0 | <F/1+A+D>

Bus Delay

Max Time (seconds) | 0 | <F/1+A+E>

Max Early Green

Max Time (seconds) | 0 | <F/1+A+F>

Max Green Extension

Row	Time	Headway	Direction	Day of Week
0	00 : 00	0	0	_____
1	00 : 00	0	0	_____
2	00 : 00	0	0	_____
3	00 : 00	0	0	_____
4	00 : 00	0	0	_____
5	00 : 00	0	0	_____
6	00 : 00	0	0	_____
7	00 : 00	0	0	_____
8	00 : 00	0	0	_____
9	00 : 00	0	0	_____
A	00 : 00	0	0	_____
B	00 : 00	0	0	_____
C	00 : 00	0	0	_____
D	00 : 00	0	0	_____
E	00 : 00	0	0	_____
F	00 : 00	0	0	_____

Headway <C+0+9=2.1>

Headway Time
(minutes)
1 thru 9 = 1 thru 9
A = 10
B = 11
C = 12
D = 13
E = 14
F = 15

Low Priority Preemption (Bus Priority)

Only available with *Program 233RV2.B* (and above)

Note: Also see "Time of Day Functions", Function E, Bit 5 (Disable Low Priority)

INTERSECTION: Appleton/Lehrer & Genesee

223 Program

15

Group Assignment:
Field Master Assignment: NONE

N/S Street Name: GENESEE
E/W Street Name: APPLETON/LEHRER

Last Database Change:
System Ref. Number: 184

N

Column # ---->		Phase							
		Clmt Mesa			Appleton/ Lehrer		Clmt Mesa		
Row	Phase # ---->	1	2	3	4	5	6	7	8
0	Ped Walk		7		7		7		
1	Ped FDW		13		19		11		
2	Min Green	4	10		6	4	10		
3	Type 3 Limit								
4	Add/Veh								
5	Veh Extn	2.5	6.0		2.8	2.0	3.9		
6	Max Gap	2.5	6.0		2.8	2.0	3.9		
7	Min Gap	2.5	0.2		2.8	2.0	0.2		
8	Max Limit	30	60		40	30	60		
9	Max Limit 2								
A	Bus Adv								
B	Call to Phs								
C	Reduce By		0.1				0.1		
D	Every		0.5				0.8		
E	Yellow	3.4	3.9		3.9	3.4	4.8		
F	Red Clear	1.0	1.0		1.0	1.0	1.0		

Phase Timing - Bank 1
F + Phase + Row
<F Page>

Row	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	0
EV-B Clear	0
EV-C Delay	0
EV-C Clear	0
EV-D Delay	
EV-D Clear	
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing
F + E + Row

Row	F
Permit	12_456__
Red Lock	
Yellow Lock	__40__
Min Recall	
Ped Recall	
Peds (View)	_2_4_6__
Rest In Walk	
Red Rest	
Dbl Entry	
Max Recall	
Soft Recall	_2___6__
Max 2	
Cond Serv	
Ped Lock	12345678
Yellow Start	_2___6__
1st Phases	___4____

Phase Functions <F Page>
F + F + Row

① BAD LOOP

Max Initial	0
Red Revert	5.0
All Red Start	0.0

F + 0 + E
F + 0 + F
F + C + O

Start / Revert Times

Drop Number	1
Zone Number	1
Area Number	5
Area Address	20
QuicNet Channel	COM40:

C + 0 + 0
C + 0 + 1
C + 0 + 2
C + 0 + 3
(QuicNet)

Communication Addresses

C + F + O	F	Row
Free Lag	_2_4_6__	0

Lag Phases <C Page>

Overlap Timing

	Row	9 Green Clear	C Yellow Change	D Red Clear	0 Load-Switch #
Overlap A	A				
Overlap B	B				
Overlap C	C				
Overlap D	D				

<F Page>
F + COLOR +

<D Page>
D + 0 + OVERLAP

Manual Plan	0
Manual Offset	0

C + A + 1
C + B + 1

Manual Selection

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Downtime Flash	255 (minutes)

Downtime Before Auto Manual Flash
F + 0 +8

Disable Ports	234

Disable Communication Ports
D + D + 9

Timing Sheet By: LEM
Approved By: FLG
Drawing Number: 33312-1-D
Timing Implemented On: 4/21/10

INTERSECTION: Appleton/Lehrer & Genesee

Row	Time	Function	Day of Week	Column F Phases/Bits
0	00 : 01	E	1234567	1
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function

7 + ROW

<D Page>

D + F + ROW

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 2 - Phase Bank 2
Bit 3 - Phase Bank 3
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 4

Row		F
0		
1	RR Overlap A - Phases	
2	RR Overlap B - Phases	
3	RR Overlap C - Phases	
4	RR Overlap D - Phases	
5	Ped 2P	2
6	Ped 6P	6
7	Ped 4P	4
8	Ped 8P	
9	Yellow Flash Phases	
A	Overlap A - Phases	
B	Overlap B - Phases	
C	Overlap C - Phases	
D	Overlap D - Phases	
E	Restricted Phases	
F	Assign 5 Outputs	

Configuration

<E Page>

E + F + ROW

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Overlap A - Green Omit	
6	Overlap B - Green Omit	
7	Overlap C - Green Omit	
8	Overlap D - Green Omit	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	
C	EV-C Phases	1 6
D	EV-D Phases	
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration

For access, set F + 9 + E = 1

E + E + ROW

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 = Remote Download
6 = Special Event
7 = Pretimed Operation
8 = Split Ring Operation

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Day of Week

1 = Sunday
2 = Monday
3 = Tuesday
4 = Wednesday
5 = Thursday
6 = Friday
7 = Saturday

Assign 5 Outputs
1 = Right Turn Overlap
2 = TOD Outputs
3 = EV Beacon - Steady
4 = EV Beacon - Flashing
5 = Special Event Outputs
6 = Phase 3 & 7 Ped
7 = Advanced Warning Sign
8 =

Time and Date

8-0 Hour, Minute, Day-of-Week

8-1 Day-of-Month, Year, Month

8-F Seconds

Disable Parity	0	D+B+0

Dial-Up Telephone Communications

(If set to a non-zero value, parity will be disabled)

Program Information

C + C + 0 = program

C + C + F = version

Remote Download

C + 0 + 4 = 1 -255

w/ E + E + E bit 5 on

Row	1 Delay	3 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7		
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	1I1	14
	2I2U	1
	2I2L	5
	2I3U	21
	2I3L	25
	2I4	9
	3I5	16
	4I6U	3
	4I6L	7
	4I7U	23
	4I7L	27
	4I8	11
	1I9U	18
	3I9L	20
---	---	---
---	---	---

Row	2 Delay	4 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7		
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	5J1	13
	6J2U	2
	6J2L	6
	6J3U	22
	6J3L	26
	6J4	10
	7J5	15
	8J6U	4
	8J6L	8
	8J7U	24
	8J7L	28
	8J8	12
	5J9U	17
	7J9L	19
---	---	---
---	---	---

Detector Delay & Carryover <D Page>

D + X (across) + ROW

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 -- -- -- --	1234____
C	13 14 15 16 17 18 19 20	12345678
D	-- -- -- -- 21 22 23 24	____5678
E	-- -- -- -- -- -- -- --	1234____
F	-- 25 26 27 28 -- -- --	_2345___

Active Detectors <D Page>

Row		0 Detector #
0		
1	System Det. # 1	0
2	System Det. # 2	0
3	System Det. # 3	0
4	System Det. # 4	0
5	System Det. # 5	0
6	System Det. # 6	0
7	System Det. # 7	0
8	System Det. # 8	0

System Detectors <D Page>

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number	0	F+C+1
Time Before Yellow	0.0	F+C+3

Advance Warning Beacon - Sign 1

Phase Number	0	F+D+1
Time Before Yellow	0.0	F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+0+6
Short Failure	0.5	F+0+7

Power Cycle Correction (Default = 0.5)

INTERSECTION: Appleton/Lehrer & Genesee

223 Program

Coordination Timing By: EG
Implemented On: 11/12/2009

Row	Plan Name ---->	Plan 1	2 PM	3	4	5	6	7 AM	8 MID	9
0	Cycle Length		126					108	112	
1	Phase 1 - ForceOff		52					59	63	
2	Phase 2 - ForceOff		0					0	0	
3	Phase 3 - ForceOff									
4	Phase 4 - ForceOff		33					43	46	
5	Phase 5 - ForceOff		51					61	58	
6	Phase 6 - ForceOff		0					0	0	
7	Phase 7 - ForceOff									
8	Phase 8 - ForceOff									
9	Ring Offset									
A	Offset A		107					7	88	
B	Offset B									
C	Offset C									
D	Permissive		12					11	11	
E	Hold Release		255					255	255	
F	Ped Shift		0					0	0	

Coordination <C Page>

C + Plan + ROW

FOR OBSERVATION ONLY

Master Plan	C + A + 2
Current Plan	C + A + 3
Next Plan	C + A + 4
T.O.D. Plan	C + A + 5
Master Cycle	C + A + 0
Ring A Cycle	C + B + 0
Ring B Cycle	C + D + 0
Min Cycle	C + A + E
Max Cycle	C + B + E

Row	Time	Plan	Offset	Day of Week
0	07 : 00	7	A	_23456_
1	09 : 00	E	A	1234567
2	11 : 30	8	A	_23456_
3	15 : 30	2	A	_23456_
4	18 : 30	E	A	1234567
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination

<9 Key with C+0+9=1>

	E	Row		F
		0	Free Lag	_2_4_6__
Plan 1		1	Plan 1 - Lag	
Plan 2	_2___6__	2	Plan 2 - Lag	_2_4_6__
Plan 3		3	Plan 3 - Lag	
Plan 4		4	Plan 4 - Lag	
Plan 5		5	Plan 5 - Lag	
Plan 6		6	Plan 6 - Lag	
Plan 7	_2___6__	7	Plan 7 - Lag	_2_4_6__
Plan 8	_2___6__	8	Plan 8 - Lag	_2_4_6__
Plan 9		9	Plan 9 - Lag	
Coord Ped*		A	Coord Max *	
NEMA Hold		B	Coord Lag *	
		C		
		D		
		E		
		F		

Sync Phases

C + E + FUNCTION #

Lag Phases <C Page>

C + F + FUNCTION #

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Transition Type	0

TBC Transition
C + D + D

Transition Type
0 = Shortway
Non-zero = Lengthen

INTERSECTION: Clairemont Mesa Blvd & Genesee Ave

(1) BAD ADV. LOOPS Ø6

223 ...ogram

Group Assignment: 4013
Field Master Assignment: NONE

N/S Street Name: GENESEE
E/W Street Name: CLAIREMONT MESA

Last Database Change:
System Ref. Number: 264

16

Row	Column # ---->	Phase 1	Phase 2 (Clmt Mesa)	Phase 3	Phase 4 (Genesee)	Phase 5	Phase 6 (Clmt Mesa)	Phase 7	Phase 8 (Genesee)
0	Ped Walk		7		7		7		7
1	Ped FDW		21		24		21		24
2	Min Green	4	10 (15)	4	10	4	10 (15)	4	10
3	Type 3 Limit								
4	Add/Veh								
5	Veh Extn	2.0	3.2	2.0	2.0	2.0	3.2	2.0	2.0
6	Max Gap	2.0	3.2	2.0	2.0	2.0	3.2	2.0	2.0
7	Min Gap	2.0	0.2	2.0	2.0	2.0	0.2	2.0	2.0
8	Max Limit	30	40	30	40	30	40	30	40
9	Max Limit 2								
A	Bus Adv								
B	Call to Phs								
C	Reduce By		0.1				0.1		
D	Every		1.0				1.0		
E	Yellow	3.4	4.0	3.4	3.9	3.4	4.0	3.4	3.9
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 1
F + Phase + Row
<F Page>

Row		E
	RR-1 Delay	
	RR-1 Clear	
	EV-A Delay	0
	EV-A Clear	0
	EV-B Delay	0
	EV-B Clear	0
	EV-C Delay	0
	EV-C Clear	0
	EV-D Delay	0
	EV-D Clear	0
	RR-2 Delay	
	RR-2 Clear	
	View EV Delay	---
	View EV Clear	---
	View RR Delay	---
	View RR Clear	---

Preempt Timing
F + E + Row

Row		F
0	Permit	1234567
1	Red Lock	
2	Yellow Lock	
3	Min Recall	_2___6__
4	Ped Recall	
5	Peds (View)	_2_4_6_8
6	Rest In Walk	
7	Red Rest	
8	Dbl Entry	
9	Max Recall	
A	Soft Recall	
B	Max 2	
C	Cond Serv	
D	Ped Lock	12345678
E	Yellow Start	_2___6__
F	1st Phases	__3___7_

Phase Functions <F Page>
F + F + Row

Max Initial	0
Red Revert	5.0
All Red Start	0.0

F + 0 + E
F + 0 + F
F + C + O

Start / Revert Times

Drop Number	2
Zone Number	2
Area Number	5
Area Address	19
QuicNet Channel	COM39:

C + 0 + 0
C + 0 + 1
C + 0 + 2
C + 0 + 3
(QuicNet)

Communication Addresses

Overlap Timing

	Row	9 Green Clear	C Yellow Change	D Red Clear	0 Load-Switch #
Overlap A	A				
Overlap B	B				
Overlap C	C				
Overlap D	D				

<F Page>
F + COLOR +

<D Page>
D + 0 + OVERLAP

Manual Plan	0
Manual Offset	0

C + A + 1
C + B + 1

Manual Selection

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

C + F + O	F	Row
Free Lag	_2_4_6_8	0

Lag Phases <C Page>

Downtime Flash	255	(minutes)

Downtime Before Auto Manual Flash
F + 0 +8

Disable Ports	234

Disable Communication Ports
D + D + 9

Timing Sheet By: LEM
Approved By: FLG
Drawing Number:
Timing Implemented On: 4/23/10

9

Row	Time	Function	Day of Week	Column F Phases/Bits
0	00 : 01	E	1234567	1
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function

7 + ROW

<D Page>

D + F + ROW

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 2 - Phase Bank 2
Bit 3 - Phase Bank 3
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 4

Row		F
0		
1	RR Overlap A - Phases	
2	RR Overlap B - Phases	
3	RR Overlap C - Phases	
4	RR Overlap D - Phases	
5	Ped 2P	2
6	Ped 6P	6
7	Ped 4P	4
8	Ped 8P	8
9	Yellow Flash Phases	
A	Overlap A - Phases	
B	Overlap B - Phases	
C	Overlap C - Phases	
D	Overlap D - Phases	
E	Restricted Phases	
F	Assign 5 Outputs	

Configuration

<E Page>

E + F + ROW

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Overlap A - Green Omit	
6	Overlap B - Green Omit	
7	Overlap C - Green Omit	
8	Overlap D - Green Omit	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4 7
C	EV-C Phases	1 6
D	EV-D Phases	3 8
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration

For access, set F + 9 + E = 1

E + E + ROW

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 = Remote Download
6 = Special Event
7 = Pretimed Operation
8 = Split Ring Operation

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Day of Week

1 = Sunday
2 = Monday
3 = Tuesday
4 = Wednesday
5 = Thursday
6 = Friday
7 = Saturday

Assign 5 Outputs
1 = Right Turn Overlap
2 = TOD Outputs
3 = EV Beacon - Steady
4 = EV Beacon - Flashing
5 = Special Event Outputs
6 = Phase 3 & 7 Ped
7 = Advanced Warning Sign
8 =

Time and Date

8-0 Hour, Minute, Day-of-Week

8-1 Day-of-Month, Year, Month

8-F Seconds

Disable Parity	0	D+B+0

Dial-Up Telephone Communications

(If set to a non-zero value, parity will be disabled)

Program Information

C + C + 0 = program

C + C + F = version

Remote Download

C + 0 + 4 = 1 -255

w/ E + E + E bit 5 on

Row	1 Delay	3 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7		
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	1I1	14
	2I2U	1
	2I2L	5
	2I3U	21
	2I3L	25
	2I4	9
	3I5	16
	4I6U	3
	4I6L	7
	4I7U	23
	4I7L	27
	4I8	11
	1I9U	18
	3I9L	20
---	---	---
---	---	---

Row	2 Delay	4 Carry-over
0		
1		1.8
2		1.8
3		
4		
5		
6		
7		
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	5J1	13
	6J2U	2
	6J2L	6
	6J3U	22
	6J3L	26
	6J4	10
	7J5	15
	8J6U	4
	8J6L	8
	8J7U	24
	8J7L	28
	8J8	12
	5J9U	17
	7J9L	19
---	---	---
---	---	---

Detector Delay & Carryover <D Page>

D + X (across) + ROW

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 -- -- -- --	1234____
C	13 14 15 16 17 18 19 20	12345678
D	-- -- -- -- 21 22 23 24	____5678
E	-- -- -- -- -- -- -- --	1234____
F	-- 25 26 27 28 -- -- --	_2345___

Active Detectors <D Page>

Row		0 Detector #
0		
1	System Det. # 1	0
2	System Det. # 2	0
3	System Det. # 3	0
4	System Det. # 4	0
5	System Det. # 5	0
6	System Det. # 6	0
7	System Det. # 7	0
8	System Det. # 8	0

System Detectors <D Page>

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number	0	F+C+1
Time Before Yellow	0.0	F+C+3

Advance Warning Beacon - Sign 1

Phase Number	0	F+D+1
Time Before Yellow	0.0	F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+0+6
Short Failure	0.5	F+0+7

Power Cycle Correction (Default = 0.5)

INTERSECTION: Clairemont Mesa Blvd & Genese[illegible]ve

223 F[illegible]ram

Row	Plan Name ---->	Plan 1	Plan 2 PM	Plan 3	Plan 4	Plan 5	Plan 6 AM-PEAK	Plan 7 AM	Plan 8 MID	Plan 9
0	Cycle Length		126				108	108	112	
1	Phase 1 - ForceOff		78				13	13	14	
2	Phase 2 - ForceOff		0				0	0	0	
3	Phase 3 - ForceOff		22				30	30	32	
4	Phase 4 - ForceOff		59				67	67	69	
5	Phase 5 - ForceOff		78				85	85	84	
6	Phase 6 - ForceOff		0				0	0	0	
7	Phase 7 - ForceOff		20				67	67	69	
8	Phase 8 - ForceOff		59				53	53	52	
9	Ring Offset									
A	Offset A		15				48	48	18	
B	Offset B									
C	Offset C									
D	Permissive		12				11	11	11	
E	Hold Release		255				104	255	255	
F	Ped Shift		2				0	0	0	

Coordination Timing By: FLG
Implemented On: 10/27/2009

FOR OBSERVATION ONLY

Master Plan	C + A + 2
Current Plan	C + A + 3
Next Plan	C + A + 4
T.O.D. Plan	C + A + 5
Master Cycle	C + A + 0
Ring A Cycle	C + B + 0
Ring B Cycle	C + D + 0
Min Cycle	C + A + E
Max Cycle	C + B + E

Coordination <C Page>

C + Plan + ROW

Row	Time	Plan	Offset	Day of Week
0	07 : 00	7	A	_23456_
1	09 : 00	6	A	_23456_
2	09 : 30	8	A	_23456_
3	15 : 30	2	A	_23456_
4	18 : 30	E	A	1234567
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination

<9 Key with C+0+9=1>

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

	E	Row		F
		0	Free Lag	_2_4_6_8
Plan 1		1	Plan 1 - Lag	
Plan 2	_2___6__	2	Plan 2 - Lag	_2_4_6_8
Plan 3		3	Plan 3 - Lag	
Plan 4		4	Plan 4 - Lag	
Plan 5		5	Plan 5 - Lag	
Plan 6	_2___6__	6	Plan 6 - Lag	1__4_67_
Plan 7	_2___6__	7	Plan 7 - Lag	1__4_67_
Plan 8	_2___6__	8	Plan 8 - Lag	1__4_67_
Plan 9		9	Plan 9 - Lag	
Coord Ped*		A	Coord Max *	
NEMA Hold		B	Coord Lag *	
		C		
		D		
		E		
		F		

Sync Phases

C + E + FUNCTION #

Lag Phases <C Page>

C + F + FUNCTION #

Transition Type	0

TBC Transition
C + D + D

Transition Type
0 = Shortway
Non-zero = Lengthen

TERSECTION: Clairemont Dr/Kleefeld Ave & Clairemont Mesa Blvd

223 F ram

17

Group Assignment:
Field Master Assignment: NONE

N/S Street Name: CLAIREMONT DR/KLEEFELD AVE
E/W Street Name: CLAIREMONT MESA

Last Database Change:
System Ref. Number:

N

Row	Phase # ---->	1	2	3	4	5	6	7	8
	Column # ---->		Clmt Mesa	Kleefeld Ave	Clmt Dr		Clmt Mesa		
0	Ped Walk		7	7	7		7		
1	Ped FDW		15	22	22		18		
2	Min Green	4	10	4	4	4	10		
3	Type 3 Limit								
4	Add/Veh								
5	Veh Extn	2.0	4.4	2.0	2.0	2.0	4.1		
6	Max Gap	2.0	4.4	2.0	2.0	2.0	4.1		
7	Min Gap	2.0	0.2	2.0	2.0	2.0	0.2		
8	Max Limit	30	60	40	40	30	60		
9	Max Limit 2								
A	Bus Adv								
B	Call to Phs								
C	Reduce By		0.1				0.1		
D	Every		0.7				0.8		
E	Yellow	3.4	3.9	3.9	3.9	3.4	4.2		
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0		

Phase Timing - Bank 1
F + Phase + Row
<F Page>

Row	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	0
EV-B Clear	0
EV-C Delay	0
EV-C Clear	0
EV-D Delay	0
EV-D Clear	0
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing
F + E + Row

Row	F
Permit	123456__
Red Lock	
Yellow Lock	
Min Recall	
Ped Recall	
Peds (View)	_234_6__
Rest In Walk	
Red Rest	
Dbl Entry	
Max Recall	
Soft Recall	_2___6__
Max 2	
Cond Serv	
Ped Lock	12345678
Yellow Start	_2___6__
1st Phases	__3_____

Phase Functions <F Page>
F + F + Row

Max Initial	0
Red Revert	5.0
All Red Start	0.0

F + 0 + E
F + 0 + F
F + C + O

Start / Revert Times

Drop Number	8
Zone Number	8
Area Number	5
Area Address	22
QuicNet Channel	COM39:

C + 0 + 0
C + 0 + 1
C + 0 + 2
C + 0 + 3
(QuicNet)

Communication Addresses

Overlap Timing

	Row	9 Green Clear	C Yellow Change	D Red Clear	0 Load-Switch #
Overlap A	A				
Overlap B	B				
Overlap C	C				
Overlap D	D				

<F Page>
F + COLOR +
<D Page>
D + 0 + OVERLAP

Manual Plan	0	C + A + 1
Manual Offset	0	C + B + 1

Manual Selection

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

C + F + O	F	Row
Free Lag	_2_4_6__	0

Lag Phases <C Page>

Downtime Flash	255	(minutes)

Downtime Before Auto Manual Flash
F + 0 +8

Disable Ports	234

Disable Communication Ports
D + D + 9

Timing Sheet By: LEM
Approved By: FLG
Drawing Number: 31921-4-D
Timing Implemented On: 04/12/10

6

Row	Time	Function	Day of Week	Column F Phases/Bits
0	00 : 01	E	1234567	1
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function

7 + ROW

<D Page>

D + F + ROW

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 2 - Phase Bank 2
Bit 3 - Phase Bank 3
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 4

Row		F
0		
1	RR Overlap A - Phases	
2	RR Overlap B - Phases	
3	RR Overlap C - Phases	
4	RR Overlap D - Phases	
5	Ped 2P	2
6	Ped 6P	6
7	Ped 4P	4
8	Ped 8P	3
9	Yellow Flash Phases	
A	Overlap A - Phases	
B	Overlap B - Phases	
C	Overlap C - Phases	
D	Overlap D - Phases	
E	Restricted Phases	
F	Assign 5 Outputs	

Configuration <E Page>

E + F + ROW

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Overlap A - Green Omit	
6	Overlap B - Green Omit	
7	Overlap C - Green Omit	
8	Overlap D - Green Omit	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4
C	EV-C Phases	1 6
D	EV-D Phases	3
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration

For access, set F + 9 + E = 1

E + E + ROW

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 = Remote Download
6 = Special Event
7 = Pretimed Operation
8 = Split Ring Operation

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Day of Week

1 = Sunday
2 = Monday
3 = Tuesday
4 = Wednesday
5 = Thursday
6 = Friday
7 = Saturday

Assign 5 Outputs
1 = Right Turn Overlap
2 = TOD Outputs
3 = EV Beacon - Steady
4 = EV Beacon - Flashing
5 = Special Event Outputs
6 = Phase 3 & 7 Ped
7 = Advanced Warning Sign
8 =

Time and Date

8-0 Hour, Minute, Day-of-Week
8-1 Day-of-Month, Year, Month
8-F Seconds

Program Information

C + C + 0 = program
C + C + F = version

Remote Download

C + 0 + 4 = 1 -255
w/ E + E + E bit 5 on

Disable Parity	0	D+B+0

Dial-Up Telephone Communications

(If set to a non-zero value, parity will be disabled)

Row	1 Delay	3 Carry-over	Detector Name	332 Input File	Detector Number
0				1I1	14
1		1.8		2I2U	1
2				2I2L	5
3				2I3U	21
4				2I3L	25
5				2I4	9
6				3I5	16
7	10.0			4I6U	3
8				4I6L	7
9				4I7U	23
A				4I7L	27
B				4I8	11
C				1I9U	18
D				3I9L	20
E	---	---	---	---	---
F	---	---	---	---	---

Row	2 Delay	4 Carry-over	Detector Name	332 Input File	Detector Number
0				5J1	13
1		1.8		6J2U	2
2				6J2L	6
3				6J3U	22
4				6J3L	26
5				6J4	10
6				7J5	15
7	10.0			8J6U	4
8				8J6L	8
9				8J7U	24
A				8J7L	28
B				8J8	12
C				5J9U	17
D				7J9L	19
E	---	---	---	---	---
F	---	---	---	---	---

Detector Delay & Carryover <D Page>

D + X (across) + ROW

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 -- -- -- --	1234____
C	13 14 15 16 17 18 19 20	12345678
D	-- -- -- -- 21 22 23 24	____5678
E	-- -- -- -- -- -- -- --	1234____
F	-- 25 26 27 28 -- -- --	_2345___

Active Detectors <D Page>

Row		0 Detector #
0		
1	System Det. # 1	0
2	System Det. # 2	0
3	System Det. # 3	0
4	System Det. # 4	0
5	System Det. # 5	0
6	System Det. # 6	0
7	System Det. # 7	0
8	System Det. # 8	0

System Detectors <D Page>

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number	0	F+C+1
Time Before Yellow	0.0	F+C+3

Advance Warning Beacon - Sign 1

Phase Number	0	F+D+1
Time Before Yellow	0.0	F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+0+6
Short Failure	0.5	F+0+7

Power Cycle Correction (Default = 0.5)

INTERSECTION: Clairemont Dr/Kleefeld Ave & Cl[illegible]nont Mesa Blvd

223 P[illegible]ram

Coordination Timing By: FLG
Implemented On: 10/27/2009

Row	Plan Name ---->	Plan 1	2 PM	3	4	5	6	7 AM	8	9
0	Cycle Length		126					108	112	
1	Phase 1 - ForceOff		79					87	90	
2	Phase 2 - ForceOff		0					0	13	
3	Phase 3 - ForceOff		33					42	45	
4	Phase 4 - ForceOff		65					75	77	
5	Phase 5 - ForceOff		79					13	13	
6	Phase 6 - ForceOff		0					0	0	
7	Phase 7 - ForceOff									
8	Phase 8 - ForceOff									
9	Ring Offset									
A	Offset A		107					99	77	
B	Offset B									
C	Offset C									
D	Permissive		10					11	11	
E	Hold Release		255					255	255	
F	Ped Shift		4					0	3	

Coordination <C Page>

C + Plan + ROW

FOR OBSERVATION ONLY

Master Plan	C + A + 2
Current Plan	C + A + 3
Next Plan	C + A + 4
T.O.D. Plan	C + A + 5
Master Cycle	C + A + 0
Ring A Cycle	C + B + 0
Ring B Cycle	C + D + 0
Min Cycle	C + A + E
Max Cycle	C + B + E

Row	Time	Plan	Offset	Day of Week
0	07 : 00	7	A	_23456_
1	09 : 30	8	A	_23456_
2	15 : 30	① 2 8	A	_23456_
3	18 : 30	E	A	1234567
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

① CN2 03/20/12

TOD Coordination

<9 Key with C+0+9=1>

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

	E
Plan 1	
Plan 2	_2__6__
Plan 3	
Plan 4	
Plan 5	
Plan 6	
Plan 7	_2__6__
Plan 8	____6__
Plan 9	
Coord Ped*	
NEMA Hold	

Sync Phases

C + E + FUNCTION #

Row		F
0	Free Lag	_2_4_6__
1	Plan 1 - Lag	
2	Plan 2 - Lag	_2_4_6__
3	Plan 3 - Lag	
4	Plan 4 - Lag	
5	Plan 5 - Lag	
6	Plan 6 - Lag	
7	Plan 7 - Lag	_2_45__
8	Plan 8 - Lag	_2_45__
9	Plan 9 - Lag	
A	Coord Max *	
B	Coord Lag *	
C		
D		
E		
F		

Lag Phases <C Page>

C + F + FUNCTION #

Transition Type	0

TBC Transition
C + D + D

Transition Type
0 = Shortway
Non-zero = Lengthen

INTERSECTION: Clairemont Dr & Clairemont Mesa Blvd

223 gram

Group Assignment: 4038
Field Master Assignment: NONE
N/S Street Name: CLAIREMONT DR
E/W Street Name: CLAIREMONT MESA
Last Database Change:
System Ref. Number:

18

Row	Column # --->	1	2	3	4	5	6	7	8
	Phase # --->	1	2	3	4	5	6	7	8
			Clmt Mesa		Clmt Dr		Clmt Mesa		Clmt Dr
0	Ped Walk		4		4		4		4
1	Ped FDW		21		21		22		20
2	Min Green	4	7	4	7	4	7	4	7
3	Type 3 Limit								
4	Add/Veh								
5	Veh Extn	2.0	3.4	2.0	3.4	2.0	3.5	2.0	3.3
6	Max Gap	2.0	3.4	2.0	3.4	2.0	3.5	2.0	3.3
7	Min Gap	2.0	0.2	2.0	0.2	2.0	0.2	2.0	0.2
8	Max Limit	30	40	30	40	30	40	30	40
9	Max Limit 2								
A	Bus Adv								
B	Call to Phs								
C	Reduce By		0.1		0.1		0.1		0.1
D	Every		0.9		0.9		0.9		1.0
E	Yellow	3.4	4.2	3.4	4.1	3.4	4.1	3.4	4.3
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 1
F + Phase + Row
<F Page>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	0
EV-B Clear	0
EV-C Delay	
EV-C Clear	
EV-D Delay	
EV-D Clear	
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing
F + E + Row

Row		F
0	Permit	12345678
1	Red Lock	
2	Yellow Lock	
3	Min Recall	_2___6__
4	Ped Recall	
5	Peds (View)	_2_4_6_8
6	Rest In Walk	
7	Red Rest	
8	Dbl Entry	
9	Max Recall	
A	Soft Recall	
B	Max 2	
C	Cond Serv	
D	Ped Lock	12345678
E	Yellow Start	_2___6__
F	1st Phases	___4___8

Phase Functions <F Page>
F + F + Row

Max Initial	0
Red Revert	5.0
All Red Start	0.0

F + 0 + E
F + 0 + F
F + C + O

Start / Revert Times

Drop Number	10
Zone Number	10
Area Number	5
Area Address	24
QuicNet Channel	COM39:

C + 0 + 0
C + 0 + 1
C + 0 + 2
C + 0 + 3
(QuicNet)

Communication Addresses

C + F + O	F	Row
Free Lag	_2_4_6_8	0

Lag Phases <C Page>

Overlap Timing

	Row	9 Green Clear	C Yellow Change	D Red Clear	0 Load-Switch #
Overlap A	A				
Overlap B	B				
Overlap C	C				
Overlap D	D				

<F Page>
F + COLOR +
<D Page>
D + 0 + OVERLAP

Manual Plan	0
Manual Offset	0

C + A + 1
C + B + 1

Manual Selection

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Downtime Flash	255 (minutes)

Downtime Before Auto Manual Flash
F + 0 +8

Disable Ports	234

Disable Communication Ports
D + D + 9

Timing Sheet By: LEM
Approved By: FLG
Drawing Number:
Timing Implemented On: 04/12/10

Row	Time	Function	Day of Week	Column F Phases/Bits
0	00 : 01	E	1234567	1
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Function <D Page>

7 + ROW D + F + ROW

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 2 - Phase Bank 2
Bit 3 - Phase Bank 3
Bit 4 - Disable Detector OFF Monitor
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 4

Row		F
0		
1	RR Overlap A - Phases	
2	RR Overlap B - Phases	
3	RR Overlap C - Phases	
4	RR Overlap D - Phases	
5	Ped 2P	2
6	Ped 6P	6
7	Ped 4P	4
8	Ped 8P	8
9	Yellow Flash Phases	
A	Overlap A - Phases	
B	Overlap B - Phases	
C	Overlap C - Phases	
D	Overlap D - Phases	
E	Restricted Phases	
F	Assign 5 Outputs	

Configuration <E Page>

E + F + ROW

Row		E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Overlap A - Green Omit	
6	Overlap B - Green Omit	
7	Overlap C - Green Omit	
8	Overlap D - Green Omit	
9	Overlap Yellow Flash	
A	EV-A Phases	2 6
B	EV-B Phases	4 8
C	EV-C Phases	
D	EV-D Phases	
E	Extra 1 Config. Bits	1 345
F	IC Select (Interconnect)	2

Configuration

For access, set F + 9 + E = 1 E + E + ROW

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = EV Advance
5 = Remote Download
6 = Special Event
7 = Pretimed Operation
8 = Split Ring Operation

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 = Flash / Free
5 =
6 = Simplex Master
7 = 7-Wire Master
8 = Offset Interrupter

Day of Week

1 = Sunday
2 = Monday
3 = Tuesday
4 = Wednesday
5 = Thursday
6 = Friday
7 = Saturday

Assign 5 Outputs
1 = Right Turn Overlap
2 = TOD Outputs
3 = EV Beacon - Steady
4 = EV Beacon - Flashing
5 = Special Event Outputs
6 = Phase 3 & 7 Ped
7 = Advanced Warning Sign
8 =

Time and Date
8-0 Hour, Minute, Day-of-Week
8-1 Day-of-Month, Year, Month
8-F Seconds

Disable Parity	0	D+B+0

Dial-Up Telephone Communications
(If set to a non-zero value, parity will be disabled)

Program Information
C + C + 0 = program
C + C + F = version

Remote Download
C + 0 + 4 = 1 -255
w/ E + E + E bit 5 on

Row	1 Delay	3 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7		1.8
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	1I1	14
	2I2U	1
	2I2L	5
	2I3U	21
	2I3L	25
	2I4	9
	3I5	16
	4I6U	3
	4I6L	7
	4I7U	23
	4I7L	27
	4I8	11
	1I9U	18
	3I9L	20
---	---	---
---	---	---

Row	2 Delay	4 Carry-over
0		
1		1.8
2		
3		
4		
5		
6		
7		1.8
8		
9		
A		
B		
C		
D		
E	---	---
F	---	---

Detector Name	332 Input File	Detector Number
	5J1	13
	6J2U	2
	6J2L	6
	6J3U	22
	6J3L	26
	6J4	10
	7J5	15
	8J6U	4
	8J6L	8
	8J7U	24
	8J7L	28
	8J8	12
	5J9U	17
	7J9L	19
---	---	---
---	---	---

Detector Delay & Carryover <D Page>

D + X (across) + ROW

Row	Detector Numbers	E
A	1 2 3 4 5 6 7 8	12345678
B	9 10 11 12 -- -- -- --	1234____
C	13 14 15 16 17 18 19 20	12345678
D	-- -- -- -- 21 22 23 24	____5678
E	-- -- -- -- -- -- -- --	1234____
F	-- 25 26 27 28 -- -- --	_2345___

Active Detectors <D Page>

Row		0 Detector #
0		
1	System Det. # 1	0
2	System Det. # 2	0
3	System Det. # 3	0
4	System Det. # 4	0
5	System Det. # 5	0
6	System Det. # 6	0
7	System Det. # 7	0
8	System Det. # 8	0

System Detectors <D Page>

Max ON (min)	5	D+A+E
Max OFF (min)	60	D+A+F

Detector Failure Monitor

Phase Number	0	F+C+1
Time Before Yellow	0.0	F+C+3

Advance Warning Beacon - Sign 1

Phase Number	0	F+D+1
Time Before Yellow	0.0	F+D+3

Advance Warning Beacon - Sign 2

Long Failure	0.5	F+0+6
Short Failure	0.5	F+0+7

Power Cycle Correction (Default = 0.5)

INTERSECTION: Clairemont Dr & Clairemont M[illegible] Blvd

223[illegible]gram

Coordination Timing By: FLG
Implemented On: 10/27/2009

Row	Column # ---->	1	2	3	4	5	6	7	8	9
	Plan Name ---->		PM					AM		
0	Cycle Length		126					108	112	
1	Phase 1 - ForceOff		78					83	21	
2	Phase 2 - ForceOff		0					0	0	
3	Phase 3 - ForceOff		20					35	38	
4	Phase 4 - ForceOff		56					61	73	
5	Phase 5 - ForceOff		78					19	93	
6	Phase 6 - ForceOff		0					0	0	
7	Phase 7 - ForceOff		20					29	44	
8	Phase 8 - ForceOff		56					61	73	
9	Ring Offset									
A	Offset A		53					29	74	
B	Offset B									
C	Offset C									
D	Permissive		10					11	11	
E	Hold Release		255					100	110	
F	Ped Shift		2					3	0	

Plan

Coordination <C Page>

C + Plan + ROW

FOR OBSERVATION ONLY

Master Plan	C + A + 2
Current Plan	C + A + 3
Next Plan	C + A + 4
T.O.D. Plan	C + A + 5
Master Cycle	C + A + 0
Ring A Cycle	C + B + 0
Ring B Cycle	C + D + 0
Min Cycle	C + A + E
Max Cycle	C + B + E

Row	Time	Plan	Offset	Day of Week
0	07 : 00	7	A	_23456_
1	09 : 30	8	A	_23456_
2	15 : 30	2	A	_23456_
3	18 : 30	E	A	1234567
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination

<9 Key with C+0+9=1>

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

	E
Plan 1	
Plan 2	_2___6__
Plan 3	
Plan 4	
Plan 5	
Plan 6	
Plan 7	_2___6__
Plan 8	_2___6__
Plan 9	
Coord Ped*	
NEMA Hold	

Sync Phases

C + E + FUNCTION #

Row		F
0	Free Lag	_2_4_6_8
1	Plan 1 - Lag	
2	Plan 2 - Lag	_2_4_6_8
3	Plan 3 - Lag	
4	Plan 4 - Lag	
5	Plan 5 - Lag	
6	Plan 6 - Lag	
7	Plan 7 - Lag	_2_45__8.
8	Plan 8 - Lag	1__4_6_8
9	Plan 9 - Lag	
A	Coord Max *	
B	Coord Lag *	
C		
D		
E		
F		

Lag Phases <C Page>

C + F + FUNCTION #

Transition Type	0

TBC Transition
C + D + D

Transition Type
0 = Shortway
Non-zero = Lengthen

19

Free

INTERSECTION: Balboa Ave & Clairemont Dr

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street Name: **Clairemont Dr**
E/W Street Name: **Balboa Ave**

Last Database Change:
Drawing Number: 36692-2-D

Change Record					
Change	By	Date	Change	By	Date
Original TS	KT	3/23/2015			

Notes: *1) "No U-Turn" sign connected to Phase 6 Ped Yellow (Pin 36)*
2) TOD Function activates Overlap & "NO U-TURN" Blankout sign

implemented on 6/12/2015

Manual Plan
0 = Automatic
1-9 = Plan 1-9
14 = Free
15 = Flash

Manual Offset
0 = Automatic
1 = Offset A
2 = Offset B
3 = Offset C

Drop Number	13	<C/0+0+0>
Zone Number	13	<C/0+0+1>
Area Number	5	<C/0+0+2>
Area Address	96	<C/0+0+3>
QuicNet Channel	COM41:	(QuicNet)

Communication Addresses

Manual Plan	14	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Revert	0.0	<F/1+0+5>
OVLP CHG Red	0.0	<F/1+0+3>

Start / Revert Times

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase
(Outputs specified in Assignable Outputs at E/127+A+E & F)

	Balboa		Clairemont		Balboa		Clairemont	
	Phase							
Column Numbers ---->	1	2	3	4	5	6	7	8
Row / Phase Names ---->								
0 Ped Walk		7		7		7		7
1 Ped FDW		22		22		21		26
2 Min Green	4	10	4	7	4	10	4	7
3 Type 3 Disconnect								
4 Added per Vehicle								
5 Veh Extension	2.0	3.5	2.0	2.6	2.0	3.0	2.0	2.4
6 Max Gap	2.0	3.5	2.0	2.6	2.0	3.0	2.0	2.4
7 Min Gap	2.0	0.2	2.0	0.2	2.0	0.2	2.0	0.2
8 Max Limit	30	60	30	40	30	60	30	40
9 Max Limit 2								
A Adv. / Delay Walk								
B PE Min Ped FDW		1		1		1		1
C Cond Serv Check								
D Reduce Every		0.9		1.3		1.1		1.4
E Yellow Change	3.4	4.7	3.4	4.3	3.4	5.4	3.4	4.3
F Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

Phase Timing - Bank 1 <C+0+F=1>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing <C+0+F=1>

	E
RR-1 Delay	
RR-1 Clear	
EV-A Delay	0
EV-A Clear	0
EV-B Delay	0
EV-B Clear	0
EV-C Delay	0
EV-C Clear	0
EV-D Delay	0
EV-D Clear	0
RR-2 Delay	
RR-2 Clear	
View EV Delay	---
View EV Clear	---
View RR Delay	---
View RR Clear	---

Preempt Timing

	F	Row
Permit	12345678	0
Red Lock		1
Yellow Lock		2
Min Recall		3
Ped Recall		4
View Set Peds	2 4 6 8	5
Rest In Walk		6
Red Rest		7
Dual Entry		8
Max Recall		9
Soft Recall	2 6	A
Max 2		B
Cond. Service		C
Man Cntrl Calls		D
Yellow Start	2 6	E
First Phases	4 8	F

Phase Functions <C+0+F=1>

Overlap Assignments <C+0+E=20>

Row	Column Numbers ---->	Overlap 1	2	3	4	5	6	7	8
	Overlap Name ---->								
0	Load Switch Number								
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases	1 8							
3	Veh Set 3 - Phases								
4	Neg Veh Phases	2 78							
5	Neg Ped Phases	2 8							
6	Green Omit Phases	8							
7	Green Clear Omit Phs.								
8	Overlap Recall								
9	Queue Jump Phase								
A	Queue Jump Time								
B	Minimum Green								
C	Maximum Green								
D	Green Clear								
E	Yellow Change	3.4							
F	Red Clear	1.0							

Extra 1 Flags
1 = TBC Type 1
2 = NEMA Ext. Coord
3 = Auto Daylight Savings
4 = Solid FDW on EV
5 = Extended Status
6 = International Ped
7 = Flash - Clear Outputs
8 = Spiit Ring

Extra 2 Flags
1 = AWB During Initial
2 = Reserved
3 = Disable Min Walk
4 = QuicNet System
5 = Ignore P/P on EV
6 = Manual Hold in FDW
7 = Allow QuicNet PE
8 = Flash Grn B4 Yellow

Preempt Priority <C+0+E=125>

(* RR-1 is always Highest, and RR-2 is always Second Highest)

Row		C
0	EV-A	0
1	EV-B	0
2	EV-C	0
3	EV-D	0
4	RR-1 *	- - -
5	RR-2 *	- - -
6	SE-1	0
7	SE-2	0
8		
9		
A		
B		
C		
D		
E		
F		

Configuration <C+0+E=125>

Row	Column Numbers ---->	E
0	Exclusive Phases	
1	RR-1 Clear Phases	
2	RR-2 Clear Phases	
3	RR-2 Limited Service	
4	Prot / Perm Phases	
5	Flash to PE Circuits	
6	Flash Entry Phases	
7	Disable Yellow Range	
8	Disable Ovp Yel Range	
9	Overlap Yellow Flash	
A	EV-A Phases	2 5
B	EV-B Phases	4 7
C	EV-C Phases	1 6
D	EV-D Phases	3 8
E	Extra 1 Config. Bits	1 34
F	IC Select (Interconnect)	2

Configuration <C+0+E=125>

	F
Ext. Permit 1 Phases	
Ext. Permit 2 Phases	
Exclusive Ped Assign	
Preempt Non-Lock	12345678
Ped for 2P Output	2
Ped for 6P Output	6
Ped for 4P Output	4
Ped for 8P Output	8
Yellow Flash Phases	
Low Priority A Phases	
Low Priority B Phases	
Low Priority C Phases	
Low Priority D Phases	
Restricted Phases	
Extra 2 Config. Bits	3

Specials <C+0+F=2>

	F
Fast Green Flash Phase	
Green Flash Phases	
Flashing Walk Phases	
Guaranteed Passage	
Simultaneous Gap Term	12345678
Sequential Timing	
Advance Walk Phases	
Delay Walk Phases	
External Recall	
Start-up Overlap Green	
Max Extension	
Inhibit Ped Reservice	
Semi-Actuated	
Start-up Overlap Yellow	
Start-up Vehicle Calls	12345678
Start-up Ped Calls	12345678

Flash to PE & PE Non-Lock
1 = EV A 5 = RR 1
2 = EV B 6 = RR 2
3 = EV C 7 = SE 1
4 = EV D 8 = SE 2

IC Select Flags
1 =
2 = Modem
3 = 7-Wire Slave
4 =
5 =
6 = Simplex Master
7 =
8 = Offset Interrupter

Coordination Transition Minimums <C+0+C=5>

	2
Phase 1	10
Phase 2	10
Phase 3	10
Phase 4	10
Phase 5	10
Phase 6	10
Phase 7	10
Phase 8	10

INTERSECTION: Balboa Ave & Clairemont Dr

Coord Extra
1 = Programmed WALK Time for Sync Phases
2 = Always Terminate Sync Phase Peds

Plan

Row	Column Numbers ----> / Plan Name ---->	1	2	3	4	5	6	7	8	9	Row
0	Cycle Length										0
1	Phase 1 - ForceOff										1
2	Phase 2 - ForceOff										2
3	Phase 3 - ForceOff										3
4	Phase 4 - ForceOff										4
5	Phase 5 - ForceOff										5
6	Phase 6 - ForceOff										6
7	Phase 7 - ForceOff										7
8	Phase 8 - ForceOff										8
9	Ring Offset										9
A	Offset 1										A
B	Offset 2										B
C	Offset 3										C
D	Perm 1 - End										D
E	Hold Release										E
F	Reserved										F

Coordination - Bank 1 <C+0+C=1>

Row		E	Row
0			0
1	Plan 1 - Sync		1
2	Plan 2 - Sync		2
3	Plan 3 - Sync		3
4	Plan 4 - Sync		4
5	Plan 5 - Sync		5
6	Plan 6 - Sync		6
7	Plan 7 - Sync		7
8	Plan 8 - Sync		8
9	Plan 9 - Sync		9
A	NEMA Sync		A
B	NEMA Hold		B
C			C
D			D
E	Coord Extra		E
F			F

Sync Phases <C+0+C=1>

Row		
0	Ped Adjustment	
1	Perm 2 - Start	
2	Perm 2 - End	
3	Perm 3 - Start	
4	Perm 3 - End	
5	Reservice Time	
6	Reservice Phases	
7		
8	Pretimed Phases	
9	Max Recall	
A	Perm 1 Veh Phase	
B	Perm 1 Ped Phase	
C	Perm 2 Veh Phase	
D	Perm 2 Ped Phase	
E	Perm 3 Veh Phase	
F	Perm 3 Ped Phase	

Coordination - Bank 2 <C+0+C=2>

Row		F	Row
0	Free Lag	2 45 8	0
1	Plan 1 - Lag		1
2	Plan 2 - Lag		2
3	Plan 3 - Lag		3
4	Plan 4 - Lag		4
5	Plan 5 - Lag		5
6	Plan 6 - Lag		6
7	Plan 7 - Lag		7
8	Plan 8 - Lag		8
9	Plan 9 - Lag		9
A	External Lag		A
B	Lag Hold		B
C			C
D			D
E			E
F			F

Lag Phases <C+0+C=1>

Row	Column 8		Column 9		Column A		Column B		Column C		Column D		Column E		Column F		Row
0	One-Shot Timer		Latch 1 Set		NOT-3		Max 2		Pretimed		Set Monday		Dial 2 (7-Wire)		Sim Term	0	0
1	AND-5 (a)		Latch 1 Reset		NOT-4		Reserved		Plan 1		Ext. Perm 1		Dial 3 (7-Wire)		EV-A	71	1
2	AND-5 (b)		Latch 2 Set		OR-4 (a)		Reserved		Plan 2		Ext. Perm 2		Offset 1 (7-Wire)		EV-B	72	2
3	AND-6 (a)		Latch 2 Reset		OR-4 (b)		Reserved		Plan 3		Gate Down		Offset 2 (7-Wire)		EV-C	73	3
4	AND-6 (b)		NAND-3 (a)		OR-5 (a)		Reserved		Plan 4		Set Clock		Offset 3 (7-Wire)		EV-D	74	4
5	Reserved		NAND-3 (b)		OR-5 (b)		Reserved		Plan 5		Stop Time	82	Free (7-Wire)		RR-1	51	5
6	Reserved		NAND-4 (a)		OR-6 (a)		Reserved		Plan 6		Flash Sense	81	Flash (7-Wire)		RR-2	52	6
7	Reserved		NAND-4 (b)		OR-6 (b)		Reserved		Plan 7		Manual Enable		Excl. Ped Omit		Spec. Event 1		7
8	Spec. Funct. 1		OR-7 (a)		EXTMR		Reserved		Plan 8		Man. Advance		NOT-1		Spec. Event 2		8
9	Spec. Funct. 2		OR-7 (b)		Reserved		Max Inhibit (nema)		Plan 9		External Alarm		NOT-2		External Lag		9
A	Spec. Funct. 3		OR-7 (c)		AND-4 (a)		Force A (nema)		DELAY-A		Phase Bank 2		OR-1 (a)	201	AND-1 (a)		A
B	Spec. Funct. 4		OR-7 (d)		AND-4 (b)		Force B (nema)		DELAY-B		Phase Bank 3		OR-1 (b)	35	AND-1 (b)		B
C	Reserved		OR-8 (a)		NAND-1 (a)		C.N.A. (nema)		DELAY-C		Overlap Set 2	201	OR-2 (a)		AND-2 (a)		C
D	Reserved		OR-8 (b)		NAND-1 (b)		Hold (nema)		DELAY-D		Overlap Set 3		OR-2 (b)		AND-2 (b)		D
E	Reserved		OR-8 (c)		NAND-2 (a)		Max Recall		DELAY-E		Detector Set 2		OR-3 (a)		AND-3 (a)		E
F	Reserved		OR-8 (d)		NAND-2 (b)		Min Recall		DELAY-F		Detector Set 3		OR-3 (b)		AND-3 (b)		F

Assignable Inputs <C+0+E=126>

Row	Column 8		Column 9		Column A		Column B		Column C		Column D		Column E		Column F		Row
0	Reserved		Phase ON - 1		Preempt Fail		Flasher 0		Free		NOT-1		TOD Out 1	201	Dial 2 (7-Wire)		0
1	Reserved		Phase ON - 2		Sp Evnt Out 1		Flasher 1		Plan 1		OR-1	36	TOD Out 2		Dial 3 (7-Wire)		1
2	Reserved		Phase ON - 3		Sp Evnt Out 2		Fast Flasher		Plan 2		OR-2		TOD Out 3		Offset 1 (7-Wire)		2
3	Reserved		Phase ON - 4		Sp Evnt Out 3		EXTMR		Plan 3		OR-3		TOD Out 4		Offset 2 (7-Wire)		3
4	Reserved		Phase ON - 5		Sp Evnt Out 4		One-Shot Timer		Plan 4		AND-1		TOD Out 5		Offset 3 (7-Wire)		4
5	Reserved		Phase ON - 6		Sp Evnt Out 5		Reserved		Plan 5		AND-2		TOD Out 6		Free (7-Wire)		5
6	Reserved		Phase ON - 7		Sp Evnt Out 6		Latch 1		Plan 6		AND-3		TOD Out 7		Flash (7-Wire)		6
7	Reserved		Phase ON - 8		Sp Evnt Out 7		Latch 2		Plan 7		NOT-2		TOD Out 8		Preempt		7
8	Flh Yell Arrow 1		Ph. Check - 1		Sp Evnt Out 8		NOT-3		Plan 8		EV-A		Adv. Warn - 1		Low Priority A		8
9	Green 1		Ph. Check - 2		Coord On		NOT-4		Plan 9		EV-B		Adv. Warn - 2		Low Priority B		9
A	Flh Yell Arrow 3		Ph. Check - 3		Detector Fail		OR-4		Spec. Funct. 3		EV-C		DELAY-A		Low Priority C		A
B	Green 3		Ph. Check - 4		Spec. Funct. 1		OR-5		Spec. Funct. 4		EV-D		DELAY-B		Low Priority D		B
C	Flh Yell Arrow 5		Ph. Check - 5		Spec. Funct. 2		OR-6		NAND-3		RR-1		DELAY-C		AND-5		C
D	Green 5		Ph. Check - 6		Central Control		AND-4		NAND-4		RR-2		DELAY-D		AND-6		D
E	Flh Yell Arrow 7		Ph. Check - 7		Excl. Ped DW		NAND-1		OR-7		Spec. Event 1		DELAY-E		Reserved		E
F	Green 7		Ph. Check - 8		Excl. Ped WK		NAND-2		OR-8		Spec. Event 2		DELAY-F		Reserved		F

Assignable Outputs <C+0+F=127>

INTERSECTION: Balboa Ave & Clairemont Dr

Row	Column Numbers ----> / Phase Names ---->	Phase 1	2	3	4	5	6	7	8
0	Ped Walk								
1	Ped FDW								
2	Min Green								
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension								
6	Max Gap								
7	Min Gap								
8	Max Limit								
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW								
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change								
F	Red Clear								

Phase Timing - Bank 2 <C+0+F=2>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing

Transition Type
0.X = Shortway
1.X = Lengthen
X.1 thru X.4 = Number of cycles when lengthing

Transition Type	0.3	<C/5+1+9>

TBC Transition

Hawk Select	0	F/1+0+4>

Hawk Select 200 = Mid-Block, 201 = Hawk

Address	0	<C/1+0+6>
Select Parity	0	<C/1+0+5>

AB3418 Comm 2 0 = No Parity, 1 = Even

Daylight Savings Date
If set to all zeros, standard dates will be used.

Begin Month	3	<C/5+2+A>
Begin Week	2	<C/5+2+B>
End Month	11	<C/5+2+C>
End Week	1	<C/5+2+D>

Daylight Savings Time

Time B4 Yellow	0.0	<F/1+C+E>
Phase Number	0	<F/1+C+F>

Advance Warning Beacon - Sign 1

Time B4 Yellow	0.0	
Phase Number	0	<F/1+D+F>

Advance Warning Beacon - Sign 2

Offset Time	0	<C/5+2+E>
Max Cycle Time	20	<C/5+2+F>

Yellow Yield Coordination

	12345678	
Omit Alarm	#NAME?	

Local Alarm Disable <C/5+F+0>

IEN Status	1	<C/5+1+B>
Synch Time	0.0	<C/5+1+C>

Other Parameters

Row		1	2	3	4	5	6	7	8
0	Ped Walk								
1	Ped FDW								
2	Min Green								
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension								
6	Max Gap								
7	Min Gap								
8	Max Limit								
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW								
C	Cond Serv Check								
D	Reduce Every								
E	Yellow Change								
F	Red Clear								

Phase Timing - Bank 3 <C+0+F=3>

	9	A	B	C	D
	---	---	---	---	---
Phase 1					
Phase 2					
Phase 3					
Phase 4					
Phase 5					
Phase 6					
Phase 7					
Phase 8					
Max Initial					
Alternate Walk					
Alternate FDW					
Alternate Initial					
Alternate Extension					

Alternate Timing

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <C+0+9=0.1>
(Bank 1)

Time	Funct.	Day of Week
15 : 00	D	23456
19 : 00	D	23456
07 : 00	F	23456
09 : 00	F	23456
13 : 00	F	23456
18 : 00	F	23456

TOD Function <C+0+7=0.1>

Column 4 Phases/Bits
1 4 6 8
2 45 8
1
1

<C+0+E=27>

Day	Year	Month	Holiday Type

Holiday Dates <C+0+8=1.1>
(Bank 1)

Time	Plan	Offset	Holiday Type

Holiday Events <C+0+9=1.1>
(Bank 1)

T.O.D. Functions
0 = Permitted Phases
1 = Red Lock
2 = Yellow Lock
3 = Veh Min Recall
4 = Ped Recall
5 =
6 = Rest In Walk
7 = Red Rest
8 = Double Entry
9 = Veh Max Recall
A = Veh Soft Recall
B = Maximum 2
C = Conditional Service
D = Free Lag Phases
E = Bit 1 - Local Override
Bit 4 - Disable Detector OFF Monitor
Bit 5 - Disable Low Priority Preempt
Bit 6 - FYA Inhibit
Bit 7 - Detector Count Monitor
Bit 8 - Real Time Split Monitor
F = Output Bits 1 thru 8

Plan Select
1 thru 9 = Coordination Plan 1 thru 9
14 or E = Free
15 or F = Flash

Offset Select
A = Offset A
B = Offset B
C = Offset C

Row	Time	Plan	Offset	Day of Week
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

TOD Coordination <C+0+9=0.2>
(Bank 2)

Time	Funct.	Holiday Type

Holiday TOD Function <C+0+7=0.2>

Column 4 Phases/Bits

<C+0+E=28>

Day	Year	Month	Holiday Type

Holiday Dates <C+0+8=1.2>
(Bank 2)

Time	Plan	Offset	Holiday Type

Holiday Events <C+0+9=1.2>
(Bank 2)

Month Select: October = A, November = B, Decmber = C

Row	6 Clear	7 Time	8 Ped Call	9 Hold	A Advance	B Force Off	C Vehicle Call	D Permit Phases	E Ped Omit	F Output
0										
1										
2										
3										
4										
5										
6										
7										
8										
9										
A										
B										
C										
D										
E										
F										

Special Event Schedule -- Table 1 <C+0+E=27>

Notes:

<E/27+5+F>

Limited Service Interval

Row	6 Clear	7 Time	8 Ped Call	9 Hold	A Advance	B Force Off	C Vehicle Call	D Permit Phases	E Ped Omit	F Output
0										
1										
2										
3										
4										
5										
6										
7										
8										
9										
A										
B										
C										
D										
E										
F										

Special Event Schedule -- Table 2 <C+0+E=28>

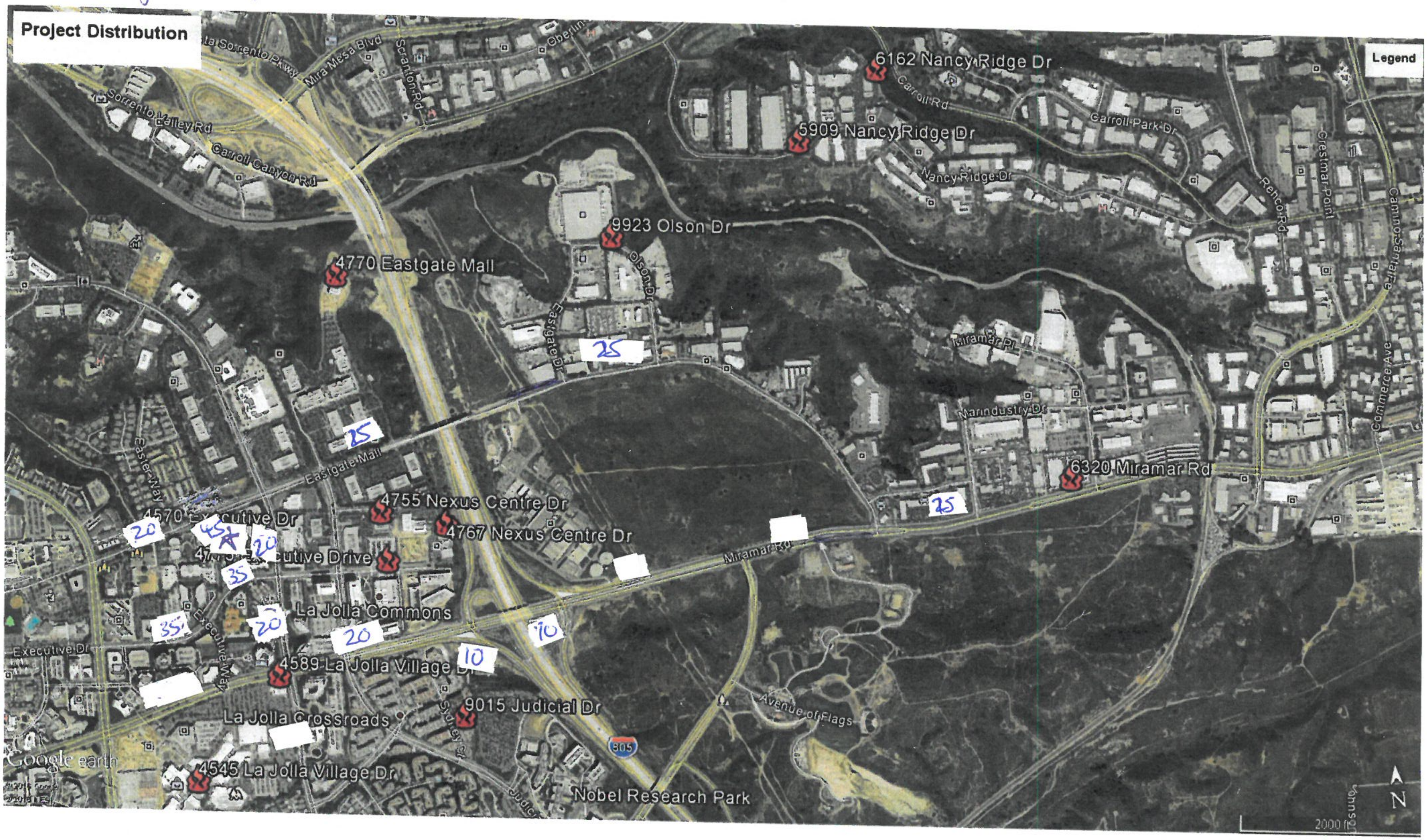
Notes:

<E/28+5+F>

Limited Service Interval

Appendix B
Cumulative Projects Trip Distribution

Project 1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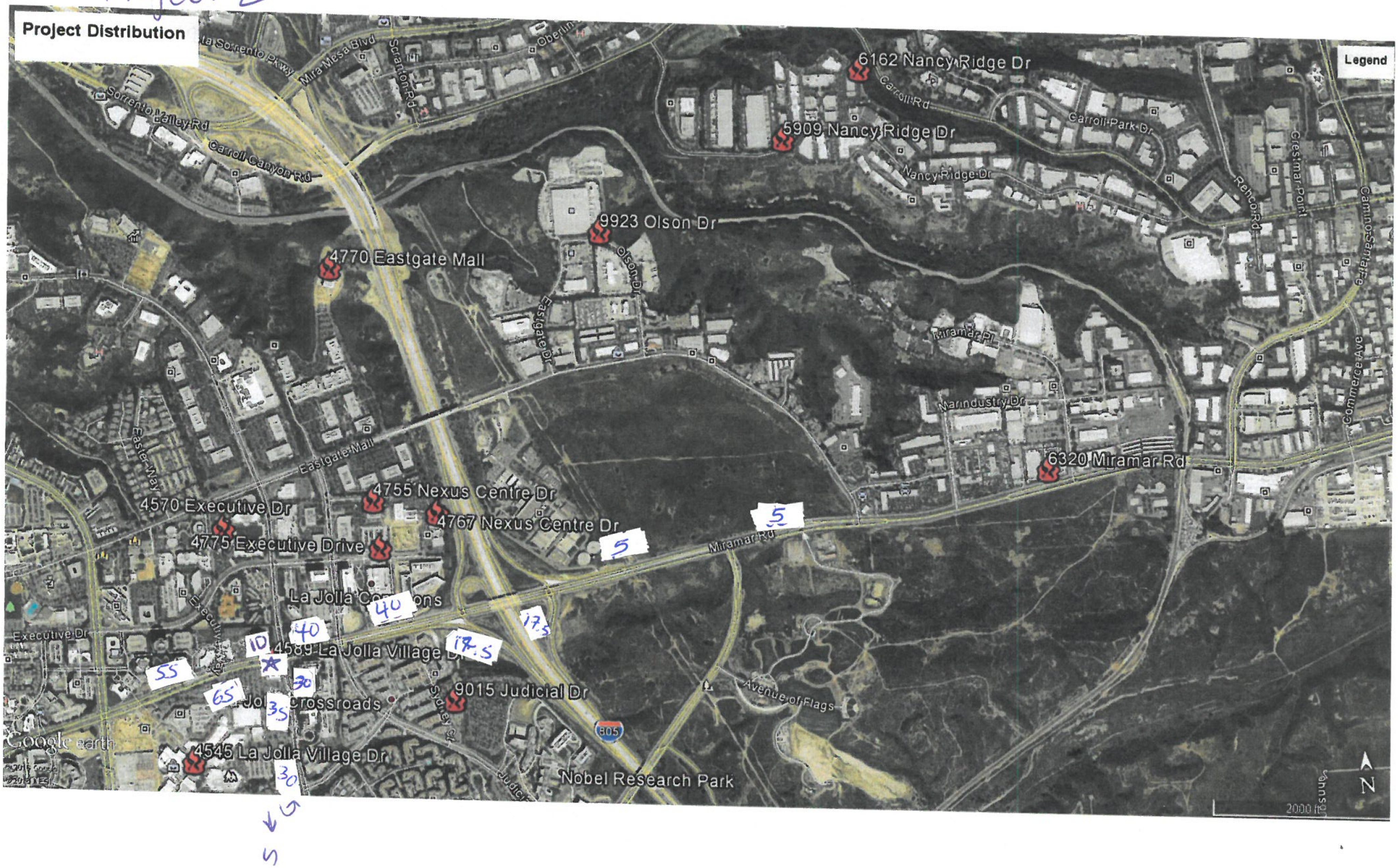
6162 Nancy Ridge Dr
5909 Nancy Ridge Dr
9923 Olson Dr
4770 Eastgate Mall
4755 Nexus Centre Dr
4767 Nexus Centre Dr
6320 Miramar Rd
La Jolla Commons
4589 La Jolla Village Dr
9015 Judicial Dr
La Jolla Crossroads
4545 La Jolla Village Dr
Nobel Research Park
Sorrento Valley Rd
Carroll Canyon Rd
Mira Mesa Blvd
Scranton Rd
Carroll Rd
Carroll Park Dr
Nancy Ridge Dr
Olson Dr
Eastgate Dr
Eastgate Mall
Miramar Pl
Marindustry Dr
Renco Rd
Crestmar Point
Camino Santa Fe
Commerce Ave
Miramar Rd
Avenue of Flags
Easter Way
Executive Way
Executive Dr
805
25
25
25
20
45
20
35
35
20
20
10
10
Google earth
N
2000 ft

Project 2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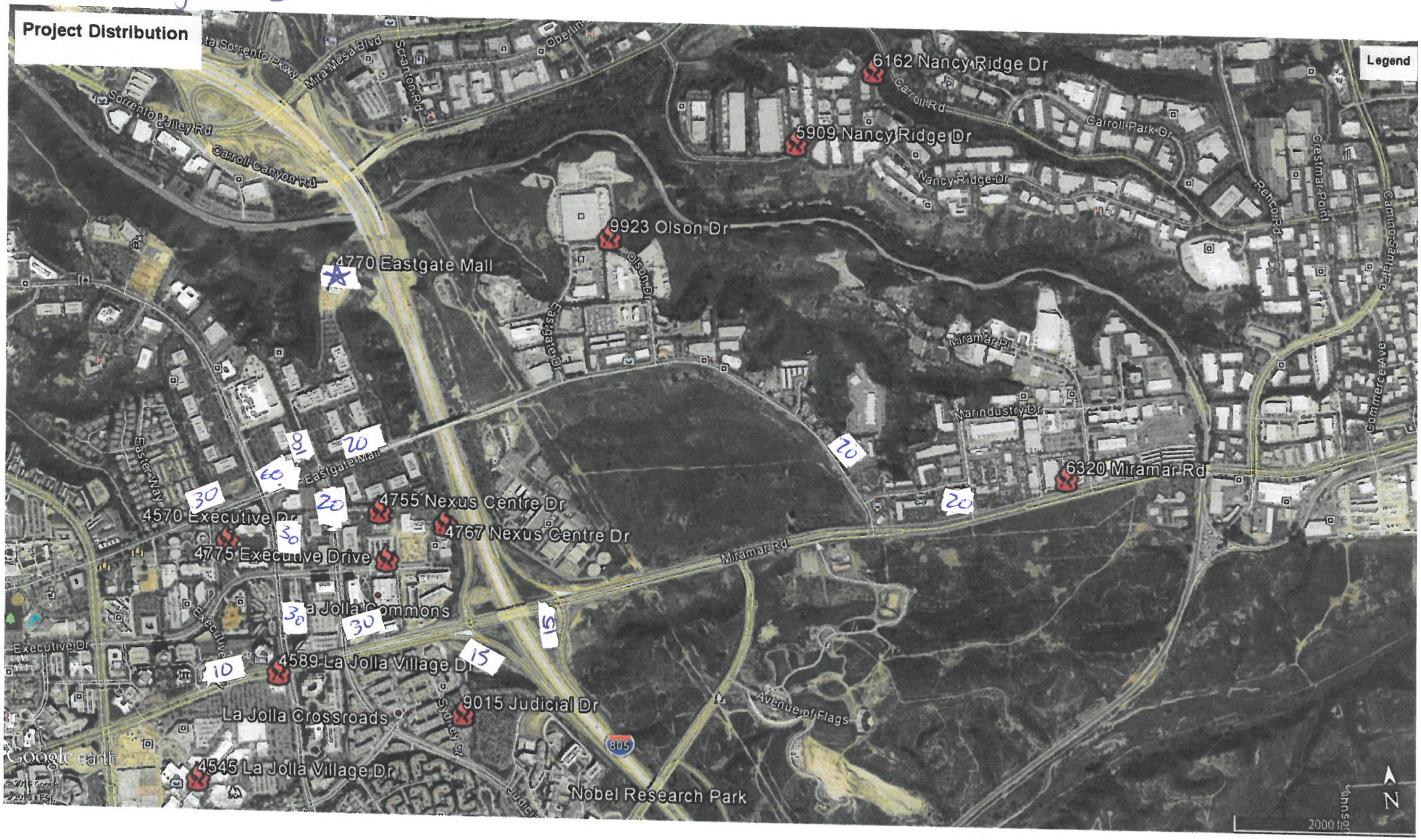
9923 Olson Dr
4770 Eastgate Mall
4755 Nexus Centre Dr
4767 Nexus Centre Dr
4570 Executive Dr
4775 Executive Drive
6320 Miramar Rd
4589 La Jolla Village Dr
9015 Judicial Dr
4545 La Jolla Village Dr
La Jolla Commons
La Jolla Crossroads
Nobel Research Park
Sorrento Valley Rd
Carroll Canyon Rd
Mira Mesa Blvd
Scranton Rd
Oberlin
Carroll Rd
Carroll Park Dr
Nancy Ridge Dr
Rehco Rd
Crestmar Point
Camino Santa Fe
Olson Dr
Eastgate Dr
Miramar Pl
Marindustry Dr
Commerce Ave
Eastgate Mall
Easter Way
Executive Dr
Miramar Rd
Avenue of Flags
Judicial Dr
805
Google earth
2000 ft
N
5
5
5
40
40
10
17.5
17.5
55
65
30
35
30
5

Project 3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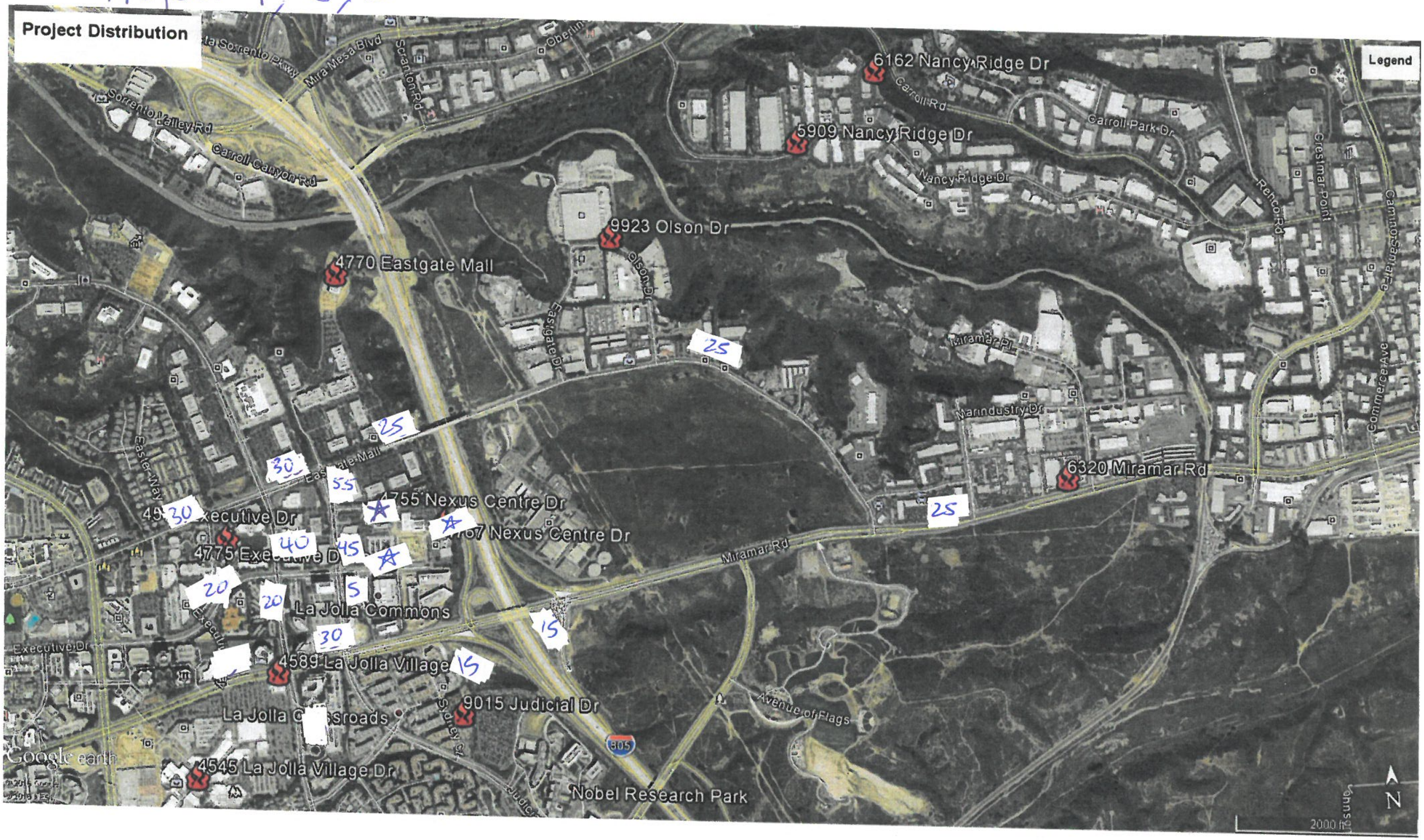
6162 Nancy Ridge Dr
5909 Nancy Ridge Dr
9923 Olson Dr
4755 Nexus Centre Dr
4767 Nexus Centre Dr
4570 Executive Dr
4775 Executive Drive
4589 La Jolla Village Dr
9015 Judicial Dr
4545 La Jolla Village Dr
6320 Miramar Rd
La Jolla Commons
La Jolla Crossroads
Nobel Research Park
Sorrento Valley Rd
Carroll Canyon Rd
Mira Mesa Blvd
Scranton Rd
Carroll Rd
Carroll Park Dr
Nancy Ridge Dr
Olson Dr
Eastgate Dr
Eastgate Mall
Miramar Pl
Marindustry Dr
Miramar Rd
Avenue of Flags
Camino Santa Fe
Commerce Ave
Crestmar Point
Rehco Rd
Executive Dr
Easter Way
Sydney Ct
805
8
20
60
30
20
30
30
30
10
15
15
20
20
2000 ft
N
Google earth

Project 4, 5, 6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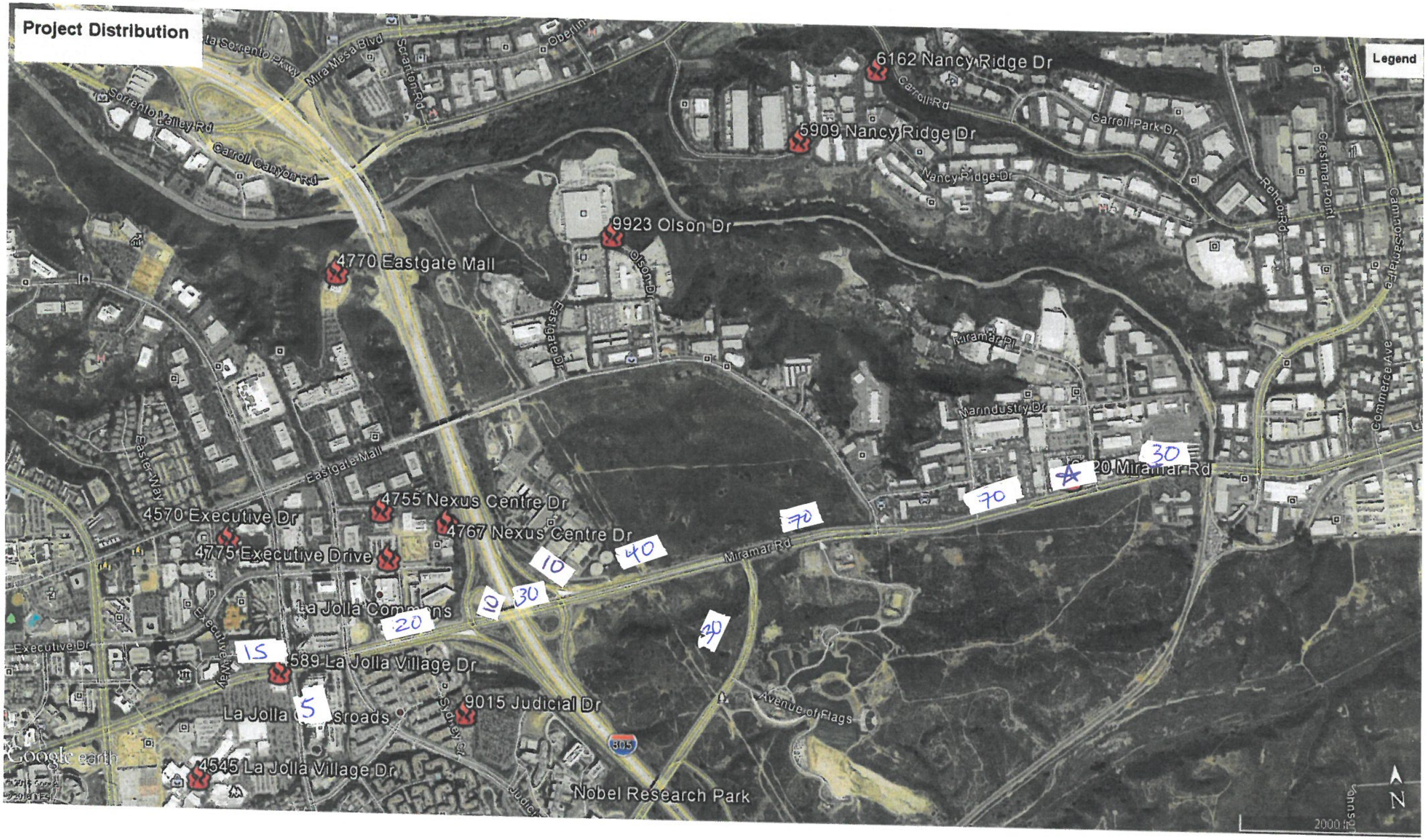
9923 Olson Dr
4770 Eastgate Mall
6320 Miramar Rd
4755 Nexus Centre Dr
4767 Nexus Centre Dr
4775 Executive Dr
La Jolla Commons
4589 La Jolla Village
9015 Judicial Dr
4545 La Jolla Village Dr
Nobel Research Park
Miramar Rd
Avenue of Flags
Carroll Canyon Rd
Sorrento Valley Rd
Mira Mesa Blvd
Eastgate Mall
Nancy Ridge Dr
Carroll Park Dr
Marindustry Dr
Miramar Pl
Commerce Ave
Camino Santa Fe
Executive Dr
805
25
25
25
30
55
30
40
45
20
20
5
30
15
15
2000 ft
N

Project 7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9923 Olson Dr
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4755 Nexus Centre Dr
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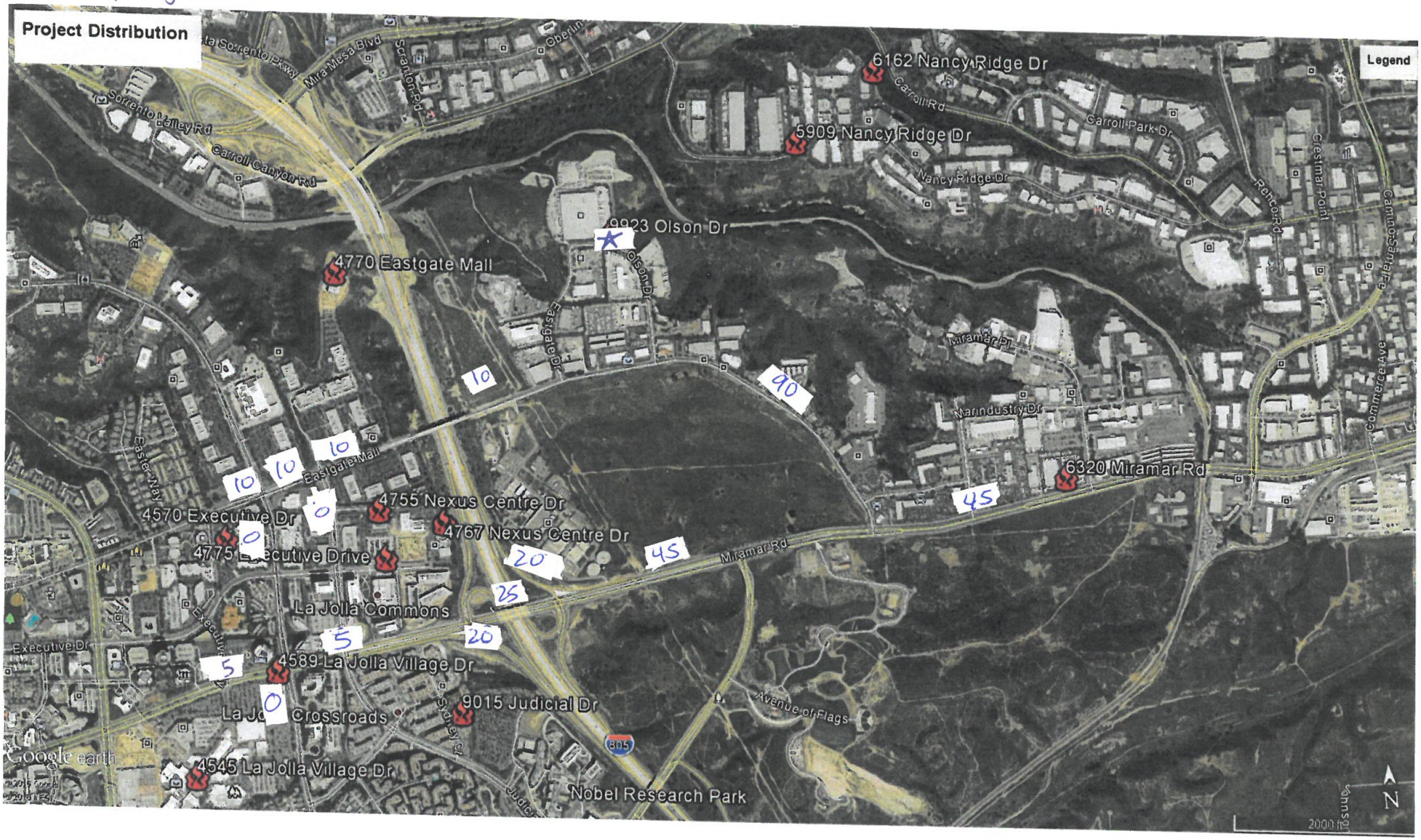
4570 Executive Dr
4775 Executive Drive
589 La Jolla Village Dr
9015 Judicial Dr
4545 La Jolla Village Dr
La Jolla Commons
Nobel Research Park
Miramar Rd
Eastgate Mall
Sorrento Valley Rd
Carroll Canyon Rd
Mira Mesa Blvd
Scranton Rd
Carroll Rd
Carroll Park Dr
Nancy Ridge Dr
Miramar Pl
Marindustry Dr
Avenue of Flags
Executive Dr
Executive Way
Easter Way
Eastgate Dr
Olson Dr
805
30
70
70
40
10
30
10
20
15
5
30
2000 ft
N

Project 8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9923 Olson Dr
4770 Eastgate Mall
4570 Executive Dr
4755 Nexus Centre Dr
4767 Nexus Centre Dr
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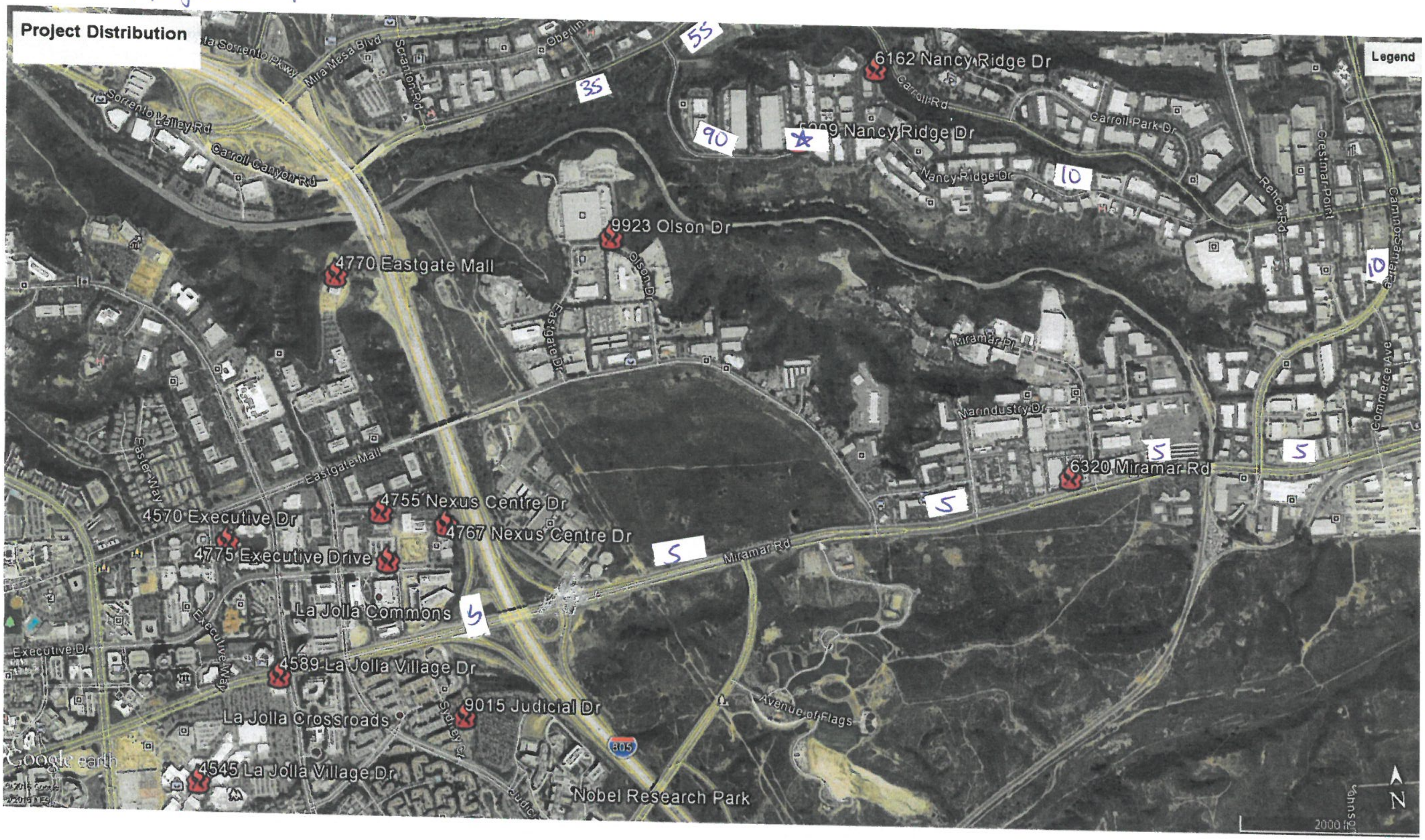
La Jolla Commons
4589 La Jolla Village Dr
La Jolla Crossroads
9015 Judicial Dr
4545 La Jolla Village Dr
6320 Miramar Rd
Nobel Research Park
Miramar Rd
Eastgate Mall
Avenue of Flags
Carroll Canyon Rd
Sorrento Valley Rd
Mira Mesa Blvd
Scranton Rd
Carroll Rd
Carroll Park Dr
Nancy Ridge Dr
Miramar Pl
Marindustry Dr
Camino Santa Fe
Commerce Ave
Crestmar Point
Eastgate Dr
Olson Dr
Executive Dr
805
10
90
10
10
10
0
0
20
45
45
25
5
20
5
0

Project 9


Project Distribution
Legend
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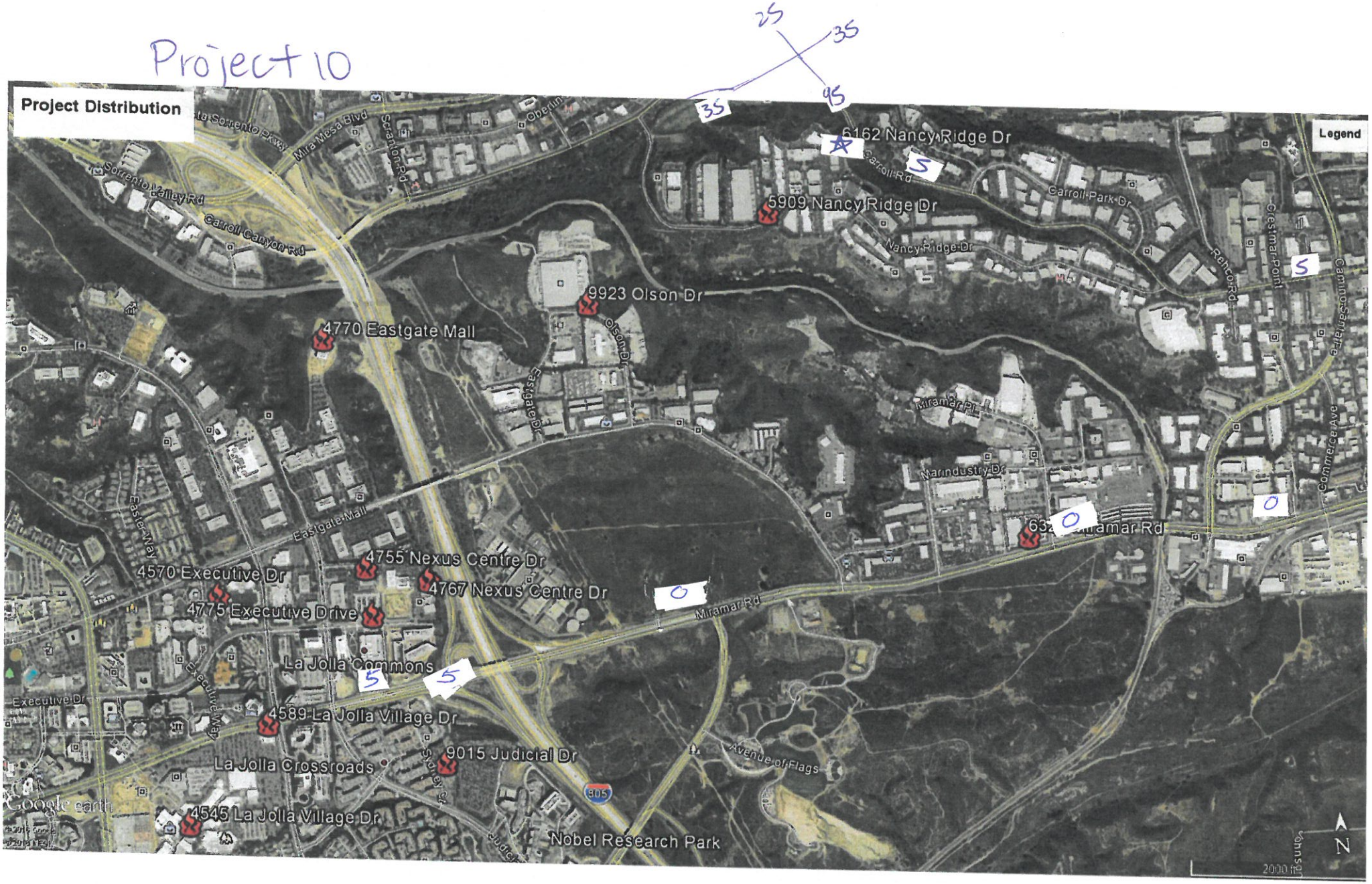
Nancy Ridge Dr
9923 Olson Dr
4770 Eastgate Mall
4755 Nexus Centre Dr
4767 Nexus Centre Dr
4570 Executive Dr
4775 Executive Drive
La Jolla Commons
4589 La Jolla Village Dr
9015 Judicial Dr
La Jolla Crossroads
4545 La Jolla Village Dr
Nobel Research Park
6320 Miramar Rd
Miramar Rd
Sorrento Valley Rd
Carroll Canyon Rd
Mira Mesa Blvd
Scranton Rd
Carroll Rd
Carroll Park Dr
Rehco Rd
Crestmar Point
Camino Santa Fe
Commerce Ave
Miramar Pl
Marindustry Dr
Eastgate Dr
Olson Dr
Eastgate Mall
Easter Way
Executive Way
Executive Dr
Sydney Ct
Avenue of Flags
805
Google earth
2000 ft
N
55
35
90
10
10
5
5
5
5
5

Project 10


Project Distribution
Legend
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9923 Olson Dr
4770 Eastgate Mall
4755 Nexus Centre Dr
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4775 Executive Drive
La Jolla Commons
4589 La Jolla Village Dr
9015 Judicial Dr
La Jolla Crossroads
4545 La Jolla Village Dr
Nobel Research Park
Miramar Rd
Carroll Rd
Carroll Canyon Rd
Sorrento Valley Rd
Mira Mesa Blvd
Scranton Rd
Nancy Ridge Dr
Carroll Park Dr
Crestmar Point
Rehco Rd
Commerce Ave
Olson Dr
Eastgate Dr
Eastgate Mall
Eastgate Way
Executive Dr
Executive Way
Judicial St
Avenue of Flags
Miramar Pl
Marindustry Dr
805
Google earth
2000 ft
N

Project 11

Project 12

25 30

Appendix C
Traffic Signal Warrant
- Project Driveway @ Eastgate Mall

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

		COUNT DATE	
Major St:	Eastgate Mall	# of Lanes:	1
Minor St:	Project Driveway	# of Lanes:	1

Speed limit or critical speed on major street traffic > 64 km/h (40 mph) .....

In built up area of isolated community of < 10,000 population.....

or } **RURAL (R)**

URBAN (U)

Major St ADT (Total):	10100	Roadway Type:	Urban
Minor Street ADT (Highest Direction):	170		

(Based on Estimated Average Daily Traffic - See Note)

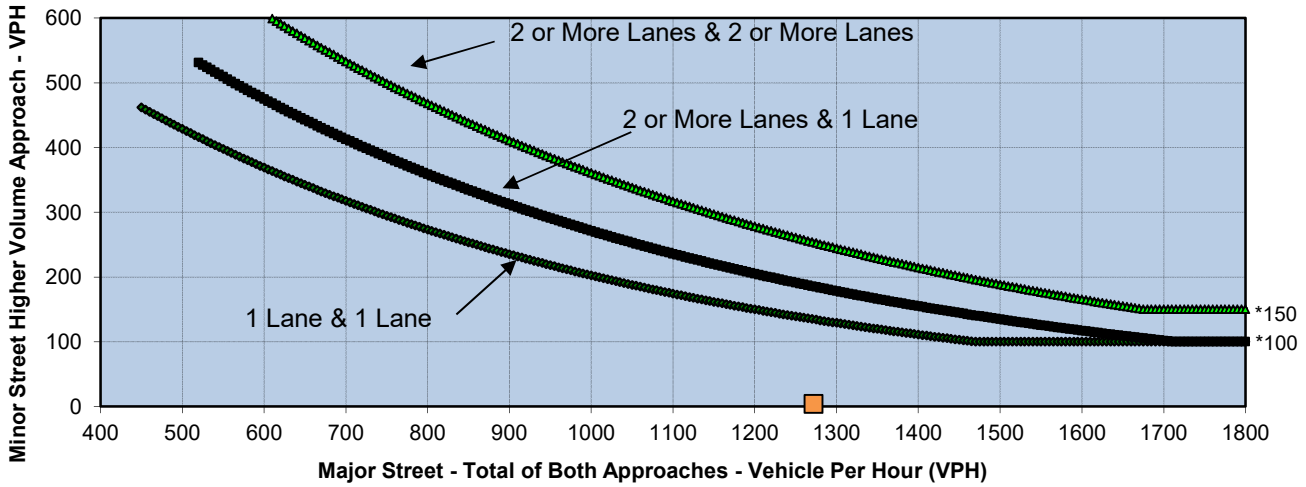
CONDITION A - Minimum Vehicular Volume			Minimum Requirements EADT	
Satisfied	Not Satisfied	X	Vehichles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Number of lanes for moving traffic on each approach				
Major Street	Minor Street		Urban Rural	Urban Rural
1	1		8000 5,600	2,400 1,680
2 or more	1		9,600 6,720	2,400 1,680
2 or more	2 or more		9,600 6,720	3,200 2,240
1	2 or more		8,000 5,600	3,200 2,240
CONDITION B - Interruption of Continuous Traffc			Vehichles Per Day on Major Street (Total of Both Approaches)	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)
Staisfied	Not Satisfied	X		
Number of lanes for moving traffic on each approach				
Major Street	Minor Street		Urban Rural	Urban Rural
1	1		12,000 8,400	1,200 850
2 or more	1		14,400 10,080	1,200 850
2 or more	2 or more		14,400 10,080	1,600 1,120
1	2 or more		12,000 8,400	1,600 1,120
Combination of CONDITIONS A+B				
Satisfied	Not Satisfied	X	2 CONDITIONS 80%	2 CONDITIONS 80%
No one condition satisfied, but following conditions fulfilled 80% or More	7% A	14% B		

Note: To be used only for NEW INTERSECTIONS or other locations wehre it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Sheet No 1 of 2

Figure 4C-3
Warrant 3, Peak Hour



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2006

Major Street	Eastgate Mall
Minor Street	Project Driveway

Project	North City Project
Scenario	Existing + Project
Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	2	2	18	25
Through	0	0	192	994
Right	2	2	24	19
Total	4	4	234	1,038

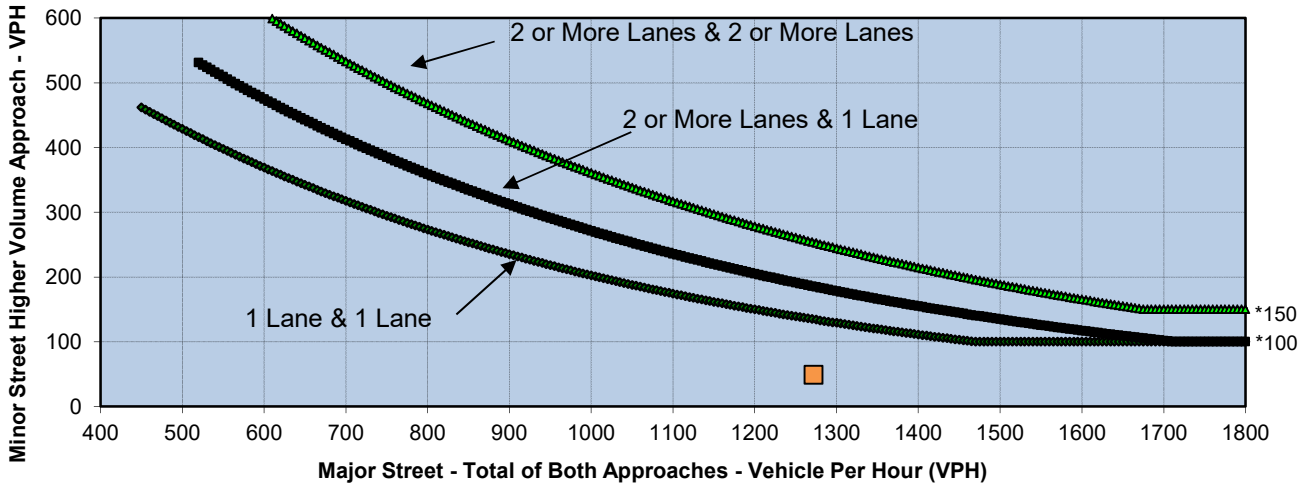
Major Street Direction

	North/South
X	East/West

	Major Street	Minor Street	Warrant Met
	Eastgate Mall	Project Driveway	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**1,272**	**4**	

Sheet No 2 of 2

Figure 4C-3
Warrant 3, Peak Hour



* Note: 150 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2006

Major Street	Eastgate Mall
Minor Street	Project Driveway

Project	North City Project
Scenario	Existing + Project
Peak Hour	PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	24	19	2	2
Through	0	0	1,106	158
Right	25	18	2	2
Total	49	37	1,110	162

Major Street Direction

	North/South
X	East/West

	Major Street Eastgate Mall	Minor Street Project Driveway	Warrant Met
Number of Approach Lanes	1	1	NO
Traffic Volume (VPH) *	1,272	49	

Appendix D
Peak Hour Intersection Calculation Worksheets – Existing Conditions (Morena Pipelines)

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	71	372	341	140	181	109
Future Volume (veh/h)	71	372	341	140	181	109
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	78	409	397	163	213	128
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	0.91	0.91	0.86	0.86	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	458	649	704	285	269	1879
Arrive On Green	0.26	0.26	0.29	0.29	0.15	0.53
Sat Flow, veh/h	1774	1583	2536	989	1774	3632
Grp Volume(v), veh/h	78	409	286	274	213	128
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1661	1774	1770
Q Serve(g_s), s	1.6	9.9	6.6	6.8	5.6	0.9
Cycle Q Clear(g_c), s	1.6	9.9	6.6	6.8	5.6	0.9
Prop In Lane	1.00	1.00		0.60	1.00	
Lane Grp Cap(c), veh/h	458	649	510	479	269	1879
V/C Ratio(X)	0.17	0.63	0.56	0.57	0.79	0.07
Avail Cap(c_a), veh/h	664	833	681	639	536	2686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.9	11.4	14.6	14.7	19.8	5.5
Incr Delay (d2), s/veh	0.1	0.4	2.1	2.3	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	4.3	3.5	3.4	2.9	0.4
LnGrp Delay(d),s/veh	14.0	11.7	16.7	17.0	21.8	5.6
LnGrp LOS	B	B	B	B	C	A
Approach Vol, veh/h	487		560			341
Approach Delay, s/veh	12.1		16.8			15.7
Approach LOS	B		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	11.7	19.7				31.5		16.9
Change Period (Y+Rc), s	4.4	* 5.8				5.8		4.4
Max Green Setting (Gmax), s	14.6	* 19				36.7		18.1
Max Q Clear Time (g_c+I1), s	7.6	8.8				2.9		11.9
Green Ext Time (p_c), s	0.2	4.8				9.5		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	14.9
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	331	500	11	7	190	76	18	126	87	21	31	185
Future Volume (veh/h)	331	500	11	7	190	76	18	126	87	21	31	185
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	389	588	12	8	209	27	23	162	50	26	38	226
Adj No. of Lanes	2	2	0	1	3	1	0	2	0	1	1	1
Peak Hour Factor	0.85	0.85	0.85	0.91	0.91	0.91	0.78	0.78	0.78	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	368	1058	22	15	1016	621	38	273	87	347	364	307
Arrive On Green	0.11	0.30	0.30	0.01	0.20	0.20	0.11	0.11	0.11	0.20	0.20	0.20
Sat Flow, veh/h	3442	3545	72	1774	5085	1558	340	2448	782	1774	1863	1571
Grp Volume(v), veh/h	389	293	307	8	209	27	125	0	110	26	38	226
Grp Sat Flow(s),veh/h/ln	1721	1770	1848	1774	1695	1558	1846	0	1725	1774	1863	1571
Q Serve(g_s), s	5.6	7.3	7.3	0.2	1.8	0.6	3.4	0.0	3.2	0.6	0.9	7.1
Cycle Q Clear(g_c), s	5.6	7.3	7.3	0.2	1.8	0.6	3.4	0.0	3.2	0.6	0.9	7.1
Prop In Lane	1.00		0.04	1.00		1.00	0.18		0.45	1.00		1.00
Lane Grp Cap(c), veh/h	368	528	551	15	1016	621	206	0	193	347	364	307
V/C Ratio(X)	1.06	0.56	0.56	0.54	0.21	0.04	0.61	0.00	0.57	0.07	0.10	0.74
Avail Cap(c_a), veh/h	368	636	664	173	1768	852	635	0	593	610	641	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	15.4	15.4	25.9	17.5	9.7	22.2	0.0	22.1	17.2	17.3	19.8
Incr Delay (d2), s/veh	62.6	1.9	1.8	10.7	0.1	0.0	1.1	0.0	1.0	0.1	0.2	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.8	3.8	3.9	0.2	0.8	0.3	1.8	0.0	1.6	0.3	0.5	3.4
LnGrp Delay(d),s/veh	85.9	17.3	17.2	36.6	17.6	9.8	23.2	0.0	23.1	17.3	17.5	24.6
LnGrp LOS	F	B	B	D	B	A	C		C	B	B	C
Approach Vol, veh/h		989			244			235			290	
Approach Delay, s/veh		44.3			17.3			23.1			23.0	
Approach LOS		D			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	4.8	21.6		15.1	10.0	16.5		10.7
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		4.9
Max Green Setting (Gmax), s	5.1	* 19		18.0	5.6	18.2		18.0
Max Q Clear Time (g_c+I1), s	2.2	9.3		9.1	7.6	3.8		5.4
Green Ext Time (p_c), s	0.0	5.0		1.0	0.0	6.6		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	34.2
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	466	86	79	263	45	156	1424	163	55	228	42
Future Volume (veh/h)	106	466	86	79	263	45	156	1424	163	55	228	42
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	126	555	102	87	289	49	166	1515	173	75	312	58
Adj No. of Lanes	2	2	1	2	2	0	2	2	1	2	3	1
Peak Hour Factor	0.84	0.84	0.84	0.91	0.91	0.91	0.94	0.94	0.94	0.73	0.73	0.73
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	175	750	336	132	605	101	220	1398	625	702	2769	862
Arrive On Green	0.05	0.21	0.21	0.04	0.20	0.20	0.04	0.26	0.26	0.14	0.36	0.36
Sat Flow, veh/h	3442	3539	1583	3442	3034	508	3442	3539	1583	3442	5085	1583
Grp Volume(v), veh/h	126	555	102	87	167	171	166	1515	173	75	312	58
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1773	1721	1770	1583	1721	1695	1583
Q Serve(g_s), s	5.0	20.5	7.6	3.5	11.7	12.0	6.7	55.3	9.9	2.7	5.7	3.3
Cycle Q Clear(g_c), s	5.0	20.5	7.6	3.5	11.7	12.0	6.7	55.3	9.9	2.7	5.7	3.3
Prop In Lane	1.00		1.00	1.00		0.29	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	175	750	336	132	353	354	220	1398	625	702	2769	862
V/C Ratio(X)	0.72	0.74	0.30	0.66	0.47	0.48	0.76	1.08	0.28	0.11	0.11	0.07
Avail Cap(c_a), veh/h	371	1001	448	334	479	480	710	1398	625	702	2769	862
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.57	0.57	0.57	0.99	0.99	0.99
Uniform Delay (d), s/veh	65.5	51.6	46.5	66.4	49.5	49.6	65.9	51.5	23.8	49.3	22.1	21.3
Incr Delay (d2), s/veh	2.1	2.6	0.7	2.1	1.0	1.1	1.1	45.5	0.6	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	10.3	3.4	1.7	5.8	5.9	3.2	35.9	4.4	1.3	2.7	1.5
LnGrp Delay(d),s/veh	67.6	54.1	47.2	68.5	50.6	50.7	67.1	96.9	24.4	49.3	22.1	21.5
LnGrp LOS	E	D	D	E	D	D	E	F	C	D	C	C
Approach Vol, veh/h		783			425			1854			445	
Approach Delay, s/veh		55.4			54.3			87.5			26.6	
Approach LOS		E			D			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.5	61.0	9.8	34.8	13.3	82.1	11.5	33.0
Change Period (Y+Rc), s	5.9	* 5.7	4.4	* 5.1	4.4	5.9	4.4	5.1
Max Green Setting (Gmax), s	12.1	* 55	13.6	* 40	28.9	38.3	15.1	37.9
Max Q Clear Time (g_c+I1), s	14.7	57.3	5.5	22.5	8.7	7.7	7.0	14.0
Green Ext Time (p_c), s	0.3	0.0	0.1	7.1	0.3	3.4	0.1	8.4

Intersection Summary	
HCM 2010 Ctrl Delay	68.6
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	390	18	45	33	37	276	12	1242	8	46	592	75
Future Volume (veh/h)	390	18	45	33	37	276	12	1242	8	46	592	75
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	470	22	54	37	42	310	16	1613	10	58	749	95
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.83	0.83	0.83	0.89	0.89	0.89	0.77	0.77	0.77	0.79	0.79	0.79
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	288	11	26	77	86	496	25	1678	10	75	1559	198
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.01	0.47	0.47	0.04	0.49	0.49
Sat Flow, veh/h	639	30	73	114	244	1406	1774	3606	22	1774	3161	401
Grp Volume(v), veh/h	546	0	0	389	0	0	16	791	832	58	419	425
Grp Sat Flow(s),veh/h/ln	743	0	0	1765	0	0	1774	1770	1859	1774	1770	1792
Q Serve(g_s), s	17.4	0.0	0.0	0.0	0.0	0.0	1.0	46.7	46.8	3.5	17.0	17.0
Cycle Q Clear(g_c), s	38.1	0.0	0.0	20.7	0.0	0.0	1.0	46.7	46.8	3.5	17.0	17.0
Prop In Lane	0.86		0.10	0.10		0.80	1.00		0.01	1.00		0.22
Lane Grp Cap(c), veh/h	324	0	0	659	0	0	25	823	865	75	873	884
V/C Ratio(X)	1.69	0.00	0.00	0.59	0.00	0.00	0.64	0.96	0.96	0.78	0.48	0.48
Avail Cap(c_a), veh/h	324	0	0	659	0	0	215	823	865	182	873	884
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.33	0.33	0.33	0.95	0.95	0.95
Uniform Delay (d), s/veh	41.8	0.0	0.0	29.5	0.0	0.0	53.0	27.9	28.0	51.2	18.2	18.2
Incr Delay (d2), s/veh	321.4	0.0	0.0	1.3	0.0	0.0	3.3	11.0	10.8	11.3	1.8	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	38.6	0.0	0.0	10.0	0.0	0.0	0.5	25.2	26.4	1.9	8.7	8.8
LnGrp Delay(d),s/veh	363.3	0.0	0.0	30.9	0.0	0.0	56.3	39.0	38.7	62.6	20.0	19.9
LnGrp LOS	F			C			E	D	D	E	B	B
Approach Vol, veh/h		546			389			1639			902	
Approach Delay, s/veh		363.3			30.9			39.0			22.7	
Approach LOS		F			C			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	9.0	56.0		43.0	5.9	59.1		43.0
Change Period (Y+Rc), s	4.4	* 5.8		4.9	4.4	5.8		4.9
Max Green Setting (Gmax), s	11.1	* 45		38.1	13.1	41.7		38.1
Max Q Clear Time (g_c+I1), s	15.5	48.8		40.1	3.0	19.0		22.7
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	21.9		6.2

Intersection Summary	
HCM 2010 Ctrl Delay	84.8
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	373	138	99	553	228	178	943	93	81	381	85
Future Volume (veh/h)	154	373	138	99	553	228	178	943	93	81	381	85
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	159	385	142	110	614	253	187	993	98	90	423	94
Adj No. of Lanes	2	2	0	2	2	0	2	2	0	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.90	0.90	0.90	0.95	0.95	0.95	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	224	508	185	799	911	375	251	1044	103	113	913	201
Arrive On Green	0.02	0.07	0.07	0.23	0.37	0.37	0.07	0.32	0.32	0.13	0.63	0.63
Sat Flow, veh/h	3442	2543	926	3442	2447	1007	3442	3255	321	1774	2884	636
Grp Volume(v), veh/h	159	266	261	110	444	423	187	540	551	90	258	259
Grp Sat Flow(s),veh/h/ln	1721	1770	1699	1721	1770	1685	1721	1770	1806	1774	1770	1751
Q Serve(g_s), s	5.0	16.0	16.3	2.7	22.7	22.7	5.8	32.2	32.2	5.3	8.2	8.3
Cycle Q Clear(g_c), s	5.0	16.0	16.3	2.7	22.7	22.7	5.8	32.2	32.2	5.3	8.2	8.3
Prop In Lane	1.00		0.54	1.00		0.60	1.00		0.18	1.00		0.36
Lane Grp Cap(c), veh/h	224	354	340	799	659	627	251	568	580	113	560	554
V/C Ratio(X)	0.71	0.75	0.77	0.14	0.67	0.67	0.75	0.95	0.95	0.80	0.46	0.47
Avail Cap(c_a), veh/h	433	592	568	799	659	627	402	573	585	168	560	554
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.98	0.98	0.98	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88	0.88
Uniform Delay (d), s/veh	51.8	47.8	48.0	32.9	28.4	28.4	49.1	35.8	35.8	46.4	15.1	15.1
Incr Delay (d2), s/veh	1.5	13.6	15.0	0.0	5.4	5.7	1.7	25.4	25.1	7.5	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	9.2	9.1	1.3	12.1	11.6	2.8	19.7	20.1	2.8	3.9	3.9
LnGrp Delay(d),s/veh	53.3	61.4	63.0	32.9	33.8	34.1	50.8	61.2	61.0	53.9	15.2	15.3
LnGrp LOS	D	E	E	C	C	C	D	E	E	D	B	B
Approach Vol, veh/h		686			977			1278			607	
Approach Delay, s/veh		60.2			33.8			59.6			21.0	
Approach LOS		E			C			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	30.1	26.6	12.3	39.1	11.4	45.2	11.8	39.6
Change Period (Y+Rc), s	5.0	* 5	4.4	4.9	4.4	5.0	4.9	* 4.9
Max Green Setting (Gmax), s	8.6	* 36	12.6	32.6	13.6	30.5	10.2	* 35
Max Q Clear Time (g_c+I1), s	24.7	18.3	7.8	10.3	7.0	24.7	7.3	34.2
Green Ext Time (p_c), s	1.8	3.3	0.1	2.1	0.1	2.9	0.1	0.4

Intersection Summary	
HCM 2010 Ctrl Delay	46.0
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	457	21	22	584	188	59	31	51	206	32	34
Future Volume (veh/h)	13	457	21	22	584	188	59	31	51	206	32	34
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	14	497	23	27	704	227	81	42	70	229	36	38
Adj No. of Lanes	1	1	1	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.83	0.83	0.83	0.73	0.73	0.73	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	462	485	412	11	293	94	425	485	434	117	164	147
Arrive On Green	0.26	0.26	0.26	0.22	0.22	0.22	0.24	0.27	0.27	0.07	0.09	0.09
Sat Flow, veh/h	1774	1863	1583	50	1312	423	1774	1770	1583	1774	1770	1583
Grp Volume(v), veh/h	14	497	23	958	0	0	81	42	70	229	36	38
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1786	0	0	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	0.6	28.1	1.2	24.1	0.0	0.0	3.9	1.9	3.6	7.1	2.0	2.4
Cycle Q Clear(g_c), s	0.6	28.1	1.2	24.1	0.0	0.0	3.9	1.9	3.6	7.1	2.0	2.4
Prop In Lane	1.00		1.00	0.03		0.24	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	462	485	412	398	0	0	425	485	434	117	164	147
V/C Ratio(X)	0.03	1.03	0.06	2.40	0.00	0.00	0.19	0.09	0.16	1.96	0.22	0.26
Avail Cap(c_a), veh/h	462	485	412	398	0	0	425	485	434	117	464	415
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.66	0.66	0.66
Uniform Delay (d), s/veh	29.8	40.0	30.0	42.0	0.0	0.0	32.7	29.1	29.8	50.5	45.4	45.6
Incr Delay (d2), s/veh	0.0	47.5	0.0	639.6	0.0	0.0	0.1	0.4	0.8	453.5	2.0	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	20.8	0.5	82.6	0.0	0.0	1.9	1.0	1.7	18.2	1.1	1.2
LnGrp Delay(d),s/veh	29.8	87.5	30.0	681.5	0.0	0.0	32.8	29.5	30.6	503.9	47.4	48.4
LnGrp LOS	C	F	C	F			C	C	C	F	D	D
Approach Vol, veh/h		534			958			193			303	
Approach Delay, s/veh		83.5			681.5			31.3			392.6	
Approach LOS		F			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.5	34.5		33.0	30.8	15.2		29.0
Change Period (Y+Rc), s	4.4	4.9		4.9	4.9	* 5.2		4.9
Max Green Setting (Gmax), s	7.1	29.6		28.1	8.1	* 28		24.1
Max Q Clear Time (g_c+I1), s	9.1	5.6		30.1	5.9	4.4		26.1
Green Ext Time (p_c), s	0.0	1.0		0.0	0.2	0.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	413.7
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	133	237	122	273	408	21	225	219	228	35	198	122
Future Volume (veh/h)	133	237	122	273	408	21	225	219	228	35	198	122
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1710	1676	1676	1710	1676	1676	1676	1676	1676	1710
Adj Flow Rate, veh/h	148	263	136	294	439	23	268	261	271	43	244	151
Adj No. of Lanes	2	2	0	2	2	0	1	2	1	1	2	0
Peak Hour Factor	0.90	0.90	0.90	0.93	0.93	0.93	0.84	0.84	0.84	0.81	0.81	0.81
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1100	891	447	353	572	30	160	767	343	52	334	199
Arrive On Green	0.36	0.43	0.43	0.11	0.19	0.19	0.10	0.24	0.24	0.03	0.17	0.17
Sat Flow, veh/h	3097	2055	1032	3097	3080	161	1597	3185	1425	1597	1920	1146
Grp Volume(v), veh/h	148	202	197	294	227	235	268	261	271	43	201	194
Grp Sat Flow(s),veh/h/ln	1549	1593	1494	1549	1593	1648	1597	1593	1425	1597	1593	1474
Q Serve(g_s), s	3.5	8.9	9.3	10.0	14.6	14.7	10.8	7.3	19.3	2.9	12.9	13.5
Cycle Q Clear(g_c), s	3.5	8.9	9.3	10.0	14.6	14.7	10.8	7.3	19.3	2.9	12.9	13.5
Prop In Lane	1.00		0.69	1.00		0.10	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	1100	691	648	353	296	306	160	767	343	52	277	256
V/C Ratio(X)	0.13	0.29	0.30	0.83	0.77	0.77	1.68	0.34	0.79	0.82	0.73	0.76
Avail Cap(c_a), veh/h	1100	691	648	485	615	636	160	814	364	83	333	308
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	19.8	19.9	46.8	41.7	41.8	48.6	33.9	38.4	51.9	42.2	42.5
Incr Delay (d2), s/veh	0.0	1.1	1.2	6.5	17.1	16.8	327.2	0.2	9.2	15.3	6.6	9.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.1	4.0	4.6	7.8	8.1	19.3	3.3	8.5	1.5	6.2	6.1
LnGrp Delay(d),s/veh	23.6	20.9	21.2	53.3	58.8	58.6	375.8	34.1	47.7	67.2	48.8	51.5
LnGrp LOS	C	C	C	D	E	E	F	C	D	E	D	D
Approach Vol, veh/h		547			756			800			438	
Approach Delay, s/veh		21.7			56.6			153.2			51.8	
Approach LOS		C			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.7	52.0	15.2	24.1	43.6	25.2	7.9	31.3
Change Period (Y+Rc), s	4.4	5.2	4.4	* 5.3	5.2	* 5.1	4.4	5.3
Max Green Setting (Gmax), s	16.3	38.6	10.8	* 23	13.9	* 42	5.6	27.6
Max Q Clear Time (g_c+I1), s	12.0	11.3	12.8	15.5	5.5	16.7	4.9	21.3
Green Ext Time (p_c), s	0.3	3.1	0.0	3.2	1.9	3.4	0.0	3.0

Intersection Summary	
HCM 2010 Ctrl Delay	78.7
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	208	815	69	337	768	90	139	322	332	152	271	310
Future Volume (veh/h)	208	815	69	337	768	90	139	322	332	152	271	310
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	248	970	82	362	826	97	176	408	420	171	304	348
Adj No. of Lanes	2	2	0	2	2	0	1	2	1	1	2	0
Peak Hour Factor	0.84	0.84	0.84	0.93	0.93	0.93	0.79	0.79	0.79	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	356	1019	86	379	942	111	207	1011	627	176	475	425
Arrive On Green	0.10	0.31	0.31	0.11	0.30	0.30	0.12	0.29	0.29	0.10	0.27	0.27
Sat Flow, veh/h	3442	3304	279	3442	3191	375	1774	3539	1583	1774	1770	1583
Grp Volume(v), veh/h	248	520	532	362	458	465	176	408	420	171	304	348
Grp Sat Flow(s),veh/h/ln	1721	1770	1813	1721	1770	1797	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	7.0	29.0	29.0	10.5	24.8	24.8	9.8	9.4	22.0	9.7	15.3	20.8
Cycle Q Clear(g_c), s	7.0	29.0	29.0	10.5	24.8	24.8	9.8	9.4	22.0	9.7	15.3	20.8
Prop In Lane	1.00		0.15	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	356	546	559	379	522	530	207	1011	627	176	475	425
V/C Ratio(X)	0.70	0.95	0.95	0.95	0.88	0.88	0.85	0.40	0.67	0.97	0.64	0.82
Avail Cap(c_a), veh/h	356	546	560	379	576	585	218	1160	693	176	538	481
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.6	34.1	34.1	44.6	33.8	33.8	43.6	29.0	25.0	45.2	32.5	34.5
Incr Delay (d2), s/veh	4.9	27.0	26.6	34.1	13.4	13.2	23.7	0.2	1.9	58.7	1.9	9.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	18.2	18.6	6.8	14.0	14.2	6.2	4.6	9.9	7.6	7.7	10.2
LnGrp Delay(d),s/veh	48.5	61.1	60.7	78.7	47.2	47.0	67.4	29.2	26.9	103.9	34.4	43.9
LnGrp LOS	D	E	E	E	D	D	E	C	C	F	C	D
Approach Vol, veh/h		1300			1285			1004			823	
Approach Delay, s/veh		58.6			56.0			34.9			52.9	
Approach LOS		E			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	36.7	16.1	32.3	16.1	36.1	14.4	34.1
Change Period (Y+Rc), s	4.4	5.7	4.4	5.3	5.7	* 6.4	4.4	5.3
Max Green Setting (Gmax), s	11.1	31.1	12.4	30.6	8.7	* 33	10.0	33.0
Max Q Clear Time (g_c+I1), s	11.5	31.0	11.8	22.8	9.0	26.8	11.7	24.0
Green Ext Time (p_c), s	0.0	0.1	0.0	4.3	0.0	2.9	0.0	4.7

Intersection Summary	
HCM 2010 Ctrl Delay	51.4
HCM 2010 LOS	D

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	134	326	209	70	176	614
Future Volume (veh/h)	134	326	209	70	176	614
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	0.99	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	149	362	246	82	189	660
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	0.90	0.90	0.85	0.85	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	445	555	855	277	602	1855
Arrive On Green	0.25	0.25	0.33	0.33	0.10	0.52
Sat Flow, veh/h	1774	1583	2710	849	1774	3632
Grp Volume(v), veh/h	149	362	164	164	189	660
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1696	1774	1770
Q Serve(g_s), s	3.1	8.7	3.1	3.3	2.9	4.9
Cycle Q Clear(g_c), s	3.1	8.7	3.1	3.3	2.9	4.9
Prop In Lane	1.00	1.00		0.50	1.00	
Lane Grp Cap(c), veh/h	445	555	578	554	602	1855
V/C Ratio(X)	0.34	0.65	0.28	0.30	0.31	0.36
Avail Cap(c_a), veh/h	729	809	825	790	878	2830
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.9	12.4	11.3	11.4	7.5	6.3
Incr Delay (d2), s/veh	0.2	0.5	0.6	0.6	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	3.8	1.6	1.6	1.4	2.4
LnGrp Delay(d),s/veh	14.0	12.9	11.9	12.0	7.6	6.5
LnGrp LOS	B	B	B	B	A	A
Approach Vol, veh/h	511		328			849
Approach Delay, s/veh	13.2		11.9			6.8
Approach LOS	B		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.9	20.6				29.5		15.7
Change Period (Y+Rc), s	4.4	* 5.8				5.8		4.4
Max Green Setting (Gmax), s	11.6	* 21				36.2		18.6
Max Q Clear Time (g_c+I1), s	4.9	5.3				6.9		10.7
Green Ext Time (p_c), s	0.1	9.3				13.6		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	9.7
HCM 2010 LOS	A

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	295	304	23	150	704	55	20	30	17	68	213	544
Future Volume (veh/h)	295	304	23	150	704	55	20	30	17	68	213	544
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	328	338	23	172	809	32	26	38	0	79	248	90
Adj No. of Lanes	2	2	0	1	3	1	0	2	0	1	1	1
Peak Hour Factor	0.90	0.90	0.90	0.87	0.87	0.87	0.78	0.78	0.78	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	353	933	63	182	1412	755	62	100	0	363	381	314
Arrive On Green	0.10	0.28	0.28	0.10	0.28	0.28	0.05	0.05	0.00	0.20	0.20	0.20
Sat Flow, veh/h	3442	3359	227	1774	5085	1553	1362	2295	0	1774	1863	1536
Grp Volume(v), veh/h	328	177	184	172	809	32	34	30	0	79	248	90
Grp Sat Flow(s),veh/h/ln	1721	1770	1817	1774	1695	1553	1795	1770	0	1774	1863	1536
Q Serve(g_s), s	5.2	4.4	4.4	5.3	7.5	0.6	1.0	0.9	0.0	2.0	6.7	2.7
Cycle Q Clear(g_c), s	5.2	4.4	4.4	5.3	7.5	0.6	1.0	0.9	0.0	2.0	6.7	2.7
Prop In Lane	1.00		0.13	1.00		1.00	0.76		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	353	491	504	182	1412	755	82	81	0	363	381	314
V/C Ratio(X)	0.93	0.36	0.36	0.95	0.57	0.04	0.42	0.37	0.00	0.22	0.65	0.29
Avail Cap(c_a), veh/h	353	593	609	182	1695	841	591	583	0	585	614	506
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.3	15.8	15.9	24.4	16.9	7.5	25.4	25.3	0.0	18.1	19.9	18.4
Incr Delay (d2), s/veh	30.0	0.9	0.9	50.5	0.4	0.0	1.3	1.0	0.0	0.4	2.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	2.2	2.3	5.1	3.5	0.4	0.5	0.5	0.0	1.0	3.7	1.2
LnGrp Delay(d),s/veh	54.4	16.7	16.7	74.9	17.4	7.5	26.6	26.4	0.0	18.5	22.6	19.1
LnGrp LOS	D	B	B	E	B	A	C	C		B	C	B
Approach Vol, veh/h		689			1013			64			417	
Approach Delay, s/veh		34.6			26.8			26.5			21.1	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	21.2		16.1	10.0	21.2		7.4
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		4.9
Max Green Setting (Gmax), s	5.6	* 18		18.0	5.6	18.2		18.0
Max Q Clear Time (g_c+I1), s	7.3	6.4		8.7	7.2	9.5		3.0
Green Ext Time (p_c), s	0.0	7.1		1.9	0.0	5.6		0.1

Intersection Summary		
HCM 2010 Ctrl Delay	28.2	
HCM 2010 LOS	C	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	323	204	277	554	65	191	453	118	113	1230	121
Future Volume (veh/h)	202	323	204	277	554	65	191	453	118	113	1230	121
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	222	355	224	330	660	77	220	521	136	135	1464	144
Adj No. of Lanes	2	2	1	2	2	0	2	2	1	2	3	1
Peak Hour Factor	0.91	0.91	0.91	0.84	0.84	0.84	0.87	0.87	0.87	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	267	799	357	381	827	96	263	1698	760	178	2315	721
Arrive On Green	0.08	0.23	0.23	0.11	0.26	0.26	0.15	0.96	0.96	0.10	0.91	0.91
Sat Flow, veh/h	3442	3539	1583	3442	3194	372	3442	3539	1583	3442	5085	1583
Grp Volume(v), veh/h	222	355	224	330	365	372	220	521	136	135	1464	144
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1797	1721	1770	1583	1721	1695	1583
Q Serve(g_s), s	9.5	12.9	19.1	14.1	28.9	29.0	9.3	1.3	0.6	5.7	9.1	1.5
Cycle Q Clear(g_c), s	9.5	12.9	19.1	14.1	28.9	29.0	9.3	1.3	0.6	5.7	9.1	1.5
Prop In Lane	1.00		1.00	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	267	799	357	381	458	465	263	1698	760	178	2315	721
V/C Ratio(X)	0.83	0.44	0.63	0.87	0.80	0.80	0.84	0.31	0.18	0.76	0.63	0.20
Avail Cap(c_a), veh/h	324	816	365	580	538	546	342	1698	760	255	2315	721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	0.79	0.79	0.79
Uniform Delay (d), s/veh	68.2	50.0	52.4	65.6	51.9	52.0	62.6	1.6	1.6	66.3	4.1	3.7
Incr Delay (d2), s/veh	12.1	0.6	3.8	5.8	7.2	7.2	9.8	0.4	0.5	3.3	1.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	6.4	8.7	7.0	15.0	15.3	4.8	0.5	0.3	2.8	4.0	0.7
LnGrp Delay(d),s/veh	80.3	50.5	56.2	71.4	59.2	59.2	72.4	2.0	2.1	69.6	5.1	4.2
LnGrp LOS	F	D	E	E	E	E	E	A	A	E	A	A
Approach Vol, veh/h		801			1067			877			1743	
Approach Delay, s/veh		60.4			62.9			19.7			10.0	
Approach LOS		E			E			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.2	77.9	21.0	39.0	15.9	74.2	16.0	43.9
Change Period (Y+Rc), s	4.4	* 5.9	4.4	* 5.1	4.4	5.9	4.4	5.1
Max Green Setting (Gmax), s	11.1	* 60	25.3	* 35	14.9	55.6	14.1	45.6
Max Q Clear Time (g_c+I1), s	7.7	3.3	16.1	21.1	11.3	11.1	11.5	31.0
Green Ext Time (p_c), s	0.1	39.7	0.5	7.4	0.1	33.4	0.1	7.8

Intersection Summary	
HCM 2010 Ctrl Delay	33.5
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	85	44	26	37	63	52	614	17	144	1180	247
Future Volume (veh/h)	180	85	44	26	37	63	52	614	17	144	1180	247
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	209	99	51	31	44	75	63	749	21	155	1269	266
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.86	0.86	0.86	0.84	0.84	0.84	0.82	0.82	0.82	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	220	83	43	91	130	187	81	1939	54	180	1775	368
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.05	0.55	0.55	0.10	0.61	0.61
Sat Flow, veh/h	770	365	188	249	575	824	1774	3516	99	1774	2920	605
Grp Volume(v), veh/h	359	0	0	150	0	0	63	377	393	155	763	772
Grp Sat Flow(s),veh/h/ln	1322	0	0	1647	0	0	1774	1770	1845	1774	1770	1756
Q Serve(g_s), s	19.1	0.0	0.0	0.0	0.0	0.0	4.4	15.3	15.3	10.8	37.5	38.8
Cycle Q Clear(g_c), s	28.6	0.0	0.0	9.5	0.0	0.0	4.4	15.3	15.3	10.8	37.5	38.8
Prop In Lane	0.58		0.14	0.21		0.50	1.00		0.05	1.00		0.34
Lane Grp Cap(c), veh/h	345	0	0	408	0	0	81	976	1018	180	1075	1067
V/C Ratio(X)	1.04	0.00	0.00	0.37	0.00	0.00	0.78	0.39	0.39	0.86	0.71	0.72
Avail Cap(c_a), veh/h	345	0	0	408	0	0	172	976	1018	199	1075	1067
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.83	0.83	0.83	0.71	0.71	0.71
Uniform Delay (d), s/veh	51.3	0.0	0.0	41.3	0.0	0.0	59.5	16.1	16.1	55.7	17.1	17.3
Incr Delay (d2), s/veh	59.2	0.0	0.0	0.5	0.0	0.0	5.0	1.0	0.9	20.5	2.8	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	17.7	0.0	0.0	4.5	0.0	0.0	2.3	7.7	8.0	6.3	19.1	19.6
LnGrp Delay(d),s/veh	110.4	0.0	0.0	41.8	0.0	0.0	64.5	17.1	17.0	76.2	19.9	20.4
LnGrp LOS	F			D			E	B	B	E	B	C
Approach Vol, veh/h		359			150			833			1690	
Approach Delay, s/veh		110.4			41.8			20.6			25.3	
Approach LOS		F			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.2	75.3		33.5	10.1	82.4		33.5
Change Period (Y+Rc), s	4.4	* 5.8		4.9	4.4	5.8		4.9
Max Green Setting (Gmax), s	14.1	* 69		28.6	12.2	70.1		28.6
Max Q Clear Time (g_c+I1), s	12.8	17.3		30.6	6.4	40.8		11.5
Green Ext Time (p_c), s	0.0	43.1		0.0	0.0	26.2		2.9

Intersection Summary		
HCM 2010 Ctrl Delay	34.9	
HCM 2010 LOS	C	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	150	642	345	234	798	83	265	444	121	127	862	105
Future Volume (veh/h)	150	642	345	234	798	83	265	444	121	127	862	105
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	155	662	356	244	831	86	273	458	125	140	947	115
Adj No. of Lanes	2	2	0	2	2	0	2	2	0	1	2	0
Peak Hour Factor	0.97	0.97	0.97	0.96	0.96	0.96	0.97	0.97	0.97	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	913	491	299	1415	146	330	721	195	165	822	100
Arrive On Green	0.12	0.82	0.82	0.09	0.44	0.44	0.10	0.26	0.26	0.12	0.34	0.34
Sat Flow, veh/h	3442	2225	1196	3442	3238	335	3442	2754	746	1774	3178	386
Grp Volume(v), veh/h	155	526	492	244	454	463	273	293	290	140	527	535
Grp Sat Flow(s),veh/h/ln	1721	1770	1652	1721	1770	1804	1721	1770	1731	1774	1770	1795
Q Serve(g_s), s	5.5	16.6	16.6	8.8	24.5	24.5	9.8	18.5	18.7	9.7	32.6	32.6
Cycle Q Clear(g_c), s	5.5	16.6	16.6	8.8	24.5	24.5	9.8	18.5	18.7	9.7	32.6	32.6
Prop In Lane	1.00		0.72	1.00		0.19	1.00		0.43	1.00		0.22
Lane Grp Cap(c), veh/h	207	726	678	299	773	788	330	463	453	165	458	464
V/C Ratio(X)	0.75	0.73	0.73	0.82	0.59	0.59	0.83	0.63	0.64	0.85	1.15	1.15
Avail Cap(c_a), veh/h	385	726	678	385	773	788	464	486	475	211	458	464
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.47	0.47	0.47
Uniform Delay (d), s/veh	54.5	8.2	8.2	56.6	26.9	26.9	55.9	41.2	41.3	54.4	41.3	41.3
Incr Delay (d2), s/veh	2.0	6.1	6.6	8.0	3.3	3.2	5.9	1.8	2.0	9.6	80.1	80.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	8.8	8.3	4.5	12.7	12.9	4.9	9.3	9.2	5.2	26.0	26.4
LnGrp Delay(d),s/veh	56.5	14.3	14.7	64.5	30.1	30.1	61.9	43.0	43.2	64.0	121.4	121.4
LnGrp LOS	E	B	B	E	C	C	E	D	D	E	F	F
Approach Vol, veh/h		1173			1161			856			1202	
Approach Delay, s/veh		20.0			37.3			49.1			114.7	
Approach LOS		C			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.3	56.7	16.5	37.5	12.0	60.0	16.1	37.9
Change Period (Y+Rc), s	4.4	5.0	4.4	4.9	4.4	5.0	4.4	4.9
Max Green Setting (Gmax), s	14.1	43.6	17.0	32.6	14.1	43.6	15.0	34.6
Max Q Clear Time (g_c+I1), s	10.8	18.6	11.8	34.6	7.5	26.5	11.7	20.7
Green Ext Time (p_c), s	0.2	15.9	0.3	0.0	0.1	12.2	0.1	6.4

Intersection Summary	
HCM 2010 Ctrl Delay	56.2
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	24	724	55	39	794	255	65	36	25	345	35	57
Future Volume (veh/h)	24	724	55	39	794	255	65	36	25	345	35	57
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	27	813	62	41	827	266	84	47	32	375	38	62
Adj No. of Lanes	1	1	1	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.89	0.89	0.89	0.96	0.96	0.96	0.77	0.77	0.77	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	382	401	341	14	290	93	105	705	438	128	617	552
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.06	0.34	0.34	0.07	0.35	0.35
Sat Flow, veh/h	1774	1863	1583	65	1302	419	1774	2099	1303	1774	1770	1583
Grp Volume(v), veh/h	27	813	62	1134	0	0	84	39	40	375	38	62
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1786	0	0	1774	1770	1633	1774	1770	1583
Q Serve(g_s), s	1.5	27.1	4.0	28.1	0.0	0.0	5.9	1.9	2.1	9.1	1.8	3.3
Cycle Q Clear(g_c), s	1.5	27.1	4.0	28.1	0.0	0.0	5.9	1.9	2.1	9.1	1.8	3.3
Prop In Lane	1.00		1.00	0.04		0.23	1.00		0.80	1.00		1.00
Lane Grp Cap(c), veh/h	382	401	341	398	0	0	105	594	548	128	617	552
V/C Ratio(X)	0.07	2.03	0.18	2.85	0.00	0.00	0.80	0.07	0.07	2.93	0.06	0.11
Avail Cap(c_a), veh/h	382	401	341	398	0	0	124	598	552	128	617	552
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.59	0.59	0.59
Uniform Delay (d), s/veh	39.4	49.5	40.4	49.0	0.0	0.0	58.5	28.4	28.5	58.5	27.3	27.8
Incr Delay (d2), s/veh	0.0	471.9	0.1	838.4	0.0	0.0	22.1	0.2	0.3	879.4	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	66.4	1.8	106.6	0.0	0.0	3.5	1.0	1.0	35.7	0.9	1.5
LnGrp Delay(d),s/veh	39.4	521.3	40.5	887.3	0.0	0.0	80.6	28.6	28.8	937.8	27.4	28.1
LnGrp LOS	D	F	D	F			F	C	C	F	C	C
Approach Vol, veh/h		902			1134			163			475	
Approach Delay, s/veh		473.8			887.3			55.4			746.3	
Approach LOS		F			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.5	47.5		32.0	11.9	49.1		33.0
Change Period (Y+Rc), s	4.4	* 5.2		4.9	4.4	5.2		4.9
Max Green Setting (Gmax), s	9.1	* 43		27.1	8.8	42.6		28.1
Max Q Clear Time (g_c+I1), s	11.1	4.1		29.1	7.9	5.3		30.1
Green Ext Time (p_c), s	0.0	1.7		0.0	0.0	1.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	672.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	270	532	389	406	452	33	146	288	295	54	229	165
Future Volume (veh/h)	270	532	389	406	452	33	146	288	295	54	229	165
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1710	1676	1676	1710	1676	1676	1676	1676	1676	1710
Adj Flow Rate, veh/h	276	543	397	432	481	35	152	300	307	60	254	183
Adj No. of Lanes	2	2	0	2	2	0	1	2	1	1	2	0
Peak Hour Factor	0.98	0.98	0.98	0.94	0.94	0.94	0.96	0.96	0.96	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	325	727	531	415	1333	97	174	804	360	75	342	238
Arrive On Green	0.10	0.41	0.41	0.13	0.44	0.44	0.11	0.25	0.25	0.05	0.19	0.19
Sat Flow, veh/h	3097	1758	1285	3097	3012	219	1597	3185	1425	1597	1799	1250
Grp Volume(v), veh/h	276	492	448	432	254	262	152	300	307	60	224	213
Grp Sat Flow(s),veh/h/ln	1549	1593	1450	1549	1593	1638	1597	1593	1425	1597	1593	1456
Q Serve(g_s), s	11.0	33.0	33.1	16.9	13.3	13.4	11.8	9.8	25.9	4.7	16.7	17.5
Cycle Q Clear(g_c), s	11.0	33.0	33.1	16.9	13.3	13.4	11.8	9.8	25.9	4.7	16.7	17.5
Prop In Lane	1.00		0.89	1.00		0.13	1.00		1.00	1.00		0.86
Lane Grp Cap(c), veh/h	325	658	599	415	705	725	174	804	360	75	303	277
V/C Ratio(X)	0.85	0.75	0.75	1.04	0.36	0.36	0.87	0.37	0.85	0.80	0.74	0.77
Avail Cap(c_a), veh/h	411	658	599	415	705	725	188	804	360	189	399	365
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.62	0.62	0.62	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.4	31.4	31.4	54.5	23.3	23.3	55.2	38.9	44.9	59.5	48.1	48.4
Incr Delay (d2), s/veh	10.7	7.6	8.3	54.9	1.4	1.4	20.8	0.2	11.9	7.3	5.5	7.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	15.9	14.6	10.4	6.1	6.3	6.2	4.3	11.4	2.2	7.8	7.6
LnGrp Delay(d),s/veh	66.1	39.0	39.7	109.4	24.7	24.7	76.1	39.1	56.8	66.8	53.6	56.1
LnGrp LOS	E	D	D	F	C	C	E	D	E	E	D	E
Approach Vol, veh/h		1216			948			759			497	
Approach Delay, s/veh		45.4			63.3			53.6			56.2	
Approach LOS		D			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.3	57.3	18.2	29.3	17.6	61.0	10.3	37.1
Change Period (Y+Rc), s	4.4	5.2	4.4	* 5.3	4.4	* 5.2	4.4	5.3
Max Green Setting (Gmax), s	16.9	43.6	14.8	* 32	16.7	* 44	14.9	31.3
Max Q Clear Time (g_c+I1), s	19.9	35.1	13.8	19.5	13.0	15.4	6.7	27.9
Green Ext Time (p_c), s	0.0	6.0	0.0	4.5	0.2	13.5	0.0	2.0

Intersection Summary	
HCM 2010 Ctrl Delay	53.8
HCM 2010 LOS	D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	379	1083	57	410	1020	104	83	306	336	250	504	291
Future Volume (veh/h)	379	1083	57	410	1020	104	83	306	336	250	504	291
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	395	1128	59	436	1085	111	88	326	357	263	531	306
Adj No. of Lanes	2	2	0	2	2	0	1	2	1	1	2	0
Peak Hour Factor	0.96	0.96	0.96	0.94	0.94	0.94	0.94	0.94	0.94	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	414	1157	61	452	1085	111	109	809	570	273	695	400
Arrive On Green	0.12	0.34	0.34	0.13	0.33	0.33	0.06	0.23	0.23	0.15	0.32	0.32
Sat Flow, veh/h	3442	3422	179	3442	3242	331	1774	3539	1583	1774	2166	1246
Grp Volume(v), veh/h	395	583	604	436	592	604	88	326	357	263	434	403
Grp Sat Flow(s),veh/h/ln	1721	1770	1831	1721	1770	1804	1774	1770	1583	1774	1770	1643
Q Serve(g_s), s	15.3	43.6	43.6	16.9	44.8	44.8	6.6	10.5	24.9	19.7	29.5	29.6
Cycle Q Clear(g_c), s	15.3	43.6	43.6	16.9	44.8	44.8	6.6	10.5	24.9	19.7	29.5	29.6
Prop In Lane	1.00		0.10	1.00		0.18	1.00		1.00	1.00		0.76
Lane Grp Cap(c), veh/h	414	599	619	452	592	604	109	809	570	273	568	527
V/C Ratio(X)	0.95	0.97	0.97	0.96	1.00	1.00	0.81	0.40	0.63	0.96	0.76	0.77
Avail Cap(c_a), veh/h	414	599	619	452	592	604	132	872	598	273	576	535
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	58.5	43.7	43.8	57.8	44.6	44.6	62.0	43.9	35.4	56.3	40.9	40.9
Incr Delay (d2), s/veh	32.4	30.3	29.9	32.8	36.9	36.9	21.0	0.2	1.6	44.2	5.7	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.2	26.3	27.1	10.1	27.9	28.5	3.9	5.1	11.1	13.0	15.4	14.4
LnGrp Delay(d),s/veh	91.0	74.0	73.6	90.7	81.4	81.5	83.1	44.1	37.0	100.5	46.6	47.2
LnGrp LOS	F	E	E	F	F	F	F	D	D	F	D	D
Approach Vol, veh/h		1582			1632			771			1100	
Approach Delay, s/veh		78.1			83.9			45.3			59.7	
Approach LOS		E			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	51.0	12.6	48.3	21.8	51.2	25.0	35.9
Change Period (Y+Rc), s	4.4	5.7	4.4	5.3	5.7	* 6.4	4.4	5.3
Max Green Setting (Gmax), s	17.6	44.0	10.0	43.6	16.1	* 45	20.6	33.0
Max Q Clear Time (g_c+I1), s	19.9	45.6	8.6	31.6	17.3	46.8	21.7	26.9
Green Ext Time (p_c), s	0.0	0.0	0.0	5.9	0.0	0.0	0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	71.0
HCM 2010 LOS	E

Notes

Appendix E
Peak Hour Intersection Calculation Worksheets – Near-Term Year 2022 with and without Construction Traffic (Morena Pipelines)

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	75	375	345	145	185	115
Future Volume (veh/h)	75	375	345	145	185	115
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	82	408	375	158	201	125
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	463	641	690	286	256	1849
Arrive On Green	0.26	0.26	0.28	0.28	0.14	0.52
Sat Flow, veh/h	1774	1583	2516	1004	1774	3632
Grp Volume(v), veh/h	82	408	272	261	201	125
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1658	1774	1770
Q Serve(g_s), s	1.7	9.7	6.1	6.3	5.1	0.8
Cycle Q Clear(g_c), s	1.7	9.7	6.1	6.3	5.1	0.8
Prop In Lane	1.00	1.00		0.61	1.00	
Lane Grp Cap(c), veh/h	463	641	504	472	256	1849
V/C Ratio(X)	0.18	0.64	0.54	0.55	0.79	0.07
Avail Cap(c_a), veh/h	683	838	692	648	558	2761
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.5	11.2	14.2	14.3	19.4	5.6
Incr Delay (d2), s/veh	0.1	0.4	1.9	2.2	2.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	4.3	3.2	3.1	2.7	0.4
LnGrp Delay(d),s/veh	13.5	11.6	16.2	16.4	21.5	5.6
LnGrp LOS	B	B	B	B	C	A
Approach Vol, veh/h	490		533			326
Approach Delay, s/veh	11.9		16.3			15.4
Approach LOS	B		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	11.2	19.2				30.4		16.7
Change Period (Y+Rc), s	4.4	* 5.8				5.8		4.4
Max Green Setting (Gmax), s	14.8	* 18				36.7		18.1
Max Q Clear Time (g_c+I1), s	7.1	8.3				2.8		11.7
Green Ext Time (p_c), s	0.2	4.7				9.0		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	14.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	340	510	15	10	195	80	20	130	90	25	35	190
Future Volume (veh/h)	340	510	15	10	195	80	20	130	90	25	35	190
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	370	554	16	11	212	87	22	141	98	27	38	207
Adj No. of Lanes	2	2	0	1	3	1	0	2	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	369	1040	30	20	1020	603	35	228	162	326	342	288
Arrive On Green	0.11	0.30	0.30	0.01	0.20	0.20	0.12	0.12	0.12	0.18	0.18	0.18
Sat Flow, veh/h	3442	3510	101	1774	5085	1559	289	1862	1326	1774	1863	1570
Grp Volume(v), veh/h	370	279	291	11	212	87	141	0	120	27	38	207
Grp Sat Flow(s),veh/h/ln	1721	1770	1842	1774	1695	1559	1848	0	1629	1774	1863	1570
Q Serve(g_s), s	5.6	6.9	6.9	0.3	1.8	1.9	3.8	0.0	3.7	0.7	0.9	6.5
Cycle Q Clear(g_c), s	5.6	6.9	6.9	0.3	1.8	1.9	3.8	0.0	3.7	0.7	0.9	6.5
Prop In Lane	1.00		0.05	1.00		1.00	0.16		0.81	1.00		1.00
Lane Grp Cap(c), veh/h	369	525	546	20	1020	603	226	0	199	326	342	288
V/C Ratio(X)	1.00	0.53	0.53	0.55	0.21	0.14	0.62	0.00	0.60	0.08	0.11	0.72
Avail Cap(c_a), veh/h	369	636	662	173	1770	833	636	0	561	611	641	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.3	15.4	15.4	25.7	17.4	10.5	21.8	0.0	21.7	17.7	17.8	20.1
Incr Delay (d2), s/veh	47.9	1.7	1.6	8.4	0.1	0.1	1.0	0.0	1.1	0.2	0.2	4.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	3.6	3.7	0.2	0.9	1.1	2.0	0.0	1.7	0.3	0.5	3.2
LnGrp Delay(d),s/veh	71.2	17.1	17.0	34.1	17.5	10.6	22.8	0.0	22.8	17.9	18.0	24.8
LnGrp LOS	F	B	B	C	B	B	C		C	B	B	C
Approach Vol, veh/h		940			310			261			272	
Approach Delay, s/veh		38.4			16.2			22.8			23.2	
Approach LOS		D			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.0	21.5		14.5	10.0	16.5		11.3
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		4.9
Max Green Setting (Gmax), s	5.1	* 19		18.0	5.6	18.2		18.0
Max Q Clear Time (g_c+I1), s	2.3	8.9		8.5	7.6	3.9		5.8
Green Ext Time (p_c), s	0.0	5.1		1.0	0.0	6.5		0.8

Intersection Summary		
HCM 2010 Ctrl Delay	29.9	
HCM 2010 LOS	C	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	470	90	80	265	50	170	1440	180	60	230	45
Future Volume (veh/h)	110	470	90	80	265	50	170	1440	180	60	230	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	120	511	98	87	288	54	185	1565	196	65	250	49
Adj No. of Lanes	2	2	1	2	2	0	2	2	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	708	317	132	565	105	238	1398	625	743	2802	872
Arrive On Green	0.05	0.20	0.20	0.04	0.19	0.19	0.07	0.40	0.40	0.07	0.18	0.18
Sat Flow, veh/h	3442	3539	1583	3442	2983	552	3442	3539	1583	3442	5085	1583
Grp Volume(v), veh/h	120	511	98	87	169	173	185	1565	196	65	250	49
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1765	1721	1770	1583	1721	1695	1583
Q Serve(g_s), s	4.8	18.9	7.4	3.5	12.0	12.3	7.4	55.3	9.8	2.5	5.7	3.6
Cycle Q Clear(g_c), s	4.8	18.9	7.4	3.5	12.0	12.3	7.4	55.3	9.8	2.5	5.7	3.6
Prop In Lane	1.00		1.00	1.00		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	169	708	317	132	335	334	238	1398	625	743	2802	872
V/C Ratio(X)	0.71	0.72	0.31	0.66	0.51	0.52	0.78	1.12	0.31	0.09	0.09	0.06
Avail Cap(c_a), veh/h	371	1001	448	334	479	478	710	1398	625	743	2802	872
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.53	0.53	0.53	0.99	0.99	0.99
Uniform Delay (d), s/veh	65.6	52.4	47.8	66.4	50.9	51.0	64.1	42.3	19.5	52.1	28.1	27.2
Incr Delay (d2), s/veh	2.1	2.1	0.8	2.1	1.2	1.3	1.1	59.6	0.7	0.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	9.4	3.3	1.7	6.0	6.1	3.6	38.6	4.4	1.2	2.7	1.6
LnGrp Delay(d),s/veh	67.7	54.5	48.5	68.5	52.1	52.3	65.2	101.9	20.2	52.1	28.1	27.3
LnGrp LOS	E	D	D	E	D	D	E	F	C	D	C	C
Approach Vol, veh/h		729			429			1946			364	
Approach Delay, s/veh		55.8			55.5			90.2			32.3	
Approach LOS		E			E			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	36.1	61.0	9.8	33.1	14.1	83.0	11.3	31.6
Change Period (Y+Rc), s	5.9	* 5.7	4.4	* 5.1	4.4	5.9	4.4	5.1
Max Green Setting (Gmax), s	12.1	* 55	13.6	* 40	28.9	38.3	15.1	37.9
Max Q Clear Time (g_c+I1), s	14.5	57.3	5.5	20.9	9.4	7.7	6.8	14.3
Green Ext Time (p_c), s	0.3	0.0	0.1	7.1	0.3	2.7	0.1	7.9

Intersection Summary	
HCM 2010 Ctrl Delay	72.6
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	390	20	50	35	40	280	20	1250	15	50	600	80
Future Volume (veh/h)	390	20	50	35	40	280	20	1250	15	50	600	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	424	22	54	38	43	304	22	1359	16	54	652	87
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	289	12	29	79	89	491	32	1677	20	70	1537	205
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.02	0.47	0.47	0.04	0.49	0.49
Sat Flow, veh/h	644	33	82	119	252	1393	1774	3583	42	1774	3140	418
Grp Volume(v), veh/h	500	0	0	385	0	0	22	671	704	54	367	372
Grp Sat Flow(s),veh/h/ln	759	0	0	1764	0	0	1774	1770	1855	1774	1770	1789
Q Serve(g_s), s	17.7	0.0	0.0	0.0	0.0	0.0	1.3	35.1	35.1	3.3	14.4	14.5
Cycle Q Clear(g_c), s	38.1	0.0	0.0	20.4	0.0	0.0	1.3	35.1	35.1	3.3	14.4	14.5
Prop In Lane	0.85		0.11	0.10		0.79	1.00		0.02	1.00		0.23
Lane Grp Cap(c), veh/h	329	0	0	659	0	0	32	828	869	70	866	876
V/C Ratio(X)	1.52	0.00	0.00	0.58	0.00	0.00	0.69	0.81	0.81	0.78	0.42	0.42
Avail Cap(c_a), veh/h	329	0	0	659	0	0	215	828	869	182	866	876
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.32	0.32	0.32	0.96	0.96	0.96
Uniform Delay (d), s/veh	41.7	0.0	0.0	29.4	0.0	0.0	52.7	24.6	24.6	51.4	17.8	17.8
Incr Delay (d2), s/veh	248.2	0.0	0.0	1.3	0.0	0.0	3.2	2.9	2.7	12.2	1.5	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	32.5	0.0	0.0	9.9	0.0	0.0	0.7	17.8	18.7	1.8	7.4	7.5
LnGrp Delay(d),s/veh	289.9	0.0	0.0	30.7	0.0	0.0	55.9	27.5	27.4	63.6	19.2	19.2
LnGrp LOS	F			C			E	C	C	E	B	B
Approach Vol, veh/h		500			385			1397			793	
Approach Delay, s/veh		289.9			30.7			27.9			22.2	
Approach LOS		F			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.6	56.4		43.0	6.3	58.7		43.0
Change Period (Y+Rc), s	4.4	* 5.8		4.9	4.4	5.8		4.9
Max Green Setting (Gmax), s	11.1	* 45		38.1	13.1	41.7		38.1
Max Q Clear Time (g_c+I1), s	15.3	37.1		40.1	3.3	16.5		22.4
Green Ext Time (p_c), s	0.0	7.2		0.0	0.0	23.1		5.8

Intersection Summary		
HCM 2010 Ctrl Delay	69.4	
HCM 2010 LOS	E	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	375	140	100	555	230	180	945	95	85	385	90
Future Volume (veh/h)	155	375	140	100	555	230	180	945	95	85	385	90
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	168	408	152	109	603	250	196	1027	103	92	418	98
Adj No. of Lanes	2	2	0	2	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	234	533	196	747	892	369	260	1053	106	115	908	211
Arrive On Green	0.02	0.07	0.07	0.22	0.37	0.37	0.08	0.32	0.32	0.13	0.64	0.64
Sat Flow, veh/h	3442	2534	934	3442	2442	1012	3442	3249	326	1774	2852	663
Grp Volume(v), veh/h	168	284	276	109	437	416	196	559	571	92	258	258
Grp Sat Flow(s),veh/h/ln	1721	1770	1698	1721	1770	1684	1721	1770	1805	1774	1770	1746
Q Serve(g_s), s	5.2	17.0	17.3	2.8	22.5	22.5	6.0	33.7	33.8	5.4	8.1	8.2
Cycle Q Clear(g_c), s	5.2	17.0	17.3	2.8	22.5	22.5	6.0	33.7	33.8	5.4	8.1	8.2
Prop In Lane	1.00		0.55	1.00		0.60	1.00		0.18	1.00		0.38
Lane Grp Cap(c), veh/h	234	372	357	747	646	615	260	573	585	115	563	556
V/C Ratio(X)	0.72	0.76	0.77	0.15	0.68	0.68	0.75	0.97	0.98	0.80	0.46	0.46
Avail Cap(c_a), veh/h	433	592	568	747	646	615	402	573	585	168	563	556
HCM Platoon Ratio	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90
Uniform Delay (d), s/veh	51.8	47.6	47.7	34.2	28.9	28.9	48.9	36.1	36.1	46.3	14.8	14.9
Incr Delay (d2), s/veh	1.5	13.5	14.8	0.0	5.6	5.9	1.7	31.1	30.9	8.6	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	9.7	9.6	1.3	11.9	11.4	2.9	21.4	21.8	2.9	3.9	3.9
LnGrp Delay(d),s/veh	53.3	61.1	62.5	34.2	34.5	34.8	50.6	67.1	67.0	54.9	15.0	15.1
LnGrp LOS	D	E	E	C	C	C	D	E	E	D	B	B
Approach Vol, veh/h		728			962			1326			608	
Approach Delay, s/veh		59.8			34.6			64.6			21.1	
Approach LOS		E			C			E			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	27.7	12.6	39.3	11.7	44.4	11.9	39.9
Change Period (Y+Rc), s	5.0	* 5	4.4	4.9	4.4	5.0	4.9	* 4.9
Max Green Setting (Gmax), s	8.0	* 36	12.6	32.6	13.6	30.5	10.2	* 35
Max Q Clear Time (g_c+I1), s	4.8	19.3	8.0	10.2	7.2	24.5	7.4	35.8
Green Ext Time (p_c), s	1.8	3.4	0.1	2.1	0.1	3.0	0.1	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		48.4
HCM 2010 LOS		D

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	460	25	25	585	190	60	35	55	210	35	35
Future Volume (veh/h)	15	460	25	25	585	190	60	35	55	210	35	35
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	16	500	27	27	636	207	65	38	60	228	38	38
Adj No. of Lanes	1	1	1	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	462	485	412	12	291	95	425	485	434	117	166	145
Arrive On Green	0.26	0.26	0.26	0.22	0.22	0.22	0.24	0.27	0.27	0.07	0.09	0.09
Sat Flow, veh/h	1774	1863	1583	55	1305	425	1774	1770	1583	1774	1790	1566
Grp Volume(v), veh/h	16	500	27	870	0	0	65	38	60	228	38	38
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1785	0	0	1774	1770	1583	1774	1770	1586
Q Serve(g_s), s	0.7	28.1	1.4	24.1	0.0	0.0	3.1	1.7	3.1	7.1	2.1	2.4
Cycle Q Clear(g_c), s	0.7	28.1	1.4	24.1	0.0	0.0	3.1	1.7	3.1	7.1	2.1	2.4
Prop In Lane	1.00		1.00	0.03		0.24	1.00		1.00	1.00		0.99
Lane Grp Cap(c), veh/h	462	485	412	398	0	0	425	485	434	117	164	147
V/C Ratio(X)	0.03	1.03	0.07	2.18	0.00	0.00	0.15	0.08	0.14	1.95	0.23	0.26
Avail Cap(c_a), veh/h	462	485	412	398	0	0	425	485	434	117	464	416
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.64	0.64	0.64
Uniform Delay (d), s/veh	29.8	40.0	30.1	42.0	0.0	0.0	32.4	29.1	29.6	50.5	45.4	45.6
Incr Delay (d2), s/veh	0.0	49.3	0.0	541.1	0.0	0.0	0.1	0.3	0.7	449.2	2.1	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	21.0	0.6	71.7	0.0	0.0	1.5	0.9	1.4	18.0	1.1	1.2
LnGrp Delay(d),s/veh	29.8	89.2	30.1	583.0	0.0	0.0	32.5	29.4	30.2	499.6	47.5	48.3
LnGrp LOS	C	F	C	F			C	C	C	F	D	D
Approach Vol, veh/h		543			870			163			304	
Approach Delay, s/veh		84.5			583.0			30.9			386.7	
Approach LOS		F			F			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.5	34.5		33.0	30.8	15.2		29.0
Change Period (Y+Rc), s	4.4	4.9		4.9	4.9	* 5.2		4.9
Max Green Setting (Gmax), s	7.1	29.6		28.1	8.1	* 28		24.1
Max Q Clear Time (g_c+I1), s	9.1	5.1		30.1	5.1	4.4		26.1
Green Ext Time (p_c), s	0.0	0.8		0.0	0.2	0.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	359.4
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	240	125	275	410	25	230	220	230	40	200	125
Future Volume (veh/h)	135	240	125	275	410	25	230	220	230	40	200	125
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1710	1676	1676	1710	1676	1676	1676	1676	1676	1710
Adj Flow Rate, veh/h	147	261	136	299	446	27	250	239	250	43	217	136
Adj No. of Lanes	2	2	0	2	2	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	1125	910	460	358	580	35	160	729	326	52	310	186
Arrive On Green	0.36	0.44	0.44	0.12	0.19	0.19	0.10	0.23	0.23	0.03	0.16	0.16
Sat Flow, veh/h	3097	2050	1036	3097	3052	184	1597	3185	1425	1597	1915	1151
Grp Volume(v), veh/h	147	201	196	299	232	241	250	239	250	43	179	174
Grp Sat Flow(s),veh/h/ln	1549	1593	1494	1549	1593	1644	1597	1593	1425	1597	1593	1473
Q Serve(g_s), s	3.4	8.7	9.1	10.2	14.9	15.0	10.8	6.8	17.7	2.9	11.5	12.1
Cycle Q Clear(g_c), s	3.4	8.7	9.1	10.2	14.9	15.0	10.8	6.8	17.7	2.9	11.5	12.1
Prop In Lane	1.00		0.69	1.00		0.11	1.00		1.00	1.00		0.78
Lane Grp Cap(c), veh/h	1125	707	663	358	303	312	160	729	326	52	257	238
V/C Ratio(X)	0.13	0.28	0.30	0.84	0.77	0.77	1.57	0.33	0.77	0.82	0.69	0.73
Avail Cap(c_a), veh/h	1125	707	663	485	615	635	160	814	364	83	333	308
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.0	19.1	19.2	46.8	41.5	41.5	48.6	34.7	38.9	51.9	42.8	43.0
Incr Delay (d2), s/veh	0.0	1.0	1.1	6.9	16.9	16.7	279.1	0.3	7.7	15.3	4.7	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	4.0	4.0	4.7	8.0	8.3	17.1	3.0	7.7	1.5	5.4	5.4
LnGrp Delay(d),s/veh	23.0	20.1	20.3	53.7	58.4	58.2	327.7	35.0	46.6	67.2	47.5	49.8
LnGrp LOS	C	C	C	D	E	E	F	C	D	E	D	D
Approach Vol, veh/h		544			772			739			396	
Approach Delay, s/veh		21.0			56.5			137.9			50.6	
Approach LOS		C			E			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.9	53.2	15.2	22.8	44.4	25.6	7.9	30.0
Change Period (Y+Rc), s	4.4	5.2	4.4	* 5.3	5.2	* 5.1	4.4	5.3
Max Green Setting (Gmax), s	16.9	38.6	10.8	* 23	13.9	* 42	5.6	27.6
Max Q Clear Time (g_c+I1), s	12.2	11.1	12.8	14.1	5.4	17.0	4.9	19.7
Green Ext Time (p_c), s	0.3	3.1	0.0	3.3	1.9	3.5	0.0	3.2

Intersection Summary	
HCM 2010 Ctrl Delay	72.2
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	820	70	340	770	90	140	325	335	155	275	315
Future Volume (veh/h)	210	820	70	340	770	90	140	325	335	155	275	315
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	228	891	76	370	837	98	152	353	364	168	299	342
Adj No. of Lanes	2	2	0	2	2	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	983	84	422	966	113	184	932	611	196	478	428
Arrive On Green	0.10	0.30	0.30	0.12	0.30	0.30	0.10	0.26	0.26	0.11	0.27	0.27
Sat Flow, veh/h	3442	3301	282	3442	3193	374	1774	3539	1583	1774	1770	1583
Grp Volume(v), veh/h	228	478	489	370	464	471	152	353	364	168	299	342
Grp Sat Flow(s),veh/h/ln	1721	1770	1813	1721	1770	1797	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	6.2	25.0	25.0	10.2	23.8	23.8	8.1	7.8	17.6	8.9	14.3	19.3
Cycle Q Clear(g_c), s	6.2	25.0	25.0	10.2	23.8	23.8	8.1	7.8	17.6	8.9	14.3	19.3
Prop In Lane	1.00		0.16	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	334	527	540	422	535	543	184	932	611	196	478	428
V/C Ratio(X)	0.68	0.91	0.91	0.88	0.87	0.87	0.83	0.38	0.60	0.86	0.63	0.80
Avail Cap(c_a), veh/h	334	548	562	422	600	609	229	1215	738	196	574	514
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	32.5	32.5	41.5	31.7	31.7	42.3	29.0	23.5	42.0	30.8	32.7
Incr Delay (d2), s/veh	4.6	18.6	18.3	17.7	11.8	11.6	15.1	0.2	0.6	28.6	1.3	7.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	14.9	15.2	5.9	13.4	13.5	4.7	3.8	7.8	5.9	7.1	9.3
LnGrp Delay(d),s/veh	46.6	51.1	50.7	59.1	43.5	43.3	57.4	29.1	24.2	70.7	32.1	39.6
LnGrp LOS	D	D	D	E	D	D	E	C	C	E	C	D
Approach Vol, veh/h		1195			1305			869			809	
Approach Delay, s/veh		50.1			47.9			32.0			43.3	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	34.3	14.3	31.3	15.0	35.5	15.0	30.6
Change Period (Y+Rc), s	4.4	5.7	4.4	5.3	5.7	* 6.4	4.4	5.3
Max Green Setting (Gmax), s	11.8	29.8	12.4	31.2	8.3	* 33	10.6	33.0
Max Q Clear Time (g_c+I1), s	12.2	27.0	10.1	21.3	8.2	25.8	10.9	19.6
Green Ext Time (p_c), s	0.0	1.7	0.0	4.6	0.1	3.3	0.0	5.5

Intersection Summary	
HCM 2010 Ctrl Delay	44.3
HCM 2010 LOS	D

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	140	330	215	75	180	620
Future Volume (veh/h)	140	330	215	75	180	620
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	152	359	234	82	196	674
Adj No. of Lanes	1	1	2	0	1	2
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	437	573	793	269	205	1849
Arrive On Green	0.25	0.25	0.31	0.31	0.12	0.52
Sat Flow, veh/h	1774	1583	2672	877	1774	3632
Grp Volume(v), veh/h	152	359	158	158	196	674
Grp Sat Flow(s),veh/h/ln	1774	1583	1770	1686	1774	1770
Q Serve(g_s), s	3.1	8.3	3.0	3.2	4.9	5.0
Cycle Q Clear(g_c), s	3.1	8.3	3.0	3.2	4.9	5.0
Prop In Lane	1.00	1.00		0.52	1.00	
Lane Grp Cap(c), veh/h	437	573	544	518	205	1849
V/C Ratio(X)	0.35	0.63	0.29	0.30	0.96	0.36
Avail Cap(c_a), veh/h	727	832	725	691	205	2140
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.7	11.6	11.6	11.7	19.4	6.2
Incr Delay (d2), s/veh	0.2	0.4	0.6	0.7	50.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	3.6	1.5	1.5	5.2	2.4
LnGrp Delay(d),s/veh	13.9	12.0	12.3	12.4	69.5	6.5
LnGrp LOS	B	B	B	B	E	A
Approach Vol, veh/h	511		316			870
Approach Delay, s/veh	12.6		12.3			20.7
Approach LOS	B		B			C

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.5	19.4				28.9		15.3
Change Period (Y+Rc), s	4.4	* 5.8				5.8		4.4
Max Green Setting (Gmax), s	5.1	* 18				26.7		18.1
Max Q Clear Time (g_c+I1), s	10.9	5.2				7.0		10.3
Green Ext Time (p_c), s	0.0	8.0				10.8		0.6

Intersection Summary	
HCM 2010 Ctrl Delay	16.7
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	300	310	30	160	715	65	20	30	20	75	220	550
Future Volume (veh/h)	300	310	30	160	715	65	20	30	20	75	220	550
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1863	1900	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	326	337	30	174	777	42	22	33	4	82	239	90
Adj No. of Lanes	2	2	0	1	3	1	0	2	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	361	910	80	186	1410	743	56	91	11	348	366	308
Arrive On Green	0.10	0.28	0.28	0.10	0.28	0.28	0.04	0.04	0.04	0.20	0.20	0.20
Sat Flow, veh/h	3442	3282	290	1774	5085	1560	1282	2076	258	1774	1863	1571
Grp Volume(v), veh/h	326	181	186	174	777	42	31	0	28	82	239	90
Grp Sat Flow(s),veh/h/ln	1721	1770	1802	1774	1695	1560	1799	0	1817	1774	1863	1571
Q Serve(g_s), s	5.0	4.4	4.5	5.2	7.0	0.8	0.9	0.0	0.8	2.1	6.3	2.6
Cycle Q Clear(g_c), s	5.0	4.4	4.5	5.2	7.0	0.8	0.9	0.0	0.8	2.1	6.3	2.6
Prop In Lane	1.00		0.16	1.00		1.00	0.71		0.14	1.00		1.00
Lane Grp Cap(c), veh/h	361	491	500	186	1410	743	79	0	79	348	366	308
V/C Ratio(X)	0.90	0.37	0.37	0.94	0.55	0.06	0.39	0.00	0.35	0.24	0.65	0.29
Avail Cap(c_a), veh/h	361	606	617	186	1732	842	606	0	612	598	628	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	15.5	15.6	23.7	16.5	7.6	24.9	0.0	24.8	18.1	19.8	18.3
Incr Delay (d2), s/veh	24.6	0.9	0.9	47.2	0.4	0.0	1.2	0.0	1.0	0.5	2.8	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	2.2	2.4	5.0	3.3	0.5	0.5	0.0	0.4	1.1	3.5	1.2
LnGrp Delay(d),s/veh	48.2	16.5	16.5	71.0	16.9	7.6	26.0	0.0	25.8	18.6	22.6	19.0
LnGrp LOS	D	B	B	E	B	A	C		C	B	C	B
Approach Vol, veh/h		693			993			59			411	
Approach Delay, s/veh		31.4			25.9			25.9			21.0	
Approach LOS		C			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	20.8		15.4	10.0	20.8		7.2
Change Period (Y+Rc), s	4.4	* 6		4.9	4.4	6.0		4.9
Max Green Setting (Gmax), s	5.6	* 18		18.0	5.6	18.2		18.0
Max Q Clear Time (g_c+I1), s	7.2	6.5		8.3	7.0	9.0		2.9
Green Ext Time (p_c), s	0.0	7.0		1.9	0.0	5.8		0.1

Intersection Summary		
HCM 2010 Ctrl Delay	26.8	
HCM 2010 LOS	C	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	325	210	280	560	70	200	460	125	120	1235	130
Future Volume (veh/h)	205	325	210	280	560	70	200	460	125	120	1235	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	223	353	228	304	609	76	217	500	136	130	1342	141
Adj No. of Lanes	2	2	1	2	2	0	2	2	1	2	3	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	268	786	352	355	783	98	260	1743	780	173	2376	740
Arrive On Green	0.08	0.22	0.22	0.10	0.25	0.25	0.15	0.99	0.99	0.10	0.93	0.93
Sat Flow, veh/h	3442	3539	1583	3442	3168	395	3442	3539	1583	3442	5085	1583
Grp Volume(v), veh/h	223	353	228	304	340	345	217	500	136	130	1342	141
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	1721	1770	1793	1721	1770	1583	1721	1695	1583
Q Serve(g_s), s	9.6	12.9	19.6	13.0	26.8	26.9	9.2	0.4	0.2	5.5	5.5	1.1
Cycle Q Clear(g_c), s	9.6	12.9	19.6	13.0	26.8	26.9	9.2	0.4	0.2	5.5	5.5	1.1
Prop In Lane	1.00		1.00	1.00		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	268	786	352	355	438	443	260	1743	780	173	2376	740
V/C Ratio(X)	0.83	0.45	0.65	0.86	0.78	0.78	0.83	0.29	0.17	0.75	0.56	0.19
Avail Cap(c_a), veh/h	324	816	365	580	538	545	342	1743	780	255	2376	740
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	0.85	0.85	0.85
Uniform Delay (d), s/veh	68.2	50.4	53.0	66.2	52.6	52.6	62.8	0.6	0.6	66.5	2.8	2.7
Incr Delay (d2), s/veh	12.2	0.6	4.4	3.6	5.8	5.8	9.3	0.4	0.4	2.6	0.8	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	6.4	9.0	6.4	13.8	14.1	4.7	0.2	0.2	2.7	2.4	0.5
LnGrp Delay(d),s/veh	80.4	51.0	57.4	69.7	58.4	58.5	72.0	1.0	1.0	69.1	3.6	3.1
LnGrp LOS	F	D	E	E	E	E	E	A	A	E	A	A
Approach Vol, veh/h		804			989			853			1613	
Approach Delay, s/veh		61.0			61.9			19.0			8.9	
Approach LOS		E			E			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	79.8	19.9	38.4	15.7	76.0	16.1	42.2
Change Period (Y+Rc), s	4.4	* 5.9	4.4	* 5.1	4.4	5.9	4.4	5.1
Max Green Setting (Gmax), s	11.1	* 60	25.3	* 35	14.9	55.6	14.1	45.6
Max Q Clear Time (g_c+I1), s	7.5	2.4	15.0	21.6	11.2	7.5	11.6	28.9
Green Ext Time (p_c), s	0.1	36.9	0.4	7.0	0.1	33.0	0.1	8.2

Intersection Summary	
HCM 2010 Ctrl Delay	33.1
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	90	45	30	40	65	55	620	20	150	1190	255
Future Volume (veh/h)	180	90	45	30	40	65	55	620	20	150	1190	255
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	196	98	49	33	43	71	60	674	22	163	1293	277
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	219	87	43	97	128	178	77	1914	62	188	1774	375
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.04	0.55	0.55	0.11	0.61	0.61
Sat Flow, veh/h	766	383	191	274	566	785	1774	3498	114	1774	2909	615
Grp Volume(v), veh/h	343	0	0	147	0	0	60	341	355	163	780	790
Grp Sat Flow(s),veh/h/ln	1340	0	0	1625	0	0	1774	1770	1843	1774	1770	1754
Q Serve(g_s), s	19.3	0.0	0.0	0.0	0.0	0.0	4.2	13.6	13.6	11.4	38.7	40.3
Cycle Q Clear(g_c), s	28.6	0.0	0.0	9.3	0.0	0.0	4.2	13.6	13.6	11.4	38.7	40.3
Prop In Lane	0.57		0.14	0.22		0.48	1.00		0.06	1.00		0.35
Lane Grp Cap(c), veh/h	349	0	0	404	0	0	77	968	1008	188	1079	1070
V/C Ratio(X)	0.98	0.00	0.00	0.36	0.00	0.00	0.78	0.35	0.35	0.87	0.72	0.74
Avail Cap(c_a), veh/h	349	0	0	404	0	0	172	970	1011	199	1079	1070
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.79	0.79	0.79	0.72	0.72	0.72
Uniform Delay (d), s/veh	51.0	0.0	0.0	41.2	0.0	0.0	59.7	16.0	16.0	55.4	17.2	17.5
Incr Delay (d2), s/veh	43.3	0.0	0.0	0.5	0.0	0.0	4.9	0.8	0.8	22.5	3.0	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.1	0.0	0.0	4.4	0.0	0.0	2.2	6.8	7.1	6.8	19.8	20.3
LnGrp Delay(d),s/veh	94.3	0.0	0.0	41.7	0.0	0.0	64.6	16.8	16.8	78.0	20.2	20.8
LnGrp LOS	F			D			E	B	B	E	C	C
Approach Vol, veh/h		343			147			756			1733	
Approach Delay, s/veh		94.3			41.7			20.6			25.9	
Approach LOS		F			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.8	74.7		33.5	9.9	82.6		33.5
Change Period (Y+Rc), s	4.4	* 5.8		4.9	4.4	5.8		4.9
Max Green Setting (Gmax), s	14.1	* 69		28.6	12.2	70.1		28.6
Max Q Clear Time (g_c+I1), s	13.4	15.6		30.6	6.2	42.3		11.3
Green Ext Time (p_c), s	0.0	43.6		0.0	0.0	24.7		2.7

Intersection Summary		
HCM 2010 Ctrl Delay	33.2	
HCM 2010 LOS	C	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	155	645	350	235	800	85	270	445	125	135	870	110
Future Volume (veh/h)	155	645	350	235	800	85	270	445	125	135	870	110
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	168	701	380	255	870	92	293	484	136	147	946	120
Adj No. of Lanes	2	2	0	2	2	0	2	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	220	891	482	309	1381	146	349	720	201	172	818	104
Arrive On Green	0.13	0.80	0.80	0.09	0.43	0.43	0.10	0.26	0.26	0.13	0.34	0.34
Sat Flow, veh/h	3442	2219	1201	3442	3230	342	3442	2734	764	1774	3161	401
Grp Volume(v), veh/h	168	559	522	255	477	485	293	312	308	147	530	536
Grp Sat Flow(s),veh/h/ln	1721	1770	1651	1721	1770	1802	1721	1770	1728	1774	1770	1792
Q Serve(g_s), s	5.9	21.3	21.4	9.2	26.6	26.6	10.5	19.9	20.1	10.2	32.6	32.6
Cycle Q Clear(g_c), s	5.9	21.3	21.4	9.2	26.6	26.6	10.5	19.9	20.1	10.2	32.6	32.6
Prop In Lane	1.00		0.73	1.00		0.19	1.00		0.44	1.00		0.22
Lane Grp Cap(c), veh/h	220	711	663	309	756	770	349	466	455	172	458	464
V/C Ratio(X)	0.76	0.79	0.79	0.82	0.63	0.63	0.84	0.67	0.68	0.86	1.16	1.16
Avail Cap(c_a), veh/h	385	711	663	385	756	770	464	486	475	211	458	464
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	0.49	0.49	0.49
Uniform Delay (d), s/veh	54.0	9.5	9.5	56.4	28.3	28.3	55.6	41.5	41.6	54.0	41.3	41.3
Incr Delay (d2), s/veh	2.0	8.5	9.1	9.3	4.0	3.9	7.8	2.6	2.9	11.4	82.6	82.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	11.6	10.9	4.8	13.8	14.0	5.4	10.1	9.9	5.5	26.4	26.7
LnGrp Delay(d),s/veh	56.0	18.0	18.6	65.6	32.2	32.2	63.4	44.1	44.5	65.4	123.9	123.9
LnGrp LOS	E	B	B	E	C	C	E	D	D	E	F	F
Approach Vol, veh/h		1249			1217			913			1213	
Approach Delay, s/veh		23.4			39.2			50.4			116.8	
Approach LOS		C			D			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.7	55.6	17.2	37.5	12.5	58.8	16.6	38.1
Change Period (Y+Rc), s	4.4	5.0	4.4	4.9	4.4	5.0	4.4	4.9
Max Green Setting (Gmax), s	11.3	43.6	17.0	32.6	14.1	43.6	15.0	34.6
Max Q Clear Time (g_c+I1), s	11.2	23.4	12.5	34.6	7.9	28.6	12.2	22.1
Green Ext Time (p_c), s	0.1	14.5	0.3	0.0	0.1	11.5	0.0	6.2

Intersection Summary	
HCM 2010 Ctrl Delay	57.6
HCM 2010 LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	725	60	40	795	260	70	40	30	350	40	60
Future Volume (veh/h)	25	725	60	40	795	260	70	40	30	350	40	60
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	27	788	65	43	864	283	76	43	33	380	43	65
Adj No. of Lanes	1	1	1	0	1	0	1	2	0	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	382	401	341	14	289	95	96	672	465	128	626	560
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.05	0.34	0.34	0.07	0.35	0.35
Sat Flow, veh/h	1774	1863	1583	64	1296	424	1774	2003	1385	1774	1770	1583
Grp Volume(v), veh/h	27	788	65	1190	0	0	76	37	39	380	43	65
Grp Sat Flow(s),veh/h/ln	1774	1863	1583	1785	0	0	1774	1770	1618	1774	1770	1583
Q Serve(g_s), s	1.5	27.1	4.2	28.1	0.0	0.0	5.3	1.8	2.0	9.1	2.0	3.5
Cycle Q Clear(g_c), s	1.5	27.1	4.2	28.1	0.0	0.0	5.3	1.8	2.0	9.1	2.0	3.5
Prop In Lane	1.00		1.00	0.04		0.24	1.00		0.86	1.00		1.00
Lane Grp Cap(c), veh/h	382	401	341	398	0	0	96	594	543	128	626	560
V/C Ratio(X)	0.07	1.97	0.19	2.99	0.00	0.00	0.79	0.06	0.07	2.97	0.07	0.12
Avail Cap(c_a), veh/h	382	401	341	398	0	0	124	598	547	128	626	560
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	0.56	0.56	0.56
Uniform Delay (d), s/veh	39.4	49.5	40.5	49.0	0.0	0.0	58.9	28.4	28.5	58.5	27.0	27.4
Incr Delay (d2), s/veh	0.0	444.0	0.1	902.2	0.0	0.0	17.2	0.2	0.3	896.3	0.1	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	63.3	1.9	113.6	0.0	0.0	3.1	0.9	0.9	36.3	1.0	1.6
LnGrp Delay(d),s/veh	39.4	493.5	40.6	951.2	0.0	0.0	76.1	28.6	28.7	954.7	27.1	27.7
LnGrp LOS	D	F	D	F			E	C	C	F	C	C
Approach Vol, veh/h		880			1190			152			488	
Approach Delay, s/veh		446.1			951.2			52.4			749.5	
Approach LOS		F			F			D			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	13.5	47.5		32.0	11.2	49.8		33.0
Change Period (Y+Rc), s	4.4	* 5.2		4.9	4.4	5.2		4.9
Max Green Setting (Gmax), s	9.1	* 43		27.1	8.8	42.6		28.1
Max Q Clear Time (g_c+I1), s	11.1	4.0		29.1	7.3	5.5		30.1
Green Ext Time (p_c), s	0.0	1.8		0.0	0.0	1.8		0.0

Intersection Summary		
HCM 2010 Ctrl Delay	700.4	
HCM 2010 LOS	F	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	270	535	390	410	455	35	150	290	300	55	230	170
Future Volume (veh/h)	270	535	390	410	455	35	150	290	300	55	230	170
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1710	1676	1676	1710	1676	1676	1676	1676	1676	1710
Adj Flow Rate, veh/h	293	582	424	446	495	38	163	315	326	60	250	185
Adj No. of Lanes	2	2	0	2	2	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	342	722	526	415	1302	100	185	814	364	75	331	236
Arrive On Green	0.11	0.41	0.41	0.13	0.43	0.43	0.12	0.26	0.26	0.05	0.19	0.19
Sat Flow, veh/h	3097	1760	1282	3097	2999	230	1597	3185	1425	1597	1778	1268
Grp Volume(v), veh/h	293	527	479	446	262	271	163	315	326	60	223	212
Grp Sat Flow(s),veh/h/ln	1549	1593	1450	1549	1593	1636	1597	1593	1425	1597	1593	1453
Q Serve(g_s), s	11.7	36.7	36.7	16.9	14.1	14.1	12.7	10.3	27.8	4.7	16.7	17.5
Cycle Q Clear(g_c), s	11.7	36.7	36.7	16.9	14.1	14.1	12.7	10.3	27.8	4.7	16.7	17.5
Prop In Lane	1.00		0.88	1.00		0.14	1.00		1.00	1.00		0.87
Lane Grp Cap(c), veh/h	342	653	595	415	691	710	185	814	364	75	297	271
V/C Ratio(X)	0.86	0.81	0.81	1.07	0.38	0.38	0.88	0.39	0.90	0.80	0.75	0.78
Avail Cap(c_a), veh/h	411	653	595	415	691	710	188	814	364	189	399	364
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.59	0.59	0.59	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.1	32.7	32.7	54.5	24.1	24.2	54.8	38.7	45.3	59.5	48.5	48.8
Incr Delay (d2), s/veh	12.6	10.2	11.1	65.2	1.6	1.6	22.4	0.2	15.6	7.3	5.9	8.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	17.9	16.5	11.0	6.5	6.7	6.7	4.5	12.5	2.2	7.9	7.6
LnGrp Delay(d),s/veh	67.6	43.0	43.9	119.7	25.7	25.7	77.3	38.9	60.9	66.8	54.4	57.1
LnGrp LOS	E	D	D	F	C	C	E	D	E	E	D	E
Approach Vol, veh/h		1299			979			804			495	
Approach Delay, s/veh		48.9			68.6			55.6			57.1	
Approach LOS		D			E			E			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.3	56.9	19.0	28.8	18.3	59.9	10.3	37.5
Change Period (Y+Rc), s	4.4	5.2	4.4	* 5.3	4.4	* 5.2	4.4	5.3
Max Green Setting (Gmax), s	16.9	43.6	14.8	* 32	16.7	* 44	14.9	31.3
Max Q Clear Time (g_c+I1), s	18.9	38.7	14.7	19.5	13.7	16.1	6.7	29.8
Green Ext Time (p_c), s	0.0	3.8	0.0	4.0	0.2	14.3	0.0	0.9

Intersection Summary		
HCM 2010 Ctrl Delay	56.9	
HCM 2010 LOS	E	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	380	1085	60	410	1020	105	85	310	340	255	510	295
Future Volume (veh/h)	380	1085	60	410	1020	105	85	310	340	255	510	295
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	413	1179	65	446	1109	114	92	337	370	277	554	321
Adj No. of Lanes	2	2	0	2	2	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	428	1198	66	461	1125	116	113	771	557	284	680	393
Arrive On Green	0.12	0.35	0.35	0.13	0.35	0.35	0.06	0.22	0.22	0.16	0.31	0.31
Sat Flow, veh/h	3442	3411	188	3442	3241	333	1774	3539	1583	1774	2161	1251
Grp Volume(v), veh/h	413	611	633	446	605	618	92	337	370	277	454	421
Grp Sat Flow(s),veh/h/ln	1721	1770	1830	1721	1770	1804	1774	1770	1583	1774	1770	1642
Q Serve(g_s), s	17.3	49.6	49.7	18.7	49.1	49.3	7.4	11.9	28.6	22.5	34.2	34.3
Cycle Q Clear(g_c), s	17.3	49.6	49.7	18.7	49.1	49.3	7.4	11.9	28.6	22.5	34.2	34.3
Prop In Lane	1.00		0.10	1.00		0.18	1.00		1.00	1.00		0.76
Lane Grp Cap(c), veh/h	428	622	643	461	614	626	113	771	557	284	557	517
V/C Ratio(X)	0.97	0.98	0.98	0.97	0.98	0.99	0.82	0.44	0.66	0.98	0.81	0.82
Avail Cap(c_a), veh/h	428	622	643	461	614	626	137	806	573	284	557	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.1	46.6	46.6	62.4	46.9	47.0	67.0	49.0	39.7	60.6	45.8	45.8
Incr Delay (d2), s/veh	34.4	31.7	31.5	33.4	32.3	32.5	22.1	0.3	2.5	46.2	8.9	9.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	29.8	30.8	11.0	29.5	30.2	4.3	5.9	12.9	14.6	18.1	16.9
LnGrp Delay(d),s/veh	97.6	78.3	78.1	95.8	79.2	79.5	89.1	49.2	42.2	106.8	54.7	55.4
LnGrp LOS	F	E	E	F	E	E	F	D	D	F	D	E
Approach Vol, veh/h		1657			1669			799			1152	
Approach Delay, s/veh		83.0			83.7			50.6			67.5	
Approach LOS		F			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.8	56.6	13.6	50.9	23.7	56.7	27.6	36.9
Change Period (Y+Rc), s	4.4	5.7	4.4	5.3	5.7	* 6.4	4.4	5.3
Max Green Setting (Gmax), s	19.4	49.6	11.2	45.0	18.0	* 50	23.2	33.0
Max Q Clear Time (g_c+I1), s	21.3	51.7	9.4	36.3	19.3	51.3	24.5	30.6
Green Ext Time (p_c), s	0.0	0.0	0.0	5.0	0.0	0.0	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	74.9
HCM 2010 LOS	E

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	75	375	372	145	185	134
Future Volume (veh/h)	75	375	372	145	185	134
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1900	1863
Adj Flow Rate, veh/h	82	408	404	158	201	146
Adj No. of Lanes	1	1	1	0	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	673	455	516	202	0	757
Arrive On Green	0.38	0.38	0.41	0.41	0.00	0.41
Sat Flow, veh/h	1774	1583	1269	496	0	1863
Grp Volume(v), veh/h	82	408	0	562	0	146
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1766	0	1863
Q Serve(g_s), s	1.4	16.2	0.0	13.2	0.0	2.4
Cycle Q Clear(g_c), s	1.4	16.2	0.0	13.2	0.0	2.4
Prop In Lane	1.00	1.00		0.28	0.00	
Lane Grp Cap(c), veh/h	673	455	0	718	0	757
V/C Ratio(X)	0.12	0.90	0.00	0.78	0.00	0.19
Avail Cap(c_a), veh/h	673	455	0	844	0	1238
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.6	29.1	0.0	12.3	0.0	9.1
Incr Delay (d2), s/veh	0.0	19.6	0.0	5.5	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	13.1	0.0	7.5	0.0	1.3
LnGrp Delay(d),s/veh	9.7	48.7	0.0	17.8	0.0	9.4
LnGrp LOS	A	D		B		A
Approach Vol, veh/h	490		562			146
Approach Delay, s/veh	42.2		17.8			9.4
Approach LOS	D		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.0	25.2				25.2		22.5
Change Period (Y+Rc), s	4.4	* 5.8				5.8		4.4
Max Green Setting (Gmax), s	5.6	* 23				31.7		18.1
Max Q Clear Time (g_c+I1), s	10.0	15.2				4.4		18.2
Green Ext Time (p_c), s	0.0	4.2				9.7		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	26.7
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	367	510	15	10	195	80	20	130	90	25	35	209
Future Volume (veh/h)	367	510	15	10	195	80	20	130	90	25	35	209
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	399	554	16	11	212	87	22	141	98	27	38	227
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	465	574	17	57	871	347	54	183	119	57	50	238
Arrive On Green	0.70	0.70	0.70	0.70	0.70	0.70	0.19	0.19	0.19	0.19	0.19	0.19
Sat Flow, veh/h	588	817	24	28	1238	494	80	979	637	94	270	1274
Grp Volume(v), veh/h	969	0	0	310	0	0	261	0	0	292	0	0
Grp Sat Flow(s),veh/h/ln	1428	0	0	1760	0	0	1697	0	0	1639	0	0
Q Serve(g_s), s	55.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	0.0	0.0
Cycle Q Clear(g_c), s	62.0	0.0	0.0	6.3	0.0	0.0	14.5	0.0	0.0	17.4	0.0	0.0
Prop In Lane	0.41		0.02	0.04		0.28	0.08		0.38	0.09		0.78
Lane Grp Cap(c), veh/h	1056	0	0	1275	0	0	356	0	0	346	0	0
V/C Ratio(X)	0.92	0.00	0.00	0.24	0.00	0.00	0.73	0.00	0.00	0.84	0.00	0.00
Avail Cap(c_a), veh/h	1071	0	0	1291	0	0	356	0	0	346	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	13.5	0.0	0.0	5.3	0.0	0.0	38.6	0.0	0.0	39.8	0.0	0.0
Incr Delay (d2), s/veh	12.7	0.0	0.0	0.1	0.0	0.0	6.7	0.0	0.0	17.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	27.7	0.0	0.0	3.1	0.0	0.0	7.5	0.0	0.0	9.6	0.0	0.0
LnGrp Delay(d),s/veh	26.2	0.0	0.0	5.4	0.0	0.0	45.3	0.0	0.0	57.6	0.0	0.0
LnGrp LOS	C			A			D			E		
Approach Vol, veh/h		969			310			261			292	
Approach Delay, s/veh		26.2			5.4			45.3			57.6	
Approach LOS		C			A			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		75.7		23.4		75.7		23.4
Change Period (Y+Rc), s		* 6		4.9		6.0		4.9
Max Green Setting (Gmax), s		* 71		18.5		70.6		18.5
Max Q Clear Time (g_c+I1), s		64.0		19.4		8.3		16.5
Green Ext Time (p_c), s		5.7		0.0		31.0		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	30.4
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	470	90	99	265	50	170	1440	207	60	230	45
Future Volume (veh/h)	110	470	90	99	265	50	170	1440	207	60	230	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1900	1900	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	120	511	98	108	288	54	185	1565	225	65	250	49
Adj No. of Lanes	2	2	1	0	1	0	0	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	169	1041	466	0	326	61	0	629	90	340	1169	993
Arrive On Green	0.05	0.29	0.29	0.00	0.21	0.21	0.00	0.13	0.13	0.25	0.83	0.83
Sat Flow, veh/h	3442	3539	1583	0	1526	286	0	1593	229	1774	1863	1583
Grp Volume(v), veh/h	120	511	98	0	0	342	0	0	1790	65	250	49
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	0	0	1812	0	0	1822	1774	1863	1583
Q Serve(g_s), s	4.8	16.7	6.5	0.0	0.0	25.6	0.0	0.0	55.3	4.0	3.8	0.7
Cycle Q Clear(g_c), s	4.8	16.7	6.5	0.0	0.0	25.6	0.0	0.0	55.3	4.0	3.8	0.7
Prop In Lane	1.00		1.00	0.00		0.16	0.00		0.13	1.00		1.00
Lane Grp Cap(c), veh/h	169	1041	466	0	0	387	0	0	720	340	1169	993
V/C Ratio(X)	0.71	0.49	0.21	0.00	0.00	0.88	0.00	0.00	2.49	0.19	0.21	0.05
Avail Cap(c_a), veh/h	371	1041	466	0	0	491	0	0	720	340	1169	993
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.33	1.33	1.33
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.09	0.97	0.97	0.97
Uniform Delay (d), s/veh	65.6	40.8	37.2	0.0	0.0	53.3	0.0	0.0	60.9	43.7	4.6	4.4
Incr Delay (d2), s/veh	2.1	0.5	0.3	0.0	0.0	14.6	0.0	0.0	669.4	0.1	0.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	8.2	2.9	0.0	0.0	14.4	0.0	0.0	161.8	2.0	2.0	0.3
LnGrp Delay(d),s/veh	67.7	41.3	37.5	0.0	0.0	67.9	0.0	0.0	730.3	43.8	5.0	4.5
LnGrp LOS	E	D	D			E			F	D	A	A
Approach Vol, veh/h		729			342			1790			364	
Approach Delay, s/veh		45.1			67.9			730.3			11.9	
Approach LOS		D			E			F			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.7	61.0	0.0	46.3	0.0	93.7	11.3	35.0
Change Period (Y+Rc), s	5.9	* 5.7	4.4	* 5.1	4.4	5.9	4.4	5.1
Max Green Setting (Gmax), s	12.1	* 55	13.6	* 40	28.9	38.3	15.1	37.9
Max Q Clear Time (g_c+I1), s	6.8	57.3	0.0	18.7	0.0	5.8	6.8	27.6
Green Ext Time (p_c), s	0.2	0.0	0.0	7.6	0.0	2.5	0.1	2.3

Intersection Summary	
HCM 2010 Ctrl Delay	424.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	390	20	50	35	40	280	20	1277	15	50	619	80
Future Volume (veh/h)	390	20	50	35	40	280	20	1277	15	50	619	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	424	22	54	38	43	304	22	1388	16	54	673	87
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	289	12	29	79	89	491	32	1678	19	70	791	102
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.02	0.47	0.47	0.04	0.49	0.49
Sat Flow, veh/h	644	33	82	119	252	1393	1774	3584	41	1774	1617	209
Grp Volume(v), veh/h	500	0	0	385	0	0	22	685	719	54	0	760
Grp Sat Flow(s),veh/h/ln	759	0	0	1764	0	0	1774	1770	1855	1774	0	1826
Q Serve(g_s), s	17.7	0.0	0.0	0.0	0.0	0.0	1.3	36.3	36.3	3.3	0.0	39.3
Cycle Q Clear(g_c), s	38.1	0.0	0.0	20.4	0.0	0.0	1.3	36.3	36.3	3.3	0.0	39.3
Prop In Lane	0.85		0.11	0.10		0.79	1.00		0.02	1.00		0.11
Lane Grp Cap(c), veh/h	329	0	0	659	0	0	32	828	869	70	0	894
V/C Ratio(X)	1.52	0.00	0.00	0.58	0.00	0.00	0.69	0.83	0.83	0.78	0.00	0.85
Avail Cap(c_a), veh/h	329	0	0	659	0	0	215	828	869	182	0	894
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.09	0.09	0.09	0.86	0.00	0.86
Uniform Delay (d), s/veh	41.7	0.0	0.0	29.4	0.0	0.0	52.7	24.9	24.9	51.4	0.0	24.1
Incr Delay (d2), s/veh	248.2	0.0	0.0	1.3	0.0	0.0	0.9	0.9	0.9	11.1	0.0	8.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	32.5	0.0	0.0	9.9	0.0	0.0	0.7	17.9	18.8	1.8	0.0	21.8
LnGrp Delay(d),s/veh	289.9	0.0	0.0	30.7	0.0	0.0	53.7	25.8	25.8	62.5	0.0	32.8
LnGrp LOS	F			C			D	C	C	E		C
Approach Vol, veh/h		500			385			1426			814	
Approach Delay, s/veh		289.9			30.7			26.3			34.8	
Approach LOS		F			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	8.6	56.4		43.0	6.3	58.7		43.0
Change Period (Y+Rc), s	4.4	* 5.8		4.9	4.4	5.8		4.9
Max Green Setting (Gmax), s	11.1	* 45		38.1	13.1	41.7		38.1
Max Q Clear Time (g_c+I1), s	5.3	38.3		40.1	3.3	41.3		22.4
Green Ext Time (p_c), s	0.0	6.1		0.0	0.0	0.4		5.8

Intersection Summary	
HCM 2010 Ctrl Delay	71.2
HCM 2010 LOS	E

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	375	140	100	555	230	180	945	95	85	385	109
Future Volume (veh/h)	182	375	140	100	555	230	180	945	95	85	385	109
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	198	408	152	109	603	250	196	1027	103	92	418	118
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	223	520	192	350	354	147	207	540	54	159	422	119
Arrive On Green	0.13	0.21	0.21	0.20	0.28	0.28	0.12	0.32	0.32	0.12	0.40	0.40
Sat Flow, veh/h	1774	2534	934	1774	1252	519	1774	1666	167	1774	1398	395
Grp Volume(v), veh/h	198	284	276	109	0	853	196	0	1130	92	0	536
Grp Sat Flow(s),veh/h/ln	1774	1770	1698	1774	0	1771	1774	0	1833	1774	0	1793
Q Serve(g_s), s	11.9	16.4	16.7	5.7	0.0	30.5	11.8	0.0	35.0	5.3	0.0	32.1
Cycle Q Clear(g_c), s	11.9	16.4	16.7	5.7	0.0	30.5	11.8	0.0	35.0	5.3	0.0	32.1
Prop In Lane	1.00		0.55	1.00		0.29	1.00		0.09	1.00		0.22
Lane Grp Cap(c), veh/h	223	363	349	350	0	500	207	0	594	159	0	541
V/C Ratio(X)	0.89	0.78	0.79	0.31	0.00	1.71	0.95	0.00	1.90	0.58	0.00	0.99
Avail Cap(c_a), veh/h	223	592	568	350	0	500	207	0	594	168	0	541
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(I)	0.99	0.99	0.99	1.00	0.00	1.00	1.00	0.00	1.00	0.47	0.00	0.47
Uniform Delay (d), s/veh	46.4	40.6	40.7	37.1	0.0	38.8	47.4	0.0	36.5	45.6	0.0	32.2
Incr Delay (d2), s/veh	30.8	15.2	16.7	0.2	0.0	325.9	47.1	0.0	412.2	1.2	0.0	24.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.7	9.6	9.4	2.8	0.0	60.1	8.5	0.0	85.7	2.6	0.0	19.3
LnGrp Delay(d),s/veh	77.3	55.8	57.4	37.2	0.0	364.6	94.5	0.0	448.7	46.8	0.0	56.2
LnGrp LOS	E	E	E	D		F	F		F	D		E
Approach Vol, veh/h		758			962			1326			628	
Approach Delay, s/veh		62.0			327.5			396.3			54.8	
Approach LOS		E			F			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	26.3	27.2	17.0	37.5	18.0	35.5	14.6	39.9
Change Period (Y+Rc), s	5.0	* 5	4.4	4.9	4.4	5.0	4.9	* 4.9
Max Green Setting (Gmax), s	8.6	* 36	12.6	32.6	13.6	30.5	10.2	* 35
Max Q Clear Time (g_c+I1), s	17.7	18.7	13.8	34.1	13.9	32.5	7.3	37.0
Green Ext Time (p_c), s	0.2	3.5	0.0	0.0	0.0	0.0	0.8	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	251.0
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	460	25	25	585	190	60	35	55	210	35	54
Future Volume (veh/h)	42	460	25	25	585	190	60	35	55	210	35	54
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	46	500	27	27	636	207	65	38	60	228	38	59
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	41	442	412	12	291	95	425	248	392	0	61	95
Arrive On Green	0.26	0.26	0.26	0.22	0.22	0.22	0.24	0.38	0.38	0.00	0.09	0.09
Sat Flow, veh/h	156	1699	1583	55	1305	425	1774	652	1029	0	659	1023
Grp Volume(v), veh/h	546	0	27	870	0	0	65	0	98	0	0	97
Grp Sat Flow(s),veh/h/ln	1855	0	1583	1785	0	0	1774	0	1681	0	0	1682
Q Serve(g_s), s	28.1	0.0	1.4	24.1	0.0	0.0	3.1	0.0	4.1	0.0	0.0	6.0
Cycle Q Clear(g_c), s	28.1	0.0	1.4	24.1	0.0	0.0	3.1	0.0	4.1	0.0	0.0	6.0
Prop In Lane	0.08		1.00	0.03		0.24	1.00		0.61	0.00		0.61
Lane Grp Cap(c), veh/h	483	0	412	398	0	0	425	0	640	0	0	156
V/C Ratio(X)	1.13	0.00	0.07	2.18	0.00	0.00	0.15	0.00	0.15	0.00	0.00	0.62
Avail Cap(c_a), veh/h	483	0	412	398	0	0	425	0	640	0	0	441
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.09
Uniform Delay (d), s/veh	40.0	0.0	30.1	42.0	0.0	0.0	32.4	0.0	22.0	0.0	0.0	47.2
Incr Delay (d2), s/veh	82.2	0.0	0.0	541.1	0.0	0.0	0.1	0.0	0.5	0.0	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.4	0.0	0.6	71.7	0.0	0.0	1.5	0.0	2.0	0.0	0.0	2.8
LnGrp Delay(d),s/veh	122.1	0.0	30.1	583.0	0.0	0.0	32.5	0.0	22.5	0.0	0.0	48.9
LnGrp LOS	F		C	F			C		C			D
Approach Vol, veh/h		573			870			163			97	
Approach Delay, s/veh		117.8			583.0			26.5			48.9	
Approach LOS		F			F			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	46.0		33.0	30.8	15.2		29.0
Change Period (Y+Rc), s	4.4	4.9		4.9	4.9	* 5.2		4.9
Max Green Setting (Gmax), s	7.1	29.6		28.1	8.1	* 28		24.1
Max Q Clear Time (g_c+I1), s	10.0	6.1		30.1	5.1	8.0		26.1
Green Ext Time (p_c), s	0.0	0.8		0.0	0.2	0.6		0.0

Intersection Summary		
HCM 2010 Ctrl Delay	342.8	
HCM 2010 LOS	F	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	240	125	275	410	25	230	247	230	40	219	125
Future Volume (veh/h)	135	240	125	275	410	25	230	247	230	40	219	125
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1710	1676	1676	1710	1710	1676	1710	1710	1676	1710
Adj Flow Rate, veh/h	147	261	136	299	446	27	250	268	250	43	238	136
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	655	922	466	250	580	35	0	204	191	0	256	146
Arrive On Green	0.41	0.45	0.45	0.16	0.19	0.19	0.00	0.26	0.26	0.00	0.26	0.26
Sat Flow, veh/h	1597	2050	1036	1597	3052	184	0	799	746	0	1003	573
Grp Volume(v), veh/h	147	201	196	299	232	241	0	0	518	0	0	374
Grp Sat Flow(s),veh/h/ln	1597	1593	1494	1597	1593	1644	0	0	1545	0	0	1575
Q Serve(g_s), s	6.5	8.6	9.0	16.9	14.9	15.0	0.0	0.0	27.6	0.0	0.0	25.0
Cycle Q Clear(g_c), s	6.5	8.6	9.0	16.9	14.9	15.0	0.0	0.0	27.6	0.0	0.0	25.0
Prop In Lane	1.00		0.69	1.00		0.11	0.00		0.48	0.00		0.36
Lane Grp Cap(c), veh/h	655	717	672	250	303	312	0	0	395	0	0	403
V/C Ratio(X)	0.22	0.28	0.29	1.20	0.77	0.77	0.00	0.00	1.31	0.00	0.00	0.93
Avail Cap(c_a), veh/h	655	717	672	250	615	635	0	0	395	0	0	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.85	0.00	0.00	1.00
Uniform Delay (d), s/veh	20.7	18.7	18.8	45.5	41.5	41.5	0.0	0.0	40.2	0.0	0.0	39.2
Incr Delay (d2), s/veh	0.1	1.0	1.1	120.7	16.9	16.7	0.0	0.0	155.1	0.0	0.0	27.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	3.9	3.9	15.8	8.0	8.3	0.0	0.0	28.7	0.0	0.0	14.0
LnGrp Delay(d),s/veh	20.8	19.7	19.9	166.2	58.4	58.2	0.0	0.0	195.3	0.0	0.0	67.1
LnGrp LOS	C	B	B	F	E	E			F			E
Approach Vol, veh/h		544			772			518			374	
Approach Delay, s/veh		20.0			100.1			195.3			67.1	
Approach LOS		C			F			F			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.3	53.8	0.0	32.9	49.5	25.6	0.0	32.9
Change Period (Y+Rc), s	4.4	5.2	4.4	* 5.3	5.2	* 5.1	4.4	5.3
Max Green Setting (Gmax), s	16.9	38.6	10.8	* 23	13.9	* 42	5.6	27.6
Max Q Clear Time (g_c+I1), s	19.9	11.0	0.0	27.0	8.5	17.0	0.0	29.6
Green Ext Time (p_c), s	0.0	3.0	0.0	0.0	1.4	3.5	0.0	0.0

Intersection Summary	
HCM 2010 Ctrl Delay	97.1
HCM 2010 LOS	F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	820	70	340	770	90	140	352	335	155	294	315
Future Volume (veh/h)	210	820	70	340	770	90	140	352	335	155	294	315
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	228	891	76	370	837	98	152	383	364	168	320	342
Adj No. of Lanes	2	2	0	2	2	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	333	981	84	421	965	113	183	938	613	195	480	430
Arrive On Green	0.10	0.30	0.30	0.12	0.30	0.30	0.10	0.26	0.26	0.11	0.27	0.27
Sat Flow, veh/h	3442	3301	282	3442	3193	374	1774	3539	1583	1774	1770	1583
Grp Volume(v), veh/h	228	478	489	370	464	471	152	383	364	168	320	342
Grp Sat Flow(s),veh/h/ln	1721	1770	1813	1721	1770	1797	1774	1770	1583	1774	1770	1583
Q Serve(g_s), s	6.2	25.0	25.0	10.2	23.9	23.9	8.1	8.6	17.6	9.0	15.5	19.3
Cycle Q Clear(g_c), s	6.2	25.0	25.0	10.2	23.9	23.9	8.1	8.6	17.6	9.0	15.5	19.3
Prop In Lane	1.00		0.16	1.00		0.21	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	333	526	539	421	535	543	183	938	613	195	480	430
V/C Ratio(X)	0.68	0.91	0.91	0.88	0.87	0.87	0.83	0.41	0.59	0.86	0.67	0.80
Avail Cap(c_a), veh/h	333	547	560	421	598	608	228	1212	736	195	573	512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.1	32.6	32.6	41.6	31.8	31.8	42.4	29.2	23.5	42.2	31.2	32.6
Incr Delay (d2), s/veh	4.8	18.8	18.5	18.0	11.9	11.8	15.3	0.2	0.6	29.1	2.0	6.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	15.0	15.3	5.9	13.4	13.6	4.7	4.2	7.8	6.0	7.8	9.3
LnGrp Delay(d),s/veh	46.9	51.4	51.1	59.6	43.7	43.6	57.6	29.4	24.1	71.3	33.2	39.5
LnGrp LOS	D	D	D	E	D	D	E	C	C	E	C	D
Approach Vol, veh/h		1195			1305			899			830	
Approach Delay, s/veh		50.4			48.2			32.0			43.5	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.2	34.4	14.4	31.5	15.0	35.5	15.0	30.8
Change Period (Y+Rc), s	4.4	5.7	4.4	5.3	5.7	* 6.4	4.4	5.3
Max Green Setting (Gmax), s	11.8	29.8	12.4	31.2	8.3	* 33	10.6	33.0
Max Q Clear Time (g_c+I1), s	12.2	27.0	10.1	21.3	8.2	25.9	11.0	19.6
Green Ext Time (p_c), s	0.0	1.6	0.0	4.8	0.1	3.2	0.0	5.8

Intersection Summary	
HCM 2010 Ctrl Delay	44.5
HCM 2010 LOS	D

Notes

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	140	330	234	75	180	647
Future Volume (veh/h)	140	330	234	75	180	647
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.99	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1900	1863
Adj Flow Rate, veh/h	152	359	254	82	196	703
Adj No. of Lanes	1	1	1	0	0	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	399	356	892	288	257	819
Arrive On Green	0.22	0.22	0.66	0.66	0.66	0.66
Sat Flow, veh/h	1774	1583	1346	435	305	1236
Grp Volume(v), veh/h	152	359	0	336	899	0
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1781	1541	0
Q Serve(g_s), s	5.8	18.0	0.0	6.3	32.5	0.0
Cycle Q Clear(g_c), s	5.8	18.0	0.0	6.3	38.8	0.0
Prop In Lane	1.00	1.00		0.24	0.22	
Lane Grp Cap(c), veh/h	399	356	0	1180	1076	0
V/C Ratio(X)	0.38	1.01	0.00	0.28	0.84	0.00
Avail Cap(c_a), veh/h	399	356	0	1180	1076	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	26.3	31.0	0.0	5.6	11.5	0.0
Incr Delay (d2), s/veh	0.6	49.6	0.0	0.6	7.7	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	12.7	0.0	3.3	18.3	0.0
LnGrp Delay(d),s/veh	26.9	80.7	0.0	6.2	19.2	0.0
LnGrp LOS	C	F		A	B	
Approach Vol, veh/h	511		336			899
Approach Delay, s/veh	64.7		6.2			19.2
Approach LOS	E		A			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		57.5				57.5		22.5
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		53.0				53.0		18.0
Max Q Clear Time (g_c+I1), s		8.3				40.8		20.0
Green Ext Time (p_c), s		13.6				7.1		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	30.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	310	30	160	715	65	20	30	20	75	220	577
Future Volume (veh/h)	319	310	30	160	715	65	20	30	20	75	220	577
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1900	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	347	337	33	174	777	71	22	33	22	82	239	627
Adj No. of Lanes	0	1	0	0	1	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	206	157	15	186	718	65	98	141	80	73	145	361
Arrive On Green	0.59	0.59	0.59	0.59	0.59	0.59	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	274	267	26	256	1222	110	175	419	238	119	429	1070
Grp Volume(v), veh/h	717	0	0	1022	0	0	77	0	0	948	0	0
Grp Sat Flow(s),veh/h/ln	567	0	0	1589	0	0	832	0	0	1619	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.5	0.0	0.0
Cycle Q Clear(g_c), s	70.5	0.0	0.0	70.5	0.0	0.0	3.6	0.0	0.0	40.5	0.0	0.0
Prop In Lane	0.48		0.05	0.17		0.07	0.29		0.29	0.09		0.66
Lane Grp Cap(c), veh/h	378	0	0	968	0	0	319	0	0	579	0	0
V/C Ratio(X)	1.90	0.00	0.00	1.06	0.00	0.00	0.24	0.00	0.00	1.64	0.00	0.00
Avail Cap(c_a), veh/h	378	0	0	968	0	0	319	0	0	579	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	28.9	0.0	0.0	25.8	0.0	0.0	27.5	0.0	0.0	40.8	0.0	0.0
Incr Delay (d2), s/veh	414.2	0.0	0.0	44.7	0.0	0.0	1.8	0.0	0.0	294.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	55.9	0.0	0.0	44.0	0.0	0.0	1.9	0.0	0.0	66.5	0.0	0.0
LnGrp Delay(d),s/veh	443.1	0.0	0.0	70.5	0.0	0.0	29.3	0.0	0.0	335.6	0.0	0.0
LnGrp LOS	F			F			C			F		
Approach Vol, veh/h		717			1022			77			948	
Approach Delay, s/veh		443.1			70.5			29.3			335.6	
Approach LOS		F			E			C			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		8
Phs Duration (G+Y+Rc), s		75.0		45.0		75.0		45.0
Change Period (Y+Rc), s		4.5		4.5		4.5		4.5
Max Green Setting (Gmax), s		70.5		40.5		70.5		40.5
Max Q Clear Time (g_c+I1), s		72.5		42.5		72.5		5.6
Green Ext Time (p_c), s		0.0		0.0		0.0		11.4

Intersection Summary		
HCM 2010 Ctrl Delay		256.9
HCM 2010 LOS		F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	205	325	210	307	560	70	200	460	144	120	1235	130
Future Volume (veh/h)	205	325	210	307	560	70	200	460	144	120	1235	130
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1900	1863	1900	1900	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	223	353	228	334	609	76	217	500	157	130	1342	141
Adj No. of Lanes	2	2	1	0	1	0	0	1	0	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	268	1456	651	0	494	62	0	561	176	131	960	816
Arrive On Green	0.08	0.41	0.41	0.00	0.30	0.30	0.00	0.14	0.14	0.07	0.52	0.52
Sat Flow, veh/h	3442	3539	1583	0	1624	203	0	1360	427	1774	1863	1583
Grp Volume(v), veh/h	223	353	228	0	0	685	0	0	657	130	1342	141
Grp Sat Flow(s),veh/h/ln	1721	1770	1583	0	0	1827	0	0	1787	1774	1863	1583
Q Serve(g_s), s	9.6	9.8	14.9	0.0	0.0	45.6	0.0	0.0	54.2	11.0	77.3	7.1
Cycle Q Clear(g_c), s	9.6	9.8	14.9	0.0	0.0	45.6	0.0	0.0	54.2	11.0	77.3	7.1
Prop In Lane	1.00		1.00	0.00		0.11	0.00		0.24	1.00		1.00
Lane Grp Cap(c), veh/h	268	1456	651	0	0	555	0	0	737	131	960	816
V/C Ratio(X)	0.83	0.24	0.35	0.00	0.00	1.23	0.00	0.00	0.89	0.99	1.40	0.17
Avail Cap(c_a), veh/h	324	1456	651	0	0	555	0	0	737	131	960	816
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.46	0.09	0.09	0.09
Uniform Delay (d), s/veh	68.2	28.9	30.4	0.0	0.0	52.2	0.0	0.0	61.5	69.4	36.3	19.3
Incr Delay (d2), s/veh	12.2	0.1	0.5	0.0	0.0	120.0	0.0	0.0	8.0	21.1	179.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	4.8	6.6	0.0	0.0	41.5	0.0	0.0	28.5	6.2	87.4	3.1
LnGrp Delay(d),s/veh	80.4	29.0	30.8	0.0	0.0	172.2	0.0	0.0	69.5	90.5	216.0	19.4
LnGrp LOS	F	C	C			F			E	F	F	B
Approach Vol, veh/h		804			685			657			1613	
Approach Delay, s/veh		43.8			172.2			69.5			188.7	
Approach LOS		D			F			E			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	67.7	0.0	66.8	0.0	83.2	16.1	50.7
Change Period (Y+Rc), s	4.4	* 5.9	4.4	* 5.1	4.4	5.9	4.4	5.1
Max Green Setting (Gmax), s	11.1	* 60	25.3	* 35	14.9	55.6	14.1	45.6
Max Q Clear Time (g_c+I1), s	13.0	56.2	0.0	16.9	0.0	79.3	11.6	47.6
Green Ext Time (p_c), s	0.0	3.3	0.0	9.0	0.0	0.0	0.1	0.0

Intersection Summary		
HCM 2010 Ctrl Delay		133.8
HCM 2010 LOS		F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	90	45	30	40	65	55	639	20	150	1217	255
Future Volume (veh/h)	180	90	45	30	40	65	55	639	20	150	1217	255
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	196	98	49	33	43	71	60	695	22	163	1323	277
Adj No. of Lanes	0	1	0	0	1	0	1	2	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	219	87	43	97	128	178	77	1916	61	188	911	191
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.04	0.55	0.55	0.11	0.61	0.61
Sat Flow, veh/h	766	383	191	274	566	785	1774	3502	111	1774	1495	313
Grp Volume(v), veh/h	343	0	0	147	0	0	60	351	366	163	0	1600
Grp Sat Flow(s),veh/h/ln	1340	0	0	1625	0	0	1774	1770	1843	1774	0	1808
Q Serve(g_s), s	19.3	0.0	0.0	0.0	0.0	0.0	4.2	14.1	14.1	11.4	0.0	76.8
Cycle Q Clear(g_c), s	28.6	0.0	0.0	9.3	0.0	0.0	4.2	14.1	14.1	11.4	0.0	76.8
Prop In Lane	0.57		0.14	0.22		0.48	1.00		0.06	1.00		0.17
Lane Grp Cap(c), veh/h	349	0	0	404	0	0	77	968	1008	188	0	1102
V/C Ratio(X)	0.98	0.00	0.00	0.36	0.00	0.00	0.78	0.36	0.36	0.87	0.00	1.45
Avail Cap(c_a), veh/h	349	0	0	404	0	0	172	970	1011	199	0	1102
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.09	0.09	0.09	0.09	0.00	0.09
Uniform Delay (d), s/veh	51.0	0.0	0.0	41.2	0.0	0.0	59.7	16.1	16.1	55.4	0.0	24.6
Incr Delay (d2), s/veh	43.3	0.0	0.0	0.5	0.0	0.0	0.6	0.1	0.1	3.7	0.0	203.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.1	0.0	0.0	4.4	0.0	0.0	2.1	6.9	7.1	5.8	0.0	100.3
LnGrp Delay(d),s/veh	94.3	0.0	0.0	41.7	0.0	0.0	60.2	16.2	16.2	59.1	0.0	228.4
LnGrp LOS	F			D			E	B	B	E		F
Approach Vol, veh/h		343			147			777			1763	
Approach Delay, s/veh		94.3			41.7			19.6			212.7	
Approach LOS		F			D			B			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	17.8	74.7		33.5	9.9	82.6		33.5
Change Period (Y+Rc), s	4.4	* 5.8		4.9	4.4	5.8		4.9
Max Green Setting (Gmax), s	14.1	* 69		28.6	12.2	70.1		28.6
Max Q Clear Time (g_c+I1), s	13.4	16.1		30.6	6.2	78.8		11.3
Green Ext Time (p_c), s	0.0	51.1		0.0	0.0	0.0		2.7

Intersection Summary		
HCM 2010 Ctrl Delay		141.5
HCM 2010 LOS		F

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	174	645	350	235	800	85	270	445	125	135	870	137
Future Volume (veh/h)	174	645	350	235	800	85	270	445	125	135	870	137
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	189	701	380	255	870	92	293	484	136	147	946	149
Adj No. of Lanes	1	2	0	1	1	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	199	768	416	199	573	61	239	414	116	173	407	64
Arrive On Green	0.22	0.69	0.69	0.11	0.35	0.35	0.13	0.30	0.30	0.07	0.17	0.17
Sat Flow, veh/h	1774	2219	1201	1774	1657	175	1774	1400	393	1774	1572	248
Grp Volume(v), veh/h	189	559	522	255	0	962	293	0	620	147	0	1095
Grp Sat Flow(s),veh/h/ln	1774	1770	1651	1774	0	1832	1774	0	1793	1774	0	1819
Q Serve(g_s), s	13.2	33.3	33.4	14.1	0.0	43.6	17.0	0.0	37.3	10.3	0.0	32.6
Cycle Q Clear(g_c), s	13.2	33.3	33.4	14.1	0.0	43.6	17.0	0.0	37.3	10.3	0.0	32.6
Prop In Lane	1.00		0.73	1.00		0.10	1.00		0.22	1.00		0.14
Lane Grp Cap(c), veh/h	199	612	571	199	0	634	239	0	531	173	0	471
V/C Ratio(X)	0.95	0.91	0.91	1.28	0.00	1.52	1.22	0.00	1.17	0.85	0.00	2.33
Avail Cap(c_a), veh/h	199	612	571	199	0	634	239	0	531	211	0	471
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	0.67	0.67	0.67
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	0.09	0.00	0.09
Uniform Delay (d), s/veh	48.6	17.8	17.8	56.0	0.0	41.2	54.5	0.0	44.4	58.0	0.0	52.1
Incr Delay (d2), s/veh	49.6	20.3	21.5	160.6	0.0	241.0	132.2	0.0	94.5	2.2	0.0	597.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	19.0	18.2	15.8	0.0	64.4	17.1	0.0	32.4	5.2	0.0	94.5
LnGrp Delay(d),s/veh	98.2	38.1	39.3	216.6	0.0	282.2	186.7	0.0	138.9	60.2	0.0	649.6
LnGrp LOS	F	D	D	F		F	F		F	E		F
Approach Vol, veh/h		1270			1217			913			1242	
Approach Delay, s/veh		47.5			268.4			154.2			579.9	
Approach LOS		D			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.5	48.6	21.4	37.5	18.5	48.6	16.7	42.2
Change Period (Y+Rc), s	4.4	5.0	4.4	4.9	4.4	5.0	4.4	4.9
Max Green Setting (Gmax), s	14.1	43.6	17.0	32.6	14.1	43.6	15.0	34.6
Max Q Clear Time (g_c+I1), s	16.1	35.4	19.0	34.6	15.2	45.6	12.3	39.3
Green Ext Time (p_c), s	0.0	7.1	0.0	0.0	0.0	0.0	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay	268.9	
HCM 2010 LOS	F	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	725	60	40	795	260	70	40	30	350	40	87
Future Volume (veh/h)	44	725	60	40	795	260	70	40	30	350	40	87
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1863	1900	1863	1900	1863	1863	1900	1900	1863	1900
Adj Flow Rate, veh/h	48	788	65	43	864	283	76	43	33	380	43	95
Adj No. of Lanes	0	1	1	0	1	0	1	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	23	377	341	14	289	95	96	434	333	0	183	404
Arrive On Green	0.22	0.22	0.22	0.22	0.22	0.22	0.05	0.44	0.44	0.00	0.35	0.35
Sat Flow, veh/h	107	1751	1583	64	1296	424	1774	979	751	0	518	1143
Grp Volume(v), veh/h	836	0	65	1190	0	0	76	0	76	0	0	138
Grp Sat Flow(s),veh/h/ln	1857	0	1583	1785	0	0	1774	0	1730	0	0	1661
Q Serve(g_s), s	27.1	0.0	4.2	28.1	0.0	0.0	5.3	0.0	3.2	0.0	0.0	7.4
Cycle Q Clear(g_c), s	27.1	0.0	4.2	28.1	0.0	0.0	5.3	0.0	3.2	0.0	0.0	7.4
Prop In Lane	0.06		1.00	0.04		0.24	1.00		0.43	0.00		0.69
Lane Grp Cap(c), veh/h	399	0	341	398	0	0	96	0	766	0	0	588
V/C Ratio(X)	2.09	0.00	0.19	2.99	0.00	0.00	0.79	0.00	0.10	0.00	0.00	0.23
Avail Cap(c_a), veh/h	399	0	341	398	0	0	124	0	766	0	0	588
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.09
Uniform Delay (d), s/veh	49.5	0.0	40.5	49.0	0.0	0.0	58.9	0.0	20.5	0.0	0.0	28.7
Incr Delay (d2), s/veh	500.2	0.0	0.1	902.2	0.0	0.0	17.2	0.0	0.3	0.0	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	69.4	0.0	1.9	113.6	0.0	0.0	3.1	0.0	1.6	0.0	0.0	3.4
LnGrp Delay(d),s/veh	549.6	0.0	40.6	951.2	0.0	0.0	76.1	0.0	20.7	0.0	0.0	28.8
LnGrp LOS	F		D	F			E		C			C
Approach Vol, veh/h		901			1190			152			138	
Approach Delay, s/veh		512.9			951.2			48.4			28.8	
Approach LOS		F			F			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	61.0		32.0	11.2	49.8		33.0
Change Period (Y+Rc), s	4.4	* 5.2		4.9	4.4	5.2		4.9
Max Green Setting (Gmax), s	9.1	* 43		27.1	8.8	42.6		28.1
Max Q Clear Time (g_c+I1), s	10.0	5.2		29.1	7.3	9.4		30.1
Green Ext Time (p_c), s	0.0	2.1		0.0	0.0	2.1		0.0

Intersection Summary		
HCM 2010 Ctrl Delay	674.2	
HCM 2010 LOS	F	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	270	535	390	410	455	35	150	309	300	55	257	170
Future Volume (veh/h)	270	535	390	410	455	35	150	309	300	55	257	170
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1676	1676	1710	1676	1676	1710	1710	1676	1710	1710	1676	1710
Adj Flow Rate, veh/h	293	582	424	446	495	38	163	336	326	60	279	185
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	212	875	637	214	1495	114	0	196	190	0	236	157
Arrive On Green	0.13	0.50	0.50	0.13	0.50	0.50	0.00	0.25	0.25	0.00	0.25	0.25
Sat Flow, veh/h	1597	1760	1282	1597	2999	230	0	783	760	0	942	624
Grp Volume(v), veh/h	293	527	479	446	262	271	0	0	662	0	0	464
Grp Sat Flow(s),veh/h/ln	1597	1593	1450	1597	1593	1636	0	0	1542	0	0	1566
Q Serve(g_s), s	16.7	31.3	31.3	16.9	12.5	12.5	0.0	0.0	31.6	0.0	0.0	31.6
Cycle Q Clear(g_c), s	16.7	31.3	31.3	16.9	12.5	12.5	0.0	0.0	31.6	0.0	0.0	31.6
Prop In Lane	1.00		0.88	1.00		0.14	0.00		0.49	0.00		0.40
Lane Grp Cap(c), veh/h	212	791	720	214	794	815	0	0	387	0	0	393
V/C Ratio(X)	1.38	0.67	0.67	2.08	0.33	0.33	0.00	0.00	1.71	0.00	0.00	1.18
Avail Cap(c_a), veh/h	212	791	720	214	794	815	0	0	387	0	0	393
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	0.58	0.00	0.00	1.00
Uniform Delay (d), s/veh	54.6	23.8	23.8	54.5	19.0	19.0	0.0	0.0	47.2	0.0	0.0	47.2
Incr Delay (d2), s/veh	199.6	4.4	4.8	502.8	1.1	1.1	0.0	0.0	326.5	0.0	0.0	104.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	19.1	14.7	13.5	37.3	5.7	5.9	0.0	0.0	48.5	0.0	0.0	25.1
LnGrp Delay(d),s/veh	254.3	28.2	28.6	557.4	20.1	20.1	0.0	0.0	373.7	0.0	0.0	152.0
LnGrp LOS	F	C	C	F	C	C			F			F
Approach Vol, veh/h		1299			979			662			464	
Approach Delay, s/veh		79.4			264.9			373.7			152.0	
Approach LOS		E			F			F			F	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.3	67.8	0.0	36.9	21.1	68.0	0.0	36.9
Change Period (Y+Rc), s	4.4	5.2	4.4	* 5.3	4.4	* 5.2	4.4	5.3
Max Green Setting (Gmax), s	16.9	43.6	14.8	* 32	16.7	* 44	14.9	31.3
Max Q Clear Time (g_c+I1), s	18.9	33.3	0.0	33.6	18.7	14.5	0.0	33.6
Green Ext Time (p_c), s	0.0	7.2	0.0	0.0	0.0	14.7	0.0	0.0

Intersection Summary		
HCM 2010 Ctrl Delay	199.9	
HCM 2010 LOS	F	

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	380	1085	60	410	1020	105	85	329	340	255	537	295
Future Volume (veh/h)	380	1085	60	410	1020	105	85	329	340	255	537	295
Number	5	2	12	1	6	16	3	8	18	7	4	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1900
Adj Flow Rate, veh/h	413	1179	65	446	1109	114	92	358	370	277	584	321
Adj No. of Lanes	2	2	0	2	2	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	428	1198	66	461	1125	116	113	772	557	284	694	381
Arrive On Green	0.12	0.35	0.35	0.13	0.35	0.35	0.06	0.22	0.22	0.16	0.31	0.31
Sat Flow, veh/h	3442	3411	188	3442	3241	333	1774	3539	1583	1774	2206	1212
Grp Volume(v), veh/h	413	611	633	446	605	618	92	358	370	277	468	437
Grp Sat Flow(s),veh/h/ln	1721	1770	1830	1721	1770	1804	1774	1770	1583	1774	1770	1649
Q Serve(g_s), s	17.3	49.6	49.7	18.7	49.1	49.3	7.4	12.8	28.6	22.5	35.7	35.8
Cycle Q Clear(g_c), s	17.3	49.6	49.7	18.7	49.1	49.3	7.4	12.8	28.6	22.5	35.7	35.8
Prop In Lane	1.00		0.10	1.00		0.18	1.00		1.00	1.00		0.74
Lane Grp Cap(c), veh/h	428	622	643	461	614	626	113	772	557	284	557	519
V/C Ratio(X)	0.97	0.98	0.98	0.97	0.98	0.99	0.82	0.46	0.66	0.98	0.84	0.84
Avail Cap(c_a), veh/h	428	622	643	461	614	626	137	806	573	284	557	519
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	63.1	46.6	46.6	62.4	46.9	47.0	67.0	49.3	39.7	60.6	46.3	46.3
Incr Delay (d2), s/veh	34.5	31.8	31.5	33.4	32.3	32.5	22.1	0.3	2.5	46.2	10.9	11.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.2	29.8	30.8	11.0	29.6	30.2	4.3	6.2	12.9	14.7	19.1	17.9
LnGrp Delay(d),s/veh	97.6	78.3	78.1	95.9	79.3	79.5	89.1	49.6	42.2	106.8	57.2	58.0
LnGrp LOS	F	E	E	F	E	E	F	D	D	F	E	E
Approach Vol, veh/h		1657			1669			820			1182	
Approach Delay, s/veh		83.1			83.8			50.7			69.1	
Approach LOS		F			F			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	23.8	56.6	13.6	50.9	23.7	56.7	27.6	36.9
Change Period (Y+Rc), s	4.4	5.7	4.4	5.3	5.7	* 6.4	4.4	5.3
Max Green Setting (Gmax), s	19.4	49.6	11.2	45.0	18.0	* 50	23.2	33.0
Max Q Clear Time (g_c+I1), s	20.7	51.7	9.4	37.8	19.3	51.3	24.5	30.6
Green Ext Time (p_c), s	0.0	0.0	0.0	4.5	0.0	0.0	0.0	1.0

Intersection Summary	
HCM 2010 Ctrl Delay	75.2
HCM 2010 LOS	E

Notes