

Appendix I

Transportation Study

Fehr & Peers

Nevada Cement Company Terminal Redevelopment

Transportation Impact Analysis

Prepared for:
Port of Stockton

Submitted on:
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Table of Contents

Executive Summary	i
Site Plan Assessment	i
CEQA Transportation Study.....	i
Local Transportation Study	ii
Introduction.....	1
CEQA Transportation Study.....	1
Local Transportation Study	1
Analysis Scenarios.....	5
Existing Conditions	6
Roadway System.....	6
Transit Service.....	8
Bicycle Facilities	8
Pedestrian Facilities.....	8
Rail Network	9
Intersection Operations and Vehicle Queues	9
Project Characteristics	13
Trip Generation	13
Project Trip Distribution & Assignment	18
Future Conditions.....	22
Future Traffic Volumes	22
Intersection Operations and Vehicle Queues	27
Site Plan Assessment.....	30
CEQA Transportation Analysis	32
A – Programs, Plans, Ordinances, and Policies.....	32
B – Vehicle Miles Traveled	33
C – Geometric Design Features.....	36
D – Emergency Access	37
Local Roadway Transportation Analysis.....	38

Appendices

Appendix A. Traffic Counts

Appendix B. Intersection Analysis Worksheets

List of Figures

Figure 1: Proposed Project Site Plan	2
Figure 2: Study Area.....	4
Figure 3: Truck Routes	7
Figure 4: Existing (2025) Peak Hour Intersection Turning Movement PCE Volumes	10
Figure 5: Project Trip Distribution and Assignment.....	19
Figure 6: Opening Year Project Only (2031) Intersection Turning Movement PCE Volumes	20
Figure 7: Cumulative Year Project Only (2045) Intersection Turning Movement PCE Volumes	21
Figure 8: Background Year (2031) Peak Hour Intersection Turning Movement PCE Volumes	23
Figure 9: Background with Project (2031) Peak Hour Intersection Turning Movement PCE Volumes.....	24
Figure 10: Cumulative Year (2045) Peak Hour Intersection Turning Movement PCE Volumes.....	25
Figure 11: Cumulative with Project (2045) Peak Hour Intersection Turning Movement PCE Volumes	26
Figure 12: Terminal Truck Flow	30

List of Tables

Table 1: Intersection Level of Service Criteria.....	3
Table 2: Existing (2025) Intersection Operations.....	11
Table 3: Existing (2025) 95 th Percentile Queue Lengths.....	12
Table 4: Baseline Annual Throughput by Mode and Tonnage	14
Table 5: Proposed Annual Throughput by Mode and Tonnage	15
Table 6: Trip Generation – Opening Year (2031).....	16
Table 7: Trip Generation – Cumulative Year (2045)	17
Table 8: Future Scenarios Intersection Operations	28
Table 9: Future Scenarios 95 th Percentile Queue Lengths	29
Table 10 Project Generated VMT	35
Table 11: Project Effect on VMT	35

Executive Summary

This report presents the analysis and findings of the Transportation Impact Analysis conducted for the proposed redevelopment of the existing Nevada Cement Company terminal (“Project”). The Project site is located within the East Complex at the Port of Stockton, bounded by the San Joaquin River, Port Road 1, and Port Road 2, north of Port Road A/Harbor Street. The proposed project involves redeveloping the current terminal site at Berth 2 to accommodate additional capacity and improve operational efficiency, as well as extending the lease holdings to the adjacent Berths 3 and 4.

This TIA satisfies the requirements documented in the City of Stockton Transportation Impact Analysis Guidelines (TIA Guidelines), last updated in May 2023. The TIA Guidelines require the preparation of a California Environmental Quality Act (CEQA) Transportation Study and a Local Transportation Study. Both studies are included in this report.

Site Plan Assessment

Vehicular access to the Project site via the Port of Stockton East Complex Gate is provided by Harbor Street. Recommendations to improve site access/circulation/parking are as follows:

Recommendation 1: The final site plan should show and indicate at least 18 parking spaces with accessible parking spaces to comply with the City’s Municipal Code and ADA requirement.

Recommendation 2: The final site plan should identify which parking spaces could be easily upgraded to accommodate electric vehicle charging infrastructure.

CEQA Transportation Study

According to current CEQA guidelines and the City’s TIA Guidelines, a transportation impact from a project is considered significant if the project:

- A. Conflicts with a program, plan, ordinance, or policy addressing the circulation system, including transit roadway, bicycle, and pedestrian facilities.
- B. Conflicts or is inconsistent with CEQA Guidelines section 15064.3, subdivision (b).
- C. Substantially increases hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- D. Results in inadequate emergency access.

The following Project impacts and associated mitigation measures were identified:

Impact TR-1: *The Baseline Project generated home-based-work VMT per employee is 4.1% higher than the respective Citywide Average. The Project does not meet the threshold of 15% below the Citywide average under Baseline conditions and would cause a significant impact under Baseline conditions.*

Mitigation Measure TR-1: The applicant shall implement a Transportation Demand Management (TDM) Plan that includes the following components:

- Implementation of a commute trip reduction program that could include a carpooling/ride-matching program and/or preferential carpool parking.

*The Project would require a 22.5% reduction in VMT to meet the threshold of 15% below the Citywide average. Although the implementation of a TDM Plan would reduce the Project VMT, reduction of Project VMT to 15% below the Citywide average is ambitious and achieving this goal cannot be guaranteed, therefore the Project's impact under Baseline conditions would remain **significant and unavoidable**.*

Impact TR-2: *The Cumulative Project generated home-based-work VMT per employee is 8.3% higher than the respective Citywide Average. The Project does not meet the threshold of 15% below the Citywide average under Cumulative conditions and would cause a significant impact under Cumulative conditions.*

Mitigation Measure TR-2: Implement Mitigation Measure TR-1.

*The Project would require a 27.5% reduction in VMT to meet the threshold of 15% below the Citywide average. Although the implementation of a TDM Plan would reduce the Project VMT, reduction of Project VMT to 15% below the Citywide average is ambitious and achieving this goal cannot be guaranteed, therefore the Project's impact under Cumulative conditions would remain **significant and unavoidable**.*

Local Transportation Study

The Local Transportation Study was prepared to provide information to decision makers and the public, assist Port of Stockton staff in understanding what improvements should be considered as conditions for approval for the Project, and to evaluate the Project's consistency with the City of Stockton's General Plan LOS policy.

Study Area

The study area for this assessment includes the area immediately adjacent to the Project site, along with roadways that provide primary access to the regional transportation network. The following intersections were selected for analysis:

1. Harbor Street & Fresno Avenue (Two-Way Stop-Controlled [TWSC])
2. Washington Street & Fresno Avenue (Signalized)
3. Sonora Street & Fresno Avenue (TWSC)

Analysis Scenarios

Study intersections were evaluated for the following scenarios:

Scenario 1: *Existing Conditions* – Existing traffic volumes collected in November 2025.

Scenario 2: *Background Year (2031) without Project Conditions* – Projected traffic volumes and near-term roadway improvements expected to occur by the time the proposed project would be operational, without development of the Project.

Scenario 3: *Background Year (2031) with Project Conditions* – Projected background traffic volumes and near-term roadway improvements from Scenario 2 plus traffic generated by the proposed Project under opening year conditions.

Scenario 4: *Cumulative Year (2045) without Project Conditions* – Projected traffic volumes and future roadway improvements based on the City’s Travel Demand Model under General Plan (2040) Buildout Conditions, interpolated to 2045 cumulative year condition, without development of the Project.

Scenario 5: *Cumulative Year (2045) with Project Conditions* – Projected cumulative traffic volumes and future roadway improvements from Scenario 4 plus traffic generated by the proposed Project under build-out conditions.

Local Transportation Study Findings

According to the TIA Guidelines, a deficiency is identified at a signalized intersection:

- If the addition of Project traffic causes a signalized intersection to perform at an unacceptable LOS E or F condition during a peak hour or,
- If the addition of Project traffic exacerbates an existing LOS E or F condition by increasing the delay by 5 or more seconds.

Under the Background with Project scenarios, all the study intersections would operate at LOS D or better, therefore none of the intersections would operate deficiently.

Under the Cumulative with Project scenario, all the study intersections would operate at LOS D or better, therefore none of the intersections would operate deficiently.

Introduction

This report presents the analysis and findings of the Transportation Impact Analysis conducted for the proposed redevelopment of the existing Nevada Cement Company terminal (“Project”). The Project site is located within the East Complex at the Port of Stockton, bounded by the San Joaquin River, Port Road 1, and Port Road 2, north of Port Road A/Harbor Street. The proposed project involves redeveloping the current terminal site at Berth 2 to accommodate additional capacity and improve operational efficiency, as well as extending the lease holdings to the adjacent Berths 3 and 4. The proposed Project site plan is shown on **Figure 1**.

This TIA satisfies the requirements documented in the *City of Stockton Transportation Impact Analysis Guidelines* (TIA Guidelines), last updated in May 2023. The TIA Guidelines require the preparation of a California Environmental Quality Act (CEQA) Transportation Study and a Local Transportation Study. Both studies are included in this report.

CEQA Transportation Study

According to current CEQA guidelines and the TIA Guidelines a transportation impact from a project is considered significant if the associated change to the transportation system with the project will:

- A. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit roadway, bicycle, and pedestrian facilities.
- B. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).
- C. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- D. Result in inadequate emergency access.

Local Transportation Study

The Local Transportation Study was prepared to provide information to decision makers and the public, and to assist Port of Stockton staff in understanding what types of improvements should be considered as Conditions of Approval for a project, and to evaluate a project’s consistency with the City of Stockton’s General Plan LOS policy.

LOS is a description of traffic flow from a driver’s perspective based on factors such as speed, travel time, delay, and freedom to maneuver. Six levels of service are defined ranging from LOS A (free flow conditions) to LOS F (over capacity conditions). The City of Stockton generally strives to maintain LOS D or better intersection operations as outlined in the *Envision Stockton 2040 General Plan* (General Plan) approved in 2018.

Operations of intersections were evaluated in Synchro using the method from the Transportation Research Board’s *Highway Capacity Manual, 7th Edition* (HCM), which uses various intersection characteristics (such as traffic volumes, lane geometry, and signal phasing) to estimate the average control delay experienced by motorists traveling through a signalized intersection. Control delay incorporates delays associated with deceleration, acceleration, stopping, and moving up in the queue. **Table 1** summarizes the relationship between average delay per vehicle and LOS.

Figure 1: Proposed Project Site Plan

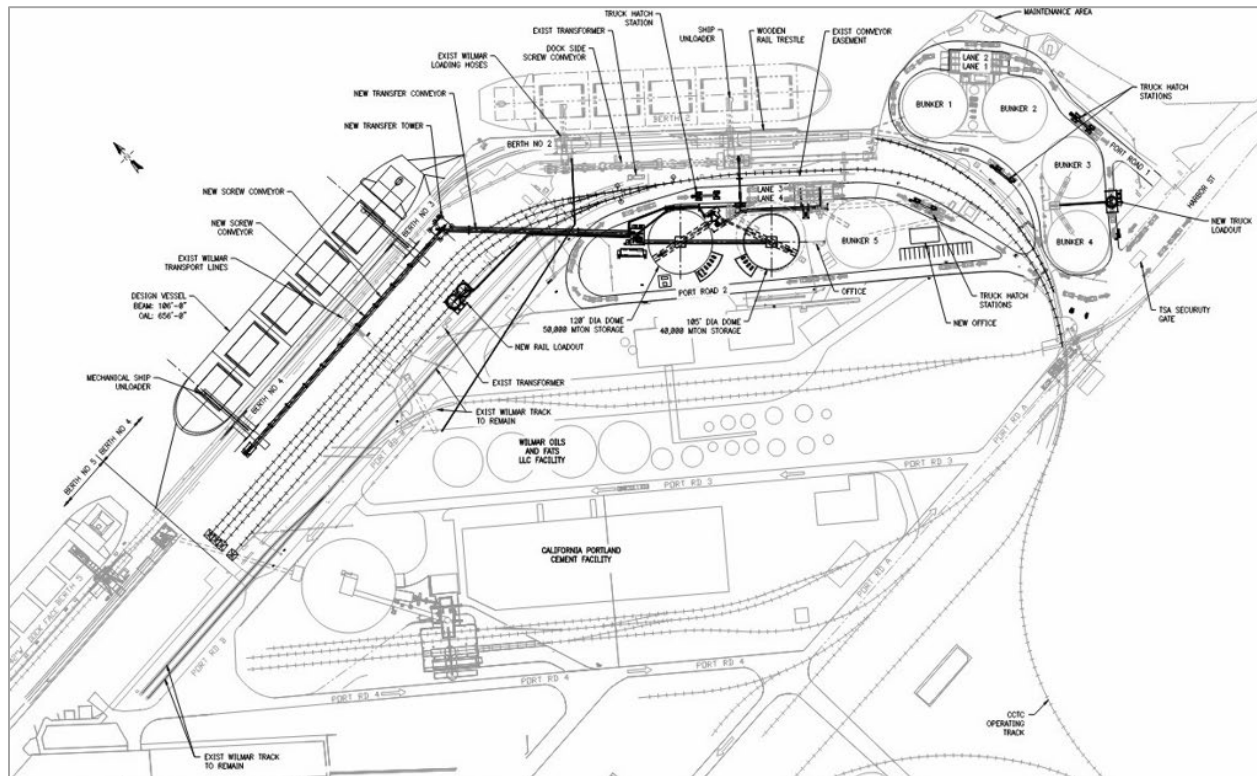


Table 1: Intersection Level of Service Criteria

Level of Service	Description	Signalized	Unsignalized
		Delay (seconds/vehicle)	
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	≤ 10.0	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10.0 to 20.0	> 10.0 to 15.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20.0 to 35.0	> 15.0 to 25.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35.0 to 55.0	> 25.0 to 35.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	> 55.0 to 80.0	> 35.0 to 50.0
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	> 80.0	> 50.0

Source: *Highway Capacity Manual*, 7th Edition. (Transportation Research Board, 2022)

Study Area

The study area for this assessment includes the area immediately adjacent to the Project site, along with roadways that provide primary access to the regional transportation network. The following intersections were selected for analysis, as shown in **Figure 2**:

1. Harbor Street & Fresno Avenue (Two-Way Stop-Controlled [TWSC])
2. Washington Street & Fresno Avenue (Signalized)
3. Sonora Street & Fresno Avenue (TWSC)

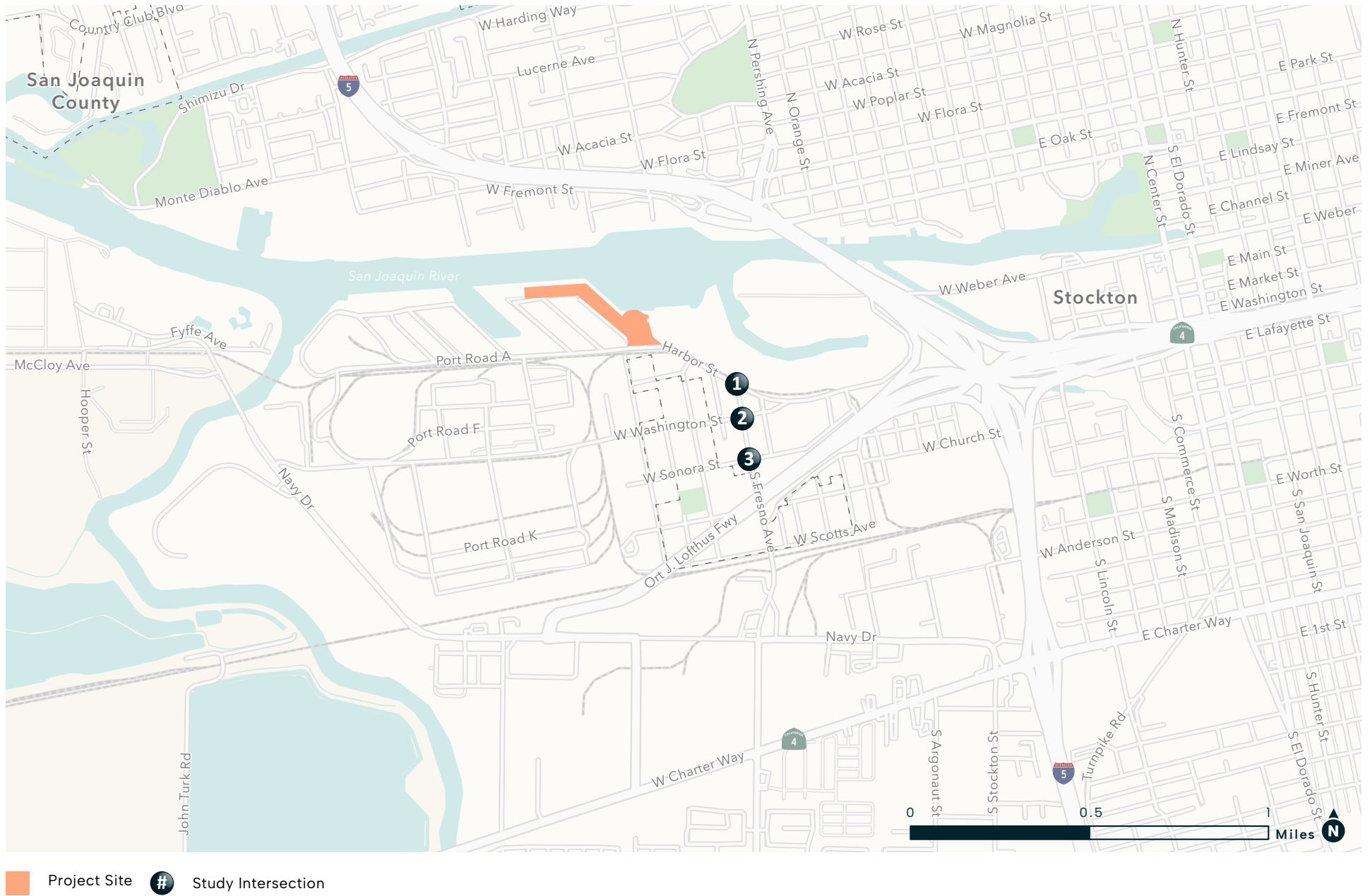


FIGURE 2

Study Area

Analysis Scenarios

Study intersections were evaluated for the following scenarios:

Scenario 1: *Existing Conditions* – Existing traffic volumes collected in November 2025.

Scenario 2: *Background Year (2031) without Project Conditions* – Projected traffic volumes and near-term roadway improvements expected to occur by the time the proposed project would be operational, without development of the Project.

Scenario 3: *Background Year (2031) with Project Conditions* – Projected background traffic volumes and near-term roadway improvements from Scenario 2, plus traffic generated by the proposed Project under opening year conditions.

Scenario 4: *Cumulative Year (2045) without Project Conditions* – Projected traffic volumes and future roadway improvements based on the City's Travel Demand Model under General Plan (2040) Buildout Conditions, interpolated to 2045 cumulative year conditions, without development of the Project.

Scenario 5: *Cumulative Year (2045) with Project Conditions* – Projected cumulative traffic volumes and future roadway improvements from Scenario 4, plus traffic generated by the proposed Project under build-out conditions.

Existing Conditions

This section discusses the existing transportation-related context in which the proposed project would be constructed and would operate, including the street network, rail network, maritime network, transit service, and bicycle and pedestrian facilities near the project site.

Roadway System

The Port of Stockton is served by a number of regional freeways and highways, namely I-5, SR 4, and SR 99, with local roads serving the terminals and wharves. I-5, Fresno Avenue, Center Street, and El Dorado Street serve the major north-south movements of traffic in the proposed project vicinity, and Harbor Street, Washington Street, Navy Drive, and Charter Way serve the east-west flow of traffic in the area. Existing roadways are discussed as follows:

- **I-5** provides local, regional, and statewide access to the proposed project. It is a six- to eight-lane freeway with a freeway-to-freeway interchange located at the confluence of I-5 and SR4. North of Charter Way, I-5 has three general-purpose lanes and one high-occupancy vehicle lane in each direction. South of Charter Way I-5 has three general-purpose lanes in each direction.
- **SR 4**, also called Charter Way and Dr. Martin Luther King Jr Boulevard, is an east-west arterial with four thru lanes located approximately 1.3 miles south of the Project site. SR 4 has ramp access to the I-5 freeway as well as and SR 99. A parallel branch of SR 4, named the Ort J. Lofthus Freeway, is located approximately one mile north of the existing at-grade SR 4 roadway and less than one mile from the Project site. This section of SR 4 is a divided freeway with two to four lanes in each direction, and has interchanges with I-5 and SR 99. Caltrans opened the Ort J. Loftus Freeway in 2016, which extended the Crosstown Freeway west from Fresno Avenue to Navy Drive. The extension is elevated and crosses over Fresno Avenue, creating a grade separation that now prohibits highway traffic from entering the Boggs Tract neighborhood.
- **Navy Drive** is a four-lane arterial that provides a direct route to the SR 4 Ort J. Lofthus Freeway Extension from the Port of Stockton East Complex, connecting with Fresno Avenue.
- **Fresno Avenue** is a two-lane north-south collector that connects Navy Drive and Harbor Street.
- **Harbor Street** is a two-lane east-west collector that provides a direct route into the Port of Stockton East Complex from Washington Street and Fresno Avenue.
- **Washington Street** is a two-lane, east-west arterial, which begins in the west at Navy Drive and terminates at the Weber Avenue intersection. Washington Street was previously the major east-west facility through the Port area and the residential area east of the Port. However, following the opening of the Ort J. Lofthus Freeway Extension, Washington Street from the railroad tracks west is now a private Port road.

As shown in **Figure 3**, the City has established routes regulating where heavy trucks and commercial vehicles may operate. Truck routes in the study area include Washington Street, Harbor Street, Fresno Avenue, and Navy Drive.



Transit Service

Transit in the study area is provided by San Joaquin Regional Transit District (RTD), which is the regional transit provider for San Joaquin County and the Stockton Metropolitan Area. Direct access to the Project site is limited, with the closest transit stops being located approximately one half mile away.

- **Route 515** operates weekdays between 5:30 AM and 7:00 PM and provides service between Boggs Tract and Downtown Stockton. The route operates with headways of approximately 60 minutes.¹
- **Route 715** operates weekends between 9:00 AM and 6:00 PM and provides service between Boggs Tract and Downtown Stockton. The route operates with headways of approximately 60 minutes.²

Bicycle Facilities

Bicycle facilities as described in the City of Stockton Bicycle Master Plan are classified as follows:

Class I Bikeways (Bike Paths)

Class I bicycle facilities are bike paths that provide a complete separate right-of-way and are designated for the exclusive use of bikes or pedestrians. Many of these bike paths exist in Stockton along creeks and canals, but these paths can also exist adjacent to streets.

Class II Bikeways (Bike Lanes)

Class II bikeways provide designated street space for bicyclists, typically adjacent to the outer vehicle travel lanes. These lanes typically include special lane markings and signage.

Class III Bikeways (Bike Routes)

Class III Bikeways are streets providing for shared use by motor vehicles and bicyclists. While bicyclists have no exclusive use or priority, signage both by the side of the street and stenciled on the roadway surface alerts motorists to bicyclists sharing the roadway space and denotes that the street is an official bike route. These routes are typically designated along gaps between bike trails or bike lanes.

Class IV Bikeways (Separated Bikeways)

Unlike Class I Bikeways, Class IV bikeways are separated facilities that provide exclusive right of way for bicyclists. These bikeways can be adjacent to vehicle traffic but must be physically separated.

There are no existing or planned bicycle facilities within the study area.

Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signals, and multi-use trails. Most roadways in the study area provide sidewalks on one side of the street intermittently along the

¹ San Joaquin RTD, 2025. https://sanjoaquinrtd.com/wp-content/uploads/2025/06/ROUTE_515_20250617.pdf

² Ibid. https://sanjoaquinrtd.com/wp-content/uploads/2025/06/ROUTE_715_20250617.pdf

roadway segment. The roadways in the study area generally do not provide continuous sidewalks on either side of the street.

Rail Network

The Port of Stockton is served by Union Pacific (UP) and Burlington Northern Santa Fe (BNSF) rail lines. BNSF operates the Stockton Intermodal Facility on the southeast edge of the City and UP operates a major intermodal facility and other terminal operations in Lathrop, California. Central California Traction Company (CCT), jointly owned by BNSF and UP, operates 52 miles of freight service between Stockton and Lodi and is the operator for the Port. CCT connections are made with BNSF, UP, and the Stockton Terminal and Eastern Railroads, which run from Stockton to Linden. The Port provides its own internal railway system. CCT provides all switching and local movements within the Port. Spur tracks operated by CCT are located within the Project site, which connects to the larger regional rail system south of the Port complex.

Maritime Network

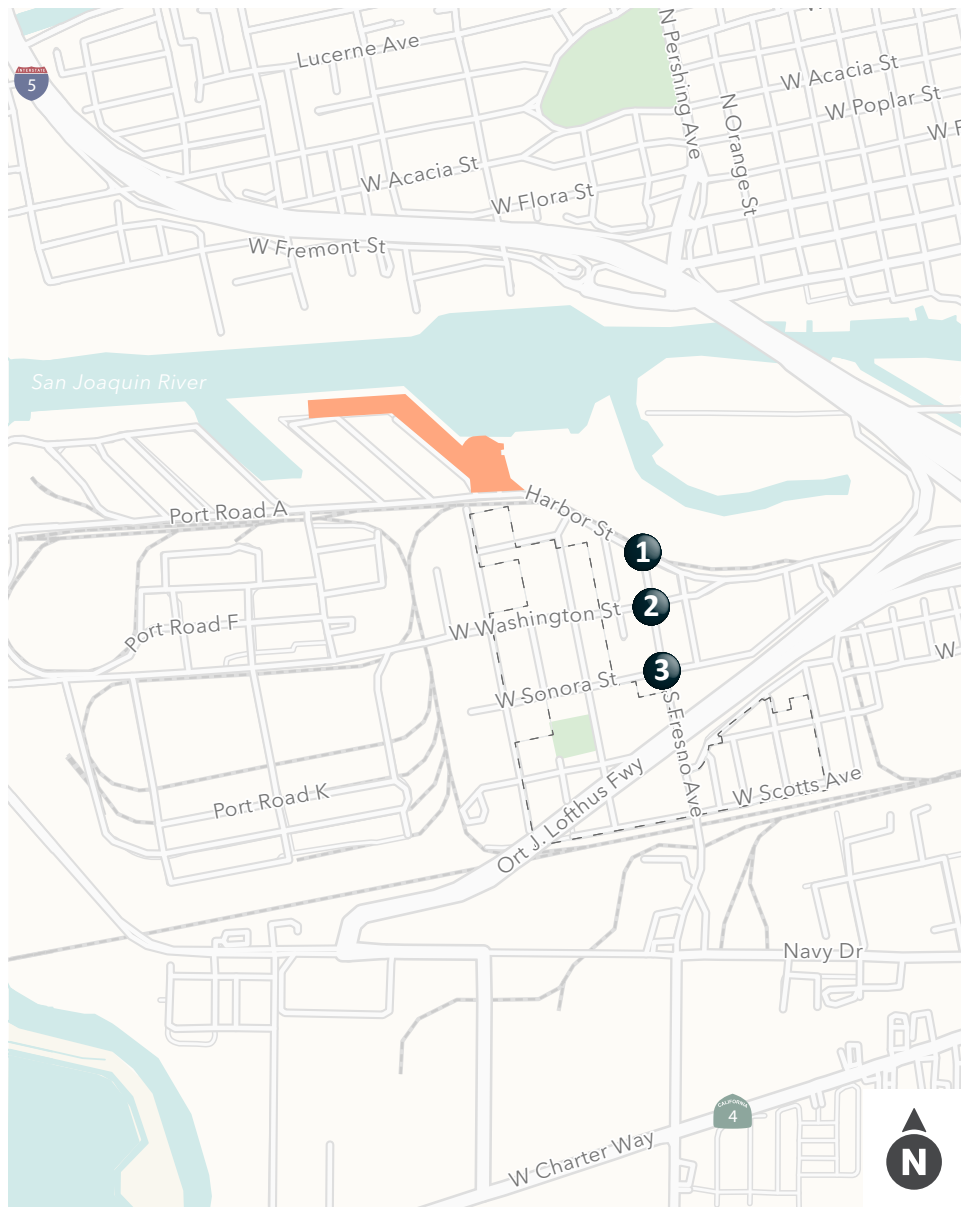
The Port of Stockton's maritime network connection is anchored by the Stockton Deepwater Shipping Channel, a navigable waterway extending roughly 75 nautical miles from the Pacific Ocean through the Sacramento-San Joaquin River Delta via Suisun Bay and the Carquinez Strait. The Deepwater Shipping Channel enables large deep-draft vessels to access the inland port's berths and terminals. The Port's maritime network links directly to global trade routes while also connecting with integrating with inland intermodal infrastructure, including freight rail and interstate highway access.

Intersection Operations and Vehicle Queues

Weekday morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) peak period intersection turning movement counts were collected at study intersections while schools were in session in November 2025, including a separate count of vehicles, trucks, pedestrians, and bicyclists. For each study intersection, the sixty-minute period with the highest traffic volumes during two count periods were identified as the morning (AM) and evening (PM) peak hours of traffic. The AM and PM peak hours are generally between 7:30 to 8:30 AM and 4:30 to 5:30 PM, respectively. Traffic counts are converted into Passenger Car Equivalents (PCE), wherein one heavy truck trip is equivalent to two passenger vehicle trips.

Existing traffic volumes at the study intersections area shown in **Figure 4**, along with the existing lane configurations and traffic control. Traffic count worksheets are provided in **Appendix A**.

Existing intersection operations are shown in **Table 2**. Observed peak hour factors were used at all intersections, and truck, pedestrian and bicycle activity were factored into the analysis. Under existing conditions, all study intersections operate at LOS B or better during both AM and PM peak periods. Intersection LOS calculation worksheets are provided in **Appendix B**.



1. Fresno Ave/Harbor St		2. Fresno Ave/Washington St		3. Fresno Ave/Sonora St	
0 (0) 6 (16) 0 (7) 1 (0) 9 (12) 2 (5) 0 (0) 13 (22) 49 (38) 78 (23) 15 (4) 3 (4)		4 (2) 53 (57) 2 (2) 2 (1) 32 (26) 71 (70)	28 (11) 149 (166) 0 (0) 7 (7) 0 (0) 50 (19) 83 (28) 215 (146) 5 (0)		

12 (8)

39 (50)

54 (42)

38 (35)

83 (38)

93 (71)

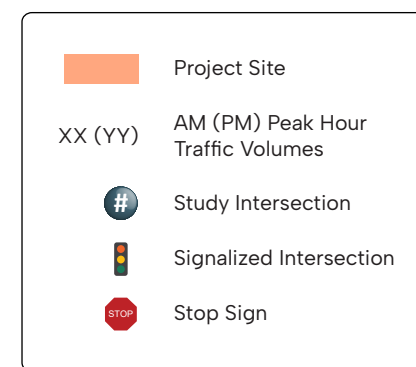


FIGURE 4
**Peak Hour Intersection PCE Volumes
 Existing Conditions (2025)**

Note: Traffic volumes are reflective of Passenger Car Equivalents (PCE), with one truck trip equaling two PCEs.

Table 2: Existing (2025) Intersection Operations

#	Study Intersection	Control Type	Methodology	Peak Period	Existing (2025)	
					Delay ¹	LOS
1	Fresno Ave & Harbor St	TWSC	HCM 7th	AM	9.5 (SBLTR)	A
				PM	9.4 (SBLTR)	A
2	Fresno Ave & Washington St	Signal	HCM 7th	AM	8.4	A
				PM	9.3	A
3	Fresno Ave & Sonora St	TWSC	HCM 7th	AM	13.5 (WBLTR)	B
				PM	11.0 (WBLTR)	B

Source: Fehr & Peers, 2025.

Note:

- Under HCM 7th Edition Methodology, TWSC intersection delay is calculated for each turning movement. Reported LOS is the turning movement with the highest delay value at the intersection.

Existing 95th percentile intersection queues are presented in **Table 3**. Under Existing Conditions, all movements operate at acceptable level with no exceeding any available turn or travel lane storage. Intersection queue worksheets are provided in **Appendix B³**.

Table 3: Existing (2025) 95th Percentile Queue Lengths

#	Study Intersection	Movement	Storage Length (ft)	Turn Pocket	95 th Percentile Queue Length (ft)	
					AM	PM
1	Fresno Ave & Harbor St	NBL/T/R	375	No	25	25
		SBL/T/R	800	Private Driveway ¹	0	25
		EBL/T/R	1,200	Port Driveway ²	0	0
		WBL/T/R	650	No	0	0
2	Fresno Ave & Washington St	NBL/T/R	600	No	25	25
		SBL/T/R	425	No	25	25
		EBL/T/R	675	No	25	25
		WBL/T/R	575	No	50	50
3	Fresno Ave & Sonora St	NBL/T/R	2,700	No	25	25
		SBL/T/R	600	No	0	0
		EBL/T/R	700	No	25	25
		WBL/T/R	1,700	Port Driveway ³	0	0

Source: Fehr & Peers, 2025.

Note:

1. The Southbound Leg is under a truck entrance gate to private industry.
2. The Eastbound Leg is access to Port of Stockton East Gate.
3. The Westbound Leg is closed with a gate for private use.

³ For HCM 7th Edition, the queue results and LOS results present in the same report.

Project Characteristics

This section provides an overview of the Project's components and addresses Project trip generation, trip distribution, and trip assignment characteristics. These items allow for an evaluation of Project impacts on the surrounding roadway network. Estimates of Project-generated traffic volumes added to the road network was completed using a three-step process:

1. **Trip Generation:** Estimates of vehicle trips entering/exiting the site was calculated.
2. **Trip Distribution:** The general direction of Project-generated trips (arrivals and departures) was estimated.
3. **Trip Assignment:** Project-generated trips were then assigned to specific roadway segments and intersection turning movements based on likely paths of travel from the trip distribution.

Trip Generation

Baseline Trips

Per the Project terminal's existing Permit to Operate, issued by the San Joaquin Valley Air Pollution Control District in 2016, the combined permitted truck and rail shipping capacity is 6,000 tons of cementitious material per day or 2.19 million tons per year, and the terminal is permitted to receive 18,000 tons per day or 2.628 million tons per year via ship or rail⁴. With these permitted throughput limits, the existing terminal can handle any combination of a maximum of approximately 230 trucks per day, or 52 railcars per day, provided that 6,000 tons per day is not exceeded.

The volume of material moving through the terminal, or "throughput," defines the level of operations at a terminal and determines how many trucks, railcars, and vessel calls a terminal can operate. For Port projects, the baseline capacity of a terminal is often defined in terms of throughput. Throughput activity at a terminal can vary month to month during any specific year due to normal market forces, weather, available funds for public projects, and numerous other factors. Therefore, throughput is generally calculated over a longer period time, generally the preceding 12 months or the preceding calendar year, whichever is more indicative of normal operations. At the time that the NOP was issued for the proposed project, the preceding 12 months spanning 2023 and 2024 was chosen as the baseline because it represented the most recent full 12 months of throughput data under the ownership of Nevada Cement. **Table 4** presents the throughput levels for 12-months' time at the Nevada Cement Terminal.

⁴ San Joaquin Valley Air Pollution Control District, 2016.
<https://apps.valleyair.org/PublicPermits/Facility/Index?FacilityID=N-153>

Table 4: Baseline Annual Throughput by Mode and Tonnage, 2023 – 2024

	One-Way Movement	Tons
Truck Calls¹		
Truck Out	10,833	281,654
Truck In	0	0
Rail Calls²		
Rail Cars Out	520	59,349
Rail Cars In	0	0
Rail Trips	52	-
Vessel Calls³		
Ships In	10	326,712
Barges Out	0	0
Total Tons:		667,715

Notes:

1. Truck calls are expressed in one-way moves at 26 tons per truck.
2. Rail calls are expressed in one-way moves, assuming 114 tons per rail car for cement and 105 tons for supplementary cementitious materials. Assumes an average of 10 rail cars per train for each move, and an average of 45 rail cars per train arriving at and leaving the terminal.
3. Assumes ship cargo volume of 35,250 short tons per ship.

Project Trip Generation

Trip generation refers to the process of estimating the amount of vehicle traffic a Project will add to the surrounding roadway system. For this Project, estimates of weekday morning and evening peak hour trip generation were developed to coincide with the time-periods when adjacent street traffic demands are greatest and when the Project generates the most traffic. Estimates of daily trip generation are also provided.

As shown in **Table 5**, the proposed project would result in increased truck, train, and ship/barge trips per year as compared to baseline conditions. Peak hour trip generation estimates were estimated using the Trip Generation Manual, 12th Edition + Supplemental (Institute of Transportation Engineers, 2025) and daily trip generation estimates were estimated based on information provided by the Project applicant, as presented in. Truck trips were converted to PCE for the traffic operations analysis, wherein one 1 truck is equal to 2 PCEs.

Under Opening Year (2031) conditions, the Project is expected to generate 119 daily trips, 9 of which would occur during the AM peak hour trips and 11 of which would occur during the PM peak hour. Trucks make up roughly 75% of the daily trips, 65% of the AM peak hour trips, and 55% of the PM peak hour trips.

Under Cumulative (2045) Conditions, the Project is expected to generate 422 daily trips, 34 of which would occur during the AM peak hour trips and 31 of which would occur during the PM peak hour. Trucks make up roughly 80% of the daily trips, 65% of the AM peak hour trips, and 60% of the PM peak hour trips.

Table 5: Proposed Annual Throughput by Mode and Tonnage

	Proposed Modernization Project (Year 1/Opening Year)		Maximum Increment (Year 1 minus Baseline)		Proposed Modernization Project (Year 15/Cumulative)		Maximum Increment (Year 15 minus Baseline)	
	One-Way Movement	Tons	One-Way Movement	Tons	One-Way Movement	Tons	One-Way Movement	Tons
Truck Calls¹								
Truck Out	16,385	426,000	5,552	+144,346	32,500	845,000	+ 21,667	+ 563,346
Truck In	0	0	0	0	0	0	-	-
Rail Calls²								
Rail Cars Out	1,711	195,000	1,191	+135,651	9,825	1,120,000	+ 9,305	+ 1,060,651
Rail Cars In	0	0	0	0	1,429	150,000	+ 1,429	+ 150,000
Rail Trips	68	0	16	0	250	-	+ 198	-
Vessel Calls^{3,4}								
Ships In	18	743,000	8	+416,288	53	2,202,000	+ 43	+ 1,875,288
Barges Out	0	0	0	0	45	225,000	+ 45	+ 225,000
Total Tons:	-	1,364,000	-	+696,285	-	4,542,000	-	+ 3,874,285

Source: Fehr & Peers, 2025

Notes:

1. Truck calls are expressed in one-way moves at 26 tons per truck.
2. Rail calls are expressed in one-way moves, assuming 114 tons per rail car for cement and 105 tons for supplementary cementitious materials. Assumes an average of 10 rail cars per train for each move under baseline, 15 rail cars per train for each move under the proposed modernization project, and an average of 45 rail cars per train arriving at and leaving the terminal. Assumes all railcars hauling in product for supplementary cementitious materials in Pressure Differential cars would also be reloaded with cement and leave the facility as part of a full (not an empty) movement, thus reducing the number of empty rail cars required to be brought to site for shipments of cement.
3. Assumes ship cargo volume of 35,250 short tons per ship under baseline and 41,800 short tons per ship under the proposed modernization project.
4. Assumes a barge volume of 5,000 short tons per barge.

Table 6: Trip Generation – Opening Year (2031)

Trip Type	Quantity	Unit	Calls/Trip Rate ¹		Trip Generation ^{2,3,4}						
					Daily	AM Peak Hour			PM Peak Hour		
			Annual	Daily		In	Out	Total	In	Out	Total
Trucks	144,346	Tons	5,552	22	44	1	2	3	2	1	3
Terminal Workers	5	Employees	-	-	31	2	1	3	1	4	5
Total Vehicle Trips					75	3	3	6	3	5	8
PCEs ⁵					119	4	5	9	5	6	11

Source: Fehr & Peers, 2025

Notes:

1. Truck trips based on project annual throughput, 260 full work days per year. Worker trips generated based on Institute of Transportation Engineers (ITE), Trip Generation (12th Edition) rates for Light Industrial (Land Use Code 110).
2. Trip generation represents number of trips. Each truck call would generate two trips, one in and one out of the terminal. Worker's trip rate per employee applied based on ITE trip generation. Daily: $\text{Ln}(T) = 0.65 \text{Ln}(X) + 2.39$; AM: 0.52; PM: $T = 0.41(X) + 2.80$.
3. Based on current operations, 50% of daily trucks arrive between 0:00 – 8:00, 40% arrive between 8:00 – 16:00, and the remaining 10% arrive between 16:00 – 24:00; a balanced spread of arrivals was assumed for each time interval. To be conservative it was assumed that the AM peak hour would occur between 7:00 – 8:00 and the PM peak hour would occur between 15:00 – 16:00.
4. Entering and exiting percentages are based on Institute of Transportation Engineers (ITE), Trip Generation (12th Edition) average distribution for Intermodal Truck Terminal (Land Use Code 030): AM: Enter = 47%; Exit = 53%; PM: Enter = 52%; Exit = 48%. General Light Industrial (Land Use Code 110): AM: Enter = 83%; Exit = 17%; PM: Enter = 27%; Exit = 73%.
5. Truck trips were accounted for as two passenger car equivalent (PCE) trips to reflect travel behaviors of large trucks.

Table 7: Trip Generation – Cumulative Year (2045)

Trip Type	Quantity	Unit	Calls/Trip Rate ¹		Trip Generation ^{2,3,4}						
					Daily	AM Peak Hour			PM Peak Hour		
			Annual	Daily ¹		In	Out	Total	In	Out	Total
Trucks	563,346	Tons	21,667	84	168	5	6	11	5	4	9
Terminal Workers	24	Employees	-	-	86	10	2	12	4	9	13
Total Net New Trips					254	15	8	23	9	13	22
PCE ⁵					422	20	14	34	14	17	31

Source: Fehr & Peers, 2025

Notes:

1. Truck trips based on project annual throughput, 260 full work days per year. Worker trips generated based on Institute of Transportation Engineers (ITE), Trip Generation (12th Edition) rates for Light Industrial (Land Use Code 110).
2. Trip generation represents number of trips. Each truck call would generate two trips, one in and one out of the terminal. Worker's trip rate per employee applied based on ITE trip generation. Daily: $\ln(T) = 0.65 \ln(X) + 2.39$; AM: 0.52; PM: $T = 0.41(X) + 2.80$.
3. Based on current operations, 50% of daily trucks arrive between 0:00 – 8:00, 40% arrive between 8:00 – 16:00, and the remaining 10% arrive between 16:00 – 24:00; a balanced spread of arrivals was assumed for each time interval. To be conservative it was assumed that the AM peak hour would occur between 7:00 – 8:00 and the PM peak hour would occur between 15:00 – 16:00.
4. Entering and exiting percentages are based on Institute of Transportation Engineers (ITE), Trip Generation (12th Edition) average distribution for Intermodal Truck Terminal (Land Use Code 030): AM: Enter = 47%; Exit = 53%; PM: Enter = 52%; Exit = 48%. General Light Industrial (Land Use Code 110): AM: Enter = 83%; Exit = 17%; PM: Enter = 27%; Exit = 73%.
5. Truck trips were accounted for as two passenger car equivalent (PCE) trips to reflect travel behaviors of large trucks.

Project Trip Distribution & Assignment

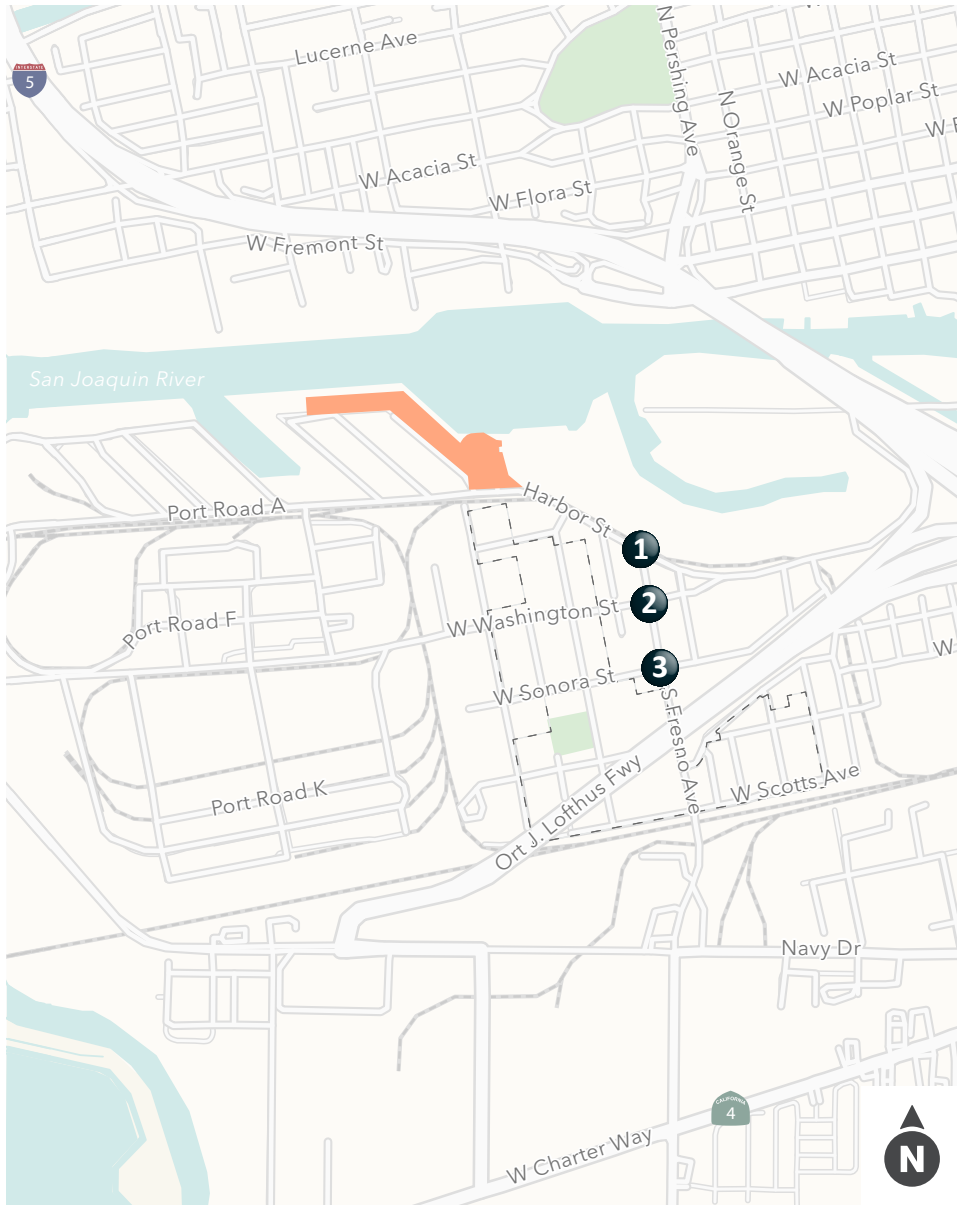
Project trip distribution refers to the directions of approach and departure that vehicles will take to access and leave the Project site. Estimates of Project trip distribution was developed for Cumulative (2045) conditions using the City of Stockton Travel Demand Model. The resulting trip distribution percentages for the Project are shown in **Figure 5**.

Project trip assignment refers to the specific route and roadway segments vehicles will take to access and leave the site. Using the trip distribution percentages, Project trips were then assigned to the roadway network shown in **Figure 5**. Study intersections volume are presented in **Figure 6** (Opening Year) and **Figure 7** (Cumulative). Truck trips were accounted for as two PCE trips to reflect travel behaviors of large trucks.



FIGURE 5

Project Trip Distribution and Assignment



1. Fresno Ave/Harbor St	2. Fresno Ave/Washington St	3. Fresno Ave/Sonora St

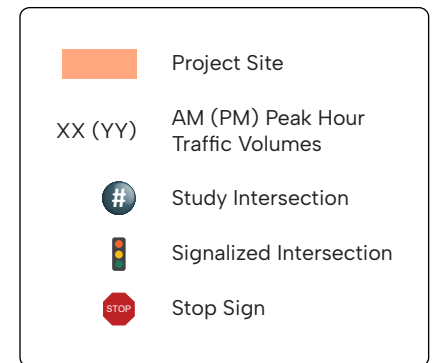
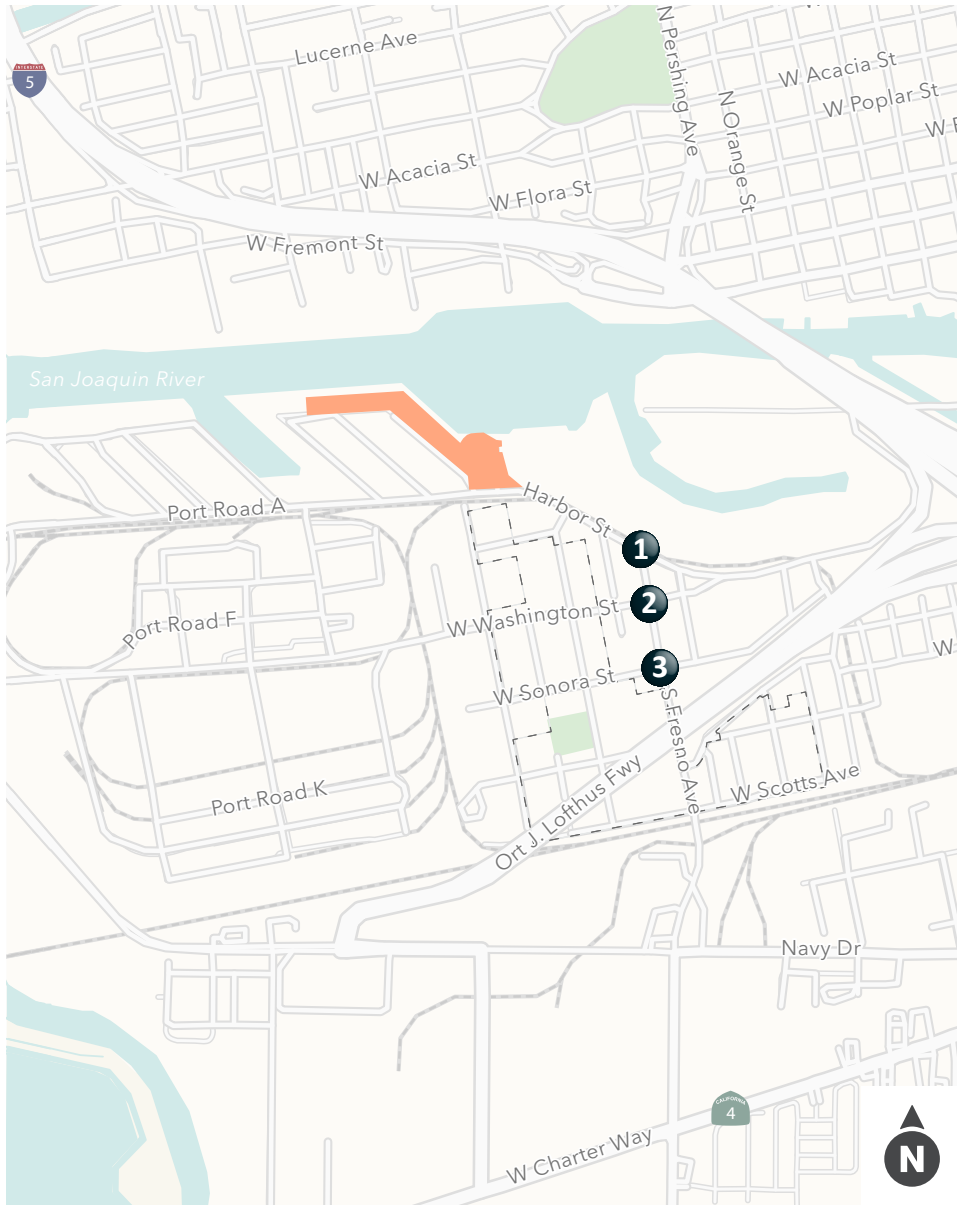


FIGURE 6

Peak Hour Intersection PCE Volumes Background Year Project Only Conditions (2031)

Note: Traffic volumes are reflective of Passenger Car Equivalents (PCE), with one truck trip equaling two PCEs.



1. Fresno Ave/Harbor St	2. Fresno Ave/Washington St	3. Fresno Ave/Sonora St

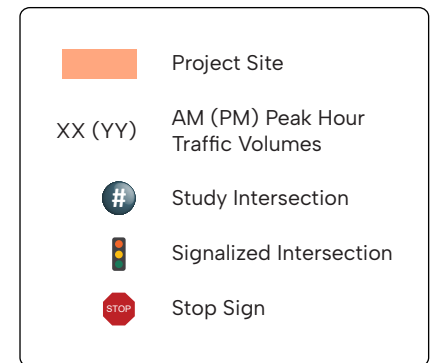


FIGURE 7

Peak Hour Intersection PCE Volumes Cumulative Year Project Only Conditions (2045)

Note: Traffic volumes are reflective of Passenger Car Equivalents (PCE), with one truck trip equaling two PCEs.

Future Conditions

This section presents the intersection operation results under Background (2031) and Cumulative (2045) year conditions, with and without the Project.

- Background conditions represent projected traffic volumes and near-term roadway improvements expected to occur by the time the proposed Project would be operational, also referred to as Opening Year conditions.
- Cumulative conditions represent projected traffic volumes and future roadway improvements based on the City's Travel Demand Model under General Plan Buildout Conditions.

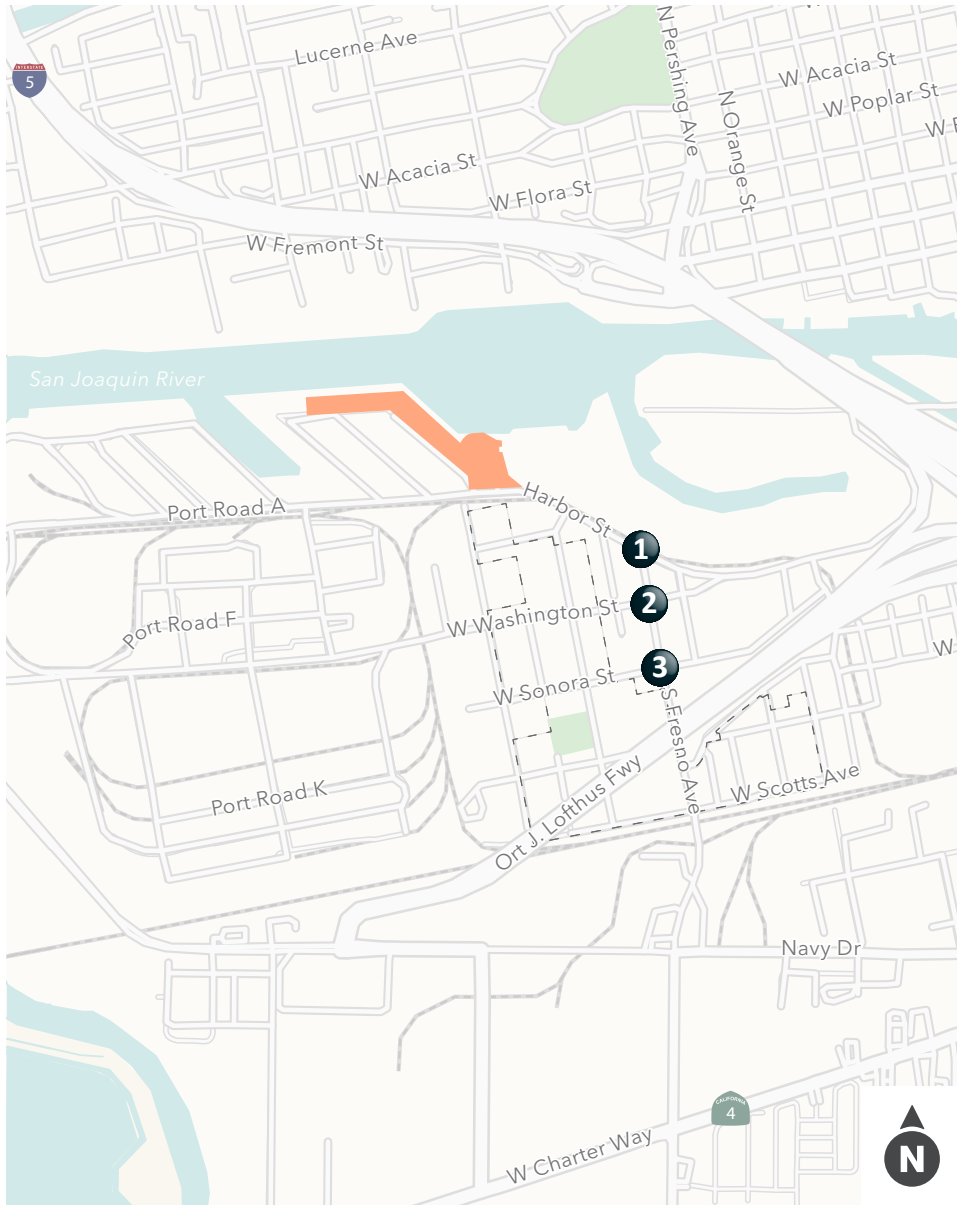
There are no planned roadway improvements that would occur within the study area by 2045.

Future Traffic Volumes

Future intersection turning movement forecasts were developed using a compounded annual growth factor derived from the City of Stockton Travel Demand Model. The compounded annual growth factor was calculated by comparing roadway volumes within the study area between the Baseline and Cumulative Year. The compounded annual growth factor was then applied to the Existing (2025) counts to develop Background without Project (2031) and Cumulative without Project (2045) intersection turning movement forecasts. Traffic volumes for future scenarios without Project are rounded up to the nearest five. Truck trips were accounted for as two PCE trips to reflect travel behaviors of large trucks.

Background without Project (2031) intersection turning movement forecast is presented in **Figure 8**. Project trips from **Figure 6** were then added to develop Background with Project intersection turning movement forecast, as presented on **Figure 9**.

Cumulative without Project (2045) intersection turning movement forecasts are presented in **Figure 10**. Project trips from **Figure 7** were then added to develop Cumulative with Project (2045) intersection turning movement forecasts, as presented on **Figure 11**.



1. Fresno Ave/Harbor St	2. Fresno Ave/Washington St	3. Fresno Ave/Sonora St

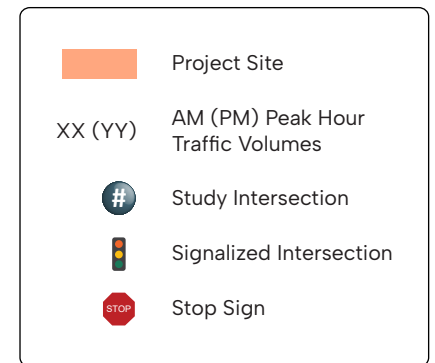
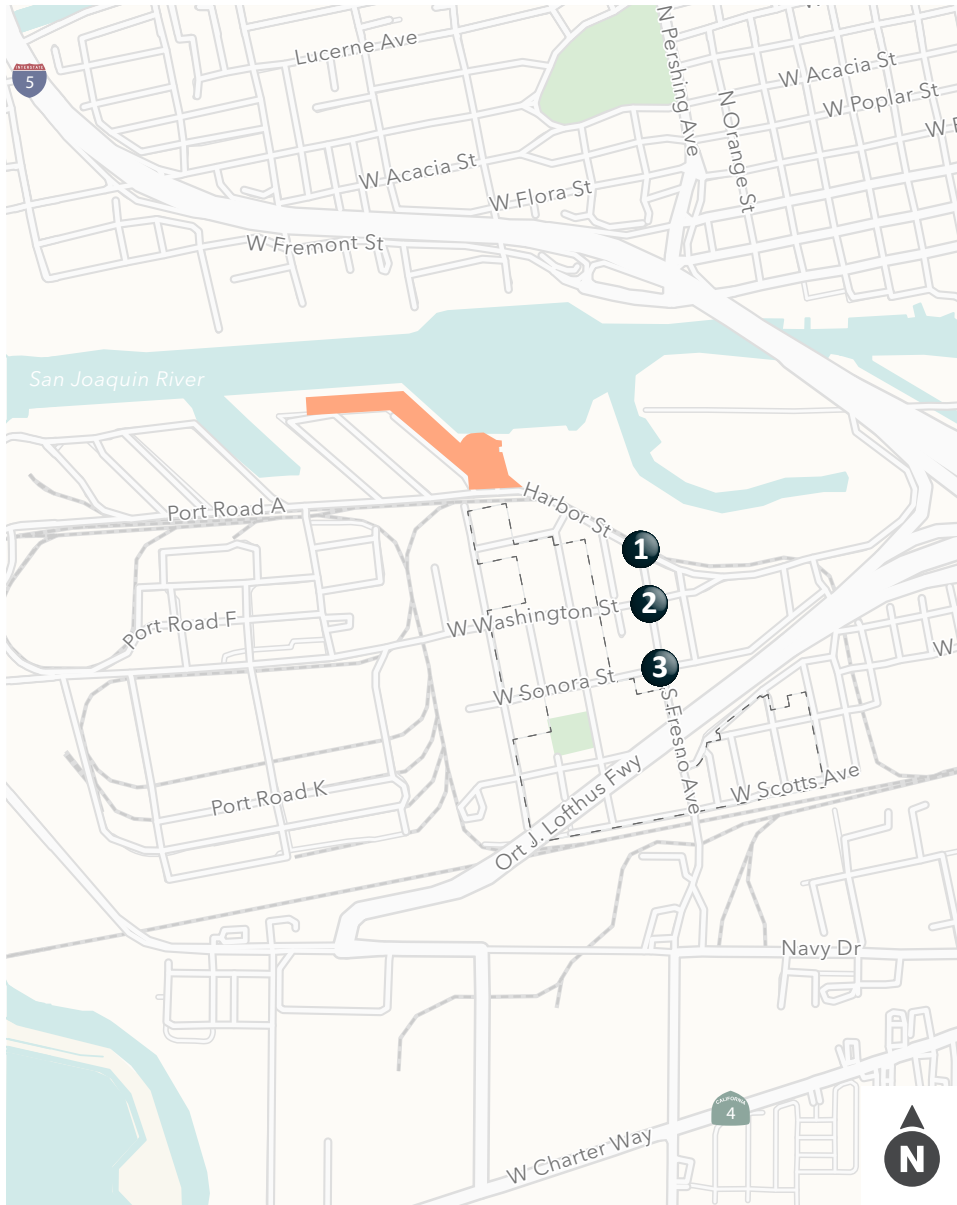


FIGURE 8

Peak Hour Intersection PCE Volumes Background Year without Project Conditions (2031)

Note: Traffic volumes are reflective of Passenger Car Equivalents (PCE), with one truck trip equaling two PCEs.



1. Fresno Ave/Harbor St	2. Fresno Ave/Washington St	3. Fresno Ave/Sonora St
0 (0) 10 (20) 0 (0) 5 (0) 10 (16) 5 (10) 0 (0) 16 (26) 59 (50) 89 (29) 20 (5) 5 (5) 0 (0) 10 (20) 0 (0) 5 (0) 10 (16) 5 (10) 0 (0) 16 (26) 59 (50) 89 (29) 20 (5) 5 (5)	5 (5) 64 (70) 5 (5) 5 (5) 35 (30) 80 (75) 15 (10) 45 (55) 60 (45) 45 (40) 94 (49) 100 (80) 5 (5) 64 (70) 5 (5) 5 (5) 35 (30) 80 (75) 15 (10) 45 (55) 60 (45) 45 (40) 94 (49) 100 (80)	30 (15) 164 (185) 0 (0) 5 (5) 0 (0) 5 (5) 10 (10) 0 (0) 55 (25) 90 (30) 234 (159) 10 (0) 30 (15) 164 (185) 0 (0) 5 (5) 0 (0) 5 (5) 10 (10) 0 (0) 55 (25) 90 (30) 234 (159) 10 (0)

15 (10)

45 (55)

60 (45)

45 (40)

94 (49)

100 (80)

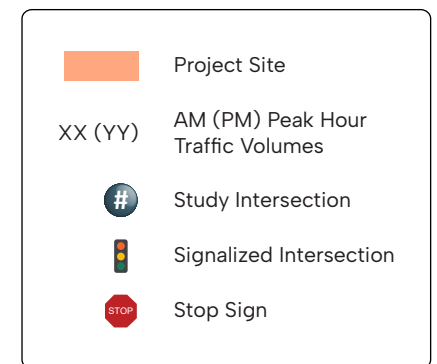
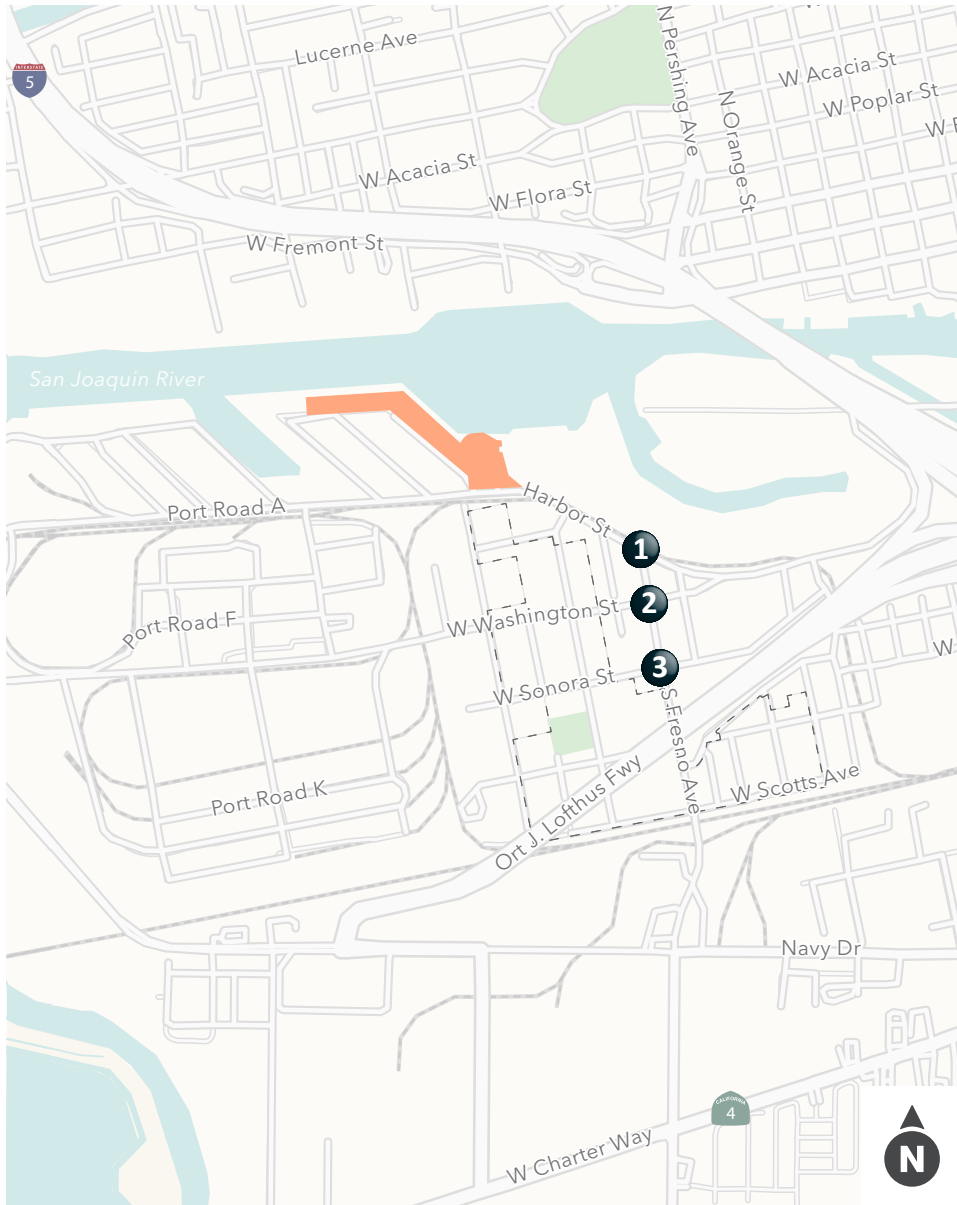


FIGURE 9

Peak Hour Intersection PCE Volumes Background Year with Project Conditions (2031)

Note: Traffic volumes are reflective of Passenger Car Equivalents (PCE), with one truck trip equaling two PCEs.



1. Fresno Ave/Harbor St	2. Fresno Ave/Washington St	3. Fresno Ave/Sonora St
Harbor St: 0 (0) 10 (20) 0 (10) Fresno Ave: 5 (0) 15 (15) 5 (10) 100 (30) 20 (5) 5 (5)	Washington St: 5 (5) 65 (70) 5 (5) Fresno Ave: 5 (5) 40 (35) 90 (90) 15 (10) 50 (65) 70 (55) 50 (45) 105 (50) 115 (90)	Sonora St: 35 (15) 185 (205) 0 (0) Fresno Ave: 5 (5) 0 (0) 5 (5) 10 (10) 0 (0) 65 (25) 105 (35) 265 (160) 10 (0)

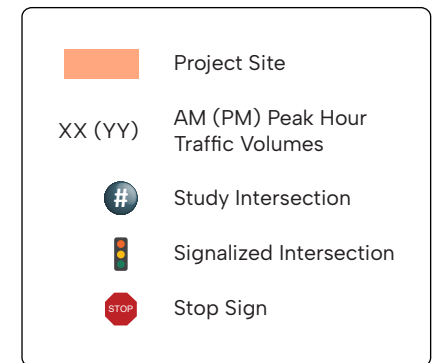
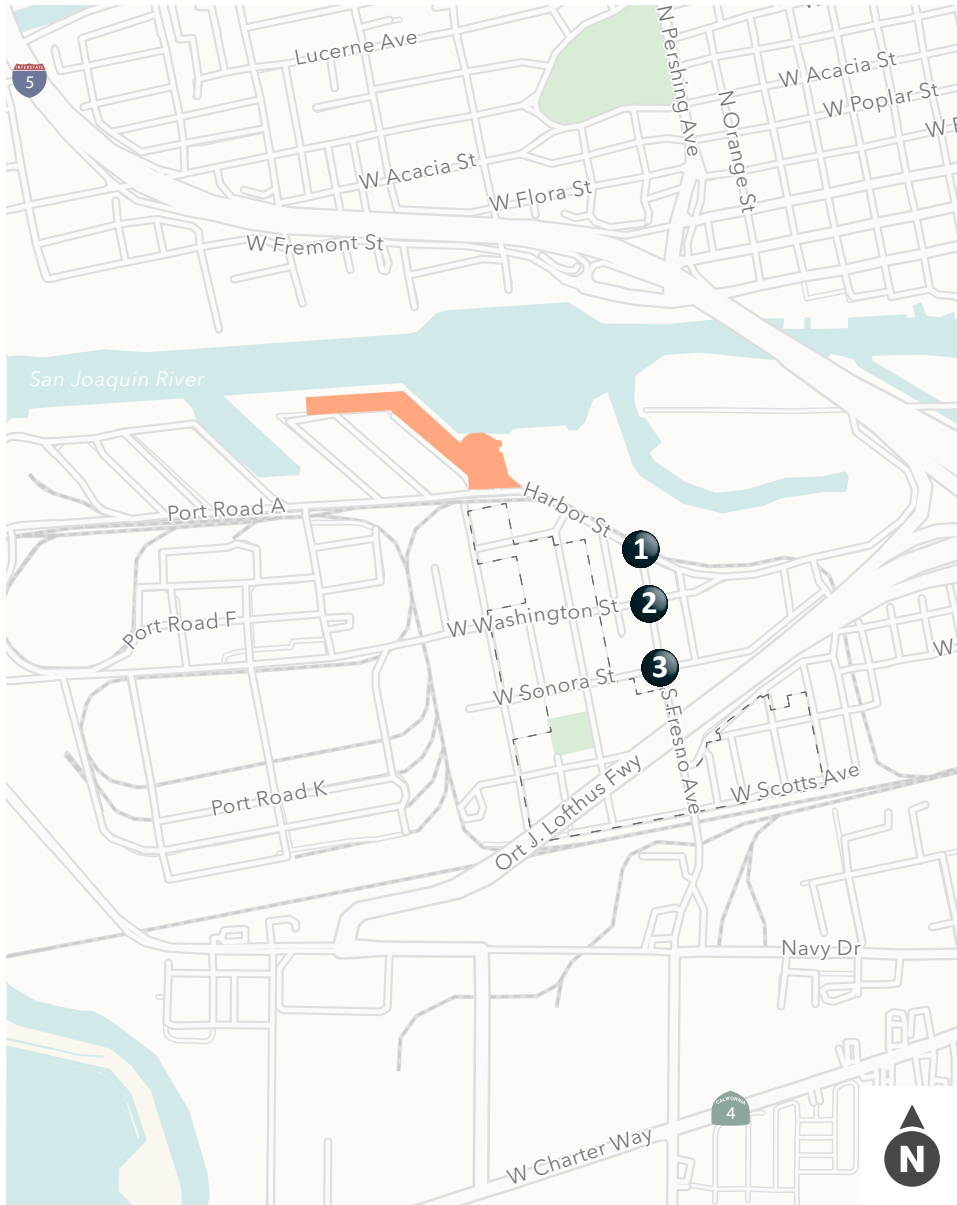


FIGURE 10

Peak Hour Intersection PCE Volumes Cumulative Year without Project Conditions (2045)

Note: Traffic volumes are reflective of Passenger Car Equivalents (PCE), with one truck trip equaling two PCEs.



1. Fresno Ave/Harbor St	2. Fresno Ave/Washington St	3. Fresno Ave/Sonora St

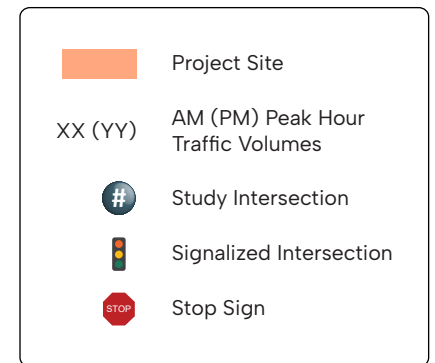


FIGURE 11

Peak Hour Intersection PCE Volumes Cumulative Year with Project Conditions (2045)

Note: Traffic volumes are reflective of Passenger Car Equivalents (PCE), with one truck trip equaling two PCEs.

Intersection Operations and Vehicle Queues

Background (2031) and Cumulative Year (2045) intersection were evaluated using the HCM methodology. Peak hour factors, pedestrian and bicycle activity, and heavy vehicle percentages were left unchanged from existing conditions. There are no planned roadway improvements within the study area. Traffic signal timings were left unchanged from existing conditions.

Future intersection operations are shown in **Table 8**. Under Background Year without Project (2031) conditions, all study intersections operate at LOS B or better during AM and PM peak hours. Under Background Year with Project (2031) conditions, all study intersections continue to operate at LOS B or better during AM and PM peak hours, with no Project-induced changes LOS levels. Under Cumulative Year without Project (2045) conditions, all study intersections operate at LOS C or better during AM and PM peak hours. Under Cumulative Year with Project (2045) conditions, all study intersections continue to operate at LOS C or better during AM and PM peak hours, with no Project-induced changes LOS levels.

95th percentile vehicle queue lengths under all future conditions are shown in **Table 9**. All movements operate under the available storage capacity, and project trips do not add any additional queuing length under all future scenarios.

Intersection LOS calculation worksheets and intersection queuing worksheets are provided in **Appendix B**.

Table 8: Future Scenarios Intersection Operations

#	Study Intersection	Control Type	Methodology	Peak Period	Background Year W/O Project (2031)		Background Year W/ Project (2031)		Cumulative Year W/O Project (2045)		Cumulative Year W/ Project (2045)	
					Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS	Delay ¹	LOS
1	Fresno Ave & Harbor St	TWSC	HCM 7th	AM	9.7 (NBLTR)	A	9.7 (NBLTR)	A	9.9 (NBLTR)	A	10.1 (NBLTR)	B
				PM	9.6 (SBLTR)	A	9.7 (SBLTR)	A	9.7 (SBLTR)	A	9.8 (SBLTR)	A
2	Fresno Ave & Washington St	Signal	HCM 7th	AM	8.6	A	8.5	A	8.7	A	8.5	A
				PM	9.1	A	9.0	A	9.5	A	9.1	A
3	Fresno Ave & Sonora St	TWSC	HCM 7th	AM	14.6 (WBLTR)	B	14.7 (WBLTR)	B	16.7 (WBLTR)	C	17.5 (WBLTR)	C
				PM	10.8 (WBLTR)	B	10.9 (WBLTR)	B	11.4 (WBLTR)	B	11.6 (WBLTR)	B

Source: Fehr & Peers, 2025.

Note:

- Under HCM 7th Edition Methodology, TWSC intersection delay is calculated for each turning movement. Reported LOS is the turning movement with the highest delay value at the intersection.

Table 9: Future Scenarios 95th Percentile Queue Lengths

#	Study Intersection	Movement	Storage Length (Feet)	Turn Pocket	Background Year W/O Project (2031)		Background Year W/ Project (2031)		Cumulative Year W/O Project (2045)		Cumulative Year W/ Project (2045)	
					AM	PM	AM	PM	AM	PM	AM	PM
1	Fresno Ave & Harbor St	NBL/T/R	375	No	25	25	25	25	25	25	25	25
		SBL/T/R	800	Private Driveway ¹	0	25	0	25	0	25	0	25
		EBL/T/R	1,200	Port Driveway ²	0	0	0	0	0	0	0	0
		WBL/T/R	650	No	0	0	0	0	0	0	0	0
2	Fresno Ave & Washington St	NBL/T/R	600	No	25	25	25	25	50	25	50	25
		SBL/T/R	425	No	25	25	25	25	25	25	25	25
		EBL/T/R	675	No	25	25	25	25	50	50	50	50
		WBL/T/R	575	No	50	50	50	50	75	50	75	50
3	Fresno Ave & Sonora St	NBL/T/R	2,700	No	25	25	25	25	25	25	25	25
		SBL/T/R	600	No	0	0	0	0	0	0	0	0
		EBL/T/R	700	No	25	25	25	25	25	25	25	25
		WBL/T/R	1,700	Port Driveway ³	25	25	25	25	25	25	25	25

Source: Fehr & Peers, 2025.

Note:

1. The Southbound Leg is under a truck entrance gate to private industry.
2. The Eastbound Leg is access to Port of Stockton East Gate.
3. The Westbound Leg is closed with a gate for private use.

Site Plan Assessment

Site access and internal circulation for vehicles, pedestrians, and bicycles was evaluated based on the site plan presented in **Figure 1**.

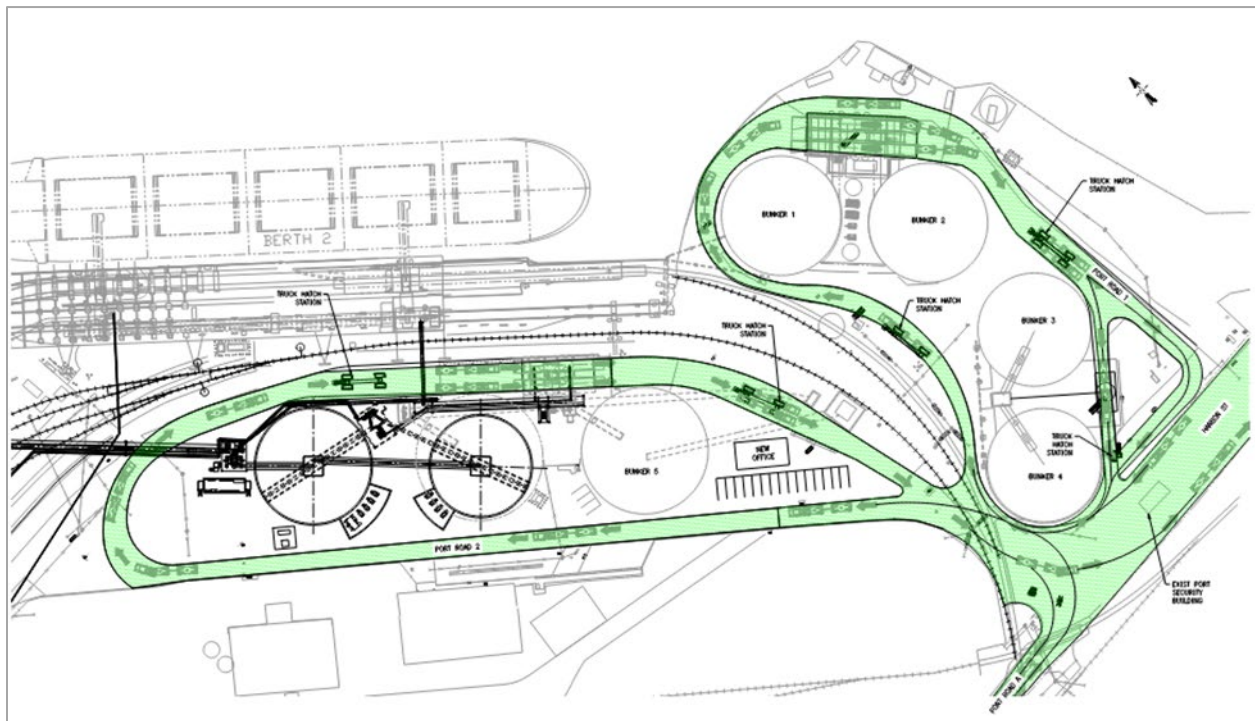
Vehicular Access and Circulation

Navy Drive and West Washington Street as the primary public haul routes in/out of the Port of Stockton; Port Road A and Port Road 13 provide intra-Port access from the Port Gates. Project Vehicular access via the Port's East Gate is provided by Harbor Street, Fresno Avenue and Navy Drive and through the Boggs Tract neighborhood will be avoided to the extent practicable. These routes keep project vehicles on designated industrial corridors and away from residential streets.

During operation, personal worker vehicles, trucks and rail cars would enter and exit the Nevada Cement terminal through the East Gate. Ships and barges would access the facility via existing berths.

The internal truck routing is similar both existing and future conditions. The terminal is configured to allow a single inbound lane of truck traffic entering the East Gate. Once inside, the truck flow divides into two outbound lanes, directing trucks to two separate loadout stations, as depicted on **Figure 12**. After loading, all trucks exit the terminal via internal Port roads and rejoin public roads through the Port's East Gate.

Figure 12: Terminal Truck Flow



Vehicular Parking

The City of Stockton Municipal Code 16.24.150 requires uses of land allowed within the port to provide a minimum of three parking spaces for every four employees and a maximum of one off-street parking space for each employee computed on the basis of the maximum number of employees which can be employed on the largest shift at any one time⁵.

The Project anticipates having 24 employees on a typical day in Cumulative condition. Based on the Municipal Code, the Project is required to provide a minimum of 18 parking spaces. The site plan identified approximately 19 vehicular parking spaces with no written description on the site plan. Any employee, visitor, or company parking would be provided in designated areas elsewhere within the Port of Stockton or on separate project plans, consistent with Port operational practices.

Recommendation 1: The final site plan should show and indicate at least 18 parking spaces with accessible parking spaces to comply with the City's Municipal Code and ADA requirement.

The state of California has mandated that all new passenger car and truck sales in the state be all-electric by the year 2035. Although not required by Stockton Municipal Code, the California Green Building Standards Code (2016) recommends that 6% of passenger vehicle parking spaces are equipped with electric vehicle charging infrastructure for developments of this size.

Recommendation 2: The final site plan should identify which parking spaces could be easily upgraded to accommodate electric vehicle charging infrastructure.

Transit, Pedestrian and Bicycle Access and Circulation

Public sidewalks and bike lanes are not part of the internal Port roadway network, and transit services do not operate on Port roads. In this case, relevant pedestrian and bicycle infrastructure is outside the secured leasehold, and bus routes operate on city streets outside the Port perimeter. Public transit does not enter the Port of Stockton; the closest San Joaquin Regional Transit District (SJRTD) routes operate along Los Angeles /Sonora (Boggs Tract) (Route 515); the closest transit stop is about one half-mile from the Nevada Cement site. The Project site does not propose any pedestrian or bicycle facilities on Fresno Avenue or Harbor Street.

⁵ City of Stockton Municipal Code, 2009. <https://ecode360.com/43712761>

CEQA Transportation Analysis

A – Programs, Plans, Ordinances, and Policies

The City's TIA Guidelines include a list of significance criteria consistent with policies set in the *Envision Stockton 2040 General Plan* (2018) and *City of Stockton Bicycle Master Plan* (2017). Per Stockton TIA Guidelines, a project would create significant impact if any of the following criteria are met:

- At unsignalized intersections, the project results in any of the traffic signal warrants included in the *CA Manual on Uniform Traffic Control Devices* (CA MUTCD) to be satisfied, or for a location where any of the warrants are satisfied prior to the project, the project increases overall travel through the intersection.
- The project creates the potential for 95th percentile vehicle queues that exceed available storage and could periodically block or interfere with pedestrian, bicycle or transit facilities.
- The project would physically modify an existing or planned roadway in a manner inconsistent with the City's General Plan.
- The project disrupts an existing transit facility or service or interferes with the implementation of future transit service
- Disrupt existing bicycle facilities, interfere with planned bicycle facilities; or cause other changes to the bicycle system that would be inconsistent with performance expectations established in adopted bicycle system plans, guidelines, policies, or standards.
- Disrupt existing pedestrian facilities, interfere with planned pedestrian facilities, or cause other changes to the pedestrian system that would be inconsistent with performance expectations established in adopted pedestrian system plans, guidelines, policies, or standards, including ADA laws.

Roadway System

Project volumes under both Background Year with Project (2031) and Cumulative Year with Project (2045) create are insufficient to satisfy traffic signal warrants included in the CA MUTCD for the two unsignalized intersections included in the study. Furthermore, Project trip volumes are low enough to not generate vehicle queues exceeding available storage length. Therefore, the Project's impact to roadway system is ***less-than-significant***.

Transit System

The Project is located in the Port of Stockton and access to the Project site is very limited via transit, with the closest transit stops being located ½-mile distance from the Nevada Cement site. The Project does not disrupt an existing transit facility or service and would not interfere with the implementation of future transit service, therefore the Project's impact on transit is ***less-than-significant***.

Bicycle System

The Project is located in the Port of Stockton and there are no existing or planned bicycle facilities within the study area. The Project does not disrupt existing bicycle facilities, interfere with planned

bicycle facilities, or propose any changes to the bicycle system, therefore the Project's impact on the bicycle system is ***less-than-significant***.

Pedestrian System

The Project is located in the Port of Stockton and there are no existing or planned pedestrian facilities within the study area. The Project does not disrupt existing pedestrian facilities, interfere with planned pedestrian facilities, or propose any changes to the pedestrian system, therefore the Project's impact to the pedestrian system is ***less-than-significant***.

B – Vehicle Miles Traveled

CEQA Guidelines Section §15064.3 requires Vehicle Miles of Travel (VMT) analysis for land use developments. The City of Stockton has chosen to follow the VMT assessment from the *Technical Advisory on Evaluating Transportation Impacts in CEQA*.

Screening Criteria

Based on 2018 Technical Advisory guidance from the Governor's Office of Land Use and Climate Innovation (LCI) (formerly OPR), land use projects that meet at least one of the following screening criteria may be presumed to not require CEQA VMT analysis:

- **Transit Priority Area:** The Project is located within a one-half mile of a major transit stop⁶ or within ¼ mile walkshed around stops on high-quality transit corridor⁷ and satisfies the following:
 - Has a Floor Area Ratio (FAR) of greater than 0.75;
 - The total square footage is 500,000 square feet or less;
 - The proposed parking does not exceed minimum required by the Zoning Code or applicable plan;
 - The Project is consistent with the City's General Plan, applicable Specific Plan, or applicable Sustainable Communities Strategy (as determined by the lead agency);
 - Existing on-site affordable residential units are maintained or increased; and,
 - Less than significant levels of VMT are projected through project-specific or location-specific information.
- **Affordable Housing:** The project is 100% affordable at an infill location and is within a half mile of a transit stop.
- **Small Projects:** The project generates fewer than 110 vehicle trips per day.
- **Locally Serving Public Facility:** Government, civic, cultural, health, and infrastructure uses which contribute to and support community needs.
- **Neighborhood-Serving Retail Project:** Projects less than 50,000 square feet without a drive-through that serve the immediate neighborhood and may have a similar use within three miles.

⁶ CEQA Guidelines Section 21064.3 defines a "major transit stop" as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during morning and afternoon peak commute times.

⁷ CEQA Guidelines Section 21155(b) defines a "high quality transit corridor: means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

- **Low-VMT Areas:** The project meets map-based screening criteria by being located in an area that exhibits below threshold VMT, or 15% or more below the regional average.
- **Housing:** Residential projects within City limits that area consistent with all General Plan and zoning standards, are within half a mile of a transit stop, or included as a housing capacity site needed to meet the City's fair share of Regional Housing Needs Allocation (RHNA), as outlined in the City's Housing Element.

The proposed Project does not satisfy any of the screening criteria, as described below.

Criterion 1: Small Project

The Project would generate approximately 422 vehicle trips per day. The proposed Project does not meet the condition (less than 100 vehicle trips per day) necessary to satisfy Criterion 1.

Criterion 2: Low-VMT Area

The Project is located in an area that would exhibit higher VMT than the citywide average, as shown in the screening map provided in the *City of Stockton Transportation Impact Analysis Guidelines*. The proposed Project does not meet the conditions (15% below the regional average) necessary to satisfy Criterion 2.

Criterion 3: Transit Priority Area

The nearest transit stop to the Project site is approximately half miles away. The proposed Project does not meet the conditions (major transit stop within one-half mile away) necessary to satisfy Criterion 3.

Criterion 4: Affordable Housing

The proposed Project is an industrial development and would not provide any affordable residential housing. The proposed Project does not meet the conditions (100% affordable residential development in an infill location) necessary to satisfy Criterion 4.

Criterion 5 & 6: Locally Serving Public Facility & Neighborhood-Serving Retail Project

The proposed Project is an industrial redevelopment project. The proposed Project does not meet the land use conditions (public facility or Retail) necessary to satisfy Criterion 5&6.

VMT Impact Criteria

Projects not screened out are required to complete a VMT analysis using the City of Stockton General Plan Model to determine if there would be a significant VMT impact. VMT analysis must be evaluated under Baseline (2025) and Cumulative Year (2045) conditions. The impact analysis includes two types of VMT:

- **Project generated VMT per capita.** The Project-generated VMT method relies on tracking trips to/from an individual Project. In simple terms, it looks at the total number and distance each trip travels, divided by the population that generated those trips (i.e., residents, employees, students, visitors, etc. as appropriate).

- **Project effect on VMT** compares how the Project changes total VMT on the network. This VMT applies what is known as the boundary method, which captures all VMT on a network within a defined boundary (i.e., Stockton/Model Area). This VMT captures the Project’s overall influence on the VMT generation of surrounding land uses.

Per LCI recommendations and their interpretation of Public Resources Code, §15064.3, VMT analysis for CEQA transportation impact purposes can focus solely on automobile travel and can exclude truck trips. Truck trips are included in the analysis of other environmental topic areas, such as air quality, noise, and greenhouse gas.

Industrial Projects in the City of Stockton must adhere to the same VMT thresholds established for office land uses: **15% below the Citywide average for home-based-work VMT per employee.**

VMT Analysis

The VMT analysis was completed using the Baseline (2025) and Cumulative Year (2045) City of Stockton General Plan Model. The home-based-work VMT per employee threshold was determined under “No Project” conditions. The proposed Project was then added to the model to evaluate “Plus Project” conditions.

As presented in **Table 10**, the Baseline Project generated home-based-work VMT per employee (19.90) is 4.1% higher than the Citywide Average (19.11) and does not meet the threshold of 15% below the Citywide average (16.25). The Cumulative Project generated home-based-work VMT per employee (21.56) is 8.3% higher than the Citywide Average (19.90) and does not meet the threshold of 15% below the Citywide average (16.91).

Table 10 Project Generated VMT

Scenario	Home-Based-Work VMT per Employee		Project	15% below City Average?
	Citywide Average	15% below Citywide Average		
Baseline	19.11	16.25	19.90	No
Cumulative	19.90	16.91	21.56	No

Source: Fehr & Peers, 2025.

As presented **Table 11**, the Baseline and Cumulative Citywide VMT with the proposed Project under “Plus Project” conditions is lower than the Citywide VMT without the proposed Project under “No Project” conditions.

Table 11: Project Effect on VMT

Scenario	Citywide VMT		
	No Project	Plus Project	Difference
Baseline	5,476,643	5,475,404	- 1,239
Cumulative	6,596,509	6,593,855	-2,654

Source: Fehr & Peers, 2025.

Based upon the two methods of VMT results, the Project is anticipated to generate more home-based-work trips when compared to the citywide average. The decrease in boundary VMT shows the City's existing industrial employment opportunities are limited, resulting in some residents commuting outside the city for work. By increasing industrial employment within Stockton, the Project would improve the jobs-housing balance and shift a portion of commute travel from external to internal trips for industrial workers.

Conclusion

The Project does not satisfy any of the screening criteria and was required to conduct a VMT analysis. Industrial Projects in the City of Stockton must adhere to the same VMT thresholds established for office land-uses: 15% below the Citywide average for home-based-work VMT per employee.

Impact TR-1: The Baseline Project generated home-based-work VMT per employee is 4.1% higher than the respective Citywide Average. The Project does not meet the threshold of 15% below the Citywide average under Baseline conditions and would cause a significant impact under Baseline conditions.

Mitigation Measure TR-1: The applicant shall implement a Transportation Demand Management (TDM) Plan that includes the following components:

- Implementation of a commute trip reduction program that could include a carpooling/ride-matching program and/or preferential carpool parking.

The Project would require a 22.5% reduction in VMT to meet the threshold of 15% below the Citywide average. Although the implementation of a TDM Plan would reduce the Project VMT, reduction of Project VMT to 15% below the Citywide average is ambitious and achieving this goal cannot be guaranteed, therefore the Project's impact under Baseline conditions would remain **significant and unavoidable**.

Impact TR-2: The Cumulative Project generated home-based-work VMT per employee is 8.3% higher than the respective Citywide Average. The Project does not meet the threshold of 15% below the Citywide average under Cumulative conditions and would cause a significant impact under Cumulative conditions.

Mitigation Measure TR-2: Implement Mitigation Measure TR-1.

The Project would require a 27.5% reduction in VMT to meet the threshold of 15% below the Citywide average. Although the implementation of a TDM Plan would reduce the Project VMT, reduction of Project VMT to 15% below the Citywide average is ambitious and achieving this goal cannot be guaranteed, therefore the Project's impact under Cumulative conditions would remain **significant and unavoidable**.

C – Geometric Design Features

The proposed Nevada Cement terminal modernization would occur entirely within the Port of Stockton East Complex and would not alter roadways providing access to and from the Port. Project Vehicular access via the Port's East Gate is provided by Harbor Street, Fresno Avenue and Navy Drive and through the Boggs Tract neighborhood will be avoided to the extent practicable. These routes keep project vehicles on designated industrial corridors and away from residential streets.

During operation, personal worker vehicles, trucks and rail cars would enter and exit the Nevada Cement terminal through the East Gate. Ships and barges would access the facility via existing berths.

Trucks would continue to use Harbor Street, Washington Street, S. Fresno Avenue, and Navy Drive to access the project site from the highway system – all designated truck routes built to accommodate heavy vehicles. Additional truck traffic generated by the project would continue to be limited to designated truck routes.

The Project does not propose any substandard design features, therefore the Project's impact to geometric design hazards is ***less-than-significant***.

D – Emergency Access

Factors such as the number of access points, roadway width, and proximity to fire stations determine whether a Project provides enough emergency access. Emergency vehicle access is provided by the Project driveways and the internal roadways.

Primary vehicular access to the Nevada Cement terminal is provided at the Port of Stockton East Complex Gate along Harbor Street. Harbor Street connects to both Washington Street and Fresno Avenue, offering alternative routes if one access point is blocked. The Port has an emergency response plan in place and maintains its own Police Department, which provides 24-hour security for Port tenants. The nearest fire station is approximately 1.5 miles south at 1818 S. Fresno Avenue, with two additional stations located roughly 2 miles east (110 W. Sonora Street) and 4 miles northeast (1501 Picardy Drive). Given the multiple access routes, on-site emergency planning, and proximity to fire and police services, project implementation would not result in inadequate emergency access. The Project's impact to emergency access is ***less-than-significant***.

Local Roadway Transportation Analysis

The Local Transportation Study was prepared to provide information to decision makers and the public, and to assist Port of Stockton staff in understanding what types of improvements should be considered as Conditions of Approval for the Project, and to evaluate the Project's consistency with the City of Stockton's General Plan LOS policy.

According to the TIA Guidelines, a deficiency is identified at a signalized intersection:

- If the addition of Project traffic causes a signalized intersection to perform at an unacceptable LOS E or F condition during a peak hour or,
- If the addition of Project traffic exacerbates an existing LOS E or F condition by increasing the delay by 5 or more seconds.

Under the Background with Project scenarios, all of the study intersections operate at LOS D or better, therefore none of the intersections would operate deficiently.

Under the Cumulative with Project scenario all of the study intersections operate at LOS D or better, therefore none of the intersections would operate deficiently.

Appendix A.

Traffic Counts

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Fresno Ave & Harbor St
City: Stockton
Control: 2-Way Stop(NB/SB)

Project ID: 25-090114-001
Date: 11/18/2025

Data - Total

NS/EW Streets:		S Fresno Ave				S Fresno Ave				Harbor St				Harbor St				
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
		0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
	7:00 AM	14	1	0	0	0	2	0	0	0	1	8	0	0	3	0	0	29
	7:15 AM	7	2	0	0	0	0	0	0	0	1	6	0	2	4	0	0	22
	7:30 AM	11	4	0	0	0	0	0	0	0	2	10	0	1	2	0	0	30
	7:45 AM	17	1	0	0	0	2	0	0	0	4	7	0	0	4	0	0	35
	8:00 AM	12	1	2	0	0	1	0	0	0	1	11	0	0	0	1	0	29
	8:15 AM	16	3	1	0	0	0	0	0	0	4	8	0	1	2	0	0	35
	8:30 AM	8	0	0	0	0	2	0	0	0	1	9	0	0	4	0	0	24
	8:45 AM	15	2	0	0	1	1	0	0	0	1	6	0	0	2	1	0	29
TOTAL VOLUMES :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :		100	14	3	0	1	8	0	0	0	15	65	0	4	21	2	0	233
PEAK HR :		07:30 AM - 08:30 AM				11.11%				18.75%				14.81%				TOTAL
PEAK HR VOL :		56	9	3	0	0	3	0	0	0	11	36	0	2	8	1	0	129
PEAK HR FACTOR :		0.824	0.563	0.375	0.000	0.000	0.375	0.000	0.000	0.000	0.688	0.818	0.000	0.500	0.500	0.250	0.000	0.921
		0.850				0.375				0.979				0.688				

PM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
		0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
	4:00 PM	10	2	0	1	1	1	0	0	0	4	13	0	0	0	0	0	32
	4:15 PM	4	0	0	0	1	0	0	0	0	7	8	0	1	1	1	0	23
	4:30 PM	7	1	0	0	1	3	0	0	0	6	11	0	0	3	0	0	32
	4:45 PM	4	0	1	0	1	2	0	0	0	6	9	0	1	3	0	0	27
	5:00 PM	1	0	3	0	3	2	0	0	0	4	6	0	3	3	0	0	25
	5:15 PM	5	1	0	1	2	5	0	0	0	6	7	0	1	3	0	0	31
	5:30 PM	9	0	2	0	0	0	0	0	0	1	3	0	0	2	0	0	17
	5:45 PM	7	0	0	0	0	2	0	0	0	2	6	0	1	4	0	0	22
TOTAL VOLUMES :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :		47	4	6	2	9	15	0	0	0	36	63	0	7	19	1	0	209
PEAK HR :		04:30 PM - 05:30 PM				37.50%				36.36%				25.93%				TOTAL
PEAK HR VOL :		17	2	4	1	7	12	0	0	0	22	33	0	5	12	0	0	115
PEAK HR FACTOR :		0.607	0.500	0.333	0.250	0.583	0.600	0.000	0.000	0.000	0.917	0.750	0.000	0.417	1.000	0.000	0.000	0.898
		0.750				0.679				0.809				0.708				

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Fresno Ave & Harbor St
City: Stockton
Control: 2-Way Stop(NB/SB)

Project ID: 25-090114-001
Date: 11/18/2025

Data - Cars

NS/EW Streets:		S Fresno Ave				S Fresno Ave				Harbor St				Harbor St				
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
		0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
	7:00 AM	11	0	0	0	0	0	0	0	0	1	5	0	0	3	0	0	20
	7:15 AM	5	0	0	0	0	0	0	0	0	1	2	0	1	3	0	0	12
	7:30 AM	9	0	0	0	0	0	0	0	0	1	4	0	1	1	0	0	16
	7:45 AM	10	0	0	0	0	0	0	0	0	3	5	0	0	4	0	0	22
	8:00 AM	7	0	2	0	0	0	0	0	0	1	9	0	0	0	1	0	20
	8:15 AM	8	3	1	0	0	0	0	0	0	4	5	0	1	2	0	0	24
	8:30 AM	3	0	0	0	0	1	0	0	0	1	5	0	0	3	0	0	13
	8:45 AM	3	0	0	0	1	0	0	0	0	0	1	0	0	1	1	0	7
TOTAL VOLUMES :		NL 56	NT 3	NR 3	NU 0	SL 1	ST 1	SR 0	SU 0	EL 0	ET 12	ER 36	EU 0	WL 3	WT 17	WR 2	WU 0	TOTAL 134
APPROACH %'s :		90.32%	4.84%	4.84%	0.00%	50.00%	50.00%	0.00%	0.00%	0.00%	25.00%	75.00%	0.00%	13.64%	77.27%	9.09%	0.00%	
PEAK HR :		07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :		34	3	3	0	0	0	0	0	0	9	23	0	2	7	1	0	82
PEAK HR FACTOR :		0.850	0.250	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.563	0.639	0.000	0.500	0.438	0.250	0.000	0.854
		0.833								0.800				0.625				
PM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
		0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
	4:00 PM	5	0	0	1	1	0	0	0	0	4	11	0	0	0	0	0	22
	4:15 PM	1	0	0	0	0	0	0	0	0	7	5	0	1	1	1	0	16
	4:30 PM	5	0	0	0	1	2	0	0	0	6	11	0	0	3	0	0	28
	4:45 PM	2	0	1	0	1	1	0	0	0	6	8	0	1	3	0	0	23
	5:00 PM	1	0	3	0	3	1	0	0	0	4	3	0	3	3	0	0	21
	5:15 PM	4	0	0	1	2	4	0	0	0	6	6	0	1	3	0	0	27
	5:30 PM	6	0	2	0	0	0	0	0	0	1	1	0	0	2	0	0	12
	5:45 PM	6	0	0	0	0	0	0	0	0	2	3	0	1	4	0	0	16
TOTAL VOLUMES :		NL 30	NT 0	NR 6	NU 2	SL 8	ST 8	SR 0	SU 0	EL 0	ET 36	ER 48	EU 0	WL 7	WT 19	WR 1	WU 0	TOTAL 165
APPROACH %'s :		78.95%	0.00%	15.79%	5.26%	50.00%	50.00%	0.00%	0.00%	0.00%	42.86%	57.14%	0.00%	25.93%	70.37%	3.70%	0.00%	
PEAK HR :		04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :		12	0	4	1	7	8	0	0	0	22	28	0	5	12	0	0	99
PEAK HR FACTOR :		0.600	0.000	0.333	0.250	0.583	0.500	0.000	0.000	0.000	0.917	0.636	0.000	0.417	1.000	0.000	0.000	0.884
		0.850				0.625				0.735				0.708				

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Fresno Ave & Harbor St
City: Stockton
Control: 2-Way Stop(NB/SB)

Project ID: 25-090114-001
Date: 11/18/2025

Data - HT

NS/EW Streets:		S Fresno Ave				S Fresno Ave				Harbor St				Harbor St				
AM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
		0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
	7:00 AM	3	1	0	0	0	2	0	0	0	0	3	0	0	0	0	0	9
	7:15 AM	2	2	0	0	0	0	0	0	0	0	4	0	1	1	0	0	10
	7:30 AM	2	4	0	0	0	0	0	0	0	1	6	0	0	1	0	0	14
	7:45 AM	7	1	0	0	0	2	0	0	0	1	2	0	0	0	0	0	13
	8:00 AM	5	1	0	0	0	1	0	0	0	0	2	0	0	0	0	0	9
	8:15 AM	8	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	11
	8:30 AM	5	0	0	0	0	1	0	0	0	0	4	0	0	1	0	0	11
	8:45 AM	12	2	0	0	0	1	0	0	0	1	5	0	0	1	0	0	22
TOTAL VOLUMES :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :		44	11	0	0	0	7	0	0	0	3	29	0	1	4	0	0	99
PEAK HR :		07:30 AM - 08:30 AM				0.00%				0.00%				20.00%				TOTAL
PEAK HR VOL :		22	6	0	0	0	3	0	0	0	2	13	0	0	1	0	0	47
PEAK HR FACTOR :		0.688	0.375	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.500	0.542	0.000	0.000	0.250	0.000	0.000	0.839
		0.875				0.375				0.536				0.250				
PM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
		0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
	4:00 PM	5	2	0	0	0	1	0	0	0	0	2	0	0	0	0	0	10
	4:15 PM	3	0	0	0	1	0	0	0	0	0	3	0	0	0	0	0	7
	4:30 PM	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
	4:45 PM	2	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	4
	5:00 PM	0	0	0	0	0	1	0	0	0	0	3	0	0	0	0	0	4
	5:15 PM	1	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	4
	5:30 PM	3	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	5
	5:45 PM	1	0	0	0	0	2	0	0	0	0	3	0	0	0	0	0	6
TOTAL VOLUMES :		NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :		17	4	0	0	1	7	0	0	0	0	15	0	0	0	0	0	44
PEAK HR :		04:30 PM - 05:30 PM				12.50%				0.00%				100.00%				TOTAL
PEAK HR VOL :		5	2	0	0	0	4	0	0	0	0	5	0	0	0	0	0	16
PEAK HR FACTOR :		0.625	0.500	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.417	0.000	0.000	0.000	0.000	0.000	1.000
		0.583				1.000				0.417								

National Data & Surveying Services
Intersection Turning Movement Count

Location: S Fresno Ave & Harbor St
City: Stockton

Project ID: 25-090114-001
Date: 11/18/2025

Data - Pedestrians (Crosswalks)

NS/EW Streets:	S Fresno Ave		S Fresno Ave		Harbor St		Harbor St		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	0	0	0	0	0	0	0
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	1	1	0	0	0	0	2
5:00 PM	0	0	2	2	0	0	0	0	4
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	3	3	0	0	0	0	6
			50.00%	50.00%					
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	0	0	3	3	0	0	0	0	6
PEAK HR FACTOR :			0.375	0.375					0.375
			0.375						

S Fresno Ave & Harbor St

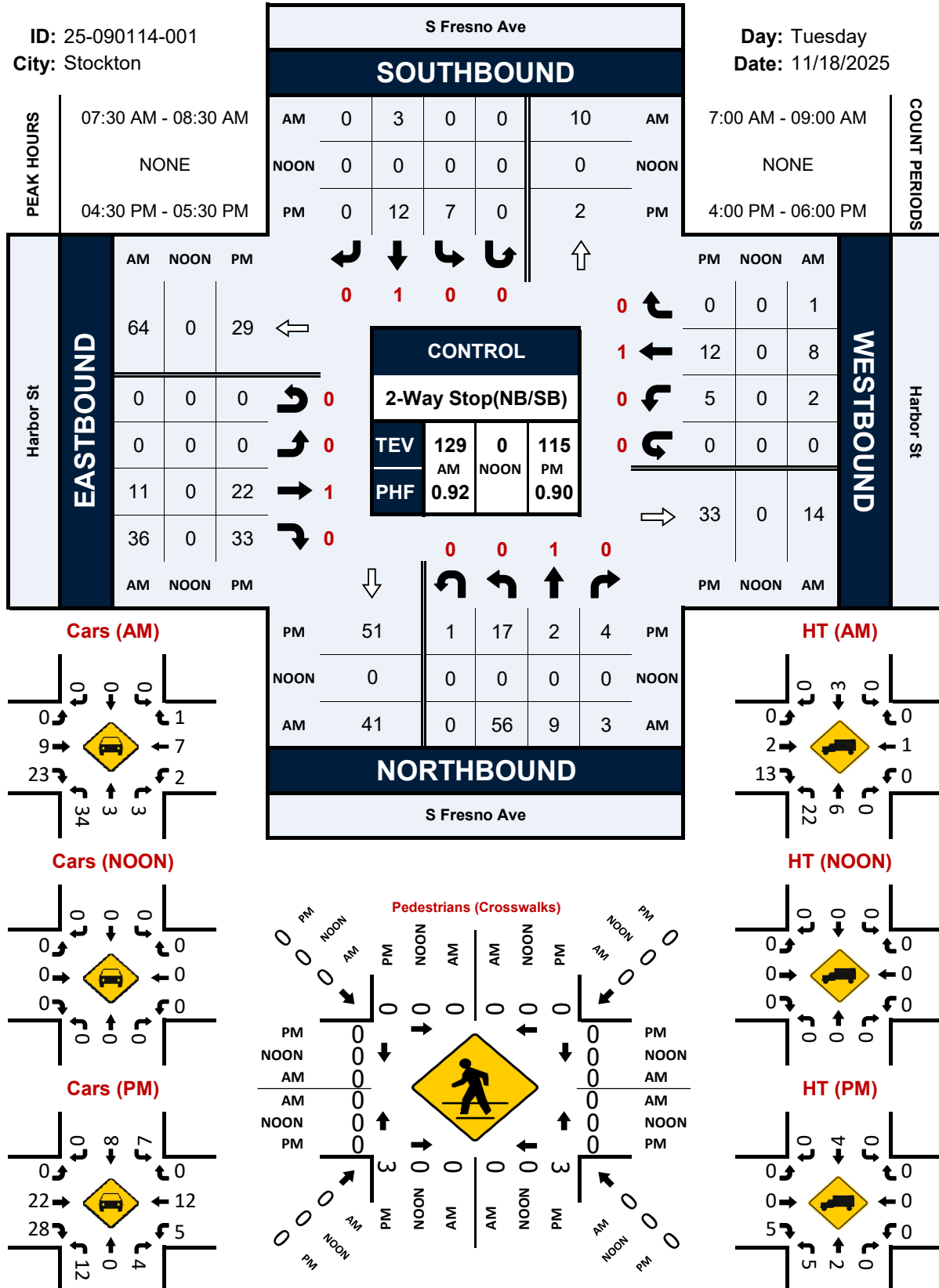
Peak Hour Turning Movement Count

ID: 25-090114-001

City: Stockton

Day: Tuesday

Date: 11/18/2025



National Data & Surveying Services

Intersection Turning Movement Count

Location: S Fresno Ave & W Washington St
City: Stockton
Control: Signalized

Project ID: 25-090114-002
Date: 11/18/2025

Data - Total

NS/EW Streets:	S Fresno Ave				S Fresno Ave				W Washington St				W Washington St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM	2	13	10	0	0	10	0	0	2	4	10	0	4	9	0	0	64
7:15 AM	5	9	8	0	0	6	1	0	0	6	14	0	9	16	0	0	74
7:30 AM	7	15	20	0	1	10	0	0	0	4	11	0	12	8	0	0	88
7:45 AM	6	15	29	0	0	9	0	0	4	15	18	0	18	9	1	0	124
8:00 AM	9	14	15	0	0	13	1	0	2	9	10	0	22	5	0	0	100
8:15 AM	5	16	22	0	0	8	1	0	2	10	5	0	19	9	0	0	97
8:30 AM	8	11	11	0	1	9	1	0	0	5	12	0	20	3	0	0	81
8:45 AM	7	15	14	0	0	7	1	0	0	4	6	0	7	6	0	0	67
TOTAL VOLUMES :	NL 49	NT 108	NR 129	NU 0	SL 2	ST 72	SR 5	SU 0	EL 10	ET 57	ER 86	EU 0	WL 111	WT 65	WR 1	WU 0	TOTAL 695
APPROACH %'s :	17.13%	37.76%	45.10%	0.00%	2.53%	91.14%	6.33%	0.00%	6.54%	37.25%	56.21%	0.00%	62.71%	36.72%	0.56%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	27	60	86	0	1	40	2	0	8	38	44	0	71	31	1	0	409
PEAK HR FACTOR :	0.750	0.938	0.741	0.000	0.250	0.769	0.500	0.000	0.500	0.633	0.611	0.000	0.807	0.861	0.250	0.000	0.825
	0.865				0.768				0.608				0.920				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:00 PM	5	10	19	0	1	15	0	0	4	13	14	0	13	5	0	0	99
4:15 PM	7	4	18	0	1	6	1	0	0	11	3	0	19	5	0	0	75
4:30 PM	8	8	22	0	0	15	1	0	0	13	11	0	17	5	1	0	101
4:45 PM	7	4	11	0	0	12	0	0	1	12	10	0	19	10	0	0	86
5:00 PM	9	3	30	0	1	11	0	0	0	8	7	0	18	7	0	0	94
5:15 PM	12	9	9	0	0	11	1	0	0	7	12	0	14	2	0	0	77
5:30 PM	7	8	7	0	0	3	0	0	1	2	3	0	15	7	0	0	53
5:45 PM	7	9	10	0	1	8	0	0	1	10	4	0	11	3	0	0	64
TOTAL VOLUMES :	NL 62	NT 55	NR 126	NU 0	SL 4	ST 81	SR 3	SU 0	EL 7	ET 76	ER 64	EU 0	WL 126	WT 44	WR 1	WU 0	TOTAL 649
APPROACH %'s :	25.51%	22.63%	51.85%	0.00%	4.55%	92.05%	3.41%	0.00%	4.76%	51.70%	43.54%	0.00%	73.68%	25.73%	0.58%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	27	26	70	0	2	48	2	0	5	49	38	0	68	25	1	0	361
PEAK HR FACTOR :	0.844	0.650	0.795	0.000	0.500	0.800	0.500	0.000	0.313	0.942	0.679	0.000	0.895	0.625	0.250	0.000	0.894
	0.809				0.813				0.742				0.810				

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Fresno Ave & W Washington St
City: Stockton
Control: Signalized

Project ID: 25-090114-002
Date: 11/18/2025

Data - Cars

NS/EW Streets:	S Fresno Ave				S Fresno Ave				W Washington St				W Washington St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM	1	9	9	0	0	5	0	0	2	3	7	0	4	7	0	0	47
7:15 AM	3	5	6	0	0	2	0	0	0	5	8	0	8	13	0	0	50
7:30 AM	3	9	19	0	0	5	0	0	0	4	7	0	12	8	0	0	67
7:45 AM	6	11	27	0	0	5	0	0	1	14	17	0	18	8	0	0	107
8:00 AM	4	7	14	0	0	12	0	0	2	9	7	0	22	5	0	0	82
8:15 AM	3	10	19	0	0	5	0	0	1	10	3	0	19	9	0	0	79
8:30 AM	7	5	9	0	1	5	0	0	0	5	6	0	20	3	0	0	61
8:45 AM	2	2	14	0	0	2	0	0	0	3	5	0	7	6	0	0	41
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	29	58	117	0	1	41	0	0	6	53	60	0	110	59	0	0	534
PEAK HR :	14.22%	28.43%	57.35%	0.00%	2.38%	97.62%	0.00%	0.00%	5.04%	44.54%	50.42%	0.00%	65.09%	34.91%	0.00%	0.00%	
PEAK HR VOL :	16	37	79	0	0	27	0	0	4	37	34	0	71	30	0	0	335
PEAK HR FACTOR :	0.667	0.841	0.731	0.000	0.000	0.563	0.000	0.000	0.500	0.661	0.500	0.000	0.807	0.833	0.000	0.000	0.783
			0.750				0.563				0.586				0.902		

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:00 PM	4	5	19	0	1	12	0	0	2	13	14	0	12	5	0	0	87
4:15 PM	3	1	18	0	1	4	1	0	0	11	2	0	19	5	0	0	65
4:30 PM	6	5	21	0	0	13	1	0	0	12	10	0	16	4	1	0	89
4:45 PM	6	3	11	0	0	10	0	0	0	12	8	0	19	10	0	0	79
5:00 PM	9	3	29	0	1	7	0	0	0	8	7	0	18	7	0	0	89
5:15 PM	8	7	9	0	0	9	1	0	0	7	8	0	14	1	0	0	64
5:30 PM	5	6	7	0	0	1	0	0	0	2	3	0	15	7	0	0	46
5:45 PM	4	9	10	0	1	3	0	0	0	10	4	0	11	3	0	0	55
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	45	39	124	0	4	59	3	0	2	75	56	0	124	42	1	0	574
PEAK HR :	21.63%	18.75%	59.62%	0.00%	6.06%	89.39%	4.55%	0.00%	1.50%	56.39%	42.11%	0.00%	74.25%	25.15%	0.60%	0.00%	
PEAK HR VOL :	19	14	69	0	2	39	2	0	2	48	34	0	66	24	1	0	320
PEAK HR FACTOR :	0.792	0.700	0.821	0.000	0.500	0.750	0.500	0.000	0.250	0.923	0.607	0.000	0.868	0.600	0.250	0.000	0.899
			0.797				0.768				0.724				0.784		

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Fresno Ave & W Washington St
City: Stockton
Control: Signalized

Project ID: 25-090114-002
Date: 11/18/2025

Data - HT

NS/EW Streets:	S Fresno Ave				S Fresno Ave				W Washington St				W Washington St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM	1	4	1	0	0	5	0	0	0	1	3	0	0	2	0	0	17
7:15 AM	2	4	2	0	0	4	1	0	0	1	6	0	1	3	0	0	24
7:30 AM	4	6	1	0	1	5	0	0	0	0	4	0	0	0	0	0	21
7:45 AM	0	4	2	0	0	4	0	0	3	1	1	0	0	1	1	0	17
8:00 AM	5	7	1	0	0	1	1	0	0	0	3	0	0	0	0	0	18
8:15 AM	2	6	3	0	0	3	1	0	1	0	2	0	0	0	0	0	18
8:30 AM	1	6	2	0	0	4	1	0	0	0	6	0	0	0	0	0	20
8:45 AM	5	13	0	0	0	5	1	0	0	1	1	0	0	0	0	0	26
TOTAL VOLUMES :	NL 20	NT 50	NR 12	NU 0	SL 1	ST 31	SR 5	SU 0	EL 4	ET 4	ER 26	EU 0	WL 1	WT 6	WR 1	WU 0	TOTAL 161
APPROACH %'s :	24.39%	60.98%	14.63%	0.00%	2.70%	83.78%	13.51%	0.00%	11.76%	11.76%	76.47%	0.00%	12.50%	75.00%	12.50%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM				1	13	2	0	4	1	10	0	0	1	1	0	TOTAL 74
PEAK HR VOL :	11	23	7	0	0.250	0.650	0.500	0.000	0.333	0.250	0.625	0.000	0.000	0.250	0.250	0.000	0.881
PEAK HR FACTOR :	0.550	0.821	0.583	0.000		0.667			0.750					0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:00 PM	1	5	0	0	0	3	0	0	2	0	0	0	1	0	0	0	12
4:15 PM	4	3	0	0	0	2	0	0	0	0	1	0	0	0	0	0	10
4:30 PM	2	3	1	0	0	2	0	0	0	1	1	0	1	1	0	0	12
4:45 PM	1	1	0	0	0	2	0	0	1	0	2	0	0	0	0	0	7
5:00 PM	0	0	1	0	0	4	0	0	0	0	0	0	0	0	0	0	5
5:15 PM	4	2	0	0	0	2	0	0	0	0	4	0	0	1	0	0	13
5:30 PM	2	2	0	0	0	2	0	0	1	0	0	0	0	0	0	0	7
5:45 PM	3	0	0	0	0	5	0	0	1	0	0	0	0	0	0	0	9
TOTAL VOLUMES :	NL 17	NT 16	NR 2	NU 0	SL 0	ST 22	SR 0	SU 0	EL 5	ET 1	ER 8	EU 0	WL 2	WT 2	WR 0	WU 0	TOTAL 75
APPROACH %'s :	48.57%	45.71%	5.71%	0.00%	0.00%	100.00%	0.00%	0.00%	35.71%	7.14%	57.14%	0.00%	50.00%	50.00%	0.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM				0	9	0	0	3	1	4	0	2	1	0	0	TOTAL 41
PEAK HR VOL :	8	12	1	0	0.000	0.750	0.000	0.000	0.375	0.250	0.500	0.000	0.500	0.250	0.000	0.000	0.854
PEAK HR FACTOR :	0.500	0.600	0.250	0.000		0.750			0.667					0.375			

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Fresno Ave & W Washington St
City: Stockton
Control: Signalized

Project ID: 25-090114-002
Date: 11/18/2025

Data - Bikes

NS/EW Streets:	S Fresno Ave				S Fresno Ave				W Washington St				W Washington St				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	NL 0	NT 0	NR 0	NU 0	SL 0	ST 0	SR 0	SU 0	EL 0	ET 0	ER 0	EU 0	WL 0	WT 1	WR 0	WU 0	TOTAL 1
APPROACH %'s :	0.00%				0.00%				0.00%				100.00%				
PEAK HR :	07:30 AM - 08:30 AM				0	0	0	0	0	0	0	0	0	0	0	0	TOTAL 0
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

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

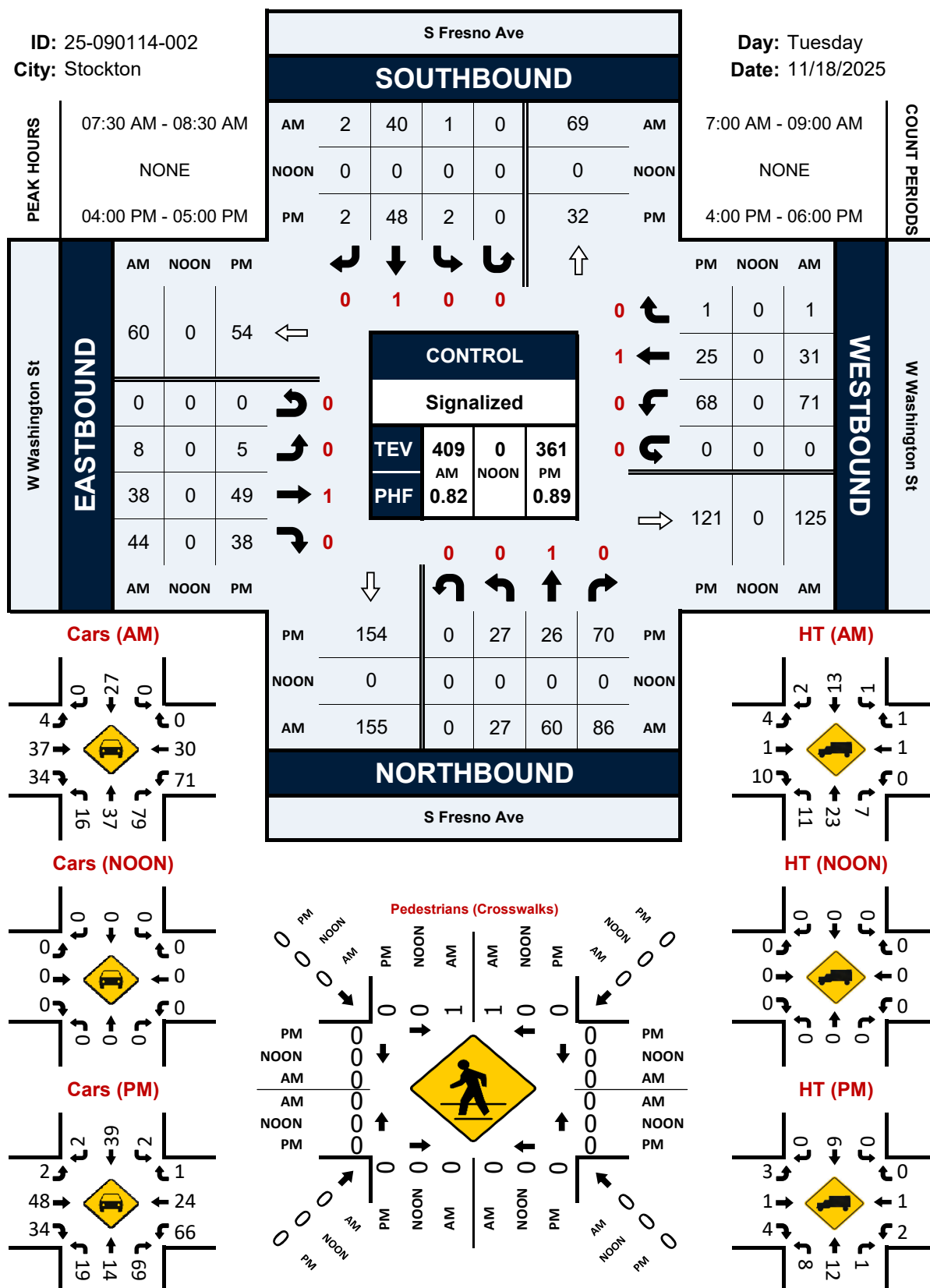
Project ID: 25-090114-002
Date: 11/18/2025

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES : APPROACH %'s :	EB 0 0.00%	WB 1 100.00%	EB 0	WB 0	NB 0	SB 0	NB 0	SB 0	TOTAL 1
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Peak Hour Turning Movement Count

City: Stockton

Date: 11/18/2025



National Data & Surveying Services

Intersection Turning Movement Count

Location: S Fresno Ave & W Sonora St/452 S Fresno Ave Dwy
City: Stockton
Control: 1-Way Stop(EB)

Project ID: 25-090114-003
Date: 11/18/2025

Data - Total

NS/EW Streets:	S Fresno Ave				S Fresno Ave				W Sonora St/452 S Fresno Ave Dwy				W Sonora St/452 S Fresno Ave Dwy					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
	7:00 AM	7	27	1	0	0	22	2	0	1	0	6	0	0	0	0	0	66
	7:15 AM	5	26	0	0	0	27	2	0	0	0	3	0	0	0	0	63	
	7:30 AM	8	44	1	1	0	27	3	0	2	0	7	0	1	0	0	94	
	7:45 AM	38	50	1	0	0	32	13	0	2	0	18	0	0	0	0	154	
	8:00 AM	21	36	1	0	0	38	8	0	2	0	15	0	0	0	0	121	
	8:15 AM	13	44	2	0	0	28	4	0	0	0	9	0	0	0	1	101	
	8:30 AM	9	33	2	1	0	41	1	0	0	0	3	0	0	0	0	90	
8:45 AM	6	36	0	0	0	19	1	0	0	0	5	1	0	0	1	69		
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	107	296	8	2	0	234	34	0	7	0	66	1	1	0	2	0	758	
	25.91%	71.67%	1.94%	0.48%	0.00%	87.31%	12.69%	0.00%	9.46%	0.00%	89.19%	1.35%	33.33%	0.00%	66.67%	0.00%		
PEAK HR :	07:30 AM - 08:30 AM																	
PEAK HR VOL :	80	174	5	1	0	125	28	0	6	0	49	0	1	0	1	0	470	
PEAK HR FACTOR :	0.526	0.870	0.625	0.250	0.000	0.822	0.538	0.000	0.750	0.000	0.681	0.000	0.250	0.000	0.250	0.000	0.763	
	0.730				0.832				0.688				0.500					
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
	4:00 PM	8	34	0	0	0	39	2	0	1	0	8	0	1	0	0	0	93
	4:15 PM	9	30	0	0	0	28	3	0	1	0	8	0	1	0	0	80	
	4:30 PM	6	40	0	0	0	37	4	0	1	0	6	1	0	0	0	95	
	4:45 PM	7	22	0	0	0	37	4	0	0	0	3	0	0	0	0	73	
	5:00 PM	7	39	0	0	0	37	1	0	5	0	7	0	1	0	1	98	
	5:15 PM	7	30	0	0	0	37	2	0	0	0	3	0	1	0	0	80	
	5:30 PM	6	22	0	0	0	22	0	0	0	0	8	0	0	0	0	58	
5:45 PM	6	27	0	0	0	21	1	0	1	0	8	1	0	0	0	65		
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
APPROACH %'s :	56	244	0	0	0	258	17	0	9	0	51	2	4	0	1	0	642	
	18.67%	81.33%	0.00%	0.00%	0.00%	93.82%	6.18%	0.00%	14.52%	0.00%	82.26%	3.23%	80.00%	0.00%	20.00%	0.00%		
PEAK HR :	04:30 PM - 05:30 PM																	
PEAK HR VOL :	27	131	0	0	0	148	11	0	6	0	19	1	2	0	1	0	346	
PEAK HR FACTOR :	0.964	0.819	0.000	0.000	0.000	1.000	0.688	0.000	0.300	0.000	0.679	0.250	0.500	0.000	0.250	0.000	0.883	
	0.859				0.970				0.542				0.375					

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Fresno Ave & W Sonora St/452 S Fresno Ave Dwy
City: Stockton
Control: 1-Way Stop(EB)

Project ID: 25-090114-003
Date: 11/18/2025

Data - Cars

NS/EW Streets:	S Fresno Ave				S Fresno Ave				W Sonora St/452 S Fresno Ave Dwy				W Sonora St/452 S Fresno Ave Dwy				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
7:00 AM	6	20	1	0	0	14	2	0	1	0	5	0	0	0	0	0	49
7:15 AM	4	17	0	0	0	15	2	0	0	0	3	0	0	0	0	0	41
7:30 AM	7	34	1	1	0	17	3	0	1	0	7	0	1	0	0	0	72
7:45 AM	37	43	1	0	0	28	13	0	2	0	18	0	0	0	0	0	142
8:00 AM	21	24	1	0	0	33	8	0	2	0	15	0	0	0	0	0	104
8:15 AM	13	32	2	0	0	23	4	0	0	0	8	0	0	0	1	0	83
8:30 AM	9	23	2	1	0	31	1	0	0	0	3	0	0	0	0	0	70
8:45 AM	6	19	0	0	0	13	1	0	0	0	5	1	0	0	1	0	46
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	103	212	8	2	0	174	34	0	6	0	64	1	1	0	2	0	607
PEAK HR :	31.69%	65.23%	2.46%	0.62%	0.00%	83.65%	16.35%	0.00%	8.45%	0.00%	90.14%	1.41%	33.33%	0.00%	66.67%	0.00%	
PEAK HR VOL :	78	133	5	1	0	101	28	0	5	0	48	0	1	0	1	0	401
PEAK HR FACTOR :	0.527	0.773	0.625	0.250	0.000	0.765	0.538	0.000	0.625	0.000	0.667	0.000	0.250	0.000	0.250	0.000	0.706
	0.670				0.787				0.663				0.500				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	
4:00 PM	8	28	0	0	0	35	2	0	1	0	8	0	1	0	0	0	83
4:15 PM	8	23	0	0	0	25	3	0	1	0	8	0	1	0	0	0	69
4:30 PM	6	33	0	0	0	33	4	0	1	0	6	1	0	0	0	0	84
4:45 PM	6	21	0	0	0	33	4	0	0	0	3	0	0	0	0	0	67
5:00 PM	7	38	0	0	0	33	1	0	5	0	7	0	1	0	1	0	93
5:15 PM	7	24	0	0	0	31	2	0	0	0	3	0	1	0	0	0	68
5:30 PM	6	18	0	0	0	20	0	0	0	0	8	0	0	0	0	0	52
5:45 PM	6	23	0	0	0	16	1	0	1	0	8	1	0	0	0	0	56
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	54	208	0	0	0	226	17	0	9	0	51	2	4	0	1	0	572
PEAK HR :	20.61%	79.39%	0.00%	0.00%	0.00%	93.00%	7.00%	0.00%	14.52%	0.00%	82.26%	3.23%	80.00%	0.00%	20.00%	0.00%	
PEAK HR VOL :	26	116	0	0	0	130	11	0	6	0	19	1	2	0	1	0	312
PEAK HR FACTOR :	0.929	0.763	0.000	0.000	0.000	0.985	0.688	0.000	0.300	0.000	0.679	0.250	0.500	0.000	0.250	0.000	0.839
	0.789				0.953				0.542				0.375				

National Data & Surveying Services

Intersection Turning Movement Count

Location: S Fresno Ave & W Sonora St/452 S Fresno Ave Dwy
City: Stockton
Control: 1-Way Stop(EB)

Project ID: 25-090114-003
Date: 11/18/2025

Data - HT

NS/EW Streets:	S Fresno Ave				S Fresno Ave				W Sonora St/452 S Fresno Ave Dwy				W Sonora St/452 S Fresno Ave Dwy					
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
	7:00 AM	1	7	0	0	0	8	0	0	0	0	1	0	0	0	0	0	17
	7:15 AM	1	9	0	0	0	12	0	0	0	0	0	0	0	0	0	0	22
	7:30 AM	1	10	0	0	0	10	0	0	1	0	0	0	0	0	0	0	22
	7:45 AM	1	7	0	0	0	4	0	0	0	0	0	0	0	0	0	0	12
	8:00 AM	0	12	0	0	0	5	0	0	0	0	0	0	0	0	0	0	17
	8:15 AM	0	12	0	0	0	5	0	0	0	0	1	0	0	0	0	0	18
	8:30 AM	0	10	0	0	0	10	0	0	0	0	0	0	0	0	0	0	20
8:45 AM	0	17	0	0	0	6	0	0	0	0	0	0	0	0	0	0	23	
TOTAL VOLUMES : APPROACH %'s :	NL 4	NT 84	NR 95.45%	NU 0.00%	SL 0	ST 60	SR 0	SU 0	EL 1	ET 0	ER 2	EU 0	WL 0	WT 0	WR 0	WU 0	TOTAL 151	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL 69	
PEAK HR VOL :	2	41	0	0	0	24	0	0	1	0	1	0	0	0	0	0	0	69
PEAK HR FACTOR :	0.500	0.854	0.000	0.000	0.000	0.600	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.784
	0.896				0.600				0.500									

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND					
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0		
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL	
	4:00 PM	0	6	0	0	0	4	0	0	0	0	0	0	0	0	0	0	10
	4:15 PM	1	7	0	0	0	4	0	0	0	0	0	0	0	0	0	0	11
	4:30 PM	0	7	0	0	0	4	0	0	0	0	0	0	0	0	0	0	11
	4:45 PM	1	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	6
	5:00 PM	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	5
	5:15 PM	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	12
	5:30 PM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6
5:45 PM	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0	0	9	
TOTAL VOLUMES : APPROACH %'s :	NL 2	NT 36	NR 0	NU 0	SL 0	ST 32	SR 0	SU 0	EL 0	ET 0	ER 0	EU 0	WL 0	WT 0	WR 0	WU 0	TOTAL 70	
5.26%	94.74%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%										
PEAK HR :	04:30 PM - 05:30 PM																TOTAL 34	
PEAK HR VOL :	1	15	0	0	0	18	0	0	0	0	0	0	0	0	0	0	0	34
PEAK HR FACTOR :	0.250	0.536	0.000	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.708
	0.571				0.750													

Intersection Turning Movement Count

Location: S Fresno Ave & W Sonora St/452 S Fresno Ave Dwy
City: Stockton
Control: 1-Way Stop(EB)

Project ID: 25-090114-003
Date: 11/18/2025

Data - Bikes

[illegible]

National Data & Surveying Services
Intersection Turning Movement Count

Location: S Fresno Ave & W Sonora St/452 S Fresno Ave Dwy
City: Stockton

Project ID: 25-090114-003
Date: 11/18/2025

Data - Pedestrians (Crosswalks)

NS/EW Streets:	S Fresno Ave		S Fresno Ave		W Sonora St/452 S Fresno Ave Dwy		W Sonora St/452 S Fresno Ave Dwy		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	1	0	1
7:45 AM	0	0	0	0	1	1	1	0	3
8:00 AM	0	0	0	0	0	0	1	0	1
8:15 AM	0	0	0	0	0	0	1	0	1
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	0	0	0	0	1	1	4	0	6
					50.00%	50.00%	100.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	1	1	4	0	6
PEAK HR FACTOR :					0.250	0.250	1.000	0	0.500
					0.250		1.000		

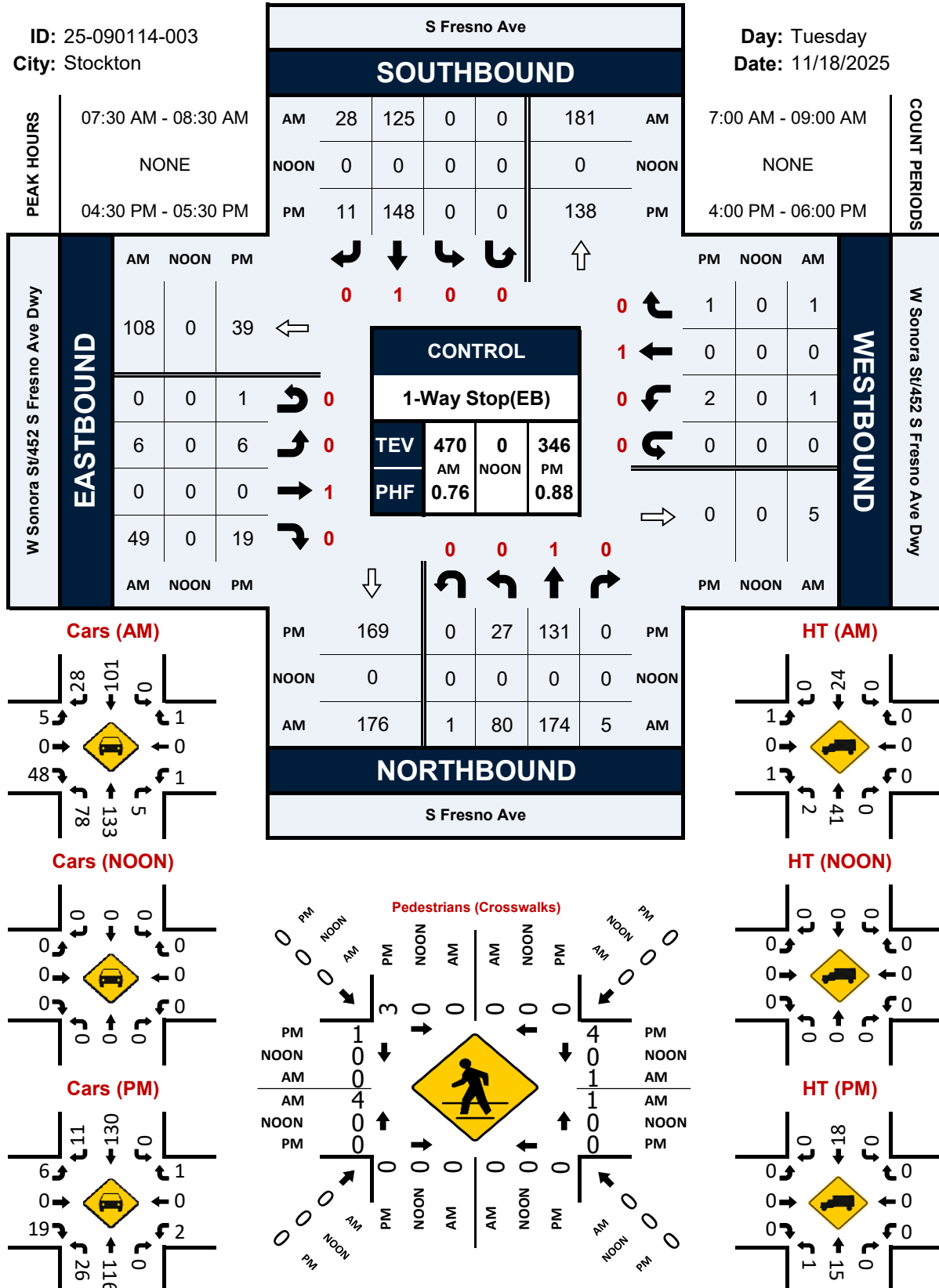
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		TOTAL
	EB	WB	EB	WB	NB	SB	NB	SB	
4:00 PM	0	0	0	0	0	0	0	1	1
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	1	0	1	2
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	3	0	0	0	0	3	0	0	6
5:30 PM	0	0	0	0	0	1	1	0	2
5:45 PM	0	1	0	0	0	1	0	0	2
TOTAL VOLUMES :	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
APPROACH %'s :	3	1	0	0	0	6	1	2	13
	75.00%	25.00%			0.00%	100.00%	33.33%	66.67%	
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	3	0	0	0	0	4	0	1	8
PEAK HR FACTOR :	0.250					0.333		0.250	0.333
	0.250				0.333		0.250		

S Fresno Ave & W Sonora St/452 S Fresno Ave Dwy

Peak Hour Turning Movement Count

ID: 25-090114-003
City: Stockton

Day: Tuesday
Date: 11/18/2025



Appendix B.

Intersection Analysis

Worksheets

Intersection

Int Delay, s/veh 5.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	13	49	2	9	1	78	15	3	0	6	0
Future Vol, veh/h	0	13	49	2	9	1	78	15	3	0	6	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	14	53	2	10	1	85	16	3	0	7	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	11	0	0	67	0	0	58	56	41	37	82	10
Stage 1	-	-	-	-	-	-	41	41	-	15	15	-
Stage 2	-	-	-	-	-	-	17	15	-	22	67	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1622	-	-	1547	-	-	943	839	1036	974	812	1077
Stage 1	-	-	-	-	-	-	979	865	-	1010	887	-
Stage 2	-	-	-	-	-	-	1007	887	-	1001	843	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1622	-	-	1547	-	-	934	838	1036	950	811	1077
Mov Cap-2 Maneuver	-	-	-	-	-	-	934	838	-	950	811	-
Stage 1	-	-	-	-	-	-	979	865	-	1009	886	-
Stage 2	-	-	-	-	-	-	998	886	-	979	843	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	1.22	9.41	9.48
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	921	1622	-	-	294	-	-	811
HCM Lane V/C Ratio	0.113	-	-	-	0.001	-	-	0.008
HCM Ctrl Dly (s/v)	9.4	0	-	-	7.3	0	-	9.5
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0

HCM 7th Signalized Intersection Summary
2: Fresno Ave & Washington St

Existing Conditions (2025)
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	39	54	71	32	2	38	83	93	2	53	4
Future Volume (veh/h)	12	39	54	71	32	2	38	83	93	2	53	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		1.00	0.99		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	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1976	1900	1900	1976	1900	1900	1976	1900	1900	1900	1900
Adj Flow Rate, veh/h	15	48	0	87	39	0	46	101	73	2	65	3
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	152	165	0	279	53	0	275	586	371	103	1019	46
Arrive On Green	0.10	0.10	0.00	0.10	0.10	0.00	0.63	0.63	0.63	0.63	0.63	0.63
Sat Flow, veh/h	334	1580	0	1143	512	0	254	927	587	8	1612	73
Grp Volume(v), veh/h	63	0	0	126	0	0	220	0	0	70	0	0
Grp Sat Flow(s),veh/h/ln	1914	0	0	1655	0	0	1768	0	0	1693	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.1	0.0	0.0	2.7	0.0	0.0	1.9	0.0	0.0	0.6	0.0	0.0
Prop In Lane	0.24		0.00	0.69		0.00	0.21		0.33	0.03		0.04
Lane Grp Cap(c), veh/h	317	0	0	333	0	0	1233	0	0	1168	0	0
V/C Ratio(X)	0.20	0.00	0.00	0.38	0.00	0.00	0.18	0.00	0.00	0.06	0.00	0.00
Avail Cap(c_a), veh/h	1275	0	0	1155	0	0	1233	0	0	1168	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	15.7	0.0	0.0	16.4	0.0	0.0	2.9	0.0	0.0	2.7	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.1	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(95%),veh/ln	0.8	0.0	0.0	1.6	0.0	0.0	0.7	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.8	0.0	0.0	16.6	0.0	0.0	3.2	0.0	0.0	2.8	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h	63			126			220			70		
Approach Delay, s/veh	15.8			16.6			3.2			2.8		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	29.0			9.0			29.0			9.0		
Change Period (Y+Rc), s	5.0			5.0			5.0			5.0		
Max Green Setting (Gmax), s	24.0			24.0			24.0			24.0		
Max Q Clear Time (g_c+I1), s	3.9			4.7			2.6			3.1		
Green Ext Time (p_c), s	4.1			0.4			1.0			0.2		
Intersection Summary												
HCM 7th Control Delay, s/veh	8.4											
HCM 7th LOS	A											

Intersection

Int Delay, s/veh 2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	0	50	1	0	1	83	215	5	0	149	28
Future Vol, veh/h	7	0	50	1	0	1	83	215	5	0	149	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	9	0	66	1	0	1	109	283	7	0	196	37

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	716	722	214	701	738	286	233	0	0	289	0	0
Stage 1	214	214	-	505	505	-	-	-	-	-	-	-
Stage 2	501	508	-	196	233	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	348	355	831	356	348	758	1347	-	-	1284	-	-
Stage 1	792	729	-	553	544	-	-	-	-	-	-	-
Stage 2	556	542	-	810	716	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	314	321	831	296	314	758	1347	-	-	1284	-	-
Mov Cap-2 Maneuver	314	321	-	296	314	-	-	-	-	-	-	-
Stage 1	792	729	-	500	491	-	-	-	-	-	-	-
Stage 2	501	490	-	746	716	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	10.84		13.5		2.17		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	491	-	-	691	426	1284	-
HCM Lane V/C Ratio	0.081	-	-	0.109	0.006	-	-
HCM Ctrl Dly (s/v)	7.9	0	-	10.8	13.5	0	-
HCM Lane LOS	A	A	-	B	B	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.4	0	0	-

Intersection

Int Delay, s/veh 4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	22	38	5	12	0	23	4	4	7	16	0
Future Vol, veh/h	0	22	38	5	12	0	23	4	4	7	16	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	24	42	6	13	0	26	4	4	8	18	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	13	0	0	67	0	0	79	70	46	51	91	13
Stage 1	-	-	-	-	-	-	46	46	-	24	24	-
Stage 2	-	-	-	-	-	-	33	24	-	27	67	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1618	-	-	1548	-	-	915	824	1030	953	803	1073
Stage 1	-	-	-	-	-	-	973	861	-	999	879	-
Stage 2	-	-	-	-	-	-	988	879	-	996	843	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1618	-	-	1548	-	-	891	821	1030	941	800	1073
Mov Cap-2 Maneuver	-	-	-	-	-	-	891	821	-	941	800	-
Stage 1	-	-	-	-	-	-	973	861	-	995	876	-
Stage 2	-	-	-	-	-	-	964	876	-	987	843	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	2.16	9.17	9.43
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	897	1618	-	-	529	-	-	838
HCM Lane V/C Ratio	0.038	-	-	-	0.004	-	-	0.03
HCM Ctrl Dly (s/v)	9.2	0	-	-	7.3	0	-	9.4
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

HCM 7th Signalized Intersection Summary
2: Fresno Ave & Washington St

Existing Conditions (2025)
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	50	42	70	26	1	35	38	71	2	57	2
Future Volume (veh/h)	8	50	42	70	26	1	35	38	71	2	57	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		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	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1976	1900	1900	1976	1900	1900	1976	1900	1900	1900	1900
Adj Flow Rate, veh/h	9	56	3	79	29	0	39	43	45	2	64	1
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	127	146	8	275	39	0	394	439	388	105	1073	16
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.00	0.64	0.64	0.64	0.64	0.64	0.64
Sat Flow, veh/h	199	1648	85	1216	446	0	416	682	603	9	1668	25
Grp Volume(v), veh/h	68	0	0	108	0	0	127	0	0	67	0	0
Grp Sat Flow(s),veh/h/ln	1932	0	0	1662	0	0	1701	0	0	1702	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.2	0.0	0.0	2.3	0.0	0.0	1.0	0.0	0.0	0.5	0.0	0.0
Prop In Lane	0.13		0.04	0.73		0.00	0.31		0.35	0.03		0.01
Lane Grp Cap(c), veh/h	280	0	0	314	0	0	1221	0	0	1194	0	0
V/C Ratio(X)	0.24	0.00	0.00	0.34	0.00	0.00	0.10	0.00	0.00	0.06	0.00	0.00
Avail Cap(c_a), veh/h	1318	0	0	1161	0	0	1221	0	0	1194	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	16.1	0.0	0.0	16.5	0.0	0.0	2.5	0.0	0.0	2.5	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0	0.1	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(95%),veh/ln	0.9	0.0	0.0	1.4	0.0	0.0	0.4	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.2	0.0	0.0	16.7	0.0	0.0	2.7	0.0	0.0	2.6	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h	68			108			127			67		
Approach Delay, s/veh	16.2			16.7			2.7			2.6		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	29.0			8.3			29.0			8.3		
Change Period (Y+Rc), s	5.0			5.0			5.0			5.0		
Max Green Setting (Gmax), s	24.0			24.0			24.0			24.0		
Max Q Clear Time (g_c+I1), s	3.0			4.3			2.5			3.2		
Green Ext Time (p_c), s	2.2			0.3			0.9			0.2		
Intersection Summary												
HCM 7th Control Delay, s/veh	9.3											
HCM 7th LOS	A											

Intersection

Int Delay, s/veh 1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	0	19	2	0	1	28	146	0	0	166	11
Future Vol, veh/h	7	0	19	2	0	1	28	146	0	0	166	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	8	0	22	2	0	1	32	166	0	0	189	13

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	424	424	195	418	431	166	201	0	0	166	0	0
Stage 1	195	195	-	230	230	-	-	-	-	-	-	-
Stage 2	230	230	-	189	201	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	544	525	852	549	520	884	1383	-	-	1424	-	-
Stage 1	812	743	-	778	718	-	-	-	-	-	-	-
Stage 2	778	718	-	818	739	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	529	511	852	521	507	884	1383	-	-	1424	-	-
Mov Cap-2 Maneuver	529	511	-	521	507	-	-	-	-	-	-	-
Stage 1	812	743	-	758	700	-	-	-	-	-	-	-
Stage 2	757	700	-	797	739	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	10.13		11		1.23		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	290	-	-	732 604	1424	-	-
HCM Lane V/C Ratio	0.023	-	-	0.04 0.006	-	-	-
HCM Ctrl Dly (s/v)	7.7	0	-	10.1 11	0	-	-
HCM Lane LOS	A	A	-	B B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1 0	0	-	-

Intersection

Int Delay, s/veh 5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	15	55	5	10	5	85	20	5	0	10	0
Future Vol, veh/h	0	15	55	5	10	5	85	20	5	0	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	16	60	5	11	5	92	22	5	0	11	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	16	0	0	76	0	0	73	73	46	52	101	14
Stage 1	-	-	-	-	-	-	46	46	-	24	24	-
Stage 2	-	-	-	-	-	-	27	27	-	27	76	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1614	-	-	1536	-	-	922	821	1029	953	793	1072
Stage 1	-	-	-	-	-	-	973	860	-	999	879	-
Stage 2	-	-	-	-	-	-	995	877	-	995	836	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1614	-	-	1536	-	-	906	818	1029	919	790	1072
Mov Cap-2 Maneuver	-	-	-	-	-	-	906	818	-	919	790	-
Stage 1	-	-	-	-	-	-	973	860	-	995	876	-
Stage 2	-	-	-	-	-	-	979	873	-	965	836	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	1.84	9.65	9.62
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	894	1614	-	-	422	-	-	790
HCM Lane V/C Ratio	0.134	-	-	-	0.004	-	-	0.014
HCM Ctrl Dly (s/v)	9.7	0	-	-	7.4	0	-	9.6
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0

HCM 7th Signalized Intersection Summary
2: Fresno Ave & Washington St

Background Year without Project Conditions (2031)
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	45	60	80	35	5	45	90	100	5	60	5
Future Volume (veh/h)	15	45	60	80	35	5	45	90	100	5	60	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	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	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1976	1900	1900	1976	1900	1900	1976	1900	1900	1900	1900
Adj Flow Rate, veh/h	18	55	2	98	43	4	55	110	82	6	73	4
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	153	185	6	290	59	5	285	557	362	127	961	50
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.62	0.62	0.62	0.62	0.62	0.62
Sat Flow, veh/h	314	1543	51	1117	490	46	276	897	583	43	1547	81
Grp Volume(v), veh/h	75	0	0	145	0	0	247	0	0	83	0	0
Grp Sat Flow(s),veh/h/ln	1908	0	0	1653	0	0	1757	0	0	1671	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.3	0.0	0.0	3.2	0.0	0.0	2.2	0.0	0.0	0.8	0.0	0.0
Prop In Lane	0.24		0.03	0.68		0.03	0.22		0.33	0.07		0.05
Lane Grp Cap(c), veh/h	345	0	0	355	0	0	1205	0	0	1138	0	0
V/C Ratio(X)	0.22	0.00	0.00	0.41	0.00	0.00	0.20	0.00	0.00	0.07	0.00	0.00
Avail Cap(c_a), veh/h	1247	0	0	1131	0	0	1205	0	0	1138	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	15.6	0.0	0.0	16.3	0.0	0.0	3.2	0.0	0.0	2.9	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	0.0	0.4	0.0	0.0	0.1	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(95%),veh/ln	1.0	0.0	0.0	1.9	0.0	0.0	0.9	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.7	0.0	0.0	16.6	0.0	0.0	3.6	0.0	0.0	3.0	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		75			145			247			83	
Approach Delay, s/veh		15.7			16.6			3.6			3.0	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		29.0		9.6		29.0		9.6				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		24.0		24.0		24.0		24.0				
Max Q Clear Time (g_c+l1), s		4.2		5.2		2.8		3.3				
Green Ext Time (p_c), s		4.6		0.5		1.2		0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh			8.6									
HCM 7th LOS			A									

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	55	5	0	5	90	230	10	0	160	30
Future Vol, veh/h	10	0	55	5	0	5	90	230	10	0	160	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	0	72	7	0	7	118	303	13	0	211	39
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	770	783	230	757	796	309	250	0	0	316	0	0
Stage 1	230	230	-	546	546	-	-	-	-	-	-	-
Stage 2	539	553	-	211	250	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	320	328	814	327	322	736	1327	-	-	1256	-	-
Stage 1	777	718	-	526	521	-	-	-	-	-	-	-
Stage 2	530	518	-	796	704	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	283	292	814	265	287	736	1327	-	-	1256	-	-
Mov Cap-2 Maneuver	283	292	-	265	287	-	-	-	-	-	-	-
Stage 1	777	718	-	469	465	-	-	-	-	-	-	-
Stage 2	468	462	-	725	704	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	11.59		14.55		2.18		0					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	487	-	-	632	390	1256	-	-				
HCM Lane V/C Ratio	0.089	-	-	0.135	0.034	-	-	-				
HCM Ctrl Dly (s/v)	8	0	-	11.6	14.6	0	-	-				
HCM Lane LOS	A	A	-	B	B	A	-	-				
HCM 95th %tile Q(veh)	0.3	-	-	0.5	0.1	0	-	-				

Intersection

Int Delay, s/veh 4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	25	45	10	15	0	25	5	5	10	20	0
Future Vol, veh/h	0	25	45	10	15	0	25	5	5	10	20	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	28	50	11	17	0	28	6	6	11	22	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	17	0	0	78	0	0	103	92	53	69	117	17
Stage 1	-	-	-	-	-	-	53	53	-	39	39	-
Stage 2	-	-	-	-	-	-	50	39	-	31	78	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1614	-	-	1534	-	-	883	802	1020	928	777	1068
Stage 1	-	-	-	-	-	-	965	855	-	981	867	-
Stage 2	-	-	-	-	-	-	968	867	-	991	834	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1614	-	-	1534	-	-	851	796	1020	909	772	1068
Mov Cap-2 Maneuver	-	-	-	-	-	-	851	796	-	909	772	-
Stage 1	-	-	-	-	-	-	965	855	-	974	860	-
Stage 2	-	-	-	-	-	-	936	860	-	979	834	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	2.95	9.37	9.62
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	863	1614	-	-	720	-	-	813
HCM Lane V/C Ratio	0.045	-	-	-	0.007	-	-	0.041
HCM Ctrl Dly (s/v)	9.4	0	-	-	7.4	0	-	9.6
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

HCM 7th Signalized Intersection Summary
2: Fresno Ave & Washington St

Background Year without Project Conditions (2031)
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	55	45	75	30	5	40	45	80	5	65	5
Future Volume (veh/h)	10	55	45	75	30	5	40	45	80	5	65	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	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	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1976	1900	1900	1976	1900	1900	1976	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	62	4	84	34	4	45	51	52	6	73	5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	129	163	10	276	47	5	385	439	379	129	973	63
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.64	0.64	0.64	0.64	0.64	0.64
Sat Flow, veh/h	199	1628	100	1148	465	55	410	692	597	42	1531	100
Grp Volume(v), veh/h	77	0	0	122	0	0	148	0	0	84	0	0
Grp Sat Flow(s),veh/h/ln	1927	0	0	1668	0	0	1698	0	0	1673	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	2.6	0.0	0.0	1.2	0.0	0.0	0.7	0.0	0.0
Prop In Lane	0.14		0.05	0.69		0.03	0.30		0.35	0.07		0.06
Lane Grp Cap(c), veh/h	302	0	0	328	0	0	1203	0	0	1165	0	0
V/C Ratio(X)	0.26	0.00	0.00	0.37	0.00	0.00	0.12	0.00	0.00	0.07	0.00	0.00
Avail Cap(c_a), veh/h	1296	0	0	1148	0	0	1203	0	0	1165	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	15.9	0.0	0.0	16.4	0.0	0.0	2.7	0.0	0.0	2.6	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.1	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(95%),veh/ln	1.0	0.0	0.0	1.6	0.0	0.0	0.5	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.1	0.0	0.0	16.7	0.0	0.0	2.9	0.0	0.0	2.8	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		77			122			148			84	
Approach Delay, s/veh		16.1			16.7			2.9			2.8	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		29.0		8.8		29.0		8.8				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		24.0		24.0		24.0		24.0				
Max Q Clear Time (g_c+I1), s		3.2		4.6		2.7		3.4				
Green Ext Time (p_c), s		2.6		0.4		1.3		0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh			9.1									
HCM 7th LOS			A									

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	25	5	0	5	30	155	0	0	180	15
Future Vol, veh/h	10	0	25	5	0	5	30	155	0	0	180	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	0	28	6	0	6	34	176	0	0	205	17

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	457	457	213	449	466	176	222	0	0	176	0	0
Stage 1	213	213	-	244	244	-	-	-	-	-	-	-
Stage 2	244	244	-	205	222	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	517	503	832	524	497	872	1359	-	-	1412	-	-
Stage 1	794	730	-	764	708	-	-	-	-	-	-	-
Stage 2	764	708	-	802	724	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	499	489	832	492	483	872	1359	-	-	1412	-	-
Mov Cap-2 Maneuver	499	489	-	492	483	-	-	-	-	-	-	-
Stage 1	794	730	-	743	688	-	-	-	-	-	-	-
Stage 2	738	688	-	775	724	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	10.46		10.83		1.25		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	292	-	-	699	629	1412	-
HCM Lane V/C Ratio	0.025	-	-	0.057	0.018	-	-
HCM Ctrl Dly (s/v)	7.7	0	-	10.5	10.8	0	-
HCM Lane LOS	A	A	-	B	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-

Intersection

Int Delay, s/veh 5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	16	59	5	10	5	89	20	5	0	10	0
Future Vol, veh/h	0	16	59	5	10	5	89	20	5	0	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	17	64	5	11	5	97	22	5	0	11	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	16	0	0	82	0	0	77	77	49	53	106	14
Stage 1	-	-	-	-	-	-	49	49	-	24	24	-
Stage 2	-	-	-	-	-	-	27	27	-	28	82	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1614	-	-	1529	-	-	918	818	1025	951	788	1072
Stage 1	-	-	-	-	-	-	969	858	-	999	879	-
Stage 2	-	-	-	-	-	-	995	877	-	994	831	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1614	-	-	1529	-	-	902	815	1025	917	785	1072
Mov Cap-2 Maneuver	-	-	-	-	-	-	902	815	-	917	785	-
Stage 1	-	-	-	-	-	-	969	858	-	995	876	-
Stage 2	-	-	-	-	-	-	979	873	-	964	831	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	1.84	9.7	9.65
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	890	1614	-	-	422	-	-	785
HCM Lane V/C Ratio	0.139	-	-	-	0.004	-	-	0.014
HCM Ctrl Dly (s/v)	9.7	0	-	-	7.4	0	-	9.7
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0

HCM 7th Signalized Intersection Summary
2: Fresno Ave & Washington St

Background Year with Project Conditions (2031)
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	45	60	80	35	5	45	94	100	5	64	5
Future Volume (veh/h)	15	45	60	80	35	5	45	94	100	5	64	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	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	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1976	1900	1900	1976	1900	1900	1976	1900	1900	1900	1900
Adj Flow Rate, veh/h	18	55	2	98	43	4	55	115	83	6	78	4
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	153	185	6	290	59	5	279	568	359	124	968	47
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.62	0.62	0.62	0.62	0.62	0.62
Sat Flow, veh/h	314	1543	51	1117	490	46	267	915	577	39	1559	76
Grp Volume(v), veh/h	75	0	0	145	0	0	253	0	0	88	0	0
Grp Sat Flow(s),veh/h/ln	1908	0	0	1653	0	0	1760	0	0	1674	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.3	0.0	0.0	3.2	0.0	0.0	2.3	0.0	0.0	0.8	0.0	0.0
Prop In Lane	0.24		0.03	0.68		0.03	0.22		0.33	0.07		0.05
Lane Grp Cap(c), veh/h	345	0	0	355	0	0	1206	0	0	1139	0	0
V/C Ratio(X)	0.22	0.00	0.00	0.41	0.00	0.00	0.21	0.00	0.00	0.08	0.00	0.00
Avail Cap(c_a), veh/h	1247	0	0	1131	0	0	1206	0	0	1139	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	15.6	0.0	0.0	16.3	0.0	0.0	3.2	0.0	0.0	2.9	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	0.0	0.4	0.0	0.0	0.1	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(95%),veh/ln	1.0	0.0	0.0	1.9	0.0	0.0	1.0	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.7	0.0	0.0	16.6	0.0	0.0	3.6	0.0	0.0	3.1	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h	75			145			253			88		
Approach Delay, s/veh	15.7			16.6			3.6			3.1		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	29.0			9.6			29.0			9.6		
Change Period (Y+Rc), s	5.0			5.0			5.0			5.0		
Max Green Setting (Gmax), s	24.0			24.0			24.0			24.0		
Max Q Clear Time (g_c+11), s	4.3			5.2			2.8			3.3		
Green Ext Time (p_c), s	4.7			0.5			1.3			0.2		
Intersection Summary												
HCM 7th Control Delay, s/veh	8.5											
HCM 7th LOS	A											

Intersection

Int Delay, s/veh 2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	55	5	0	5	90	234	10	0	164	30
Future Vol, veh/h	10	0	55	5	0	5	90	234	10	0	164	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	0	72	7	0	7	118	308	13	0	216	39

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	780	793	236	767	807	314	255	0	0	321	0	0
Stage 1	236	236	-	551	551	-	-	-	-	-	-	-
Stage 2	545	558	-	216	255	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	315	323	808	321	318	731	1321	-	-	1250	-	-
Stage 1	772	714	-	522	518	-	-	-	-	-	-	-
Stage 2	526	515	-	791	700	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	278	288	808	261	283	731	1321	-	-	1250	-	-
Mov Cap-2 Maneuver	278	288	-	261	283	-	-	-	-	-	-	-
Stage 1	772	714	-	465	462	-	-	-	-	-	-	-
Stage 2	465	459	-	720	700	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	11.67		14.7		2.15		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	481	-	-	625 384	1250	-	-
HCM Lane V/C Ratio	0.09	-	-	0.137 0.034	-	-	-
HCM Ctrl Dly (s/v)	8	0	-	11.7 14.7	0	-	-
HCM Lane LOS	A	A	-	B B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.5 0.1	0	-	-

Intersection

Int Delay, s/veh 4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	26	50	10	16	0	29	5	5	10	20	0
Future Vol, veh/h	0	26	50	10	16	0	29	5	5	10	20	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	29	56	11	18	0	32	6	6	11	22	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	18	0	0	84	0	0	108	97	57	72	124	18
Stage 1	-	-	-	-	-	-	57	57	-	40	40	-
Stage 2	-	-	-	-	-	-	51	40	-	32	84	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1612	-	-	1525	-	-	876	797	1015	924	770	1067
Stage 1	-	-	-	-	-	-	960	852	-	980	866	-
Stage 2	-	-	-	-	-	-	967	866	-	990	829	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1612	-	-	1525	-	-	844	791	1015	906	764	1067
Mov Cap-2 Maneuver	-	-	-	-	-	-	844	791	-	906	764	-
Stage 1	-	-	-	-	-	-	960	852	-	973	859	-
Stage 2	-	-	-	-	-	-	935	859	-	978	829	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	2.84	9.43	9.66
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	856	1612	-	-	692	-	-	806
HCM Lane V/C Ratio	0.051	-	-	-	0.007	-	-	0.041
HCM Ctrl Dly (s/v)	9.4	0	-	-	7.4	0	-	9.7
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

HCM 7th Signalized Intersection Summary
2: Fresno Ave & Washington St

Background Year with Project Conditions (2031)
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	55	45	75	30	5	40	49	80	5	70	5
Future Volume (veh/h)	10	55	45	75	30	5	40	49	80	5	70	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	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	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1976	1900	1900	1976	1900	1900	1976	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	62	4	84	34	4	45	55	52	6	79	5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	129	163	10	276	47	5	375	460	370	126	982	59
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.64	0.64	0.64	0.64	0.64	0.64
Sat Flow, veh/h	199	1628	100	1148	465	55	397	724	583	38	1545	93
Grp Volume(v), veh/h	77	0	0	122	0	0	152	0	0	90	0	0
Grp Sat Flow(s),veh/h/ln	1927	0	0	1668	0	0	1703	0	0	1676	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	2.6	0.0	0.0	1.2	0.0	0.0	0.8	0.0	0.0
Prop In Lane	0.14		0.05	0.69		0.03	0.30		0.34	0.07		0.06
Lane Grp Cap(c), veh/h	302	0	0	328	0	0	1205	0	0	1166	0	0
V/C Ratio(X)	0.26	0.00	0.00	0.37	0.00	0.00	0.13	0.00	0.00	0.08	0.00	0.00
Avail Cap(c_a), veh/h	1296	0	0	1148	0	0	1205	0	0	1166	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	15.9	0.0	0.0	16.4	0.0	0.0	2.7	0.0	0.0	2.7	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.1	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(95%),veh/ln	1.0	0.0	0.0	1.6	0.0	0.0	0.5	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.1	0.0	0.0	16.7	0.0	0.0	3.0	0.0	0.0	2.8	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h	77			122			152			90		
Approach Delay, s/veh	16.1			16.7			3.0			2.8		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	29.0			8.8			29.0			8.8		
Change Period (Y+Rc), s	5.0			5.0			5.0			5.0		
Max Green Setting (Gmax), s	24.0			24.0			24.0			24.0		
Max Q Clear Time (g_c+I1), s	3.2			4.6			2.8			3.4		
Green Ext Time (p_c), s	2.7			0.4			1.4			0.2		
Intersection Summary												
HCM 7th Control Delay, s/veh	9.0											
HCM 7th LOS	A											

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	0	25	5	0	5	30	159	0	0	185	15
Future Vol, veh/h	10	0	25	5	0	5	30	159	0	0	185	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	0	28	6	0	6	34	181	0	0	210	17
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	468	468	219	459	476	181	227	0	0	181	0	0
Stage 1	219	219	-	249	249	-	-	-	-	-	-	-
Stage 2	249	249	-	210	227	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	509	496	826	516	491	867	1353	-	-	1407	-	-
Stage 1	788	726	-	760	704	-	-	-	-	-	-	-
Stage 2	760	704	-	796	720	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	491	482	826	484	477	867	1353	-	-	1407	-	-
Mov Cap-2 Maneuver	491	482	-	484	477	-	-	-	-	-	-	-
Stage 1	788	726	-	738	685	-	-	-	-	-	-	-
Stage 2	733	685	-	769	720	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	10.52		10.9		1.23		0					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	286	-	-	692	621	1407	-	-				
HCM Lane V/C Ratio	0.025	-	-	0.058	0.018	-	-	-				
HCM Ctrl Dly (s/v)	7.7	0	-	10.5	10.9	0	-	-				
HCM Lane LOS	A	A	-	B	B	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-	-				

Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	20	60	5	15	5	100	20	5	0	10	0
Future Vol, veh/h	0	20	60	5	15	5	100	20	5	0	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	22	65	5	16	5	109	22	5	0	11	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	22	0	0	87	0	0	87	87	54	63	117	19
Stage 1	-	-	-	-	-	-	54	54	-	30	30	-
Stage 2	-	-	-	-	-	-	33	33	-	33	87	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1607	-	-	1522	-	-	904	807	1018	937	777	1065
Stage 1	-	-	-	-	-	-	963	854	-	992	874	-
Stage 2	-	-	-	-	-	-	989	872	-	989	827	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1607	-	-	1522	-	-	888	804	1018	904	774	1065
Mov Cap-2 Maneuver	-	-	-	-	-	-	888	804	-	904	774	-
Stage 1	-	-	-	-	-	-	963	854	-	988	871	-
Stage 2	-	-	-	-	-	-	973	869	-	958	827	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0			1.47			9.85			9.72		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	878	1607	-	-	343	-	-	774				
HCM Lane V/C Ratio	0.155	-	-	-	0.004	-	-	0.014				
HCM Ctrl Dly (s/v)	9.9	0	-	-	7.4	0	-	9.7				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0				

HCM 7th Signalized Intersection Summary
2: Fresno Ave & Washington St

Cumulative Year without Project Conditions (2045)
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	50	70	90	40	5	50	105	115	5	65	5
Future Volume (veh/h)	15	50	70	90	40	5	50	105	115	5	65	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	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	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1976	1900	1900	1976	1900	1900	1976	1900	1900	1900	1900
Adj Flow Rate, veh/h	18	61	7	110	49	4	61	128	100	6	79	4
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	145	201	21	303	67	5	267	546	372	121	953	46
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.61	0.61	0.61	0.61	0.61	0.61
Sat Flow, veh/h	253	1494	155	1108	500	40	256	894	608	38	1560	75
Grp Volume(v), veh/h	86	0	0	163	0	0	289	0	0	89	0	0
Grp Sat Flow(s),veh/h/ln	1902	0	0	1649	0	0	1758	0	0	1673	0	0
Q Serve(g_s), s	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.6	0.0	0.0	3.6	0.0	0.0	2.8	0.0	0.0	0.8	0.0	0.0
Prop In Lane	0.21		0.08	0.67		0.02	0.21		0.35	0.07		0.04
Lane Grp Cap(c), veh/h	367	0	0	376	0	0	1185	0	0	1119	0	0
V/C Ratio(X)	0.23	0.00	0.00	0.43	0.00	0.00	0.24	0.00	0.00	0.08	0.00	0.00
Avail Cap(c_a), veh/h	1224	0	0	1109	0	0	1185	0	0	1119	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	15.4	0.0	0.0	16.2	0.0	0.0	3.5	0.0	0.0	3.1	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	0.0	0.5	0.0	0.0	0.1	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(95%),veh/ln	1.1	0.0	0.0	2.2	0.0	0.0	1.3	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.5	0.0	0.0	16.5	0.0	0.0	4.0	0.0	0.0	3.3	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		86			163			289			89	
Approach Delay, s/veh		15.5			16.5			4.0			3.3	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		29.0		10.3		29.0		10.3				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		24.0		24.0		24.0		24.0				
Max Q Clear Time (g_c+I1), s		4.8		5.6		2.8		3.6				
Green Ext Time (p_c), s		5.4		0.5		1.4		0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh			8.7									
HCM 7th LOS			A									

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	0	65	5	0	5	105	265	10	0	185	35
Future Vol, veh/h	10	0	65	5	0	5	105	265	10	0	185	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	0	86	7	0	7	138	349	13	0	243	46
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	891	905	266	875	921	355	289	0	0	362	0	0
Stage 1	266	266	-	632	632	-	-	-	-	-	-	-
Stage 2	625	638	-	243	289	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	265	279	777	272	273	693	1284	-	-	1208	-	-
Stage 1	743	692	-	472	477	-	-	-	-	-	-	-
Stage 2	476	474	-	765	676	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	227	241	777	209	236	693	1284	-	-	1208	-	-
Mov Cap-2 Maneuver	227	241	-	209	236	-	-	-	-	-	-	-
Stage 1	743	692	-	408	413	-	-	-	-	-	-	-
Stage 2	408	410	-	681	676	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	12.36		16.67		2.25		0					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	494	-	-	587	322	1208	-	-				
HCM Lane V/C Ratio	0.108	-	-	0.168	0.041	-	-	-				
HCM Ctrl Dly (s/v)	8.1	0	-	12.4	16.7	0	-	-				
HCM Lane LOS	A	A	-	B	C	A	-	-				
HCM 95th %tile Q(veh)	0.4	-	-	0.6	0.1	0	-	-				

Intersection

Int Delay, s/veh 4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	30	50	10	15	0	30	5	5	10	20	0
Future Vol, veh/h	0	30	50	10	15	0	30	5	5	10	20	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	33	56	11	17	0	33	6	6	11	22	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	17	0	0	89	0	0	111	100	61	75	128	17
Stage 1	-	-	-	-	-	-	61	61	-	39	39	-
Stage 2	-	-	-	-	-	-	50	39	-	36	89	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1614	-	-	1519	-	-	872	794	1010	920	766	1068
Stage 1	-	-	-	-	-	-	955	848	-	981	867	-
Stage 2	-	-	-	-	-	-	968	867	-	985	825	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1614	-	-	1519	-	-	840	788	1010	902	761	1068
Mov Cap-2 Maneuver	-	-	-	-	-	-	840	788	-	902	761	-
Stage 1	-	-	-	-	-	-	955	848	-	974	860	-
Stage 2	-	-	-	-	-	-	936	860	-	973	825	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	2.95	9.46	9.68
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	851	1614	-	-	720	-	-	803
HCM Lane V/C Ratio	0.052	-	-	-	0.007	-	-	0.042
HCM Ctrl Dly (s/v)	9.5	0	-	-	7.4	0	-	9.7
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

HCM 7th Signalized Intersection Summary
2: Fresno Ave & Washington St

Cumulative Year without Project Conditions (2045)
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	65	55	90	35	5	45	50	90	5	70	5
Future Volume (veh/h)	10	65	55	90	35	5	45	50	90	5	70	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	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	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1976	1900	1900	1976	1900	1900	1976	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	73	9	101	39	4	51	56	56	6	79	5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	121	188	22	297	53	5	386	427	362	123	962	58
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.62	0.62	0.62	0.62	0.62	0.62
Sat Flow, veh/h	144	1591	186	1163	449	46	424	687	581	38	1545	93
Grp Volume(v), veh/h	93	0	0	144	0	0	163	0	0	90	0	0
Grp Sat Flow(s),veh/h/ln	1921	0	0	1658	0	0	1692	0	0	1676	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0	3.1	0.0	0.0	1.4	0.0	0.0	0.8	0.0	0.0
Prop In Lane	0.12		0.10	0.70		0.03	0.31		0.34	0.07		0.06
Lane Grp Cap(c), veh/h	332	0	0	355	0	0	1175	0	0	1142	0	0
V/C Ratio(X)	0.28	0.00	0.00	0.41	0.00	0.00	0.14	0.00	0.00	0.08	0.00	0.00
Avail Cap(c_a), veh/h	1268	0	0	1117	0	0	1175	0	0	1142	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	15.7	0.0	0.0	16.3	0.0	0.0	3.0	0.0	0.0	2.9	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.1	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(95%),veh/ln	1.2	0.0	0.0	1.9	0.0	0.0	0.6	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.9	0.0	0.0	16.5	0.0	0.0	3.3	0.0	0.0	3.0	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h	93			144			163			90		
Approach Delay, s/veh	15.9			16.5			3.3			3.0		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	29.0			9.6			29.0			9.6		
Change Period (Y+Rc), s	5.0			5.0			5.0			5.0		
Max Green Setting (Gmax), s	24.0			24.0			24.0			24.0		
Max Q Clear Time (g_c+I1), s	3.4			5.1			2.8			3.7		
Green Ext Time (p_c), s	2.9			0.5			1.4			0.3		
Intersection Summary												
HCM 7th Control Delay, s/veh	9.5											
HCM 7th LOS	A											

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	25	5	0	5	35	180	0	0	205	15
Future Vol, veh/h	10	0	25	5	0	5	35	180	0	0	205	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	0	28	6	0	6	40	205	0	0	233	17

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	526	526	241	517	534	205	250	0	0	205	0	0
Stage 1	241	241	-	284	284	-	-	-	-	-	-	-
Stage 2	284	284	-	233	250	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	466	460	802	472	455	841	1327	-	-	1379	-	-
Stage 1	767	710	-	727	680	-	-	-	-	-	-	-
Stage 2	727	680	-	775	704	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	447	444	802	440	440	841	1327	-	-	1379	-	-
Mov Cap-2 Maneuver	447	444	-	440	440	-	-	-	-	-	-	-
Stage 1	767	710	-	703	657	-	-	-	-	-	-	-
Stage 2	698	657	-	747	704	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	10.86		11.36		1.27		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	293	-	-	654	578	1379	-
HCM Lane V/C Ratio	0.03	-	-	0.061	0.02	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	10.9	11.4	0	-
HCM Lane LOS	A	A	-	B	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-

Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	21	73	5	17	5	118	20	5	0	10	0
Future Vol, veh/h	0	21	73	5	17	5	118	20	5	0	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	23	79	5	18	5	128	22	5	0	11	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	24	0	0	102	0	0	97	97	63	66	134	21
Stage 1	-	-	-	-	-	-	63	63	-	32	32	-
Stage 2	-	-	-	-	-	-	35	35	-	34	102	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1604	-	-	1503	-	-	890	797	1008	933	760	1062
Stage 1	-	-	-	-	-	-	954	847	-	989	872	-
Stage 2	-	-	-	-	-	-	986	870	-	987	814	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1604	-	-	1503	-	-	874	794	1008	899	757	1062
Mov Cap-2 Maneuver	-	-	-	-	-	-	874	794	-	899	757	-
Stage 1	-	-	-	-	-	-	954	847	-	986	869	-
Stage 2	-	-	-	-	-	-	970	867	-	957	814	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0			1.37			10.07			9.82		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	866	1604	-	-	319	-	-	757				
HCM Lane V/C Ratio	0.18	-	-	-	0.004	-	-	0.014				
HCM Ctrl Dly (s/v)	10.1	0	-	-	7.4	0	-	9.8				
HCM Lane LOS	B	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.7	0	-	-	0	-	-	0				

HCM 7th Signalized Intersection Summary
2: Fresno Ave & Washington St

Cumulative Year with Project Conditions (2045)
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	50	70	90	40	5	50	123	115	5	78	5
Future Volume (veh/h)	15	50	70	90	40	5	50	123	115	5	78	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		0.99	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	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1976	1900	1900	1976	1900	1900	1976	1900	1900	1900	1900
Adj Flow Rate, veh/h	18	61	7	110	49	4	61	150	103	6	95	4
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	145	201	21	303	67	5	249	587	355	114	969	39
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.61	0.61	0.61	0.61	0.61	0.61
Sat Flow, veh/h	253	1494	155	1108	500	40	228	962	581	28	1587	64
Grp Volume(v), veh/h	86	0	0	163	0	0	314	0	0	105	0	0
Grp Sat Flow(s),veh/h/ln	1902	0	0	1649	0	0	1770	0	0	1680	0	0
Q Serve(g_s), s	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.6	0.0	0.0	3.6	0.0	0.0	3.1	0.0	0.0	1.0	0.0	0.0
Prop In Lane	0.21		0.08	0.67		0.02	0.19		0.33	0.06		0.04
Lane Grp Cap(c), veh/h	367	0	0	376	0	0	1191	0	0	1123	0	0
V/C Ratio(X)	0.23	0.00	0.00	0.43	0.00	0.00	0.26	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	1224	0	0	1109	0	0	1191	0	0	1123	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	15.4	0.0	0.0	16.2	0.0	0.0	3.6	0.0	0.0	3.2	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	0.0	0.5	0.0	0.0	0.2	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(95%),veh/ln	1.1	0.0	0.0	2.2	0.0	0.0	1.4	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.5	0.0	0.0	16.5	0.0	0.0	4.1	0.0	0.0	3.3	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		86			163			314			105	
Approach Delay, s/veh		15.5			16.5			4.1			3.3	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		29.0		10.3		29.0		10.3				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		24.0		24.0		24.0		24.0				
Max Q Clear Time (g_c+l1), s		5.1		5.6		3.0		3.6				
Green Ext Time (p_c), s		5.9		0.5		1.7		0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh			8.5									
HCM 7th LOS			A									

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	0	65	5	0	5	105	283	10	0	198	35
Future Vol, veh/h	10	0	65	5	0	5	105	283	10	0	198	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	0	86	7	0	7	138	372	13	0	261	46
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	932	945	284	916	962	379	307	0	0	386	0	0
Stage 1	284	284	-	655	655	-	-	-	-	-	-	-
Stage 2	649	662	-	261	307	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	249	264	760	255	258	672	1266	-	-	1184	-	-
Stage 1	728	680	-	458	466	-	-	-	-	-	-	-
Stage 2	462	462	-	749	665	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	212	227	760	195	222	672	1266	-	-	1184	-	-
Mov Cap-2 Maneuver	212	227	-	195	222	-	-	-	-	-	-	-
Stage 1	728	680	-	394	401	-	-	-	-	-	-	-
Stage 2	394	398	-	665	665	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Ctrl Dly, s/v	12.71		17.45		2.16		0					
HCM LOS	B		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	472	-	-	565	302	1184	-	-				
HCM Lane V/C Ratio	0.109	-	-	0.175	0.044	-	-	-				
HCM Ctrl Dly (s/v)	8.2	0	-	12.7	17.4	0	-	-				
HCM Lane LOS	A	A	-	B	C	A	-	-				
HCM 95th %tile Q(veh)	0.4	-	-	0.6	0.1	0	-	-				

Intersection

Int Delay, s/veh 4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	32	65	10	16	0	43	5	5	10	20	0
Future Vol, veh/h	0	32	65	10	16	0	43	5	5	10	20	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	36	72	11	18	0	48	6	6	11	22	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	18	0	0	108	0	0	123	112	72	78	148	18
Stage 1	-	-	-	-	-	-	72	72	-	40	40	-
Stage 2	-	-	-	-	-	-	51	40	-	38	108	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1612	-	-	1496	-	-	857	782	996	915	747	1067
Stage 1	-	-	-	-	-	-	943	839	-	980	866	-
Stage 2	-	-	-	-	-	-	967	866	-	982	810	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1612	-	-	1496	-	-	825	776	996	897	742	1067
Mov Cap-2 Maneuver	-	-	-	-	-	-	825	776	-	897	742	-
Stage 1	-	-	-	-	-	-	943	839	-	973	859	-
Stage 2	-	-	-	-	-	-	935	859	-	970	810	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	2.86	9.65	9.78
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	833	1612	-	-	692	-	-	787
HCM Lane V/C Ratio	0.071	-	-	-	0.007	-	-	0.042
HCM Ctrl Dly (s/v)	9.6	0	-	-	7.4	0	-	9.8
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

HCM 7th Signalized Intersection Summary
2: Fresno Ave & Washington St

Cumulative Year with Project Conditions (2045)
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	65	55	90	35	5	45	63	90	5	85	5
Future Volume (veh/h)	10	65	55	90	35	5	45	63	90	5	85	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	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	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1976	1900	1900	1976	1900	1900	1976	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	73	9	101	39	4	51	71	59	6	96	5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	121	188	22	297	53	5	351	486	347	116	981	49
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.62	0.62	0.62	0.62	0.62	0.62
Sat Flow, veh/h	144	1591	186	1163	449	46	372	780	557	28	1576	79
Grp Volume(v), veh/h	93	0	0	144	0	0	181	0	0	107	0	0
Grp Sat Flow(s),veh/h/ln	1921	0	0	1658	0	0	1710	0	0	1682	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.7	0.0	0.0	3.1	0.0	0.0	1.6	0.0	0.0	1.0	0.0	0.0
Prop In Lane	0.12		0.10	0.70		0.03	0.28		0.33	0.06		0.05
Lane Grp Cap(c), veh/h	332	0	0	355	0	0	1184	0	0	1145	0	0
V/C Ratio(X)	0.28	0.00	0.00	0.41	0.00	0.00	0.15	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	1268	0	0	1117	0	0	1184	0	0	1145	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	15.7	0.0	0.0	16.3	0.0	0.0	3.0	0.0	0.0	2.9	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.2	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(95%),veh/ln	1.2	0.0	0.0	1.9	0.0	0.0	0.7	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.9	0.0	0.0	16.5	0.0	0.0	3.3	0.0	0.0	3.1	0.0	0.0
LnGrp LOS	B		B		A		A					
Approach Vol, veh/h	93				144		181				107	
Approach Delay, s/veh	15.9				16.5		3.3				3.1	
Approach LOS	B				B		A				A	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	29.0		9.6		29.0		9.6					
Change Period (Y+Rc), s	5.0		5.0		5.0		5.0					
Max Green Setting (Gmax), s	24.0		24.0		24.0		24.0					
Max Q Clear Time (g_c+I1), s	3.6		5.1		3.0		3.7					
Green Ext Time (p_c), s	3.3		0.5		1.7		0.3					
Intersection Summary												
HCM 7th Control Delay, s/veh			9.1									
HCM 7th LOS			A									

Intersection

Int Delay, s/veh 1.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	25	5	0	5	35	193	0	0	220	15
Future Vol, veh/h	10	0	25	5	0	5	35	193	0	0	220	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	0	28	6	0	6	40	219	0	0	250	17

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	557	557	259	549	566	219	267	0	0	219	0	0
Stage 1	259	259	-	299	299	-	-	-	-	-	-	-
Stage 2	299	299	-	250	267	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	444	441	785	450	436	825	1308	-	-	1362	-	-
Stage 1	751	698	-	714	670	-	-	-	-	-	-	-
Stage 2	714	670	-	759	692	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	425	426	785	418	421	825	1308	-	-	1362	-	-
Mov Cap-2 Maneuver	425	426	-	418	421	-	-	-	-	-	-	-
Stage 1	751	698	-	690	647	-	-	-	-	-	-	-
Stage 2	685	647	-	731	692	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	11.07	11.62	1.2	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	276	-	-	632	555	1362	-
HCM Lane V/C Ratio	0.03	-	-	0.063	0.02	-	-
HCM Ctrl Dly (s/v)	7.8	0	-	11.1	11.6	0	-
HCM Lane LOS	A	A	-	B	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-

Memo

Date: August 7, 2026

To: Lena DeSantis, Anchor QEA, Inc.

From: Diwu Zhou P.E. and Yunjie Luo

Subject: Nevada Cement Company Terminal Redevelopment – Construction Scenario Addendum

An addendum Transportation Impact Analysis (TIA) was prepared to assess traffic operations impacts associated with the construction phase of the Project. Under the Project construction scenario, all of the study intersections operate at LOS D or better, therefore none of the intersections would operate deficiently. Additionally, all of the study intersections have adequate vehicle queue storage lengths under the Project construction scenario.

Background

In January 2026, Fehr & Peers completed the TIA for the Nevada Cement Company Terminal Redevelopment Project (“Project”), located within the East Complex at the Port of Stockton. The TIA satisfied the requirements documented in the City of Stockton Transportation Impact Analysis Guidelines (TIA Guidelines), including a California Environmental Quality Act (CEQA) Transportation Study and a Local Transportation Study.

The January 2026 Local Transportation Study included a traffic operations analysis under the following scenarios:

Scenario 1: *Existing Conditions* – Existing traffic volumes collected in November 2025.

Scenario 2: *Background Year (2031) without Project Conditions* – Projected traffic volumes and near-term roadway improvements expected to occur by the time the proposed project would be operational, without development of the Project.

Scenario 3: *Background Year (2031) with Project Conditions* – Projected background traffic volumes and near-term roadway improvements from Scenario 2 plus traffic generated by the proposed Project under opening year conditions.

Scenario 4: *Cumulative Year (2045) without Project Conditions* – Projected traffic volumes and future roadway improvements based on the City’s Travel Demand Model under General Plan (2040) Buildout Conditions, interpolated to 2045 cumulative year condition, without development of the Project.

Scenario 5: *Cumulative Year (2045) with Project Conditions* – Projected cumulative traffic volumes and future roadway improvements from Scenario 4 plus traffic generated by the proposed Project under build-out conditions.

However, the report did not include an analysis scenario covering the construction phase of the Project. This memorandum provides a traffic operations analysis of the Project under the construction scenario and serves as an addendum to the previous TIA. For a complete description of the Project, study area, existing conditions, and traffic analysis, please refer to the January 2026 TIA.

Scenario 6: *Background Year (2031) with Construction Trips* – Projected background traffic volumes and near-term roadway improvements from Scenario 2 plus traffic generated by construction of the Project under opening year conditions.

Study Area

The study area for this assessment includes the area immediately adjacent to the Project site, along with roadways that provide primary access to the regional transportation network. The following intersections were selected for analysis:

1. Harbor Street & Fresno Avenue (Two-Way Stop-Controlled [TWSC])
2. Washington Street & Fresno Avenue (Signalized)
3. Sonora Street & Fresno Avenue (TWSC)

Background Year (2031) Traffic Volumes

The Background Year (2031) traffic volumes used in this assessment are the Scenario 2 traffic volumes developed for the January 2026 TIA (see **Figure 1**). Background Year (2031) traffic volumes were rounded up to the nearest five. Truck trips were accounted for as two Passenger Car Equivalent (PCE) trips to reflect travel behavior of large trucks. Scenario 6 was developed by adding traffic generated during construction of the Project to the Scenario 2 traffic volumes.

Construction Trip Generation

Construction activities associated with the proposed Project would include demolition, debris removal, and the hauling and staging of construction materials. Daily construction-related trips would consist of heavy truck trips associated with material hauling and passenger vehicle trips generated by the construction workforce. Construction is anticipated to occur in two phases: Phase I (2026–2028) and Phase II (2030–2031). Phase I is estimated to generate 45 truck trips per day, with an average construction workforce of 68 workers. Phase II is estimated to generate 20 truck trips per day, with an average construction workforce of 30 workers. Accordingly, Phase I would represent the period of greatest construction-related traffic activity, reflecting the combined effect of both truck and worker vehicle trips. Combined, peak construction-related trips are estimated at 259 one-way trips per day (90 truck trips plus 169¹ worker trips) during construction. Net vehicle trip generation under the Background Year (2031) scenario is shown in **Table 1**. The scenario is estimated to generate 339 daily PCE trips, 86 AM peak hour PCE trips, and 86 PM peak hour PCE trips. Construction-generated net trips were added to Background Year (2031) traffic volumes, and the intersection turning movement forecast is presented in **Figure 2**.

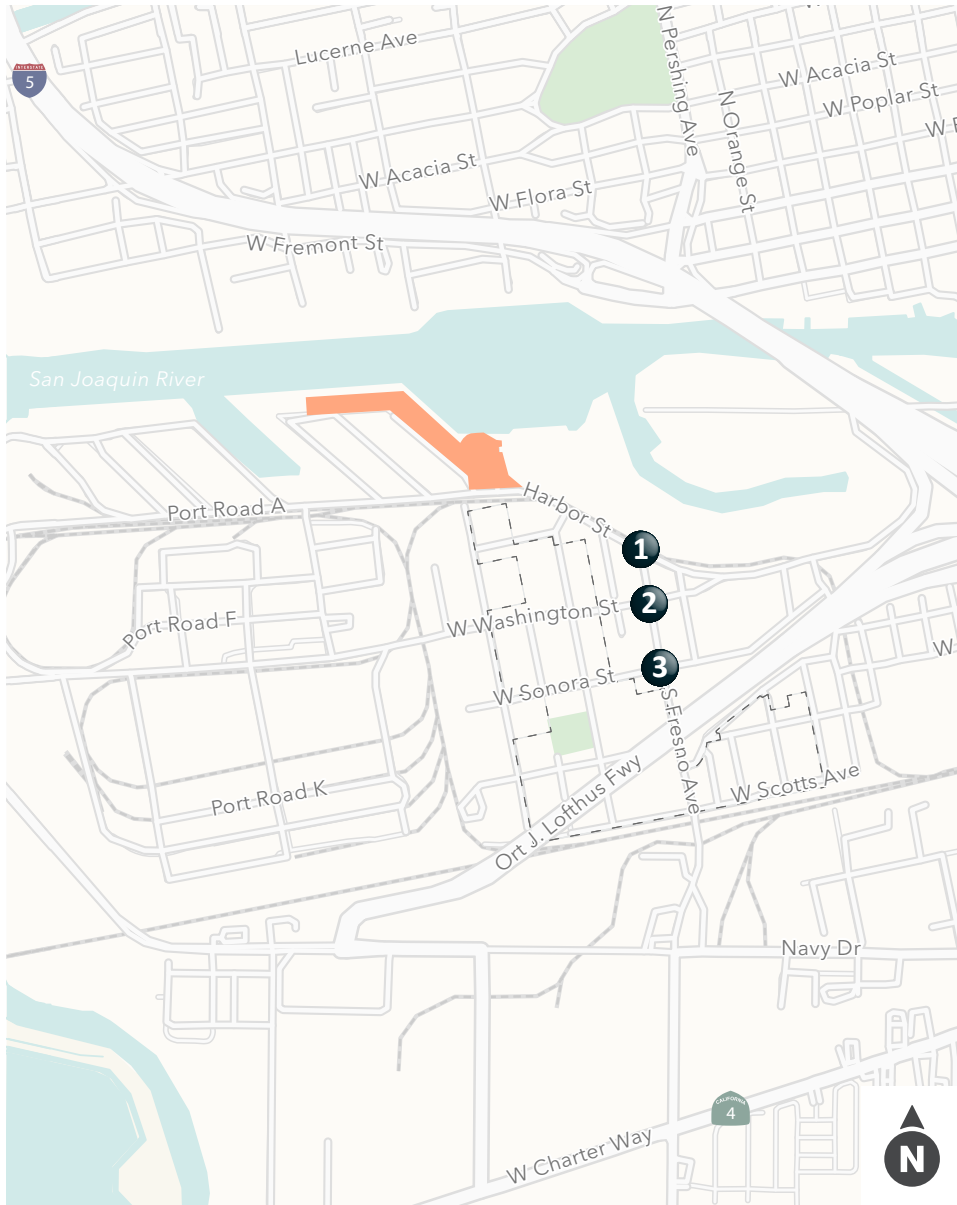
¹ 169 daily worker trips account for 136 one-way vehicle trips made to and from the Project site, plus additional vehicle trips generated from meals, breaks, and any other discretionary travel made during construction.

Table 1: Construction Net Vehicle Trip Generation Estimates

Trip Type	Quantity	Unit	Trip Generation ^{2,3,4}						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Trucks	45	Vehicles	90	4	5	9	5	4	9
Terminal Workers	68	Employees	169	56	12	68	18	50	68
Total Vehicle Trips			259	60	17	77	23	54	77
Passenger Car Equivalents ⁵			<u>349</u>	<u>64</u>	<u>22</u>	<u>86</u>	<u>28</u>	<u>58</u>	<u>86</u>
(1 Truck Equals 2 Passenger Cars)									

Notes:

1. Construction truck trips are based on the construction schedule and represent the peak daily truck activity during the period when the greatest number of construction contract (CC) packages overlap. Worker trips were estimated using rates for General Light Industrial (Land Use Code 110) from the Institute of Transportation Engineers (ITE), Trip Generation Manual, 12th Edition.
2. Trip generation is reported as one-way vehicle trips. Each truck call generates two trips: one inbound trip and one outbound trip. Worker trips were estimated using both the construction schedule and ITE trip-generation rates, with the higher estimate used as the conservative worst-case scenario. Daily: $\text{Ln}(T) = 0.65 \text{ Ln}(X) + 2.39$; AM: 1 trip per employee, assuming all workers arrive during the same hour; PM: 1 trip per employee, assuming all workers depart during the same hour.
3. Based on a 10-hour construction workday, 10 percent of daily truck trips were assumed to occur during the peak hour.
4. Entering and exiting percentages are based on Institute of Transportation Engineers (ITE), Trip Generation (12th Edition) average distribution for Intermodal Truck Terminal (Land Use Code 030): AM: Enter = 47%; Exit = 53%; PM: Enter = 52%; Exit = 48%. General Light Industrial (Land Use Code 110): AM: Enter = 83%; Exit = 17%; PM: Enter = 27%; Exit = 73%.
5. Truck trips were accounted for as two passenger car trips to reflect travel behaviors of large trucks.



1. Fresno Ave/Harbor St	2. Fresno Ave/Washington St	3. Fresno Ave/Sonora St
Harbor St 0 (0) 10 (20) 0 (10) 5 (0) 10 (15) 5 (10) 0 (0) 15 (25) 55 (45) 85 (25) 20 (5) 5 (5)	Washington St 5 (5) 50 (65) 5 (5) 5 (5) 35 (30) 80 (75) 15 (10) 45 (55) 60 (45) 45 (40) 90 (45) 100 (80)	Sonora St 30 (15) 160 (180) 0 (0) 5 (5) 0 (0) 5 (5) 10 (10) 0 (0) 55 (25) 90 (30) 230 (165) 10 (0)

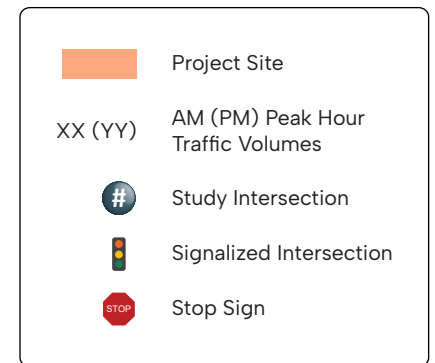
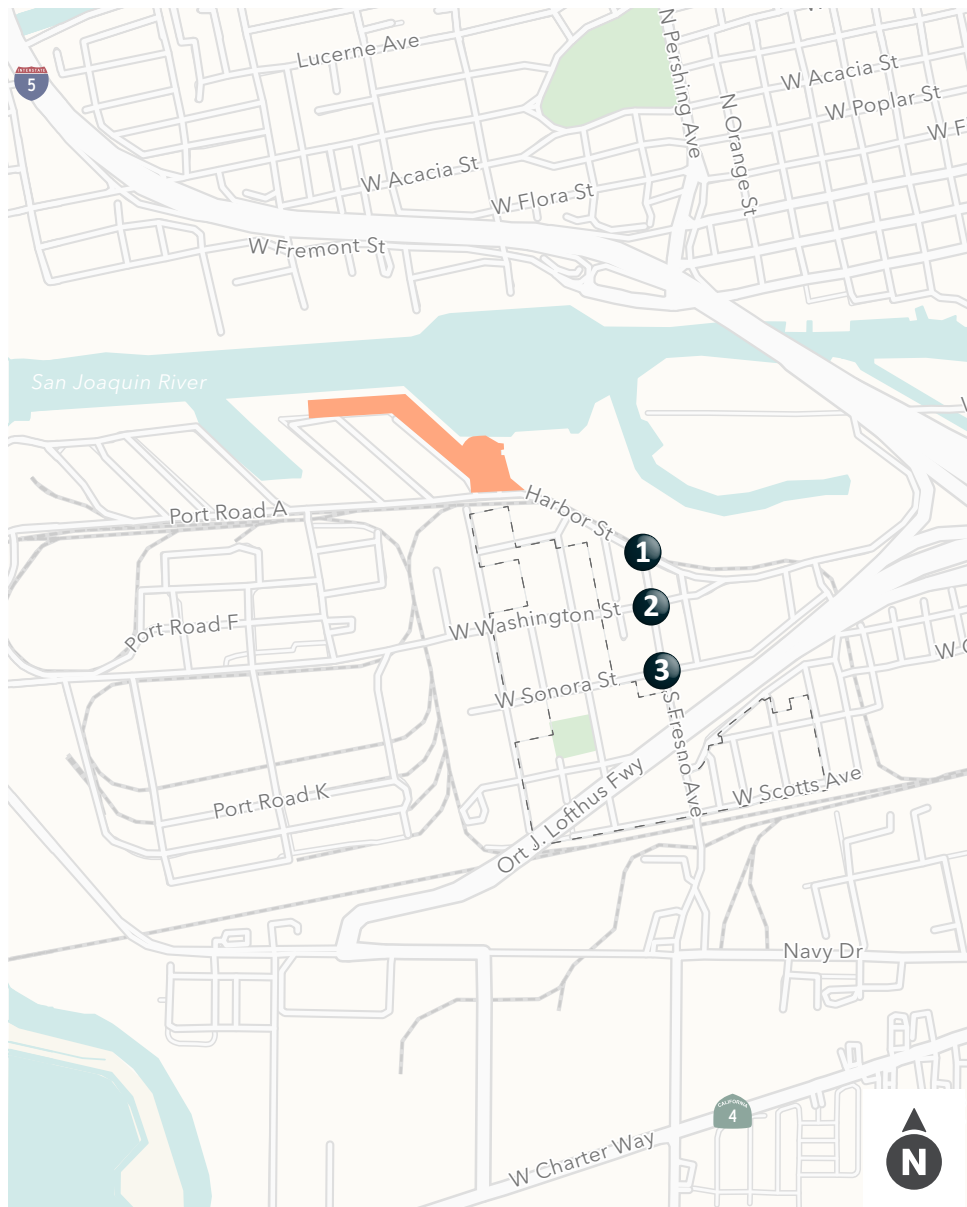


FIGURE 1

Peak Hour Intersection PCE Volumes Background Year without Project Conditions (2031)

Note: Traffic volumes are reflective of Passenger Car Equivalents (PCE), with one truck trip equaling two PCEs.



1. Fresno Ave/Harbor St	2. Fresno Ave/Washington St	3. Fresno Ave/Sonora St

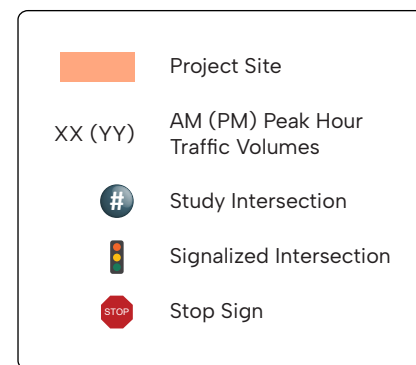


FIGURE 2

Peak Hour Intersection PCE Volumes Background Year with Construction Trips (2031)

Note: Traffic volumes are reflective of Passenger Car Equivalents (PCE), with one truck trip equaling two PCEs.

Intersection Operations and Vehicle Queues

Intersection operations and vehicle queueing were evaluated using the HCM methodology for Background (2031) Year and Background Year (2031) with Construction Trips scenarios. Peak hour factors, pedestrian and bicycle activity, and heavy vehicle percentages were left unchanged from existing conditions. There are no planned roadway improvements within the study area. Traffic signal timings were left unchanged from existing conditions.

Future intersection operations are shown in **Table 2**. Under Background Year without Project (2031) conditions, all study intersections operate at LOS B or better during AM and PM peak hours. Under Background Year (2031) With Construction conditions, all study intersections continue to operate at LOS B or better during AM and PM peak hours, except for Fresno Avenue & Sonora Street (Int 3), where delay was degraded by 1.6 seconds per vehicle to operate at LOS C during the AM peak hour. It should be noted that intersection delay marginally decreased at Fresno Avenue & Washington Street (Int 2) under Background Year (2031) With Construction conditions but does not materially affect traffic operations. This is because project-generated trips were added to the vehicle approach with less delay, resulting in average intersection delay decreasing.

95th percentile vehicle queue lengths under all future conditions are shown in **Table 3**, and all movements operate under the available storage capacity. Construction-generated trips do not add any additional queuing length under the future scenario, except for the northbound movement of Fresno Avenue & Washington Street (Int 2), where 95th percentile queues increase from 25 feet to 50 feet.

Intersection LOS calculation worksheets and intersection queuing worksheets are provided in **Appendix A-1**.

Table 2: Background Year (2031) Intersection Operations

#	Study Intersection	Control Type	Methodology	Peak Period	Background Year W/O Project (2031)		Background Year W/ Construction (2031)		Delay Change (sec/veh)
					Delay ¹	LOS	Delay ¹	LOS	
1	Fresno Ave & Harbor St	TWSC	HCM 7th	AM	9.7 (NBLTR)	A	10.2 (NBLTR)	B	0.5
				PM	9.6 (SBLTR)	A	9.9 (SBLTR)	A	0.3
2	Fresno Ave & Washington St	Signal	HCM 7th	AM	8.6	A	7.8	A	-0.8
				PM	9.1	A	8.1	A	-1.0
3	Fresno Ave & Sonora St	TWSC	HCM 7th	AM	14.6 (WBLTR)	B	16.2 (WBLTR)	C	1.6
				PM	10.8 (WBLTR)	B	11.5 (WBLTR)	B	0.7

Source: Fehr & Peers, 2026.

Note:

- Under HCM 7th Edition Methodology, TWSC intersection delay is calculated for each turning movement. Reported LOS is the turning movement with the highest delay value at the intersection.

Table 3: Background Year (2031) 95th Percentile Queue Lengths

Int #	Intersection	Movement	Storage Length (ft)	Turn Pocket?	Background Year W/O Project (2031)		Background Year W/ Construction (2031)	
					AM	PM	AM	PM
1	Fresno Ave & Harbor St	NBL/T/R	375	No	25	25	25	25
		SBL/T/R	800	Private Driveway ¹	0	25	0	25
		EBL/T/R	1,200	Private Driveway ²	0	0	0	0
		WBL/T/R	650	No	0	0	0	0
2	Fresno Ave & Washington St	NBL/T/R	600	No	25	25	50	25
		SBL/T/R	425	No	25	25	25	25
		EBL/T/R	675	No	25	25	25	25
		WBL/T/R	575	No	50	50	50	50
3	Fresno Ave & Sonora St	NBL/T/R	2,700	No	25	25	25	25
		SBL/T/R	600	No	0	0	0	0
		EBL/T/R	700	No	25	25	25	25
		WBL/T/R	1,700	Port Driveway ³	25	25	25	25

Source: Fehr & Peers, 2026.

Note:

1. The Southbound Leg is under a truck entrance gate to private industry.
2. The Eastbound Leg is access to Port of Stockton East Gate.
3. The Westbound Leg is closed with a gate for private use.

Fehr & Peers

Appendix A-1: Intersection Analysis Worksheets

HCM 7th TWSC
1: Fresno Ave & Harbor St

Background Year with Construction (2031)
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	6.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	17	75	5	16	5	143	20	5	0	10	0
Future Vol, veh/h	0	17	75	5	16	5	143	20	5	0	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	18	82	5	17	5	155	22	5	0	11	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	23	0	0	100	0	0	93	93	59	60	131	20
Stage 1	-	-	-	-	-	-	59	59	-	31	31	-
Stage 2	-	-	-	-	-	-	34	34	-	29	100	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1606	-	-	1505	-	-	896	801	1012	940	763	1064
Stage 1	-	-	-	-	-	-	957	849	-	991	873	-
Stage 2	-	-	-	-	-	-	987	871	-	993	816	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1606	-	-	1505	-	-	880	798	1012	906	761	1064
Mov Cap-2 Maneuver	-	-	-	-	-	-	880	798	-	906	761	-
Stage 1	-	-	-	-	-	-	957	849	-	987	870	-
Stage 2	-	-	-	-	-	-	972	868	-	962	816	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0			1.42			10.22			9.8		
HCM LOS							B			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	872	1606	-	-	330	-	-	761				
HCM Lane V/C Ratio	0.209	-	-	-	0.004	-	-	0.014				
HCM Ctrl Dly (s/v)	10.2	0	-	-	7.4	0	-	9.8				
HCM Lane LOS	B	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.8	0	-	-	0	-	-	0				

HCM 7th Signalized Intersection Summary 2: Fresno Ave & Washington St

Background Year with Construction (2031)

Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	45	60	80	35	5	45	148	100	5	80	5
Future Volume (veh/h)	15	45	60	80	35	5	45	148	100	5	80	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	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	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1976	1900	1900	1976	1900	1900	1976	1900	1900	1900	1900
Adj Flow Rate, veh/h	18	55	1	98	43	1	55	180	95	6	98	4
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	154	184	3	292	59	1	224	684	323	115	991	39
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.62	0.62	0.62	0.62	0.62	0.62
Sat Flow, veh/h	323	1561	26	1140	500	12	184	1098	518	27	1591	62
Grp Volume(v), veh/h	74	0	0	142	0	0	330	0	0	108	0	0
Grp Sat Flow(s),veh/h/ln	1910	0	0	1652	0	0	1800	0	0	1680	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.3	0.0	0.0	3.1	0.0	0.0	3.1	0.0	0.0	1.0	0.0	0.0
Prop In Lane	0.24		0.01	0.69		0.01	0.17		0.29	0.06		0.04
Lane Grp Cap(c), veh/h	341	0	0	352	0	0	1230	0	0	1145	0	0
V/C Ratio(X)	0.22	0.00	0.00	0.40	0.00	0.00	0.27	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	1253	0	0	1135	0	0	1230	0	0	1145	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	15.6	0.0	0.0	16.3	0.0	0.0	3.3	0.0	0.0	2.9	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	0.0	0.5	0.0	0.0	0.2	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(95%),veh/ln	1.0	0.0	0.0	1.9	0.0	0.0	1.3	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.7	0.0	0.0	16.6	0.0	0.0	3.9	0.0	0.0	3.1	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h	74			142			330			108		
Approach Delay, s/veh	15.7			16.6			3.9			3.1		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	29.0			9.5			29.0			9.5		
Change Period (Y+Rc), s	5.0			5.0			5.0			5.0		
Max Green Setting (Gmax), s	24.0			24.0			24.0			24.0		
Max Q Clear Time (g_c+I1), s	5.1			5.1			3.0			3.3		
Green Ext Time (p_c), s	6.2			0.4			1.7			0.2		
Intersection Summary												
HCM 7th Control Delay, s/veh	7.8											
HCM 7th LOS	A											

HCM 7th TWSC
3: Fresno Ave & Sonora St

Background Year with Construction (2031)
Timing Plan: AM Peak Hour

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	55	5	0	5	90	288	10	0	180	30
Future Vol, veh/h	10	0	55	5	0	5	90	288	10	0	180	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	0	72	7	0	7	118	379	13	0	237	39

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	872	886	257	859	899	386	276	0	0	392	0	0
Stage 1	257	257	-	622	622	-	-	-	-	-	-	-
Stage 2	616	629	-	237	276	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	273	286	787	279	281	667	1298	-	-	1177	-	-
Stage 1	752	699	-	478	482	-	-	-	-	-	-	-
Stage 2	482	478	-	771	685	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	239	252	787	224	248	667	1298	-	-	1177	-	-
Mov Cap-2 Maneuver	239	252	-	224	248	-	-	-	-	-	-	-
Stage 1	752	699	-	422	425	-	-	-	-	-	-	-
Stage 2	421	423	-	700	685	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	12.25		16.19		1.87		0	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	415	-	-	582 335	1177	-	-
HCM Lane V/C Ratio	0.091	-	-	0.147 0.039	-	-	-
HCM Ctrl Dly (s/v)	8.1	0	-	12.3 16.2	0	-	-
HCM Lane LOS	A	A	-	B C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.5 0.1	0	-	-

HCM 7th TWSC
1: Fresno Ave & Harbor St

Background Year with Construction (2031)
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	31	97	10	18	0	50	5	5	10	20	0
Future Vol, veh/h	0	31	97	10	18	0	50	5	5	10	20	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	34	108	11	20	0	56	6	6	11	22	0
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	20	0	0	142	0	0	142	131	88	79	184	20
Stage 1	-	-	-	-	-	-	88	88	-	42	42	-
Stage 2	-	-	-	-	-	-	53	42	-	37	142	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1609	-	-	1453	-	-	833	764	975	914	713	1064
Stage 1	-	-	-	-	-	-	924	826	-	977	864	-
Stage 2	-	-	-	-	-	-	964	864	-	983	783	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1609	-	-	1453	-	-	800	758	975	895	708	1064
Mov Cap-2 Maneuver	-	-	-	-	-	-	800	758	-	895	708	-
Stage 1	-	-	-	-	-	-	924	826	-	970	857	-
Stage 2	-	-	-	-	-	-	932	857	-	971	783	-
Approach	EB			WB			NB			SB		
HCM Ctrl Dly, s/v	0			2.68			9.85			9.95		
HCM LOS							A			A		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	809	1609	-	-	643	-	-	761				
HCM Lane V/C Ratio	0.082	-	-	-	0.008	-	-	0.044				
HCM Ctrl Dly (s/v)	9.9	0	-	-	7.5	0	-	9.9				
HCM Lane LOS	A	A	-	-	A	A	-	A				
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.1				

HCM 7th Signalized Intersection Summary 2: Fresno Ave & Washington St

Background Year with Construction (2031)
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	55	45	75	30	5	40	70	80	5	117	5
Future Volume (veh/h)	10	55	45	75	30	5	40	70	80	5	117	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	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	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1976	1900	1900	1976	1900	1900	1976	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	62	4	84	34	2	45	79	55	6	131	4
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	129	160	10	277	47	3	323	556	337	110	1036	31
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.64	0.64	0.64	0.64	0.64	0.64
Sat Flow, veh/h	202	1625	100	1168	473	28	320	874	530	17	1628	48
Grp Volume(v), veh/h	77	0	0	120	0	0	179	0	0	141	0	0
Grp Sat Flow(s),veh/h/ln	1927	0	0	1669	0	0	1724	0	0	1693	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	2.5	0.0	0.0	1.4	0.0	0.0	1.2	0.0	0.0
Prop In Lane	0.14		0.05	0.70		0.02	0.25		0.31	0.04		0.03
Lane Grp Cap(c), veh/h	299	0	0	326	0	0	1216	0	0	1177	0	0
V/C Ratio(X)	0.26	0.00	0.00	0.37	0.00	0.00	0.15	0.00	0.00	0.12	0.00	0.00
Avail Cap(c_a), veh/h	1299	0	0	1150	0	0	1216	0	0	1177	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	16.0	0.0	0.0	16.4	0.0	0.0	2.8	0.0	0.0	2.7	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.3	0.0	0.0	0.3	0.0	0.0	0.2	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(95%),veh/ln	1.0	0.0	0.0	1.6	0.0	0.0	0.6	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.1	0.0	0.0	16.7	0.0	0.0	3.0	0.0	0.0	2.9	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h	77			120			179			141		
Approach Delay, s/veh	16.1			16.7			3.0			2.9		
Approach LOS	B			B			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	29.0			8.7			29.0			8.7		
Change Period (Y+Rc), s	5.0			5.0			5.0			5.0		
Max Green Setting (Gmax), s	24.0			24.0			24.0			24.0		
Max Q Clear Time (g_c+I1), s	3.4			4.5			3.2			3.4		
Green Ext Time (p_c), s	3.3			0.4			2.4			0.2		
Intersection Summary												
HCM 7th Control Delay, s/veh	8.1											
HCM 7th LOS	A											

HCM 7th TWSC
3: Fresno Ave & Sonora St

Background Year with Construction (2031)
Timing Plan: PM Peak Hour

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	25	5	0	5	30	180	0	0	232	15
Future Vol, veh/h	10	0	25	5	0	5	30	180	0	0	232	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	0	28	6	0	6	34	205	0	0	264	17

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	545	545	272	536	553	205	281	0	0	205	0	0
Stage 1	272	272	-	273	273	-	-	-	-	-	-	-
Stage 2	273	273	-	264	281	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	452	449	771	458	444	841	1293	-	-	1379	-	-
Stage 1	738	688	-	738	688	-	-	-	-	-	-	-
Stage 2	738	688	-	746	682	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	436	435	771	428	430	841	1293	-	-	1379	-	-
Mov Cap-2 Maneuver	436	435	-	428	430	-	-	-	-	-	-	-
Stage 1	738	688	-	716	667	-	-	-	-	-	-	-
Stage 2	711	667	-	718	682	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	11.07	11.47	1.12	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	257	-	-	632	568	1379	-
HCM Lane V/C Ratio	0.026	-	-	0.063	0.02	-	-
HCM Ctrl Dly (s/v)	7.9	0	-	11.1	11.5	0	-
HCM Lane LOS	A	A	-	B	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-

Intersection												
Int Delay, s/veh	5.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	15	55	5	10	5	85	20	5	0	10	0
Future Vol, veh/h	0	15	55	5	10	5	85	20	5	0	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	16	60	5	11	5	92	22	5	0	11	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	16	0	0	76	0	0	73	73	46	52	101	14
Stage 1	-	-	-	-	-	-	46	46	-	24	24	-
Stage 2	-	-	-	-	-	-	27	27	-	27	76	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1614	-	-	1536	-	-	922	821	1029	953	793	1072
Stage 1	-	-	-	-	-	-	973	860	-	999	879	-
Stage 2	-	-	-	-	-	-	995	877	-	995	836	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1614	-	-	1536	-	-	906	818	1029	919	790	1072
Mov Cap-2 Maneuver	-	-	-	-	-	-	906	818	-	919	790	-
Stage 1	-	-	-	-	-	-	973	860	-	995	876	-
Stage 2	-	-	-	-	-	-	979	873	-	965	836	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	1.84	9.65	9.62
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	894	1614	-	-	422	-	-	790
HCM Lane V/C Ratio	0.134	-	-	-	0.004	-	-	0.014
HCM Ctrl Dly (s/v)	9.7	0	-	-	7.4	0	-	9.6
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0

HCM 7th Signalized Intersection Summary
2: Fresno Ave & Washington St

Background Year without Project Conditions (2031)
Timing Plan: AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	15	45	60	80	35	5	45	90	100	5	60	5
Future Volume (veh/h)	15	45	60	80	35	5	45	90	100	5	60	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	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	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1976	1900	1900	1976	1900	1900	1976	1900	1900	1900	1900
Adj Flow Rate, veh/h	18	55	2	98	43	4	55	110	82	6	73	4
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	153	185	6	290	59	5	285	557	362	127	961	50
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.12	0.62	0.62	0.62	0.62	0.62	0.62
Sat Flow, veh/h	314	1543	51	1117	490	46	276	897	583	43	1547	81
Grp Volume(v), veh/h	75	0	0	145	0	0	247	0	0	83	0	0
Grp Sat Flow(s),veh/h/ln	1908	0	0	1653	0	0	1757	0	0	1671	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.3	0.0	0.0	3.2	0.0	0.0	2.2	0.0	0.0	0.8	0.0	0.0
Prop In Lane	0.24		0.03	0.68		0.03	0.22		0.33	0.07		0.05
Lane Grp Cap(c), veh/h	345	0	0	355	0	0	1205	0	0	1138	0	0
V/C Ratio(X)	0.22	0.00	0.00	0.41	0.00	0.00	0.20	0.00	0.00	0.07	0.00	0.00
Avail Cap(c_a), veh/h	1247	0	0	1131	0	0	1205	0	0	1138	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	15.6	0.0	0.0	16.3	0.0	0.0	3.2	0.0	0.0	2.9	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	0.3	0.0	0.0	0.4	0.0	0.0	0.1	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(95%),veh/ln	1.0	0.0	0.0	1.9	0.0	0.0	0.9	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	15.7	0.0	0.0	16.6	0.0	0.0	3.6	0.0	0.0	3.0	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		75			145			247			83	
Approach Delay, s/veh		15.7			16.6			3.6			3.0	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		29.0		9.6		29.0		9.6				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		24.0		24.0		24.0		24.0				
Max Q Clear Time (g_c+l1), s		4.2		5.2		2.8		3.3				
Green Ext Time (p_c), s		4.6		0.5		1.2		0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh			8.6									
HCM 7th LOS			A									

Intersection

Int Delay, s/veh 2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	55	5	0	5	90	230	10	0	160	30
Future Vol, veh/h	10	0	55	5	0	5	90	230	10	0	160	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	0	72	7	0	7	118	303	13	0	211	39

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	770	783	230	757	796	309	250	0	0	316	0	0
Stage 1	230	230	-	546	546	-	-	-	-	-	-	-
Stage 2	539	553	-	211	250	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	320	328	814	327	322	736	1327	-	-	1256	-	-
Stage 1	777	718	-	526	521	-	-	-	-	-	-	-
Stage 2	530	518	-	796	704	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	283	292	814	265	287	736	1327	-	-	1256	-	-
Mov Cap-2 Maneuver	283	292	-	265	287	-	-	-	-	-	-	-
Stage 1	777	718	-	469	465	-	-	-	-	-	-	-
Stage 2	468	462	-	725	704	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	11.59		14.55		2.18		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	487	-	-	632	390	1256	-
HCM Lane V/C Ratio	0.089	-	-	0.135	0.034	-	-
HCM Ctrl Dly (s/v)	8	0	-	11.6	14.6	0	-
HCM Lane LOS	A	A	-	B	B	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.5	0.1	0	-

Intersection

Int Delay, s/veh 4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	25	45	10	15	0	25	5	5	10	20	0
Future Vol, veh/h	0	25	45	10	15	0	25	5	5	10	20	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	28	50	11	17	0	28	6	6	11	22	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	17	0	0	78	0	0	103	92	53	69	117	17
Stage 1	-	-	-	-	-	-	53	53	-	39	39	-
Stage 2	-	-	-	-	-	-	50	39	-	31	78	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1614	-	-	1534	-	-	883	802	1020	928	777	1068
Stage 1	-	-	-	-	-	-	965	855	-	981	867	-
Stage 2	-	-	-	-	-	-	968	867	-	991	834	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1614	-	-	1534	-	-	851	796	1020	909	772	1068
Mov Cap-2 Maneuver	-	-	-	-	-	-	851	796	-	909	772	-
Stage 1	-	-	-	-	-	-	965	855	-	974	860	-
Stage 2	-	-	-	-	-	-	936	860	-	979	834	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	2.95	9.37	9.62
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	863	1614	-	-	720	-	-	813
HCM Lane V/C Ratio	0.045	-	-	-	0.007	-	-	0.041
HCM Ctrl Dly (s/v)	9.4	0	-	-	7.4	0	-	9.6
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

HCM 7th Signalized Intersection Summary
2: Fresno Ave & Washington St

Background Year without Project Conditions (2031)
Timing Plan: PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	55	45	75	30	5	40	45	80	5	65	5
Future Volume (veh/h)	10	55	45	75	30	5	40	45	80	5	65	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	0.99		0.99	0.99		0.99	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	0.90
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1976	1900	1900	1976	1900	1900	1976	1900	1900	1900	1900
Adj Flow Rate, veh/h	11	62	4	84	34	4	45	51	52	6	73	5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	129	163	10	276	47	5	385	439	379	129	973	63
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.64	0.64	0.64	0.64	0.64	0.64
Sat Flow, veh/h	199	1628	100	1148	465	55	410	692	597	42	1531	100
Grp Volume(v), veh/h	77	0	0	122	0	0	148	0	0	84	0	0
Grp Sat Flow(s),veh/h/ln	1927	0	0	1668	0	0	1698	0	0	1673	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	2.6	0.0	0.0	1.2	0.0	0.0	0.7	0.0	0.0
Prop In Lane	0.14		0.05	0.69		0.03	0.30		0.35	0.07		0.06
Lane Grp Cap(c), veh/h	302	0	0	328	0	0	1203	0	0	1165	0	0
V/C Ratio(X)	0.26	0.00	0.00	0.37	0.00	0.00	0.12	0.00	0.00	0.07	0.00	0.00
Avail Cap(c_a), veh/h	1296	0	0	1148	0	0	1203	0	0	1165	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	15.9	0.0	0.0	16.4	0.0	0.0	2.7	0.0	0.0	2.6	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.3	0.0	0.0	0.2	0.0	0.0	0.1	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(95%),veh/ln	1.0	0.0	0.0	1.6	0.0	0.0	0.5	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	16.1	0.0	0.0	16.7	0.0	0.0	2.9	0.0	0.0	2.8	0.0	0.0
LnGrp LOS	B			B			A			A		
Approach Vol, veh/h		77			122			148			84	
Approach Delay, s/veh		16.1			16.7			2.9			2.8	
Approach LOS		B			B			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		29.0		8.8		29.0		8.8				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		24.0		24.0		24.0		24.0				
Max Q Clear Time (g_c+I1), s		3.2		4.6		2.7		3.4				
Green Ext Time (p_c), s		2.6		0.4		1.3		0.2				
Intersection Summary												
HCM 7th Control Delay, s/veh			9.1									
HCM 7th LOS			A									

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	0	25	5	0	5	30	155	0	0	180	15
Future Vol, veh/h	10	0	25	5	0	5	30	155	0	0	180	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	0	28	6	0	6	34	176	0	0	205	17

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	457	457	213	449	466	176	222	0	0	176	0	0
Stage 1	213	213	-	244	244	-	-	-	-	-	-	-
Stage 2	244	244	-	205	222	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	517	503	832	524	497	872	1359	-	-	1412	-	-
Stage 1	794	730	-	764	708	-	-	-	-	-	-	-
Stage 2	764	708	-	802	724	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	499	489	832	492	483	872	1359	-	-	1412	-	-
Mov Cap-2 Maneuver	499	489	-	492	483	-	-	-	-	-	-	-
Stage 1	794	730	-	743	688	-	-	-	-	-	-	-
Stage 2	738	688	-	775	724	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Ctrl Dly, s/v	10.46		10.83		1.25		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	292	-	-	699	629	1412	-
HCM Lane V/C Ratio	0.025	-	-	0.057	0.018	-	-
HCM Ctrl Dly (s/v)	7.7	0	-	10.5	10.8	0	-
HCM Lane LOS	A	A	-	B	B	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-