APPENDIX D- Traffic Assessment
for the INITIAL STUDY with PROPOSED MITIGATED NEGATIVE DECLARATION
1675 MONTEREY ROAD, SAN JOSE, CALIFORNIA

CP21-018

November 2021

NV5

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LIST OF APPENDICES

LIST OF ACRONYMS

°F	degrees Fahrenheit
µg/m^3	micrograms per cubic meter
AB	Assembly Bill
ADA	Americans with Disabilities Act
AEP	Association of Environmental Professionals
APN	Assessor's Parcel Number
AQMP	Air Quality Management Plan
AST	aboveground storage tank
AVL	Automatic Vehicle Location
BMP	Best Management Practice
CAAQS	California Ambient Air Quality Standards
CalGEM	California Geologic Energy Management Division
CARB	California Air Resources Board
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERS	California Environmental Reporting System
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	methane
CHRIS	California Historical Resources Information System
City	City of San Jose
CMP	Congestion Management Program
CMU	concrete masonry units
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CPUC	California Public Utilities Commission
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
DOSD	California Division of Safety of Dams

DOT	Department of Transportation
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
FHSZ	Fire Hazard Severity Zone
FHWA	Federal Highway Administration
ft	feet or foot
GHG	greenhouse gas
H_2S	hydrogen sulfide
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HI	Hazard Index
HMBP	Hazardous Materials Business Plan
hr	hour
HRA	Health Risk Assessment
Hz	Hertz
IGP	Industrial General Permit
In/sec	inches per second
IS	Initial Study
kWh	kilowatt-hours
lbs or lb	pounds
LID	Low Impact Development
LOS	Level of Service
LSTs	Localized Significance Thresholds
MEIR	Maximum Exposed Individual Resident
MEIW	Maximum Exposed Individual Worker
MIP	Monitoring Implementation Program
mmBtu	million British thermal units
MRZ	mineral resource zone
MT/yr	metric tonnes per year
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NEC	No Exposure Certification
NO_2	nitrogen dioxide
NOI	Notice of Intent
NONA	Notice of Non-Applicability
NOx	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
PM_{10}	particulate matter with aerodynamic diameter of 10 microns or less
$PM_{2.5}$	particulate matter with aerodynamic diameter of 2.5 microns or less
POL	petroleum, oil, and lubricant
PPD	Precise Plan of Design
ppm	parts per million
PPV	peak particle velocity
PTC	Permit to Construct
PTO	Permit to Operate
QISP	Qualified Industrial Stormwater Practitioner
RCNM	Roadway Construction Noise Model
SJFD	San Jose Fire Department

RMS	root mean square
SFBAAB	San Francisco Bay Area Air Basin
SJMWS	San Jose Municipal Water System
SJPD	San Jose Police Department
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SIC	Standard Industrial Classification
SMARA	Surface Mining and Reclamation Act of 1975
SMARTS	Stormwater Multiple Application and Report Tracking System
SO_2	sulfur dioxide
SOx	oxides of sulfur
SPCC	Spill Prevention, Control, and Countermeasure
SSC	species of special concern
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	Toxic Air Contaminants
TIA	Traffic Impact Analysis
TMDL	Total Maximum Daily Load
tpd	tons per day
tpy	tons per year
UMWP	Urban Water Management Plan
US	United States
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VMT	vehicle miles traveled
VOC	volatile organic compound
WQMP	Water Quality Management Plan

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Appendix D
Traffic Assessment

MEMORANDUM

To: Renzel Balance, Development Services Division, City of San Jose (Renzel.Balance@sanjoseca.gov)
Christy Cheung, Development Services Division, City of San Jose (Christy.Cheung@sanjoseca.gov)

From: Courtney Armusewicz (Courtney.Armusewicz@NV5.com)

cc: John Karnowski, PE, PTOE, AICP (John.Karnowski@NV5.com)
Manjit Banwait, City of San Jose (Manjit.Banwait@sanjoseca.gov)

Date: November 1, 2021

Re: Local Transportation Analysis
Offsite Surface Parking Lot
1675 Monterey Road
San Jose, CA 95112

Project Description

The site proposes an offsite surface parking lot located at 1675 Monterey Road in San Jose, California. The facility will occupy 277,000 SF of an existing surface lot previously used by Pick-N-Pull Auto and Truck Dismantlers, an automobile parts sales facility. The proposed lot will primarily be used to store vans overnight to be loaded the following day at a nearby package sorting and loading facility. The site will provide 361 parking stalls consisting of 64 personal vehicle stalls, 297 van storage stalls and 34 long term bike lockers. Site access will be provided via three (3) existing driveways along two (2) roads, Monterey Road and Pomona Avenue. The proposed parking lot site plan is provided in Attachment A.

The surrounding land uses within a half mile of the site are primarily heavy industrial, commercial, and residential. The project qualifies as an industrial land use as it is supportive of a nearby warehouse. The Envision San José 2040 General Plan defines the project area as part of the Monterey Business Corridor, identifying the parcel as part of the Non-Urban Village Growth Area. The proposed parking lot is consistent with the current General Plan land use.

California Environmental Quality Act (CEQA) Transportation Analysis

The City of San Jose's Transportation Analysis Policy, Council Policy 5-1, establishes the threshold for transportation impacts under CEQA based on Vehicle Miles Traveled (VMT) in accordance with California Senate Bill 743 (SB 743). CEQA VMT Analysis Screening Criteria for Development Projects are outlined in Table 1 of the Transportation Analysis Handbook (2018). Based on the screening criteria, the project would be exempt if the project was less than 30,000 square feet of Industrial Use. The project is more than 30,000 square feet of Industrial Use, therefore, based on Table 1 of the Transportation Analysis Handbook, the project was not screened out.

The City has developed the San José VMT Evaluation Tool to assess a project's potential VMT based on the project's description, location, and attributes. For industrial projects, the sketch tool is the approved method to calculate Project VMT. Analysis of project vehicle miles traveled (VMT) was completed utilizing the City of San Jose Vehicle Miles Traveled Evaluation Tool, more specifically VMT per Employee. The analysis results indicate the Area VMT is 11.32 and the Project VMT is 11.31.

Compared to the regional VMT threshold of 14.37, both the Area VMT in which the project is located and the Project VMT are less than the regional average.
Based on the VMT screening map for Industrial Use the project is located in a low-VMT generating area and the project VMT per employee does not exceed the existing regional average 14.37 VMT per employee therefore it is determined the project will not have significant impacts to VMT and is supportive in vehicle miles traveled and greenhouse gas reduction. The results of the analysis are included in Attachment B.

Project Trip Generation and Distribution

The delivery station is planned to occupy 277,000 SF of an existing surface lot previously used by Pick-N-Pull Auto and Truck Dismantlers, an automobile parts sales facility. The parking area will support delivery station operations located at 1710 Little Orchard Street. The trips generated by the project site are based on peak hour traffic counts obtained for the surface parking lot.

The proposed parking lot is expected to generate a total of 604 trips per day. Attachment C provides the proposed traffic schedule for the site. The proposed traffic schedule does not have peak hour traffic volumes for standard adjacent street peak hour timeframes. The project site supports the delivery station on Little Orchard Street which has similar operations to the delivery station located on McLaughlin Avenue. Therefore, to be conservative, peak hour trips generated by the project site were estimated based on traffic counts provided by the City from the 970 McLaughlin Avenue delivery station. These counts are also provided in Attachment C.

Table 1 shows the trip generation expected by the project during standard peak hours for adjacent street traffic. Trips generated by the project site are based on standard peak hour traffic counts collected at the 970 McLaughlin Avenue delivery station on March 30, 2021 and April 1, 2021.

Table 1: Proposed Trip Generation (Standard Peak)

Land Use	Source	Daily (1)	AM Peak (2)		PM Peak (2)	
			IN	OUT	IN	OUT
Delivery Station Offsite Parking	User Data[1]	604	13	9	7	11

[1]Offsite Parking – Existing Traffic Schedule, see Attachment C
[2]Peak hours are based on the standard AM/PM hours of 7 – 9:00 AM and 4-6:00 PM. Data is based on Peak Hour driveway counts provided by the City. The highest peak hour for both approaches was used.

The site's peak hour period operates from 9-11:00 AM and 6-8:00 PM. The site operates with the most traffic occurring outside of standard peak hours.

Table 2 shows the trip generation expected by the project during project peak hours for the site. Trips generated by the project site are based on project peak hour traffic counts collected at the 970 McLaughlin Avenue delivery station on April 14, 2021 and April 15, 2021. These trips are not anticipated to occur during typical AM and PM peak hours and is for information purposes only.

Table 2: Proposed Trip Generation (Project Peak)

Land Use	Source	Daily (1)	AM Peak (2)		PM Peak (2)	
			IN	OUT	IN	OUT
Delivery Station Offsite Parking	User Data[1]	604	14	83	42	27

[1]Offsite Parking – Existing Traffic Schedule, see Attachment C
[2]Peak hours are based on the site's AM/PM hours of 9 - 11AM and 6 - 8 PM. Data is based on driveway counts provided by the City. The highest peak hour for both approaches was used.

Figure 1 shows the trip distribution for these generated trips, identified by NV5 and approved by City of San Jose staff on June 28, 2021, are shown below in. Figure 2 shows the trips assigned to this distribution pattern for standard peak hour traffic. Figure 3 shows the trips assigned to this distribution pattern for project peak hour traffic.

Figure 1: Trip Distribution

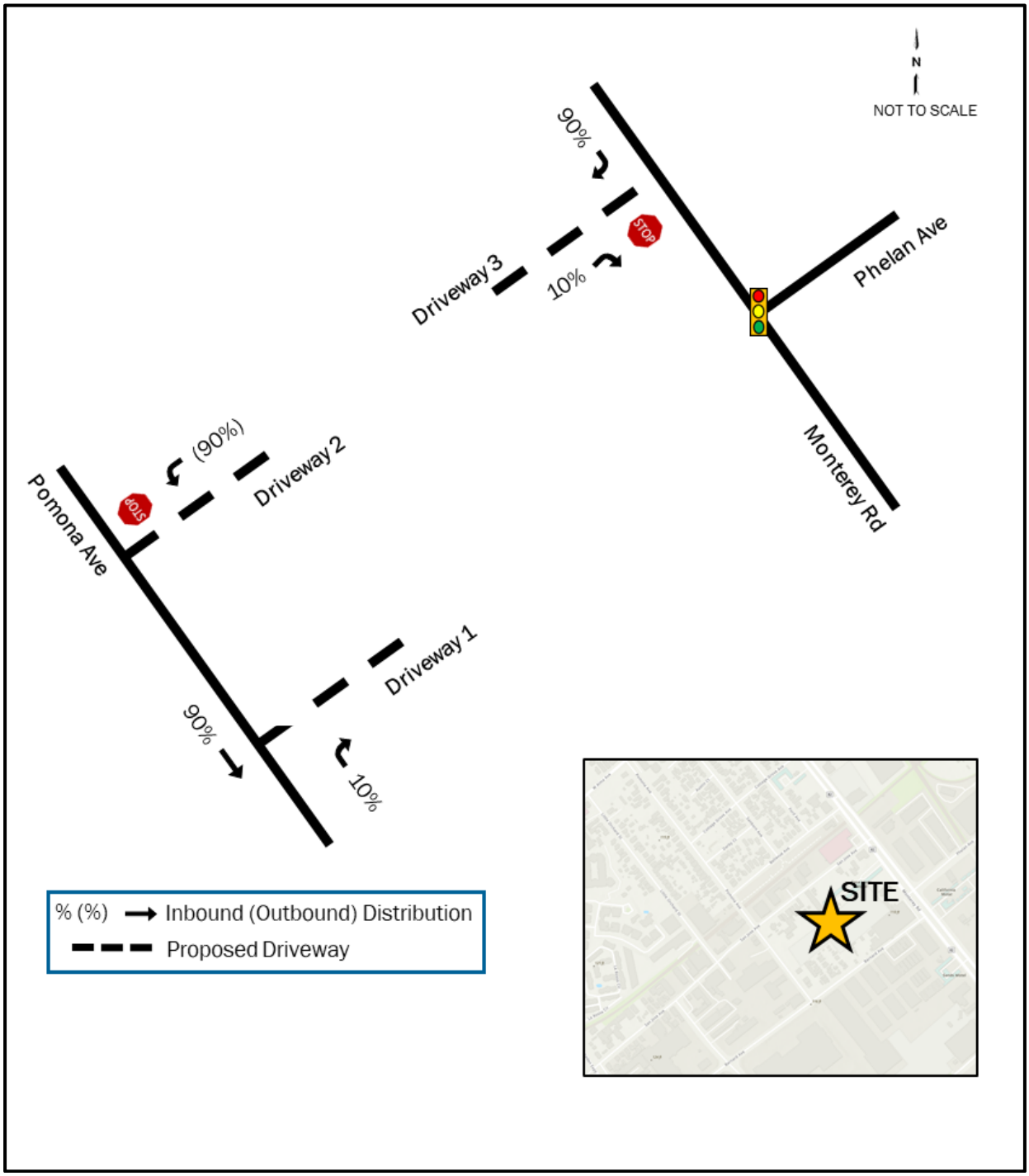
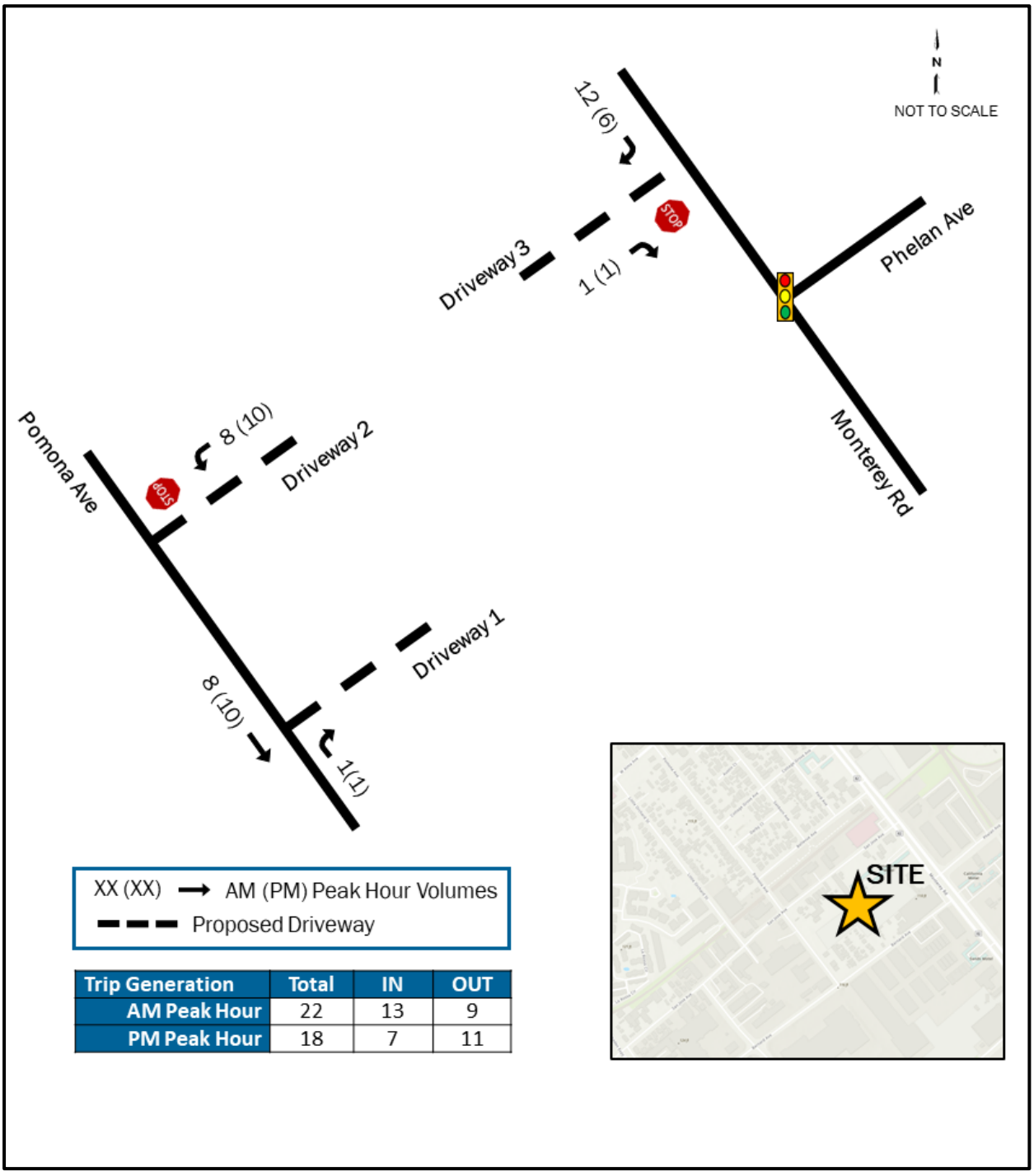
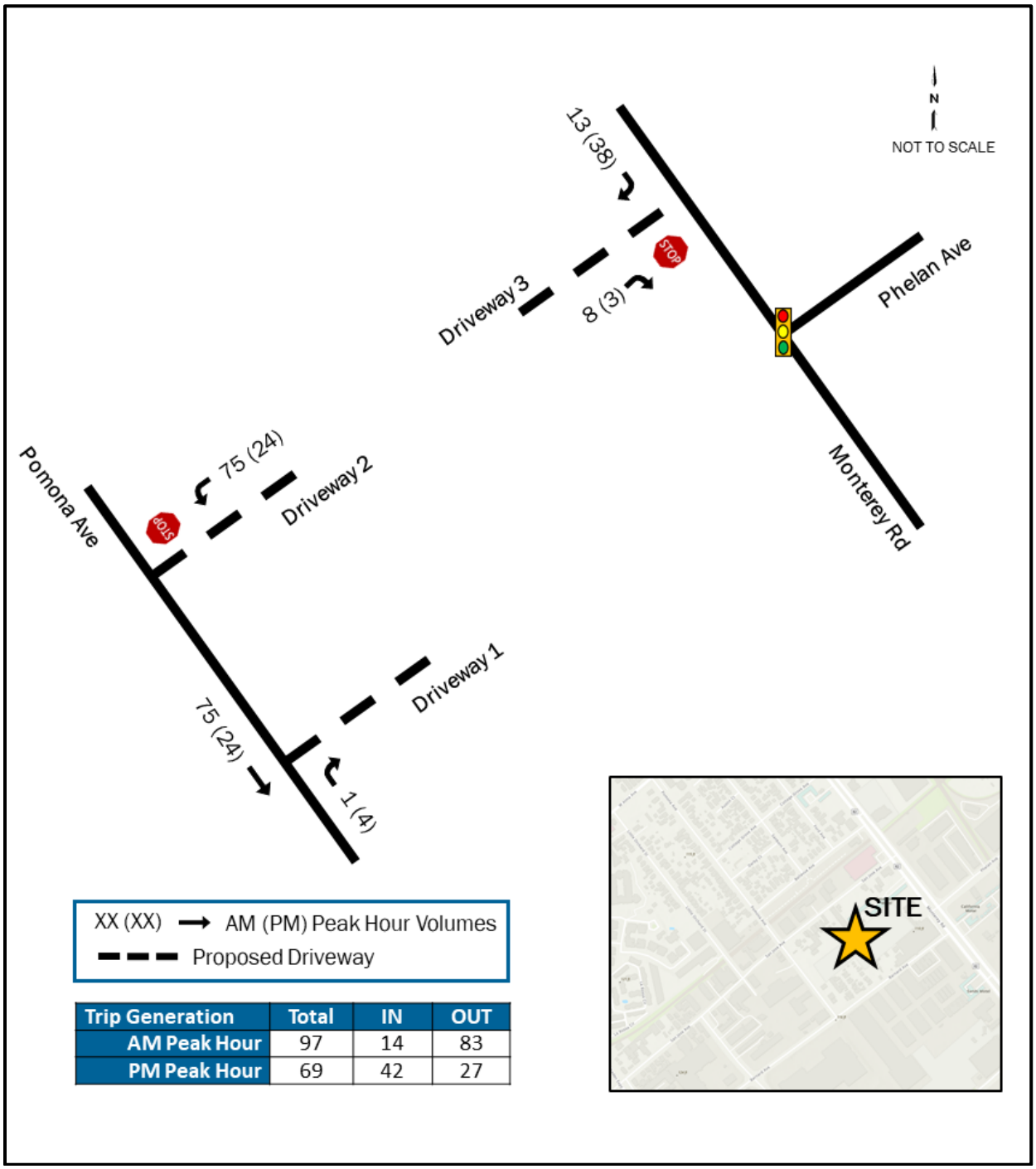


Figure 2: Trip Assignment (Standard Peak)



Trip Generation	Total	IN	OUT
AM Peak Hour	22	13	9
PM Peak Hour	18	7	11

Figure 3: Trip Assignment (Project Peak)



Trip Generation	Total	IN	OUT
AM Peak Hour	97	14	83
PM Peak Hour	69	42	27

Project Study Scenarios

Existing roadway networks along Monterey Road and Pomona Avenue were evaluated to identify any adverse effects from the project's standard peak hours.

The following traffic scenarios were evaluated for the 1675 Monterey Road site in San Jose, California:

- Existing Scenario (Existing Intersection Operations)
- Background Scenario (Existing + Approved Projects)
- Project Scenario (Existing + Approved Projects + Project)

Under these conditions, the following parameters were evaluated and reported on:

- Existing roadway capacity
- Median island movement restrictions
- Analyses of pedestrian, bicycle, and transit facilities
- Project trip generation, distribution, and assignment
- Proposed site access, circulation, and parking
- Driveway operations
- Proposed roadway capacity
- Intersection operation analysis
- Queuing and Storage length observations

Existing traffic count data included in Attachment D was obtained on July 8th, 2021, for the Monterey Road at Phelan Avenue intersection. Traffix count data for cumulative projects were provided by the City for this intersection and daily traffic volume data collected on Pomona Avenue is also included in Attachment D. The cumulative projects are currently in operation and are assumed to be included in the existing traffic volumes collected for the Monterey Road at Phelan Avenue intersection. A compound growth factor of 1% was applied to the new counts collected.

Intersection Operation Analysis

Scenarios for the study were analyzed using Synchro® 11 and time of day signal timing plans provided by the City. Average vehicular delays were calculated and reported as Levels of Service (LOS), as defined by the Highway Capacity Manual, 6th Edition (HCM 6). The queue lengths reported are 95th percentile queues. Synchro® output reports and time of day signal timing plans are included in Attachment E.

Existing Condition capacity analysis results are shown in Table 3. The Existing Condition capacity analysis reflects the existing traffic count data provided by the City. Existing queue lengths observed at the existing study intersection are shown in Table 4.

Table 3: Existing Condition Capacity Analysis

ID	Intersection	Control	Movement	AM Peak		PM Peak	
				LOS	Delay	LOS	Delay
1	Monterey Rd & Phelan Ave	Signal	**Overall**	**B**	**18.1**	**B**	**15.9**
			WB	E	60.2	D	38.3
			NB	A	7.9	B	13.7
			SB	B	16.3	B	10.3

As shown in Table 3, the overall traffic operations at the study intersections operate at acceptable Levels of Service (LOS) B.

Table 4: Existing Condition Queueing Analysis

ID	Intersection	Control	Movement	Storage Length	Queue Length (ft)	
					AM Peak	PM Peak
1	Monterey Rd & Phelan Ave	Signal	WBL	175	111	124
			NBU	275	62	32
			NBT	-	147	175
			SBL	175	152	165
			SBT	-	50	166

As shown in Table 4, the existing queues do not exceed the storage capacity for the turn lanes.

Background Condition capacity analysis results are shown in Table 5, which include analysis of background growth traffic volumes. Background queue lengths observed at the existing study intersection are shown in Table 6.

Table 5: Background Condition Capacity Analysis

ID	Intersection	Control	Movement	AM Peak		PM Peak	
				LOS	Delay	LOS	Delay
1	Monterey Rd & Phelan Ave	Signal	**Overall**	**B**	**18.2**	**B**	**16.1**
			WB	E	60.2	D	38.3
			NB	A	8.1	B	14.1
			SB	B	16.4	B	10.4

As shown in Table 5, traffic operations at the study intersections remain the same from Existing conditions, and the Levels of Service and delay are minimally affected by the increase in traffic from background growth.

Table 6: Background Condition Queueing Analysis

ID	Intersection	Control	Movement	Storage Length	Queue Length (ft)	
					AM Peak	PM Peak
1	Monterey Rd & Phelan Ave	Signal	WBL	175	115	127
			NBU	275	63	33
			NBT	-	153	182
			SBL	175	155	168
			SBT	-	52	172

As shown in Table 6, background queues do not exceed the existing storage capacity for the intersection turn lanes.

Project Condition capacity analysis results are shown in Table 7, which include analysis of background traffic volumes with the addition of standard and project peak hour traffic volumes shown in Figure 2 and Figure 3, respectfully. Project queue lengths observed at the study intersections are shown in Table 8.

Table 7: Project Condition Capacity Analysis

ID	Intersection	Control	Movement	AM Peak		PM Peak	
				Standard		Standard	
				LOS	Delay	LOS	Delay
1	Monterey Rd & Phelan Ave	Signal	**Overall**	**B**	**18.2**	**B**	**16.1**
			WB	E	60.2	D	38.3
			NB	A	8.1	B	14.1
			SB	B	16.4	B	10.4

As shown in Table 7, the addition of project traffic to the study intersections causes minimal increase in delay at the site driveway intersections when compared to Background Conditions, for both the standard and project peak hour conditions. The addition of the project driveways on Pomona Avenue and Monterey Road do not affect the functionality of traffic operations around the study area.

Table 8: Project Condition Queueing Analysis

ID	Intersection	Control	Movement	Storage Length	Queue Length (ft)	
					AM Peak	PM Peak
					Standard	Standard
1	Monterey Rd & Phelan Ave	Signal	WBL	175	115	127
			NBU	275	63	33
			NBT	-	153	182
			SBL	175	155	168
			SBT	-	52	172

As shown in Table 8, the project queues do not exceed the existing storage capacity for the intersection turn lanes. There is no difference between observed queue lengths for standard and project peak hour volumes, as no site trips utilize the Monterey Road at Phelan Avenue intersection.

Adverse Intersection Operation Effects

Since the proposed land use is expected to generate no more than 13 trips in either the AM or PM peak hours, as shown in peak volumes from Table 1, the project will not add any significant trips to the surrounding roadway network during project peak hours.

Addressing Adverse Intersection Operation Effects

The City of San Jose considers an adverse effect to intersection operations when the analysis demonstrates that a project would cause the operations standard at a study intersection to fall below LOS D with the addition of project vehicle trips to baseline conditions. Based on the analysis, the project intersection will continue to operate at a LOS B with the added project traffic, therefore the site will not need to address adverse effects to existing intersection operations. In addition, queuing is not anticipated to be an issue for the project site or evaluated intersection due to unique project operations and scheduling.

Field Review

Site observations were conducted between San Jose Avenue and Bernard Avenue with access along Monterey Road and Pomona Avenue to evaluate the surrounding area within 0.5 miles from the project location. Field reviews conducted onsite include local transportation systems, which observe site parking and access, transit, biking, walking, and roadway operations during peak commute periods.

Looking North at Driveway 3

Sight Distance & Queuing

The project driveways have clear line of sight at the project driveway located on Monterey Road (Driveway 3). On Pomona Avenue, vegetation is planned to be removed and red curb will be implemented adjacent to Driveway 2 to restrict on-street parking for clear line of sight. Red curb will be implemented between Driveway 2 and Driveway 3 and north of Driveway 2 along the project frontage. Field photos are provided to demonstrate existing visibility. No queuing issues were observed.

Parking

Parking at the off-site location will be for overnight parking/storage of package delivery vans with parking available to delivery van drivers and some other employees. The off-site parking lot will support the operations of the nearby delivery station on Little Orchard Street. There are 361 proposed stalls, 64 will accommodate personal vans and 297 will provide for delivery van storage. Approximately 34 long term bike lockers will be available onsite for staff use.

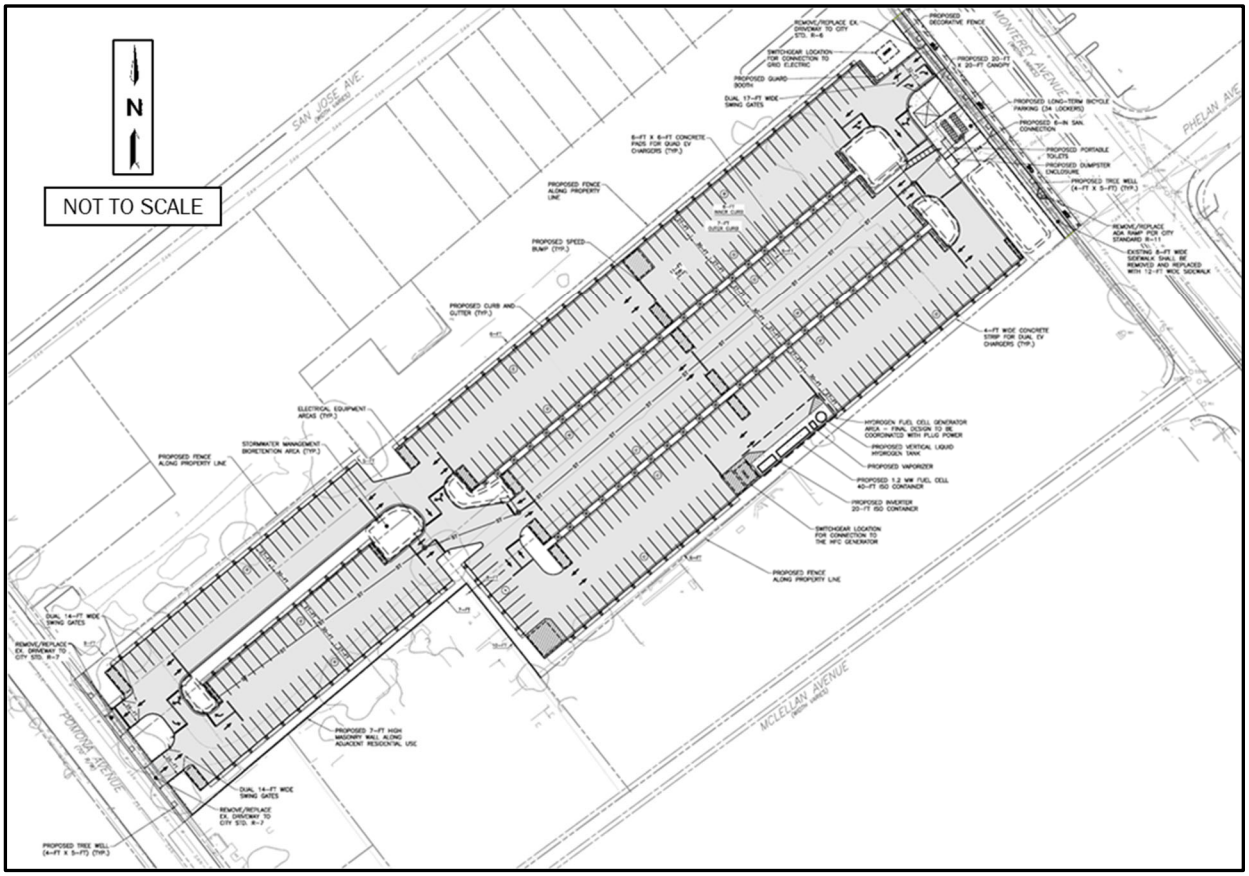
Looking Northbound from Driveway 2

The parking supply is needed to accommodate employees and store delivery vans that complement the nearby delivery station and to ensure successful business operations and to avoid vehicles parking off-site.

Figure 4 shows the vicinity area and updated site plan for the proposed parking facility. Refer to Attachment A for additional parking lot site plan details.

Looking Southbound from Driveway 2

Figure 4: Site Plan



Site Circulation and Access Analysis

Three (3) existing driveways provide gated access to the off-site parking lot. Gates will remain open during the hours of operation. During open gate operations a security guard will be present. One driveway (D1) is proposed at Monterey Road which will consist of right-in/right-out only. An existing raised median separates traffic along the center of Monterey Road. Two one-way driveways (D2 & D3) are proposed along Pomona Avenue for delivery van access. Dual 17-foot swing gates will grant access to the site on Monterey Road and dual 14-foot swing gates will provide access along Pomona Avenue. Approximately 38 feet is provided between the face of curb and the gate at the Monterey Road driveway. Approximately 27 feet is provided between the face of curb and the gate at the Pomona Avenue ingress driveway. Approximately 24 feet is provided between the face of curb and the gate at the Pomona Avenue egress driveway. Approximately 3 AM and 2 PM inbound vehicles are anticipated to arrive in the same 5-minute window during the AM and PM peak period, according to the counts provided by the City. The gates will be operated by a security guard and will remain open during site operations. The gates are not anticipated to affect traffic operations or queuing in the public right-of-way. Delivery drivers will access the site to park their personal vehicle prior to their shift and return the van following their shift. The off-site parking lot will store package delivery vans overnight for drivers to pick up in the morning and travel to the nearby delivery station located 0.25 miles away from the site. Proposed circulation diagrams for the site are shown in Figure 5.

Trucks such as emergency or garbage vehicles will enter the site on Monterey Road and will exit using the same driveway. Garbage vehicles will access the dumpster enclosure located near the site entrance on Monterey Road. A hydrogen fuel truck will enter and exit the site using the driveways on Pomona Avenue. The hydrogen fuel truck is anticipated to access the site about once per week. The hydrogen fuel truck is unable to exit Monterey Road without conflicting with the curb and crossing into multiple lanes. The driveway widths on Pomona are 26-feet to ensure the hydrogen fuel truck will be able to enter and exit the site with minimal conflict with parked cars and oncoming traffic. The hydrogen fuel truck turning templates are provided in Figure 6. The site plan and turning templates are provided in Attachment A.

Figure 5: Site Circulation

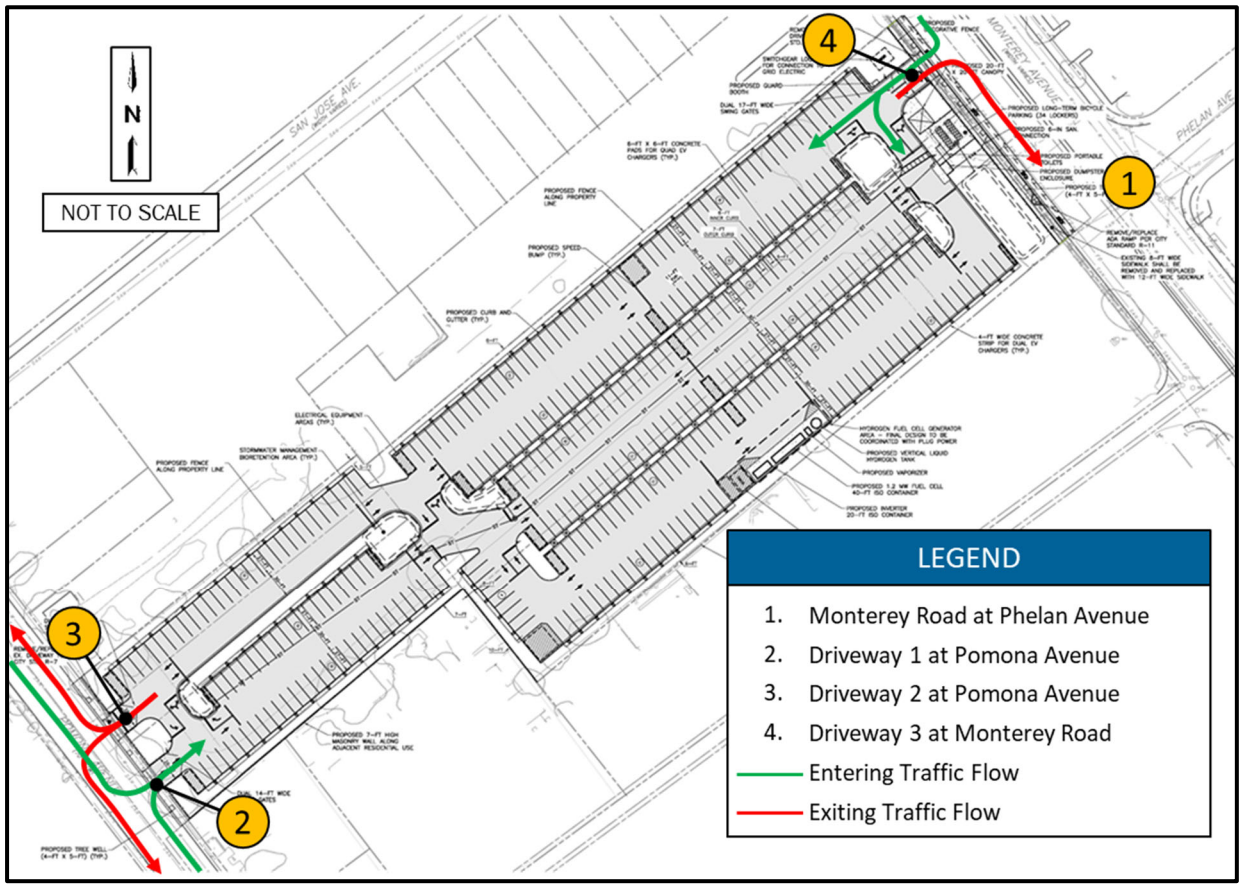
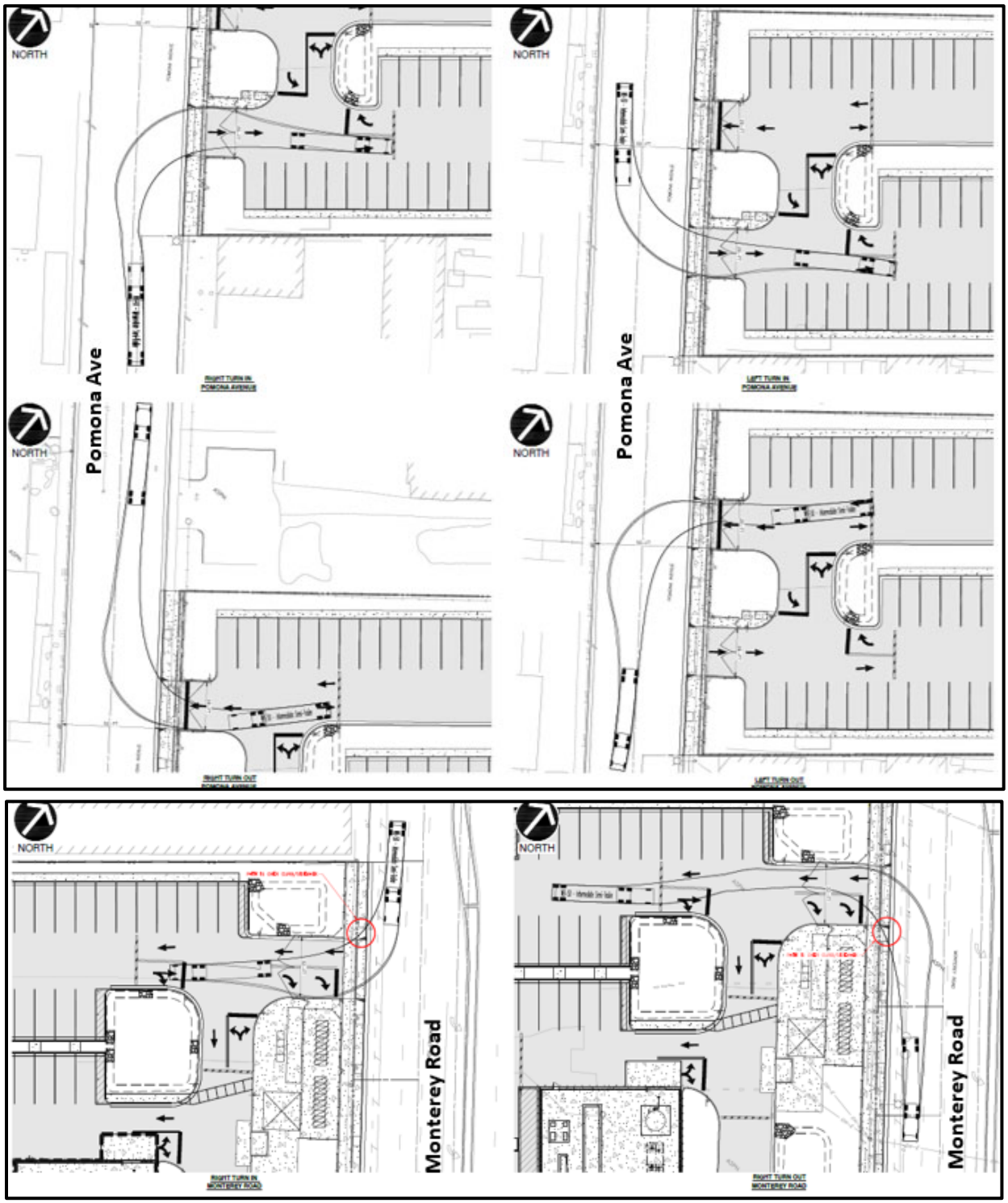


Figure 6: Truck Turning Templates



Neighborhood Interface

The project sphere is largely industrial, and no schools were found within a half mile of the site. The site is surrounded by small residential pockets to the northwest and southwest, adjacent to Bellevue Avenue and Barnard Avenue. Adjacent auto repair shops were observed to flow into the right of way along Pomona Avenue and Barnard Avenue.

Looking Southbound Toward Monterey Road / Phelan Avenue Intersection

Envision San Jose 2040 General Plan

Monterey Road, a major corridor that fronts the project, is designated as a Grand Boulevard per the Envision San Jose 2040 General Plan. Additionally, the City of San Jose recognizes Monterey Road as a major corridor that meets the Vision Zero Action Plan for increased pedestrian safety and fatality avoidance. In an effort to strengthen this initiative, the project will be closing multiple existing driveways along Monterey Road that will consolidate into one proposed driveway.

Monterey Road / Phelan Avenue Intersection Along Looking Eastbound

Bicycle and Pedestrian

No designated bike facilities are located along Pomona Avenue. Class II buffered bike lanes are located on either side of Monterey Road and Phelan Avenue. No bike lanes are present on Pomona Avenue. According to the San Jose Better Bike Plan 2025, protected Class IV bike lanes are planned along this roadway segment. Due to this, the project will provide an in-lieu contribution for the future Class IV protected bike lane on Monterey Road at a cost of $121 per linear foot along the project frontage.

Pedestrian facilities are present within the immediate vicinity of the project. Continuous, uninterrupted sidewalk is present on both sides of Monterey Road and Pomona Avenue. The side streets of San Jose Avenue and Barnard Avenue lack adequate pedestrian facilities. Partial sidewalk is provided approximately 300 feet east of Pomona Avenue along Barnard Avenue. A 950-foot gap in sidewalk infrastructure occurs to the north and south of the project site along the side streets of San Jose Avenue and Barnard Avenue. Planned sidewalk improvements along these segments are not identified in the City's General Plan. Gaps in pedestrian crossings and sidewalk infrastructure are illustrated in Figure 7.

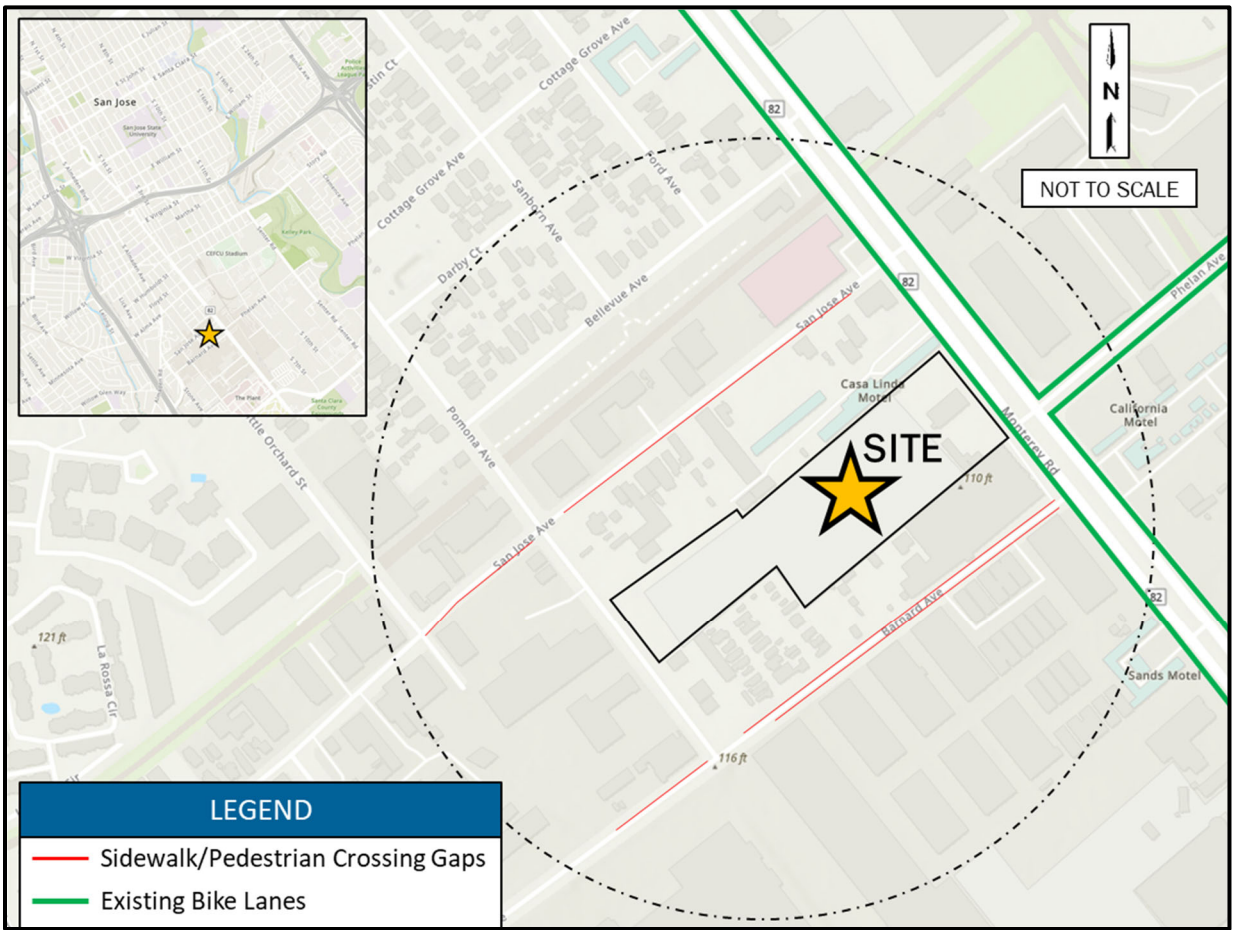
Class II Bike Lanes along Monterey Road

Transit

Transit stops are present and operable within a half mile of the project site and are operated by Valley Transit Authority (VTA). Bus routes 66 and 68 operate within the project study area with stop ID 63204 located at the signalized intersection of Monterey Road / Phelan Avenue. Bus headways are 15 minutes, with weekday service beginning at 5:15 AM and ending at 11:15 PM. Pedestrian access is provided at Monterey Road / Phelan Avenue with a crosswalk located on the north and east legs of the intersection. Continuous ADA compliant sidewalks are provided on both sides of Monterey Road. which provides two (2) ADA compliant pedestrian crossings. The site visit revealed the transit stop across from the site in use.

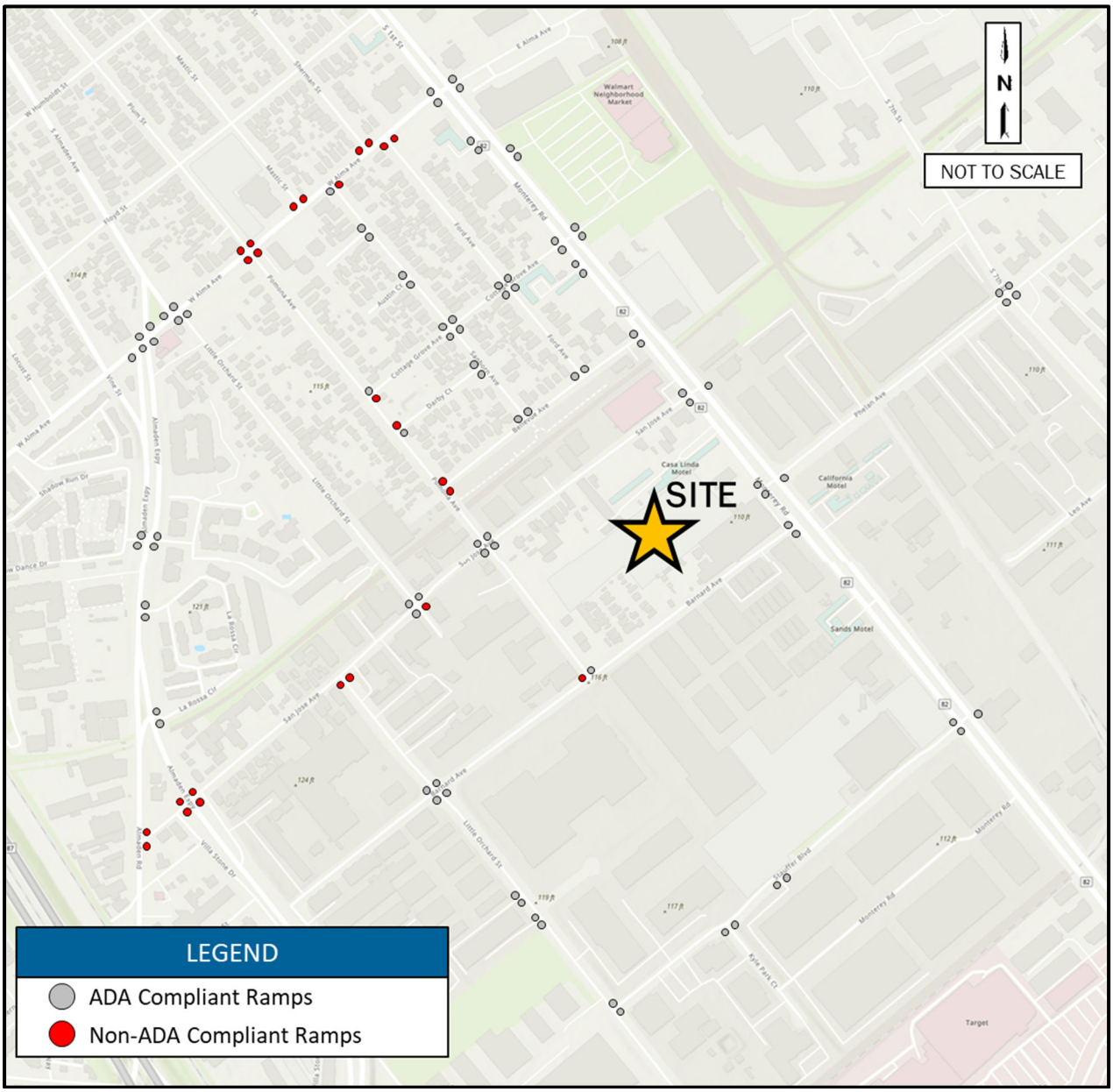
Northbound Transit Stop Across from Project Site on Monterey Road

Figure 7: Pedestrian Crossing/Sidewalk Gaps at Site



In addition to these preliminary site analyses, record of ADA compliant and non-ADA compliant curb ramps were taken up to a half mile radius distance from the site. Gaps in ADA compliant ramp infrastructure a half mile radius around the site is illustrated in Figure 8.

Figure 8: ADA Curb Ramp Gaps around Site



Project Improvements

Monterey Road

Three driveway curb cuts exist along Monterey Road. The project will provide one 32-foot driveway as the main entrance on Monterey Road. The two remaining driveways along Monterey Road will be closed and replaced with sidewalk. The project will construct a 12-foot-wide ADA-compliant sidewalk, curb, and gutter. The project will extend and repair the existing sidewalk, curb, and gutter along the project frontage. A gated pedestrian entrance will grant access to the bike storage area to access 34 long term bike lockers. An ornamental fence is proposed along the site perimeter.

Pomona Avenue

The project will utilize the two existing driveways located along Pomona Avenue by removing the existing driveways and replacing them to City Standard. The project is proposing the Pomona Avenue driveways as 26-feet wide, each as one-way operations (ingress-only/egress only). According to the applicant, the 26-foot driveway widths are necessary for a hydrogen fuel truck to enter and exit the site within the driveway extents. However, based on City guidelines, the 26-foot driveway widths are considered two-way access by the City for commercial driveways. Further, the City prefers the driveways on Pomona Avenue to be 16-feet wide and anticipates imposing that as a condition of approval. Each driveway will be equipped with dual 14-foot swing gates. An ornamental fence is proposed along the site perimeter. Sidewalk will be constructed to a width of 10-feet, and curb and gutter will be improved along the project frontage.

Mitigations and Improvements

Outside of the on-site improvements and improvements along the project frontage, no other mitigations or improvements are recommended. Per the City of San Jose, the project is required to provide an in-lieu contribution for the future Class IV protected bikeway along Monterey Road per the San Jose Better Bike Plan 2025, at a cost of $121 per linear foot.

Construction Operations

No vehicle travel lane restrictions or closures are proposed during site construction. Existing bike lanes and sidewalk along Monterey Road will need to be closed for sidewalk, curb, and gutter construction along the site frontage. Appropriate bike lane and sidewalk closure and detour will be instituted as part of the work zone traffic control plans for construction.

ATTACHMENTS

Attachment A - Parking Lot Site Plan & Truck Turning Template

Attachment B – VMT Analysis

Attachment C - Site Specific Trip Generation Schedules

Attachment D - Traffic Count Data

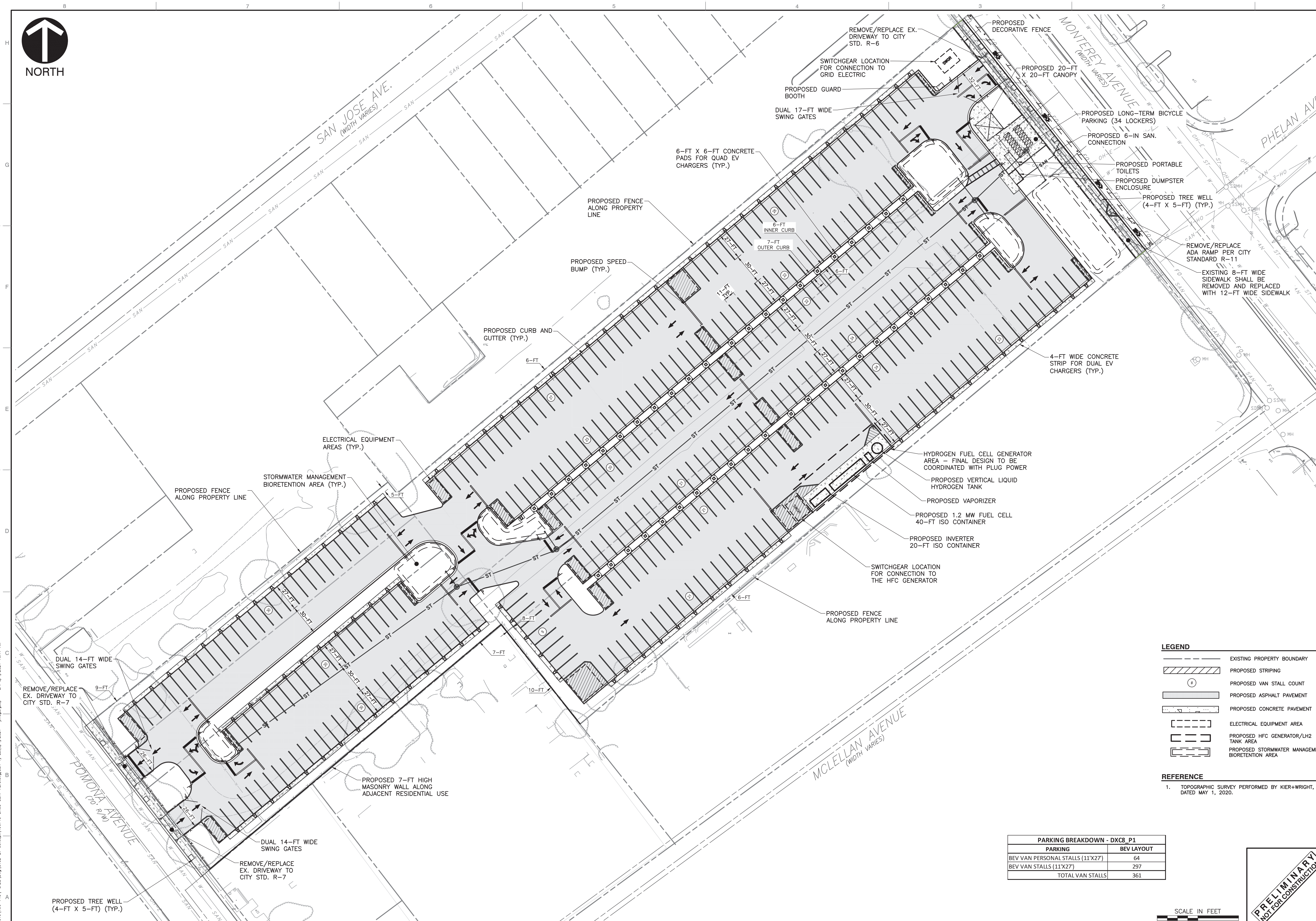
Attachment E - Synchro® Reports

Attachment A

Parking Lot Site Plan

&

Hydrogen Fuel Truck Turning Template


NORTH
SAN JOSE AVE.
(WIDTH VARIES)
MONTEREY AVENUE
(WIDTH VARIES)
PHELAN AVE
MCLELLAN AVENUE
(WIDTH VARIES)
POMONA AVENUE
(70' R/W)
REMOVE/REPLACE EX. DRIVEWAY TO CITY STD. R-6
PROPOSED DECORATIVE FENCE
SWITCHGEAR LOCATION FOR CONNECTION TO GRID ELECTRIC
PROPOSED 20-FT X 20-FT CANOPY
PROPOSED GUARD BOOTH
DUAL 17-FT WIDE SWING GATES
PROPOSED LONG-TERM BICYCLE PARKING (34 LOCKERS)
PROPOSED 6-IN SAN. CONNECTION
6-FT X 6-FT CONCRETE PADS FOR QUAD EV CHARGERS (TYP.)
PROPOSED PORTABLE TOILETS
PROPOSED DUMPSTER ENCLOSURE
PROPOSED TREE WELL (4-FT X 5-FT) (TYP.)
PROPOSED FENCE ALONG PROPERTY LINE
6-FT INNER CURB
7-FT OUTER CURB
REMOVE/REPLACE ADA RAMP PER CITY STANDARD R-11
PROPOSED SPEED BUMP (TYP.)
EXISTING 8-FT WIDE SIDEWALK SHALL BE REMOVED AND REPLACED WITH 12-FT WIDE SIDEWALK
PROPOSED CURB AND GUTTER (TYP.)
4-FT WIDE CONCRETE STRIP FOR DUAL EV CHARGERS (TYP.)
ELECTRICAL EQUIPMENT AREAS (TYP.)
HYDROGEN FUEL CELL GENERATOR AREA - FINAL DESIGN TO BE COORDINATED WITH PLUG POWER
STORMWATER MANAGEMENT BIORETENTION AREA (TYP.)
PROPOSED VERTICAL LIQUID HYDROGEN TANK
PROPOSED FENCE ALONG PROPERTY LINE
PROPOSED VAPORIZER
PROPOSED 1.2 MW FUEL CELL 40-FT ISO CONTAINER
PROPOSED INVERTER 20-FT ISO CONTAINER
SWITCHGEAR LOCATION FOR CONNECTION TO THE HFC GENERATOR
PROPOSED FENCE ALONG PROPERTY LINE
DUAL 14-FT WIDE SWING GATES
REMOVE/REPLACE EX. DRIVEWAY TO CITY STD. R-7
PROPOSED 7-FT HIGH MASONRY WALL ALONG ADJACENT RESIDENTIAL USE
DUAL 14-FT WIDE SWING GATES
REMOVE/REPLACE EX. DRIVEWAY TO CITY STD. R-7
PROPOSED TREE WELL (4-FT X 5-FT) (TYP.)
SCALE IN FEET
0
40
80

LEGEND

- EXISTING PROPERTY BOUNDARY
- PROPOSED STRIPING
- PROPOSED VAN STALL COUNT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED CONCRETE PAVEMENT
- ELECTRICAL EQUIPMENT AREA
- PROPOSED HFC GENERATOR/LH2 TANK AREA
- PROPOSED STORMWATER MANAGEMENT BIORETENTION AREA

REFERENCE

1. TOPOGRAPHIC SURVEY PERFORMED BY KIER+WRIGHT, DATED MAY 1, 2020.

PARKING BREAKDOWN - DXC8_P1	
PARKING	BEV LAYOUT
BEV VAN PERSONAL STALLS (11'X27')	64
BEV VAN STALLS (11'X27')	297
TOTAL VAN STALLS	361

PRELIMINARY
NOT FOR CONSTRUCTION

REVISION RECORD

NO	DATE	DESCRIPTION

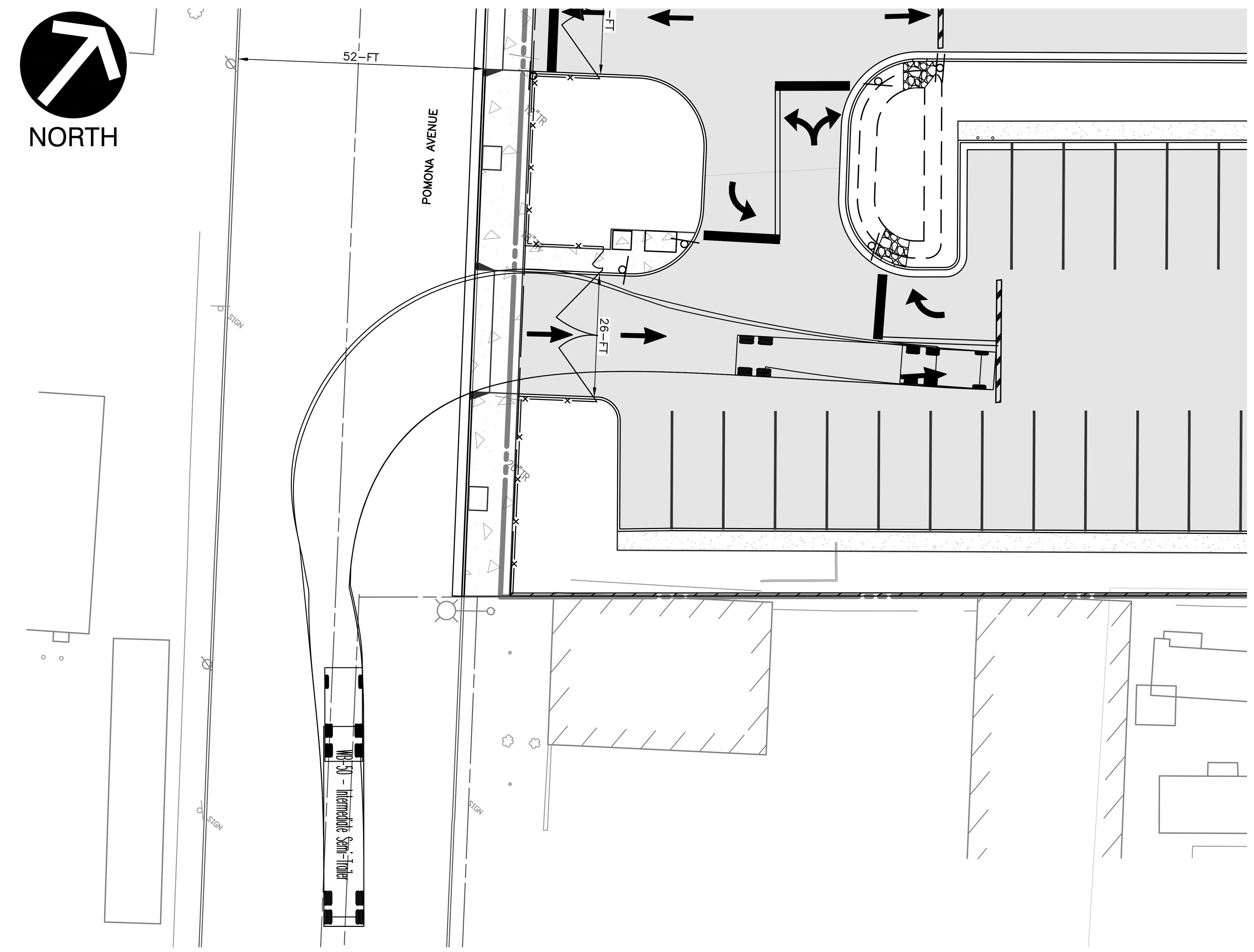
Civil & Environmental Consultants, Inc.
4350 Northern Pike · Suite 141 · Monroeville, PA 15146
724-327-5200 · 800-899-3610
www.cecinc.com

OFF-SITE PARKING
1675 MONTEREY ROAD
SAN JOSE, SANTA CLARA COUNTY, CA

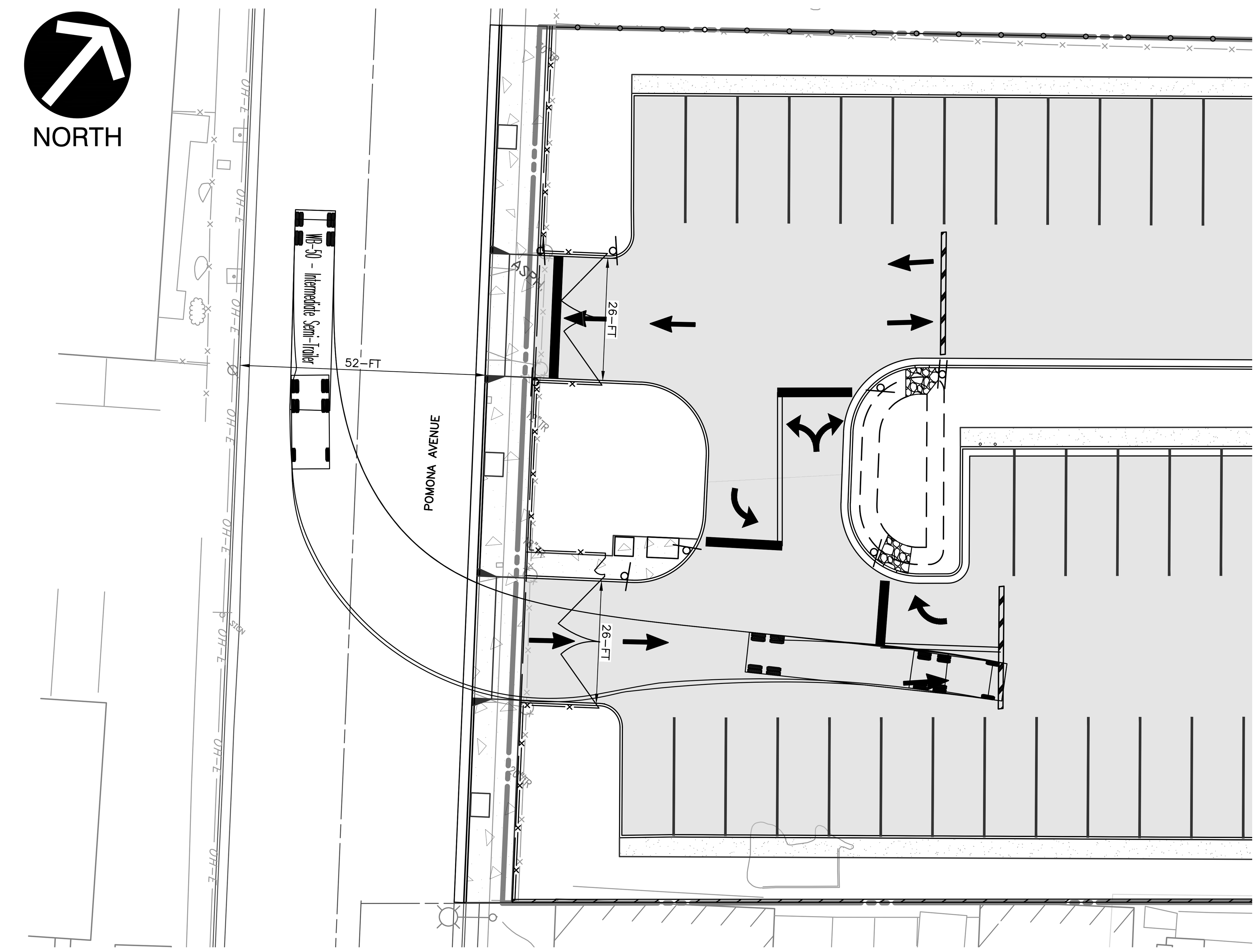
PROPOSED BEV PARKING LOT LAYOUT

DATE:	06/04/2021
DRAWN BY:	JAM
DWG SCALE:	1"=40'
CHECKED BY:	JRI
PROJECT NO:	196-713
APPROVED BY:	DRAFT

DRAWING NO.: SSA-1



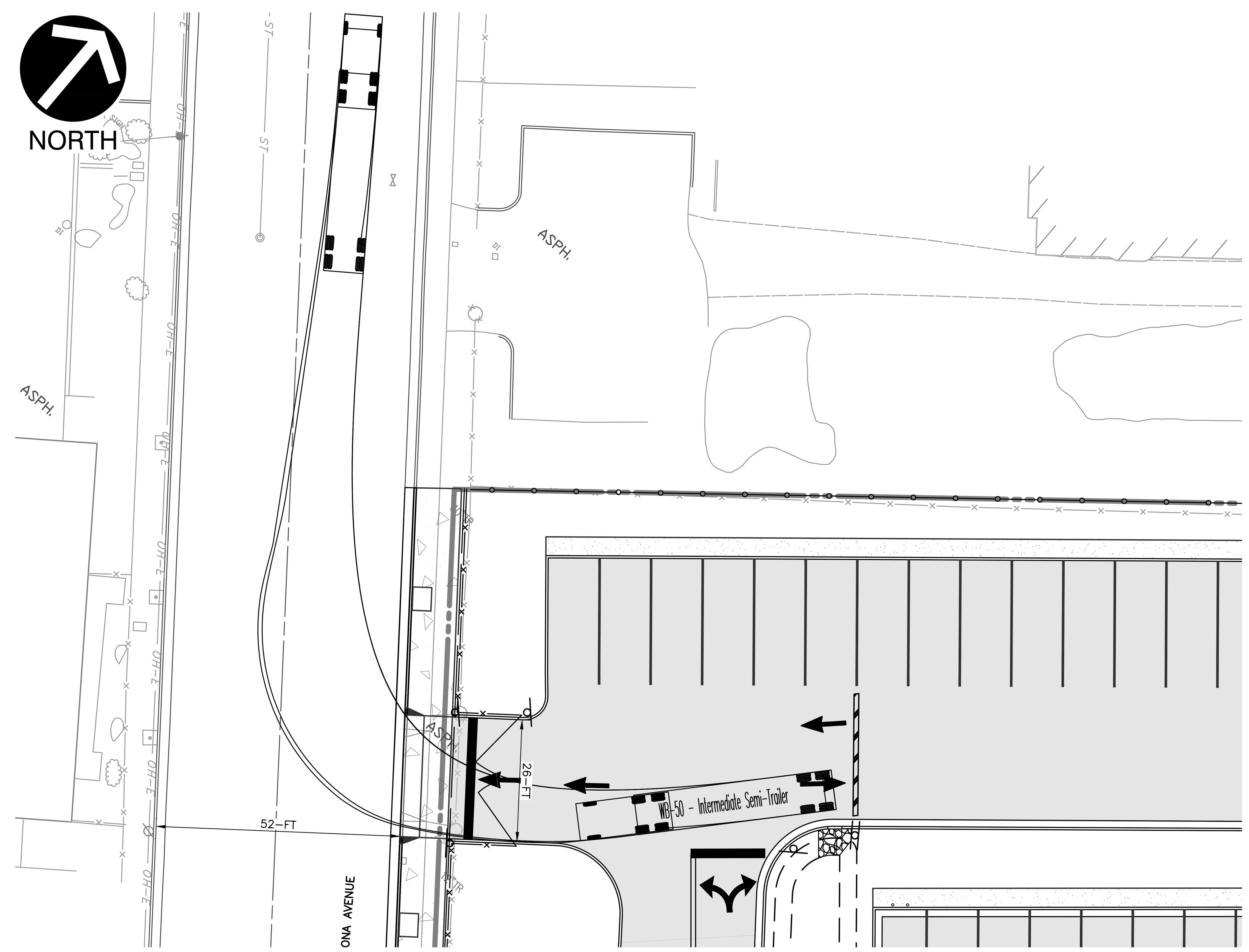
RIGHT TURN IN
POMONA AVENUE



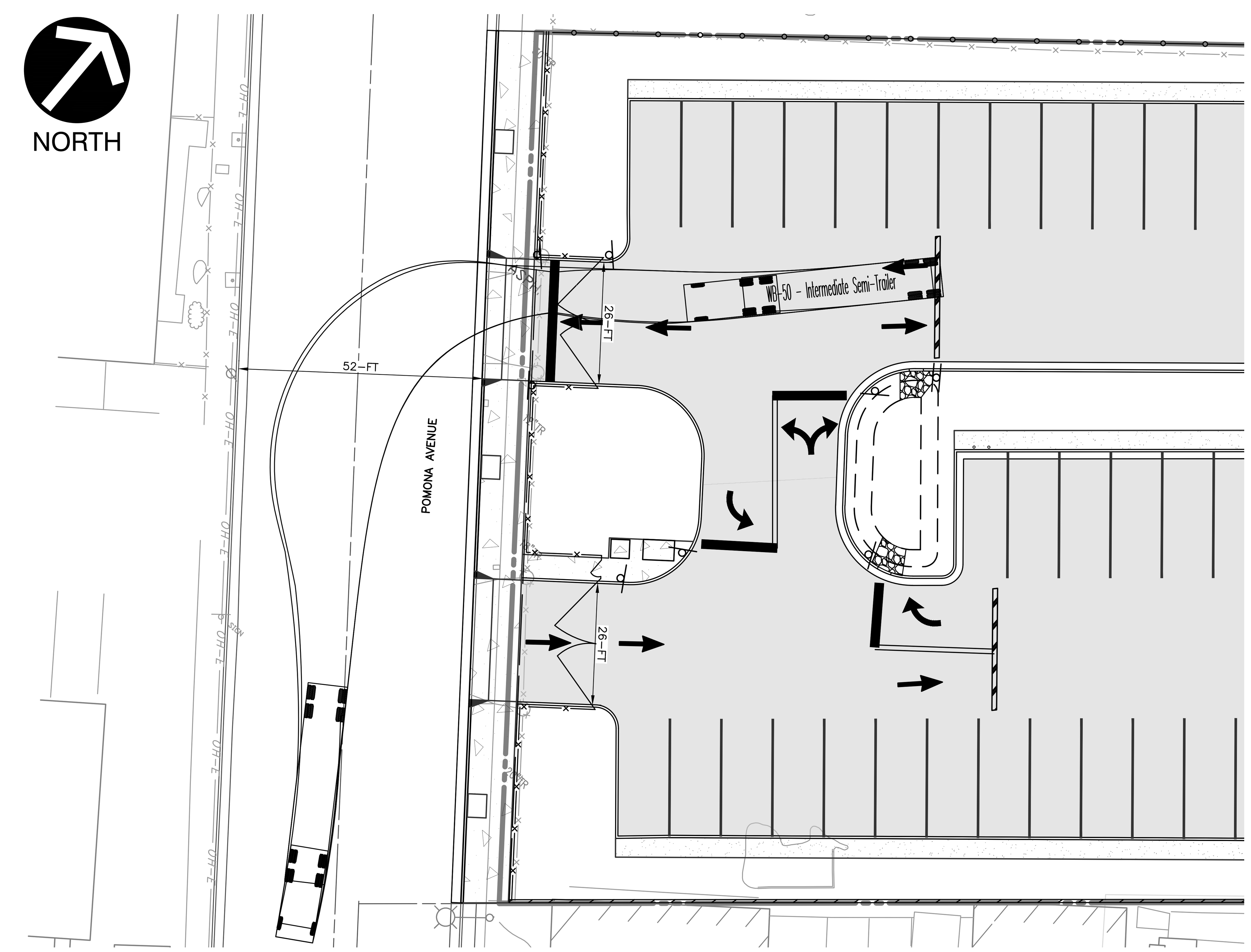
LEFT TURN IN
POMONA AVENUE

LEGEND

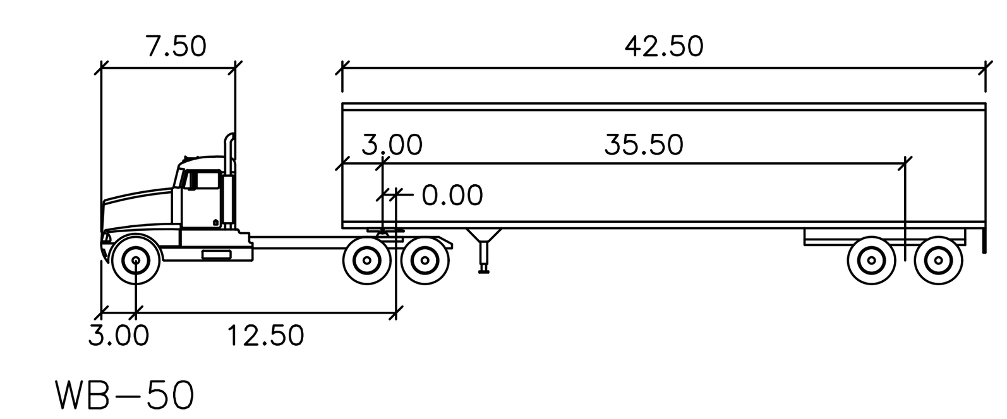
- EXISTING PROPERTY BOUNDARY
- EXISTING PARCEL BOUNDARY
- EXISTING EDGE OF PAVEMENT
- EXISTING EDGE OF GRAVEL
- EXISTING BUILDING
- EXISTING ROADWAY CENTERLINE
- PROPOSED HFC GENERATOR/LH2 TANK AREA
- PROPOSED STRIPING
- PROPOSED DIAGONAL STRIPING
- PROPOSED BIORETENTION AREA
- PROPOSED ORNAMENTAL FENCE
- PROPOSED CHAIN LINK FENCE WITH SCREEN
- PROPOSED CURB
- PROPOSED CURB AND GUTTER
- PROPOSED CONCRETE SIDEWALK/STRIP
- PROPOSED CONCRETE PAD/PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED LEVEL 2 EV CHARGER WITH BOLLARD PROTECTION
- PROPOSED LEVEL 3 EV CHARGER WITH BOLLARD PROTECTION
- PROPOSED BICYCLE LOCKERS



RIGHT TURN OUT
POMONA AVENUE



LEFT TURN OUT
POMONA AVENUE



WB-50

	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 17.7
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.50		

REFERENCE

1. TOPOGRAPHIC SURVEY PERFORMED BY KIER+WRIGHT, DATED MAY 1, 2020.

SCALE IN FEET
0 20 40

PRELIMINARY
NOT FOR CONSTRUCTION

REVISION RECORD

NO	DATE	DESCRIPTION

Civil & Environmental Consultants, Inc.
5899 Montclair Blvd. - Cincinnati, OH 45150
513-985-0226 · 800-759-5614
www.cecinc.com

OFF-SITE PARKING FACILITY
1675 MONTEREY ROAD
SAN JOSE, SANTA CLARA COUNTY, CA

PLANNING NO.: CP21-018

REFUELING TRUCK
TURNING MOVEMENTS PLAN
POMONA AVENUE

DATE:	10/1/2021	DRAWN BY:	JAM
DWG SCALE:	1"=20'	CHECKED BY:	JRI
PROJECT NO:	196-713		
APPROVED BY:	*HAND SIGNATURE ON FILE		*JRI

EXHIBIT:
1

Attachment B

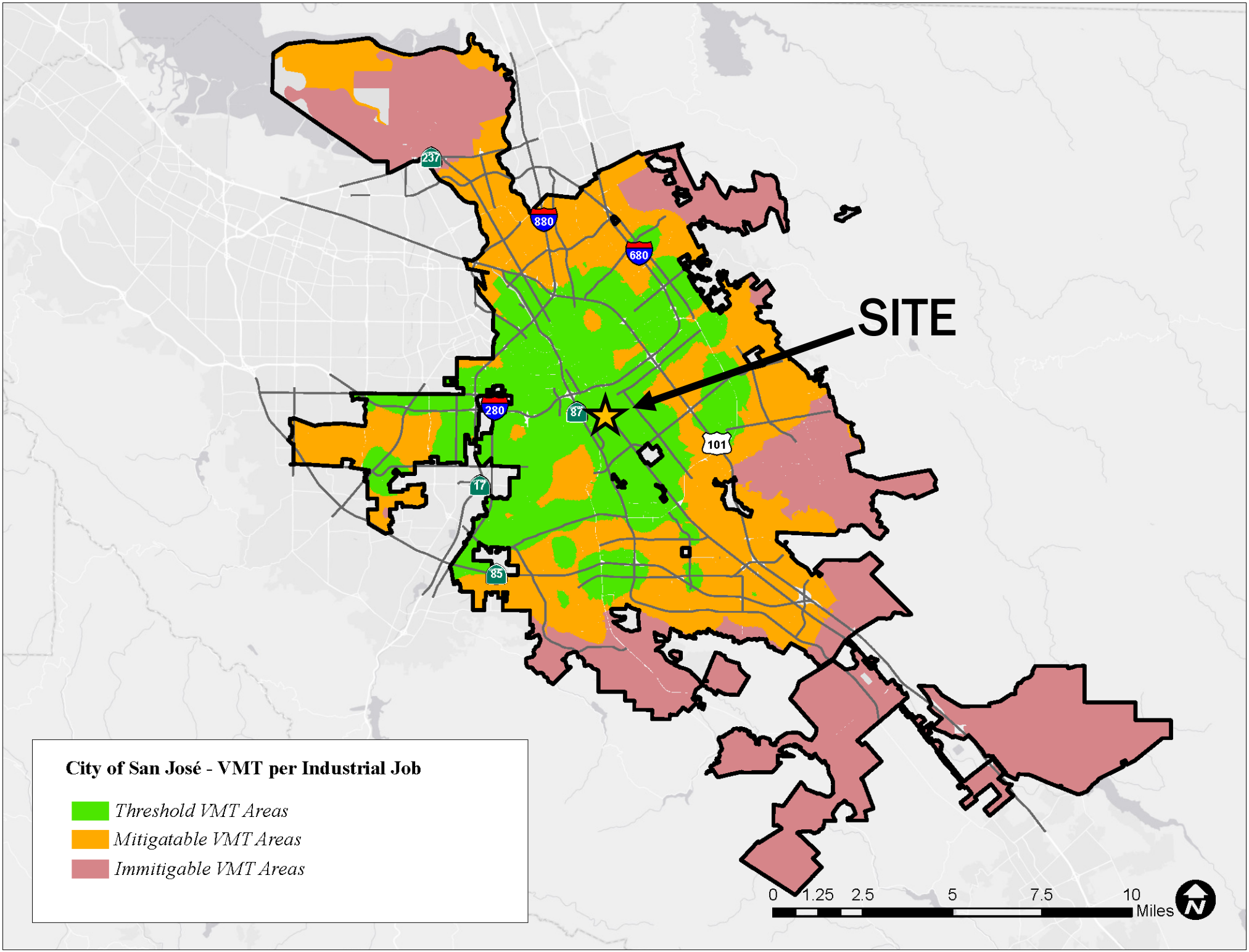
VMT Analysis

Table 1: Trip Generation Equivalency Table

Land Use[1]	Source	Quantity	Unit	Daily Trips
Delivery Station Offsite Parking	User Data [1]			604
Light Industrial (ITE Code 110)[2]	ITE Trip Generation Manual v. 10	121,774	SF	604

[1]Offsite Parking – Existing Traffic Schedule, see Attachment B

[2]Daily trip rate for land use code 110 is 4.96.The formula for the equivalent industrial SF is: (604 trips) / (4.96 trips/1000 SF rate) = 121,774 SF.


SITE
237
880
680
280
87
101
17
85
City of San José - VMT per Industrial Job
Threshold VMT Areas
Mitigatable VMT Areas
Immitigable VMT Areas
0 1.25 2.5 5 7.5 10
Miles
N

CITY OF SAN JOSE VEHICLE MILES TRAVELED EVALUATION TOOL SUMMARY REPORT

PROJECT:

Name: 1675 Monterey Road Vehicle Storage
Tool Version: 2/29/2019
Location: 1675 Monterey Road
Date: 10/29/2021
Parcel: 45602025 Parcel Type: Suburb with Multifamily Housing

Proposed Parking Spaces Vehicles: 361 Bicycles: 34

LAND USE:

Residential:		Percent of All Residential Units	
Single Family	0 DU	Extremely Low Income (≤ 30% MFI)	0 % Affordable
Multi Family	0 DU	Very Low Income (> 30% MFI, ≤ 50% MFI)	0 % Affordable
Subtotal	0 DU	Low Income (> 50% MFI, ≤ 80% MFI)	0 % Affordable
Office:	0 KSF		
Retail:	0 KSF		
Industrial:	121.8 KSF		

VMT REDUCTION STRATEGIES

Tier 1 - Project Characteristics

Increase Residential Density
- Existing Density (DU/Residential Acres in half-mile buffer) 9
- With Project Density (DU/Residential Acres in half-mile buffer) 9

Increase Development Diversity
- Existing Activity Mix Index 0.94
- With Project Activity Mix Index 0.94

Integrate Affordable and Below Market Rate
- Extremely Low Income BMR units . . . . . 0 %
- Very Low Income BMR units . . . . . 0 %
- Low Income BMR units . . . . . 0 %

Increase Employment Density
- Existing Density (Jobs/Commercial Acres in half-mile buffer) 19
- With Project Density (Jobs/Commercial Acres in half-mile buffer) 19

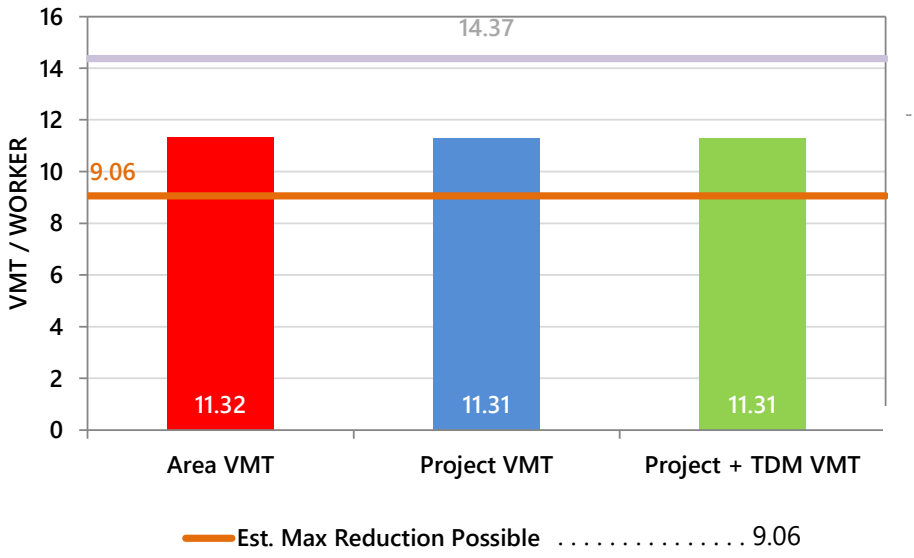
Tier 2 - Multimodal Infrastructure

Tier 3 - Parking

Tier 4 - TDM Programs

EMPLOYMENT ONLY

The tool estimates that the project would generate per non-industrial worker VMT below the City's threshold.



Attachment C

Site Specific Trip Generation Schedule

&

City Provided Driveway Counts

Attachment C: Daily Trips - Site Specific Trip Generation Schedule

Offsite Parking Trip Generation San Jose, CA

	Autos			Trucks			Vans			Total		
Time	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
0:00	0	0	0	0	0	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0	0	0	0	0	0
3:00	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
5:00	0	0	0	0	0	0	0	0	0	0	0	0
6:00	0	0	0	0	0	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0
9:00	54	0	54	0	0	0	0	0	0	54	0	54
10:00	90	0	90	0	0	0	0	96	96	90	96	186
11:00	7	0	7	0	0	0	0	55	55	7	55	62
12:00	0	0	0	0	0	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0	0	0	0	0	0
19:00	0	24	24	0	0	0	48	0	48	48	24	72
20:00	0	86	86	0	0	0	84	0	84	84	86	170
21:00	0	41	41	0	0	0	19	0	19	19	41	60
22:00	0	0	0	0	0	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0	0	0	0	0	0
Total	**151**	**151**	**302**	**0**	**0**	**0**	**151**	**151**	**302**	**302**	**302**	**604**

Attachment C: Standard Peak Hour Driveway Counts

IDAX Data Solutions
Project: San Jose - Story Rd TMCs
Date: 3/30/2021 | 4/1/2021

3/30/2021	WB: Ins	EB: Outs	EB Left from Story Rd to Similar Site
7:00	0	0	0
7:05	0	0	0
7:10	0	1	0
7:15	0	0	0
7:20	1	0	0
7:25	0	1	0
7:30	0	0	0
7:35	1	0	0
7:40	1	0	1
7:45	0	0	0
7:50	2	0	2
7:55	0	0	0
8:00	1	0	0
8:05	0	1	0
8:10	0	0	0
8:15	1	2	0
8:20	3	1	0
8:25	1	0	0
8:30	0	1	0
8:35	1	0	0
8:40	0	1	0
8:45	0	0	0
8:50	1	0	0
8:55	0	1	0
AM Total:	13	9	3

3/30/2021	WB: Ins	EB: Outs	EB Left from Story Rd to Similar Site
4:00	0	0	0
4:05	0	0	0
4:10	1	0	0
4:15	0	1	0
4:20	0	0	0
4:25	1	0	0
4:30	1	0	1
4:35	0	1	0
4:40	1	0	0
4:45	0	0	0
4:50	0	0	0
4:55	2	0	0
5:00	0	2	0
5:05	0	0	0
5:10	0	0	0
5:15	0	0	0
5:20	0	0	0
5:25	1	0	0
5:30	0	0	0
5:35	0	0	0
5:40	0	0	0
5:45	0	0	0
5:50	0	0	0
5:55	0	0	0
PM Total:	7	4	1
Daily Total	20	13	4

4/1/2021	WB: Ins	EB: Outs	EB Left from Story Rd to Similar Site
7:00	0	0	0
7:05	0	1	0
7:10	0	0	0
7:15	0	0	0
7:20	0	0	0
7:25	0	0	0
7:30	0	0	0
7:35	2	0	0
7:40	0	2	0
7:45	0	0	0
7:50	1	0	0
7:55	0	0	0
8:00	0	0	0
8:05	0	1	0
8:10	0	0	0
8:15	0	0	0
8:20	1	0	1
8:25	0	1	0
8:30	1	1	0
8:35	0	1	0
8:40	2	0	0
8:45	0	0	0
8:50	0	0	0
8:55	0	0	0
AM Total:	7	7	1

4/1/2021	WB: Ins	EB: Outs	EB Left from Story Rd to Similar Site
4:00	0	0	0
4:05	0	2	0
4:10	1	1	0
4:15	0	1	0
4:20	0	0	0
4:25	0	0	0
4:30	0	0	0
4:35	1	0	0
4:40	0	1	0
4:45	0	0	0
4:50	1	1	0
4:55	0	1	0
5:00	1	1	0
5:05	1	0	0
5:10	0	1	0
5:15	0	0	0
5:20	0	1	0
5:25	0	0	0
5:30	0	0	0
5:35	0	0	0
5:40	1	0	0
5:45	0	0	0
5:50	0	1	0
5:55	0	0	0
PM Total:	6	11	0
Daily Total	13	18	1

Attachment C: Project Peak Hour Driveway Counts

IDAX Data Solutions
Project: San Jose - Story Rd TMCs - Phase II
Date: 4/14/2021 | 4/15/2021

4/14/2021	WB: Ins	EB: Outs	EB Left from Story Rd to Similar Site
9:00	2	0	0
9:05	0	0	0
9:10	2	0	0
9:15	0	0	0
9:20	1	0	0
9:25	0	0	0
9:30	0	0	0
9:35	1	0	0
9:40	0	1	0
9:45	3	2	0
9:50	2	0	0
9:55	0	25	0
10:00	0	0	0
10:05	0	1	0
10:10	1	0	0
10:15	0	17	0
10:20	0	2	0
10:25	0	2	0
10:30	0	0	0
10:35	0	4	0
10:40	0	19	0
10:45	0	0	0
10:50	2	1	0
10:55	0	9	0
AM Total:	14	83	0
4/14/2021	**WB: Ins**	**EB: Outs**	**EB Left from Story Rd to Similar Site**
6:00	1	3	0
6:05	0	2	0
6:10	1	2	1
6:15	0	0	0
6:20	1	1	0
6:25	1	1	0
6:30	1	0	0
6:35	2	1	0
6:40	0	0	0
6:45	10	1	0
6:50	3	2	0
6:55	3	0	0
7:00	2	0	0
7:05	4	0	0
7:10	2	1	0
7:15	1	2	0
7:20	0	2	0
7:25	1	0	0
7:30	3	2	0
7:35	2	1	0
7:40	0	2	0
7:45	3	2	0
7:50	1	2	0
7:55	0	0	0
PM Total:	42	27	1
Daily Total	56	110	1

4/15/2021	WB: Ins	EB: Outs	EB Left from Story Rd to Similar Site
9:00	0	0	0
9:05	3	0	1
9:10	1	1	0
9:15	0	0	0
9:20	0	0	0
9:25	2	2	0
9:30	0	2	0
9:35	0	1	0
9:40	1	1	0
9:45	3	0	0
9:50	0	0	0
9:55	1	1	0
10:00	0	16	0
10:05	0	0	0
10:10	0	0	0
10:15	0	12	0
10:20	0	1	0
10:25	0	1	0
10:30	0	2	0
10:35	1	22	0
10:40	0	0	0
10:45	0	0	0
10:50	0	0	0
10:55	0	10	0
AM Total:	12	72	1
4/15/2021	**WB: Ins**	**EB: Outs**	**EB Left from Story Rd to Similar Site**
6:00	0	1	0
6:05	3	1	1
6:10	0	1	0
6:15	2	3	0
6:20	0	0	0
6:25	1	1	0
6:30	0	0	0
6:35	0	2	0
6:40	1	1	1
6:45	1	0	0
6:50	0	0	0
6:55	3	1	0
7:00	2	0	0
7:05	1	3	0
7:10	0	1	0
7:15	1	3	0
7:20	3	1	0
7:25	0	0	0
7:30	2	1	0
7:35	0	0	0
7:40	0	1	0
7:45	1	0	0
7:50	2	1	0
7:55	1	0	0
PM Total:	24	22	2
Daily Total	36	94	3

Attachment D

Traffic Count Data

Prepared by National Data & Surveying Services

Monterey Rd & Phelan Ave

Peak Hour Turning Movement Count

ID: 21-080147-001
City: San Jose

Day: Thursday
Date: 7/8/2021

PEAK HOURS	COUNT PERIODS
08:00 AM - 09:00 AM	7:00 AM - 09:00 AM
NONE	NONE
04:45 PM - 05:45 PM	4:00 PM - 06:00 PM

SOUTHBOUND (Monterey Rd)

AM	0	347	90	7	770	AM
NOON	0	0	0	0	0	NOON
PM	0	1039	143	12	859	PM
	0	3	1	0		

EASTBOUND (Phelan Ave)

AM	NOON	PM	
0	0	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND (Phelan Ave)

PM	NOON	AM	
170	0	90	0.5
0	0	0	0
213	0	134	1.5
0	0	0	0
355	0	282	
PM	NOON	AM	

NORTHBOUND (Monterey Rd)

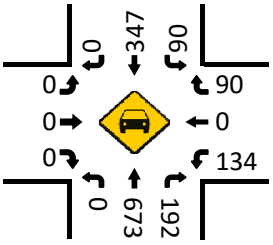
PM	1268	16	0	677	212	PM
NOON	0	0	0	0	0	NOON
AM	509	28	0	673	192	AM
	0	1	3	0		

CONTROL

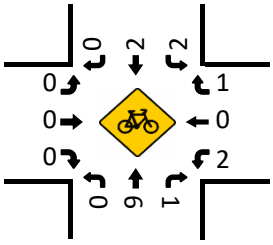
Signalized

TEV	1561	0	2482
	AM	NOON	PM
PHF	0.94		0.92

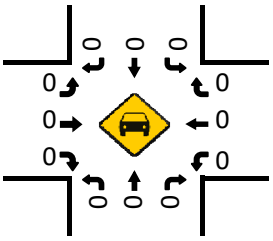
Totals (AM)



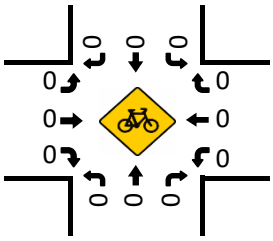
Total Bikes (AM)



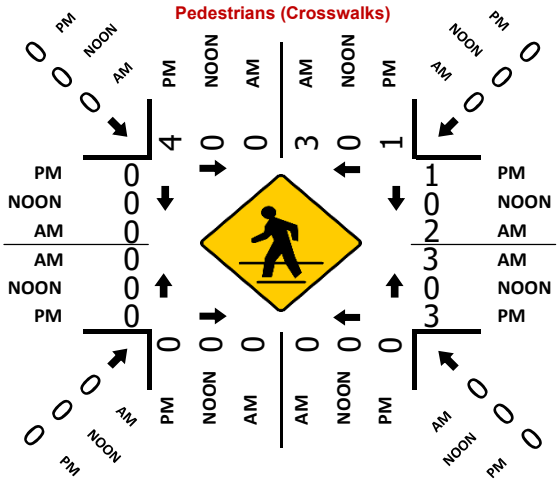
Totals (NOON)



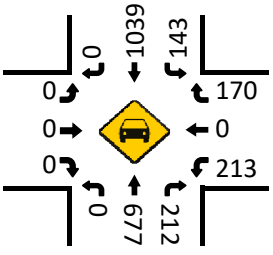
Total Bikes (NOON)



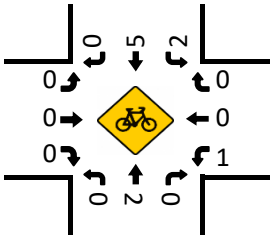
Pedestrians (Crosswalks)



Totals (PM)



Total Bikes (PM)



National Data & Surveying Services Intersection Turning Movement Count

Location: Monterey Rd & Phelan Ave
City: San Jose
Control: Signalized

Project ID: 21-080147-001
Date: 7/8/2021

Data - Totals

NS/EW Streets:	Monterey Rd				Monterey Rd				Phelan Ave				Phelan Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	0	0	0	1.5	0	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	144	24	4	16	60	0	1	0	0	0	0	22	0	19	0	290
7:15 AM	0	168	26	4	16	71	0	2	0	0	0	0	28	0	18	0	333
7:30 AM	0	204	26	6	18	86	0	2	0	0	0	0	22	0	16	0	380
7:45 AM	0	165	33	6	27	98	0	2	0	0	0	0	46	0	15	0	392
8:00 AM	0	173	53	6	22	85	0	0	0	0	0	0	34	0	25	0	398
8:15 AM	0	170	43	4	23	83	0	3	0	0	0	0	27	0	15	0	368
8:30 AM	0	168	42	7	23	90	0	2	0	0	0	0	30	0	20	0	382
8:45 AM	0	162	54	11	22	89	0	2	0	0	0	0	43	0	30	0	413
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1354	301	48	167	662	0	14	0	0	0	0	252	0	158	0	2956
APPROACH %'s :	0.00%	79.51%	17.67%	2.82%	19.81%	78.53%	0.00%	1.66%					61.46%	0.00%	38.54%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	673	192	28	90	347	0	7	0	0	0	0	134	0	90	0	1561
PEAK HR FACTOR :	0.000	0.973	0.889	0.636	0.978	0.964	0.000	0.583	0.000	0.000	0.000	0.000	0.779	0.000	0.750	0.000	0.945
		0.962				0.965								0.767			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	0	0	0	1.5	0	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	175	57	9	32	212	0	3	0	0	0	0	40	0	45	0	573
4:15 PM	0	160	48	7	26	247	0	2	0	0	0	0	71	0	31	0	592
4:30 PM	0	157	57	4	39	256	0	5	0	0	0	0	44	0	27	0	589
4:45 PM	0	168	56	2	33	266	0	3	0	0	0	0	55	0	43	0	626
5:00 PM	0	190	65	4	41	260	0	2	0	0	0	0	55	0	54	0	671
5:15 PM	0	145	42	5	35	259	0	4	0	0	0	0	54	0	38	0	582
5:30 PM	0	174	49	5	34	254	0	3	0	0	0	0	49	0	35	0	603
5:45 PM	0	163	50	2	30	225	0	5	0	0	0	0	38	0	28	0	541
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1332	424	38	270	1979	0	27	0	0	0	0	406	0	301	0	4777
APPROACH %'s :	0.00%	74.25%	23.63%	2.12%	11.86%	86.95%	0.00%	1.19%					57.43%	0.00%	42.57%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	677	212	16	143	1039	0	12	0	0	0	0	213	0	170	0	2482
PEAK HR FACTOR :	0.000	0.891	0.815	0.800	0.872	0.977	0.000	0.750	0.000	0.000	0.000	0.000	0.968	0.000	0.787	0.000	0.925
		0.874				0.985								0.878			

National Data & Surveying Services Intersection Turning Movement Count

Location: Monterey Rd & Phelan Ave
City: San Jose
Control: Signalized

Project ID: 21-080147-001
Date: 7/8/2021

Data - Bikes

NS/EW Streets:	Monterey Rd				Monterey Rd				Phelan Ave				Phelan Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	0	0	0	1.5	0	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
8:00 AM	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	3
8:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	2
8:30 AM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	5
8:45 AM	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	9	2	0	3	3	0	0	0	0	0	0	2	0	1	0	20
APPROACH %'s :	0.00%	81.82%	18.18%	0.00%	50.00%	50.00%	0.00%	0.00%					66.67%	0.00%	33.33%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	6	1	0	2	2	0	0	0	0	0	0	2	0	1	0	14
PEAK HR FACTOR :	0.000	0.500	0.250	0.000	0.250	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.250	0.000	0.700
	0.438				0.500								0.750				

NS/EW Streets:	Monterey Rd				Monterey Rd				Phelan Ave				Phelan Ave				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	3	0	0	1	3	0	0	0	0	0	0	1.5	0	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	7
4:30 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	3
4:45 PM	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3
5:00 PM	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	4
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	1	0	2	0	0	0	0	0	0	1	0	0	0	4
5:45 PM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	8	1	1	3	11	0	0	0	0	0	0	1	0	1	0	26
APPROACH %'s :	0.00%	80.00%	10.00%	10.00%	21.43%	78.57%	0.00%	0.00%					50.00%	0.00%	50.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	2	0	1	2	5	0	0	0	0	0	0	1	0	0	0	11
PEAK HR FACTOR :	0.000	0.250	0.000	0.250	0.500	0.417	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.688
	0.375				0.438								0.250				

National Data & Surveying Services Intersection Turning Movement Count

Location: Monterey Rd & Phelan Ave
City: San Jose
Project ID: 21-080147-001
Date: 7/8/2021

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Monterey Rd		Monterey Rd		Phelan Ave		Phelan Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	1	1	0	1	0	0	0	3
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	1	0	0	0	0	1	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	2	0	0	0	2
8:30 AM	0	3	0	0	1	1	0	0	5
8:45 AM	0	0	0	0	0	1	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	4	1	0	4	3	0	0	13
APPROACH %'s :	20.00%	80.00%	100.00%	0.00%	57.14%	42.86%			
PEAK HR :	**08:00 AM - 09:00 AM**								TOTAL
PEAK HR VOL :	0	3	0	0	3	2	0	0	8
PEAK HR FACTOR :		0.250			0.375	0.500			0.400
	0.250				0.625				

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	1	0	0	0	0	1	0	0	2
4:15 PM	1	0	0	0	0	1	0	0	2
4:30 PM	1	1	0	0	2	2	0	0	6
4:45 PM	3	0	0	0	0	0	0	0	3
5:00 PM	0	1	0	0	1	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	1	0	0	0	2	1	0	0	4
5:45 PM	1	0	0	0	1	0	0	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	8	2	0	0	6	5	0	0	21
APPROACH %'s :	80.00%	20.00%			54.55%	45.45%			
PEAK HR :	**04:45 PM - 05:45 PM**								TOTAL
PEAK HR VOL :	4	1	0	0	3	1	0	0	9
PEAK HR FACTOR :	0.333	0.250			0.375	0.250			0.563
	0.417				0.333				

OBJECTID	FACILITYID	INTID	LATITUDE	LONGITUDE	COUNTDATE	ADT	STREETONE	DIRECTION	STREETTWO	NEARINTERS	CITY	DATASOURCE	LASTUPDATE
3650	3650	3650	37.3106969	-121.8734108	2016/05/12 00:00:00+00	2766	Pomona Av	N of	San Jose Av	Pomona Av & San Jose Av	San Jose	2010-16 MetroCount Mechanical Update	2020/05/04 22:31:25+00
3651	3651	3651	37.31047351	-121.8734276	2016/05/12 00:00:00+00	7131	San Jose Av	W of	Pomona Av	San Jose Av & Pomona Av	San Jose	2010-16 MetroCount Mechanical Update	2020/05/04 22:31:25+00
3652	3652	3652	37.31042847	-121.8731567	2016/05/12 00:00:00+00	1464	Pomona Av	S of	San Jose Av	Pomona Av & San Jose Av	San Jose	2010-16 MetroCount Mechanical Update	2020/05/04 22:31:25+00
3653	3653	3653	37.31066194	-121.8731115	2016/05/12 00:00:00+00	5924	San Jose Av	E of	Pomona Av	San Jose Av & Pomona Av	San Jose	2010-16 MetroCount Mechanical Update	2020/05/04 22:31:25+00
3847	3847	3847	37.31078503	-121.8729209	2016/07/14 00:00:00+00	5534	San Jose Av	E of	Pomona Av	San Jose Av & Pomona Av	San Jose	2016 MetroCount Mechanical Update	2020/05/04 22:31:26+00

Cumulative Projects

AM PROJECT TRIPS

06/24/2021

Intersection of : Monterey Rd & Phelan Av

Traffix Node Number : 3704

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
H15-039 Retail/Commercial 1402 MONTEREY ROAD DCP	0	20	0	0	55	0	0	0	0	0	0	45
H16-013 (3-10278) Retail/Commercial 353 W JULIAN ST RIVER CORPORATE CENTER BLDG 3	0	20	0	0	55	0	0	0	0	0	0	45
PDC02-066 (3-16147) Residential GOBLE LN & MONTEREY RD (SW/C) GOBLE LANE	0	16	0	0	9	0	0	0	0	0	0	0
PDC10-026 (3-18541) Retail/Commercial E/SIDE MONTEREY HIGHWAY, SOUTH OF ALMA SUN GARDEN RETAIL CENTER	0	20	0	1	12	0	0	0	0	0	0	2
SP13-068 (3-18833) Office/Industrial 0 SOUTH 7TH STREET SAN JOSE CA 95112 VALLEY RECYCLING	0	0	7	2	0	0	0	0	0	4	0	1
TOTAL:	**0**	**76**	**7**	**3**	**131**	**0**	**0**	**0**	**0**	**4**	**0**	**93**

	LEFT	THRU	RIGHT
NORTH	3	131	0
EAST	4	0	93
SOUTH	0	76	7
WEST	0	0	0

Cumulative Projects

PM PROJECT TRIPS

06/24/2021

Intersection of : Monterey Rd & Phelan Av

Traffix Node Number : 3704

Permit No./Proposed Land Use/Description/Location	M09 NBL	M08 NBT	M07 NBR	M03 SBL	M02 SBT	M01 SBR	M12 EBL	M11 EBT	M10 EBR	M06 WBL	M05 WBT	M04 WBR
H15-039 Retail/Commercial 1402 MONTEREY ROAD DCP	0	10	0	0	-14	0	0	0	0	0	0	17
H16-013 (3-10278) Retail/Commercial 353 W JULIAN ST RIVER CORPORATE CENTER BLDG 3	0	10	0	0	-14	0	0	0	0	0	0	17
PDC02-066 (3-16147) Residential GOBLE LN & MONTEREY RD (SW/C) GOBLE LANE	0	9	0	0	17	0	0	0	0	0	0	0
PDC10-026 (3-18541) Retail/Commercial E/SIDE MONTEREY HIGHWAY, SOUTH OF ALMA SUN GARDEN RETAIL CENTER	0	32	0	4	28	0	0	0	0	0	0	4
SP13-068 (3-18833) Office/Industrial 0 SOUTH 7TH STREET SAN JOSE CA 95112 VALLEY RECYCLING	0	0	5	2	0	0	0	0	0	8	0	3
TOTAL:	**0**	**61**	**5**	**6**	**17**	**0**	**0**	**0**	**0**	**8**	**0**	**41**

	LEFT	THRU	RIGHT
NORTH	6	17	0
EAST	8	0	41
SOUTH	0	61	5
WEST	0	0	0

Attachment E

Synchro® Reports

Lane Group	WBL	NBU	NBT	SBL	SBT
Lane Group Flow (vph)	239	30	920	103	369
v/c Ratio	0.62	0.29	0.28	0.59	0.10
Control Delay	42.7	68.6	8.8	71.0	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	42.7	68.6	8.8	71.0	5.3
Queue Length 50th (ft)	64	26	98	88	31
Queue Length 95th (ft)	111	62	147	152	50
Internal Link Dist (ft)	272		315		205
Turn Bay Length (ft)	175	275		175	
Base Capacity (vph)	1002	230	3314	502	3822
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.24	0.13	0.28	0.21	0.10

Intersection Summary

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	134	90	28	673	192	97	347
Future Volume (veh/h)	134	90	28	673	192	97	347
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00			1.00	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	120	121		716	204	103	369
Peak Hour Factor	0.94	0.94		0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	173	154		2701	760	130	4107
Arrive On Green	0.10	0.10		0.68	0.68	0.07	0.80
Sat Flow, veh/h	1781	1585		4128	1114	1781	5274
Grp Volume(v), veh/h	120	121		614	306	103	369
Grp Sat Flow(s),veh/h/ln	1781	1585		1702	1670	1781	1702
Q Serve(g_s), s	7.9	9.1		8.5	8.7	6.9	1.9
Cycle Q Clear(g_c), s	7.9	9.1		8.5	8.7	6.9	1.9
Prop In Lane	1.00	1.00			0.67	1.00	
Lane Grp Cap(c), veh/h	173	154		2322	1139	130	4107
V/C Ratio(X)	0.69	0.79		0.26	0.27	0.79	0.09
Avail Cap(c_a), veh/h	541	481		2322	1139	541	4107
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	53.2	53.8		7.5	7.5	55.5	2.5
Incr Delay (d2), s/veh	4.9	8.5		0.3	0.6	10.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.4		3.0	3.0	3.5	0.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	58.2	62.3		7.8	8.1	65.8	2.6
LnGrp LOS	E	E		A	A	E	A
Approach Vol, veh/h	241			920			472
Approach Delay, s/veh	60.2			7.9			16.3
Approach LOS	E			A			B

Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		104.0		17.8	14.9	89.1	
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0	
Max Green Setting (Gmax), s		98.0		37.0	37.0	78.0	
Max Q Clear Time (g_c+I1), s		3.9		11.1	8.9	10.7	
Green Ext Time (p_c), s		2.7		0.7	0.3	7.4	

Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Lane Group	WBL	NBU	NBT	SBL	SBT
Lane Group Flow (vph)	417	17	966	168	1129
v/c Ratio	0.67	0.14	0.39	0.62	0.33
Control Delay	27.3	45.1	13.9	46.4	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	27.3	45.1	13.9	46.4	7.8
Queue Length 50th (ft)	61	8	102	82	66
Queue Length 95th (ft)	124	32	175	165	166
Internal Link Dist (ft)	272		315		205
Turn Bay Length (ft)	175	275		175	
Base Capacity (vph)	1087	140	2487	521	3399
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.38	0.12	0.39	0.32	0.33

Intersection Summary

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	213	170	16	677	212	155	1039
Future Volume (veh/h)	213	170	16	677	212	155	1039
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00			1.00	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	208	210		736	230	168	1129
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	293	261		1956	604	209	3544
Arrive On Green	0.16	0.16		0.51	0.51	0.12	0.69
Sat Flow, veh/h	1781	1585		4034	1194	1781	5274
Grp Volume(v), veh/h	208	210		647	319	168	1129
Grp Sat Flow(s),veh/h/ln	1781	1585		1702	1655	1781	1702
Q Serve(g_s), s	9.4	10.8		9.9	10.0	7.8	7.4
Cycle Q Clear(g_c), s	9.4	10.8		9.9	10.0	7.8	7.4
Prop In Lane	1.00	1.00			0.72	1.00	
Lane Grp Cap(c), veh/h	293	261		1722	838	209	3544
V/C Ratio(X)	0.71	0.80		0.38	0.38	0.80	0.32
Avail Cap(c_a), veh/h	545	485		1722	838	545	3544
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	33.6	34.2		12.8	12.9	36.5	5.1
Incr Delay (d2), s/veh	3.2	5.7		0.6	1.3	7.0	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	4.3	0.4		3.6	3.7	3.7	2.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.7	39.9		13.4	14.2	43.5	5.3
LnGrp LOS	D	D		B	B	D	A
Approach Vol, veh/h	418			966			1297
Approach Delay, s/veh	38.3			13.7			10.3
Approach LOS	D			B			B

Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		65.0		20.0	16.0	49.0	
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0	
Max Green Setting (Gmax), s		59.0		26.0	26.0	40.0	
Max Q Clear Time (g_c+I1), s		9.4		12.8	9.8	12.0	
Green Ext Time (p_c), s		10.3		1.2	0.4	7.2	

Intersection Summary		
HCM 6th Ctrl Delay	15.9	
HCM 6th LOS	B	

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Lane Group	WBL	NBU	NBT	SBL	SBT
Lane Group Flow (vph)	244	31	940	105	377
v/c Ratio	0.63	0.30	0.28	0.59	0.10
Control Delay	43.9	68.9	9.0	71.3	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	68.9	9.0	71.3	5.4
Queue Length 50th (ft)	67	27	102	90	32
Queue Length 95th (ft)	115	63	153	155	52
Internal Link Dist (ft)	272		315		205
Turn Bay Length (ft)	175	275		175	
Base Capacity (vph)	999	230	3305	501	3814
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.24	0.13	0.28	0.21	0.10

Intersection Summary

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	137	92	29	687	196	99	354
Future Volume (veh/h)	137	92	29	687	196	99	354
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00			1.00	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	122	124		731	209	105	377
Peak Hour Factor	0.94	0.94		0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	176	157		2687	759	132	4099
Arrive On Green	0.10	0.10		0.68	0.68	0.07	0.80
Sat Flow, veh/h	1781	1585		4124	1118	1781	5274
Grp Volume(v), veh/h	122	124		628	312	105	377
Grp Sat Flow(s),veh/h/ln	1781	1585		1702	1669	1781	1702
Q Serve(g_s), s	8.1	9.3		8.9	9.0	7.1	1.9
Cycle Q Clear(g_c), s	8.1	9.3		8.9	9.0	7.1	1.9
Prop In Lane	1.00	1.00			0.67	1.00	
Lane Grp Cap(c), veh/h	176	157		2312	1134	132	4099
V/C Ratio(X)	0.69	0.79		0.27	0.28	0.79	0.09
Avail Cap(c_a), veh/h	540	480		2312	1134	540	4099
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	53.2	53.8		7.7	7.7	55.6	2.6
Incr Delay (d2), s/veh	4.8	8.5		0.3	0.6	10.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	8.4		3.1	3.2	3.5	0.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	58.0	62.3		8.0	8.3	65.7	2.6
LnGrp LOS	E	E		A	A	E	A
Approach Vol, veh/h	246			940			482
Approach Delay, s/veh	60.2			8.1			16.4
Approach LOS	E			A			B

Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		104.0		18.1	15.1	88.9	
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0	
Max Green Setting (Gmax), s		98.0		37.0	37.0	78.0	
Max Q Clear Time (g_c+I1), s		3.9		11.3	9.1	11.0	
Green Ext Time (p_c), s		2.8		0.8	0.3	7.7	

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Lane Group	WBL	NBU	NBT	SBL	SBT
Lane Group Flow (vph)	424	17	986	172	1152
v/c Ratio	0.68	0.14	0.40	0.63	0.34
Control Delay	27.7	45.3	14.3	46.5	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	27.7	45.3	14.3	46.5	7.9
Queue Length 50th (ft)	63	9	106	85	68
Queue Length 95th (ft)	127	33	182	168	172
Internal Link Dist (ft)	272		315		205
Turn Bay Length (ft)	175	275		175	
Base Capacity (vph)	1084	139	2470	519	3393
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.39	0.12	0.40	0.33	0.34

Intersection Summary

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	217	173	16	691	216	158	1060
Future Volume (veh/h)	217	173	16	691	216	158	1060
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00			1.00	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	212	214		751	235	172	1152
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	298	265		1938	600	214	3534
Arrive On Green	0.17	0.17		0.50	0.50	0.12	0.69
Sat Flow, veh/h	1781	1585		4032	1196	1781	5274
Grp Volume(v), veh/h	212	214		661	325	172	1152
Grp Sat Flow(s),veh/h/ln	1781	1585		1702	1655	1781	1702
Q Serve(g_s), s	9.6	11.1		10.2	10.4	8.0	7.6
Cycle Q Clear(g_c), s	9.6	11.1		10.2	10.4	8.0	7.6
Prop In Lane	1.00	1.00			0.72	1.00	
Lane Grp Cap(c), veh/h	298	265		1708	830	214	3534
V/C Ratio(X)	0.71	0.81		0.39	0.39	0.80	0.33
Avail Cap(c_a), veh/h	543	483		1708	830	543	3534
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	33.6	34.2		13.1	13.2	36.5	5.2
Incr Delay (d2), s/veh	3.1	5.8		0.7	1.4	6.9	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	4.4	9.7		3.7	3.8	3.8	2.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.7	39.9		13.8	14.6	43.5	5.5
LnGrp LOS	D	D		B	B	D	A
Approach Vol, veh/h	426			986			1324
Approach Delay, s/veh	38.3			14.1			10.4
Approach LOS	D			B			B

Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		65.0		20.3	16.2	48.8	
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0	
Max Green Setting (Gmax), s		59.0		26.0	26.0	40.0	
Max Q Clear Time (g_c+I1), s		9.6		13.1	10.0	12.4	
Green Ext Time (p_c), s		10.6		1.2	0.4	7.3	

Intersection Summary	
HCM 6th Ctrl Delay	16.1
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Lane Group	WBL	NBU	NBT	SBL	SBT
Lane Group Flow (vph)	244	31	940	105	377
v/c Ratio	0.63	0.30	0.28	0.59	0.10
Control Delay	43.9	68.9	9.0	71.3	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	68.9	9.0	71.3	5.4
Queue Length 50th (ft)	67	27	102	90	32
Queue Length 95th (ft)	115	63	153	155	52
Internal Link Dist (ft)	272		315		205
Turn Bay Length (ft)	175	275		175	
Base Capacity (vph)	999	230	3305	501	3814
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.24	0.13	0.28	0.21	0.10

Intersection Summary

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	137	92	29	687	196	99	354
Future Volume (veh/h)	137	92	29	687	196	99	354
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00			1.00	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	122	124		731	209	105	377
Peak Hour Factor	0.94	0.94		0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	176	157		2687	759	132	4099
Arrive On Green	0.10	0.10		0.68	0.68	0.07	0.80
Sat Flow, veh/h	1781	1585		4124	1118	1781	5274
Grp Volume(v), veh/h	122	124		628	312	105	377
Grp Sat Flow(s),veh/h/ln	1781	1585		1702	1669	1781	1702
Q Serve(g_s), s	8.1	9.3		8.9	9.0	7.1	1.9
Cycle Q Clear(g_c), s	8.1	9.3		8.9	9.0	7.1	1.9
Prop In Lane	1.00	1.00			0.67	1.00	
Lane Grp Cap(c), veh/h	176	157		2312	1134	132	4099
V/C Ratio(X)	0.69	0.79		0.27	0.28	0.79	0.09
Avail Cap(c_a), veh/h	540	480		2312	1134	540	4099
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	53.2	53.8		7.7	7.7	55.6	2.6
Incr Delay (d2), s/veh	4.8	8.5		0.3	0.6	10.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	8.4		3.1	3.2	3.5	0.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	58.0	62.3		8.0	8.3	65.7	2.6
LnGrp LOS	E	E		A	A	E	A
Approach Vol, veh/h	246			940			482
Approach Delay, s/veh	60.2			8.1			16.4
Approach LOS	E			A			B

Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		104.0		18.1	15.1	88.9	
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0	
Max Green Setting (Gmax), s		98.0		37.0	37.0	78.0	
Max Q Clear Time (g_c+I1), s		3.9		11.3	9.1	11.0	
Green Ext Time (p_c), s		2.8		0.8	0.3	7.7	

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	0	57	1	0	90
Future Vol, veh/h	4	0	57	1	0	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	0	60	1	0	95

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	156	-	0	0	-	-
Stage 1	61	-	-	-	-	-
Stage 2	95	-	-	-	-	-
Critical Hdwy	6.42	-	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	-	-	-	-	-
Pot Cap-1 Maneuver	835	0	-	-	0	-
Stage 1	962	0	-	-	0	-
Stage 2	929	0	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	835	-	-	-	-	-
Mov Cap-2 Maneuver	835	-	-	-	-	-
Stage 1	962	-	-	-	-	-
Stage 2	929	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	835	-
HCM Lane V/C Ratio	-	-	0.005	-
HCM Control Delay (s)	-	-	9.3	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	0	56	1	0	85
Future Vol, veh/h	5	0	56	1	0	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	0	59	1	0	89

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	149	-	0	0	-	-
Stage 1	60	-	-	-	-	-
Stage 2	89	-	-	-	-	-
Critical Hdwy	6.42	-	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	-	-	-	-	-
Pot Cap-1 Maneuver	843	0	-	-	0	-
Stage 1	963	0	-	-	0	-
Stage 2	934	0	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	843	-	-	-	-	-
Mov Cap-2 Maneuver	843	-	-	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	934	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	843	-
HCM Lane V/C Ratio	-	-	0.006	-
HCM Control Delay (s)	-	-	9.3	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	779	453	11
Future Vol, veh/h	0	0	0	779	453	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	820	477	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	245	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	644	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	644	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Lane Group	WBL	NBU	NBT	SBL	SBT
Lane Group Flow (vph)	424	17	986	172	1152
v/c Ratio	0.68	0.14	0.40	0.63	0.34
Control Delay	27.7	45.3	14.3	46.5	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	27.7	45.3	14.3	46.5	7.9
Queue Length 50th (ft)	63	9	106	85	68
Queue Length 95th (ft)	127	33	182	168	172
Internal Link Dist (ft)	272		315		205
Turn Bay Length (ft)	175	275		175	
Base Capacity (vph)	1084	139	2470	519	3393
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.39	0.12	0.40	0.33	0.34

Intersection Summary

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	217	173	16	691	216	158	1060
Future Volume (veh/h)	217	173	16	691	216	158	1060
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00			1.00	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	212	214		751	235	172	1152
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	298	265		1938	600	214	3534
Arrive On Green	0.17	0.17		0.50	0.50	0.12	0.69
Sat Flow, veh/h	1781	1585		4032	1196	1781	5274
Grp Volume(v), veh/h	212	214		661	325	172	1152
Grp Sat Flow(s),veh/h/ln	1781	1585		1702	1655	1781	1702
Q Serve(g_s), s	9.6	11.1		10.2	10.4	8.0	7.6
Cycle Q Clear(g_c), s	9.6	11.1		10.2	10.4	8.0	7.6
Prop In Lane	1.00	1.00			0.72	1.00	
Lane Grp Cap(c), veh/h	298	265		1708	830	214	3534
V/C Ratio(X)	0.71	0.81		0.39	0.39	0.80	0.33
Avail Cap(c_a), veh/h	543	483		1708	830	543	3534
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	33.6	34.2		13.1	13.2	36.5	5.2
Incr Delay (d2), s/veh	3.1	5.8		0.7	1.4	6.9	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	4.4	9.7		3.7	3.8	3.8	2.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.7	39.9		13.8	14.6	43.5	5.5
LnGrp LOS	D	D		B	B	D	A
Approach Vol, veh/h	426			986			1324
Approach Delay, s/veh	38.3			14.1			10.4
Approach LOS	D			B			B

Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		65.0		20.3	16.2	48.8	
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0	
Max Green Setting (Gmax), s		59.0		26.0	26.0	40.0	
Max Q Clear Time (g_c+I1), s		9.6		13.1	10.0	12.4	
Green Ext Time (p_c), s		10.6		1.2	0.4	7.3	

Intersection Summary	
HCM 6th Ctrl Delay	16.1
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	0	56	1	0	91
Future Vol, veh/h	5	0	56	1	0	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	0	60	1	0	98

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	159	-	0	0	-	-
Stage 1	61	-	-	-	-	-
Stage 2	98	-	-	-	-	-
Critical Hdwy	6.42	-	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	-	-	-	-	-
Pot Cap-1 Maneuver	832	0	-	-	0	-
Stage 1	962	0	-	-	0	-
Stage 2	926	0	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	832	-	-	-	-	-
Mov Cap-2 Maneuver	832	-	-	-	-	-
Stage 1	962	-	-	-	-	-
Stage 2	926	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	832	-
HCM Lane V/C Ratio	-	-	0.006	-
HCM Control Delay (s)	-	-	9.4	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	0	56	0	0	85
Future Vol, veh/h	6	0	56	0	0	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	0	60	0	0	91

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	151	-	0	0	-	-
Stage 1	60	-	-	-	-	-
Stage 2	91	-	-	-	-	-
Critical Hdwy	6.42	-	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	-	-	-	-	-
Pot Cap-1 Maneuver	841	0	-	-	0	-
Stage 1	963	0	-	-	0	-
Stage 2	933	0	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	841	-	-	-	-	-
Mov Cap-2 Maneuver	841	-	-	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	933	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	841	-
HCM Lane V/C Ratio	-	-	0.008	-
HCM Control Delay (s)	-	-	9.3	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	864	1218	6
Future Vol, veh/h	0	0	0	864	1218	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	929	1310	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	658	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	349	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	349	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Lane Group	WBL	NBU	NBT	SBL	SBT
Lane Group Flow (vph)	244	31	940	105	377
v/c Ratio	0.63	0.30	0.28	0.59	0.10
Control Delay	43.9	68.9	9.0	71.3	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	43.9	68.9	9.0	71.3	5.4
Queue Length 50th (ft)	67	27	102	90	32
Queue Length 95th (ft)	115	63	153	155	52
Internal Link Dist (ft)	272		315		205
Turn Bay Length (ft)	175	275		175	
Base Capacity (vph)	999	230	3305	501	3814
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.24	0.13	0.28	0.21	0.10

Intersection Summary

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	137	92	29	687	196	99	354
Future Volume (veh/h)	137	92	29	687	196	99	354
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00			1.00	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	122	124		731	209	105	377
Peak Hour Factor	0.94	0.94		0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2		2	2	2	2
Cap, veh/h	176	157		2687	759	132	4099
Arrive On Green	0.10	0.10		0.68	0.68	0.07	0.80
Sat Flow, veh/h	1781	1585		4124	1118	1781	5274
Grp Volume(v), veh/h	122	124		628	312	105	377
Grp Sat Flow(s),veh/h/ln	1781	1585		1702	1669	1781	1702
Q Serve(g_s), s	8.1	9.3		8.9	9.0	7.1	1.9
Cycle Q Clear(g_c), s	8.1	9.3		8.9	9.0	7.1	1.9
Prop In Lane	1.00	1.00			0.67	1.00	
Lane Grp Cap(c), veh/h	176	157		2312	1134	132	4099
V/C Ratio(X)	0.69	0.79		0.27	0.28	0.79	0.09
Avail Cap(c_a), veh/h	540	480		2312	1134	540	4099
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	53.2	53.8		7.7	7.7	55.6	2.6
Incr Delay (d2), s/veh	4.8	8.5		0.3	0.6	10.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0		0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	8.4		3.1	3.2	3.5	0.5
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	58.0	62.3		8.0	8.3	65.7	2.6
LnGrp LOS	E	E		A	A	E	A
Approach Vol, veh/h	246			940			482
Approach Delay, s/veh	60.2			8.1			16.4
Approach LOS	E			A			B

Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		104.0		18.1	15.1	88.9	
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0	
Max Green Setting (Gmax), s		98.0		37.0	37.0	78.0	
Max Q Clear Time (g_c+I1), s		3.9		11.3	9.1	11.0	
Green Ext Time (p_c), s		2.8		0.8	0.3	7.7	

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	0	57	0	0	127
Future Vol, veh/h	41	0	57	0	0	127
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	0	60	0	0	134

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	194	-	0	0	-	-
Stage 1	60	-	-	-	-	-
Stage 2	134	-	-	-	-	-
Critical Hdwy	6.42	-	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	-	-	-	-	-
Pot Cap-1 Maneuver	795	0	-	-	0	-
Stage 1	963	0	-	-	0	-
Stage 2	892	0	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	795	-	-	-	-	-
Mov Cap-2 Maneuver	795	-	-	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	892	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	795	-
HCM Lane V/C Ratio	-	-	0.054	-
HCM Control Delay (s)	-	-	9.8	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	42	0	56	1	0	85
Future Vol, veh/h	42	0	56	1	0	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	0	59	1	0	89

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	149	-	0	0	-	-
Stage 1	60	-	-	-	-	-
Stage 2	89	-	-	-	-	-
Critical Hdwy	6.42	-	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	-	-	-	-	-
Pot Cap-1 Maneuver	843	0	-	-	0	-
Stage 1	963	0	-	-	0	-
Stage 2	934	0	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	843	-	-	-	-	-
Mov Cap-2 Maneuver	843	-	-	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	934	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	843	-
HCM Lane V/C Ratio	-	-	0.052	-
HCM Control Delay (s)	-	-	9.5	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	779	453	13
Future Vol, veh/h	0	0	0	779	453	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	820	477	14

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	246	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	643	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	643	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

Lane Group	WBL	NBU	NBT	SBL	SBT
Lane Group Flow (vph)	424	17	986	172	1152
v/c Ratio	0.68	0.14	0.40	0.63	0.34
Control Delay	27.7	45.3	14.3	46.5	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	27.7	45.3	14.3	46.5	7.9
Queue Length 50th (ft)	63	9	106	85	68
Queue Length 95th (ft)	127	33	182	168	172
Internal Link Dist (ft)	272		315		205
Turn Bay Length (ft)	175	275		175	
Base Capacity (vph)	1084	139	2470	519	3393
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.39	0.12	0.40	0.33	0.34

Intersection Summary

Movement	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (veh/h)	217	173	16	691	216	158	1060
Future Volume (veh/h)	217	173	16	691	216	158	1060
Initial Q (Qb), veh	0	0		0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00			1.00	1.00	
Parking Bus, Adj	1.00	1.00		1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No
Adj Sat Flow, veh/h/ln	1870	1870		1870	1870	1870	1870
Adj Flow Rate, veh/h	212	214		751	235	172	1152
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	298	265		1938	600	214	3534
Arrive On Green	0.17	0.17		0.50	0.50	0.12	0.69
Sat Flow, veh/h	1781	1585		4032	1196	1781	5274
Grp Volume(v), veh/h	212	214		661	325	172	1152
Grp Sat Flow(s),veh/h/ln	1781	1585		1702	1655	1781	1702
Q Serve(g_s), s	9.6	11.1		10.2	10.4	8.0	7.6
Cycle Q Clear(g_c), s	9.6	11.1		10.2	10.4	8.0	7.6
Prop In Lane	1.00	1.00			0.72	1.00	
Lane Grp Cap(c), veh/h	298	265		1708	830	214	3534
V/C Ratio(X)	0.71	0.81		0.39	0.39	0.80	0.33
Avail Cap(c_a), veh/h	543	483		1708	830	543	3534
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	33.6	34.2		13.1	13.2	36.5	5.2
Incr Delay (d2), s/veh	3.1	5.8		0.7	1.4	6.9	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	4.4	9.7		3.7	3.8	3.8	2.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	36.7	39.9		13.8	14.6	43.5	5.5
LnGrp LOS	D	D		B	B	D	A
Approach Vol, veh/h	426			986			1324
Approach Delay, s/veh	38.3			14.1			10.4
Approach LOS	D			B			B

Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		65.0		20.3	16.2	48.8	
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0	
Max Green Setting (Gmax), s		59.0		26.0	26.0	40.0	
Max Q Clear Time (g_c+I1), s		9.6		13.1	10.0	12.4	
Green Ext Time (p_c), s		10.6		1.2	0.4	7.3	

Intersection Summary	
HCM 6th Ctrl Delay	16.1
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.
User approved ignoring U-Turning movement.

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	0	57	1	0	99
Future Vol, veh/h	13	0	57	1	0	99
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	0	61	1	0	106

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	168	-	0	0	-	-
Stage 1	62	-	-	-	-	-
Stage 2	106	-	-	-	-	-
Critical Hdwy	6.42	-	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	-	-	-	-	-
Pot Cap-1 Maneuver	822	0	-	-	0	-
Stage 1	961	0	-	-	0	-
Stage 2	918	0	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	822	-	-	-	-	-
Mov Cap-2 Maneuver	822	-	-	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	918	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	822	-
HCM Lane V/C Ratio	-	-	0.017	-
HCM Control Delay (s)	-	-	9.5	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	0	56	1	0	85
Future Vol, veh/h	14	0	56	1	0	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	0	60	1	0	91

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	152	-	0	0	-	-
Stage 1	61	-	-	-	-	-
Stage 2	91	-	-	-	-	-
Critical Hdwy	6.42	-	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	-	-	-	-	-
Pot Cap-1 Maneuver	840	0	-	-	0	-
Stage 1	962	0	-	-	0	-
Stage 2	933	0	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	840	-	-	-	-	-
Mov Cap-2 Maneuver	840	-	-	-	-	-
Stage 1	962	-	-	-	-	-
Stage 2	933	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	840	-
HCM Lane V/C Ratio	-	-	0.018	-
HCM Control Delay (s)	-	-	9.4	-
HCM Lane LOS	-	-	A	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	864	1218	38
Future Vol, veh/h	0	0	0	864	1218	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	929	1310	41

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	676	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	7.14	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.92	-	-	-	-
Pot Cap-1 Maneuver	0	339	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	339	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-
HCM Control Delay (s)	-	0	-	-
HCM Lane LOS	-	A	-	-
HCM 95th %tile Q(veh)	-	-	-	-

San Jose / San Jose Traffic Control System

Intersection: 298 / MONTEREY RD & PHELAN AV | UCM version: 2 | Firmware: 20121112 - v1.5L-3

Phase Timing

	1	2	3	4	5	6	7	8
		MONTEREY		PHELAN		MONTEREY		
		SB		WB	SBLT	NB		
Max 1	20	85	0	20	20	65	0	0
Max 2	20	95	0	40	30	75	0	0

PM AM/PM

Ring Configuration

Ring Number	Phase Sequence							
1	1	2	4					
2	5	6						

Plan Schedule

Schedule	Pattern / Mode
00:00 - 06:30	Free
06:30 - 09:30	11
09:30 - 11:00	Free
09:30 - 11:00	4
11:00 - 11:30	2
11:00 - 11:30	4
11:30 - 12:00	5
12:00 - 13:00	5
13:00 - 15:15	Free
15:15 - 16:00	3
16:00 - 16:30	6
16:30 - 17:30	6
17:30 - 18:30	Free
18:30 - 19:00	Free
19:00 - 00:00	Free

TOD Functions

Start Time	Event	Max 2 Phases
00:00	1	5
09:00	2	4, 5
13:00	3	4, 5
18:30	4	4, 5
09:30	5	4, 5

Timing Plans

Pattern Number	Description	Free	Cycle Length
1	AM PEAK		160
2	MIDDAY PEAK		100
3	PM PEAK		160
4	WKND AM		110
5	WKND MID		110

Timing Plans

Pattern Number	Description	Free	Cycle Length
6	WKND PM		110
11	AM ALT		170
254	Free Plan	Free	0

NV5

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