Southwest Village VTM-1 (PA 8-14: Residential)
City of San Diego (PRJ-0614791)
Southeast of I-805 and SR-905
August 13, 2024

Local Mobility Analysis Report

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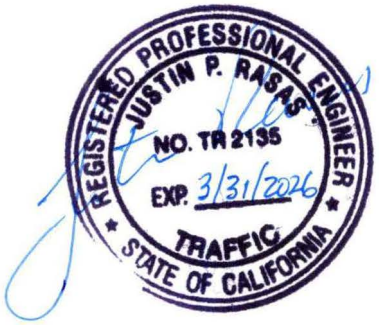

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Executive Summary
Southwest Village VTM-1 (Planning Areas 8-14)

The proposed VTM-1 (project) encompasses Planning Areas 8 through 14 within the Southwest Village Specific Plan and includes up to 920 dwelling units (up to 142 single-family and up to 778 multi-family units). The environmental analysis considers 920 units as the ultimate number of residential units in VTM-1. The VTM-1 single-family units will be processed as a small lot subdivision consistent with Municipal Code Section 143.0365 which allows the subdivision of multi-family zoned land, consistent with the density and standards of the Specific Plan zone, for the construction of single dwelling units. Thus, while the VTM-1 will identify all units as multi-family due to the proposed multi-family lotting, the 142 small lots are considered single-family for purposes of the environmental analysis and trip generation.

Concurrent with implementation of VTM-1, Beyer Boulevard will be constructed as a modified 2-lane collector road with buffered Class II bicycle facilities between Enright Dr (within San Ysidro) and Caliente Ave. The construction of Beyer Blvd or an alternative secondary access approved by the City Fire Marshal is required at the 201st dwelling unit. An alternative secondary access is proposed south of the Specific Plan area along an existing utility road that is planned to be improved as an emergency vehicle access (EVA) road to facilitate regional fire and emergency response. Therefore, three near-term phases were analyzed. The first and second phases (Phase 1a and 1b) have a project distribution of 100% to Caliente Avenue. The third phase (Phase 1c) is after Beyer Blvd is connected to San Ysidro with a project distribution (based on a SANDAG Select Zone Assignment) of 24% to Beyer Blvd and 76% to Caliente Ave. The project is forecasted to open in year 2024.

The City of San Diego *Otay Mesa Community Plan Update* identifies the site with a land use designation of Neighborhood Village (15-25 du/ac) while the site is zoned Agricultural-Residential (AR). The following discretionary approvals are required for the Specific Plan:

1) Ordinance approving the Southwest Village Specific Plan
2) Rezone Ordinance to implement Specific Plan land uses
3) General Plan/Otay Mesa Community Plan Amendment to remove the Neighborhood Village designation and designate Specific Plan land uses and circulation changes
4) Planned Development Permit (PDP) to implement requested deviations in the Specific Plan
5) Southwest Village VTM-1
6) Update to the Otay Mesa Public Facilities Financing Plan to include new parks, a sewer pump station, and other public facilities

Additional discretionary approvals required for VTM-1:

1) Site Development Permit
2) MHPA Boundary Adjustment

Pedestrian facilities within a ½ mile walking distance from the project entry points were evaluated, which included Caliente Ave and Airway Rd. No missing segments nor major obstructions were observed; therefore, no pedestrian improvements are proposed to existing sidewalks within the walkshed.

Bicycle facilities within a ½ mile biking distance from the project entry points were evaluated, which included Caliente Ave and Airway Rd. No bike lane improvements to existing facilities within the bike shed are recommended as part of this project because the existing bike lanes and bike route signs are visible. However, bicycle facilities are included in the extension of Beyer Boulevard from San Ysidro to VTM-1 project site.

Transit facilities do not exist within a ½ mile walking distance to the project. Therefore, the closest bus stop located on the SR-905 eastbound off-ramp at Caliente Ave is approximately 2,700 feet (just over ½ mile) from Planning Area 9 (northern most access point for VTM-1). The bus stop located on the SR-905 eastbound off-ramp at Caliente Ave includes a bus stop sign and bus shelter with a bench and trash receptacle. The bus stop sign and shelter are newly installed by MTS; therefore, no bus stop improvements are recommended.

Systemic Safety Review: The City of San Diego "The Data Driven Path to Vision Zero" policy promotes safe roadway design with a goal toward preventing collisions. As part of that goal, a systemic safety review provides an assessment of hotspots and possible countermeasures to align with Vision Zero. The project study intersections are not identified on the City of San Diego pedestrian hotspot map. For the bicycle and vehicle systemic safety review, all existing study intersections were evaluated to determine if the systemic criteria would be satisfied. Intersection #10 (Beyer Blvd/E. Beyer Blvd) satisfies all the bicycle Footprint #1 criteria; therefore, the recommended countermeasure is for the Owner/Permittee to install a bicycle loop detector on the westbound approach for the proposed buffered Class II bike lane. No other bicycle loop detectors are proposed on the other intersection legs because currently there are no bike lanes on any of the approaches. None of the remaining study intersections satisfied the bicycle and vehicle system safety criteria for potential improvements.

Vehicular operational analysis included analyzing up to 12 intersections, 15 roadway segments, and two (2) freeway off-ramps under Existing, Opening Year 2024 without project, Opening Year 2024 Plus Project Phase 1a, Opening Year 2024 Plus Project Phases 1a & 1b, and Opening Year 2024 Plus Project Phases 1a, 1b & 1c conditions. The purpose of having three Phases within VTM-1 is to allow some flexibility regarding when Beyer Blvd will be required to be extended from San Ysidro to VTM-1 while not being tied to a specific year. Therefore, this analysis accounts for all phases to be completed as early as 2024. The project trip generation is shown in **Table E-1**.

TABLE E-1: PROJECT TRIP GENERATION

Proposed Land Uses	ADT Rate	Size & Units	ADT	%	Split	AM IN	AM OUT	%	Split	PM IN	PM OUT
Phase 1a (200 units with 100% using Caliente Ave)											
Single-Family	10 /DU	27 DU	270	8%	0.2 0.8	4	17	10%	0.7 0.3	19	8
Multi-Family (under 20 du/ac)	8 /DU	38 DU	304	8%	0.2 0.8	5	19	10%	0.7 0.3	21	9
Multi-Family (over 20 du/ac)	6 /DU	135 DU	810	8%	0.2 0.8	13	52	9%	0.7 0.3	51	22
Totals:		200				22	88			91	39
Phase 1a Traffic Total:			**1,384**		**AM Total:**	**110**			**PM Total:**	**130**	
Phases 1a & 1b (699 units with 100% using Caliente Ave)											
Single-Family	10 /DU	62 DU	620	8%	0.2 0.8	10	40	10%	0.7 0.3	43	19
Multi-Family (under 20 du/ac)	8 /DU	371 DU	2,968	8%	0.2 0.8	47	190	10%	0.7 0.3	208	89
Multi-Family (over 20 du/ac)	6 /DU	266 DU	1,596	8%	0.2 0.8	26	102	9%	0.7 0.3	101	43
Totals:		699				83	332			352	151
Phase 1a & 1b Traffic Total:			**5,184**		**AM Total:**	**415**			**PM Total:**	**503**	
Phases 1a, 1b & 1c (920 total units with 76% [699 units] using Caliente Ave and 24% [221 units] using Beyer Blvd)											
Single-Family	10 /DU	142 DU	1,420	8%	0.2 0.8	23	91	10%	0.7 0.3	99	43
Multi-Family (under 20 du/ac)	8 /DU	498 DU	3,984	8%	0.2 0.8	64	255	10%	0.7 0.3	279	120
Multi-Family (over 20 du/ac)	6 /DU	280 DU	1,680	8%	0.2 0.8	27	108	9%	0.7 0.3	106	45
Totals:		920				114	454			484	208
Phase 1a, 1b, & 1c Traffic Total:			**7,084**		**AM Total:**	**568**			**PM Total:**	**692**	

Source: City of San Diego *Trip Generation Manual* , May 2003. Spreadsheet rounding may result in ±1 to above numbers.

Operational Analysis Results

Under Existing Conditions, the intersection of Caliente Ave/SR-905 WB Ramps is shown to have a northbound left turn queuing deficiency in the AM & PM peak hours that exceeds the existing turn lane storage bay capacity.

Under Opening Year 2024 without Project Conditions, the intersection of Caliente Ave/SR-905 WB Ramps continues to show a northbound left turn queuing deficiency in the AM & PM peak hours that exceeds the existing turn lane storage bay capacity.

Under Opening Year 2024 plus Project Phase 1a Conditions, findings include:

1) Intersection of Caliente Ave/Ocean View Hills/Otay Mesa Rd. The project adds traffic to the signal currently operating at LOS F in the AM and PM peak hour; therefore, the Owner/Permittee proposes to upgrade the traffic controller to provide City current 2070 signal controller including software update and communications equipment per current City standards, to the satisfaction of the City Engineer.

2) At the intersection of Caliente Ave/SR-905 WB Ramps, the northbound left turn queuing is expected to exceed the existing storage and the project would add 66 AM peak hour trips and 28 PM peak hour trips to this movement. Determination for intersection improvement is when a project adds traffic to an individual left turn causing the total number of peak hour left turns to exceed 300. The opening year 2024 plus Project Phase 1a left turns are forecasted at 583 AM peak hour trips and 278 PM peak hour trips. The total AM peak hour trips exceed 300. The Owner/Permittee is proposing to initiate the process with Caltrans to create northbound dual left turn lanes (through re-striping on the bridge over SR-905 of the northbound number one through travel lane with 300 feet of storage to a trap left turn lane that in conjunction with the existing left turn lane to become the dual left turn lanes) along with widening and constructing a second receiving lane to the westbound (WB) on-ramp

at the start of Phase 1b. This is proposed in Phase 1b because it will take a couple of years to obtain permits from Caltrans to improve this intersection. Additionally, providing an interim fix by extending the existing NBL (through a restripe) in Phase 1a may be viewed by Caltrans as a throw away improvement and potentially rejected because the larger improvement will follow in Phase 1b. If both improvements are kept separate, then Phase 1a restripe may take 1-2 years. After the restripe, the Phase 1b NB dual left can take another 1-2 years, which means the dual lefts may require 3-4 years vs. skipping the interim restripe and instead proceeding with the dual lefts within 1-2 years, thus no improvements are proposed in Phase 1a.

3) Intersection of Caliente Ave/SR-905 EB Ramps. The project traffic causes the intersection to degrade to LOS E in the AM peak hour; therefore, the Owner/Permittee proposes to upgrade the traffic controller to provide City current 2070 signal controller including software update and communications equipment per current City standards and Caltrans standards, to the satisfaction of the City Engineer and Caltrans Engineer.

4) Intersection of Caliente Ave/Airway Rd. The project adds traffic to the signal currently operating at LOS F in the AM peak hour; therefore, the Owner/Permittee proposes to upgrade the traffic controller to provide City current 2070 signal controller including software update and communications equipment per current City standards, to the satisfaction of the City Engineer.

Under Opening Year 2024 plus Project Phase 1a & 1b Conditions, findings include:

1) Intersection of Caliente Ave/Ocean View Hills/Otay Mesa Rd. The project adds traffic to the signal currently operating at LOS F in the AM & PM peak hour. No additional improvements are proposed beyond what has been provided as part of Phase 1a.

2) Intersection of Caliente Ave/SR-905 WB Ramps. The northbound left turn queuing is expected to exceed the existing storage and the project would add 236 AM and 108 PM peak hour trips to this movement. Determination for intersection improvement is when a project causes the total number of peak hour left turns to exceed 300. The opening year 2024 AM peak hour left turns without Project are forecasted at 517, thus already over 300. The opening year 2024 PM peak hour left turns without Project are forecasted at 250 to which the project would add 108 trips resulting in 358 total PM peak hour trips; therefore, a second left turn lane is proposed at the start of Phase 1b, the westbound (WB) on-ramp will also be widened to add a second receiving lane to accommodate the proposed additional northbound (NB) left turn lane to WB on-ramp at the start of Phase 1b by the Owner/Permittee as described in Chapter 9. Conceptual design to demonstrate feasibility is included in Appendix N. Additionally, the project traffic causes the intersection to degrade to LOS E in the AM and PM peak hour; therefore, the Owner/Permittee proposes upgrading the traffic controller to provide City current 2070 signal controller including software update and communications equipment per current City standards and Caltrans standards, to the satisfaction of the City Engineer and Caltrans Engineer.

3) Intersection of Caliente Ave/SR-905 EB Ramps. The project traffic causes the intersection operating in the AM peak hour to degrade to LOS E. No additional improvements are proposed beyond what has been provided as part of Phase 1a.

4) Intersection of Caliente Ave/Airway Rd. The project adds traffic to the signal currently operating at LOS F in the AM peak hour. No additional improvements are proposed beyond what has been provided as part of Phase 1a.

Under Opening Year 2024 plus Project Phase 1a, 1b & 1c Conditions, findings include:

1) Intersection of Caliente Ave/Ocean View Hills/Otay Mesa Rd. The project adds traffic to the signal currently operating at LOS F in the AM & PM peak hour. No additional improvements are proposed beyond what has been provided as part of Phase 1a.

2) Intersection of Caliente Ave/SR-905 WB Ramps. The northbound left turn queuing is expected to exceed the existing storage and the project would add 236 AM and 108 PM peak hour trips to this movement (same volumes as Phase 1b). No additional improvements are proposed beyond what has been provided as part of Phase 1b.

3) Intersection of Caliente Ave/SR-905 EB Ramps. The project traffic causes the intersection operating in the AM peak hour to degrade to LOS E. No additional improvements are proposed beyond what has been provided as part of Phase 1a.

4) Intersection of Caliente Ave/Airway Rd. The project adds traffic to the signal currently operating at LOS F in the AM peak hour. No additional improvements are proposed beyond what has been provided as part of Phase 1a.

The following improvements are proposed:

Phase 1a improvements with 200 dwelling units within Planning Areas 8-10 of VTM-1.

1) Prior to the issuance of any building permit, the Owner/Permittee shall assure by permit and bond the construction of Caliente Ave from the southern terminus to Central Ave as a 6 lane Major (striped as a 5 lane Major with 2 southbound lanes and 3 northbound lanes due to the southbound 2 Lane pavement width constraint alongside the San Ysidro High School parcel) with a 22-foot wide parkway with non-contiguous sidewalk and buffered Class II bike lanes and Class I bike path (Class I on the east side only) per current City standards to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1a.

2) Prior to the issuance of any building permit, the Owner/Permittee shall assure by permit and bond the construction of a T-intersection at Caliente Ave/Central Ave as a three-leg all way stop controlled intersection with a single approach lane in the eastbound and westbound directions, and two approach lanes in the southbound direction, to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1a.

3) Prior to the issuance of any building permit, the Owner/Permittee shall assure by permit and bond the construction of Central Ave from Caliente Ave to the entrance of Planning Areas 8-9-10 as a 45 ft on 69 ft (Sta. 10+00 to 19+50) of ROW and 38 ft on 62 ft (Sta. 19+50 to 27+00) of ROW 2 Lane Collector with a 12-foot wide parkway with non-contiguous sidewalk and buffered Class II bike lanes on each side per current City standards, to the satisfaction of the City Engineer. This segment will end with a temporary cul-de-sac immediately south of the intersection of Central Ave/PA 8-9-10 access. These improvements shall be completed and operational prior to first occupancy of Phase 1a.

4) Prior to the issuance of any building permit the Owner/Permittee shall assure by permit and bond a traffic signal modification to upgrade the traffic controller to provide City current 2070 signal controller including software update and communications equipment at the intersection of Caliente Ave/Ocean View Hills/Otay Mesa Road per current City standards, to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1a.

5) Prior to the issuance of any building permit the Owner/Permittee shall assure by permit and bond a traffic signal modification to upgrade the traffic controller to provide City current 2070 signal controller including software update and communications equipment at the intersection of Caliente Ave/SR-905 EB on ramp per current City standards and Caltrans standards, to the satisfaction of the City Engineer and Caltrans Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1a.

6) Prior to the issuance of any building permit the Owner/Permittee shall assure by permit and bond a traffic signal modification to upgrade the traffic controller to provide City current 2070 signal controller including software update and communications equipment at the intersection of Caliente Ave/Airway Road per current City standards, to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1a.

Phase 1b improvements with a total of 699 dwelling units within Planning Areas 8-14 of VTM-1.

7) Prior to issuance of the first building permit in Phase 1b (201st dwelling unit), the Owner/Permittee shall assure by permit and bond the intersection reconfiguration of Caliente Ave/SR-905 WB Ramps to install a second northbound left turn lane (through re-striping on the bridge over SR-905 of the northbound number one through travel lane with 300 feet of storage to a trap left turn lane that in conjunction with the existing left turn lane will become the dual left turn lanes), widen and construct a second receiving lane to the westbound (WB) on-ramp, and upgrading the traffic controller to provide City current 2070 signal controller including software update and communications equipment, to the satisfaction of the City Engineer and Caltrans. These improvements shall be completed and operational prior to first occupancy of Phase 1b (201st dwelling unit). A concept drawing is included in Appendix N.

8) Prior to issuance of the first building permit in Phase 1b (201st dwelling unit), the Owner/Permittee shall assure by permit and bond the construction of Central Ave from the temporary cul-de-sac (to be removed) just south of the entrance of Planning Areas 8-9-10 south to Beyer Blvd as a 45 ft on 69 ft of ROW 2 Lane Collector with a 12-foot wide parkway with non-contiguous sidewalk and buffered Class II bike lanes per current City standards, to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1b (201st dwelling unit).

9) Prior to issuance of the first building permit in Phase 1b (201st dwelling unit), the Owner/Permittee shall assure by permit and bond the construction of half width improvements (on the north side only) of Beyer Blvd East from West Avenue to Caliente Ave (with a temporary cul-de-sac at the eastern terminus) as an interim 38 ft on 58 ft of ROW modified 2-lane collector roadway with a 20-foot wide parkway with non-contiguous sidewalk and buffered Class II bike lane and Class I bike path per current City standards, to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1b (201st dwelling unit).

10) Prior to the issuance of any building permit within Planning Areas 11, 12, 13, or 14 (south of Beyer Blvd), the Owner/Permittee shall assure by permit and bond the construction of West Ave from Beyer Blvd to Street A as a an interim 39 ft on 53 ft of ROW 2 lane collector with center left turn lane and 14-foot wide parkway with non-contiguous sidewalk and buffered Class II bike lane (on the west side only) and the intersection of West Ave/Beyer Blvd per current City standards, to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1b (201st dwelling unit).

11) Prior to the issuance of any building permit within Planning Areas 11, 12, 13, or 14 (south of Beyer Blvd), the Owner/Permittee shall assure by permit and bond the construction of West Ave from Street A to the southern cul-de-sac terminus as an interim 39 ft on 51 ft of ROW a 2 lane collector and 12-foot wide parkway with non-contiguous sidewalk (on the west side only) and buffered Class II bike lane (on the west side only) and a permanent cul-de-sac per current City standards, to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1b (201st dwelling unit).

12) Prior to the issuance of any building permit within Planning Areas 11, 12, 13, or 14 (south of Beyer Blvd),, the Owner/Permittee shall assure by permit and bond the construction of Street A from West Ave to the western cul-de-sac terminus as a 52 ft on 76 ft of ROW 2-lane collector roadway and 12-foot wide parkway with non-contiguous sidewalk and buffered Class II bike lanes, permanent cul-de-sac at the terminus of Street A per current City standards, to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy in Phase 1b (201st dwelling unit).

13) Prior to the issuance of any building permit within Planning Areas 11, 12, 13, or 14 (south of Beyer Blvd), the Owner/Permittee shall assure by permit and bond the construction of Central Ave/Beyer Blvd as a three-leg all way stop controlled intersection with a single lane on each approach. These improvements shall be completed and operational prior to first occupancy in Phase 1b (201st dwelling unit).

14) Prior to the issuance of any building permit within Planning Areas 11, 12, 13, or 14 (south of Beyer Blvd), the Owner/Permittee shall assure by permit and bond the construction of West Ave/Beyer Blvd with a temporary cul-de-sac bulb west of the intersection of West Ave/Beyer Blvd. These improvements shall be completed and operational prior to first occupancy in Phase 1b (201st dwelling unit).

15) Prior to issuance of the first building permit in Phase 1b (201st dwelling unit), the Owner/Permittee shall assure by permit and bond the construction of West Ave/Street A as a three-leg side controlled (west leg) intersection with a single lane on each approach. These improvements shall be completed and operational prior to first occupancy in Phase 1b (201st dwelling unit).

Phase 1c improvements with a total of 920 dwelling units within Planning Areas 8-14 of VTM-1.

16) Prior to issuance of the first building permit in Phase 1c (700th dwelling unit), the Owner/Permittee shall assure by permit and bond the construction of Beyer Blvd from Enright Dr to West Ave as a 44 ft on 53 ft of ROW modified 4 lane collector (built with 2 lanes due to environmental constraints) with an 8.5-foot wide parkway with non-contiguous sidewalk (on the south side only) and buffered Class II bike lanes to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy in Phase 1c (700th dwelling unit).

17) Prior to issuance of the first building permit in Phase 1c (700th dwelling unit), the Owner/Permittee shall assure by permit and bond the construction of an asphalt berm on the north side of Beyer Boulevard from Old Otay Mesa Rd/E. Beyer Blvd to Enright Drive and restripe Beyer Boulevard to provide a 2 Lane collector and buffered Class II bike lanes per current City standards, to the satisfaction of the City Engineer. This will require the elimination of on-street parking on the south side of Beyer Boulevard in this area. (concept drawing included in **Appendix N**). These improvements shall be completed and operational prior to first occupancy in Phase 1c (700th dwelling unit).

18) Prior to issuance of the first building permit in Phase 1c (700th dwelling unit), the Owner/Permittee shall assure by permit and bond the installation of bicycle detector loops in the westbound approach at the intersection of Old Otay Mesa Rd/E. Beyer Blvd at Beyer Blvd via a traffic signal modification plan per current City standards, to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1c (700th dwelling unit).

19) Prior to issuance of the first building permit in Phase 1c (700th dwelling unit), the Owner/Permittee shall assure the restriping/reconfiguration of the Enright Dr/Beyer Blvd intersection with a separate eastbound right turn lane, separate westbound left turn lane, with an existing stop sign on the minor south leg (Enright Drive). These improvements shall be completed and operational prior to first occupancy in Phase 1c (700th dwelling unit).

1.0 Introduction

The proposed VTM-1 (Project) encompasses Planning Areas 8 through 14 (total of approximately 61 acres) within the Southwest Village Specific Plan and includes a total of up to 920 dwelling units consisting of 142 single family units and 778 multi-family units. Southwest Village is currently vacant and is located east of I-805 and south of SR-905 near the southern end of Caliente Ave. The regional project location is shown in **Figure 1.** The land use plan for Southwest Village along with an outline of VTM-1 is shown in **Figure 2**. The Vesting Tentative Map cover sheet is shown in **Figure 3**. The site plan for Phase 1a is shown in **Figure 4.** The site plan for Phases 1a & 1b is shown in **Figure 5.** Phases 1a, 1b & 1c site plans are shown in **Figures 6a, 6b, 6c, and 6d**. The project is forecasted to open in 2024. The City of San Diego *Otay Mesa Community Plan Update* identifies the site with a land use designation of Neighborhood Village (15-25 du/ac) while the site is zoned Agricultural-Residential (AR). The following discretionary approvals are required as part of the Specific Plan:

1) Ordinance approving the Southwest Village Specific Plan
2) Rezone Ordinance to implement Specific Plan land uses
3) General Plan/Otay Mesa Community Plan Amendment to remove the Neighborhood Village designation and designate Specific Plan land uses and circulation changes
4) Planned Development Permit (PDP) to implement requested deviations in the Specific Plan
5) Southwest Village VTM 1
6) Update to the Otay Mesa Public Facilities Financing Plan to include new parks, a sewer pump station, and other public facilities

Additional discretionary approvals required for VTM-1:

1) Site Development Permit
2) MHPA Boundary Adjustment

This Local Mobility Analysis includes pedestrian, bicycle, transit, and traffic elements. The project has three phases to define when Beyer Blvd is required to be extended from San Ysidro to VTM-1 and is not tied to a specific year. Phases 1a and 1b represent a 100% distribution from Caliente Ave while Phase 1c represent a 24% distribution to along the extension of Beyer Blvd from San Ysidro to VTM-1 and a 76% distribution to Caliente Ave. The format of this study includes the following chapters:

1.0 Introduction
2.0 Local Mobility Analysis Methodology
3.0 Pedestrian Analysis
4.0 Bicycle Analysis
5.0 Transit Analysis
6.0 Systemic Safety Review
7.0 Traffic Analysis
8.0 On-Site Parking; Access and On-Site Circulation; and Estimated Stop Sign Warrants
9.0 Proposed Improvements

Figure 1: Project Location

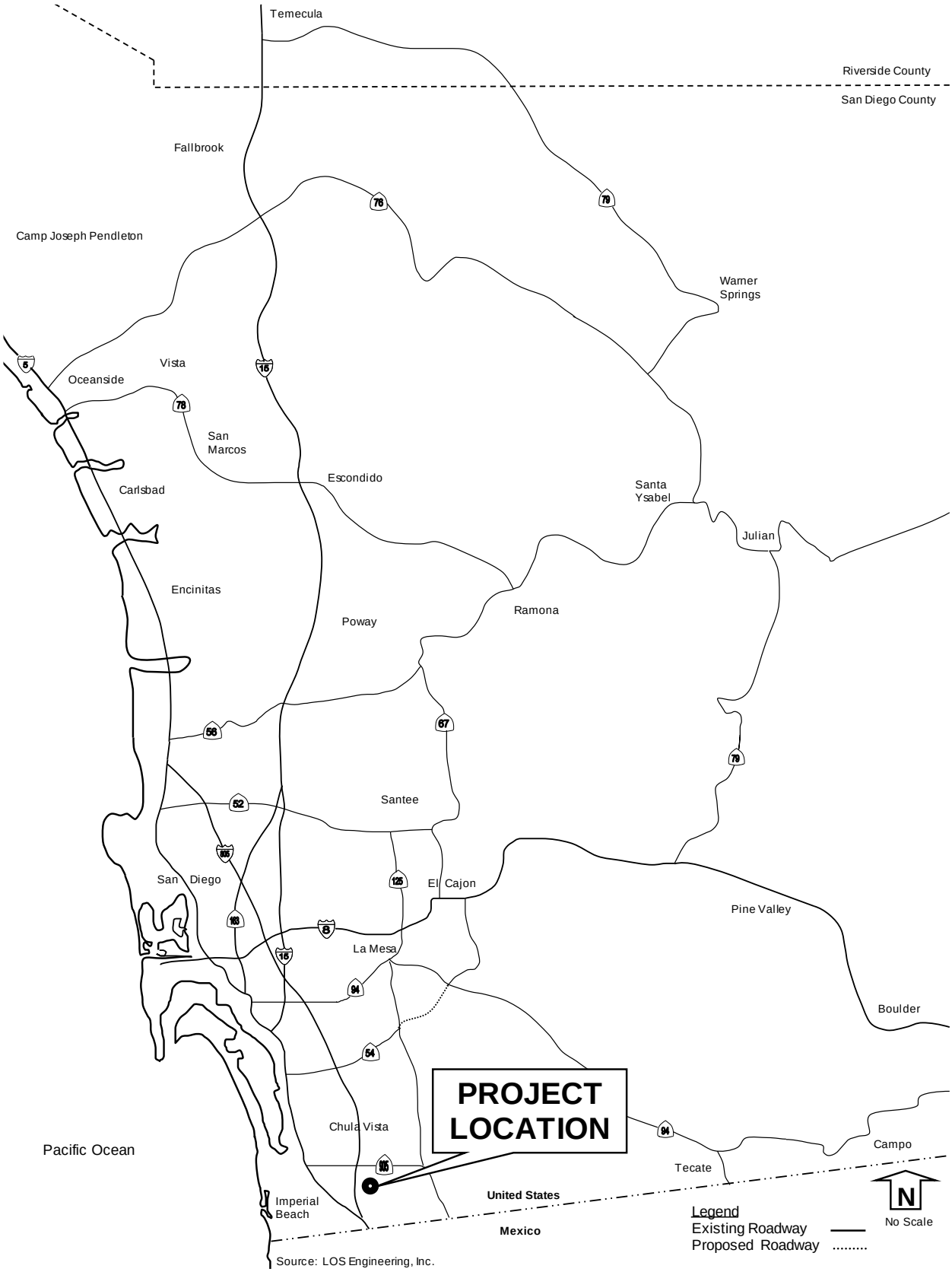
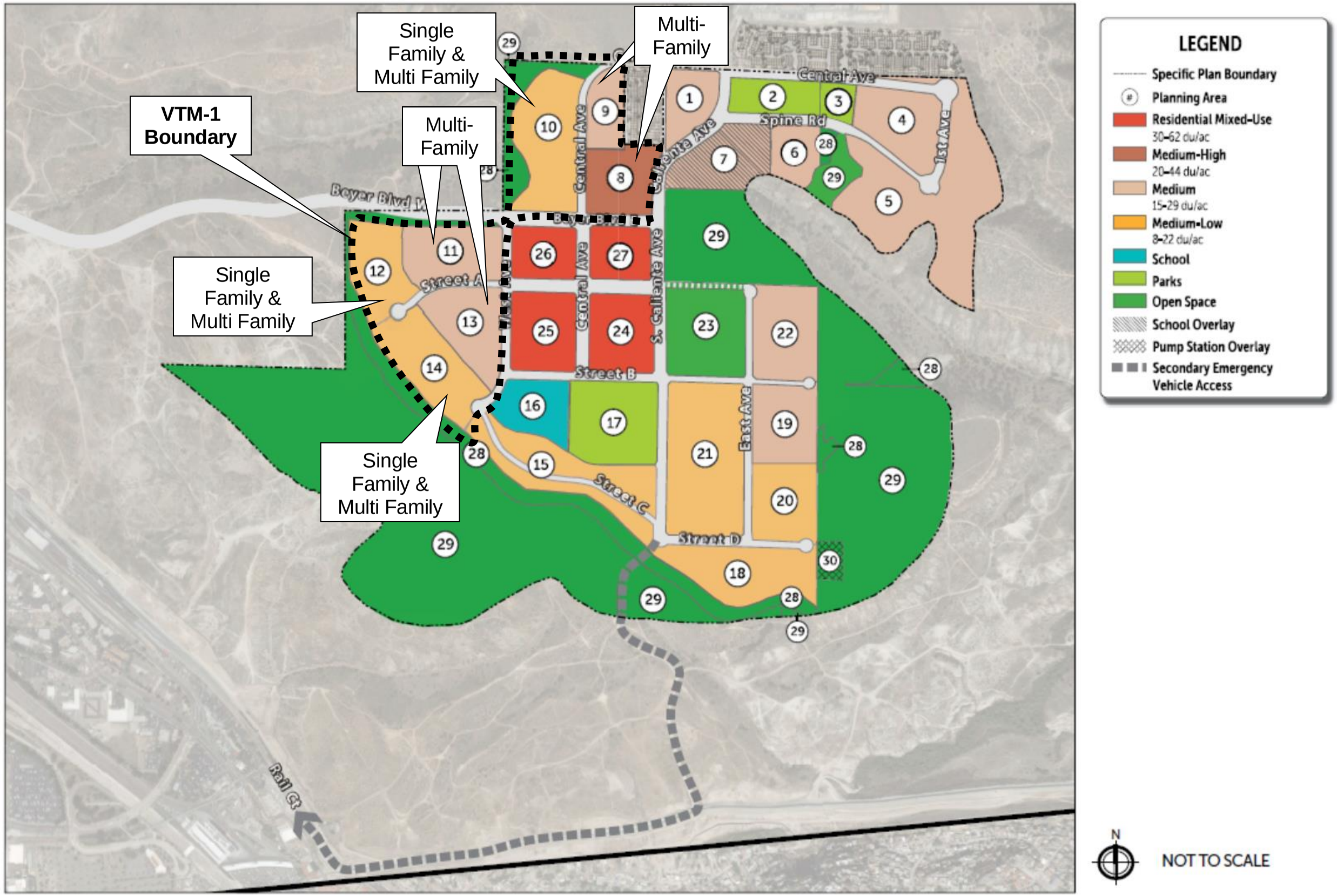


Figure 2: Project Location within Southwest Village

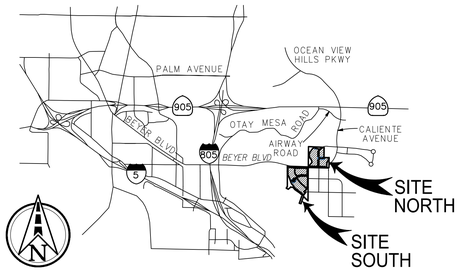


Source: Rick Engineering, Inc.

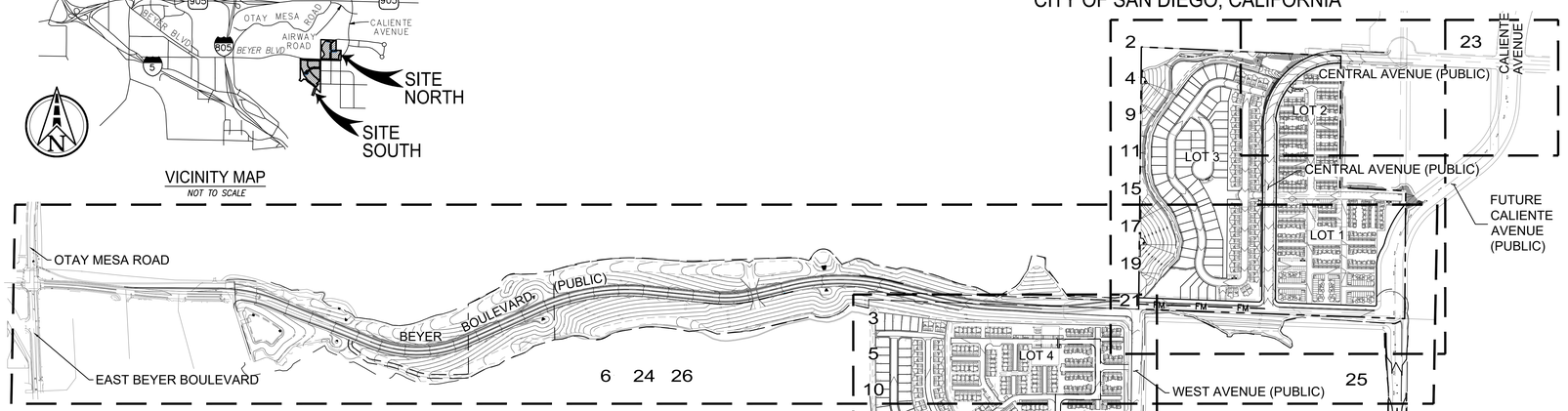
VESTING TENTATIVE MAP NO. 2188969 / PDP 2188970 / SDP 2188971
(FOR CONDOMINIUM PURPOSES)

SOUTHWEST VILLAGE

CITY OF SAN DIEGO, CALIFORNIA



VICINITY MAP
NOT TO SCALE



KEY MAP LEGEND:

- SHEET BOUNDARY
- (2) SHEET NUMBER

KEY MAP
NOT TO SCALE

SHEET INDEX

1. LAND USE PLAN/TITLE SHEET
2. TOPOGRAPHIC AND MAPPING CONSTRAINTS MAP – NORTH
3. TOPOGRAPHIC AND MAPPING CONSTRAINTS MAP – SOUTH
4. SLOPE ANALYSIS – NORTH
5. SLOPE ANALYSIS – SOUTH
6. TOPOGRAPHIC MAP AND SLOPE ANALYSIS – FUTURE BEYER BLVD
7. STREET AND TRAIL CROSS SECTIONS – NORTH
8. STREET AND TRAIL CROSS SECTIONS – SOUTH
9. VESTING TENTATIVE MAP – NORTH
10. VESTING TENTATIVE MAP – SOUTH
11. PDP/SDP SITE PLAN – NORTH
11A. TYPICAL PLOT PLANS
12. PDP/SDP SITE PLAN – SOUTH
13. SITE CROSS SECTIONS – NORTH
14. SITE CROSS SECTIONS – SOUTH
15. GRADING & DRAINAGE PLAN – NORTH
16. GRADING & DRAINAGE PLAN – SOUTH
17. UTILITY PLAN – NORTH
18. UTILITY PLAN – SOUTH
19. ACCESSIBILITY AND PARKING PLAN – NORTH
20. ACCESSIBILITY AND PARKING PLAN – SOUTH
21. FIRE ACCESS PLAN – NORTH
22. FIRE ACCESS PLAN – SOUTH
23. OFFSITE ACCESS, GRADING & UTILITY PLAN CENTRAL AVENUE – SUPERELEVATION (NORTH AREA) PLAN AND PROFILE
24. OFFSITE ACCESS, GRADING & UTILITY PLAN BEYER BOULEVARD WEST – PLAN & PROFILE
25. OFFSITE ACCESS, GRADING & UTILITY PLAN BEYER BOULEVARD EAST – PLAN & PROFILE
26. CONSERVATION EASEMENT VACATION EXHIBIT
27. FILL DISPOSAL/BORROW PLAN
28. UTILITY PLAN SOUTH PHASE 1B
29. LANDSCAPE CONCEPT PLAN– NORTH
30. LANDSCAPE CONCEPT PLAN– SOUTH
31. LANDSCAPE CONCEPT PLAN– BEYER BOULEVARD
32. OPEN SPACE ENLARGEMENTS
33. OPEN SPACE ENLARGEMENTS
34. OPEN SPACE ENLARGEMENTS
35. TRAIL AMENITIES ENLARGEMENTS
36. WATER USE CALCULATIONS, PLANT PALETTES AND NOTES
37. BRUSH MANAGEMENT AND FENCING PLAN–NORTH
38. BRUSH MANAGEMENT AND FENCING PLAN–SOUTH
39. BRUSH MANAGEMENT NOTES AND DETAILS
40. WALL AND FENCE DETAILS
41. LANDSCAPE CALCULATIONS–NORTH
42. LANDSCAPE CALCULATIONS–SOUTH
43. RECREATION EASEMENTS – NORTH
44. RECREATION EASEMENTS – SOUTH
45. EMERGENCY VEHICLE ACCESS ROAD
46. EMERGENCY VEHICLE ACCESS ROAD
47. LANDSCAPE CONCEPT PLAN – EVA

LEGEND

ITEM	SYMBOL
PROPOSED IMPROVEMENTS	
SUBDIVISION/VTM BOUNDARY	
PROPERTY LINE	
LOT LINE/ROW	
CENTERLINE	
MHPA BOUNDARY	
PROPOSED EASEMENT	
BRUSH MANAGEMENT ZONE BOUNDARY	
CONCRETE CURB & GUTTER (PVT)	
SIDEWALK	
ASHPALT PAVING	
UNIT NUMBER AND PAD ELEVATION	DU 47 PE=487.2
BUILDING NUMBER AND PAD ELEVATION	BLDG. 5 PE=492.5
MULTIFAMILY DETACHED DWELLING UNIT NUMBER	DU 97
DIRECTION OF FLOW	1.0%
DAYLIGHT LINE/GRADING LIMIT	
PROPOSED MAJOR CONTOUR	420
PROPOSED MINOR CONTOUR	
SLOPE 2:1 (MAX)	
BROW DITCH	
SWALE	
COMMUNITY TRAIL	
RETAINING WALL	
STORM DRAIN 18" UNLESS OTHERWISE NOTED	SD SD
DETENTION VAULT AND WATER QUALITY STRUCTURES	
PRECAST CATCH BASIN	
TYPE A–4 CLEAN OUT	
CURB INLET	
STORM DRAIN HEADWALL	
RIPRAP	
SEWER MANHOLE	
SEWER 8" UNLESS OTHERWISE NOTED	S
WATER 8" UNLESS OTHERWISE NOTED	W
DUAL WATER METERS AND BACKFLOW DEVICE PER SDW–157	
FIRE SERVICE PER NFPA PAHMPLET 24 (2016 EDITION) 8" UNLESS OTHERWISE NOTED	FS FS
BACKFLOW PREVENTER REDUCED PRINCIPLE DETECTOR ASSEMBLY FOR FIRE SERVICE 3" AND LARGER PER SDW–105	
FIRE HYDRANT	
STREET LIGHT	
EXISTING CONDITIONS	
EXISTING MAJOR CONTOUR	420
EXISTING MINOR CONTOUR	
EXISTING ROAD OR TRAIL	
EXISTING TREE OR BUSH	
EXISTING BUILDING OR MANMADE STRUCTURE	
EXISTING WATER	
EXISTING SEWER	
EXISTING STORM DRAIN	

DEVELOPMENT SUMMARY / GENERAL NOTES

BULLET POINT NARRATIVE

A. THE PROJECT SITE IS CURRENTLY VACANT LAND LOCATED IN THE SOUTHWEST VILLAGE PLANNING AREA OF THE OTAY MESA COMMUNITY PLAN. THE PROPOSED PROJECT INCLUDES THE CONSTRUCTION OF SEVEN SEPARATE PLANNING AREAS WITH THE FOLLOWING TABULATED INFORMATION FOR THE RESIDENTIAL DEVELOPMENT:

PLANNING AREA (PA)	DWELLING UNITS (DU)	RESIDENTIAL TYPE	NO. OF RESIDENTIAL BUILDINGS	SPECIFIC PLAN DENSITY RANGE	SPECIFIC PLAN DWELLING UNIT RANGE (MIN.–MAX.)	PROPOSED DENSITY	PROPOSED ZONE	PROPOSED NUMBER OF LEGAL LOTS (RESIDENTIAL)
* 8	185	MULTI–FAMILY ATTACHED	21	20–44 DU/AC	92–282 DU	26.1 DU/AC	RM 3–7	1
9	95	MULTI–FAMILY ATTACHED	13	15–29 DU/AC	38–107 DU	21.6 DU/AC	RM 2–5	1
10	130	MULTI–FAMILY DETACHED	96	8–22 DU/AC	65–225 DU	10.0 DU/AC	RM 1–3	1
11	168	MULTI–FAMILY ATTACHED	29	15–29 DU/AC	81–190 DU	17.1 DU/AC	RM 2–5	1
12	76	MULTI–FAMILY DETACHED	56	8–22 DU/AC	44–137 DU	11.2 DU/AC	RM 1–3	1
13	170	MULTI–FAMILY ATTACHED	29	15–29 DU/AC	83–193 DU	17.0 DU/AC	RM 2–5	1
14	96	MULTI–FAMILY DETACHED	70	8–22 DU/AC	60–181 DU	10.5 DU/AC	RM 1–3	1
TOTALS:	920	–	–	–	–	–	–	7

* NOTE : PA 8 SHALL INCLUDE A MINIMUM OF 92 AFFORDABLE HOUSING UNITS

B. THE PROJECT PROPOSES A RESIDENTIAL DEVELOPMENT WITH A DENSITY RANGE BASED UPON THE PROPOSED SPECIFIC PLAN ZONING. THE PRIVATE DRIVES HAVE BEEN EXCLUDED FROM THE OVERALL ACREAGE PER CODE SECTION 143.0310(B)(5) OF THE PDP REGULATIONS. PUBLIC STREETS AND HOA LOTS HAVE ALSO BEEN EXCLUDED FROM THE NET ACREAGE. THE SITE WILL INCLUDE 302 RESIDENTIAL MULTI–FAMILY DETACHED UNITS WITH GARAGES AND AN ADDITIONAL 618 MULTI–FAMILY ATTACHED DWELLING UNITS WITH GARAGES FOR A TOTAL OF 920 UNITS. ADDITIONALLY, THIS PROPOSED PROJECT INCLUDES THE GRADING AND CONSTRUCTION OF OFFSITE BEYER BLVD. FROM THE WESTERLY PROJECT LIMITS TO EXISTING BEYER BLVD. AND THE MASS GRADING OF AN ADJACENT OFFSITE BORROW SITE WITHIN THE SPECIFIC PLAN AREA.

C. THIS PROJECT IS A RESIDENTIAL CONDOMINIUM PROJECT AS DEFINED IN SECTION 4125 OR 6542 OF THE CIVIL CODE OF THE STATE OF CALIFORNIA AND FILED PURSUANT TO THE SUBDIVISION MAP ACT. THE TOTAL NUMBER OF RESIDENTIAL CONDOMINIUM UNITS IS 920 AS SHOWN IN THE 7 NUMBERED LOTS (LOTS 1–7) AND ONE REMAINDER PARCEL. THERE ARE 5 PRIVATE HOA LOTS (LETTERED LOTS A, B, C, D AND E).

D. THIS PROJECT WILL REQUIRE THE FOLLOWING PERMITS/APPROVALS:
VESTING TENTATIVE MAP; PLANNED DEVELOPMENT PERMIT; SITE DEVELOPMENT PERMIT; GRADING PERMITS; PUBLIC IMPROVEMENT PERMITS, SUBDIVISION MAP, AND BUILDING DEPARTMENT PERMITS.

E. DEVIATIONS TO BUILDING SETBACKS ARE BEING REQUESTED FROM THE BASE ZONE STANDARDS. THESE DEVIATIONS ARE IN CONFORMANCE WITH THOSE SHOWN IN THE ACCOMPANYING SOUTHWEST VILLAGE SPECIFIC PLAN. SEE SHEETS 11/12 FOR SETBACK TABLES & DELINEATION.

F. THE PROJECT WILL BE PROVIDING 10% OF THE ON–SITE UNITS AS AFFORDABLE HOUSING LOCATED IN PLANNING AREA 8. THE REQUIRED AFFORDABLE HOUSING IS 92 UNITS.

G. MULTIPLE FINAL MAPS ARE PROPOSED FOR THIS TENTATIVE MAP PURSUANT TO ARTICLE R, SECTION 66456.1 OF THE SUBDIVISION MAP ACT. THE FINAL MAPS MAY BE RECORDED IN ANY SEQUENCE.

H. ALL FINAL MAPS SHALL COMPLY WITH PROVISIONS OF THE VESTING TENTATIVE MAP (VTM 2188969), SITE DEVELOPMENT PERMIT (SDP 2188971), AND PLANNED DEVELOPMENT PERMIT (PDP 2188970).

I. ALL STREETS WITHIN PLANNING PA 8 – 14 WILL BE PRIVATE DRIVES, EXCEPT BEYER BOULEVARD, STREET A, CENTRAL AVENUE AND WEST AVENUE WHICH WILL BE PUBLIC.

J. ALL PROPOSED UTILITIES AND EXISTING OVERHEAD UTILITIES WILL BE UNDERGROUND IN THE AREAS FOR PROPOSED GRADING, IMPROVEMENTS AND DEVELOPMENT OF PLANNING AREAS 8–14 ONLY PER SAN DIEGO MUNICIPAL CODE.

K. ALL PRIVATE DRIVE STREET LIGHTING FOR PLANNING AREAS 8–14 WILL BE PROVIDED DURING BUILDING PERMITS.

L. A PROPOSED BORROW/FILL DISPOSAL SITE WILL BE USED TO PLACE BORROW/FILL MATERIAL AS NEEDED TO BALANCE EARTHWORK FOR PLANNING AREAS 8–14. THIS BALANCE AREA VOLUME RANGES FROM 50,000 CY TO 150,000 CY. SEE SHEET 27 FOR DETAILS.

M. A FUTURE TRANSIT STOP IS PLANNED ON BEYER BOULEVARD IN THE VICINITY OF PLANNING AREA 27.

N. THE GEOLOGIC HAZARD CATEGORIES FOUND ON THIS SITE ARE LEVEL OR SLOPING TERRAIN, UNFAVORABLE GEOLOGIC STRUCTURE, AND LOW TO MODERATE RISK. SEE GEOTECHNICAL REPORT TITLED " GEOTECHNICAL FEASIBILITY STUDY, SOUTH OTAY MESA PROPERTY, CAL." DATED OCTOBER 4, 2002.

O. PROJECT DEVELOPMENT AND CRITERIA ARE DEVELOPED IN ACCORDANCE WITH THE SOUTHWEST VILLAGE SPECIFIC PLAN. THE SOUTHWEST VILLAGE SPECIFIC PLAN SETS FORTH THE POLICY AND REGULATORY FRAMEWORK FOR DEVELOPMENT WITHIN THE SOUTHWEST VILLAGE SPECIFIC PLAN PROJECT AREA. THE PROPOSED PROJECT SERVES AS THE FIRST PHASE OF IMPLEMENTATION OF THE SPECIFIC PLAN. DEVELOPMENT WITHIN THE PROPOSED PROJECT IMPLEMENTS THE LAND USE POLICIES, ZONING PROVISIONS, DEVELOPMENT STANDARDS, AND DESIGN GUIDELINES SET FORTH IN THE SPECIFIC PLAN AND IS THEREFORE CONSISTENT WITH ALL POLICIES AND STANDARDS CONTAINED THEREIN. NO DEVIATIONS FROM THE SOUTHWEST VILLAGE SPECIFIC PLAN ARE REQUESTED.

P. ALL PRIVATELY OWNED PARK, HOA AREAS, LOTS AND TRAILS SHOWN TO BE USED BY PUBLIC SHALL HAVE A RECREATION EASEMENT ALLOWING FOR THE RIGHT OF INGRESS AND EGRESS TO THE GENERAL PUBLIC OVER, UPON, AND ACROSS PRIVATE PROPERTY INCLUDING, BUT NOT LIMITED TO, LANDSCAPING, IRRIGATION SYSTEMS, EROSION CONTROL FACILITIES, HIKING TRAILS, EQUESTRIAN TRAILS, BIKEWAYS, AND RELINQUISH ANY AND ALL RIGHT TO CONSTRUCT, ERECT, OR MAINTAIN ANY ABOVEGROUND ROOFED BUILDING OR COVERED STRUCTURE EXCEPT FOR RECREATIONAL BUILDING AND ASSOCIATED FACILITIES, GRANTING TO THE CITY OF SAN DIEGO THE RIGHT TO THE PERMIT ANY PUBLIC UTILITY COMPANY TO CONSTRUCT DISTRIBUTION FACILITIES, PROVIDED SUCH FACILITIES ARE CONSTRUCTED UNDERGROUND. RESPONSIBILITY FOR MAINTENANCE OF SAID REAL PROPERTY SHALL REMAIN WITH THE OWNER OF THE FEE TITLE. THIS INCLUDES MASTER PLAN ELEMENTS SUCH AS DETENTION/STORM DRAIN SYSTEM AND WATER QUALITY FACILITIES.

Q. A PORTION OF PRIVATE HOA LOTS "A", "B" & "C" WILL HAVE A COVENANT OF EASEMENT FOR HOA MAINTAINED OPEN SPACE DEDICATION.

R. NO OBSTRUCTION, INCLUDING SOLID WALLS, IN THE SITE VISIBILITY AREAS SHALL EXCEED 3 FEET IN HEIGHT PER SD SECTION 142.0409 (B)(2). NO PLANT MATERIAL, OTHER THAN TREES, LOCATED IN THE SITE VISIBILITY AREAS OR ADJACENT PUBLIC RIGHT SHALL NOT EXCEED 36 INCHES IN HEIGHT, MEASURED FROM THE LOWEST GRADE ABUTTING PLANT MATERIAL TO THE TOP OF THE PLANT MATERIAL.

S. PROJECT BRUSH MANAGEMENT ZONES ARE BASED UPON A STANDARD 35' ZONE 1 AND A 65' ZONE 2 REQUIREMENT.
ALTERNATIVE COMPLIANCE IS PROPOSED WITH THIS VTM IN PA 10,12 AND 14. SEE BRUSH MANAGEMENT PLANS FOR LOT LOCATION AND ALTERNATIVE COMPLIANCE FEATURES.

T. PROJECT PROPOSES AN MHPA BOUNDARY ADJUSTMENT PER ENVIRONMENTAL DOCUMENTS.

U. PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMIT, THE OWNER/PERMITTEE SHALL ENTER INTO A MAINTENANCE AGREEMENT FOR THE ONGOING BMP MAINTENANCE, SATISFACTORY TO THE CITY ENGINEER.

V. PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMIT, THE OWNER/PERMITTEE SHALL INCORPORATE ANY CONSTRUCTION BEST MANAGEMENT PRACTICES NECESSARY TO COMPLY WITH CHAPTER 14, ARTICLE 2, DIVISION 1 (GRADING REGULATIONS) OF THE SAN DIEGO MUNICIPAL CODE, INTO THE CONSTRUCTION PLANS OR SPECIFICATIONS.

W. THE PROPOSED PROJECT WILL COMPLY WITH ALL THE REQUIREMENTS OF THE CURRENT CITY OF SAN DIEGO STORM WATER STANDARDS MANUAL BEFORE A GRADING OR BUILDING PERMIT IS ISSUED. IT IS THE RESPONSIBILITY OF THE OWNER/DESIGNER/APPLICANT TO ENSURE THE CURRENT STORM WATER PERMANENT BMP DESIGN STANDARDS ARE INCORPORATED INTO THE PROJECT.

X. EXISTING PRIVATE ROAD EASEMENTS SHALL BE QUITCLAIMED AND EXISTING OFFSITE PUBLIC STREET EASEMENTS SHALL BE VACATED SEPARATELY THROUGH STREETS AND HIGHWAY CODES AS SHOWN ON THE VTM.

Y. SOURCE OF TOPOGRAPHY: 2' CONTOUR INTERVAL PREPARED BY PROJECT DESIGN CONSULTANTS DATED 7/20/04 AND RICK ENGINEERING COMPANY 4/24/20.

LEGAL DESCRIPTION

A PORTION OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 31, TOWNSHIP 18 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO OFFICIAL PLAT THEREOF.

TOGETHER WITH PARCELS 1, 2, 3 AND 4 OF PARCEL MAP 7065, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, MARCH 27, 1978.

TOGETHER WITH PARCEL 1 OF PM 21823 IN THE CITY OF SAN DIEGO, THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED IN THE OFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, DECEMBER 10, 2020 AS FILE NO. 2020–70000416.

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83)
(EPOCH 1991.35) ZONE 6, AND IS DETERMINED BY GPS MEASUREMENTS TAKEN ON NOVEMBER 13, 2014 AT FIRST ORDER STATIONS SDGPS–190 AND SDGPS–GAY 1964 PER ROS 14492.

THE BEARING FROM STA. SDGPS–190 TO STA SDGPS–GAY 1964 IS N74°03'05" E

BENCHMARK

THE BENCH MARK FOR THIS SURVEY IS NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD23), BASED LOCALLY UPON THE "MBP IN THE TOP OF THE INLET AT THE INTERSECTION OF OTAY MESA ROAD AND REMINGTON HILLS DRIVE, PER THE CITY OF SAN DIEGO VERTICAL CONTROL BOOK DATED OCTOBER 4, 2011.

ELEVATION: 270.049, PER U.S.G.S ADJUSTMENT OF 1970

ASSESSORS PARCEL NUMBER

645–061–09, 645–061–08, 645–061–07, 645–061–06, 645–061–04, 667–010–34

TYPE OF CONSTRUCTION

TYPE V – FIRE RESISTIVE CONSTRUCTION WITH 1–HOUR STRUCTURAL FRAME. STRUCTURES WILL HAVE RATED CONSTRUCTION AS REQUIRED BY THE FIRE MARSHALL FOR HOMES AFFECTED BY BRUSH MANAGEMENT CONDITIONS (CHAPTER 7A OF THE BUILDING CODE) AND AS SHOWN ON THE BRUSH MANAGEMENT PLANS

CONDOMINIUM MAP NOTE

THIS SUBDIVISION IS A RESIDENTIAL CONDOMINIUM PROJECT AS DEFINED IN SECTION 4125 OR 6542 OF THE CIVIL CODE OF THE STATE OF CALIFORNIA AND IS FILED PURSUANT TO THE SUBDIVISION MAP ACT. THE TOTAL NUMBER OF RESIDENTIAL CONDOMINIUM UNITS IS 920 UNITS ON 7 LOTS.

OCCUPANCY CLASSIFICATION

R2/R=3; RESIDENTIAL OCCUPANCY

COMMUNITY PLAN AREA

OTAY MESA

PROJECT GROSS SITE AREA

VTM ACREAGE	86.1 AC
* OFFSITE ACREAGE	32.1 AC
REMAINDER PARCEL	1.5 AC
OFFSITE BORROW	63.2 AC
	182.9 AC

* GRADING AND IMPROVEMENTS OUTSIDE OF THE VTM BOUNDARY, BEYER BLVD, A PORTION OF CENTRAL AVENUE, AND A PORTION OF WEST AVENUE. AREAS DO NOT INCLUDE ANY GEOTECHNICAL REMEDIAL GRADING

ZONING DESIGNATION

EXISTING ZONING: AR–1–1
PROPOSED ZONING: RM–1–3, RM–2–5, RM–3–7

PROPOSED USE

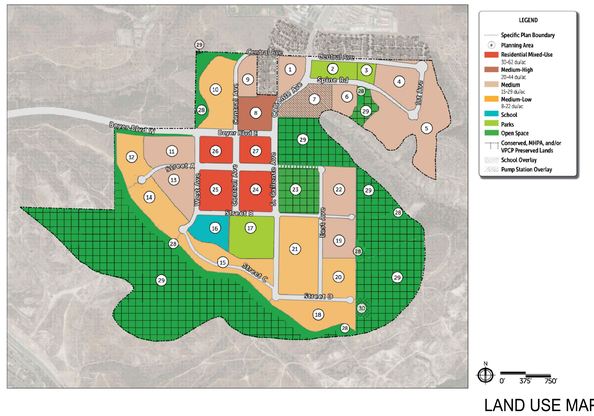
THE PROJECT PROPOSES A RESIDENTIAL DEVELOPMENT WITH A DENSITY RANGE BASED UPON THE PROPOSED SPECIFIC PLAN ZONING. THE SITE WILL INCLUDE 302 ON–GRADE RESIDENTIAL MULTI–FAMILY DETACHED UNITS WITH ATTACHED GARAGES AND AN ADDITIONAL 618 MULTI–FAMILY ATTACHED UNITS WITH ATTACHED GARAGES. FOR A TOTAL OF 920 UNITS.

ABBREVIATIONS

H	HEIGHT
FS	FINISH SURFACE
FL	FLOW LINE
IOD	IRREVOCABLE OFFER OF DEDICATION
I.E.	INVERT ELEVATION
PI	POINT OF INTERSECTION
PVT	PRIVATE
TG	TOP OF GRADE
TP	TOP OF PIPE

MAPPING NOTE

A FINAL MAP SHALL BE FILED AT THE COUNTY RECORDER'S OFFICE PRIOR TO THE EXPIRATION OF THE VESTING TENTATIVE MAP IF APPROVED. A DETAILED PROCEDURE OF SURVEY SHALL BE SHOWN ON THE FINAL MAP AND ALL PROPERTY CORNERS SHALL BE MARKED WITH DURABLE SURVEY MONUMENTS.



N 0 375 750

LAND USE MAP
SOURCE: SOUTHWEST VILLAGE SPECIFIC PLAN (DRAFT)

OWNER / DEVELOPER:
tri pointe HOMES
13520 EVENING CREEK DRIVE NORTH, SUITE 300
SAN DIEGO, CA 92128
TEL. (858) 794–2500
FAX (858) 794–2599

MICHAEL C. TAYLOR
DIVISION PRESIDENT
DATE

PREPARED BY:
Leppert Engineering CORPORATION
5190 Governor Drive, Suite 205, San Diego, Ca. 92122–2848
Phone: (858) 597–2001 Fax: (858) 597–2009

ENGINEER OF WORK:

JOHN D. LEPPERT
R.C.E. 26283
DATE

REGISTERED PROFESSIONAL ENGINEER JOHN D. LEPPERT No. 26283 CIVIL STATE OF CALIFORNIA

PREPARED BY:
NAME: CIVIL SENSE, INC.
ADDRESS: 13475 DANIELSON STREET, SUITE 150
POWAY, CA 92128
PHONE: 858–843–4253

PROJECT NAME:
SOUTHWEST VILLAGE
VTM/PDP/SDP

SHEET TITLE:
SOUTHWEST VILLAGE
LAND USE PLAN / TITLE SHEET

PTS: 614791
I.O.: 24007991

REVISIONS:

REVISION 10:	
REVISION 9:	
REVISION 8:	
REVISION 7:	03/27/2024
REVISION 6:	11/02/2023
REVISION 5:	06/23/2023
REVISION 4:	12/16/2022
REVISION 3:	07/15/2022
REVISION 2:	08/07/2020
REVISION 1:	11/15/2019

ORIGINAL DATE: 03/29/2019

SHEET 1 OF 47

PROJECT TEAM

OWNER / DEVELOPER

TRI POINTE HOMES IE–SD, INC.
13520 EVENING CREEK DRIVE NORTH, SUITE 300
SAN DIEGO, CA 92128
PHONE: (858) 794–2500 FAX: (858) 794–2599

CIVIL ENGINEER

LEPPERT ENGINEERING CORPORATION
5190 GOVERNOR DRIVE, SUITE 205
SAN DIEGO, CA 92122
PHONE: (858) 597–2001

ENVIRONMENTAL CONSULTANT

RECON ENVIRONMENTAL, INC.
3111 CAMINO DEL RIO NORTH #600
SAN DIEGO, CA 92108
PHONE: (619) 308–9333

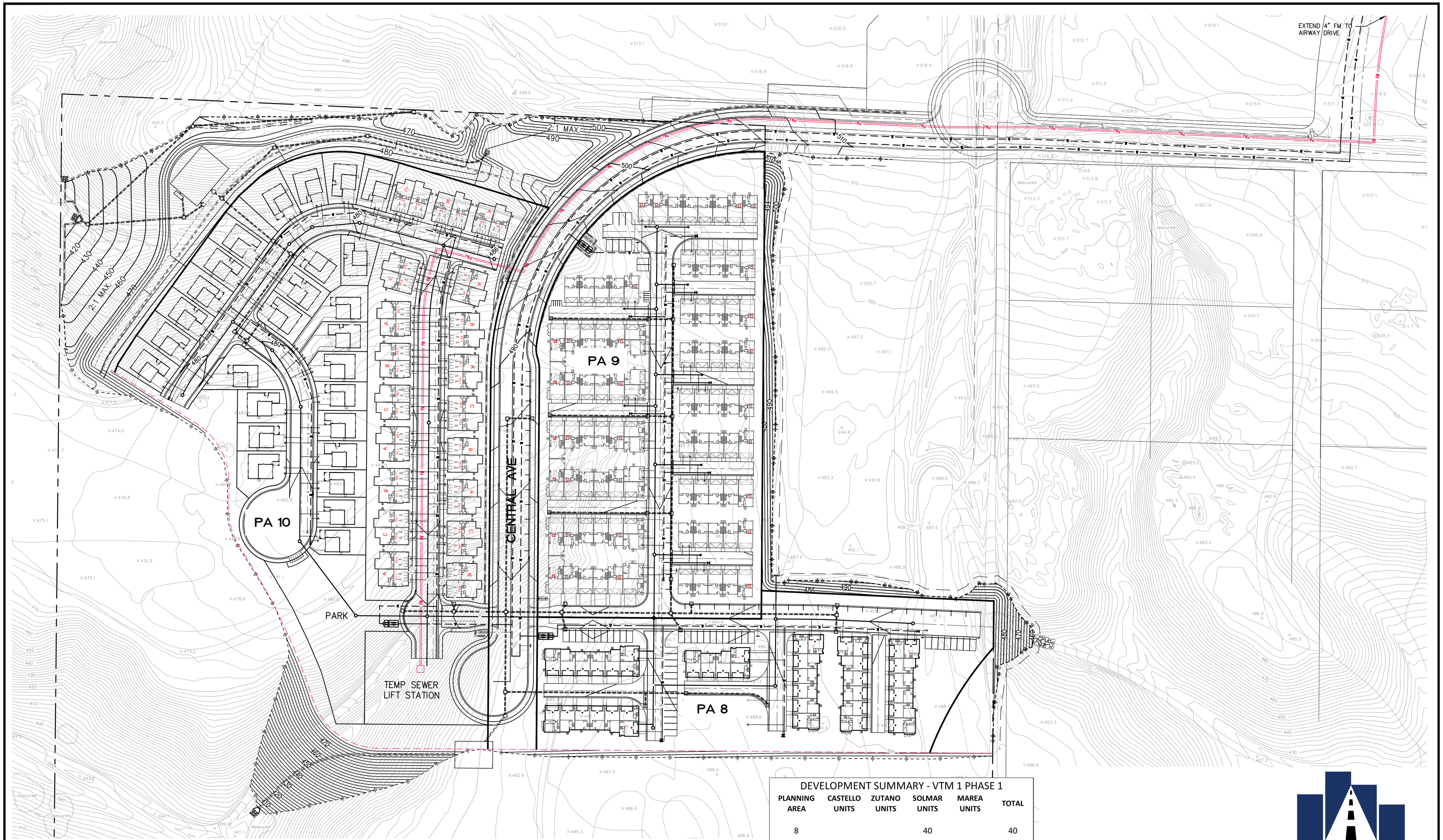
GEOTECHNICAL ENGINEER

GEOCON
6960 FLANDERS DRIVE
SAN DIEGO, CA 92121
PHONE: (858) 558–6900

TRANSPORTATION ENGINEER

LOS ENGINEERING, INC.
11622 EL CAMINO REAL, SUITE 100
SAN DIEGO, CA 92130
PHONE: (619) 890–1253

Figure 4: Phase 1a Site Plan



DEVELOPMENT SUMMARY - VTM 1 PHASE 1

PLANNING AREA	CASTELLO UNITS	ZUTANO UNITS	SOLMAR UNITS	MAREA UNITS	TOTAL
8			40		40
9				95	95
10	27	38			65
SUBTOTAL	27	38	40	95	200

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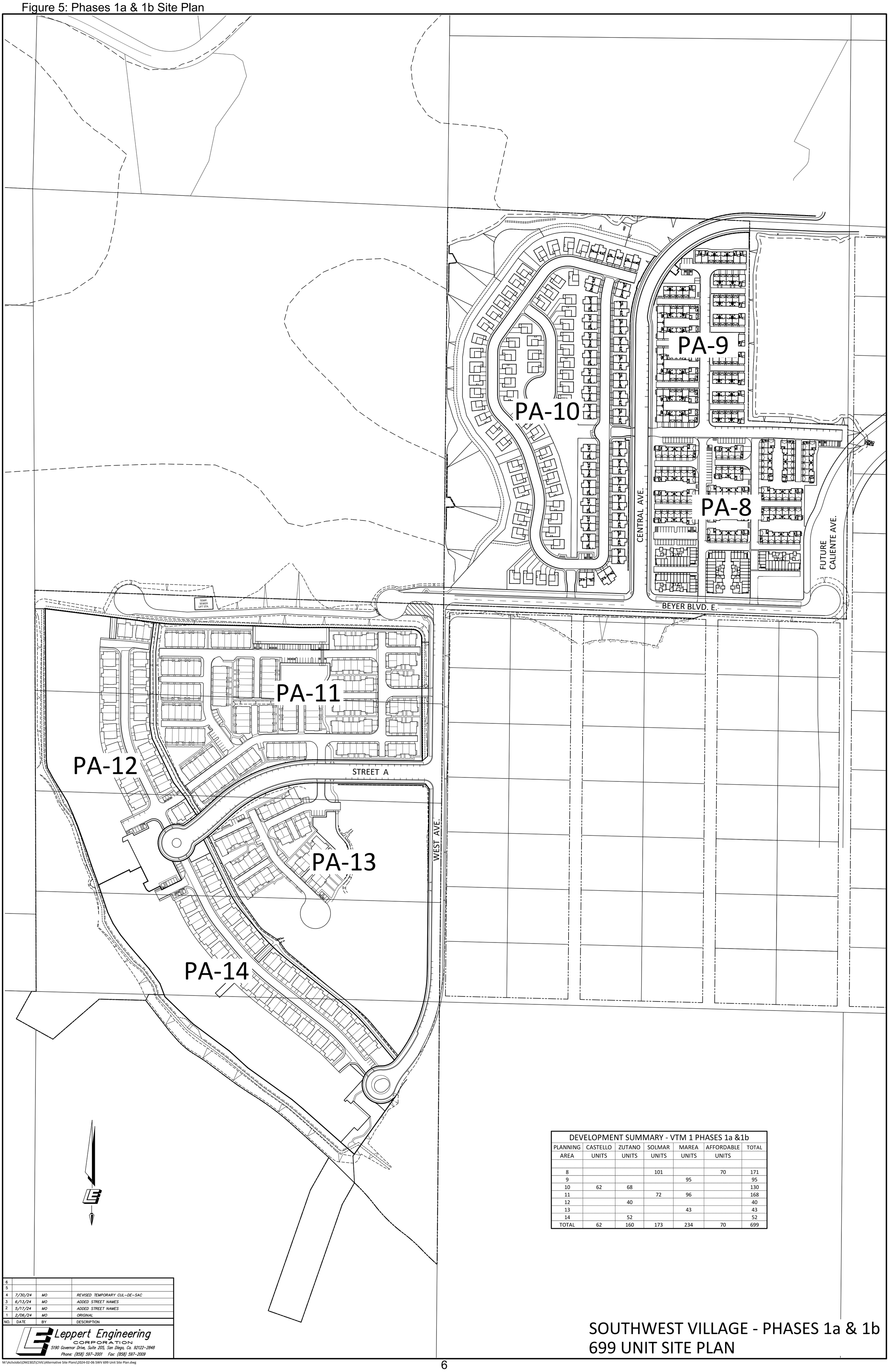
Poway, CA 92064

DATE: 10/02/2023

SOUTHWEST VILLAGE - PHASE 1
GRADING AND UTILITY EXHIBIT

Figure 5: Phases 1a & 1b Site Plan



DEVELOPMENT SUMMARY - VTM 1 PHASES 1a &1b						
PLANNING AREA	CASTELLO UNITS	ZUTANO UNITS	SOLMAR UNITS	MAREA UNITS	AFFORDABLE UNITS	TOTAL
8			101		70	171
9				95		95
10	62	68				130
11			72	96		168
12		40				40
13				43		43
14		52				52
TOTAL	62	160	173	234	70	699

NO.	DATE	BY	DESCRIPTION
6			
5			
4	7/30/24	MO	REVISED TEMPORARY CUL-DE-SAC
3	6/13/24	MO	ADDED STREET NAMES
2	5/17/24	MO	ADDED STREET NAMES
1	2/06/24	MO	ORIGINAL

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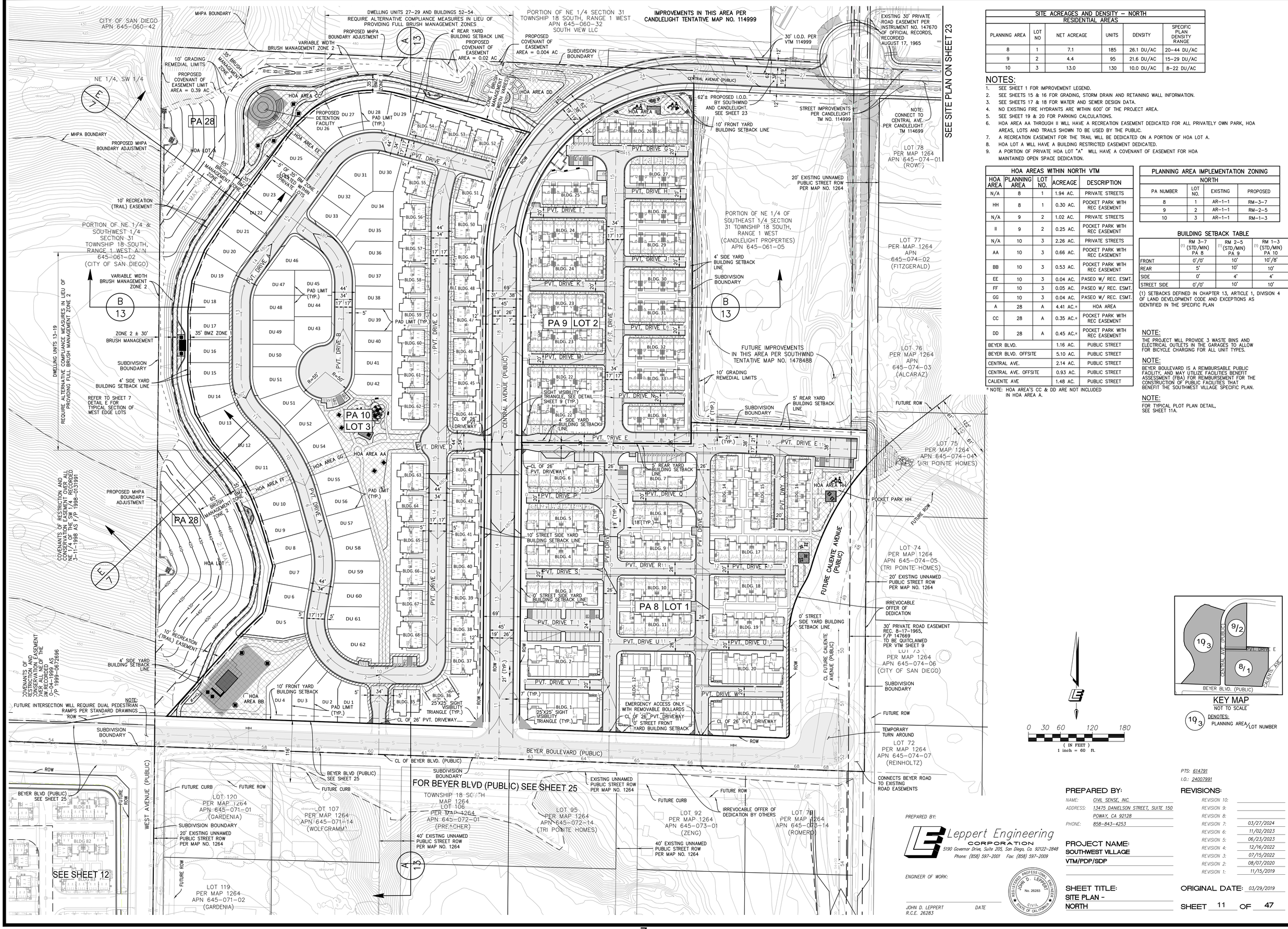
Phone: (858) 597-2001 Fax: (858) 597-2009

SOUTHWEST VILLAGE - PHASES 1a & 1b
699 UNIT SITE PLAN

M:\ActvJobs\OM2302\CIVIL\Alternative Site Plans\2024-02-06 SWV 699 Unit Site Plan.dwg

Figure 6a: Phases 1a, 1b & 1c Site Plan (Planning Areas 8-10)



SITE ACREAGES AND DENSITY – NORTH					
RESIDENTIAL AREAS					
PLANNING AREA	LOT NO	NET ACREAGE	UNITS	DENSITY	SPECIFIC PLAN DENSITY RANGE
8	1	7.1	185	26.1 DU/AC	20–44 DU/AC
9	2	4.4	95	21.6 DU/AC	15–29 DU/AC
10	3	13.0	130	10.0 DU/AC	8–22 DU/AC

NOTES:

1. SEE SHEET 1 FOR IMPROVEMENT LEGEND.
2. SEE SHEETS 15 & 16 FOR GRADING, STORM DRAIN AND RETAINING WALL INFORMATION.
3. SEE SHEETS 17 & 18 FOR WATER AND SEWER DESIGN DATA.
4. NO EXISTING FIRE HYDRANTS ARE WITHIN 600' OF THE PROJECT AREA.
5. SEE SHEET 19 & 20 FOR PARKING CALCULATIONS.
6. HOA AREA AA THROUGH II WILL HAVE A RECREATION EASEMENT DEDICATED FOR ALL PRIVATELY OWN PARK, HOA AREAS, LOTS AND TRAILS SHOWN TO BE USED BY THE PUBLIC.
7. A RECREATION EASEMENT FOR THE TRAIL WILL BE DEDICATED ON A PORTION OF HOA LOT A.
8. HOA LOT A WILL HAVE A BUILDING RESTRICTED EASEMENT DEDICATED.
9. A PORTION OF PRIVATE HOA LOT "A" WILL HAVE A COVENANT OF EASEMENT FOR HOA MAINTAINED OPEN SPACE DEDICATION.

HOA AREAS WITHIN NORTH VTM				
HOA AREA	PLANNING AREA	LOT NO.	ACREAGE	DESCRIPTION
N/A	8	1	1.94 AC.	PRIVATE STREETS
HH	8	1	0.30 AC.	POCKET PARK WITH REC EASEMENT
N/A	9	2	1.02 AC.	PRIVATE STREETS
II	9	2	0.25 AC.	POCKET PARK WITH REC EASEMENT
N/A	10	3	2.26 AC.	PRIVATE STREETS
AA	10	3	0.66 AC.	POCKET PARK WITH REC EASEMENT
BB	10	3	0.53 AC.	POCKET PARK WITH REC EASEMENT
EE	10	3	0.04 AC.	PASEO W/ REC. ESMT.
FF	10	3	0.05 AC.	PASEO W/ REC. ESMT.
GG	10	3	0.04 AC.	PASEO W/ REC. ESMT.
A	28	A	4.41 AC.*	HOA AREA
CC	28	A	0.35 AC.*	POCKET PARK WITH REC EASEMENT
DD	28	A	0.45 AC.*	POCKET PARK WITH REC EASEMENT
BEYER BLVD.			1.16 AC.	PUBLIC STREET
BEYER BLVD. OFFSITE			5.10 AC.	PUBLIC STREET
CENTRAL AVE.			2.14 AC.	PUBLIC STREET
CENTRAL AVE. OFFSITE			0.93 AC.	PUBLIC STREET
CALIENTE AVE			1.48 AC.	PUBLIC STREET

* NOTE: HOA AREA'S CC & DD ARE NOT INCLUDED IN HOA AREA A.

PLANNING AREA IMPLEMENTATION ZONING			
NORTH			
PA NUMBER	LOT NO.	EXISTING	PROPOSED
8	1	AR–1–1	RM–3–7
9	2	AR–1–1	RM–2–5
10	3	AR–1–1	RM–1–3

BUILDING SETBACK TABLE

	(1) RM 3–7 (STD/MIN) PA 8	(1) RM 2–5 (STD/MIN) PA 9	(1) RM 1–3 (STD/MIN) PA 10
FRONT	0'/0'	10'	10'/8'
REAR	5'	10'	10'
SIDE	0'	4'	4'
STREET SIDE	0'/0'	10'	10'

(1) SETBACKS DEFINED IN CHAPTER 13, ARTICLE 1, DIVISION 4 OF LAND DEVELOPMENT CODE AND EXCEPTIONS AS IDENTIFIED IN THE SPECIFIC PLAN

NOTE:
THE PROJECT WILL PROVIDE 3 WASTE BINS AND ELECTRICAL OUTLETS IN THE GARAGES TO ALLOW FOR BICYCLE CHARGING FOR ALL UNIT TYPES.

NOTE:
BEYER BOULEVARD IS A REIMBURSABLE PUBLIC FACILITY, AND MAY UTILIZE FACILITIES BENEFIT ASSESSMENT (FBA) FOR REIMBURSEMENT FOR THE CONSTRUCTION OF PUBLIC FACILITIES THAT BENEFIT THE SOUTHWEST VILLAGE SPECIFIC PLAN.

NOTE:
FOR TYPICAL PLOT PLAN DETAIL, SEE SHEET 11A.

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I.O.: 24007991

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PROJECT NAME:
SOUTHWEST VILLAGE
VTM/PDP/SDP

SHEET TITLE:
SITE PLAN – NORTH

REVISIONS:
REVISION 10:
REVISION 9:
REVISION 8:
REVISION 7: 03/27/2024
REVISION 6: 11/02/2023
REVISION 5: 06/23/2023
REVISION 4: 12/16/2022
REVISION 3: 07/15/2022
REVISION 2: 08/07/2020
REVISION 1: 11/15/2019

ORIGINAL DATE: 03/29/2019

SHEET 11 OF 47

PREPARED BY:
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ENGINEER OF WORK:
JOHN D. LEPPERT R.C.E. 26283 DATE

REGISTERED PROFESSIONAL ENGINEER JOHN D. LEPPERT No. 26283 CIVIL STATE OF CALIFORNIA

Figure 6b: Phases 1a, 1b & 1c Site Plan (Planning Areas 8-10) with Parking Calculations

BUILDING SUMMARY		
SOLMAR (PA-8)		
PLAN	TYPE	NO. OF UNITS
1	2 BR + 2.5 BA	15
2	2 BR + 2.5 BA	15
3	3 BR + 2.5 BA	28
4	3 BR + 2.5 BA	20
5	4 BR + 3.5 BA	15
TOTAL		93
MAREA (PA-9)		
PLAN	TYPE	NO. OF UNITS
1	2 BR + 2.5 BA	6
2	2 BR + 2.5 BA	6
3	3 BR + 2.5 BA + DEN	43
4	4 BR + 3.5 BA	34
5	3 BR + LOFT + 2.5 BA	6
TOTAL		95
CASTELLO (PA-10)		
PLAN	TYPE	NO. OF UNITS
1	3 BR + 2.5 BA	15
2	3 – 4 BR + 2.5 – 3 BA	22
3	4 – 5 BR + 3 BA	25
TOTAL		62
ZUTANO (PA-10)		
PLAN	TYPE	NO. OF UNITS
1	3 BR + 2.5 BA	17
2	3 BR + 2.5 BA	24
3	4 BR + 2.5 BA	27
TOTAL		68

BUILDING SUMMARY		
AFFORDABLE UNITS (PA-8)		
PLAN	TYPE	NO. OF UNITS
1	1 BR + 1 BA	6
2	2 BR + 1 BA	30
3	3 BR + 2 BA	56
TOTAL		92

PA-8 PARKING CALCULATIONS:

PARKING REQUIRED PER CODE:

AUTOMOBILE SPACES PER SDMC TABLE 142-05C			
TYPE	NO. OF UNITS	RATE	SUBTOTAL
1 BEDROOMS	0	1.5	0
2 BEDROOMS	30	2	60
3-4 BEDROOMS	63	2.25	142
TOTAL	93		202

AUTOMOBILE SPACES PER SDMC TABLE 142-05D			
TYPE	NO. OF UNITS	RATE	SUBTOTAL
1 BEDROOMS	6	1	6
2 BEDROOMS	30	1.3	39
3-4 BEDROOMS	56	1.75	98
TOTAL	92		143

COMMON SPACES PER SDMC SECTION 142.0525 (C)(1)(A)
345 REQUIRED SPACES X 0.15 = 52 COMMON SPACES

TOTAL SPACES REQUIRED = 397

ELECTRICAL (EV) PARKING REQUIRED
83 SURFACE SPACES X 0.1 = 9 EV SPACES

ACCESSIBLE SPACES PER CBC TABLE 11B-208.2
4 REQUIRED BASED ON 83 SURFACE SPACES

MOTORCYCLE SPACES PER SDMC TABLE 142-05C			
TYPE	NO. OF UNITS	RATE	SUBTOTAL
1-4 BEDROOMS	185	0.1	19

BICYCLE SPACES PER SDMC TABLE 142-05C *			
TYPE	NO. OF UNITS	RATE	SUBTOTAL
1-4 BEDROOMS	185	0.6	111

* BICYCLE PARKING IS INCLUDED IN EACH GARAGE

PA-8 PARKING PROVIDED:

GARAGE PARKING SPACES:	334
SURFACE SPACES:	72
TOTAL PARKING PROVIDED:	406
MOTORCYCLE SPACES:	19
DISABLED SPACES:	5
ELECTRICAL VEHICLE SPACES:	9
LOADING SPACES:	2

PA-9 PARKING CALCULATIONS:

PARKING REQUIRED PER CODE:

AUTOMOBILE SPACES PER SDMC TABLE 142-05C			
TYPE	NO. OF UNITS	RATE	SUBTOTAL
1 BEDROOMS	0	1.5	0
2 BEDROOMS	12	2	24
3-4 BEDROOMS	83	2.25	187
TOTAL	95	RATE	211

COMMON SPACES PER SDMC SECTION 142.0525 (C)(1)(A)
211 REQUIRED SPACES X 0.15 = 32 COMMON SPACES

TOTAL SPACES REQUIRED = 243

ELECTRICAL (EV) PARKING REQUIRED
53 SURFACE SPACES X 0.1 = 6 SPACE

ACCESSIBLE SPACES PER CBC TABLE 11B-208.2
3 SPACES REQUIRED BASED ON 53 SURFACE SPACES

MOTORCYCLE SPACES PER SDMC TABLE 142-05C			
TYPE	NO. OF UNITS	RATE	SUBTOTAL
2-4 BEDROOMS	95	0.1	10

BICYCLE SPACES PER SDMC TABLE 142-05C *			
TYPE	NO. OF UNITS	RATE	SUBTOTAL
2-4 BEDROOMS	95	0.6	57

* BICYCLE PARKING IS INCLUDED IN EACH GARAGE

PA-9 PARKING PROVIDED:

GARAGE PARKING SPACES:	190
SURFACE SPACES:	53
TOTAL PARKING PROVIDED:	243
MOTORCYCLE SPACES:	10
DISABLED SPACES:	3
ELECTRICAL VEHICLE SPACES:	6
LOADING SPACE:	1

INTERSECTION SIGHT DISTANCE

BEYER BOULEVARD	2 LANE URBAN COLLECTOR	35 MPH	390'
WEST AVENUE	2 LANE COLLECTOR WITH LEFT TURN	30 MPH	335'
CENTRAL AVENUE	2 LAND COLLECTOR	30 MPH	335'
STREET A	2 LANE COLLECTOR	30 MPH	335'*

* AT THE CUL-DE-SAC BULB, STOPPING SIGHT DISTANCE OF 200' IS PROVIDED.

PA-10 PARKING CALCULATIONS:

PARKING REQUIRED PER CODE:

AUTOMOBILE SPACES PER SDMC TABLE 142-05C			
TYPE	NO. OF UNITS	RATE	SUBTOTAL
1 BEDROOMS	0	1.6	0
2 BEDROOMS	0	2	0
3-4 BEDROOMS	130	2.25	293
TOTAL	130		293

COMMON SPACES PER SDMC SECTION 142.0525 (C)(1)(A)
293 REQUIRED SPACES X 0.15 = 44 COMMON SPACES

TOTAL SPACES REQUIRED = 337

ELECTRICAL (EV) PARKING REQUIRED
80 SURFACE SPACES X 0.1 = 8 SPACES

ACCESSIBLE SPACES PER CBC TABLE 11B-208.2
4 REQUIRED BASED ON 80 SURFACE SPACES

MOTORCYCLE SPACES PER SDMC TABLE 142-05C			
TYPE	NO. OF UNITS	RATE	SUBTOTAL
3-4 BEDROOMS	130	0.1	13

BICYCLE SPACES PER SDMC TABLE 142-05C *			
TYPE	NO. OF UNITS	RATE	SUBTOTAL
3-4 BEDROOMS	130	0.6	78

* BICYCLE PARKING IS INCLUDED IN EACH GARAGE

PA-10 PARKING PROVIDED:

GARAGE PARKING SPACES:	260
SURFACE SPACES:	80
TOTAL PARKING PROVIDED:	340
MOTORCYCLE SPACES:	13
DISABLED SPACES:	4
ELECTRICAL VEHICLE SPACES:	8
LOADING SPACES:	N/A

PARKING NOTES

1. STANDARD PARKING DIMENSION IS 9' X 18'
2. STANDARD MOTORCYCLE PARKING SPACE IS 3' x 8'
3. GARAGES WITH TANDEM PARKING HAVE BEEN COUNTED AS 2
4. NO COMMON AREA PARKING ALLOWED IN DWELLING UNIT DRIVEWAYS

LEGEND

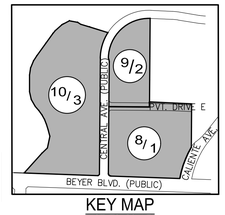
ACCESSIBLE ROUTE
PARKING STALLS
MOTORCYCLE STALLS
STREET PARKING
SIGHT VISIBILITY TRIANGLE
STOPPING/INTERSECTION SIGHT DISTANCE
PRIVATE DRIVEWAY PARKING SPACE
DISABLED PARKING SPACE
EV PARKING SPACE

LOADING SPACE CALCULATIONS

PLANNING AREA	UNIT COUNT	UNIT S.F. RANGE	AVERAGE UNIT S.F.	TOTAL S.F.
8	93	1244-1946	1595	148,335
8	92	590-1184	887	81,604
			TOTAL	229,939
9	95	1814-2389	2102	199,690

PER SDMC TABLE 142-10B
– PLANNING AREA 8 REQUIRES 2 LOADING SPACES, PROVIDED 2
– PLANNING AREA 9 REQUIRES 1 LOADING SPACE, PROVIDED 1

NOTE:
1. PLANNING AREA 10 ARE SINGLE FAMILY/DUPLEX PRODUCTS SO LOADING SPACES ARE NOT REQUIRED.



KEY MAP
NOT TO SCALE

10/3 DENOTES: PLANNING AREA/LOT NUMBER

0 30 60 120 180
(IN FEET)
1 inch = 60 ft.

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ENGINEER OF WORK:
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R.C.E. 26283

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PHONE: 858-843-4253

PROJECT NAME:
SOUTHWEST VILLAGE
VTM/PDP/SDP

SHEET TITLE:
ACCESSIBILITY ROUTE AND PARKING PLAN - NORTH

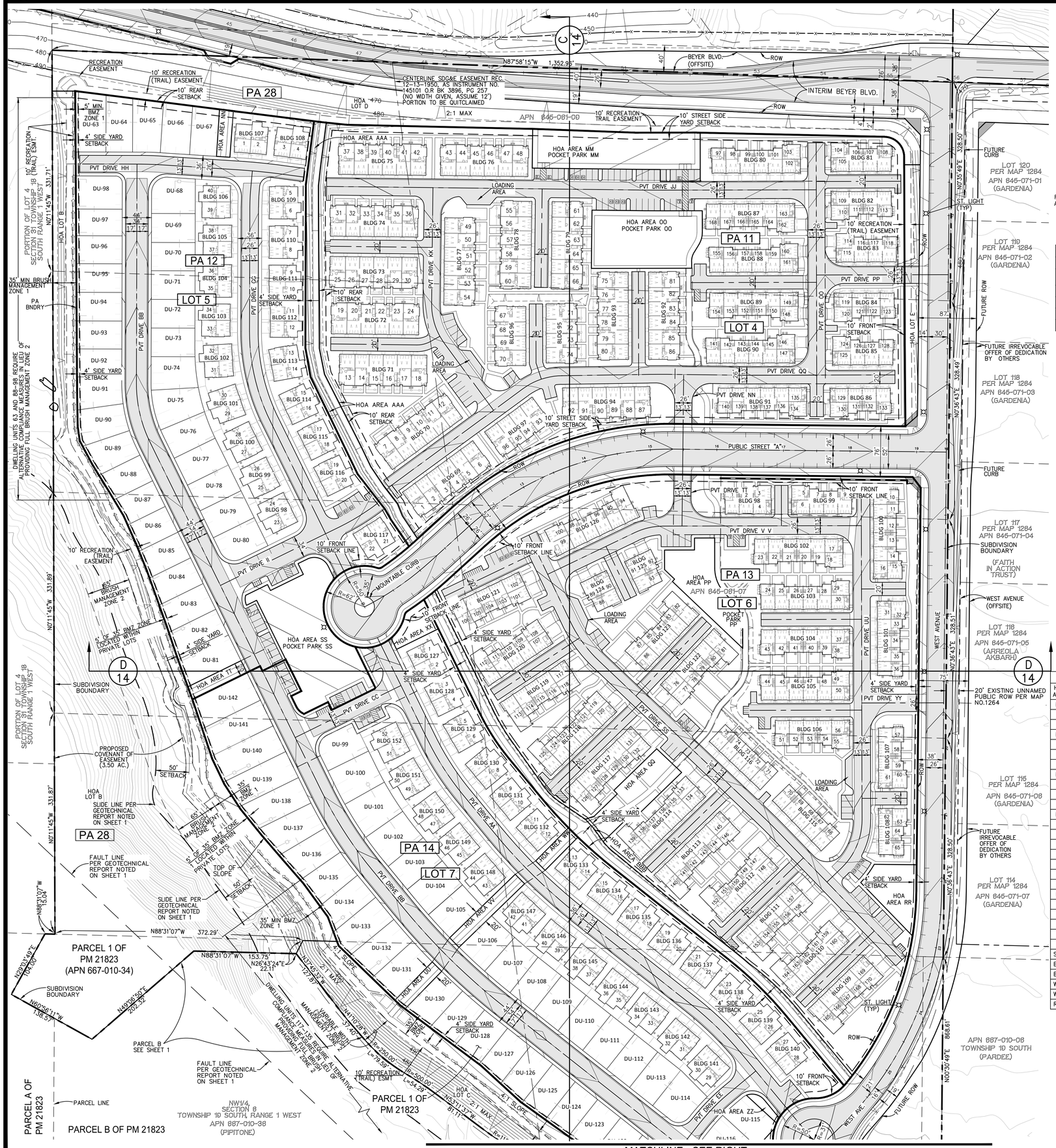
REVISIONS:

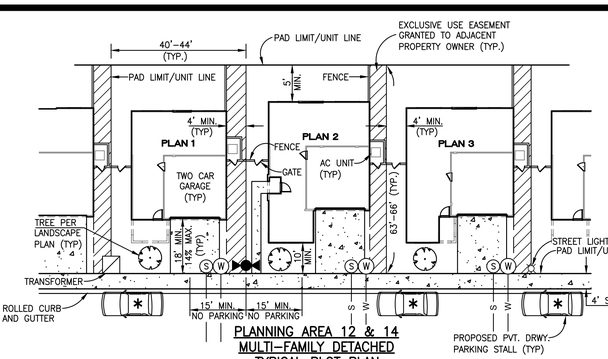
REVISION 10:	
REVISION 9:	
REVISION 8:	
REVISION 7:	03/27/2024
REVISION 6:	11/02/2023
REVISION 5:	06/23/2023
REVISION 4:	12/16/2022
REVISION 3:	07/15/2022
REVISION 2:	08/07/2020
REVISION 1:	11/15/2019

ORIGINAL DATE: 03/29/2019

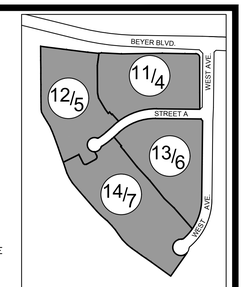
SHEET 19 OF 47

Figure 6c: Phases 1a, 1b & 1c Site Plan (Planning Areas 11-14)





PLANNING AREA 12 & 14 MULTI-FAMILY DETACHED TYPICAL PLOT PLAN



KEY MAP

NOT TO SCALE
13/6 DENOTES: PLANNING AREA/LOT NUMBER

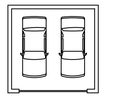
SITE ACREAGES AND DENSITY – SOUTH					
RESIDENTIAL AREAS					
PLANNING AREA	LOT NO.	NET ACREAGE	UNITS	DENSITY	SPECIFIC PLAN DENSITY RANGE
11	4	9.9	168	17.0 UNITS/AC	15–29 DU/AC
12	5	6.9	76	11.0 UNITS/AC	8–22 DU/AC
13	6	10.2	170	16.7 UNITS/AC	15–29 DU/AC
14	7	8.8	96	10.9 UNITS/AC	8–22 DU/AC

NOTES:

1. SEE SHEET 1 FOR IMPROVEMENT LEGEND.
2. SEE SHEETS 15 & 16 FOR GRADING, STORM DRAIN AND RETAINING WALL INFORMATION.
3. SEE SHEETS 17 & 18 FOR WATER AND SEWER DESIGN DATA.
4. NO EXISTING FIRE HYDRANTS ARE WITHIN 600' OF THE PROJECT AREA.
5. SEE SHEET 19 & 20 FOR PARKING CALCULATIONS
6. PORTIONS OF LOT B, C, D & E WILL HAVE A RECREATION EASEMENT FOR THE TRAIL AND HOA AREAS MM – YY WILL HAVE A RECREATION EASEMENT.
7. LOTS B, C, D & E WILL HAVE BUILDING RESTRICTED EASEMENTS.
8. SEE SHEET 11 FOR PA 11/13 FOR TYPICAL MULTI-FAMILY ATTACHED BUILDING DETAIL.

TYPICAL GARAGE SPACE DETAIL

CITY OF SAN DIEGO STANDARDS, ALL TWO-CAR GARAGES SHALL HAVE A MINIMUM DIMENSION OF 20 FEET X 20 FEET, AS SHOWN BELOW:



2-CAR GARAGE MIN. 20' X 20'

PLANNING AREA IMPLEMENTATION ZONING			
SOUTH			
PA NUMBER	LOT NO.	EXISTING	PROPOSED
11	4	AR–1–1	RM–2–5
12	5	AR–1–1	RM–1–3
13	6	AR–1–1	RM–2–5
14	7	AR–1–1	RM–1–3

BUILDING SETBACK TABLE		
	RM 2–5 (1) (STD/MIN) PA 11/13	RM 1–3 (1) (STD/MIN) PA 12/14
FRONT	10'	10'
REAR	10'	10'
SIDE	4'	4'
STREET SIDE	10'	10'

(1) SETBACKS DEFINED IN CHAPTER 13, ARTICLE 1, DIVISION 4 OF LAND DEVELOPMENT CODE AND EXCEPTIONS AS IDENTIFIED IN THE SPECIFIC PLAN

MATCHLINE - SEE LEFT

HOA AREAS WITHIN SOUTH VTM				
HOA AREA	PLANNING AREA	LOT NO.	ACREAGE	DESCRIPTION
N/A	11	4	1.36 AC.	PRIVATE STREETS
MM	11	4	0.35 AC.	POCKET PARK W/ REC. ESMT.
OO	11	4	0.32 AC.	POCKET PARK W/ REC. ESMT.
N/A	12	5	1.37 AC.	PRIVATE STREETS
NN	12	5	0.03 AC.	HOA AREA
SS	12	5	0.48 AC.	POCKET PARK W/ REC. ESMT.
TT	12	5	0.04 AC.	PASEO W/ REC. ESMT.
N/A	13	6	1.23 AC.	PRIVATE STREETS
PP	13	6	0.19 AC.	POCKET PARK W/ REC. ESMT.
QQ	13	6	0.15 AC.	PASEO W/ REC. ESMT.
RR	13	6	0.12 AC.	POCKET PARK W/ REC. ESMT.
N/A	14	7	1.66 AC.	PRIVATE STREETS
UU	14	7	0.04 AC.	PASEO W/ REC. ESMT.
VV	14	7	0.06 AC.	PASEO W/ REC. ESMT.
WW	14	7	0.03 AC.	PASEO W/ REC. ESMT.
XX	14	7	0.06 AC.	PASEO W/ REC. ESMT.
YY	14	7	0.27 AC.	POCKET PARK W/ REC. ESMT.
ZZ	14	7	0.01 AC.	HOA AREA
AAA	12	5	0.31 AC.	PASEO W/ REC. ESMT.
BBB	14	7	0.41 AC.	PASEO W/ REC. ESMT.
B	28	B	4.77 AC.	HOA AREA
C	28	C	1.35 AC.	HOA AREA
D	28	D	1.51 AC.	HOA AREA
E	28	E	0.19 AC.	HOA AREA
F	28	F	1.37 AC.	HOA AREA
STREET "A"			1.76 AC.	PUBLIC STREET
BEYER BLVD.			1.16 AC.	PUBLIC STREET
BEYER BLVD. (OFFSITE)			5.44 AC.	PUBLIC STREET
WEST AVENUE			2.01 AC.	PUBLIC STREET
WEST AVENUE (OFFSITE)			0.49 AC.	PUBLIC STREET
REMAINDER LOT			2.75 AC.	REMAINDER LOT

0 30 60 120 180
(IN FEET)
1 inch = 60 ft.

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I.O.: 24007991

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ENGINEER OF WORK:
JOHN D. LEPPERT R.C.E. 26283 DATE

REGISTERED PROFESSIONAL ENGINEER JOHN D. LEPPERT No. 26283 CIVIL STATE OF CALIFORNIA

PREPARED BY:
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PHONE: 858-843-4253

PROJECT NAME:
SOUTHWEST VILLAGE
VTM/PDP/SDP

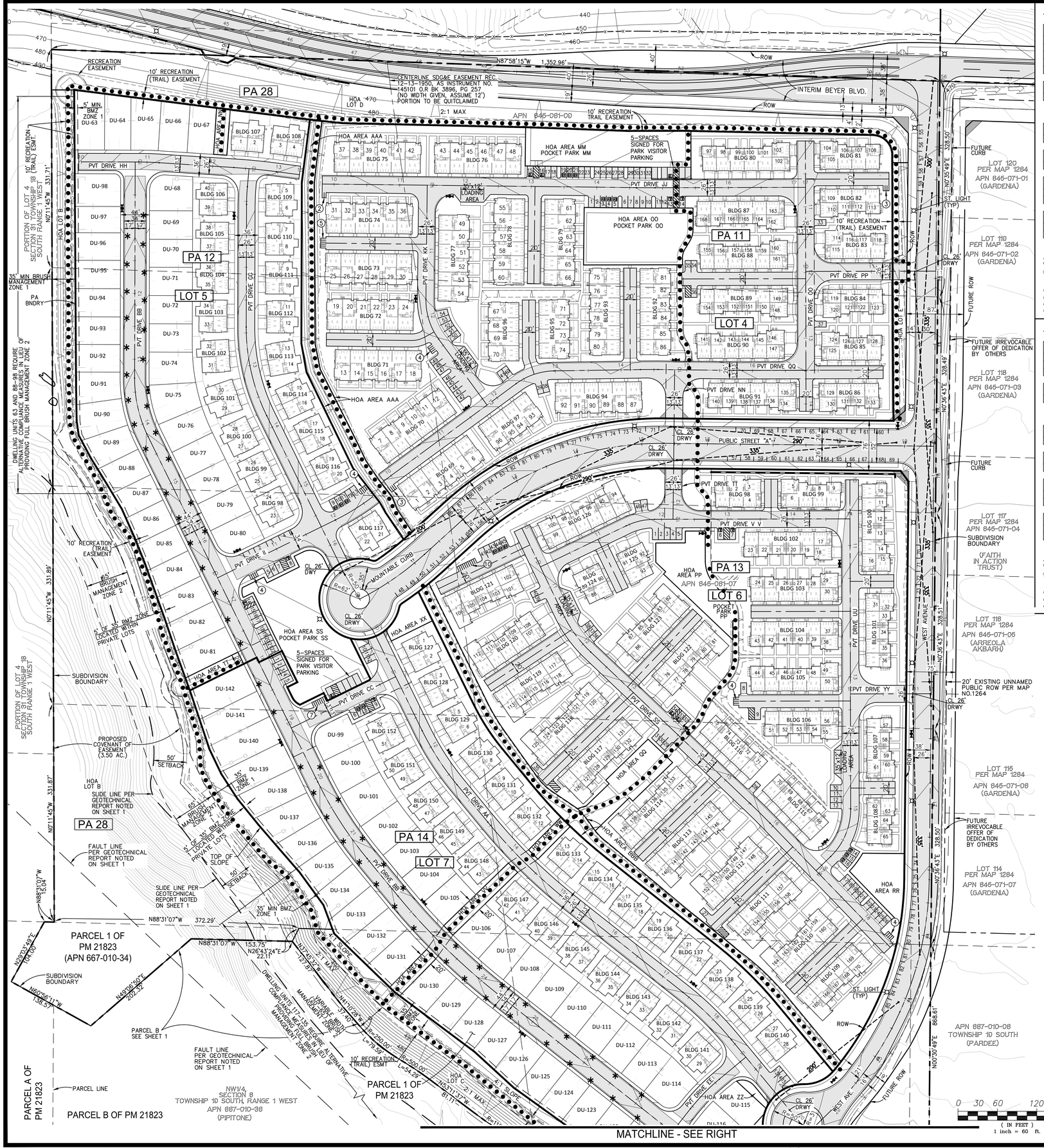
SHEET TITLE:
SITE PLAN
SOUTH

REVISIONS:
REVISION 10:
REVISION 9:
REVISION 8:
REVISION 7: 3/27/2027
REVISION 6: 11/02/2024
REVISION 5: 06/23/2023
REVISION 4: 12/16/2022
REVISION 3: 07/15/2022
REVISION 2: 08/07/2020
REVISION 1: 11/15/2019

ORIGINAL DATE: 03/29/2019

SHEET 12 OF 47

Figure 6d: Phases 1a, 1b & 1c Site Plan (Planning Areas 11-14) with Parking Calculations


PA 28
PA 11
PA 12
PA 13
PA 14
LOT 4
LOT 5
LOT 6
LOT 7
HOA LOT B
HOA LOT C
HOA LOT D
HOA LOT OO
HOA AREA AAA
HOA AREA MM POCKET PARK MM
HOA AREA OO POCKET PARK OO
HOA AREA PP
HOA AREA RR
HOA AREA SS POCKET PARK SS
HOA AREA TT
HOA AREA XX
HOA AREA YY
HOA AREA ZZ
5-SPACES SIGNED FOR PARK VISITOR PARKING
PUBLIC STREET "A"
INTERIM BEYER BLVD.
WEST AVE.
PVT DRIVE II
PVT DRIVE JJ
PVT DRIVE KK
PVT DRIVE LL
PVT DRIVE BB
PVT DRIVE CC
PVT DRIVE DD
PVT DRIVE EE
PVT DRIVE FF
PVT DRIVE GG
PVT DRIVE LU
PVT DRIVE NN
PVT DRIVE OO
PVT DRIVE PP
PVT DRIVE QQ
PVT DRIVE TT
PVT DRIVE V V
PVT DRIVE XX
PVT DRIVE YY
RECREATION EASEMENT
10' RECREATION (TRAIL) EASEMENT
10' RECREATION (TRAIL) ESMT.
CENTERLINE SDG&E EASEMENT REC. 12-13-1950, AS INSTRUMENT NO. 145101 O.R. BK. 3896, PG. 257 (NO WIDTH GIVEN, ASSUME 12') PORTION TO BE QUITCLAIMED
N87°58'15"W 1,352.96'
PORTION OF LOT 4 SECTION 31 TOWNSHIP 10 SOUTH RANGE 1 WEST
N01°11'45"W 331.71'
N01°11'45"W 331.89'
N01°11'45"W 331.87'
N88°31'07"W 372.29'
N88°31'07"W 153.75'
N26°43'24"E 22.11'
N88°31'07"W 330.03'
N89°31'07"W 330.03'
N20°03'49"E 104.00'
N60°56'51"W 139.57'
N43°06'09"E 202.32'
N43°06'09"E 157.85'
N43°06'09"E 157.85'
N43°06'09"E 157.85

2.0 Local Mobility Analysis Methodology

The City of San Diego *Transportation Study Manual* states that all projects must complete a Local Mobility Analysis (LMA) unless they meet the following trip generation screening criteria:

1) Land uses consistent with the Community Plan/Zoning Designation: Generate less than 1,000 daily unadjusted driveway vehicle trips,

2) Land uses inconsistent with the Community Plan/Zoning Designation: Generate less than 500 daily unadjusted driveway vehicle trips, or

3) Projects in the Downtown Community Planning Area that generate less than 2,400 daily unadjusted trips.

The project is calculated to have more than 1,000 daily unadjusted driveway vehicle trips (7,084 ADT per Table 10 within Section 7.4 of this report); therefore, an LMA is required. Project will be consistent with Community Plan/Zoning Designation after the CPA/Specific Plan. The extent of the LMA is based on each mode as follows:

1) Pedestrian: Documentation of pedestrian facilities and basic deficiencies (missing sidewalk, curb ramps, and major obstructions) within ½ walking distance measured from each pedestrian access point to a public street.

2) Bicycle: Documentation of bicycle facilities and basic deficiencies (bike lane gaps, obstructions) within ½ mile bicycling distance measured from the center of the intersection formed by each project driveway.

3) Transit: Identification of the closest transit routes and stops to the project. If the transit stops are within ½ mile walking distance of each pedestrian access point, the condition of the stop amenities must be described/evaluated.

4) Systemic Safety Review: Identification of study area intersections that satisfy the systemic safety criteria.

5) Intersection Operations (projects with > 2,400 daily final driveway trips):
    a. Signalized intersections where the project will add 50 or more peak hour trips to any turning movement.
    b. Un-signalized intersections where the project will add 50 or more peak hour trips on any approach.
    c. Freeway ramp intersections where a project adds 50 or more peak hour trips on any approach must be analyzed regardless of their distance from the project site.

6) Roadway Segments: The study area should include any roadway segments where the project adds > 1,000 daily final driveway trips if consistent with the Community Plan, or > 500 daily final driveway trips if inconsistent with the Community Plan AND: the segment has improvements identified in the Community Plan; OR the segment is not built to the Community Plan ultimate classification (including planned new circulation element roadways).

2.1 Local Mobility Analysis Study Area

The study area is based on a ½ mile walking, biking, or driving distance from the project driveway access points. The study elements and areas included:

Pedestrian Facilities

1) Caliente Ave from SR-905 EB Ramps to the southern terminus.
2) Airway Rd from Caliente Ave extending east approximately 400 feet.
3) Airway Rd from Caliente Ave extending west approximately 400 feet.

Bicycle Facilities

1) Caliente Ave from SR-905 EB Ramps to the southern terminus.
2) Airway Rd from Caliente Ave extending east approximately 400 feet.
3) Airway Rd from Caliente Ave extending west approximately 400 feet.

Transit Facilities

1) There are no bus stops within ½ mile walking distance. The bus stop on the SR-905 EB Ramp at the Caliente Ave /SR-905 interchange is just over a ½ mile walking distance; therefore, it was included in this analysis.

Systemic Safety Review Facilities

The study area included the following intersections:

1) Caliente Ave/Otay Mesa Rd/Ocean View Hills Pkwy
2) Caliente Ave/SR-905 WB Ramps
3) Caliente Ave/SR-905 EB Ramps
4) Caliente Ave/Airway Rd
5) *Caliente Ave/Central Ave (currently does not exist; will be constructed in Phase 1a as a 3 leg all way stop intersection)*
6) *Central Ave/PA 8-9-10 Access (currently does not exist; will be constructed in Phase 1a as a 4 leg intersection with stop control on minor east-west legs)*
7) *Central Ave/Beyer Blvd (currently does not exist; will be constructed in Phase 1b as a 3 leg all way stop control intersection)*
8) *West Ave/Beyer Blvd (currently does not exist; will be constructed in Phase 1b as a 3 leg intersection with stop control on the south leg)*
9) *West Ave/Street A (currently does not exist; will be constructed in Phase 1b as a 3 leg intersection with stop control on the west leg)*
10) Old Otay Mesa Rd (E. Beyer Blvd)/Beyer Blvd

11) Enright Dr/Beyer Blvd
12) E. Beyer Blvd/Center St

Vehicular Facilities

The study area includes the following intersections:

1) Caliente Ave/Otay Mesa Rd/Ocean View Hills Pkwy (signalized)
2) Caliente Ave/SR-905 WB Ramps (signalized)
3) Caliente Ave/SR-905 EB Ramps (signalized)
4) Caliente Ave/Airway Rd (un-signalized)
5) *Caliente Ave/Central Ave (currently does not exist; will be constructed in Phase 1a as a 3 leg all way stop intersection)*
6) *Central Ave/PA 8-9-10 Access (currently does not exist; will be constructed in Phase 1a as a 4 leg intersection with stop control on east-west legs)*
7) *Central Ave/Beyer Blvd (currently does not exist; will be constructed in Phase 1b as a 3 leg all way stop control intersection)*
8) *West Ave/Beyer Blvd (currently does not exist; will be constructed in Phase 1b as a 3 leg intersection with stop control on the south leg)*
9) *West Ave/Street A (currently does not exist; will be constructed in Phase 1b as a 3 leg intersection with stop control on the west leg)*
10) Old Otay Mesa Rd (E. Beyer Blvd)/Beyer Blvd (signalized)
11) Enright Dr/Beyer Blvd (minor leg stop control)
12) E. Beyer Blvd/Center St (all way stop control)

The study area includes the following street segments:

1) Old Otay Mesa Rd (E. Beyer Blvd) to Enright Dr
2) *Beyer Blvd from Enright Dr to West Ave (currently does not exist; will be constructed in Phase 1c as a 4 lane undivided roadway when ROW is available)*
3) *Beyer Blvd from West Ave to Central Ave (currently does not exist; will be constructed in Phase 1b as a 2 Lane undivided roadway)*
4) *Beyer Blvd from Central Ave to Caliente Ave (currently does not exist; will be constructed in Phase 1b as a 2 Lane undivided roadway)*
5) Caliente Ave from Otay Mesa Rd to SR-905 WB Ramps
6) Caliente Ave from SR-905 WB Ramps to SR-905 EB Ramps
7) Caliente Ave from SR-905 EB Ramps to Airway Rd
8) Caliente Avenue from Airway Rd to the Southern Terminus
9) *Caliente Ave from Southern Terminus to Central Ave (currently does not exist; will be constructed in Phase 1a as a 6 Lane divided roadway and striped as 5 lanes)*
10) *Central Ave west of Caliente Ave (currently does not exist; will be constructed in Phase 1a as a 2 Lane undivided roadway)*
11) *Central Ave north of PA 8-9-10 Access (currently does not exist; will be constructed in Phase 1a as a 2 Lane undivided roadway)*
12) *Central Ave from PA 8-9-10 Access to Beyer Blvd (currently does not exist; will be constructed in Phase 1b as a 2 Lane undivided roadway)*
13) *West Ave from Beyer Blvd to Street A (currently does not exist; will be constructed in Phase 1b as a 2 Lane undivided roadway)*

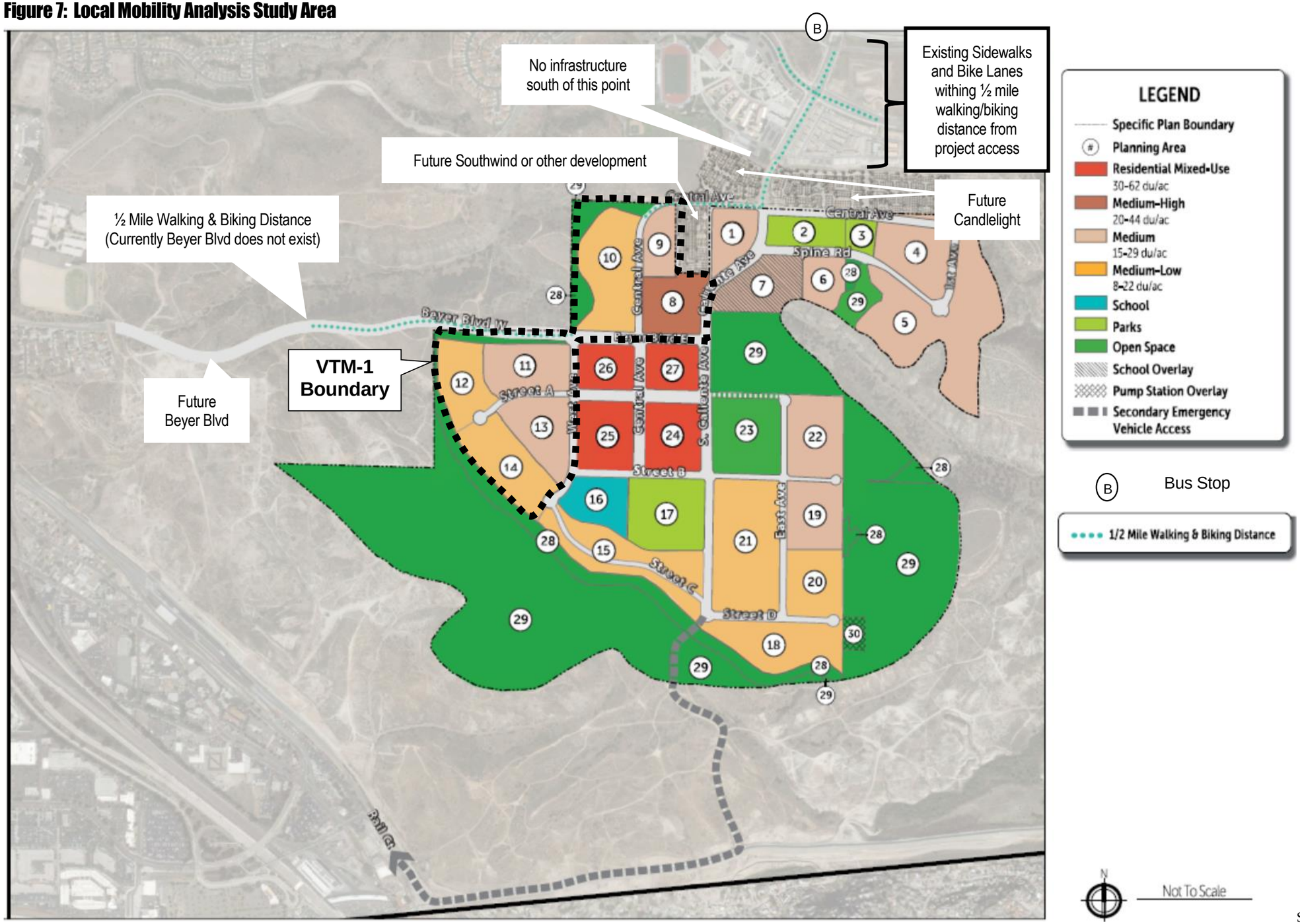
14) *West Ave south of Street A (currently does not exist; will be constructed in Phase 1b as a 2 Lane undivided roadway)*
15) *Street A west of West Ave (currently does not exist; will be constructed in Phase 1b as a 2 Lane undivided roadway)*

The study area included the following freeway off-ramps for queuing analysis where the project will add > 50 peak hour trips:

1) Caliente Ave/SR-905 WB Off-Ramps
2) Caliente Ave/SR-905 EB Off-Ramps

The Local Mobility Analysis study area is shown in **Figure 7**.

Figure 7: Local Mobility Analysis Study Area



Source: Rick Engineering

3.0 Pedestrian Analysis

The pedestrian analysis consists of documenting existing pedestrian facilities and basic deficiencies such as missing sidewalk sections, curb ramps, and major obstructions within ½ mile walking distance from the project access.

Existing Sidewalks

Caliente Ave from SR-905 EB Ramps to Airway Road has contiguous sidewalks on both sides of the street and curb ramps at the ends of this segment. There are no missing sidewalk nor major obstructions.

Caliente Ave from Airway Road to the southern terminus has a contiguous sidewalk on the west side of the street and non-contiguous sidewalk on the east side of the street. There are existing curb ramps the north end of this segment while the south end (southern terminus) has no sidewalk along the cul-de-sac bulb.

Airway Rd from Caliente Ave extending east approximately 400 feet has non-contiguous sidewalks on both sides of the street and curb ramps at Airway Rd/Caliente Ave. There are no missing sidewalk nor major obstructions.

Airway Rd from Caliente Ave extending west approximately 400 feet has contiguous sidewalks on both sides of the street and curb ramps at Airway Rd/Caliente Ave. There are no missing sidewalks nor major obstructions.

Existing Intersection Pedestrian Elements

Caliente Ave at Airway Road has single curb pedestrian ramps on each corner. The southwest corner (next to the San Ysidro High School) does not have truncated domes on the pedestrian ramp; however, the remaining three corners have truncated domes on the pedestrian ramps. Each leg has continental crosswalks.

Caliente Ave at SR-905 EB Ramps has single curb pedestrian ramps on each corner. Each pedestrian ramp has truncated domes. Standard crosswalks are provided for northbound and southbound travel. Pedestrian crossings are prohibited in the eastbound and westbound directions.

No pedestrian improvements are proposed to the aforementioned off-site sidewalk segments and intersections located within ½ mile walking distance from the project access. The existing pedestrian sidewalks within the study area are shown in **Figure 8**.

Figure 8: Existing Sidewalk Conditions

Source: Google Map (Image date July 2021)

4.0 Bicycle Analysis

The bicycle analysis consists of documenting existing bicycle facilities and basic deficiencies such bike lane gaps or obstructions within a ½ mile bicycling distance from the project access along the study roadways.

Existing Bike Lanes

Caliente Ave from SR-905 EB Ramps to Airway Road has Class II bike lanes on both sides of the roadway and no parking signs.

Caliente Ave from Airway Road to the southern terminus has a buffered Class II bike lane on the west side and a Class II bike lane on the east side. No parking signs are posted on both sides of the roadway.

Airway Rd from Caliente Ave extending east approximately 400 feet has a buffered Class II bike lane on both sides of the roadway.

Airway Rd from Caliente Ave extending west approximately 400 feet has a Class III bike route sign on the south side of Airway Rd. The north side of this segment has posted no parking signs. On-street parking is generally permitted on the south side of the roadway.

Proposed Bicycle Lanes and Routes

The Otay Mesa Community Plan Update shows a Class I bike path, Class II bike lanes and Class III bike routes along the study area segments. Excerpts from the community plan are included in **Appendix A**.

No bike lane improvements are recommended to the existing off-site bicycle facilities as part of this project because the existing bike lanes and bike route signs are visible.

5.0 Transit Analysis

The transit analysis includes identifying the closest transit routes and stops to the project. If the stops are within ½ mile walking distance of the project access, the condition of the stop amenities must be describe/evaluated.

Metropolitan Transit System (MTS) provides bus service as Route 905 with bus stops on Caliente Ave freeway ramps at SR-905. The closest bus stop is on the SR-905 eastbound off-ramp at Caliente Ave, which is located approximately 2,700 feet (just over ½ mile) from Planning Area 9 (northern most access point for VTM-1). The bus stop located on the SR-905 eastbound off-ramp at Caliente Ave includes a bus stop sign and bus shelter with a bench and trash receptacle.

Route 905 with Monday through Friday service starts around 5:00 AM and ends around 9:00 PM. Weekend service starts around 5:00 AM and ends around 7:00 PM.

A summary of the service times is shown in **Table 1** for weekdays and **Table 2** for Saturday and Sunday. A map showing the nearby transit routes and bus schedules are included in **Appendix B**.

TABLE 1: WEEKDAY BUS SERVICE OPERATIONS AND FREQUENCY

Bus Route	Weekday (Mon-Fri) Service Operations (Off-Peak Service Frequency Range)	7-9 AM Peak Hour Service Frequency	4-6 PM Peak Hour Service Frequency
Route 905	≈ 5:00 AM to ≈ 9:00 PM (≈ 40 minutes)	20 minutes	20 minutes

TABLE 2: WEEKEND BUS SERVICE OPERATIONS AND FREQUENCY

Bus Route	Saturday Service Operations (Service Frequency Range)	Sunday Service Operations (Service Frequency Range)
Route 905	≈ 5:00 AM to ≈ 7:00 PM (≈ 60 min.)	≈ 5:00 AM to ≈ 7:30 PM (≈ 60 min.)

No bus stop improvements are recommended because the closest stop is located over ½ mile walking distance from the project site. Furthermore, the bus stop sign and shelter with a bench and trash receptacle are newly installed by MTS; therefore, no bus stop improvements are recommended.

6.0 Systemic Safety Review

The City of San Diego "The Data-Driven Path to Vision Zero" policy promotes safe roadway design with a goal toward preventing collisions. As part of that goal, a systemic safety review provides an assessment of hotspots and possible countermeasures to align with Vision Zero. The City of San Diego *Transportation Study Manual* states on page 40:

> "Study intersections should be compared to the City of San Diego Systemic Safety: The Data-Driven Path to Vision Zero report to determine if a study intersection meets any hot spot criteria identified in Appendix C: Identification of Systemic Hotspots of the report."

6.1 Pedestrian Systemic Safety Review

The project study intersections are not identified on the City of San Diego pedestrian hotspot map as shown in **Figure 9**.

Figure 9: City of San Diego Pedestrian Systemic Hotspot Map

Source: City of San Diego

6.2 Bicycle Systemic Safety Review

The project study intersections were evaluated to determine if the bicycle systemic criteria would be satisfied. All the Hotspot Matrix questions for each Footprint need to be satisfied to warrant a countermeasure. The bicycle systemic matrix findings are shown in **Table 3**.

TABLE 3: BICYCLE SYSTEMIC HOTSPOT MATRIX

Intersection	Bicycle Footprint #1			Bicycle Footprint #2	
	Signalized?	4 Ln x 2 Ln?	OR 4 Ln x 4 Ln?	SSSC?	2 Ln x 2 Ln?
#1 Caliente Ave/ Otay Mesa Rd	Yes	No	No	No	No
#2 Caliente Ave/ SR-905 WB Ramps	Yes	No (a)	No	No	No
#3 Caliente Ave/ SR-905 EB Ramps	Yes	No (a)	No	No	No
#4 Caliente Ave/ Airway Rd	Yes	No	No	No	No
#5 Caliente Ave/ Central Ave	No	No	No	Yes	No
#6 Caliente Ave/ PA 8-9-10 Access	No	No	No	Yes	No
#7 Central Ave/ Beyer Blvd	No	No	No	Yes	No
#8 West Ave/ Beyer Blvd	No	No	No	Yes	No
#9 West Ave/ Street A	No	No	No	Yes	No
#10 Beyer Blvd/ E. Beyer Blvd	**Yes**	**Yes (b)**	**Yes (b)**	No	No
#11 Beyer Blvd at Enright Dr	No	No	No	Yes (c,d)	No (d)
#12 Center St at E. Beyer Blvd	No	No	Yes	No	Yes

Notes: Dwy = Driveway. BOLD and shaded indicates the location meets the Bicycle Footprint criteria to warrant a countermeasure.
4 Ln x 4 Ln = 4 lane (2-way) roadway intersects with a 4 lane (2-way) roadway.
4 Ln x 2 Ln = 4 lane (2-way) roadway intersects with a 2 lane (2-way) roadway.
2 Ln x 2 Ln = 2 lane (2-way) roadway intersects with a 2 lane (2-way) roadway.
SSSC = Side Street Stop Control
(a) Freeway ramps are one-way roads while criteria require 2-way roadway.
(b) Beyer Blvd has 4 lanes east of E. Beyer and 2 lanes west of E. Beyer.
I Side street does not have physical stop sign in place.
(d) Intersection is incomplete and acts as a 90 degree turn with no cross traffic

Bicycle countermeasures to address bicyclists approaching an intersection and proceeding through the intersection against a red light include: 1) Bike loop detectors, 2) Public safety messaging campaign, and 3) Bicycle red light running enforcement.

Intersection #10 (Beyer Blvd/E. Beyer Blvd) satisfies all the bicycle Footprint #1 questions; therefore, the recommended countermeasure is for the Owner/Permittee to install a bicycle loop detector on the westbound approach this approach. No other bicycle loop detectors are proposed on the other intersection legs because currently there are no bike lanes on any of the approaches. This intersection currently has Type E Modified front loops.

6.3 Vehicle Systemic Safety Review

The study intersections were evaluated to determine if the vehicle systemic criteria would be satisfied. All the Hotspot Matrix questions for each Footprint need to be satisfied to warrant a countermeasure. The vehicle systemic hotspot matrix findings are shown in **Table 4a and 4b**.

TABLE 4A: VEHICLE SYSTEMIC HOTSPOT MATRIX (FOOTPRINT 1 AND 2)

Intersection	Vehicle Footprint #1				Vehicle Footprint #2			
	Sig?	4 Ln x 2 Ln?	Major >15k ADT	Minor ≤7k ADT	Sig?	6 Ln x 4 Ln?	Major >15k ADT	Minor >7k ADT
#1 Caliente Ave/ Otay Mesa Rd	Yes	No	Yes	No	Yes	No	Yes	Yes
#2 Caliente Ave/ SR-905 WB Ramps	Yes	No (a)	Yes	No (b)	Yes	No (a)	Yes	Yes (b)
#3 Caliente Ave/ SR-905 EB Ramps	Yes	No (a)	Yes	No (b)	Yes	No (a)	Yes	Yes
#4 Caliente Ave/ Airway Rd	Yes	No	No	Yes	Yes	No	No	No
#5 Caliente Ave/ Central Ave	No	No	No	Yes	No	No	No	No
#6 Caliente Ave/ PA 8-9-10 Access	No	No	No	Yes	No	No	No	No
#7 Central Ave/ Beyer Blvd	No	No	No	Yes	No	No	No	No
#8 West Ave/ Beyer Blvd	No	No	No	Yes	No	No	No	No
#9 West Ave/ Street A	No	No	No	Yes	No	No	No	No
#10 Beyer Blvd/ E. Beyer Blvd	Yes	No	No	Yes	Yes	No	No	No
#11 Beyer Blvd at Enright Dr	No	No	No	Yes	No	No	No	No
#12 Center St at E. Beyer Blvd	No	No	No	Yes	No	No	No	No

Notes: Sig? = Signalized (yes or no)
4 Ln x 2 Ln = 4 lane (2-way) roadway intersects with a 2 lane (2-way) roadway.
4 Ln x 4 Ln = 4 lane (2-way) roadway intersects with a 4 lane (2-way) roadway.
(a) Freeway ramps are one-way roads while criteria require 2-way roadway.
(b) Volumes from SANDAG ABM2+ Year 2016

TABLE 4B: VEHICLE SYSTEMIC HOTSPOT MATRIX (FOOTPRINT 3 AND 4)

Intersection	Vehicle Footprint #3			Vehicle Footprint #4			
	Sig?	4 Ln x 4 Ln?	Minor >7k ADT	Sig?	3 Ln (1-way) x 3 Ln (1-way)?	Major >15k ADT	Minor >7k ADT
#1 Caliente Ave/ Otay Mesa Rd	Yes	No	Yes	Yes	No	Yes	Yes
#2 Caliente Ave/ SR-905 WB Ramps	Yes	No (a)	No (b)	Yes	No	Yes	No (b)
#3 Caliente Ave/ SR-905 EB Ramps	Yes	No (a)	No (b)	Yes	No	Yes	No (b)
#4 Caliente Ave/ Airway Rd	Yes	No	No	Yes	No	Yes	No
#5 Caliente Ave/ Central Ave	No	No	No	No	No	No	No
#6 Caliente Ave/ PA 8-9-10 Access	No	No	No	No	No	No	No
#7 Central Ave/ Beyer Blvd	No	No	No	No	No	No	No
#8 West Ave/ Beyer Blvd	No	No	No	No	No	No	No
#9 West Ave/ Street A	No	No	No	No	No	No	No
#10 Beyer Blvd/ E. Beyer Blvd	Yes	No	No	Yes	No	No	No
#11 Beyer Blvd at Enright Dr	No	No	No	No	No	No	No
#12 Center St at E. Beyer Blvd	No	No	No	No	No	No	No

Notes: Sig? = Signalized (yes or no)
4 Ln x 2 Ln = 4 lane (2-way) roadway intersects with a 2 lane (2-way) roadway.
4 Ln x 4 Ln = 4 lane (2-way) roadway intersects with a 4 lane (2-way) roadway.
(a) Freeway ramps are one-way roads while criteria require 2-way roadway.
(b) Volumes from SANDAG ABM2+ Year 2016

6.4 Systemic Safety Review Summary

Intersection #10 (Beyer Blvd/E. Beyer Blvd) satisfies all the bicycle Footprint #1 questions; therefore, the recommended countermeasure is for the Owner/Permittee to install a bicycle loop detector on the westbound approach because a bike lane is proposed along this approach. No other bicycle loop detectors are proposed on the other intersection legs because currently there are no bike lanes on any of the approaches. None of the remaining study intersections satisfied the bicycle and vehicle system safety criteria for potential improvements.

7.0 Traffic Analysis

The Local Mobility Analysis includes the analysis of specific study scenarios, methodology for the analysis of roadway operations, and determination of potential off-site improvements triggered by the project. Details for each of these parameters are included herein.

7.1 Study Scenarios

The number of study scenarios is dependent on the estimated trips generated by the project and whether the project would require a Community Plan Amendment and/or re-zone. For this project, the following scenarios were analyzed:

1) Existing Conditions
2) Opening Year 2024 without Project Conditions
3) Opening Year 2024 Plus Project Phase 1a Conditions
4) Opening Year 2024 Plus Project Phases 1a & 1b Conditions
5) Opening Year 2024 Plus Project Phases 1a, 1b & 1c Conditions

7.2 Local Mobility Analysis Methodology

The Local Mobility Analysis prepared for this study was based on the *6th Edition Highway Capacity Manual* (HCM) operations analysis using Level of Service (LOS) evaluation criteria. The operating conditions of the study intersections, street segments, and freeway segments were measured using the HCM LOS designations, which ranges from A through F. LOS A represents the best operating condition and LOS F denotes the worst operating condition. The individual LOS criteria for each roadway component are described below.

7.2.1 Intersections

The study intersections were analyzed based on the **operational analysis** outlined in the 6th Edition HCM. This process defines LOS in terms of **average control delay** per vehicle, which is measured in seconds. LOS at the intersections were calculated using the computer software program Synchro 11 (Trafficware Corporation). The 6th Edition HCM LOS for the range of delay by seconds for intersections is shown in **Table 5**.

TABLE 5: INTERSECTION LEVEL OF SERVICE DEFINITIONS (6TH EDITION HCM)

Level of Service	Un-Signalized Control Delay for TWSC, AWSC, and Roundabout (sec/veh where v/c ≤ 1)	Signalized Control Delay (sec/veh where v/c ≤ 1)
A	0-10	≤ 10
B	> 10-15	> 10-20
C	> 15-25	> 20-35
D	> 25-35	> 35-55
E	> 35-50	> 55-80
F	> 50	> 80

Source: 6th Edition HCM. TWSC: Two Way Stop Control. AWSC: All Way Stop Control. For unsignalized intersections, the control delay is the worst movement delay in seconds/vehicle.

7.2.2 Street Segments

The study street segments were analyzed based on the functional classification of the roadway using the City of San Diego *Roadway Segment LOS by Classification and Average Daily Traffic* capacity lookup table (**Appendix C**). The roadway segment capacity and LOS standards used to analyze street segments are summarized in **Table 6**.

TABLE 6: STREET SEGMENT DAILY CAPACITY AND LOS (CITY OF SAN DIEGO)

Circulation Element Road Classification	LOS A	LOS B	LOS C	LOS D	LOS E
Prime Arterial – 6 Lanes	<25,000	<35,000	<50,000	<55,000	<60,000
Prime Arterial – 5 Lanes	<20,000	<28,000	<40,000	<45,000	<50,000
Prime Arterial – 4 Lanes	<17,500	<24,500	<35,000	<40,000	<45,000
Major Arterial – 6 Lanes	<20,000	<28,000	<40,000	<45,000	<50,000
Major Arterial – 5 Lanes	<17,500	<24,500	<35,000	<40,000	<45,000
Major Arterial – 4 Lanes	<15,000	<21,000	<30,000	<35,000	<40,000
Collector (with TWLTL) – 5 Lanes	<12,500	<17,500	<25,000	<30,750	<37,500
Collector (without TWLTL) – 5 Lanes*	<12,500	<17,500	<25,000	<30,000	<35,000
Collector (with TWLTL) – 4 Lanes	<10,000	<14,000	<20,000	<25,000	<30,000
Collector (without TWLTL) – 4 Lanes Collector (with TWLTL) – 2 Lanes	<5,000	<7,000	<10,000	<13,000	<15,000
Collector – 2 Lanes (no fronting property)	<4,000	<5,500	<7,500	<9,000	<10,000
Collector (without TWLTL) – 2 Lanes	<2,500	<3,500	<5,000	<6,500	<8,000
Sub-Collector – 2 Lanes (Single-family)	-	-	<2,200	-	-

Source: City of San Diego *Transportation Study Manual* 9/19/2022. *5 lane Collector capacity consistent with approved (PTS#605191) California Terraces PA61 EIR capacity for Caliente Ave.

7.2.3 Intersection Queuing

The AM & PM 95th percentile queue for intersection turn lanes or trap lanes where the project will add traffic were analyzed using SimTraffic 11 software. The queue was calculated running ten 60-minute simulations runs with a ten-minute seeding time. The 95th percentile queue was compared to the existing turn pocket storage that is generally measured from the intersection stop bar to the end of the turn pocket stripe.

7.2.4 Freeway Off-Ramp Queuing

The 95th percentile queues for SR-905/Caliente Ave eastbound and westbound off-ramps were evaluated using SimTraffic 11 software. The queue was calculated running ten 60-minute simulations runs with a ten-minute seeding time. The 95th percentile queue was compared to the off-ramp storage that is measured from the ramp gore striping or a defined storge bay to the off-ramp intersection stop bar.

7.2.5 Project Traffic Effects

A project Owner/Permittee should consider an improvement if the project traffic effect triggers the need for an improvement per the City of San Diego *Transportation Study Manual* (TSM) defined effects as shown in **Table 7** (TSM excerpts included in **Appendix D**).

TABLE 7: CITY OF SAN DIEGO TRAFFIC EFFECT TRIGGERS FOR POTENTIAL ROADWAY IMPROVEMENTS

Facility	Triggers for Considering an Improvement
Signalized Intersection	No Existing Left-Turn Lane: If the project adds traffic to an individual left turn movement causing the total number of peak hour left turns to exceed 100, consider adding a left turn lane. Existing Single Left-Turn Lane: If the project adds traffic to an individual left turn movement causing the total number of peak hour left turns to exceed 300, consider adding a second left turn lane. No Existing Right Turn-Lane: If the addition of a right turn lane will not negatively affect other roadway users, will maintain a comfortable roadway environment, AND the project adds traffic to an individual right turn movement causing the total number of peak hour right turns to exceed 500, consider adding a right turn lane. Existing Single Right-Turn Lane: If the addition of a right turn lane will not negatively affect other roadway users, will maintain a comfortable roadway environment, AND the project adds traffic to an individual right turn movement causing the total number of peak hour right turns to exceed 800, consider adding a second right turn lane. Lengthening a Turn Pocket: If the project adds traffic to a turning movement and causes the 95th percentile queue to exceed the available turn pocket length, consider lengthening the turn pocket. Signal Timing Improvements/Signal Modification should be considered for study intersections within a ½ mile path of travel of a Major Transit Stop, if the project causes or adds traffic to an LOS F intersection, or outside ½ mile path of travel of a Major Transit Stop, if the project causes or adds traffic to an LOS E/F intersection.
Un-Signalized Intersection	An Intersection Control Evaluation should be prepared if: All Way Stop Control: Within a ½ mile path of travel of a Major Transit Stop, if the project causes intersection to degrade to LOS F, or if the project adds traffic to an intersection already operating at LOS F. All Way Stop Control: Outside of a ½ mile path of travel of a Major Transit Stop, if the project causes intersection to degrade to LOS E or F, or if the project adds traffic to an intersection already operating at LOS E or F. Side Street Stop Control: Within a ½ mile path of travel of a Major Transit Stop, if the project causes the worst movement to degrade to LOS F, or if the project adds traffic to the worst movement of a side stopped-controlled intersection already operating at LOS F. Side Street Stop Control: Outside a ½ mile path of travel of a Major Transit Stop, if the project causes the worst movement to degrade to LOS E or F, or if the project adds traffic to the worst movement of a side stopped-controlled intersection already operating at LOS E or F.
Roadway Segment	If the project adds greater than 50% of total daily vehicle trips on the segment, the project should consider implementing the improvements as identified in the community plan. If the project adds less than or equal to 50% of total daily vehicle trips on the segment, the project should evaluate its fair share toward the improvement.

Source: City of San Diego Transportation Study Manual, 9/19/2022.

7.3 Existing Conditions

This section describes the existing study area street system, peak hour intersection volumes, daily roadway volumes, existing LOS, and turn bay queuing.

7.3.1 Existing Street System

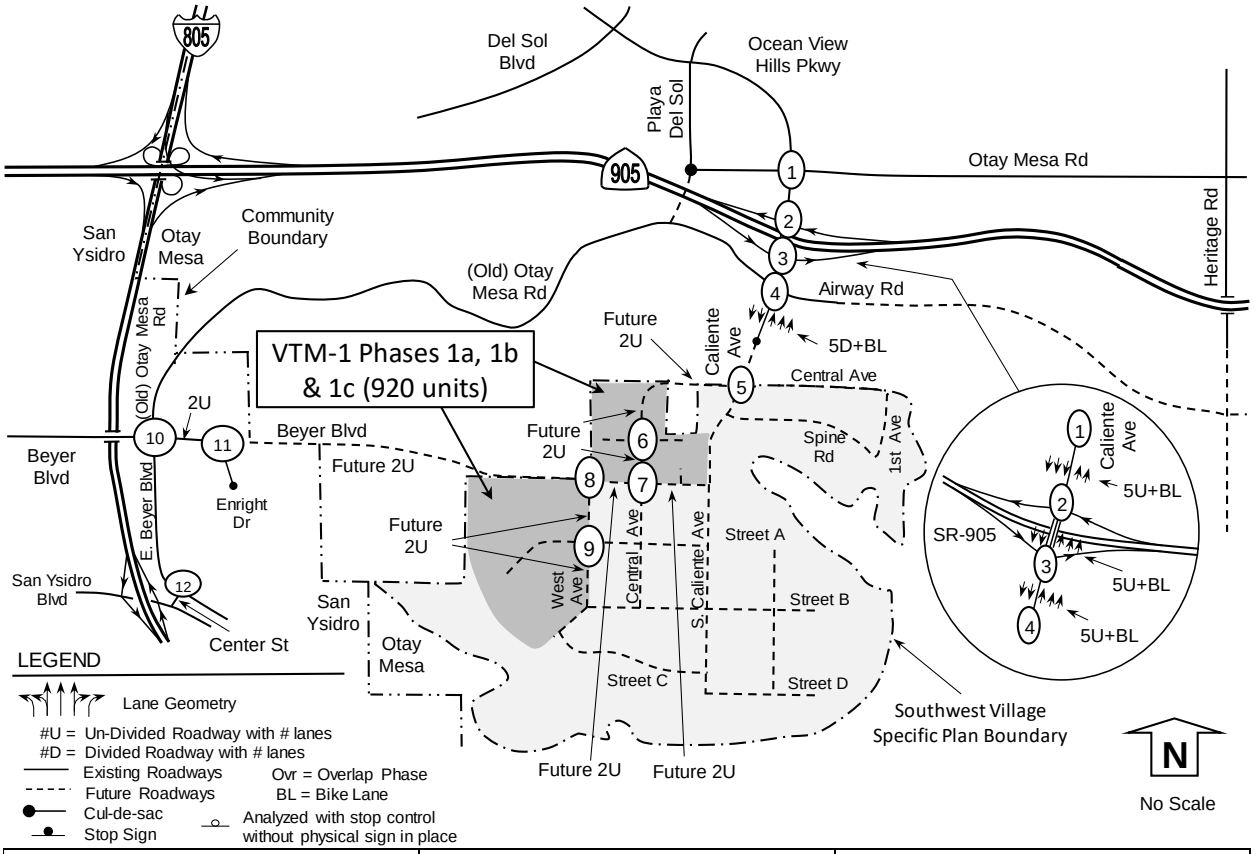
Within the LMA study area, the following existing roadways were analyzed as part of this study. The existing conditions are shown in **Figure 10**.

Beyer Boulevard from Old Otay Mesa (E. Beyer Blvd) to the eastern terminus at Enright Dr is classified as a *4-Lane Collector* in the City of San Diego *San Ysidro Community Plan*, October 2017. The future (yet to be constructed) segment of Beyer Blvd from Enright Dr to Caliente Ave is classified as a *4-Lane Major* in the City of San Diego *Otay Mesa Community Plan Update*, March 2014. Beyer Blvd from Old Otay Mesa Road (E. Beyer Blvd) to Enright Dr is constructed as a 2-lane undivided roadway with parking generally allowed on the southside of the roadway, a contiguous sidewalk on the southside of the roadway, and no observed speed limit signs. Roadway classification details are included in **Appendix E**.

Caliente Avenue from Otay Mesa Road to the southern terminus south of Airway Road is classified as a *6-Lane Prime* in the City of San Diego *Otay Mesa Community Plan Update*, March 2014 (excerpts included in Appendix E). A posted speed limit was not observed on Caliente Ave.

> Caliente Avenue from Otay Mesa Road to SR-905 WB Ramp is constructed as a five (5) lane undivided roadway (three southbound and two northbound lanes), with Class II bike lanes in each direction, on-street parking prohibited on both side of the roadway, and a contiguous sidewalk on the west side with both contiguous and non-contiguous sidewalk on the east side. There is a transition in the directionality of the five (5) lanes on the bridge over SR-905 between the WB Ramp and EB Ramp.
>
> Caliente Avenue on the bridge has three (3) southbound lanes to which one lane becomes a trap lane for southbound left turns onto eastbound SR-905. This results in two (2) southbound lanes across the SR-905 EB Ramp intersection. In the northbound direction, there are three (3) lanes on the bridge approaching the SR-905 WB Ramp intersection with a designated left-turn lane and three through lanes. The three northbound lanes are received by four (4) lanes with a designated left turn lane, two through lanes, and a designated right turn lane at the intersection of Caliente Ave/Otay Mesa Road. There are Class II bike lanes in each direction and contiguous sidewalks on both sides of the roadway.
>
> Caliente Ave from SR-905 WB Ramp to Airway Road is constructed as a five (5) lane undivided roadway with three (3) northbound lanes and two (2) southbound lanes, with Class II bike lanes in each direction, contiguous sidewalks on both sides, and on-street parking prohibited on both sides of the roadway.
>
> Caliente Ave from Airway Road to the southern terminus is constructed as a five (5) lane divided roadway with three (3) northbound lanes and two (2) southbound lanes, with Class II bike lanes in each direction, non-contiguous sidewalk on the east side, contiguous sidewalk on the west side, and on-street parking prohibited on both sides of the roadway.

Figure 10: Existing Conditions



Otay Mesa Rd / Ocean View Hills Pkwy / Caliente Ave 1 Signal Ovr, Ovr	SR-905 WB Ramps / Caliente Ave 2 Signal	SR-905 EB Ramps / Caliente Ave 3 Signal
Airway Rd / Caliente Ave 4 Signal	Central Ave / Caliente Ave 5 Future Intersection	PA 8-9-10 Access / Central Ave 6 Future Intersection
Beyer Blvd / Central Ave 7 Future Intersection	Beyer Blvd / West Ave 8 Future Intersection	Street A / West Ave 9 Future Intersection
Beyer Blvd / (Old) Otay Mesa Rd / E. Beyer Blvd 10 Signal	Beyer Blvd / Enright Dr 11	Center St / E. Beyer Blvd 12

7.3.2 Existing Traffic Volumes and LOS Analyses

Existing counts were collected between 7:00 AM and 9:00 AM for the AM commuter period and from 4:00 PM to 6:00 PM for the PM commuter period on Thursday, February 10, 2022 except as noted below. Nearby schools were in session during the counts. Counts were collected for the following intersections within the study area:

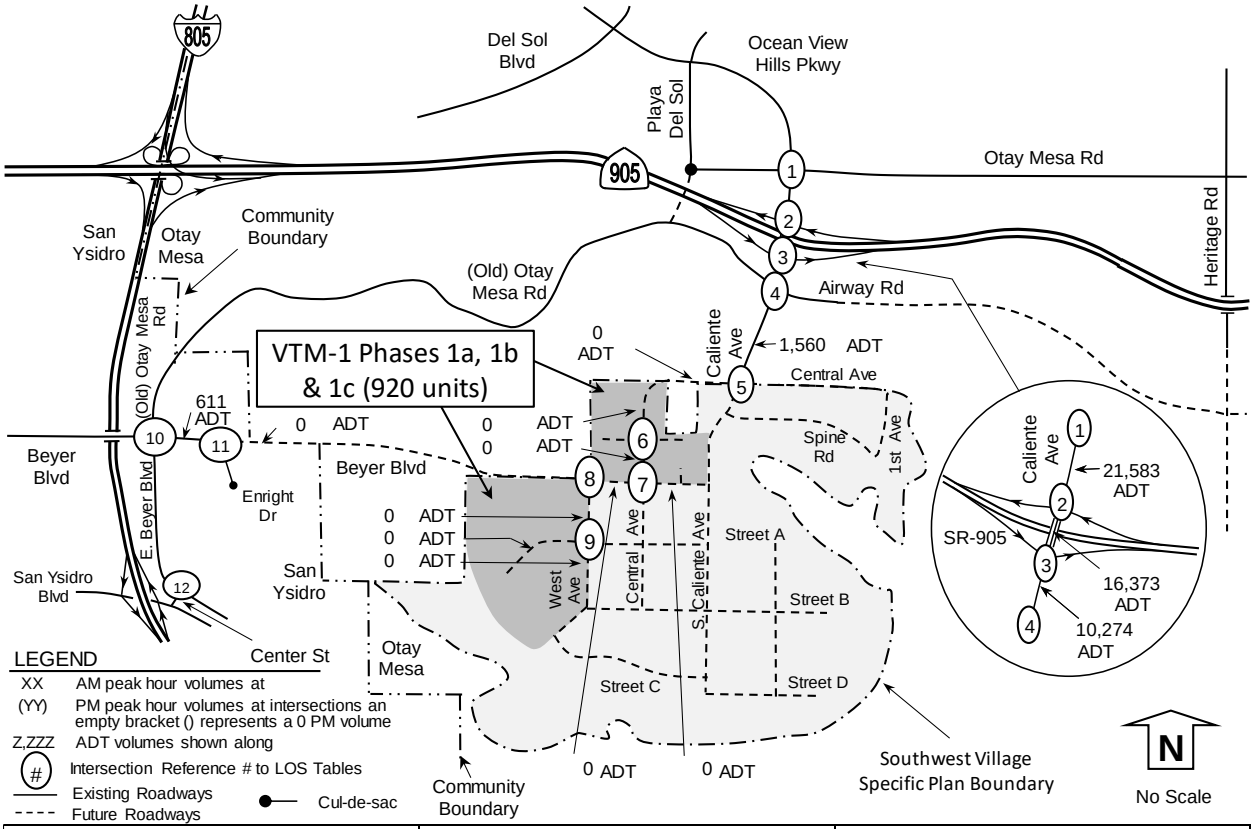
1) Caliente Ave/Otay Mesa Rd/Ocean View Hills Pkwy (signalized)
2) Caliente Ave/SR-905 WB Ramps (signalized)
3) Caliente Ave/SR-905 EB Ramps (signalized)
4) Caliente Ave/Airway Rd (signalized)
5) *Caliente Ave/Central Ave (Does Not Exist [DNE]– not analyzed under Existing Conditions)*
6) *Central Ave/PA 8-9-10 Access (DNE – not analyzed under Existing Conditions)*
7) *Central Ave/Beyer Blvd (DNE – not analyzed under Existing Conditions)*
8) *West Ave/Beyer Blvd (DNE – not analyzed under Existing Conditions)*
9) *West Ave/Street A (DNE – not analyzed under Existing Conditions)*
10) Old Otay Mesa Rd/E. Beyer Blvd/Beyer Blvd (signalized)
11) Enright Dr/Beyer Blvd (minor leg stop control)
12) E. Beyer Blvd/Center St (all-way stop control); Thursday April 28, 2022

Daily traffic counts were collected on Thursday, February 10, 2022 for the following street segments:

1) Old Otay Mesa Rd (E. Beyer Blvd) to Enright Dr
2) *Beyer Blvd from Enright Dr to West Ave (DNE – not analyzed under Existing Conditions)*
3) *Beyer Blvd from West Ave to Central Ave (DNE – not analyzed under Existing Conditions)*
4) *Beyer Blvd from Central Ave to Caliente Ave (DNE – not analyzed under Existing Conditions)*
5) Caliente Ave from Otay Mesa Rd to SR-905 WB Ramps
6) Caliente Ave from SR-905 WB Ramps to SR-905 EB Ramps
7) Caliente Ave from SR-905 EB Ramps to Airway Rd
8) Caliente Avenue from Airway Rd to the Southern Terminus
9) *Caliente Ave from Southern Terminus to Central Ave (DNE – not analyzed under Existing Conditions)*
10) *Central Ave west of Caliente Ave (DNE – not analyzed under Existing Conditions)*
11) *Central Ave north of PA 8-9-10 Access (DNE – not analyzed under Existing Conditions)*
12) *Central Ave from PA 8-9-10 Access to Beyer Blvd (DNE – not analyzed under Existing Conditions)*
13) *West Ave from Beyer Blvd to Street A (DNE – not analyzed under Existing Conditions)*
14) *West Ave south of Street A (DNE – not analyzed under Existing Conditions)*
15) *Street A west of West Ave (D–E - not analyzed under Existing Conditions)*

The existing AM, PM, and daily volumes are shown on **Figure 11**, with count data included in **Appendix F**. The intersection LOS is shown in **Table 8**. The intersection and freeway off-ramp 95th percentile queues are shown in **Table 9**. The segment LOS is shown in **Table 10**. The intersections were analyzed with vehicle, pedestrian, and bicycle demands using existing signal timing settings. The signal timing sheets included in **Appendix G**. The intersection LOS and queueing worksheets for existing conditions are included in **Appendix H**.

Figure 11: Existing Volumes



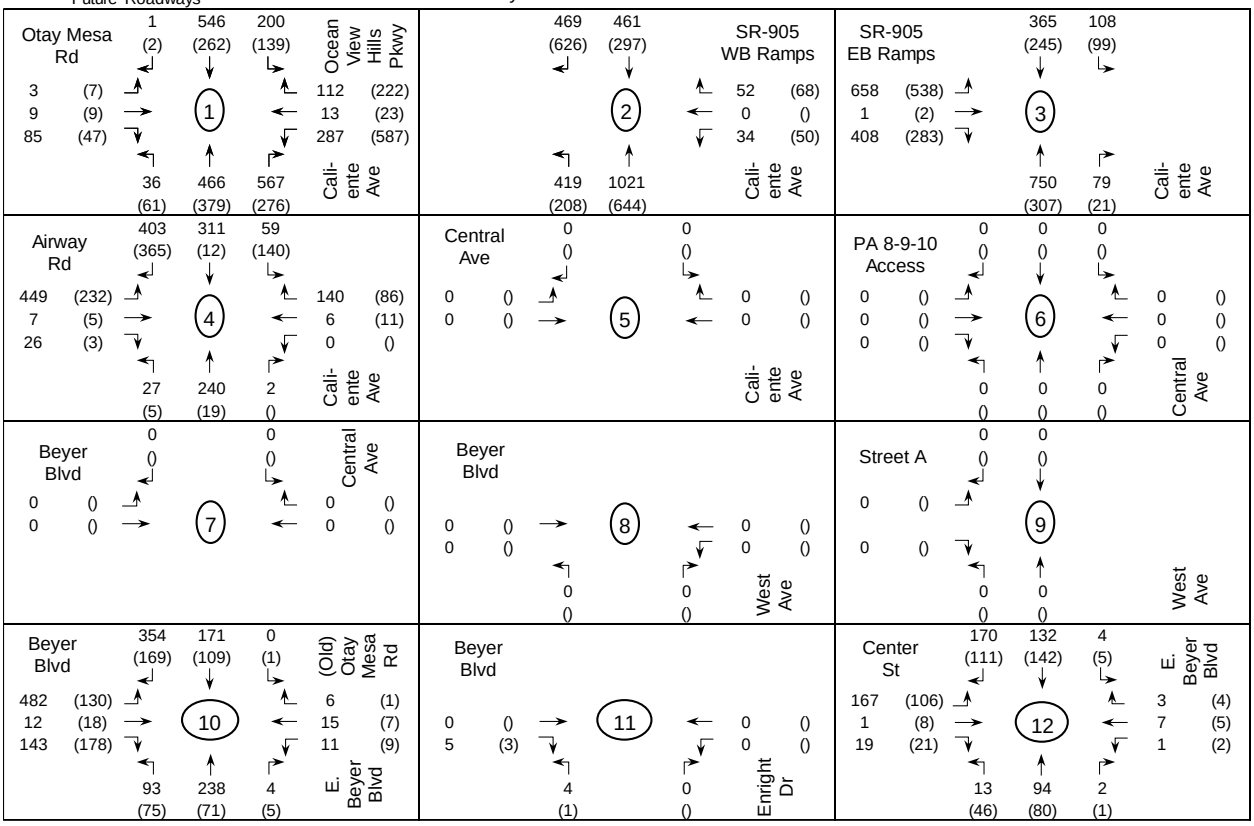


TABLE 8: EXISTING INTERSECTION LOS

Intersection and (Analysis)[1]	Approach	Peak Hour	Existing Delay[2]	Existing LOS[3]
1) Ocean View Hills/Caliente	All	AM	39.5	D
Ave at Otay Mesa Rd (S)	All	PM	53.4	D
2) Caliente Ave at	All	AM	15.1	B
SR-905 WB Ramps (S)	All	PM	16.6	B
3) Caliente Ave at	All	AM	32.7	C
SR-905 EB Ramps (S)	All	PM	25.1	C
4) Caliente Ave at	All	AM	52.6	D
Airway Rd (S)	All	PM	27.0	C
5) Caliente Ave at	All	AM	Does Not Exist	Not
Central Ave (U)	All	PM	Future Intersection	Applicable
6) Central Ave at	EB	AM		
PA 8-9-10 (U)	WB	AM	Does Not Exist	Not
	EB	PM	Future Intersection	Applicable
	WB	PM		
7) Central Ave at	SB	AM	Does Not Exist	Not
Beyer Blvd (U)	SB	PM	Future Intersection	Applicable
8) West Ave at	NB	AM	Does Not Exist	Not
Beyer Blvd (U)	NB	PM	Future Intersection	Applicable
9) West Ave at	EB	AM	Does Not Exist	Not
Street A (U)	EB	PM	Future Intersection	Applicable
10) Old Otay Mesa Rd	All	AM	28.6	C
at Beyer Blvd (S)	All	PM	20.1	C
11) Enright Dr at	NB	AM	8.6	A
at Beyer Blvd (U)	NB	PM	8.6	A
12) E. Beyer Blvd	All	AM	11.1	B
at Center St (U)	All	PM	9.4	A

Notes: 1) Intersection Analysis (S) Signalized, (U) Unsignalized. 2) Delay - HCM Average Control Delay in seconds. 3) LOS: Level of Service.

TABLE 9: EXISTING INTERSECTION AND FREEWAY OFF-RAMP QUEUING

Intersection	Peak Hour	Approach	Storage Length in feet (notes)		Existing Queue[1] in feet	Exceeds Storage?	Distance in feet
1) Caliente Ave	AM	WBL	500	(2)	336	No	NA
at Otay Mesa Rd	AM	NBR	415	(3)	163	No	NA
	PM	WBL	500	(2)	1,470	**Yes**	**970**
	PM	NBR	415	(3)	109	No	NA
2) Caliente Ave at	AM	WB Ramp	1,530	(4)	52	No	NA
SR-905 WB Ramps	AM	NBL	100	(5)	129	**Yes**	**29**
	PM	WB Ramp	1,530	(4)	75	No	NA
	PM	NBL	100	(5)	134	**Yes**	**34**
3) Caliente Ave at	AM	EB Ramp	1,200	(4)	1,001	No	NA
SR-905 EB Ramps	PM	EB Ramp	1,200	(4)	743	No	NA
4) Caliente Ave	AM	NBL	250	(5)	42	No	NA
at Airway Rd	PM	NBL	250	(5)	7	No	NA
10) Old Otay Mesa	AM	WB	NA	(7)	53	NA	NA
Rd at Beyer Blvd	PM	WB	NA	(7)	36	NA	NA
11) Enright Dr at	AM	WB	75	(6)	DNE	NA	NA
at Beyer Blvd	PM	WB	75	(6)	DNE	NA	NA
12) E. Beyer at	AM	SB	NA	(7)	74	No	NA
Center St	AM	EB	NA	(7)	74	No	NA
	PM	SB	NA	(7)	65	No	NA
	PM	EB	NA	(7)	60	No	NA

Notes: WBL: Westbound Left. NBR: Northbound Right. EB: Eastbound. WB: Westbound. NBL: Northbound Left. NA: Not Applicable. DNE: Does Not Exist. (1) Queue is 95th percentile from Simtraffic analysis. (2) Turn lane is approximately 500 ft and then becomes a continuation of the approaching travel lanes. Since approach lanes provide storage, this not considered a deficiency.(3) Right turn lane is a trap lane, thus striped lane is 170 ft while trap lane adds 245 ft (415 ft total) to SR-905 WB Ramps intersection providing 415 ft of storage. (4) Two approach lanes with number 2 lane at 830 feet from stop bar; however, storage extends as a single lane to freeway off-ramp gore striping with 1,530 ft of storage. (5) From stop bar to end of storage bay striping. (6) Owner/Permittee to construct left turn storage as noted. (7) Turn lane is a continuation of approaching travel lane. BOLD = Simtraffic forecasted queue beyond storage bay.

TABLE 10: EXISTING SEGMENT ADT VOLUMES AND LOS

Segment	Functional Classification	LOS E Capacity	Existing		
			Daily Volume	V/C	LOS
Beyer Boulevard					
(Old) Otay Mesa Rd to Enright Dr	2C NF	10,000	611	0.061	A
Enright Dr to West Ave	DNE	DNE	0	NA	NA
West Ave to Central Ave	DNE	DNE	0	NA	NA
Central Ave to Caliente Ave	DNE	DNE	0	NA	NA
Caliente Avenue					
Otay Mesa Rd to SR-905 WB Ramps	5CL	35,000	21,583	0.617	C
SR-905 WB Ramps to SR-905 EB Ramps	5CL	35,000	16,373	0.468	B
SR-905 EB Ramp to Airway Rd	5CL	35,000	10,274	0.294	A
Airway Rd to Southern Terminus	5M	45,000	1,560	0.035	A
Southern Terminus to Central Ave	DNE	DNE	0	NA	NA
Central Ave					
West of Caliente Ave	DNE	DNE	0	NA	NA
North of PA 8-9-10 Access	DNE	DNE	0	NA	NA
PA 8-9-10 Access to Beyer Blvd	DNE	DNE	0	NA	NA
Street A					
West of West Ave	DNE	DNE	0	NA	NA
West Ave					
Beyer Blvd to Street A	DNE	DNE	0	NA	NA
Street A to Street B	DNE	DNE	0	NA	NA

Notes: 5M=5 lane Major. 5CL=5 lane Collector with left turn lanes, 2C NF=2 lane Collector with no fronting property driveway(s). Daily volume is a 24 hour volume. LOS: Level of Service. V/C: Volume to Capacity Ratio. DNE: Does Not Exist. NA: Not Applicable. Bold indicated unacceptable LOS.

Under Existing Conditions, the intersection of Caliente Ave/SR-905 WB Ramps has an existing northbound left turn queuing deficiency that exceeds the existing storage bay capacity.

7.4 Project Trip Generation

The project has three phases to accommodate a fire requirement of a secondary point of access through either the extension of Beyer Blvd from Central Ave to Enright Dr or an alternative secondary access approved by the City Fire Department at the 201st dwelling unit. An alternative secondary access is proposed south of the Specific Plan area along an existing utility road that is planned to be improved as an emergency vehicle access (EVA) road to facilitate regional fire and emergency response.

Phase 1a will include 200 dwelling units (27 single-family dwelling units and 173 multi-family dwelling units) in planning areas 8, 9, and 10 with sole access from Caliente Avenue. Trip generation for Phase 1a is expected to generate approximately 1,384 ADT with 110 AM peak hour trips (22 inbound and 88 outbound) and 130 PM peak hour trips (91 inbound and 39 outbound).

Phase 1b will include an additional 499 units to the 200 dwelling units in Phase 1a for a total of 699 units (62 single-family dwelling units and 637 multi-family dwelling units) in planning areas 8-14 with sole access from Caliente Avenue. Trip generation for Phases 1a & 1b is expected to generate approximately 5,184 ADT with 415 AM peak hour trips (83 inbound and 332 outbound) and 503 PM peak hour trips (352 inbound and 151 outbound).

Phase 1c will include an additional 221 dwelling units to the 699 units in Phases 1a and 1b for a total of 920 units (142 single-family dwelling units and 778 multi-family units). Phase 1c will be located within planning areas 8 through 14 and will include two points of access including Caliente Ave to/from the north and Beyer Blvd to/from the west. Phases 1a, 1b & 1c will have a total of up to 920 units (142 single-family and 778 multi-family). Trip generation for Phase 1a, 1b & 1c (with up to 920 dwelling units) is expected to generate approximately 7,084 ADT with 568 AM peak hour trips (114 inbound and 454 outbound) and 692 PM peak hour trips (484 inbound and 208 outbound). The project's expected trip generation was calculated using rates from the City of San Diego *Trip Generation Manual*, May 2003 as shown in **Table 11**.

TABLE 11: PROJECT TRIP GENERATION

Proposed Land Uses	ADT Rate	Size & Units	ADT	AM %	AM Split	AM IN	AM OUT	PM %	PM Split	PM IN	PM OUT
Phase 1a (200 units with 100% using Caliente Ave)											
Single-Family	10 /DU	27 DU	270	8%	0.2 0.8	4	17	10%	0.7 0.3	19	8
Multi-Family (under 20 du/ac)	8 /DU	38 DU	304	8%	0.2 0.8	5	19	10%	0.7 0.3	21	9
Multi-Family (over 20 du/ac)	6 /DU	135 DU	810	8%	0.2 0.8	13	52	9%	0.7 0.3	51	22
	Totals:	200				22	88			91	39
	Phase 1a Traffic Total:		**1,384**	**AM Total:**		**110**		**PM Total:**		**130**	
Phases 1a & 1b (699 units with 100% using Caliente Ave)											
Single-Family	10 /DU	62 DU	620	8%	0.2 0.8	10	40	10%	0.7 0.3	43	19
Multi-Family (under 20 du/ac)	8 /DU	371 DU	2,968	8%	0.2 0.8	47	190	10%	0.7 0.3	208	89
Multi-Family (over 20 du/ac)	6 /DU	266 DU	1,596	8%	0.2 0.8	26	102	9%	0.7 0.3	101	43
	Totals:	699				83	332			352	151
	Phase 1a & 1b Traffic Total:		**5,184**	**AM Total:**		**415**		**PM Total:**		**503**	
Phases 1a, 1b & 1c (920 total units with 76% [699 units] using Caliente Ave and 24% [221 units] using Beyer Blvd)											
Single-Family	10 /DU	142 DU	1,420	8%	0.2 0.8	23	91	10%	0.7 0.3	99	43
Multi-Family (under 20 du/ac)	8 /DU	498 DU	3,984	8%	0.2 0.8	64	255	10%	0.7 0.3	279	120
Multi-Family (over 20 du/ac)	6 /DU	280 DU	1,680	8%	0.2 0.8	27	108	9%	0.7 0.3	106	45
	Totals:	920				114	454			484	208
	Phase 1a, 1b, & 1c Traffic Total:		**7,084**	**AM Total:**		**568**		**PM Total:**		**692**	

Source: City of San Diego *Trip Generation Manual* , May 2003. Spreadsheet rounding may result in ±1 to above numbers.

7.5 Project Distribution and Assignment

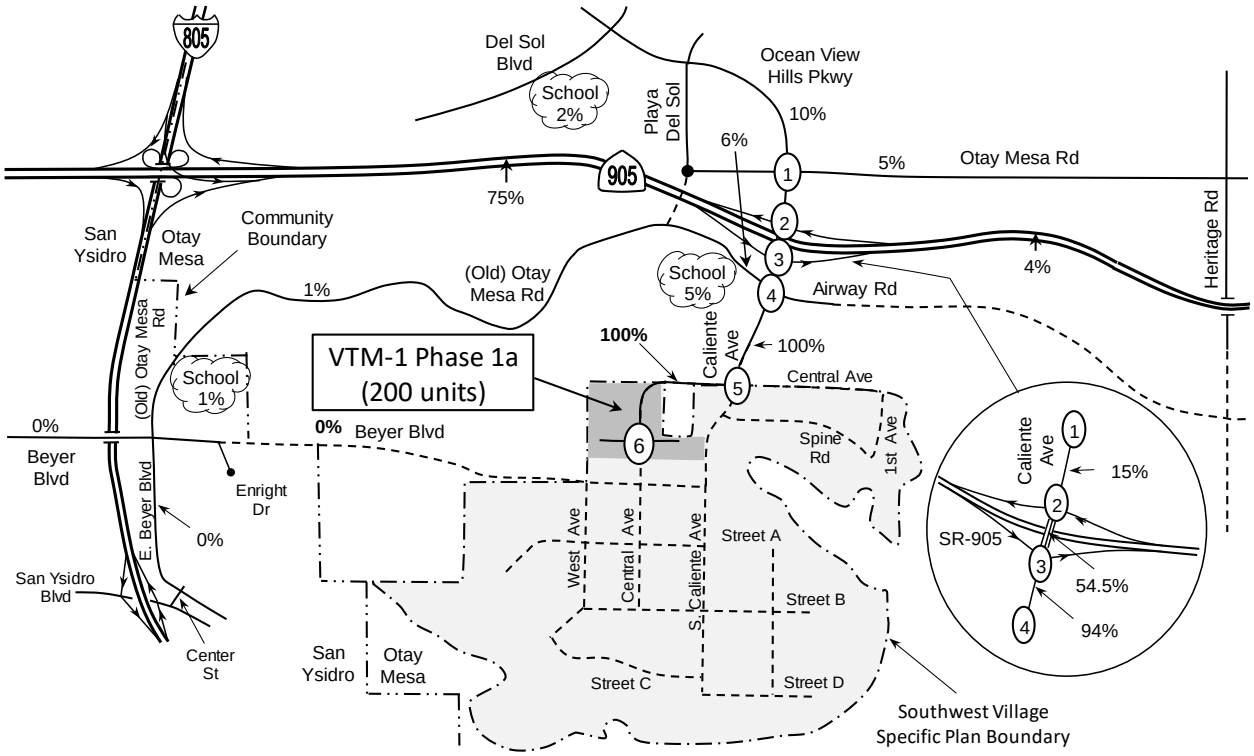
Project traffic was distributed to the adjacent roadway network based on a review of existing traffic patterns, surrounding land uses, existing and future network changes, and a Series 13 Year 2012 SANDAG Select Zone Assignment (SZA). A Series 13 model was used because that was the current model available when SANDAG was commissioned in March 2022. The SANDAG SZA output is included **Appendix I**.

Phase 1a Opening Year 2024 (200 dwelling units) will have a distribution with 100% access to Caliente Avenue as shown in **Figure 12**. The Phase 1a trip assignment is shown in **Figure 13**.

Phases 1a & 1b Opening Year 2024 (699 dwelling units) will have a distribution with 100% access to Caliente Avenue as shown in **Figure 14**. The Phase 1a & 1b trip assignment is shown in **Figure 15**.

Phases 1a, 1b & 1c Opening Year 2024 (920 dwelling units) will have a distribution with a 24% split to/from San Ysidro via Beyer Blvd and 76% split to Caliente Ave based on the SANDAG SZA as shown in **Figure 16.** The Phase 1a, 1b & 1c trip assignment is shown in **Figure 17**.

Figure 12: Project Phase 1a Distribution (200 units)



LEGEND

- % Project Distribution
- (#) Intersection Reference Number to LOS Tables
- Existing Roadways
- Future Roadways
- Cul-de-sac

N

No Scale

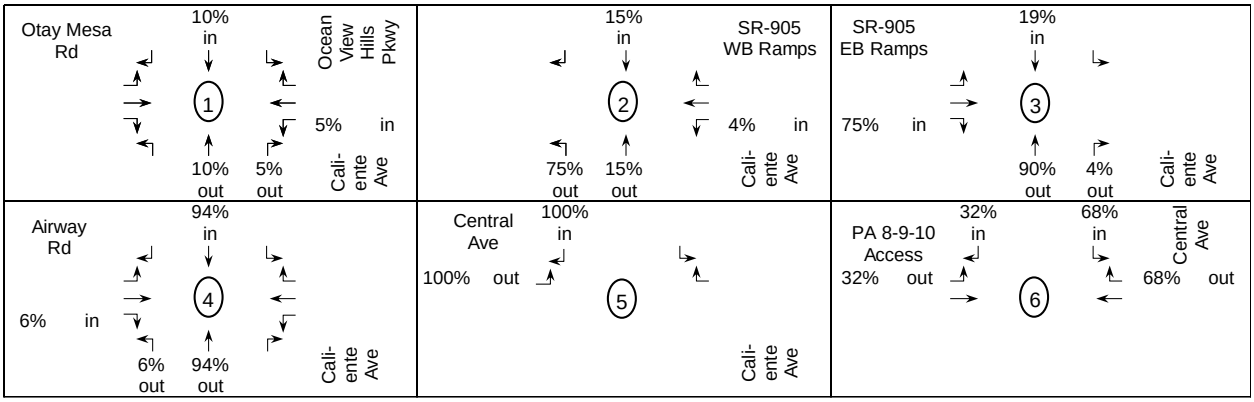
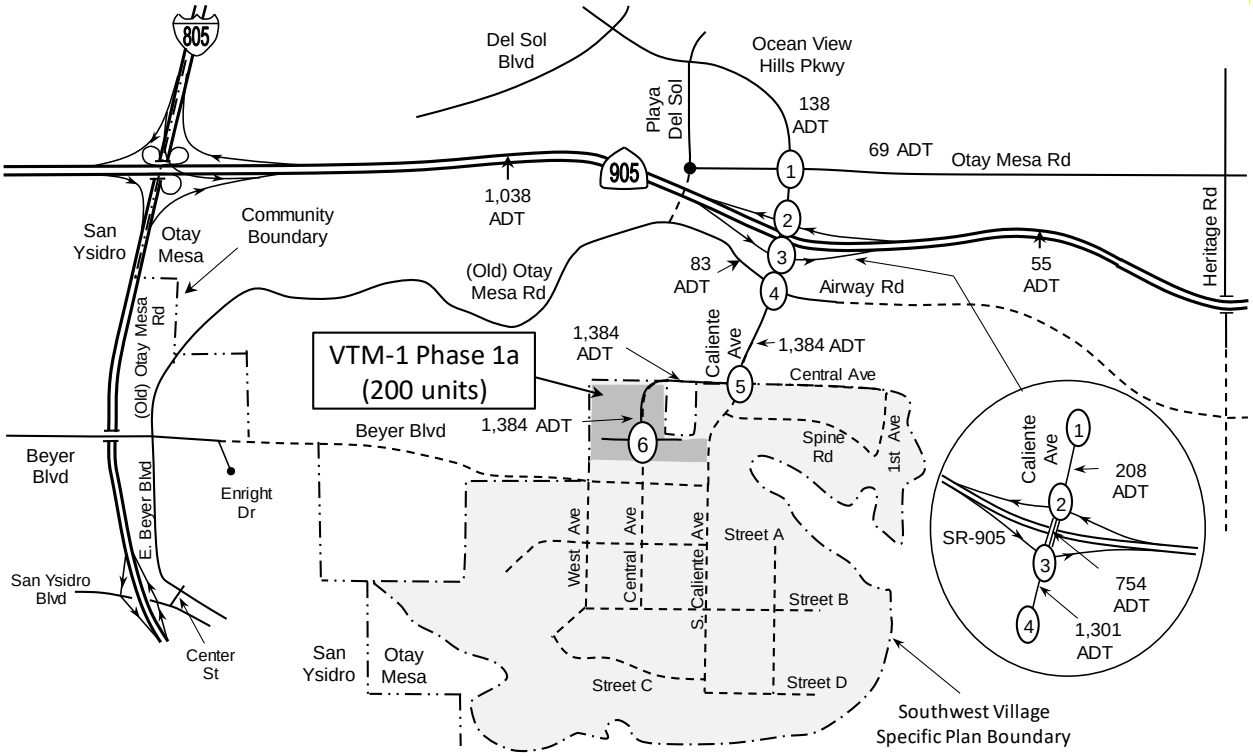


Figure 13: Project Phase 1a Assignment (200 units)



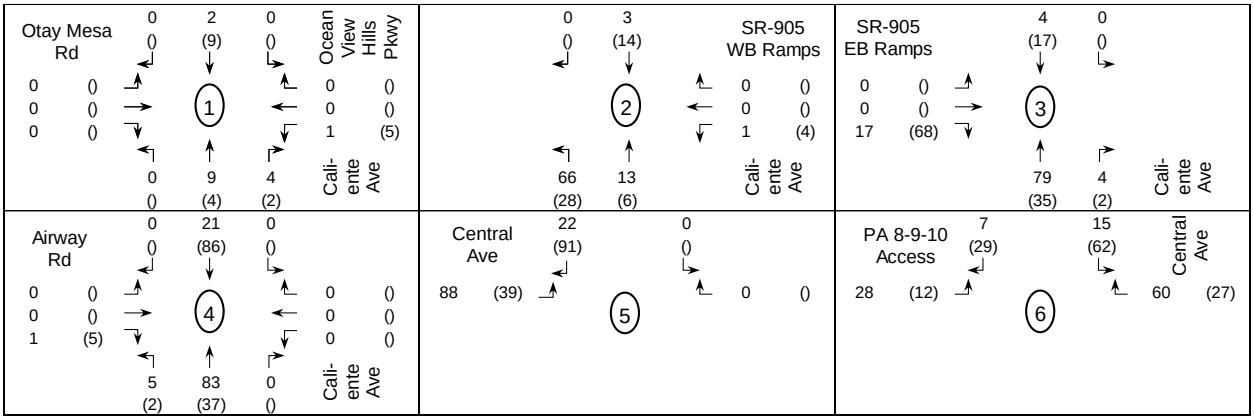
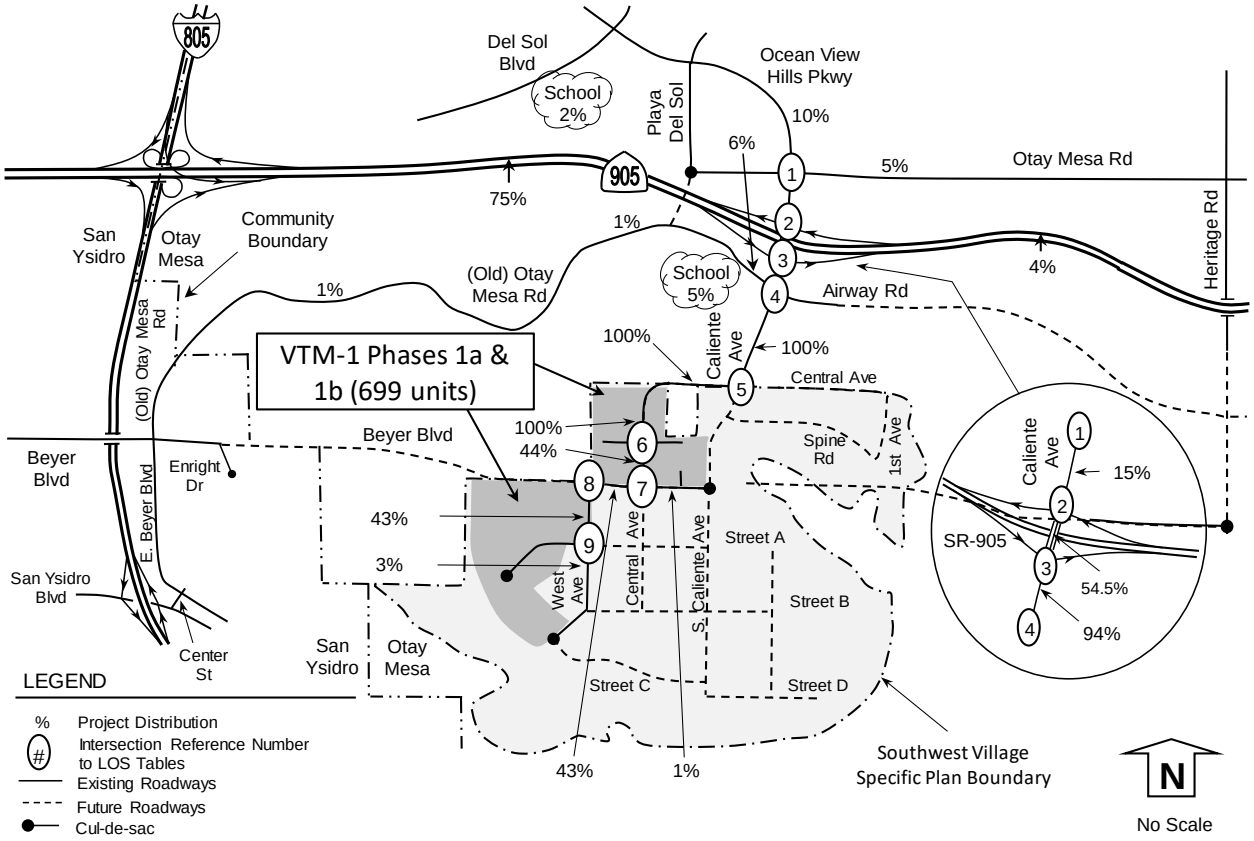


Figure 14: Project Phases 1a & 1b Distribution (699 units)



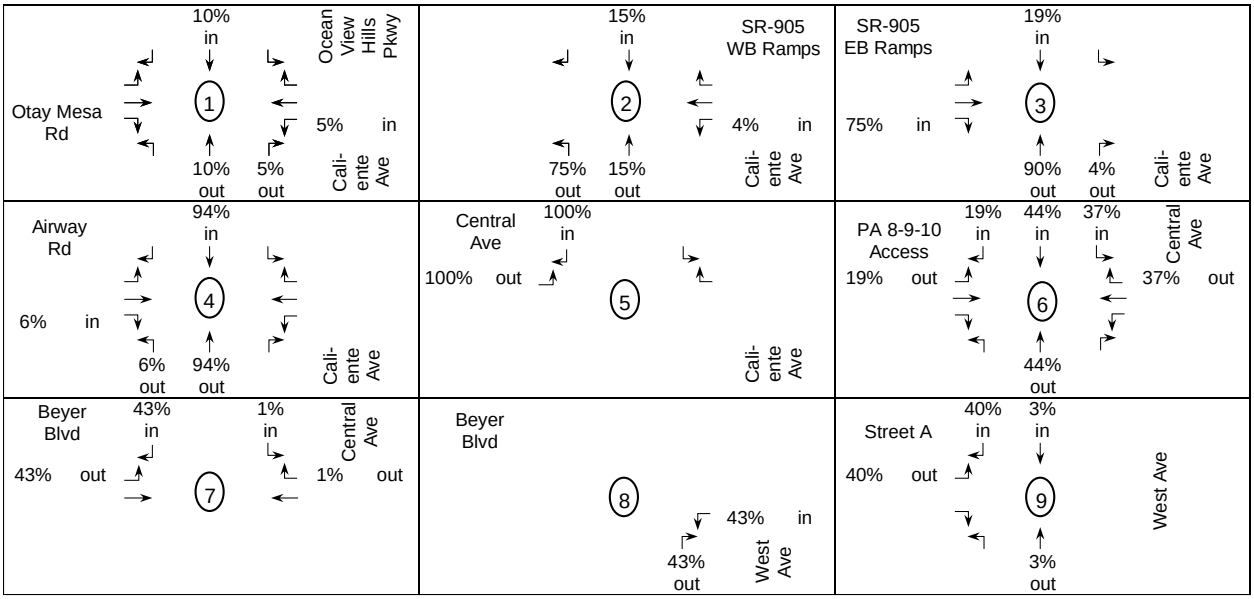
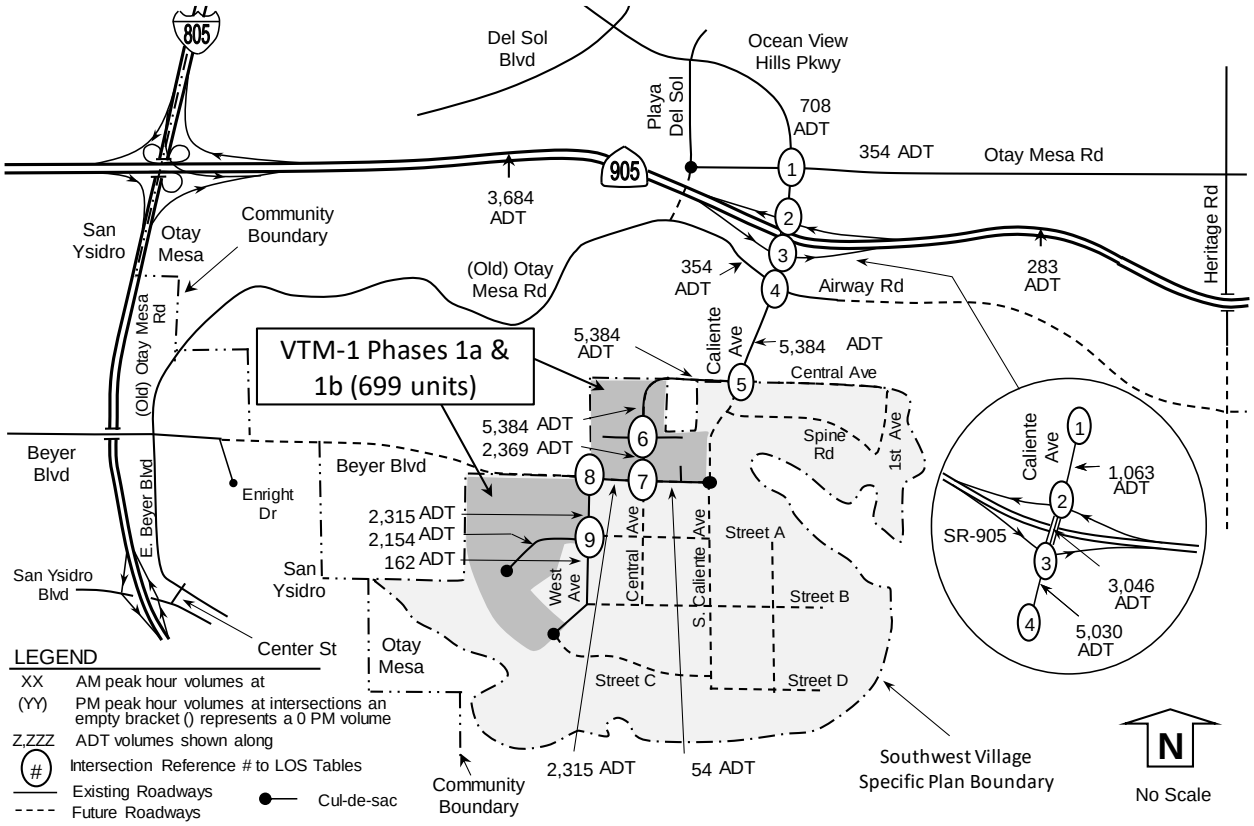


Figure 15: Project Phase 1a & 1b Assignment (699 units)



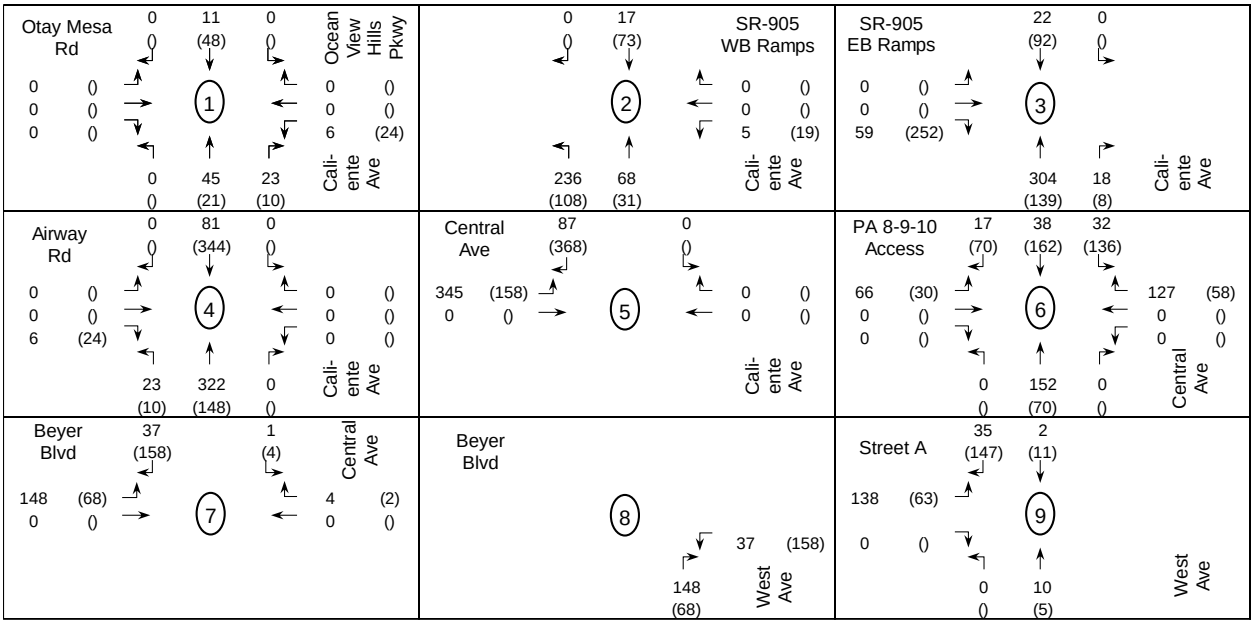
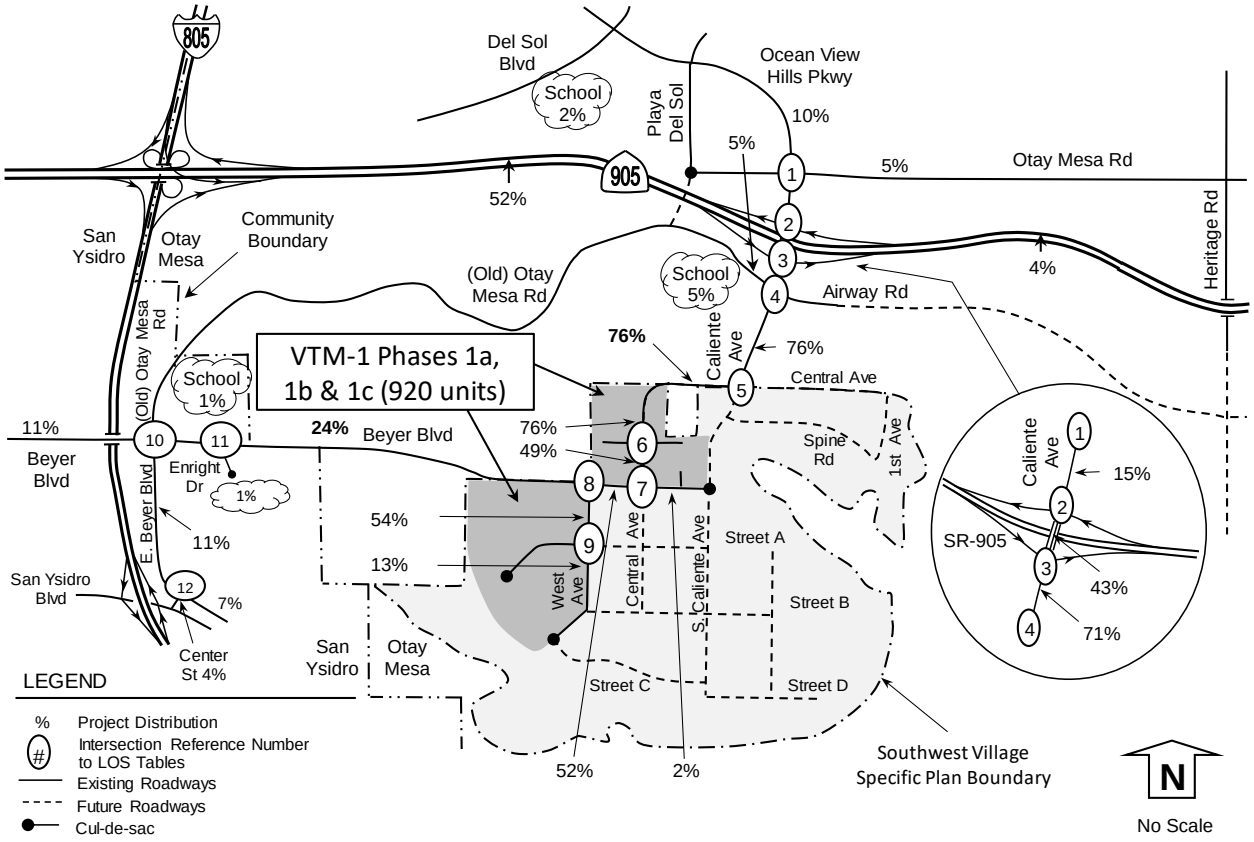


Figure 16: Project Phases 1a, 1b & 1c Distribution (920 units)



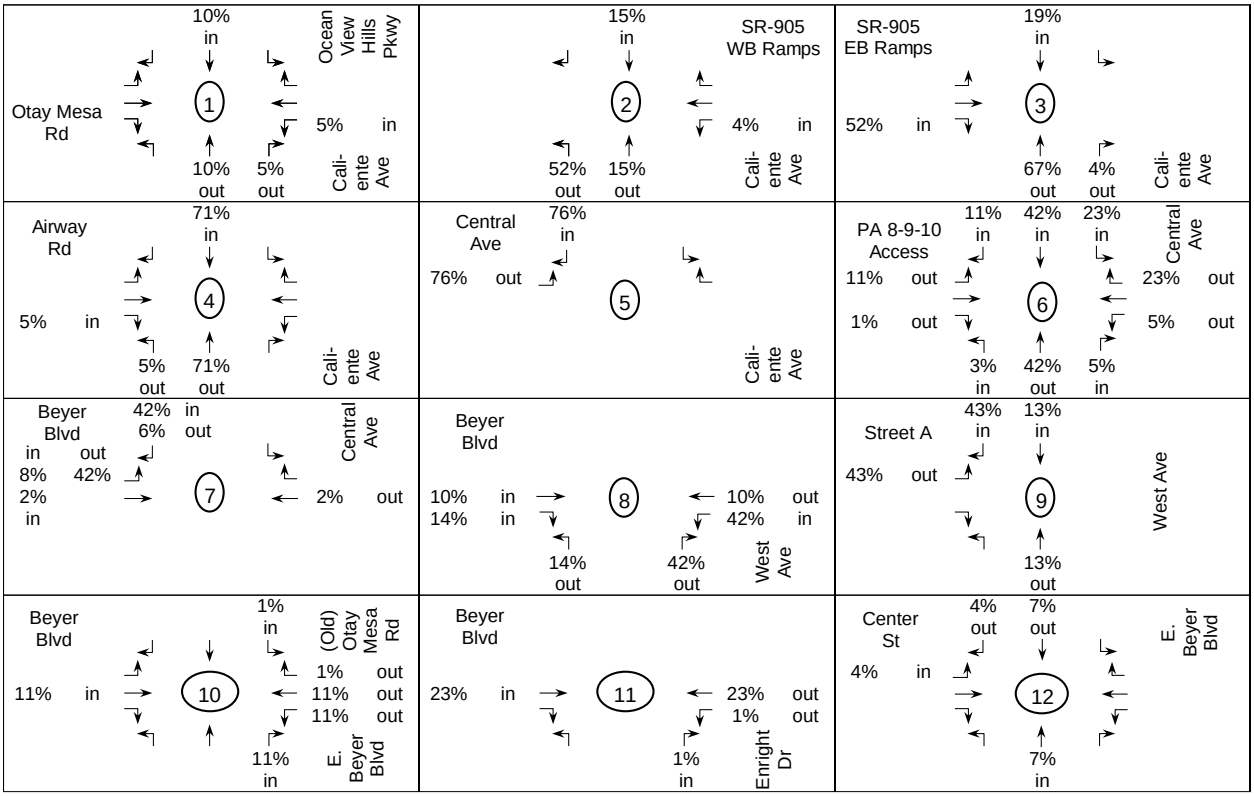
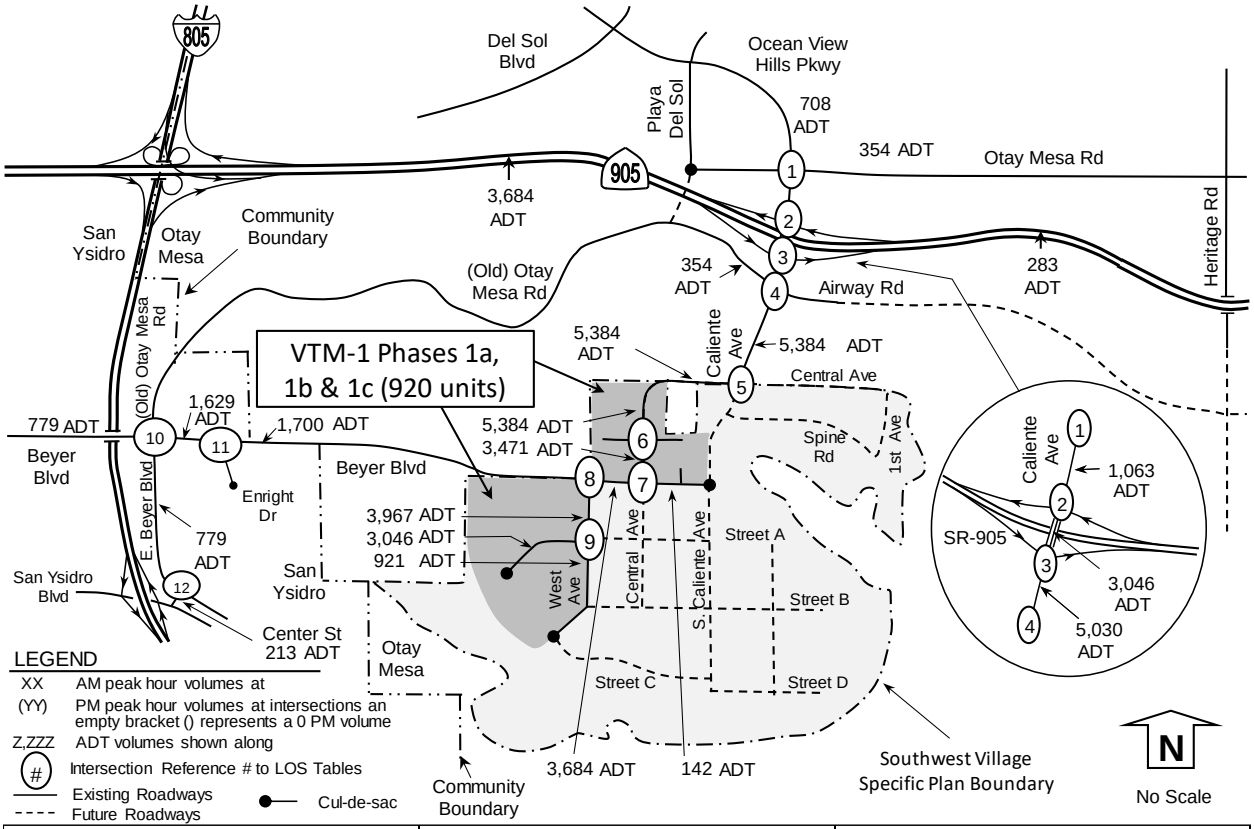
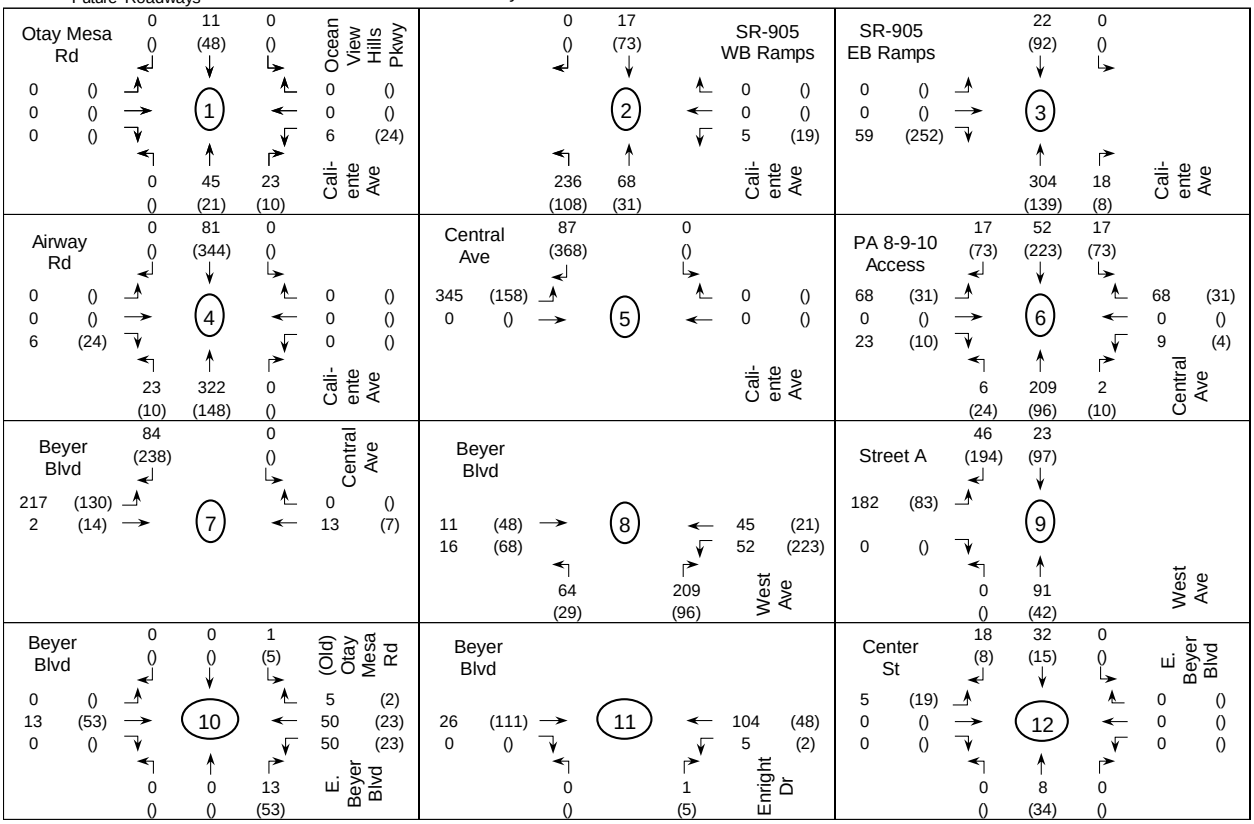


Figure 17: Project Phases 1a, 1b & 1c Assignment (920 units)





7.6 Opening Year 2024 Cumulative Projects

Upon review of available cumulative project information in Open DSD and coordination with City staff, the following reasonably foreseeable cumulative projects were identified at the time of the Notice of Preparation (2/26/2020) for the Project's EIR that are forecasted to add cumulative traffic to the study area roadways on or before year 2024:

1) *7-Eleven (PTS# 540084)* – A 2,940 sf convenience store located on the northwest corner of Ocean View Hills Parkway/Caliente Avenue and Otay Mesa Road. Project details were obtained from the draft 7-11 TIS prepared by LLG, 2017. This project is closed, and a permit was not issued; however, to be conservative, the cumulative volumes are included in this analysis.

2) *Arco #5770 (PTS# 110390*)– A project that will add 2 additional fuel dispensers to an existing gas station located at 1625 Heritage Road. This project is closed, and a permit was not issued; however, to be conservative, the cumulative volumes are included in this analysis.

3) *Azul Playa Del Sol/Luna (California Terraces PA 6) and SCR (PTS# 605702)* – A residential project with up to 740 multi-family units located on the southwest corner of Ocean View Hills Parkway and Del Sol Blvd. Approximately 710 units were occupied when counts were collected in February 2022, resulting in a near term analysis that accounts for the remaining 30 units. Approved by City decision-makers and mostly completed.

4) *Beyer Park* – A city park on approximately 31.7 acres with an entrance located at the southern terminus of Enright Dr. Project details were obtained from the Beyer Park Access Analysis prepared by STC, 2019. Approved by City decision-makers and not constructed.

5) *California Terraces PA61 (PTS# 690358)* – A residential project with 282 multi-family units located on the southeast corner of Otay Mesa Road and Caliente Avenue. Project details were obtained from a Project Information Form prepared by LOS Engineering, Inc. Spring 2022. This project was approved by City of San Diego decision-makers, and an amendment to change the 45,000 square feet of commercial on the western portion of the site to 79 multi-family dwelling units has also been approved. The 79 multi-family dwelling units are forecasted to have an overall reduction in trip generation from the original analysis and a negligible change in peak hour trips at the SR-905/Caliente Ave interchange.

6) *Candlelight (PTS# 40329)* – A multi-family project with 475 units located on both sides of Caliente Avenue at the south of the existing Caliente Ave southern terminus. Project details were obtained from the Candlelight TIA prepared by Kimley-Horn Associates, June 2013. This project has been approved by City of San Diego decision-makers, although an amendment to existing permit PTS# 691625 is currently under review.

7) *Festival (PTS# 627316)* – A commercial project of two fast food restaurants with drive throughs totaling 5,500 sf located on the northeast corner of San Ysidro Blvd and Center St. Under review by City decision-makers.

8) *Lumina (PTS# 555609)* – By year 2024, Phase 1 is anticipated to add traffic to the study area, which includes 1,129 multi-family units and 62,530 sf of community commercial space. Project details were obtained from the Otay Mesa Lumina TIS prepared by CR Associates, 2/20/19. Approved by City decision-makers and not yet constructed.

9) Lumina III (PTS# 651806) – A residential project with 25 multi-family units located along Cactus Rd south of Airway Road. Project details were obtained from the Otay Mesa Lumina III TIS prepared by CR Associates, 6/17/21. Approved by City decision-makers and was not constructed when traffic counts were collected on February 10, 2022.

10) Marijuana Production Facility (PTS# 585510) A marijuana project facility of 86,400 sf located at 1221 1/3 Innovative Drive. City records state opening day was November 2021, thus was in operation when counts were collected on February 10, 2022; however, to be conservative, these cumulative volumes are included in this analysis.

11) Metropolitan Airpark (PTS# 559378) SCR (PTS# 664354) – An aviation and commercial project with expansion of existing aviation uses, commercial office, industrial, restaurants, and hotel located on the northeast corner of Otay Mesa Road and Heritage Road. Project details were obtained from the Metropolitan Airpark TIS prepared by Rick Engineering, Inc., 11/14/18. By year 2024, Phase 1 is anticipated to add traffic to the study area. Approved by City decision-makers and not yet constructed.

12) *Otay Mesa Floreo TM (PTS#620164)* – A mixed-use project with 900 multi-family units, 10,000 sf community commercial and a 3.5 acre park located on the northeast corner of Cactus Rd at Airway Rd. Project details were obtained from the Otay Mesa Floreo TIS prepared by CR Associates, 6/6/19. This project is closed, and a permit was not issued; however, to be conservative, the cumulative volumes are included in this analysis.

13) Plaza La Media North (PTS# 334235)– A commercial project with 106,700 sf community retail, 13,500 sf drugstore, 6,000 sf fast food with drive-through, and a gas station with food mart and carwash with 12 fueling spaces located on the southeast corner of Otay Mesa Road and La Media Road. Project details were obtained from the Plaza La Media TIS prepared by STC. Approved by City decision-makers. This project was not constructed when traffic counts were collected on February 10, 2022.

14) Plaza La Media South (PTS# 632813) – A commercial project with 434,970 sf industrial space located on the northeast corner of La Media Road and Airway Road. Project details were obtained from the Plaza La Media South Traffic Sensitivity Analysis prepared by Kimley-Horn Associates, Feb 2020. This project is under review by City decision-makers.

15) San Diego-Tijuana Cross Border Facility Phase 2 (PTS# 473500) – A commercial project with a 340 room hotel, 6,000 sf sit down restaurant, gas station with food mart and carwash with 12 fueling spaces, 34,000 sf specialty retail, 401,000 sf industrial/business park, and airport travel related cross border facility located on the south side of Siempre Viva Road approximately midway between Britannia Boulevard and La Media Road. By year 2024, phase 2 is anticipated to add traffic to the study area. The trip generation was obtained from the San Diego-Tijuana Cross Border facility TIS prepared by LSA, June 2011. Approved with Phase 1 already completed.

16) *Southwind (PTS# 412529)* – A multi-family project with 100 units located west of Caliente Avenue and south of Airway Road. Project details were obtained from the Southwind TIA prepared by Kimley-Horn, February 2016. This project is closed, and a permit was not issued; however, to be conservative, the cumulative volumes are included in this analysis.

17) *Sunroad (PTS# 538140)* – A project with 845,050 sf of warehousing space located on the south side of Otay Mesa Road near Piper Ranch Road. Project details were obtained from the Southwind TIA prepared by Kimley-Horn, February 2018. Approved by City decision-makers and under construction as of February 2023.

The following cumulative projects either have an opening day beyond 2024 or were constructed and open before the traffic counts were collected in February 2022 and therefore, are not included in the opening day year 2024 analysis.

18) *BDM Mixed Use – previously known as Hander Retail Center (PTS# 673818)* – A mixed use (residential + commercial) project with 430 multi-family units and 6,000 sf of commercial located on the southeast corner of Otay Mesa Road and Emerald Crest Ct. The buildout year for this cumulative project is estimated at 2027, thus no cumulative traffic was added to the near-term 2024 analysis. This project has been approved by City of San Diego decision-makers.

19) *Cesar Solis Park* – A 15 acre city park generally located on the south side of Del Sol Blvd west of Ocean View Hills School. Completed and open during traffic data collection.

20) *Southview (PTS# 370044)* – A multi-family project with 277 units located on Airway Road east of Caliente Avenue. Completed and open during traffic data collection.

21) *Southview East (PTS# 371807)* – A multi-family project with 136 units located on Airway Road east of Caliente Avenue. Completed and open during traffic data collection.

Cumulative trip assignments anticipated to add traffic to the study area roadways are included in **Appendix J**. The cumulative project trip generation is summarized below in **Table 12**.

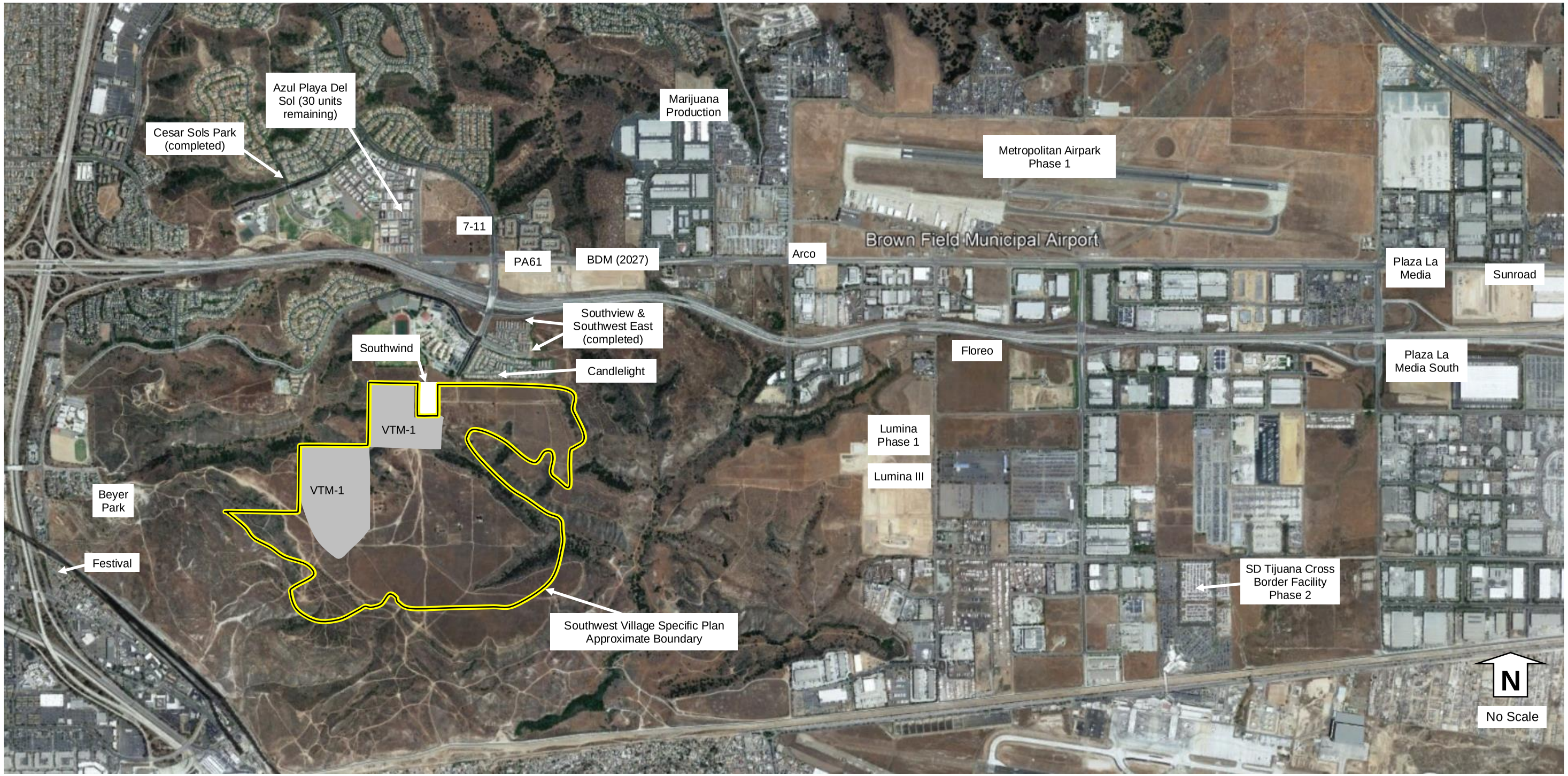
TABLE 12: OPENING YEAR 2024 CUMULATIVE PROJECT TRIP GENERATION

Cumulative Project		Status	ADT	AM Peak Hour			AM Peak Hour		
				In	Out	Total	In	Out	Total
1	7-Eleven (PTS 540084)	Closed (1)	1,800	72	72	144	72	72	144
2	Arco (PTS 5770)	Closed (1)	60	2	2	4	2	2	4
3	Azul Playa Del Sol (CA Terraces PA 6)	Mostly Completed	240	4	15	19	17	7	24
4	Beyer Park (San Ysidro)	Approved	458	9	9	18	19	18	37
5	California Terraces PA61 Residential (PTS 690358)	Modification Approved	1,850	29	118	147	121	52	173
6	Candlellight Residential (PTS 40329)	Under Review	2,850	46	182	228	180	77	257
7	Festival (PTS 627316) Fast Food with Drive-Thru	Under Review	3,850	92	62	154	154	154	308
8	Lumina Phase 1 (PTS 651806)	Approved	11,151	187	486	673	646	402	1048
9	Lumina III Residential (PTS 651806)	Approved	200	3	13	16	14	6	20
10	Marijuana Production Facility (PTS 585510)	Approved	346	62	7	69	14	55	69
11	Metorpolitan Airpark Phase 1 (PTS 559378)	Approved	961	75	20	95	31	71	102
12	Otay Mesa Floreo (PTS 620164)	Closed (1)	6,275	103	357	460	382	188	570
13	Plaza La Media (PTS 632813)	Approved	8,660	183	127	310	407	405	812
14	Plaza La Media South (PTS 632813)	Under Review	2,186	230	98	328	139	211	350
15	SD-Tijuana Cross Border Facility Phase 2 (PTS 473500)	Phase 1 Completed	24,652	656	428	1084	608	580	1188
16	Southwind Residential (PTS 412529)	Closed (1)	800	13	51	64	56	24	80
17	Sunroad Otay Mesa (PTS 538140)	Under Construction	4,225	444	189	633	270	406	676
	Cumulative Totals:		**70,564**	**2,210**	**2,236**	**4,446**	**3,132**	**2,730**	**5,862**

PTS: Project Tracking System. (1) See text for explanation of closed.

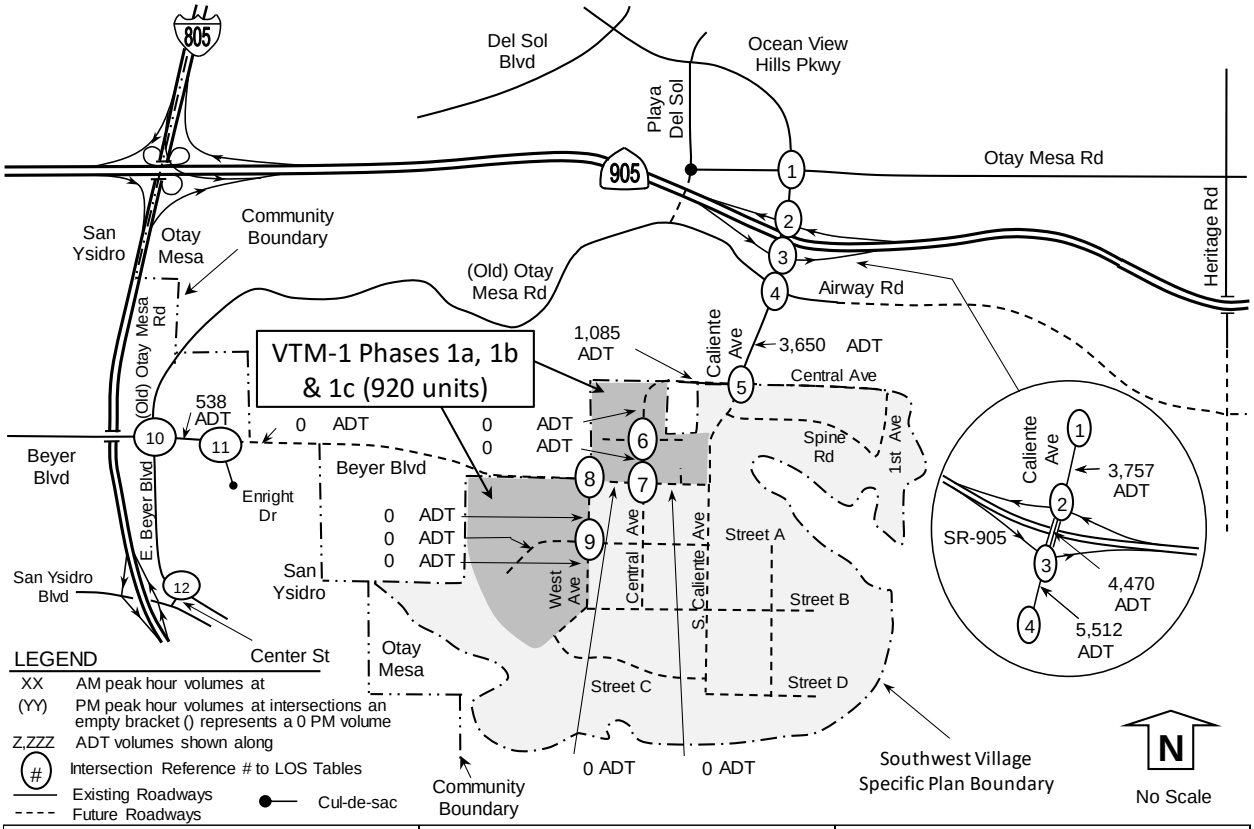
A map showing the cumulative project locations are shown on **Figure 18**. The cumulative traffic volumes are shown on **Figure 19**.

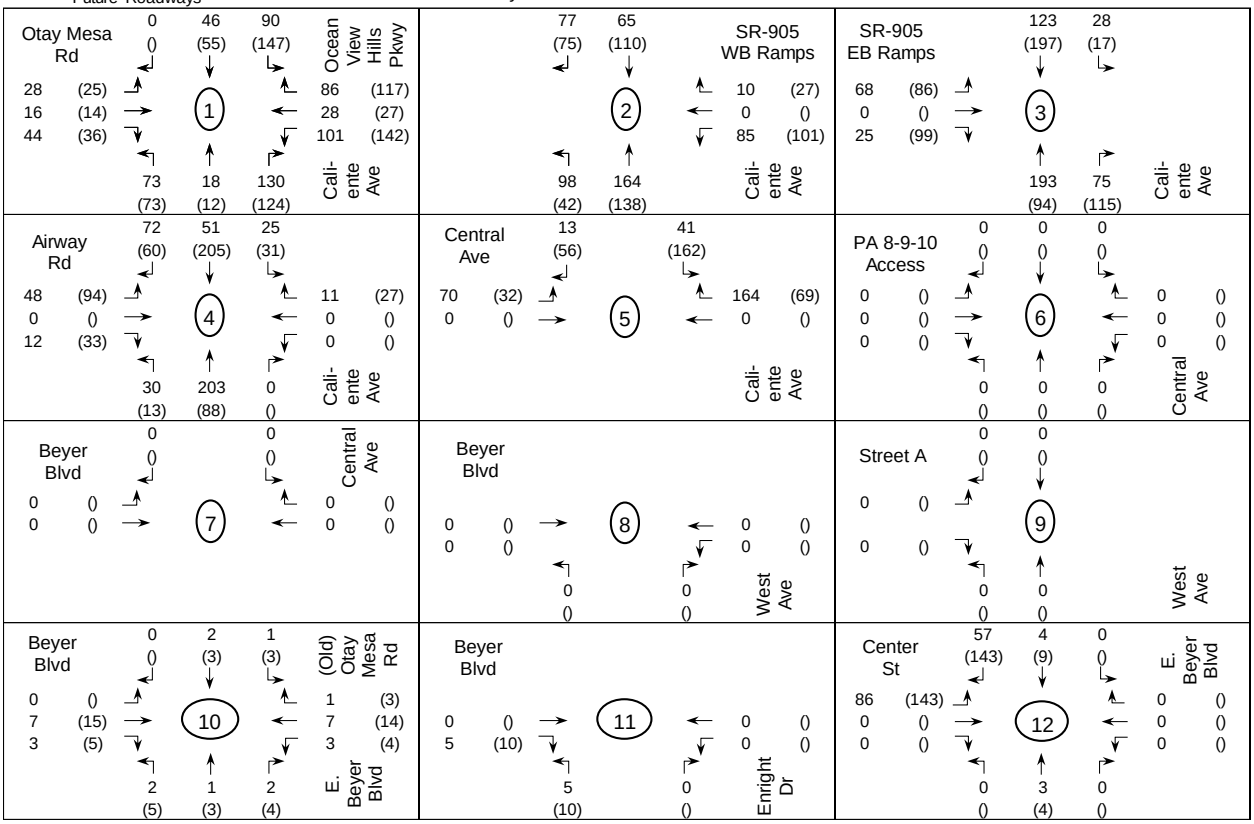
Figure 18: Opening Year 2024 Cumulative Projects



Source: Google Map (Image date Sept 2021)

Figure 19: Cumulative Volumes





7.7 Opening Year 2024 without Project Conditions

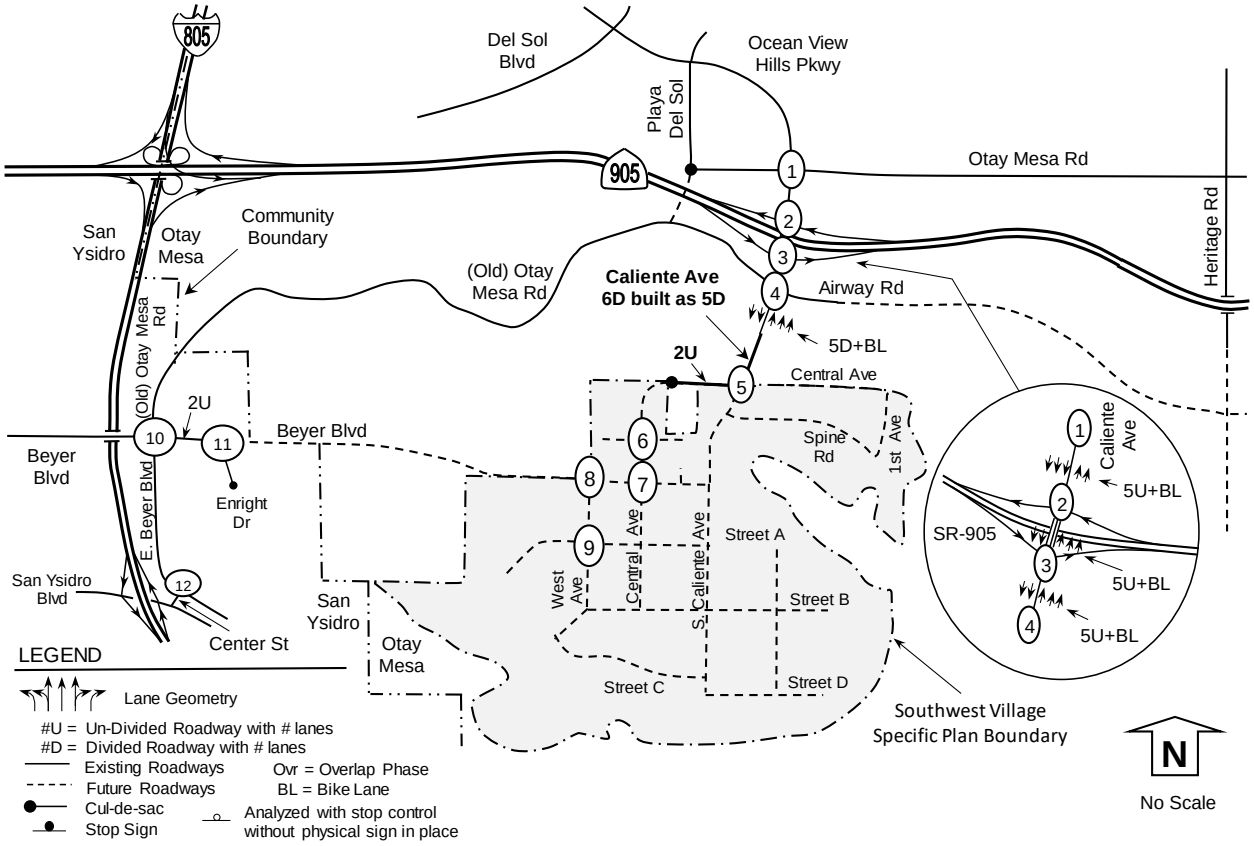
This scenario documents the addition of cumulative traffic onto existing volumes to represent Opening Year 2024 without Project conditions. Under this scenario, if the cumulative project known as Candlelight precedes VTM-1, then the Candlelight Owner/Permittee is expected to construct Caliente Ave from the existing southern terminus to Central Ave, Central Ave east and west of Caliente Ave to their project points of access, and the intersection of Caliente Ave/Central Ave. However, if Southwest Village VTM-1 precedes Candlelight, then the VTM-1 Owner/Permittee will construct the aforementioned improvements shown in **Figure 20**. Volumes for this scenario are shown in **Figure 21**. The intersection LOS is shown in **Table 13**. The intersection and freeway off-ramp 95th percentile queues are shown in **Table 14**. The segment LOS is shown in **Table 15**. The intersection LOS and queueing output are included in **Appendix K**.

TABLE 13: OPENING YEAR 2024 WITHOUT PROJECT INTERSECTION LOS

Intersection and (Analysis)[1]	Approach	Peak Hour	Opening Year 2024	
			Delay[2]	LOS[3]
1) Ocean View Hills/Caliente	All	AM	81.0	**F**
Ave at Otay Mesa Rd (S)	All	PM	113.9	**F**
2) Caliente Ave at	All	AM	34.3	C
SR-905 WB Ramps (S)	All	PM	30.8	C
3) Caliente Ave at	All	AM	53.3	D
SR-905 EB Ramps (S)	All	PM	27.6	C
4) Caliente Ave at	All	AM	84.5	**F**
Airway Rd (S)	All	PM	35.8	D
5) Caliente Ave at	All	AM	7.6	A
Central Ave (U)	All	PM	8.6	A
6) Central Ave at	EB	AM		
PA 8-9-10 (U)	WB	AM	Does Not Exist	Not
	EB	PM	Future Intersection	Applicable
	WB	PM		
7) Central Ave at	All	AM	Does Not Exist	Not
Beyer Blvd (U)	All	PM	Future Intersection	Applicable
8) West Ave at	NB	AM	Does Not Exist	Not
Beyer Blvd (U)	NB	PM	Future Intersection	Applicable
9) West Ave at	EB	AM	Does Not Exist	Not
Street A (U)	EB	PM	Future Intersection	Applicable
10) Old Otay Mesa Rd	All	AM	29.2	C
at Beyer Blvd (S)	All	PM	21.2	C
11) Enright Dr at	NB	AM	8.6	A
at Beyer Blvd (U)	NB	PM	8.9	A
12) E. Beyer Blvd	All	AM	15.4	C
at Center St (U)	All	PM	14.1	B

Notes: 1) Intersection Analysis - (S) Signalized, (U) Unsignalized. 2) Delay - HCM Average Control Delay in seconds. 3) LOS: Level of Service. Bold indicates unacceptable LOS.

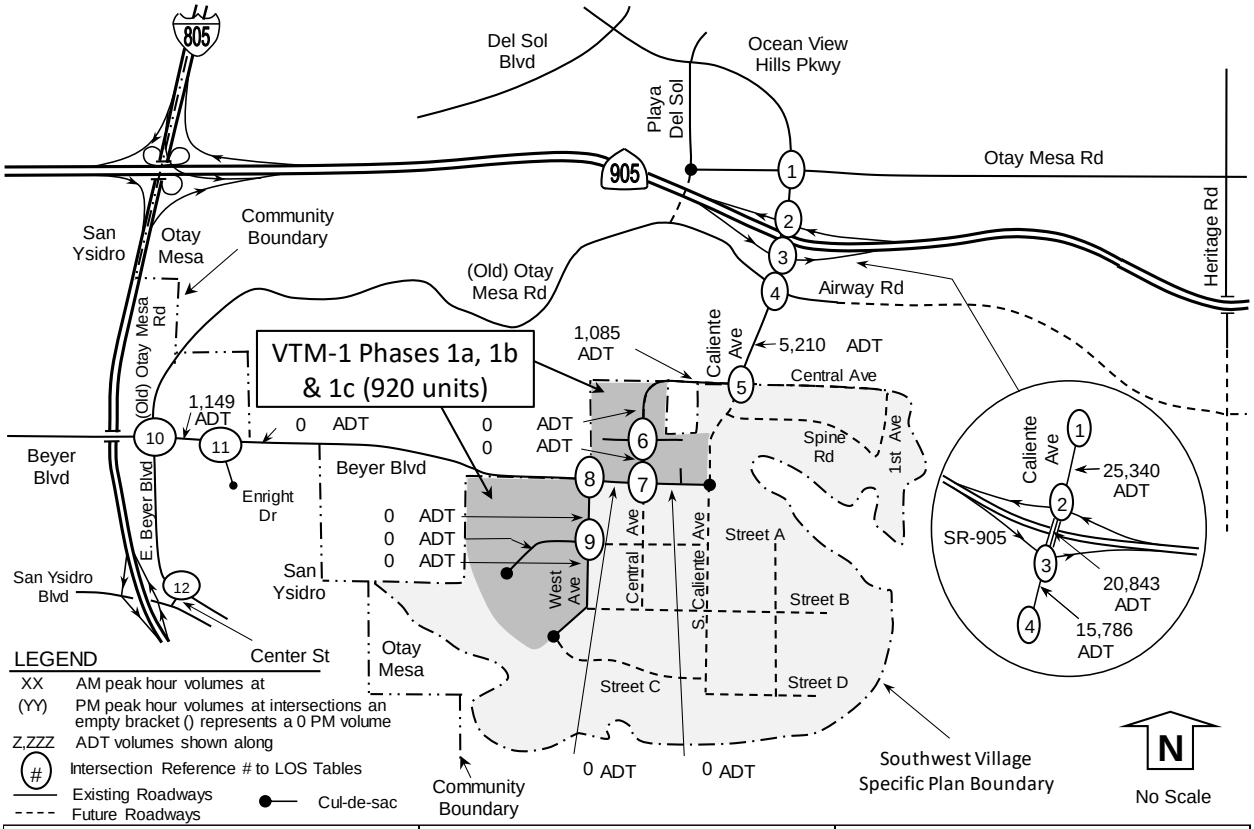
Figure 20: Opening Year 2024 Cumulative Conditions



Otay Mesa Rd / Ocean View Hills Pkwy / Caliente Ave 1 Signal Ovr, Ovr	SR-905 WB Ramps / Caliente Ave 2 Signal	SR-905 EB Ramps / Caliente Ave 3 Signal
Airway Rd / Caliente Ave 4 Signal	Central Ave / Caliente Ave 5	PA 8-9-10 Access / Central Ave 6 Future Intersection
Beyer Blvd / Central Ave 7 Future Intersection	Beyer Blvd / West Ave 8 Future Intersection	Street A / West Ave 9 Future Intersection
Beyer Blvd / (Old) Otay Mesa Rd / E. Beyer Blvd 10 Signal	Beyer Blvd / Enright Dr 11	Center St / E. Beyer Blvd 12

Cumulative project applicant to construct

Figure 21: Opening Year 2024 without Project Volumes



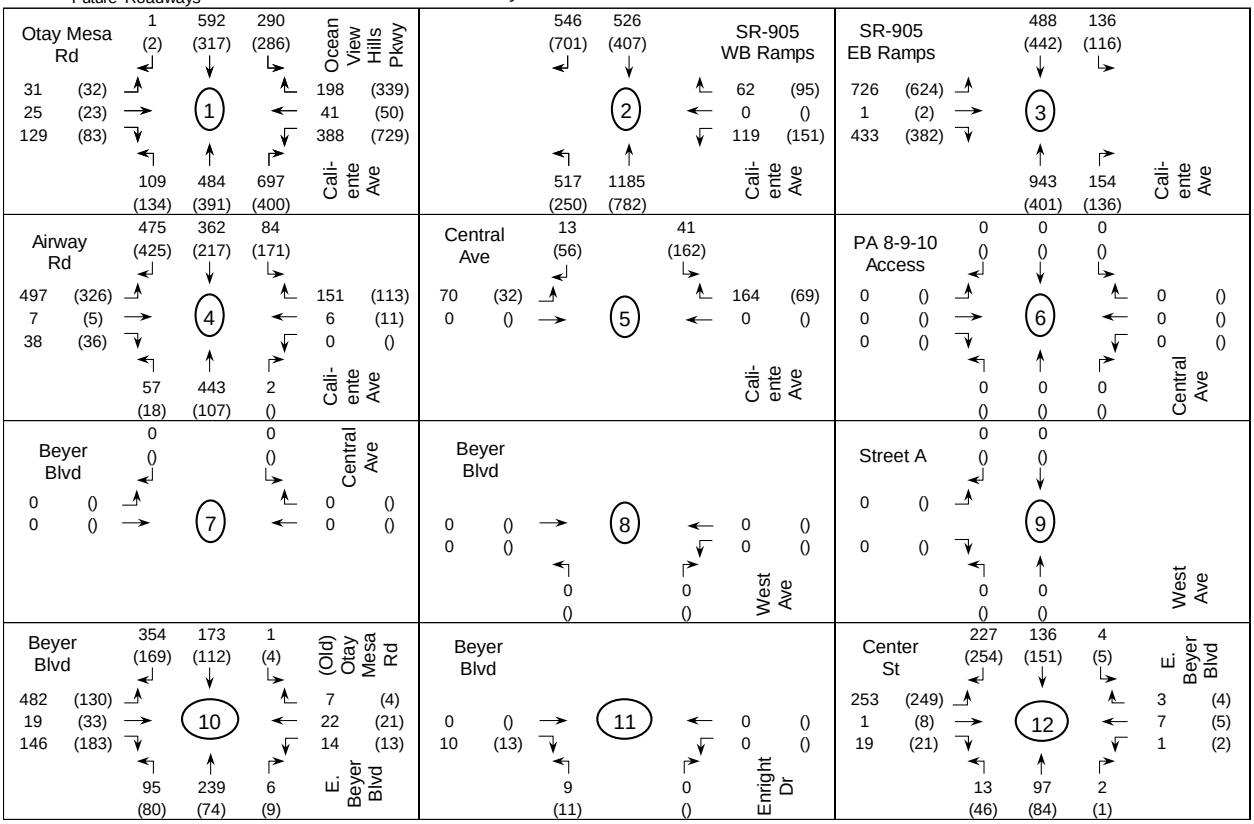


TABLE 14: OPENING YEAR 2024 WITHOUT PROJECT INTERSECTION AND FREEWAY OFF-RAMP QUEUING

Intersection	Peak Hour	Approach	Storage Length in feet (notes)		Opening Year 2024 Queue[1] in feet	Exceeds Storage?	Distance in feet
1) Caliente Ave	AM	WBL	500	(2)	1,579	**Yes**	**1,079**
at Otay Mesa Rd	AM	NBR	415	(3)	209	No	NA
	PM	WBL	500	(2)	1,593	**Yes**	**1,093**
	PM	NBR	415	(3)	146	No	NA
2) Caliente Ave at	AM	WB Ramp	1,530	(4)	123	No	NA
SR-905 WB Ramps	AM	NBL	100	(5)	128	**Yes**	**28**
	PM	WB Ramp	1,530	(4)	129	No	NA
	PM	NBL	100	(5)	137	**Yes**	**37**
3) Caliente Ave at	AM	EB Ramp	1,200	(4)	1,008	No	NA
SR-905 EB Ramps	PM	EB Ramp	1,200	(4)	1,005	No	NA
4) Caliente Ave	AM	NBL	250	(5)	89	No	NA
at Airway Rd	PM	NBL	250	(5)	40	No	NA
10) Old Otay Mesa	AM	WB	NA	(7)	74	NA	NA
Rd at Beyer Blvd	PM	WB	NA	(7)	64	NA	NA
11) Enright Dr at	AM	WB	75	(6)	DNE	NA	NA
at Beyer Blvd	PM	WB	75	(6)	DNE	NA	NA
12) E. Beyer at	AM	SB	NA	(7)	103	NA	NA
Center St	AM	EB	NA	(7)	196	NA	NA
	PM	SB	NA	(7)	140	NA	NA
	PM	EB	NA	(7)	92	NA	NA

Notes: WBL: Westbound Left. NBR: Northbound Right. EB: Eastbound. WB: Westbound. NBL: Northbound Left. NA: Not Applicable. DNE: Does Not Exist. (1) Queue is 95th percentile from Simtraffic analysis. (2) Turn lane is approximately 500 ft and then becomes a continuation of the approaching travel lanes. Since approach lanes provide storage, this not considered a deficiency. (3) Right turn lane is a trap lane, thus striped lane is 170 ft while trap lane adds 245 ft (415 ft total) to SR-905 WB Ramps intersection providing 415 ft of storage. (4) Two approach lanes with number 2 lane at 830 feet from stop bar; however, storage extends as a single lane to freeway off-ramp gore striping with 1,530 ft of storage. (5) From stop bar to end of storage bay striping. (6) Owner/Permittee to construct left turn storage as noted. (7) Turn lane is a continuation of approaching travel lane. BOLD = Simtraffic forecasted queue beyond storage bay.

TABLE 15: OPENING YEAR 2024 WITHOUT PROJECT SEGMENT ADT VOLUMES AND LOS

Segment	Functional Classification	LOS E Capacity	Opening Year 2024 Daily Volume	V/C	LOS
Beyer Boulevard					
(Old) Otay Mesa Rd to Enright Dr	2C NF	10,000	1,149	0.115	A
Enright Dr to West Ave	DNE	NA	0	NA	NA
West Ave to Central Ave	DNE	NA	0	NA	NA
Central Ave to Caliente Ave	DNE	NA	0	NA	NA
Caliente Avenue					
Otay Mesa Rd to SR-905 WB Ramps	5CL	35,000	25,340	0.724	D
SR-905 WB Ramps to SR-905 EB Ramps	5CL	35,000	20,843	0.596	C
SR-905 EB Ramp to Airway Rd	5CL	35,000	15,786	0.451	B
Airway Rd to Southern Terminus	5M	45,000	5,210	0.116	A
Southern Terminus to Central Ave	5M (1)	45,000	5,210	0.116	A
Central Ave					
West of Caliente Ave	2C (1)	8,000	1,085	0.136	A
North of PA 8-9-10 Access	DNE	DNE	0	NA	NA
PA 8-9-10 Access to Beyer Blvd	DNE	DNE	0	NA	NA
Street A					
West of West Ave	DNE	DNE	0	NA	NA
West Ave					
Beyer Blvd to Street A	DNE	DNE	0	NA	NA
Street A to Street B	DNE	DNE	0	NA	NA

Notes: 5M=5 lane Major. 5CL=5 lane Collector with left turn lanes. 2C NF=2 lane Collector with no fronting property driveway(s). Daily volume is a 24 hour volume. LOS: Level of Service. V/C: Volume to Capacity Ratio. DNE: Does Not Exist. NA: Not Applicable. Bold indicated unacceptable LOS. (1) Cumulative projects Candlelight and Southwind need to construct roadway to reach their project site.

Under Opening Year 2024 without Project Conditions, the intersection of Caliente Ave/SR-905 WB Ramps has a forecasted northbound left turn queuing deficiency for both AM and PM peak hour that exceeds the existing storage bay capacity.

7.8 Opening Year 2024 plus Project Phase 1a Conditions

This scenario documents the traffic operations from the addition of Phase 1a project traffic (200 units) onto Opening Year 2024 conditions. Please note this scenario only includes intersections and segments that will have project traffic added during Phase 1a with 200 dwelling units.

The Owner/Permittee will be required to construct the following roadways and intersections for Phase 1a to reach the project site as shown in **Figure 22**:

1) Segment of Caliente Ave from the existing southern terminus to Central Ave as a 6 lane Major that will be striped as a 5 lane Major due to the southbound 2 Lane pavement width constraint alongside the San Ysidro High School parcel.
2) Intersection of Caliente Ave/Central Ave as a three-leg intersection with a single approach lane in the eastbound and westbound directions, and two approach lanes in the southbound direction. The intersection control will be an all way stop based on the City of San Diego Council Policy 200-08 of intersecting streets with similar traffic volumes. The ultimate intersection control will be signalized upon warrants being satisfied. Estimated stop sign warrants are based on Phase 1a, 1b & 1c traffic volumes as outlined in Section 8.3.
3) Segment of Central Ave east of Caliente Ave as a 2 Lane Collector. This segment will end as a temporary cul-de-sac immediately past the intersection of Central Ave/PA 8-9-10 access in project Phase 1a.
4) Intersection of Central Ave/PA 8-9-10 access as a four-leg intersection with a single approach lane in each direction.

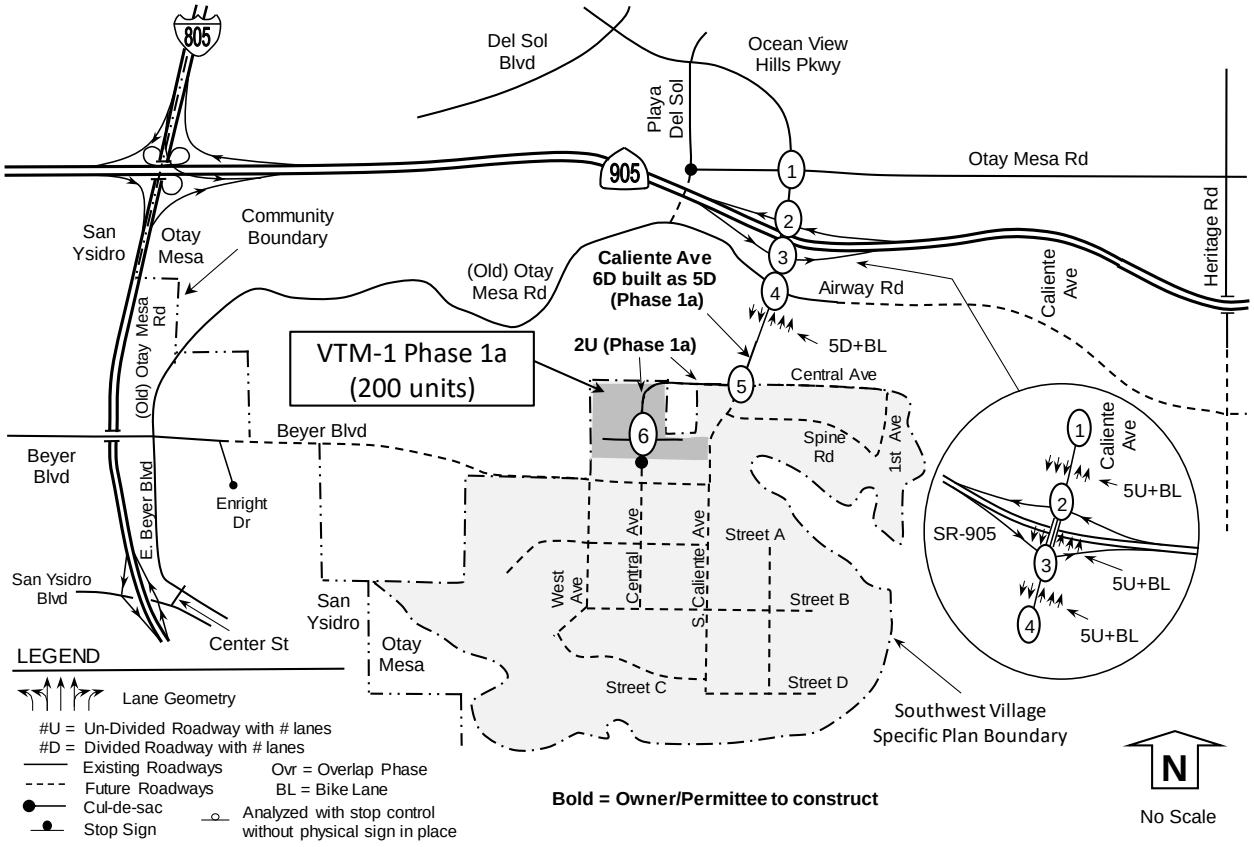
Volumes for this scenario are shown in **Figure 23**. The intersection LOS is shown in **Table 16.** The intersection and freeway off-ramp 95th percentile queues are shown in **Table 17**. The segment LOS is shown in **Table 18**. The intersection LOS and queueing output are included in **Appendix L**.

TABLE 16: OPENING YEAR 2024 PLUS PROJECT PHASE 1A INTERSECTION LOS

Intersection and (Analysis)[1]	Approach	Peak Hour	Opening Year 2024		Opening Year 2024 + Project (200 du)		
			Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delta[4]
1) Ocean View Hills/Caliente	All	AM	81.0	**F**	81.5	**F**	0.5
Ave at Otay Mesa Rd (S)	All	PM	113.9	**F**	114.9	**F**	1.0
2) Caliente Ave at	All	AM	34.3	C	44.2	D	9.9
SR-905 WB Ramps (S)	All	PM	30.8	C	36.5	D	5.7
3) Caliente Ave at	All	AM	53.3	D	59.3	**E**	6.0
SR-905 EB Ramps (S)	All	PM	27.6	C	29.4	C	1.8
4) Caliente Ave at	All	AM	84.5	**F**	89.2	**F**	4.7
Airway Rd (S)	All	PM	35.8	D	40.7	D	4.9
5) Caliente Ave at	All	AM	7.6	A	8.2	A	0.6
Central Ave (U)	All	PM	8.6	A	8.8	A	0.2
6) Central Ave at	EB	AM	DNE	NA	0.0	A	NA
PA 8-9-10 (U)	WB	AM	DNE	NA	0.0	A	NA
	EB	PM	DNE	NA	0.0	A	NA
	WB	PM	DNE	NA	0.0	A	NA

Notes: 1) Intersection Analysis - (S) Signalized, (U) Unsignalized. 2) Delay - HCM Average Control Delay in seconds. 3) LOS: Level of Service. 4) Delta is the increase in delay from project. DNE: Does not exist. NA: Not Applicable. Bold indicates unacceptable LOS.

Figure 22: Opening Year 2024 plus Project Phase 1a Conditions



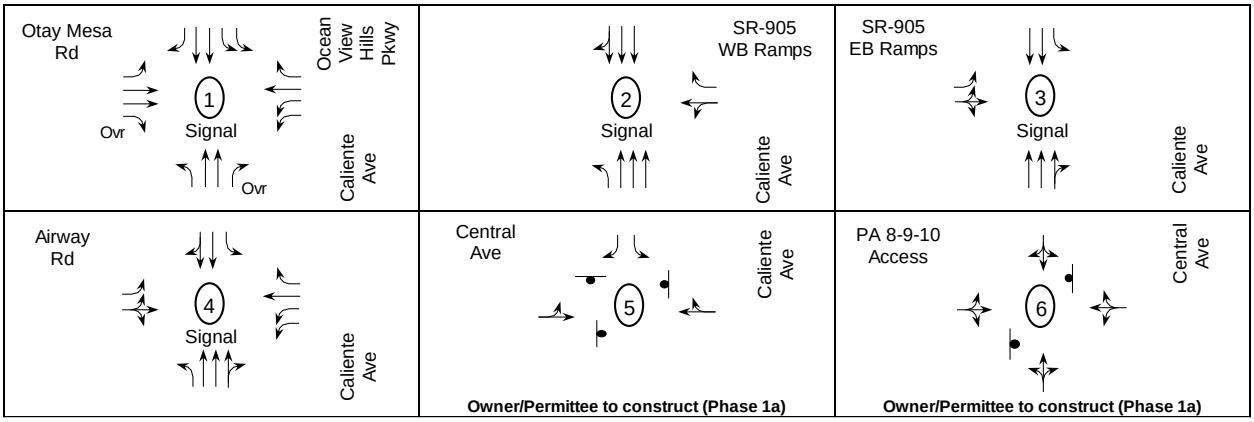
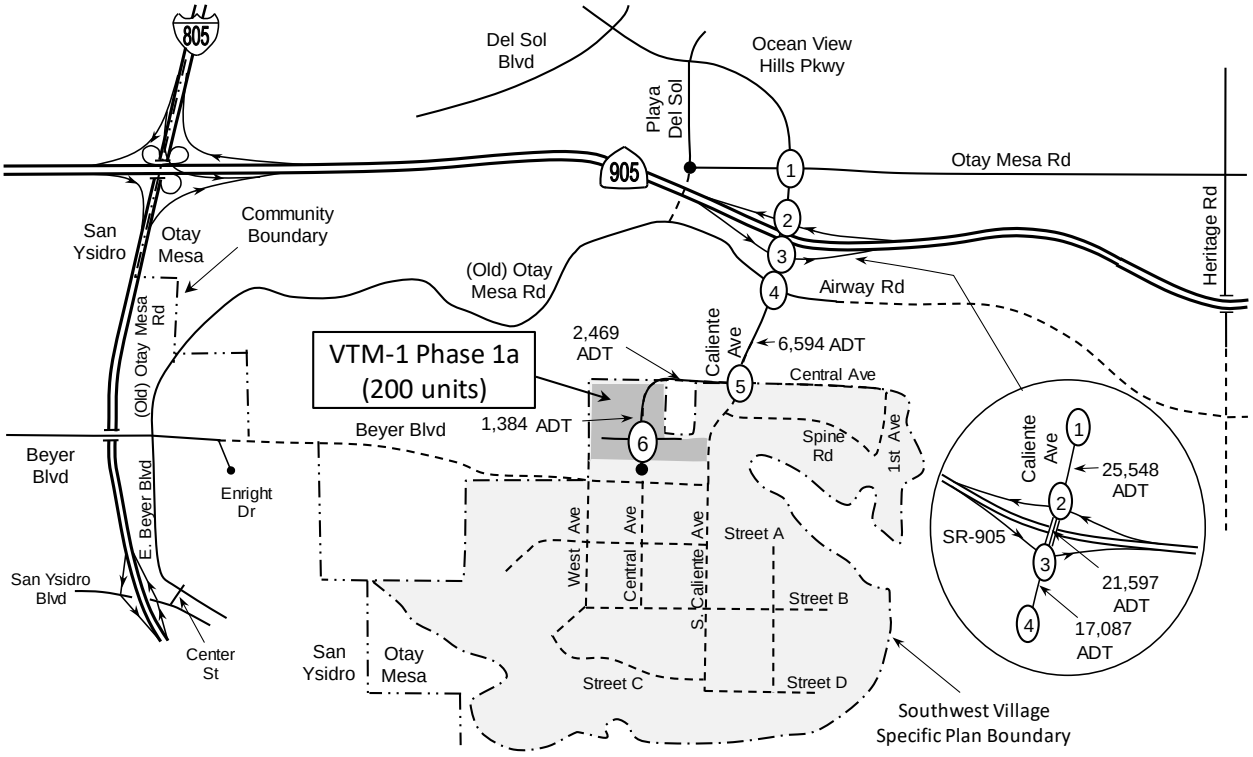


Figure 23: Opening Year 2024 plus Project Phase 1a Volumes



LEGEND

XX (YY)	AM peak hour volumes at intersections PM peak hour volumes at intersections an empty bracket () represents a 0 PM volume
Z,ZZZ	ADT volumes shown along segments
(#)	Intersection Reference # to LOS Tables
———	Existing Roadways
- - - -	Future Roadways
●——	Cul-de-sac

N

No Scale

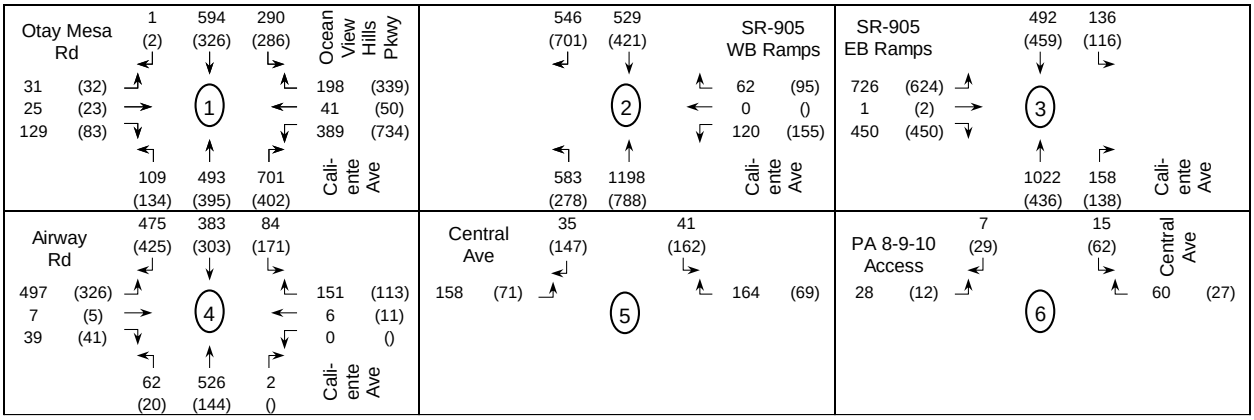


TABLE 17: OPENING YEAR 2024 PLUS PROJECT PHASE 1A INTERSECTION AND FREEWAY OFF-RAMP QUEUING

Intersection	Peak Hour	Approach	Storage Length in feet (notes)		Opening Year 2024 Queue[1] in feet	Opening Yr 2024 + Proj. (200 du) Queue[1] in feet	Exceeds Storage?	Distance in feet
1) Caliente Ave	AM	WBL	500	(2)	1,579	1,697	**Yes**	**1,197**
at Otay Mesa Rd	AM	NBR	415	(3)	209	226	No	NA
	PM	WBL	500	(2)	1,593	1,695	**Yes**	**1,195**
	PM	NBR	415	(3)	146	164	No	NA
2) Caliente Ave at	AM	WB Ramp	1,530	(4)	123	140	No	NA
SR-905 WB Ramps	AM	NBL	100	(5)	128	128	**Yes**	**28**
	PM	WB Ramp	1,530	(4)	129	131	No	NA
	PM	NBL	100	(5)	137	140	**Yes**	**40**
3) Caliente Ave at	AM	EB Ramp	1,200	(4)	1,008	1,012	No	NA
SR-905 EB Ramps	PM	EB Ramp	1,200	(4)	1,005	1,029	No	NA
4) Caliente Ave	AM	NBL	250	(5)	89	115	No	NA
at Airway Rd	PM	NBL	250	(5)	40	47	No	NA

Notes: WBL: Westbound Left. NBR: Northbound Right. EB: Eastbound. WB: Westbound. NBL: Northbound Left. NA: Not Applicable. DNE: Does Not Exist. (1) Queue is 95th percentile from Simtraffic analysis. (2) Turn lane is approximately 500 ft and then becomes a continuation of the approaching travel lanes. Since the approach lanes provide storage, there are no recommended improvements. (3) Right turn lane is a trap lane, thus striped lane is 170 ft while trap lane adds 245 ft (415 ft total) to SR-905 WB Ramps intersection providing 415 ft of storage. (4) Two approach lanes with number 2 lane at 830 feet from stop bar; however, storage extends as a single lane to freeway off-ramp gore striping with 1,530 ft of storage. (5) From stop bar to end of storage bay striping. (6) Owner/Permittee to construct left turn storage as noted. BOLD = Simtraffic forecasted queue beyond storage bay.

TABLE 18: OPENING YEAR 2024 PLUS PROJECT PHASE 1A SEGMENT ADT VOLUMES AND LOS

Segment	Functional Class-ification	LOS E Capacity	Opening Year 2024 Daily Volume	V/C	LOS	Project Daily Volume	Year 2024 with Project (200 units) LOS E Capacity	Daily Volume	V/C	LOS	Δ in V/C
Caliente Avenue											
Otay Mesa Rd to SR-905 WB Ramps	5CL	35,000	25,340	0.724	D	208	35,000	25,548	0.730	D	0.006
SR-905 WB Ramps to SR-905 EB Ramps	5CL	35,000	20,843	0.596	C	754	35,000	21,597	0.617	C	0.022
SR-905 EB Ramp to Airway Rd	5CL	35,000	15,786	0.451	B	1,301	35,000	17,087	0.488	B	0.037
Airway Rd to Southern Terminus	5M	45,000	5,210	0.116	A	1,384	45,000	6,594	0.147	A	0.031
Southern Terminus to Central Ave	5M (1)	45,000	5,210	0.116	A	1,384	45,000	6,594	0.147	A	0.031
Central Ave											
West of Caliente Ave	2C (1)	8,000	1,085	0.136	A	1,384	8,000	2,469	0.309	A	0.173
North of PA 8-9-10 Access	2C	8,000	DNE	NA	NA	1,384	8,000	1,384	0.173	A	NA

Notes: 5M=5 lane Major. 5CL=5 lane Collector with left turn lanes. 2C NF=2 lane Collector with no fronting property driveway(s). Daily volume is a 24 hour volume. LOS: Level of Service. V/C: Volume to Capacity Ratio. DNE: Does Not Exist. NA: Not Applicable. Bold indicated unacceptable LOS. Cap = Capacity. (1) Owner/Permittee to construct roadway as noted if not constructed by others.

Under Opening Year 2024 plus Project Phase 1a Conditions, the findings include:

1) Intersection of Caliente Ave/Ocean View Hills/Otay Mesa Rd. The project adds traffic to the signal currently operating at LOS F in the AM and PM peak hour; therefore, the Owner/Permittee proposes to upgrade the traffic controller to provide City current 2070 signal controller including software update and communications equipment per current City standards, to the satisfaction of the City Engineer.

2) At the intersection of Caliente Ave/SR-905 WB Ramps, the northbound left turn queuing is expected to exceed the existing storage and the project would add 66 AM peak hour trips and 28 PM peak hour trips to this movement. Determination for intersection improvement is when a project adds traffic to an individual left turn causing the total number of peak hour left turns to exceed 300. The opening year 2024 plus Project Phase 1a left turns are forecasted at 583 AM peak hour trips and 278 PM peak hour trips. The total AM peak hour trips exceed 300. The Owner/Permittee is proposing to initiate the process with Caltrans to create

northbound dual left turn lanes (through re-striping on the bridge over SR-905 of the northbound number one through travel lane with 300 feet of storage to a trap left turn lane that in conjunction with the existing left turn lane to become the dual left turn lanes) along with widening and constructing a second receiving lane to the westbound (WB) on-ramp at the start of Phase 1b. This is proposed in Phase 1b because it will take a couple of years to obtain permits from Caltrans to improve this intersection. Additionally, providing an interim fix by extending the existing NBL (through a restripe) in Phase 1 may be viewed by Caltrans as a throw away improvement and potentially rejected because the larger improvement will follow in Phase 1b. If both improvements are kept separate, then Phase 1a restripe may take 1-2 years. After the restripe, the Phase 1b NB dual left can take another 1-2 years, which means the dual lefts may require 3-4 years vs. skipping the interim restripe and instead proceeding with the dual lefts within 1-2 years, thus no improvements are proposed in Phase 1a.

3) Intersection of Caliente Ave/SR-905 EB Ramps. The project traffic causes the intersection to degrade to LOS E in the AM peak hour; therefore, the Owner/Permittee proposes to upgrade the traffic controller to provide City current 2070 signal controller including software update and communications equipment per current City standards and Caltrans standards, to the satisfaction of the City Engineer and Caltrans Engineer.

4) Intersection of Caliente Ave/Airway Rd. The project adds traffic to the signal currently operating at LOS F in the AM peak hour; therefore, the Owner/Permittee proposes to upgrade the traffic controller to provide City current 2070 signal controller including software update and communications equipment per current City standards, to the satisfaction of the City Engineer.

7.9 Opening Year 2024 plus Project Phase 1a & 1b Conditions

This scenario documents the traffic operations from the addition of Phase 1a and 1b project traffic (699 units) onto Opening Year 2024 conditions. Please note this scenario only includes intersections and segments that will have project traffic added during Phase 1a & 1b with 699 dwelling units. The analysis for this scenario is slightly conservative because the traffic volumes used for the analysis are slightly higher than the current mix of 699 dwelling units. This approach is taken to accommodate the potential of unit mix adjustments as the project progresses but will remain within the trip generation analyzed in this section. The traffic generation for the current mix for Phases 1a & 1b along with the actual amount of traffic that was analyzed for this scenario is shown in **Table 19.**

TABLE 19: PHASES 1A & 1B AS ANALYIZED PROJECT TRIP GENERATION

Proposed Land Uses	ADT Rate	Size & Units	ADT	%	Split	AM IN	AM OUT	%	Split	PM IN	PM OUT
Phases 1a & 1b (699 units with 100% using Caliente Ave)											
Single-Family	10 /DU	62 DU	620	8%	0.2 0.8	10	40	10%	0.7 0.3	43	19
Multi-Family (under 20 du/ac)	8 /DU	371 DU	2,968	8%	0.2 0.8	47	190	10%	0.7 0.3	208	89
Multi-Family (over 20 du/ac)	6 /DU	266 DU	1,596	8%	0.2 0.8	26	102	9%	0.7 0.3	101	43
	Totals:	699				83	332			352	151
Phase 1a & 1b Traffic Total:			**5,184**	**AM Total:**		**415**		**PM Total:**		**503**	
Amount of traffic analyzed for Phases 1a & 1b:			5,384			87	345			368	158
Additional traffic within this analysis:			***200***			***4***	***13***			***16***	***7***

Source: City of San Diego *Trip Generation Manual* , May 2003. Spreadsheet rounding may result in ±1 to above numbers.

The Owner/Permittee will be required to construct the following roadways and intersections for Phase 1b to reach planning areas 11-14:

1) Segment of Central Ave from the temporary cul-de-sac located just south of PA 8-9-10 access (as part of Phase 1a as shown in Figure 4) to Beyer Blvd as a 2 Lane Collector.
2) Segment of Beyer Blvd from West Ave to Caliente Ave as a 4 Lane Urban Major that will be constructed as an interim modified 2 Lane collector with half street improvements only on the north side because the applicant does not own the land on the south side of Beyer Blvd. The eastern end at the proposed future alignment of Caliente Ave will be a temporary cul-de-sac.
3) Segment of West Ave from Beyer Blvd to Street A as a 2 Lane Collector with Two Way Left Turn Lane that will be constructed as an interim 2 Lane Collector with half street improvements only on west side because the applicant does not own the land on the east side of West Ave.
4) Segment of West Ave from Street A to the southern terminus as a 2 Lane Collector that will be constructed a 2 Lane Collector with half street improvements only on west side because the applicant does not own the land on the east side of West Ave. The southern terminus will be a cul-de-sac.
5) Segment of Street A from West Ave to the western terminus as a 2 Lane Collector. The western terminus will be a cul-de-sac.
6) Intersection of Central Ave/Beyer Blvd as a three-leg intersection with a single lane on each approach. Based on the City of San Diego Council Policy 200-08, the intersection control will be all way stop control with stop sign warrants included in Section 8.3.
7) Intersection of West Ave/Beyer Blvd as a three-leg intersection with a single lane on each approach with a temporary cul-de-sac bulb west of the intersection of West Ave/Beyer Blvd.

8) Intersection of West Ave/Street A as a three-leg intersection with a single lane on each approach. Based on the City of San Diego Section 82.20 of the Municipal Code (details in Section 8.3), the intersection control will be side street stop control on Street A because the minor street (Street A) intersect a through street (West Ave).

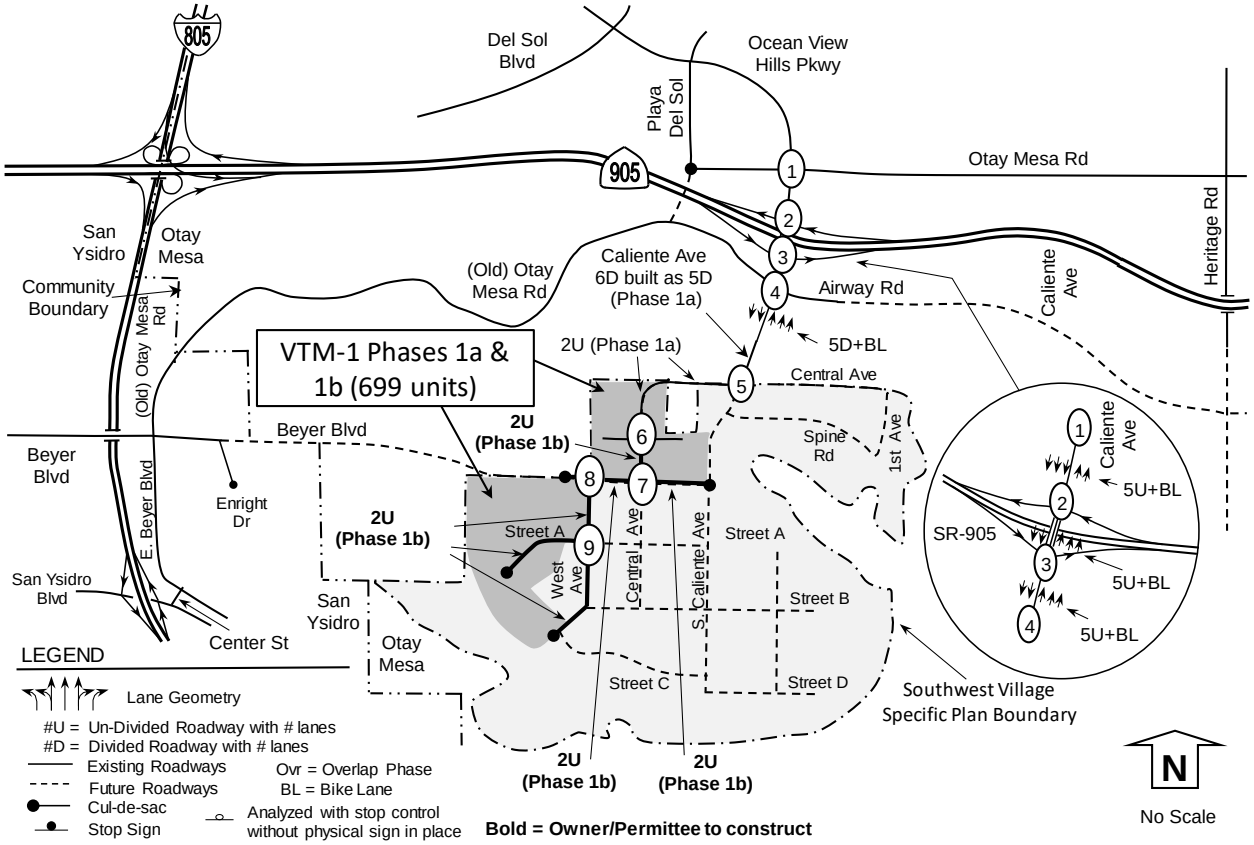
The roadways and intersections for Phase 1b to reach planning areas 11-14 are shown in **Figure 24**: Volumes for this scenario are shown in **Figure 25**. The intersection LOS is shown in **Table 20.** The intersection and freeway off-ramp 95th percentile queues are shown in **Table 21**. The segment LOS is shown in **Table 22**. The intersection LOS and queueing output are included in **Appendix M**.

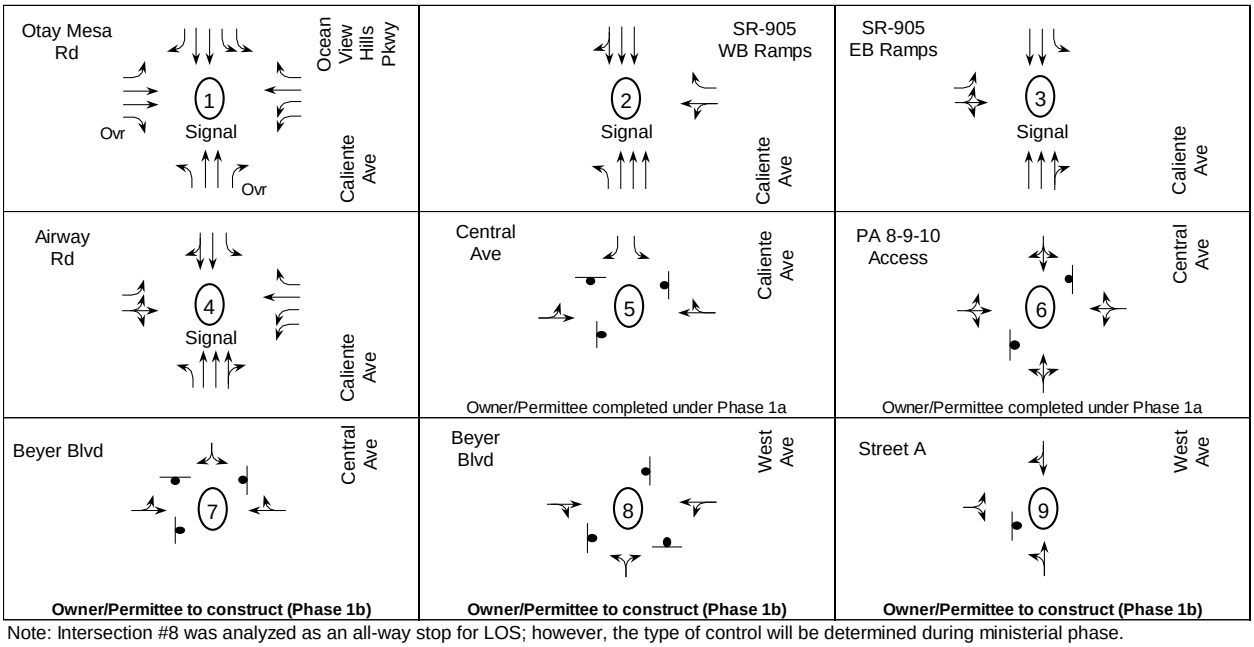
TABLE 20: OPENING YEAR 2024 PLUS PROJECT PHASE 1A & 1B INTERSECTION LOS

Intersection and	Approach	Peak	Opening Year 2024		Opening Year 2024 + Project (699 du)		
(Analysis)[1]		Hour	Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delta[4]
1) Ocean View Hills/Caliente	All	AM	81.0	**F**	83.7	**F**	2.7
Ave at Otay Mesa Rd (S)	All	PM	113.9	**F**	118.6	**F**	4.7
2) Caliente Ave at	All	AM	34.3	C	74.0	**E**	39.7
SR-905 WB Ramps (S)	All	PM	30.8	C	60.4	**E**	29.6
3) Caliente Ave at	All	AM	53.3	D	75.8	**E**	22.5
SR-905 EB Ramps (S)	All	PM	27.6	C	41.0	D	13.4
4) Caliente Ave at	All	AM	84.5	**F**	88.8	**F**	4.3
Airway Rd (S)	All	PM	35.8	D	44.1	D	8.3
5) Caliente Ave at	All	AM	7.6	A	12.2	B	4.6
Central Ave (U)	All	PM	8.6	A	12.3	B	3.7
6) Central Ave at	EB	AM	DNE	NA	13.5	B	NA
PA 8-9-10 (U)	WB	AM	DNE	NA	9.9	A	NA
	EB	PM	DNE	NA	16.7	C	NA
	WB	PM	DNE	NA	8.9	A	NA
7) Central Ave at	All	AM	DNE	NA	7.9	A	NA
Beyer Blvd (U)	All	PM	DNE	NA	7.5	A	NA
8) West Ave at	All	AM	DNE	NA	7.2	A	NA
Beyer Blvd (U)[5]	All	PM	DNE	NA	8.0	A	NA
9) West Ave at	EB	AM	DNE	NA	9.3	A	NA
Street A (U)	EB	PM	DNE	NA	9.3	A	NA

Notes: 1) Intersection Analysis - (S) Signalized, (U) Unsignalized. 2) Delay - HCM Average Control Delay in seconds. 3) LOS: Level of Service. 4) Delta is the increase in delay from project. DNE:Does not exist. NA:Not Applicable. Bold indicates unacceptable LOS. 5) Intersection #8 was analyzed as an all-way stop for LOS; however, the type of control will be determined during ministerial phase.

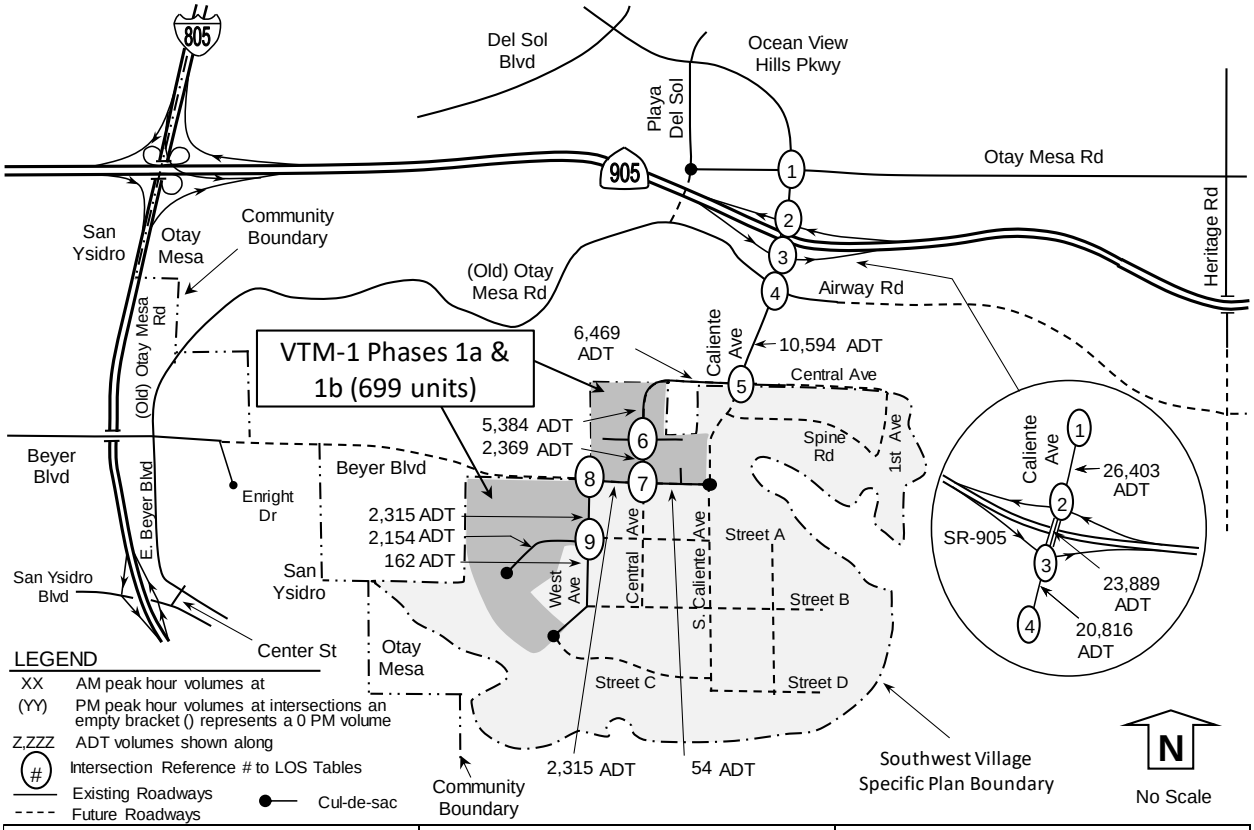
Figure 24: Opening Year 2024 plus Project Phase 1a & 1b Conditions





Note: Intersection #8 was analyzed as an all-way stop for LOS; however, the type of control will be determined during ministerial phase.

Figure 25: Opening Year 2024 plus Project Phase 1a & 1b Volumes



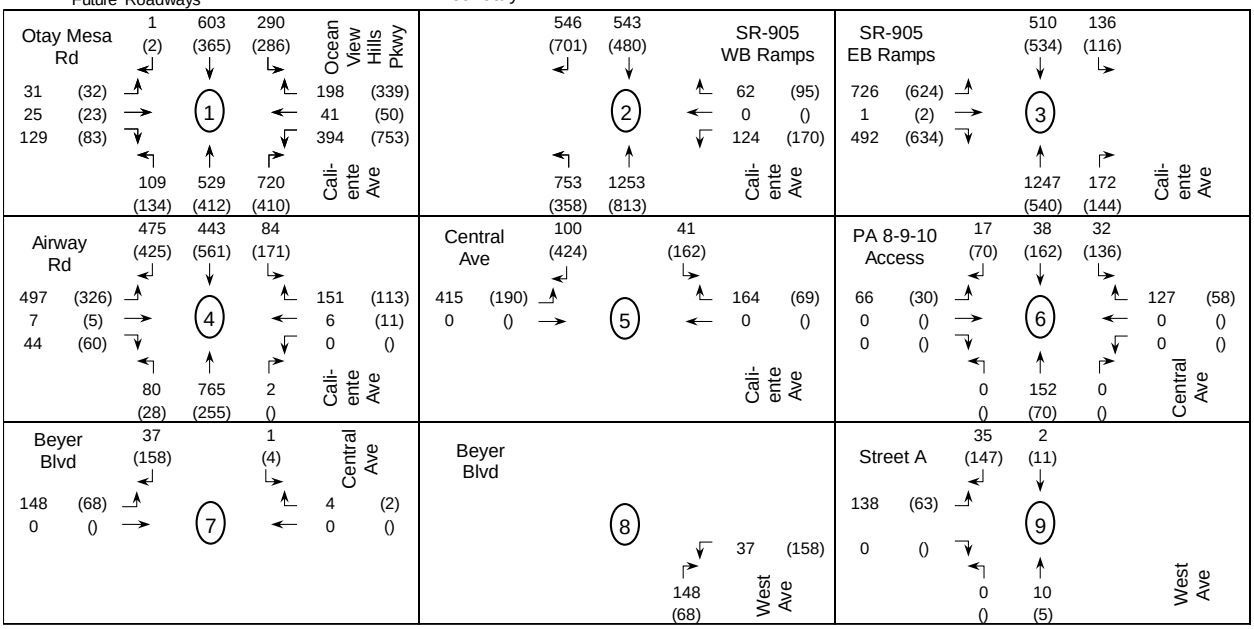


TABLE 21: OPENING YEAR 2024 PLUS PROJECT PHASE 1A & 1B INTERSECTION AND FREEWAY OFF-RAMP QUEUING

Intersection	Peak Hour	Approach	Storage Length in feet (notes)		Opening Year 2024 Queue[1] in feet	Opening Yr 2024 + Proj. (699 du) Queue[1] in feet	Exceeds Storage?	Distance in feet
1) Caliente Ave	AM	WBL	500	(2)	1,579	1,752	**Yes**	**1,252**
at Otay Mesa Rd	AM	NBR	415	(3)	209	236	No	NA
	PM	WBL	500	(2)	1,593	1,682	**Yes**	**1,182**
	PM	NBR	415	(3)	146	152	No	NA
2) Caliente Ave at	AM	WB Ramp	1,530	(4)	123	170	No	NA
SR-905 WB Ramps	AM	NBL	100	(5)	128	131	**Yes**	**31**
	PM	WB Ramp	1,530	(4)	129	151	No	NA
	PM	NBL	100	(5)	137	140	**Yes**	**40**
3) Caliente Ave at	AM	EB Ramp	1,200	(4)	1,008	1,012	No	NA
SR-905 EB Ramps	PM	EB Ramp	1,200	(4)	1,005	1,015	No	NA
4) Caliente Ave	AM	NBL	250	(5)	89	121	No	NA
at Airway Rd	PM	NBL	250	(5)	40	54	No	NA

Notes: WBL: Westbound Left. NBR: Northbound Right. EB: Eastbound. WB: Westbound. NBL: Northbound Left. NA: Not Applicable. DNE: Does Not Exist. (1) Queue is 95th percentile from Simtraffic analysis. (2) Turn lane is approximately 500 ft and then becomes a continuation of the approaching travel lanes. Since the approach lanes provide storage, there are no recommended improvements. (3) Right turn lane is a trap lane, thus striped lane is 170 ft while trap lane adds 245 ft (415 ft total) to SR-905 WB Ramps intersection providing 415 ft of storage. (4) Two approach lanes with number 2 lane at 830 feet from stop bar; however, storage extends as a single lane to freeway off-ramp gore striping with 1,530 ft of storage. (5) From stop bar to end of storage bay striping.

TABLE 22: OPENING YEAR 2024 PLUS PROJECT PHASE 1A & 1B SEGMENT ADT VOLUMES AND LOS

Segment	Functional Class-ification	LOS E Capacity	Opening Year 2024 Daily Volume	V/C	LOS	Project Daily Volume	Year 2024 with Project (699 units) LOS E Capacity	Daily Volume	V/C	LOS	Δ in V/C
Beyer Boulevard											
West Ave to Central Ave	2C (1)	8,000	DNE	NA	NA	2,315	8,000	2,315	0.289	A	NA
Central Ave to Caliente Ave	2C (1)	8,000	DNE	NA	NA	54	8,000	54	0.007	A	NA
Caliente Avenue											
Otay Mesa Rd to SR-905 WB Ramps	5CL	35,000	25,340	0.724	D	1,063	35,000	26,403	0.754	D	0.030
SR-905 WB Ramps to SR-905 EB Ramps	5CL	35,000	20,843	0.596	C	3,046	35,000	23,889	0.683	C	0.087
SR-905 EB Ramp to Airway Rd	5CL	35,000	15,786	0.451	B	5,030	35,000	20,816	0.595	C	0.144
Airway Rd to Southern Terminus	5M	45,000	5,210	0.116	A	5,384	45,000	10,594	0.235	A	0.120
Southern Terminus to Central Ave	5M (1)	45,000	5,210	0.116	A	5,384	45,000	10,594	0.235	A	0.120
Central Ave											
West of Caliente Ave	2C (1)	8,000	1,085	0.136	A	5,384	8,000	6,469	0.809	D	0.673
North of PA 8-9-10 Access	2C (1)	8,000	DNE	NA	NA	5,384	8,000	5,384	0.673	D	NA
PA 8-9-10 Access to Beyer Blvd	2C (1)	8,000	DNE	NA	NA	2,369	8,000	2,369	0.296	A	NA
Street A											
West of West Ave	2C (1)	8,000	DNE	NA	NA	2,154	8,000	2,154	0.269	A	NA
West Ave											
Beyer Blvd to Street A	2C (1)	8,000	DNE	NA	NA	2,315	8,000	2,315	0.289	A	NA
Street A to Street B	2C (1)	8,000	DNE	NA	NA	162	8,000	162	0.020	A	NA

Notes: 5M=5 lane Major. 5CL=5 lane Collector with left turn lanes. 2C NF=2 lane Collector with no fronting property driveway(s). Daily volume is a 24 hour volume. LOS: Level of Service. V/C: Volume to Capacity Ratio. DNE: Does Not Exist. NA: Not Applicable. Bold indicated unacceptable LOS. Cap = Capacity. (1) Owner/Permittee to construct roadway as noted if not constructed by others.

Under Opening Year 2024 plus Project Phase 1a & 1b Conditions, the findings include:

1) Intersection of Caliente Ave/Ocean View Hills/Otay Mesa Rd. The project adds traffic to the signal currently operating at LOS F in the AM & PM peak hour. No additional improvements are proposed beyond what has been provided as part of Phase 1a.

2) Intersection of Caliente Ave/SR-905 WB Ramps. The northbound left turn queuing is expected to exceed the existing storage and the project would add 236 AM and 108 PM peak hour trips to this movement. Determination for intersection improvement is when a project causes the total number of peak hour left turns to exceed 300. The opening year 2024 AM peak hour left turns without Project are forecasted at 517, thus already over 300. The opening year 2024 PM peak hour left turns without Project are forecasted at 250 to which the project would add 108 trips resulting in 358 total PM peak hour trips; therefore, a second left turn lane is proposed at the start of Phase 1b, the westbound (WB) on-ramp will also be widened to add a second receiving lane to accommodate the proposed additional northbound (NB) left turn lane to WB on-ramp at the start of Phase 1b by the Owner/Permittee as described in Chapter 9. Conceptual design to demonstrate feasibility is included in Appendix N. Additionally, the project traffic causes the intersection to degrade to LOS E in the AM and PM peak hour; therefore, the Owner/Permittee proposes upgrading the traffic controller to provide City current 2070 signal controller including software update and communications equipment per current City standards and Caltrans standards, to the satisfaction of the City Engineer and Caltrans Engineer.

3) Intersection of Caliente Ave/SR-905 EB Ramps. The project traffic causes the intersection operating in the AM peak hour to degrade to LOS E. No additional improvements are proposed beyond what has been provided as part of Phase 1a.

4) Intersection of Caliente Ave/Airway Rd. The project adds traffic to the signal currently operating at LOS F in the AM peak hour. No additional improvements are proposed beyond what has been provided as part of Phase 1a.

7.10 Opening Year 2024 plus Project Phases 1a, 1b & 1c Conditions

This scenario documents the traffic operations from the addition of Phase 1a, 1b & 1c project traffic (total project with 920 units) onto Opening Year 2024 conditions. The Owner/Permittee will be required to construct the following roadway improvements for Phase 1c to provide secondary permanent access via Beyer Blvd to the project site as shown in **Figure 26**:

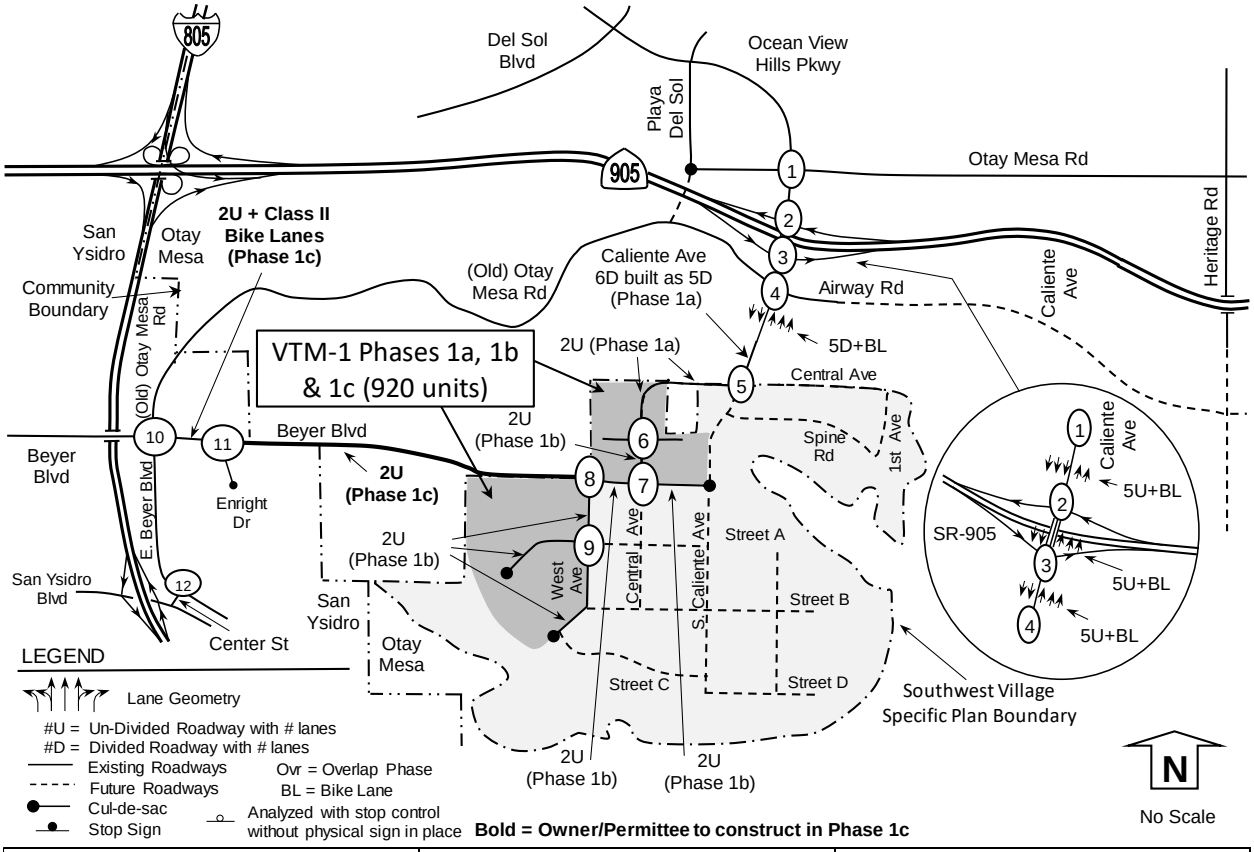
1) Segment of Beyer Blvd from Enright Dr to West Ave as a 4 Lane Modified Urban Major that will be constructed with a 2 Lane cross section to avoid and minimize impacts to sensitive habitat, as requested by California wildlife agencies.

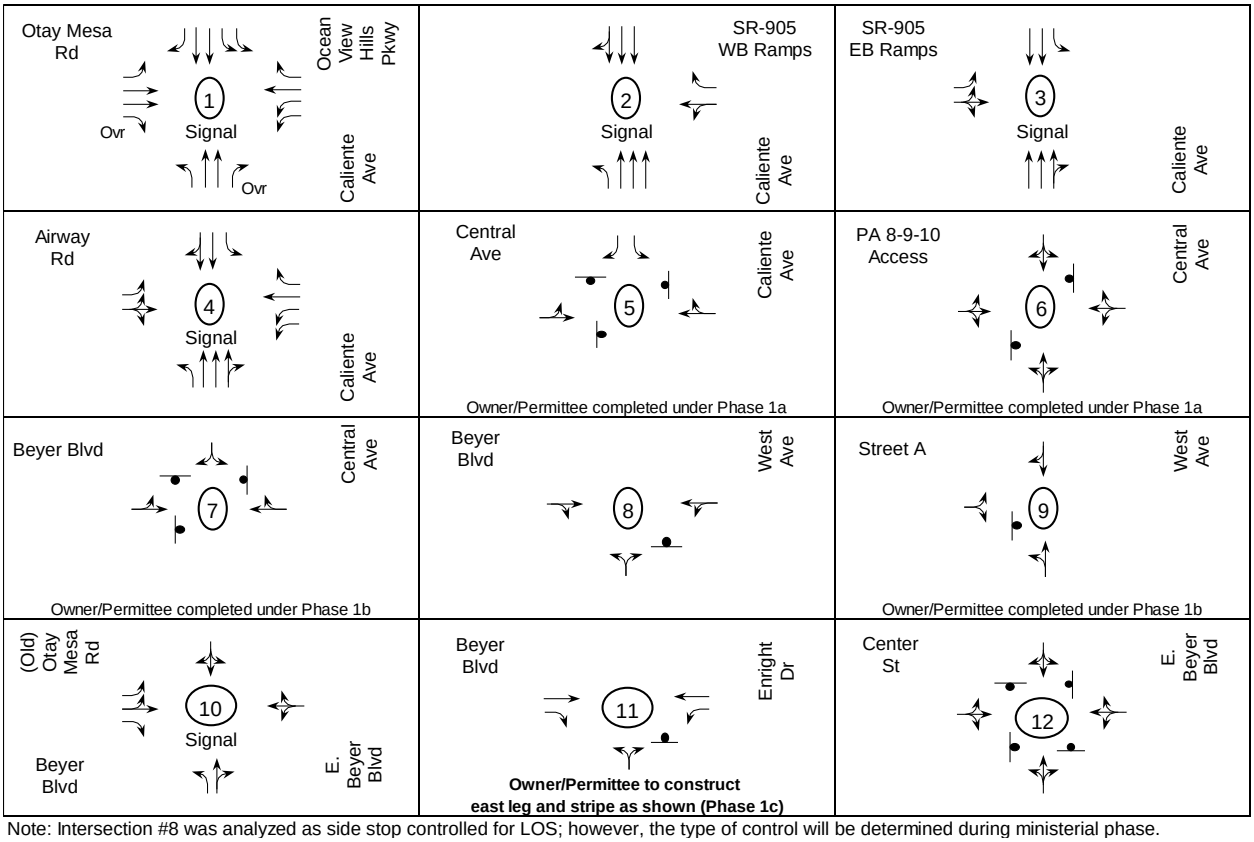
2) Segment of Beyer Blvd from E. Beyer Blvd to Enright Dr. an asphalt berm on the north side of Beyer Boulevard from Old Otay Mesa Rd/E. Beyer Blvd to Enright Drive and restripe Beyer Boulevard to provide a 2 Lane collector and buffered Class II bike lanes per current City standards, to the satisfaction of the City Engineer. This will require the elimination of on-street parking on the south side of Beyer Boulevard in this area. (concept drawing included in **Appendix N**).

3) Intersection of Enright Dr/Beyer Blvd as a 3 leg intersection with a separate eastbound right turn lane, separate westbound left turn lane, and a stop sign on the minor south leg.

Volumes for this scenario are shown in **Figure 27**.

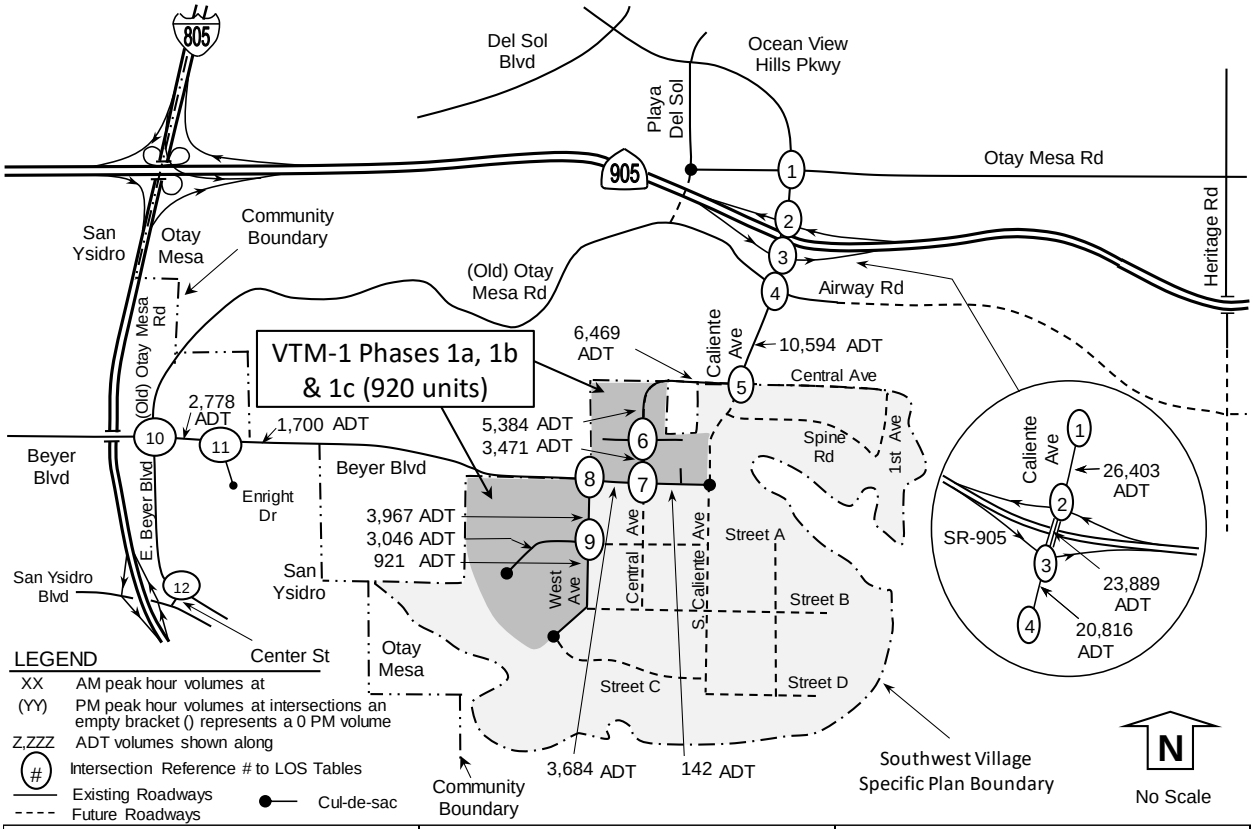
Figure 26: Opening Year 2024 plus Project Phases 1a, 1b & 1c Conditions

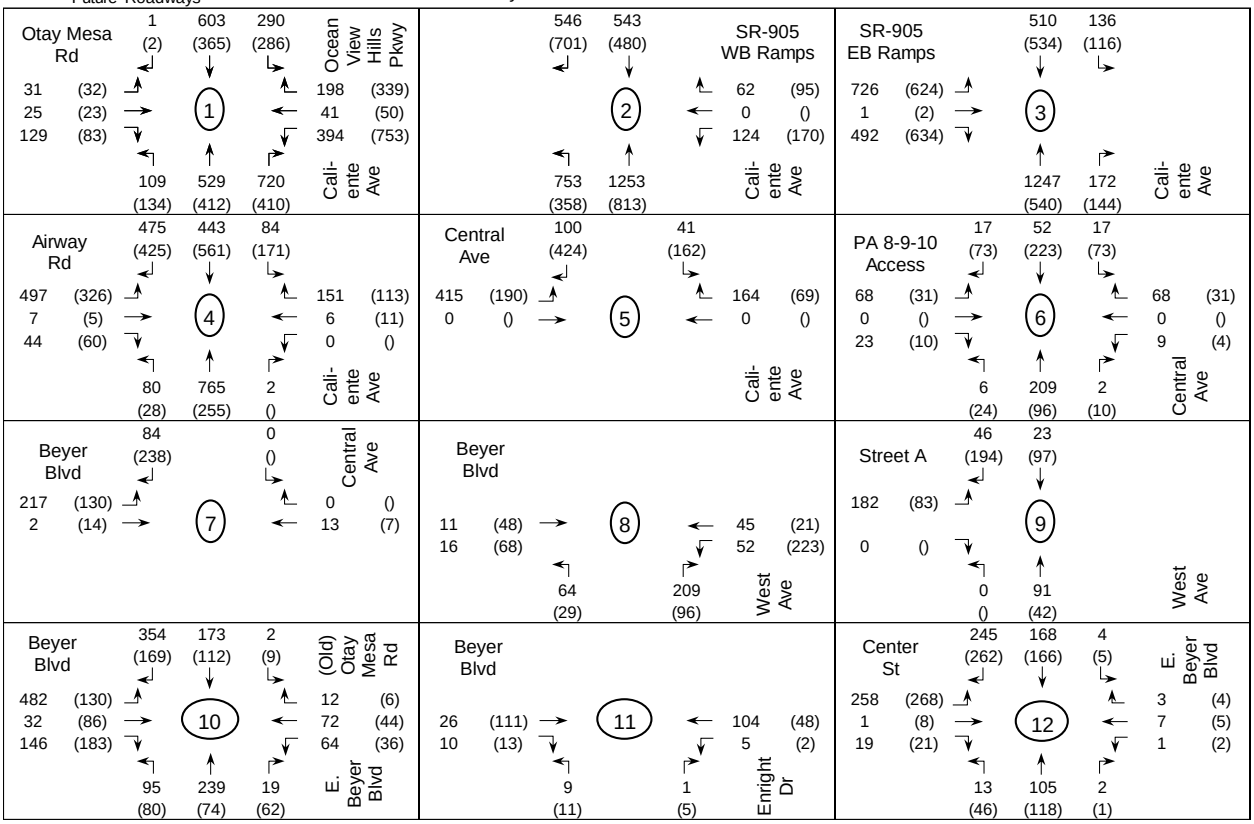




Note: Intersection #8 was analyzed as side stop controlled for LOS; however, the type of control will be determined during ministerial phase.

Figure 27: Opening Year 2024 plus Project Phases 1a, 1b & 1c Volumes





The intersection LOS is shown in **Table 23.** The intersection and freeway off-ramp 95th percentile queues are shown in **Table 24**. The segment LOS is shown in **Table 25**. The intersection LOS and queueing output are included in **Appendix O**.

TABLE 23: OPENING YEAR 2024 PLUS PROJECT PHASES 1A, 1B & 1C INTERSECTION LOS

Intersection and	Approach	Peak	Opening Year 2024		Opening Year 2024 + Project (920 du)		
(Analysis)[1]		Hour	Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delta[4]
1) Ocean View Hills/Caliente	All	AM	81.0	**F**	83.7	**F**	2.7
Ave at Otay Mesa Rd (S)	All	PM	113.9	**F**	118.6	**F**	4.7
2) Caliente Ave at	All	AM	34.3	C	74.0	**E**	39.7
SR-905 WB Ramps (S)	All	PM	30.8	C	60.4	**E**	29.6
3) Caliente Ave at	All	AM	53.3	D	75.8	**E**	22.5
SR-905 EB Ramps (S)	All	PM	27.6	C	41.0	D	13.4
4) Caliente Ave at	All	AM	84.5	**F**	88.8	**F**	4.3
Airway Rd (S)	All	PM	35.8	D	44.1	D	8.3
5) Caliente Ave at	All	AM	7.6	A	12.1	B	4.5
Central Ave (U)	All	PM	8.6	A	17.4	C	8.8
6) Central Ave at	EB	AM	DNE	NA	12.4	B	NA
PA 8-9-10 (U)	WB	AM	DNE	NA	10.2	B	NA
	EB	PM	DNE	NA	14.8	B	NA
	WB	PM	DNE	NA	9.7	A	NA
7) Central Ave at	All	AM	DNE	NA	8.6	A	NA
Beyer Blvd (U)	All	PM	DNE	NA	8.4	A	NA
8) West Ave at	NB	AM	DNE	NA	10.3	B	NA
Beyer Blvd (U)[5]	NB	PM	DNE	NA	11.2	B	NA
9) West Ave at	EB	AM	DNE	NA	10.6	B	NA
Street A (U)	EB	PM	DNE	NA	10.6	B	NA
10) Old Otay Mesa Rd	All	AM	29.2	C	34.0	C	4.8
at Beyer Blvd (S)	All	PM	21.2	C	24.2	C	3.0
11) Enright Dr at	NB	AM	8.6	A	9.3	A	0.7
at Beyer Blvd (U)	NB	PM	8.9	A	9.5	A	0.6
12) E. Beyer Blvd	All	AM	15.4	C	17.8	C	2.4
at Center St (U)	All	PM	14.1	B	16.1	C	2.0

Notes: 1) Intersection Analysis - (S) Signalized, (U) Unsignalized. 2) Delay - HCM Average Control Delay in seconds. 3) LOS: Level of Service. 4) Delta is the increase in delay from project. DNE:Does not exist. NA:Not Applicable. Bold indicates unacceptable LOS. 5) Intersection #8 was analyzed as side stop controlled for LOS; however, the type of control will be determined during ministerial phase.

TABLE 24: OPENING YEAR 2024 PLUS PROJECT PHASES 1A, 1B & 1C INTERSECTION AND FREEWAY OFF-RAMP QUEUING

Intersection	Peak Hour	Approach	Storage Length in feet (notes)		Opening Year 2024 Queue[1] in feet	Opening Yr 2024 + Proj. (920 du) Queue[1] in feet	Exceeds Storage?	Distance in feet
1) Caliente Ave	AM	WBL	500	(2)	1,579	1,752	**Yes**	**1,252**
at Otay Mesa Rd	AM	NBR	415	(3)	209	236	No	NA
	PM	WBL	500	(2)	1,593	1,682	**Yes**	**1,182**
	PM	NBR	415	(3)	146	152	No	NA
2) Caliente Ave at	AM	WB Ramp	1,530	(4)	123	170	No	NA
SR-905 WB Ramps	AM	NBL	100	(5)	128	131	**Yes**	**31**
	PM	WB Ramp	1,530	(4)	129	151	No	NA
	PM	NBL	100	(5)	137	140	**Yes**	**40**
3) Caliente Ave at	AM	EB Ramp	1,200	(4)	1,008	1,012	No	NA
SR-905 EB Ramps	PM	EB Ramp	1,200	(4)	1,005	1,015	No	NA
4) Caliente Ave	AM	NBL	250	(5)	89	121	No	NA
at Airway Rd	PM	NBL	250	(5)	40	54	No	NA
10) Old Otay Mesa	AM	WB	NA	(7)	74	167	NA	NA
Rd at Beyer Blvd	PM	WB	NA	(7)	64	95	NA	NA
11) Enright Dr at	AM	WB	75	(6)	DNE	0	NA	NA
at Beyer Blvd	PM	WB	75	(6)	DNE	0	NA	NA
12) E. Beyer at	AM	SB	NA	(7)	103	112	NA	NA
Center St	AM	EB	NA	(7)	196	247	NA	NA
	PM	SB	NA	(7)	140	116	NA	NA
	PM	EB	NA	(7)	92	103	NA	NA

Notes: WBL: Westbound Left. NBR: Northbound Right. EB: Eastbound. WB: Westbound. NBL: Northbound Left. NA: Not Applicable. DNE: Does Not Exist. (1) Queue is 95th percentile from Simtraffic analysis. (2) Turn lane is approximately 500 ft and then becomes a continuation of the approaching travel lanes. Since the approach lanes provide storage, there are no recommended improvements. (3) Right turn lane is a trap lane, thus striped lane is 170 ft while trap lane adds 245 ft (415 ft total) to SR-905 WB Ramps intersection providing 415 ft of storage. (4) Two approach lanes with number 2 lane at 830 feet from stop bar; however, storage extends as a single lane to freeway off-ramp gore striping with 1,530 ft of storage. (5) From stop bar to end of storage bay striping. (6) Owner/Permittee to construct left turn storage as noted. (7) Turn lane is a continuation of approaching travel lane. BOLD = Simtraffic forecasted queue beyond storage bay.

TABLE 25: OPENING YEAR 2024 PLUS PROJECT PHASES 1A, 1B & 1C SEGMENT ADT VOLUMES AND LOS

Segment	Functional Class-ification	LOS E Capacity	Opening Year 2024 Daily Volume	V/C	LOS	Project Daily Volume	Year 2024 with Project (920 units) LOS E Capacity	Daily Volume	V/C	LOS	Δ in V/C
Beyer Boulevard											
(Old) Otay Mesa Rd to Enright Dr	2C NF	10,000	1,149	0.115	A	1,629	10,000	2,778	0.278	A	0.163
Enright Dr to West Ave	2C NF (1)	10,000	DNE	NA	NA	1,700	10,000	1,700	0.170	A	NA
West Ave to Central Ave	2C (1)	8,000	DNE	NA	NA	3,684	8,000	3,684	0.461	A	NA
Central Ave to Caliente Ave	2C (1)	8,000	DNE	NA	NA	142	8,000	142	0.018	A	NA
Caliente Avenue											
Otay Mesa Rd to SR-905 WB Ramps	5CL	35,000	25,340	0.724	D	1,063	35,000	26,403	0.754	D	0.030
SR-905 WB Ramps to SR-905 EB Ramps	5CL	35,000	20,843	0.596	C	3,046	35,000	23,889	0.683	C	0.087
SR-905 EB Ramp to Airway Rd	5CL	35,000	15,786	0.451	B	5,030	35,000	20,816	0.595	C	0.144
Airway Rd to Southern Terminus	5M	45,000	5,210	0.116	A	5,384	45,000	10,594	0.235	A	0.120
Southern Terminus to Central Ave	5M (1)	45,000	5,210	0.116	A	5,384	45,000	10,594	0.235	A	0.120
Central Ave											
West of Caliente Ave	2C (1)	8,000	1,085	0.136	A	5,384	8,000	6,469	0.809	D	0.673
North of PA 8-9-10 Access	2C (1)	8,000	DNE	NA	NA	5,384	8,000	5,384	0.673	D	NA
PA 8-9-10 Access to Beyer Blvd	2C (1)	8,000	DNE	NA	NA	3,471	8,000	3,471	0.434	A	NA
Street A											
West of West Ave	2C (1)	8,000	DNE	NA	NA	3,046	8,000	3,046	0.381	A	NA
West Ave											
Beyer Blvd to Street A	2C (1)	8,000	DNE	NA	NA	3,967	8,000	3,967	0.496	A	NA
Street A to Street B	2C (1)	8,000	DNE	NA	NA	921	8,000	921	0.115	A	NA

Notes: 5M=5 lane Major. 5CL=5 lane Collector with left turn lanes. 2C NF=2 lane Collector with no fronting property driveway(s). Daily volume is a 24 hour volume. LOS: Level of Service. V/C: Volume to Capacity Ratio. DNE: Does Not Exist. NA: Not Applicable. Bold indicated unacceptable LOS. Cap = Capacity. (1) Owner/Permittee to construct roadway as noted if not constructed by others.

Under Opening Year 2024 plus Project Phases 1a, 1b & 1c Conditions, the findings include:

1) Intersection of Caliente Ave/Ocean View Hills/Otay Mesa Rd. The project adds traffic to the signal currently operating at LOS F in the AM & PM peak hour. No additional improvements are proposed beyond what has been provided as part of Phase 1a.

2) Intersection of Caliente Ave/SR-905 WB Ramps. The northbound left turn queuing is expected to exceed the existing storage and the project would add 236 AM and 108 PM peak hour trips to this movement (same volumes as Phase 1b). No additional improvements are proposed beyond what has been provided as part of Phase 1b.

3) Intersection of Caliente Ave/SR-905 EB Ramps. The project traffic causes the intersection operating in the AM peak hour to degrade to LOS E. No additional improvements are proposed beyond what has been provided as part of Phase 1a.

4) Intersection of Caliente Ave/Airway Rd. The project adds traffic to the signal currently operating at LOS F in the AM peak hour. No additional improvements are proposed beyond what has been provided as part of Phase 1a.

8.0 On-Site Parking; Access and On-Site Circulation; and Estimated Stop Sign Warrants

This section documents the proposed parking, roadway access, and estimated stop sign warrants.

8.1 Parking

Project parking includes garage and surface parking spaces (in parking areas and on private drives). All garage spaces are within individual unit garages. The number of required and provided parking spaces by planning area is summarized in **Table 26.**

TABLE 26: PROJECT PARKING SUMMARY

Parking Type by Planning Area	Minimum Required Parking	Proposed Parking
PA 8		
Vehicle (Resident & Guest)	397	406 Vehicle (334 garage and 72 surface)
Motorcycle	19	19 Motorcycle
Bicycle (see note #1)	111	111 Bicycle within garages
PA 9		
Vehicle (Resident & Guest)	243	243 Vehicle (190 garage and 53 surface)
Motorcycle	10	10 Motorcycle
Bicycle (see note #1)	57	57 Bicycle within garages
PA 10		
Vehicle (Resident & Guest)	337	340 Vehicle (260 garage and 80 surface)
Motorcycle	13	13 Motorcycle
Bicycle (see note #1)	78	78 Bicycle within garages
PA 11		
Vehicle (Resident & Guest)	420	424 Vehicle (336 garage and 88 surface)
Motorcycle	17	17 Motorcycle
Bicycle (see note #1)	101	101 Bicycle within garages
PA 12		
Vehicle (Resident & Guest)	197	201 Vehicle (152 garage and 49 surface)
Motorcycle	8	8 Motorcycle
Bicycle (see note #1)	46	46 Bicycle within garages
PA 13		
Vehicle (Resident & Guest)	425	425 Vehicle (340 garage and 85 surface)
Motorcycle	17	18 Motorcycle
Bicycle (see note #1)	102	102 Bicycle within garages
PA 14		
Vehicle (Resident & Guest)	249	249 Vehicle (192 garage and 57 surface)
Motorcycle	10	11 Motorcycle
Bicycle (see note #1)	58	58 Bicycle within garages

Note (1): Bicycle racks are not required for a dwelling unit with a garage accessible only by residents of the dwelling unit. Common area parking space requirements may be satisfied on-street as allowed by per SDMC Section 142.0525(c)(4).

8.2 Access and On-Site Circulation

Project vehicular access and on-site circulation will be provided as follows based on the Planning Area.

PA 8 and 9 will have access from three private driveways. One private driveway is located on Public Central Ave and two private driveways are located on Public Beyer Blvd. On-site internal circulation is provided by private drives. An on-site internal connection is also provided between PA 8 and 9.

PA 10 will have access from two private driveways. One private driveway is located on Central Ave and one private driveway is located on Beyer Blvd. On-site internal circulation is provided by private drives.

PA 11 will have access from two private driveways. One private driveway is located on Public West Ave and one private driveway is located on Public Street A. On-site internal circulation is provided by private drives.

PA 12 will have access from one private driveway and one internal connection to PA 14. The private driveway is located on Public Street A. On-site internal circulation is provided by private drives.

PA 13 will have access from two private driveways. One private driveway is located on Public West Ave and one private driveway is located on Public Street A. On-site internal circulation is provided by private drives.

PA 14 will have access from two private driveways and one internal connection to PA 12. One private driveway is located on Public Street A and one private driveway is located on Public West Ave. On-site internal circulation is provided by private drives.

8.3 Estimated Stop Sign Warrants

City of San Diego Council Policy 200-08 dated December 2, 1997 and Municipal Code §82.20 Authority to Erect Stop Signs provides criteria for the installation of stop signs on public streets.

The project includes the construction of 4 new intersections (intersection numbers 5, 7, 8 and 9). If an All-Way stop control warrant would not be satisfied based on Council Policy 200-08, then the minor street(s) will require a stop sign(s) based on Municipal Code §82.20.

Council Policy 200-08 includes the following five criteria: accident experience, special conditions, traffic volume, traffic volume difference, and pedestrian volumes. Because these intersections do not exist, existing crash data and existing pedestrian volumes are not available. The following stop sign criteria were applied to the four new intersections:

Int #5: Caliente Ave/Central Ave (estimated volumes from Phases 1a, 1b & 1c, and special condition of a route to the San Ysidro High School that would require crossing the west leg of Central Ave for students from PA 8 & 9)

Int #7 Central Ave/Beyer Blvd (estimated volumes from Phases 1a, 1b & 1c, and special condition of a route to the San Ysidro High School students crossing the main street and side street from PA 11, 12, 13, & 14)

Int #8: West Ave/Beyer Blvd (estimated volumes from Phases 1a, 1b & 1c).

Int #9: West Ave/Street A (estimated volumes from Phases 1a, 1b & 1c)

The estimated warrants require 24-hour and 4-hour volumes. The 24-hour volumes were based on the project ADTs. The 4-hour volumes were forecasted up from the AM & PM peak hour volumes based on ITE 24-hour distribution of residential housing traffic. The estimated stop sign warrant worksheets are included in **Appendix P.** The summary of findings for all-way stop control and side street stop control are shown in **Table 27.**

TABLE 27: ESTIMATED STOP SIGN WARRANT SUMMARY

Phase and Intersection	Side Street Stop Control Per Muni Code Section 82.20	All Way Stop Control Satisfied (20 or more points)?
Phase 1a		
5) Caliente Ave at Central Ave		Yes
Phase 1a & 1b		
5) Caliente Ave at Central Ave		Yes
7) Central Ave at Beyer Blvd		Yes
8) West Ave at Beyer Blvd *		
9) West Ave at Street A	Yes	
Phase 1a, 1b, & 1c		
5) Caliente Ave at Central Ave		Yes
7) Central Ave at Beyer Blvd		Yes
8) West Ave at Beyer Blvd *		
9) West Ave at Street A	Yes	

* To be evaluated during ministerial phase.

9.0 Proposed Improvements

The City of San Diego recommends improvements be considered to accommodate the addition of project pedestrian, bicycle, transit, and roadway users. The following improvements are proposed:

Phase 1a improvements with 200 dwelling units within Planning Areas 8-10 of VTM-1.

1) Prior to the issuance of any building permit, the Owner/Permittee shall assure by permit and bond the construction of Caliente Ave from the southern terminus to Central Ave as a 6 lane Major (striped as a 5 lane Major with 2 southbound lanes and 3 northbound lanes due to the southbound 2 Lane pavement width constraint alongside the San Ysidro High School parcel) with a 22-foot wide parkway with non-contiguous sidewalk and buffered Class II bike lanes and Class I bike path (Class I on the east side only) per current City standards to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1a.

2) Prior to the issuance of any building permit, the Owner/Permittee shall assure by permit and bond the construction of a T-intersection at Caliente Ave/Central Ave as a three-leg all way stop controlled intersection with a single approach lane in the eastbound and westbound directions, and two approach lanes in the southbound direction, to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1a.

3) Prior to the issuance of any building permit, the Owner/Permittee shall assure by permit and bond the construction of Central Ave from Caliente Ave to the entrance of Planning Areas 8-9-10 as a 45 ft on 69 ft (Sta. 10+00 to 19+50) of ROW and 38 ft on 62 ft (Sta. 19+50 to 27+00) of ROW 2 Lane Collector with a 12-foot wide parkway with non-contiguous sidewalk and buffered Class II bike lanes on each side per current City standards, to the satisfaction of the City Engineer. This segment will end with a temporary cul-de-sac immediately south of the intersection of Central Ave/PA 8-9-10 access. These improvements shall be completed and operational prior to first occupancy of Phase 1a.

4) Prior to the issuance of any building permit the Owner/Permittee shall assure by permit and bond a traffic signal modification to upgrade the traffic controller to provide City current 2070 signal controller including software update and communications equipment at the intersection of Caliente Ave/Ocean View Hills/Otay Mesa Road per current City standards, to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1a.

5) Prior to the issuance of any building permit the Owner/Permittee shall assure by permit and bond a traffic signal modification to upgrade the traffic controller to provide City current 2070 signal controller including software update and communications equipment at the intersection of Caliente Ave/SR-905 EB on ramp per current City standards and Caltrans standards, to the satisfaction of the City Engineer and Caltrans Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1a.

6) Prior to the issuance of any building permit the Owner/Permittee shall assure by permit and bond a traffic signal modification to upgrade the traffic controller to provide City current 2070 signal controller including software update and communications equipment at the intersection of Caliente Ave/Airway Road per current City standards, to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1a.

Phase 1b improvements with a total of 699 dwelling units within Planning Areas 8-14 of VTM-1.

7) Prior to issuance of the first building permit in Phase 1b (201st dwelling unit), the Owner/Permittee shall assure by permit and bond the intersection reconfiguration of Caliente Ave/SR-905 WB Ramps to install a second northbound left turn lane (through re-striping on the bridge over SR-905 of the northbound number one through travel lane with 300 feet of storage to a trap left turn lane that in conjunction with the existing left turn lane will become the dual left turn lanes), widen and construct a second receiving lane to the westbound (WB) on-ramp, and upgrading the traffic controller to provide City current 2070 signal controller including software update and communications equipment, to the satisfaction of the City Engineer and Caltrans. These improvements shall be completed and operational prior to first occupancy of Phase 1b (201st dwelling unit). A concept drawing is included in Appendix N.

8) Prior to issuance of the first building permit in Phase 1b (201st dwelling unit), the Owner/Permittee shall assure by permit and bond the construction of Central Ave from the temporary cul-de-sac (to be removed) just south of the entrance of Planning Areas 8-9-10 south to Beyer Blvd as a 45 ft on 69 ft of ROW 2 Lane Collector with a 12-foot wide parkway with non-contiguous sidewalk and buffered Class II bike lanes per current City standards, to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1b (201st dwelling unit).

9) Prior to issuance of the first building permit in Phase 1b (201st dwelling unit), the Owner/Permittee shall assure by permit and bond the construction of half width improvements (on the north side only) of Beyer Blvd East from West Avenue to Caliente Ave (with a temporary cul-de-sac at the eastern terminus) as an interim 38 ft on 58 ft of ROW modified 2-lane collector roadway with a 20-foot wide parkway with non-contiguous sidewalk and buffered Class II bike lane and Class I bike path per current City standards, to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1b (201st dwelling unit).

10) Prior to the issuance of any building permit within Planning Areas 11, 12, 13, or 14 (south of Beyer Blvd), the Owner/Permittee shall assure by permit and bond the construction of West Ave from Beyer Blvd to Street A as a an interim 39 ft on 53 ft of ROW 2 lane collector with center left turn lane and 14-foot wide parkway with non-contiguous sidewalk and buffered Class II bike lane (on the west side only) and the intersection of West Ave/Beyer Blvd per current City standards, to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1b (201st dwelling unit).

11) Prior to the issuance of any building permit within Planning Areas 11, 12, 13, or 14 (south of Beyer Blvd), the Owner/Permittee shall assure by permit and bond the construction of West Ave from Street A to the southern cul-de-sac terminus as an interim 39 ft on 51 ft of ROW a 2 lane collector and 12-foot wide parkway with non-contiguous sidewalk (on the west side only) and buffered Class II bike lane (on the west side only) and a permanent cul-de-sac per current City

standards, to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1b (201st dwelling unit).

12) Prior to the issuance of any building permit within Planning Areas 11, 12, 13, or 14 (south of Beyer Blvd),, the Owner/Permittee shall assure by permit and bond the construction of Street A from West Ave to the western cul-de-sac terminus as a 52 ft on 76 ft of ROW 2-lane collector roadway and 12-foot wide parkway with non-contiguous sidewalk and buffered Class II bike lanes, permanent cul-de-sac at the terminus of Street A per current City standards, to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy in Phase 1b (201st dwelling unit).

13) Prior to the issuance of any building permit within Planning Areas 11, 12, 13, or 14 (south of Beyer Blvd), the Owner/Permittee shall assure by permit and bond the construction of Central Ave/Beyer Blvd as a three-leg all way stop controlled intersection with a single lane on each approach. These improvements shall be completed and operational prior to first occupancy in Phase 1b (201st dwelling unit).

14) Prior to the issuance of any building permit within Planning Areas 11, 12, 13, or 14 (south of Beyer Blvd), the Owner/Permittee shall assure by permit and bond the construction of West Ave/Beyer Blvd with a temporary cul-de-sac bulb west of the intersection of West Ave/Beyer Blvd. These improvements shall be completed and operational prior to first occupancy in Phase 1b (201st dwelling unit).

15) Prior to issuance of the first building permit in Phase 1b (201st dwelling unit), the Owner/Permittee shall assure by permit and bond the construction of West Ave/Street A as a three-leg side controlled (west leg) intersection with a single lane on each approach. These improvements shall be completed and operational prior to first occupancy in Phase 1b (201st dwelling unit).

Phase 1c improvements with a total of 920 dwelling units within Planning Areas 8-14 of VTM-1.

16) Prior to issuance of the first building permit in Phase 1c (700th dwelling unit), the Owner/Permittee shall assure by permit and bond the construction of Beyer Blvd from Enright Dr to West Ave as a 44 ft on 53 ft of ROW modified 4 lane collector (built with 2 lanes due to environmental constraints) with an 8.5-foot wide parkway with non-contiguous sidewalk (on the south side only) and buffered Class II bike lanes to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy in Phase 1c (700th dwelling unit).

17) Prior to issuance of the first building permit in Phase 1c (700th dwelling unit), the Owner/Permittee shall assure by permit and bond the construction of an asphalt berm on the north side of Beyer Boulevard from Old Otay Mesa Rd/E. Beyer Blvd to Enright Drive and restripe Beyer Boulevard to provide a 2 Lane collector and buffered Class II bike lanes per current City standards, to the satisfaction of the City Engineer. This will require the elimination of on-street parking on the south side of Beyer Boulevard in this area. (concept drawing included in **Appendix N**). These improvements shall be completed and operational prior to first occupancy in Phase 1c (700th dwelling unit).

18) Prior to issuance of the first building permit in Phase 1c (700th dwelling unit), the Owner/Permittee shall assure by permit and bond the installation of bicycle detector loops in the westbound approach at the intersection of Old Otay Mesa Rd/E. Beyer Blvd at Beyer Blvd via a traffic signal modification plan per current City standards, to the satisfaction of the City Engineer. These improvements shall be completed and operational prior to first occupancy of Phase 1c (700th dwelling unit).

19) Prior to issuance of the first building permit in Phase 1c (700th dwelling unit), the Owner/Permittee shall assure the restriping/reconfiguration of the Enright Dr/Beyer Blvd intersection with a separate eastbound right turn lane, separate westbound left turn lane, with an existing stop sign on the minor south leg (Enright Drive). These improvements shall be completed and operational prior to first occupancy in Phase 1c (700th dwelling unit).

Concept drawings of the proposed off-site improvements are included in **Appendix N**.

The proposed intersection improvement at Caliente Ave/SR-905 WB Ramps includes re-striping on the bridge over SR-905 the northbound number one through travel lane with 300 feet of storage to a trap left turn lane that in conjunction with the existing left turn lane will become dual left turn lanes, along with widening and constructing a second receiving lane to the westbound (WB) on-ramp. The intersection improvements are forecasted to improve the LOS to C (AM & PM) as shown in **Table 28**.

TABLE 28: CALIENTE AVE/OTAY MESA RD IMPROVEMENT LOS

Intersection & (Analysis)[1]	Approach	Peak Hour	Opening Year 2024+Project (920 units) Delay[2]	LOS[3]
2) Caliente Ave at	All	AM	70.1	**E**
SR-905 WB Ramps (S)	All	PM	53.9	D
		With Improvement	*24.3*	*C*
		of northbound dual left turn lanes	*27.6*	*C*

Notes: 1) Intersection Analysis - (S) Signalized, (U) Unsignalized. 2) Delay - HCM Average Control Delay in seconds. 3) LOS: Level of Service. Bold indicated unacceptable LOS.

The queueing after the improvement is shown in **Table 29.**

TABLE 29: CALIENTE AVE/OTAY MESA RD QUEUING WITHOUT AND WITH IMPROVEMENT

Intersection	Peak Hour	Approach	Storage Length in feet (notes)	No Improvement Queue[1] (ft)	With Improvement Queue[1] in feet	Reduction in Feet	Exceeds Storage	Distance in feet
2) Caliente Ave at	AM	WB Ramp	1,530 (2)	170	138	32	No	NA
SR-905 WB Ramps	AM	NBL	300 (3)	131	130	1	No	NA
	PM	WB Ramp	1,530 (2)	151	148	3	No	NA
	PM	NBL	300 (3)	140	116	24	No	NA

Notes: WB: Westbound. NBL: Northbound Left. (1) Queue is 95th percentile from Simtraffic analysis. (2) Two approach lanes with number 2 lane at 830 feet from stop bar; however, storage extends as a single lane to freeway off-ramp gore striping with 1,530 ft of storage. (3) Existing storage of 100 feet is proposed to be extended to 300 feet.

Calculations for the LOS and queueing are included in **Appendix Q.**

# # #

Appendix A

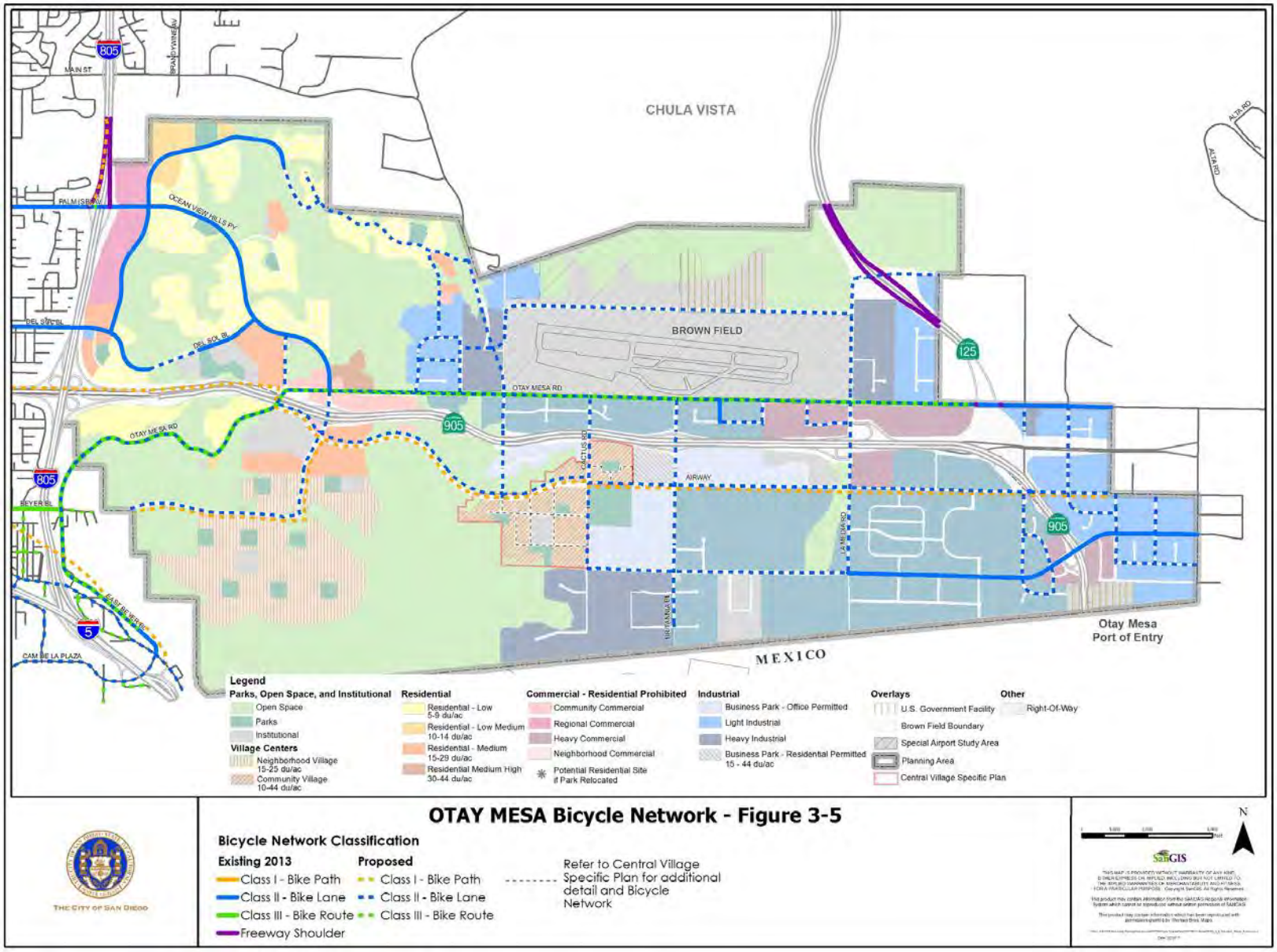
Excerpts from Otay Mesa Community Plan Update

Otay Mesa
Community Plan Update

Planning, Neighborhoods & Economic Development Department

March 11, 2014

City of San Diego


CHULA VISTA
BROWN FIELD
OTAY MESA RD
MAIN ST
OCEAN VIEW HILLS PY
DEL SOL BL
PALM AV
SIENNA AV
ALTA RD
CACTUS RD
AIRWAY
HERITAGE RD
ALTA RD
EAST BEYER BL
BEYER BL
CAMINO DE LA PLAZA
805
905
125
5
Otay Mesa
Port of Entry
MEXICO
Legend
Parks, Open Space, and Institutional
Open Space
Parks
Institutional
Village Centers
Neighborhood Village 15-25 du/ac
Community Village 10-44 du/ac
Residential
Residential - Low 5-9 du/ac
Residential - Low Medium 10-14 du/ac
Residential - Medium 15-29 du/ac
Residential Medium High 30-44 du/ac
Commercial - Residential Prohibited
Community Commercial
Regional Commercial
Heavy Commercial
Neighborhood Commercial
Potential Residential Site if Park Relocated
Industrial
Business Park - Office Permitted
Light Industrial
Heavy Industrial
Business Park - Residential Permitted 15 - 44 du/ac
Overlays
U.S. Government Facility
Brown Field Boundary
Special Airport Study Area
Planning Area
Central Village Specific Plan
Other
Right-Of-Way
OTAY MESA Bicycle Network - Figure 3-5
Bicycle Network Classification
Existing 2013
Class I - Bike Path
Class II - Bike Lane
Class III - Bike Route
Freeway Shoulder
Proposed
Class I - Bike Path
Class II - Bike Lane
Class III - Bike Route
Refer to Central Village Specific Plan for additional detail and Bicycle Network
THE CITY OF SAN DIEGO
N
SanGIS

Appendix B

Transit Map and Schedules

CASH FARES / *Tarifas en efectivo*

Exact fare, please / *Favor de pagar la cantidad exacta*

	905	950
Day Pass (Regional) / *Pase diario (Regional)* Compass Card required ($2) / *Se requiere un Compass Card ($2)*		$5.00
One-Way Fare / *Tarifa de una direccíon*	$2.25	$2.50
Senior (60+)/Disabled/Medicare *Mayores de 60 años/Discapacitados/Medicare*	$1.10*	$1.25*

Children 5 & under / *Niños de 5 años o menos* — **FREE** / ***GRATIS***
Up to two children ride free per paying adult / *Máximo dos niños viajan gratis por cada adulto*

MONTHLY PASSES / *Pases mensual*

Adult / *Adulto*	$72.00
Senior (60+)/Disabled/Medicare *Mayores de 60 años/Discapacitados/Medicare*	$18.00*
Youths (18 and under) *Jóvenes (18 años o menos)*	$36.00*

*I.D. required for discount fare or pass.
**Se requiere identificación para tarifas o pases de descuento.*

DAY PASS (REGIONAL) / *Pase diario (Regional)*

All passes are sold on Compass Card, which can be reloaded and reused for up to five years. Compass Cards are available for $2 at select outlets. A $5 Day Pass requires a Compass Card. A paper Day Pass can be purchased on board buses for an additional $2 fee.

Todos los pases se venden en el Compass Card, el cual puede ser recargado y reutilizado por hasta cinco años. Compass Cards están disponibles por $2 en selectas sucursales. Un pase de un día por $5 requiere un Compass Card. Un pase de un día de papel se puede obtener a bordo los autobuses por un costo adicional de $2.

DIRECTORY / *Directorio*

Regional Transit Information *Información de transporte público regional*	**511** *or/ó* **(619) 233-3004**
TTY/TDD (teletype for hearing impaired) *Teletipo para sordos*	**(619) 234-5005** *or/ó* **(888) 722-4889**
InfoExpress (24-hour info via Touch-Tone phone) *Información las 24 horas (via teléfono de teclas)*	**(619) 685-4900**
Customer Service / Suggestions *Servicio al cliente / Sugerencias*	**(619) 557-4555**
SafeWatch	**(619) 557-4500**
Lost & Found *Objetos extraviados*	**(619) 557-4555**
Transit Store	**(619) 234-1060** 12th & Imperial Transit Center M–F 8am–5pm
For MTS online trip planning *Planificación de viajes por Internet*	**sdmts.com**

For more information on riding MTS services, pick up a Rider's Guide on a bus or at the Transit Store, or visit **sdmts.com**.
*Para obtener más información sobre el uso de los servicios de MTS, recoja un 'Rider's Guide' en un autobús o en la Transit Store, o visita a **sdmts.com**.*

Thank you for riding MTS! ***¡Gracias por viajar con MTS!***

Effective JANUARY 28, 2018

905
Otay Mesa – Iris Transit Center
via SR-905 / Otay Mesa Rd.

950
Otay Mesa – Iris Transit Center Express
via SR-905

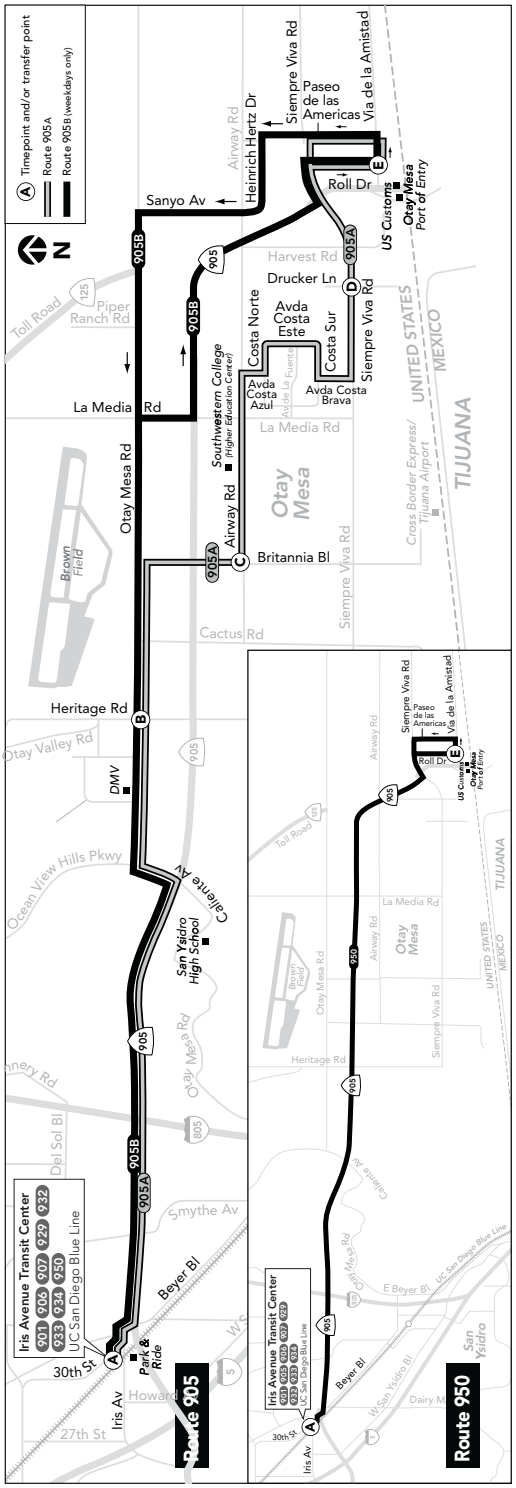
DESTINATIONS
- Brown Field
- Otay Mesa Industrial Parks
- Otay Mesa Port of Entry
- San Ysidro High School
- Southwestern College (Higher Education Center)

MTS Metropolitan Transit System

TROLLEY CONNECTIONS
Iris Av.

01/18

Alternative formats available upon request. Please call: (619) 557-4555 / *Formato alternativo disponible al preguntar. Favor de llamar: (619) 557-4555*


Timepoint and/or transfer point
Route 905A
Route 905B (weekdays only)
Siempre Viva Rd
Paseo de las Americas
Via de la Amistad
Airway Rd
Heinrich Hertz Dr
Roll Dr
US Customs
Otay Mesa Port of Entry
Sanyo Av
Harvest Rd
Drucker Ln
Avda Costa Este
Costa Norte
Costa Sur
Avda Costa Azul
Avda Costa Brava
Toll Road
Piper Ranch Rd
La Media Rd
Southwestern College (Higher Education Center)
Otay Mesa Rd
Otay Mesa
Britannia Bl
Brown Field
Cross Border Express/ Tijuana Airport
UNITED STATES
MEXICO
TIJUANA
Cactus Rd
Heritage Rd
Otay Valley Rd
DMV
Ocean View Hills Pkwy
Calle Primera
Calle Tercera
Calle Cuarta
Calle Segunda
Calle Quinta
Calle Sexta
Calle Septima
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Route 905 – Monday through Friday / *lunes a viernes*

Iris Avenue Transit Center — Otay Mesa Port of Entry

	Ⓐ Iris Avenue Transit Center **DEPART**	Ⓑ Otay Mesa Rd. & Heritage Rd.	Ⓒ Airway Rd. & Britannia Bl.	Ⓓ Siempre Viva Rd. & Drucker Ln.	Ⓔ Otay Mesa Port of Entry **ARRIVE**
A	5:00a	5:07a	5:12a	5:17a	5:22a
A	5:29	5:36	5:41	5:44	5:49
A	5:55	6:02	6:07	6:14	6:20
A	6:15	6:22	6:27	6:34	6:40
A	6:35	6:43	6:48	6:56	7:02
A	6:55	7:03	7:08	7:16	7:22
A	7:15	7:23	7:28	7:36	7:42
A	7:35	7:43	7:48	7:56	8:02
B	7:55	8:03	—	—	8:16
A	8:20	8:28	8:33	8:41	8:47
B	8:44	8:52	—	—	9:05
A	9:05	9:13	9:18	9:26	9:32
B	9:44	9:52	—	—	10:05
A	10:05	10:13	10:18	10:26	10:32
B	10:44	10:52	—	—	11:05
A	11:05	11:13	11:18	11:26	11:32
B	11:44	11:52	—	—	**12:05p**
A	**12:05p**	**12:13p**	**12:18p**	**12:26p**	**12:32**
B	**12:44**	**12:52**	**—**	**—**	**1:05**
A	**1:05**	**1:13**	**1:18**	**1:26**	**1:32**
B	**1:44**	**1:52**	**—**	**—**	**2:05**
A	**2:05**	**2:13**	**2:18**	**2:26**	**2:32**
B	**2:44**	**2:52**	**—**	**—**	**3:05**
A	**3:07**	**3:15**	**3:20**	**3:28**	**3:34**
B	**3:34**	**3:42**	**—**	**—**	**3:55**
A	**3:54**	**4:02**	**4:07**	**4:15**	**4:21**
B	**4:15**	**4:23**	**—**	**—**	**4:36**
A	**4:35**	**4:43**	**4:48**	**4:56**	**5:02**
B	**5:00**	**5:08**	**—**	**—**	**5:21**
A	**5:25**	**5:33**	**5:38**	**5:45**	**5:50**
B	**5:50**	**5:58**	**—**	**—**	**6:10**
A	**6:20**	**6:28**	**6:33**	**6:40**	**6:45**
A	**6:50**	**6:58**	**7:03**	**7:10**	**7:15**
A	**7:40**	**7:48**	**7:52**	**7:58**	**8:03**
A	**8:05**	**8:13**	**8:17**	**8:23**	**8:28**
A	**8:30**	**8:38**	**8:42**	**8:48**	**8:53**
A	**9:00**	**9:08**	**9:12**	**9:18**	**9:23**

Otay Mesa Port of Entry — Iris Avenue Transit Center

	Ⓔ Otay Mesa Port of Entry **DEPART**	Ⓓ Siempre Viva Rd. & Drucker Ln.	Ⓒ Airway Rd. & Britannia Bl.	Ⓑ Otay Mesa Rd. & Heritage Rd.	Ⓐ Iris Avenue Transit Center **ARRIVE**
A	4:15a	4:18a	4:23a	4:28a	4:35a
B	4:35	—	—	4:46	4:53
A	4:55	4:59	5:05	5:11	5:19
B	5:20	—	—	5:31	5:39
A	5:40	5:44	5:50	5:56	6:04
B	6:00	—	—	6:12	6:21
A	6:20	6:24	6:31	6:38	6:47
B	6:40	—	—	6:52	7:01
A	7:00	7:04	7:11	7:18	7:27
B	7:20	—	—	7:32	7:41
A	7:40	7:44	7:51	7:58	8:07
B	8:00	—	—	8:12	8:22
A	8:20	8:24	8:31	8:38	8:48
B	8:40	—	—	8:52	9:02
A	9:00	9:04	9:11	9:18	9:28
B	9:30	—	—	9:42	9:52
A	10:00	10:04	10:11	10:18	10:28
B	10:30	—	—	10:42	10:52
A	11:00	11:04	11:11	11:18	11:28
B	11:30	—	—	11:42	11:52
A	**12:00p**	**12:04p**	**12:11p**	**12:18p**	**12:28p**
B	**12:30**	**—**	**—**	**12:42**	**12:52**
A	**1:00**	**1:04**	**1:11**	**1:18**	**1:28**
B	**1:30**	**—**	**—**	**1:42**	**1:52**
A	**2:00**	**2:04**	**2:12**	**2:20**	**2:30**
B	**2:30**	**—**	**—**	**2:42**	**2:52**
A	**2:56**	**3:00**	**3:08**	**3:16**	**3:26**
B	**3:22**	**—**	**—**	**3:35**	**3:45**
A	**3:44**	**3:48**	**3:56**	**4:04**	**4:14**
B	**4:04**	**—**	**—**	**4:17**	**4:27**
A	**4:28**	**4:32**	**4:40**	**4:48**	**4:58**
B	**4:50**	**—**	**—**	**5:03**	**5:13**
A	**5:12**	**5:16**	**5:24**	**5:32**	**5:42**
B	**5:35**	**—**	**—**	**5:47**	**5:57**
A	**6:05**	**6:08**	**6:15**	**6:22**	**6:32**
A	**6:50**	**6:53**	**7:00**	**7:07**	**7:17**
A	**7:28**	**7:31**	**7:38**	**7:45**	**7:55**
A	**8:13**	**8:16**	**8:23**	**8:30**	**8:40**

A = Route 905A. Trip serves Otay Mesa Industrial Park. / *Ruta 905A. Viaje que ofrece servicio a Otay Mesa Industrial Park.*
B = Route 905B. Westbound trip via Sanyo Ave. Eastbound trip via La Media Rd & SR-905. / *Ruta 905B. Viaje hacia el oeste via Sanyo Ave. Viaje hacia el este via La Media Rd & SR-905.*

Route 950 – Monday through Friday / *lunes a viernes*

Iris Avenue Transit Center — Otay Mesa Port of Entry

Ⓐ Iris Avenue Transit Center **DEPART**		Ⓔ Otay Mesa Port of Entry **ARRIVE**
12:17p	**EXPRESS** →	**12:31p**
12:47	**EXPRESS** →	**1:01**
1:17	**EXPRESS** →	**1:31**
1:42	**EXPRESS** →	**1:56**
2:02	**EXPRESS** →	**2:16**
2:22	**EXPRESS** →	**2:36**
2:42	**EXPRESS** →	**2:56**
3:02	**EXPRESS** →	**3:16**
3:22	**EXPRESS** →	**3:36**
3:42	**EXPRESS** →	**3:56**
4:02	**EXPRESS** →	**4:16**
4:22	**EXPRESS** →	**4:36**
4:42	**EXPRESS** →	**4:56**
5:02	**EXPRESS** →	**5:16**
5:22	**EXPRESS** →	**5:36**
5:42	**EXPRESS** →	**5:56**
6:02	**EXPRESS** →	**6:16**
6:22	**EXPRESS** →	**6:36**
6:42	**EXPRESS** →	**6:56**
7:02	**EXPRESS** →	**7:16**
7:20	**EXPRESS** →	**7:34**
7:47	**EXPRESS** →	**8:01**
8:17	**EXPRESS** →	**8:31**
8:47	**EXPRESS** →	**9:01**
9:32	**EXPRESS** →	**9:46**

Otay Mesa Port of Entry — Iris Avenue Transit Center

Ⓔ Otay Mesa Port of Entry **DEPART**		Ⓐ Iris Avenue Transit Center **ARRIVE**
4:30a	EXPRESS →	4:44a
4:45	EXPRESS →	4:59
5:00	EXPRESS →	5:14
5:12	EXPRESS →	5:26
5:24	EXPRESS →	5:38
5:36	EXPRESS →	5:50
5:48	EXPRESS →	6:02
6:00	EXPRESS →	6:14
6:12	EXPRESS →	6:26
6:24	EXPRESS →	6:38
6:36	EXPRESS →	6:50
6:48	EXPRESS →	7:02
7:00	EXPRESS →	7:14
7:12	EXPRESS →	7:26
7:24	EXPRESS →	7:38
7:36	EXPRESS →	7:50
7:48	EXPRESS →	8:02
8:04	EXPRESS →	8:18
8:24	EXPRESS →	8:38
8:44	EXPRESS →	8:58
9:04	EXPRESS →	9:18
9:24	EXPRESS →	9:38
9:44	EXPRESS →	9:58
10:15	EXPRESS →	10:29
10:45	EXPRESS →	10:59
11:15	EXPRESS →	11:29
11:45	EXPRESS →	11:59
12:15p	**EXPRESS** →	**12:29p**

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Appendix C

City of San Diego Street Segment Capacities

Roadway Segment LOS by Classification and Average Daily Traffic (ADT)

Table Appendix F-1 provides street classifications and associated LOS thresholds dependent on the roadway's average daily traffic (ADT).

TABLE APPENDIX F-1

ROADWAY CLASSIFICATIONS, LOS, AND AVERAGE DAILY TRAFFIC (ADT)

STREET CLASSIFICATION	LANES	LEVEL OF SERVICE				
		A	B	C	D	E
Expressway	8 lanes	40,000	56,000	80,000	93,500	107,000
Expressway	7 lanes	35,000	49,000	70,000	82,000	93,500
Expressway	6 lanes	30,000	42,000	60,000	70,000	80,000
Prime Arterial[1]	8 lanes	35,000	50,000	70,000	75,000	80,000
Prime Arterial[1]	7 lanes	30,000	42,500	60,000	65,000	70,000
Prime Arterial	6 lanes	25,000	35,000	50,000	55,000	60,000
Prime Arterial[10]	5 lanes	20,000	28,000	40,000	45,000	50,000
Prime Arterial[11]	4 lanes	17,500	24,500	35,000	40,000	45,000
Major Arterial[2]	7 lanes	22,500	31,500	45,000	50,000	55,000
Major Arterial	6 lanes	20,000	28,000	40,000	45,000	50,000
Major Arterial[3]	5 lanes	17,500	24,500	35,000	40,000	45,000
Major Arterial	4 lanes	15,000	21,000	30,000	35,000	40,000
Major Arterial	3 lanes	11,250	15,750	22,500	26,250	30,000
Major Arterial	2 lanes	7,500	10,500	15,000	17,500	20,000
Major Arterial *(one-way)*[4]	3 lanes	12,500	16,500	22,500	25,000	27,500
Major Arterial *(one-way)*[5]	2 lanes	10,000	13,000	17,500	20,000	22,500

STREET CLASSIFICATION	LANES	LEVEL OF SERVICE				
		A	B	C	D	E
Collector *(with two-way left turn lane)*	5 lanes	12,500	17,500	25,000	30,750	37,500
Collector *(with two-way left turn lane)*	4 lanes	10,000	14,000	20,000	25,000	30,000
Collector *(with two-way left turn lane)*	3 lanes	7,500	10,500	15,000	18,750	22,500
Collector *(with two-way left turn lane)*	2 lanes	5,000	7,000	10,000	13,000	15,000
Collector *(without two-way left turn lane)*	4 lanes	5,000	7,000	10,000	13,000	15,000
Collector *(without two-way left turn lane)*[6]	3 lanes	4,000	5,000	7,500	10,000	11,000
Collector *(without two-way left turn lane)*	2 lanes	2,500	3,500	5,000	6,500	8,000
Collector *(with no fronting property)*	2 lanes	4,000	5,500	7,500	9,000	10,000
Collector *(one-way)*[7]	3 lanes	11,000	14,000	19,000	22,500	26,000
Collector *(one-way)*[8]	2 lanes	7,500	9,500	12,500	15,000	17,500
Collector *(one-way)*[9]	1 lane	2,500	3,500	5,000	6,500	7,500
Sub-Collector *(Single-family)*	2 lanes	--	--	2,200	--	--

Notes:

The volumes and the average daily level of service listed above are only intended as a general planning guideline. Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors.

[1]Calculated assuming that each additional lane above a 6-Ln Arterial adds 5,000 ADT for LOS A, 7,500 ADT for LOS B and 10,000 ADT for LOS C, D, and E

[2]Calculated assuming that ADT is 1/2 way between steps of a 6-Ln Major Arterial & 6 Ln Prime Arterial

[3]Calculated assuming that ADT is 1/2 way between steps of a 4-Ln Major Arterial & 6 Ln Major Arterial

[4]Calculated using: Capacity = 0.5 (6-Ln Major (2-way) + Added Capacity of 2,500 ADT)

[5]Calculated using: Capacity = 0.5 (4-Ln Major (2-way) + Added Capacity of 2,500 ADT)

[6]Calculated using: Capacity = 4-Ln Collector (no center lane) * (3/4)

[7]Calculated using: Capacity = 2-Ln Collector (one-way) * (3/2)

[8]Calculated using: Capacity = 0.5 (4-Ln Collector w/continuous left turn lane) + Added Capacity of 2,500 ADT)

[9]Calculated using: Capacity = 0.5 (2-Ln Collector w/ continuous left turn lane). Capacity took into account parking friction from both sides of roadway

[10] Calculated by applying same differences between 8-Ln Prime & 7-Ln Prime & 7-Ln Prime & 6-Ln Prime

[11] Calculated assuming ratio between 6-Ln Prime & 6-Ln Major applied to 4-Ln Major

Appendix D

Excerpts from City of San Diego TSM Roadway Improvement Criteria

The City of SAN DIEGO

Transportation Study Manual (TSM)

DATE: 09/19/2022

Local Mobility Analysis (LMA)

The Local Mobility Analysis (LMA) evaluates the effects of a development project on mobility, access, circulation, and related safety elements in the proximate area of the project. The LMA has the following objectives:

- Ensures that improvements identified in the Community Plan that support multi-modal circulation and access are constructed when needed.
- Identifies improvements needed to support and promote active transportation and transit modes.
- Ensures the project provides connections to the active transportation network and transit system.
- Addresses issues related to operations and safety for all transportation modes.

DETERMINING STUDY REQUIREMENTS

Screening Criteria

All projects must complete an LMA unless they meet the following screening criteria:

- Consistent with community plan and zoning designation and generates less than 1,000 daily unadjusted driveway vehicle trips
- Inconsistent with community plan or zoning designation and generates less than 500 daily unadjusted driveway vehicle trips
- Within the Downtown Community Planning Area and generates less than 2,400 daily unadjusted trips.[5]

The screening criteria provided serve as a guide to determine study requirements. City staff may determine additional study requirements apply due to location, project complexity, local transportation system complexity, or other local context. For example, for development located within

[5] Projects that exceed this threshold shall comply with mitigation measure TRF-A.1.1-2 of the Downtown Community Plan & Downtown Mobility Plan FEIR/SEIR Mitigation Monitoring and Reporting Program.

the Coastal Overlay Zone, additional analysis may be required to assess project effects on public coastal access. City staff will provide a written response to the PIF and request a meeting with the applicant/consultant if the City has identified the need to perform an LMA despite meeting the screening criteria listed above.

Extents of Study

The extents of the LMA study will be determined for each mode as follows:

- Pedestrian: Documentation of pedestrian facilities and basic deficiencies (missing sidewalk, curb ramps, and major obstructions) within ½ mile walking distance measured from each pedestrian access point (for example, driveways, internal project sidewalk connections to the street, etc.).
- Bicycle: Documentation of bicycle facilities and basic deficiencies (bike lane gaps, obstructions) within ½ mile bicycling distance measured from the center of the intersection formed by each project driveway.
- Transit: Identification of the closest transit routes and stops to the project. If the transit stops are within ½ mile walking distance of each pedestrian access point, the condition of the stop amenities must be described/evaluated.
- Intersection Operations: Intersections are focal points within a mobility network where multiple modes interact and at times, conflict, in their movements. Understanding intersection operations is essential for understanding circulation and safety for all modes that traverse through the intersection.
    - For Projects that generate less than 2,400 daily final driveway[6] trips the typical study intersections are as follows:
        - All signalized intersections and signalized project driveways located within ½ mile path of travel distance measured from the center of the intersection formed by each project driveway AND the project will add 50 or more peak hour final primary (cumulative) trips[6] to any turning movement at the intersection.
        - All unsignalized intersections (side street stop controlled, all-way stop-controlled, and roundabouts) and unsignalized project driveways located within ½ mile path of travel distance measured from the center of the

[6] Refer to the trip generation chart in the Study Initiation chapter for trip generation definitions.

intersection formed by each project driveway AND the project will add 50 or more peak hour final primary (cumulative) trips[6] in either direction.

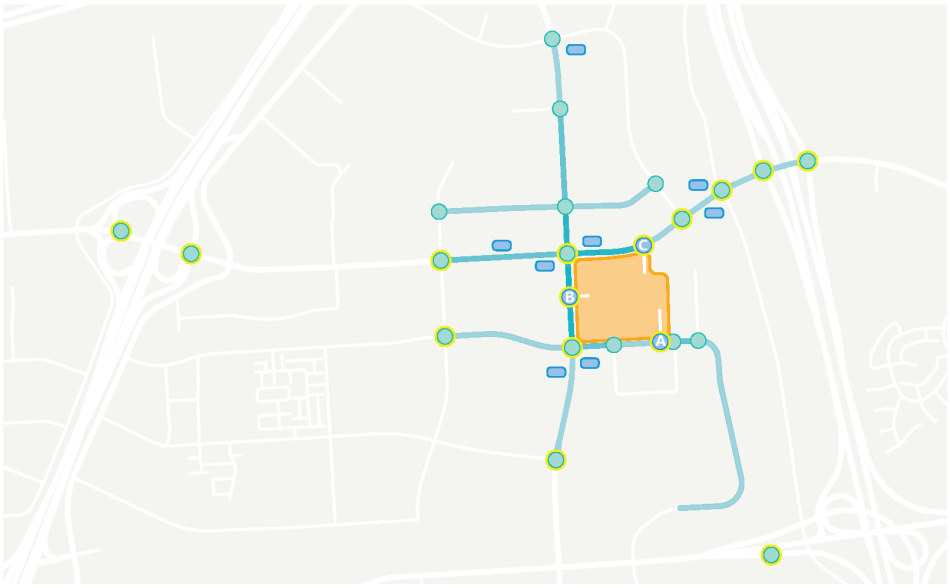
- All freeway ramp terminal intersections where a project adds 50 or more peak hour final primary (cumulative) (AM or PM)[6] net new trips in either direction must be analyzed regardless of their distance from the project site.

- For Projects that generate more than 2,400 daily final driveway[6] trips the typical study intersections are as follows:
  - All signalized intersections and signalized project driveways where the project will add 50 or more peak hour final primary (cumulative) trips[6] to any turning movement at the intersection.
  - All unsignalized intersections (side street stop controlled, all-way stop-controlled, and roundabouts) and unsignalized project driveways where the project will add 50 or more peak hour final primary (cumulative) trips[6] on any approach.
  - All freeway ramp terminal intersections where a project adds 50 or more peak hour final primary (cumulative) (AM or PM)[6] net new trips on any approach must be analyzed regardless of their distance from the project site.

- Roadway Segments: The study area should include any roadway segments where the project adds 1,000 or more daily final primary trips (cumulative trips)[6] if consistent with the Community Plan, or 500 or more daily final primary trips (cumulative trips) [6] if inconsistent with the Community Plan AND:
  - Have improvements identified in the community plan; OR
  - Not built to the community plan ultimate classification (including planned new circulation element roadways).
- City staff may determine additional study requirements apply due to location, project complexity, local transportation system complexity, or other local context.

For purposes of determining the extent of a the LMA, a project applicant may not segment or piecemeal project submittals to avoid studying a greater project area. If two or more adjacent and similar (in land uses and/or applicant/owner) are submitted as two separate projects within a two-year timeframe of each other, City staff may determine if a larger study area is needed based on the combined trip generation of the projects.

The following graphic provides additional guidance on determining the extents of the study for a project that generates less than 2,400 final daily driveway trips.



Defining Your Local Mobility Analysis Study Area for Projects that Generate Less than 2,400 ADT

B Determine the locations of project access driveways and pedestrian access points and mark.

Highlight roadway segments where the project would add 1,000 or more final daily primary trips (if consistent with GP/CP) or add 500 or more final daily primary trips (if inconsistent with GP/CP); AND has identified improvements in the community plan (including planned new circulation element roadways).

Identify all signalized and unsignalized (side street contolled or all way stop controlled) that overlap with the highlighted roadways including intersections created by the project driveways.

Determine your project's trip assignment to the intersections identified in the step above and to freeway ramp intersections.

Highlight those signalized intersections at which 50 or more peak hour final primary trips are added to any turning movement. Highlight those unsignalized intersections where 50 or more peak hour final primary trips are added in any direction. Highlight freeway ramp intersections where 50 or more peak hour final primary trips are added in any direction even if these ramps are more than 1/2 mile away. **These highlighted intersections are your study intersections.**

Your pedestrian and bicycle study area are roadways up to 1/2 mile from pedestrian and bicycle access points. In this example all driveways are also the pedestrian and bicycle access points; however a project may have a pedestrian/bicycle access point that is not a vehicular driveway.

Identify the closest transit routes and stops to the project. **Any transit stops within 1/2 mile walking distance from pedestrian access points will be analyzed for the condition of the stop amenities.**

Study Scenarios

The following scenarios should be evaluated for the LMA:

- Existing Conditions
- Opening Year No Project Conditions: Analysis of the project's opening year. The traffic volumes should include any reasonably foreseeable projects and/or other ambient growth (background traffic that occurs naturally due to general population growth). Historical growth rates should be used to estimate ambient growth.

- Opening Year Plus Project Conditions: Analysis of the opening year volumes generated in the step above plus the project generated traffic.
- Phased Analysis: If the project is a large multi-phased development in which several stages of development activity are planned, each phase of the project may need to be evaluated to coincide with each major stage of development or increment of area transportation improvements. For example: Existing, Opening Year of Phase 1, Opening Year of Phase 2, etc.
- Horizon Year Analysis (Community Plan Amendments or Rezones): If the project requires a Community Plan Amendment or a rezone, community buildout horizon year analysis may be required. Coordinate with the Development Services Department's Transportation Development Section staff for study scenario requirements related to Community Plan Amendments or rezones.

Study Periods

The following study periods shall be analyzed:

- The morning and afternoon peak commute hours are analyzed, unless the land use is atypical and an alternate/additional study period is identified by City Staff. The peak hours are based on traffic counts (the procedure for collecting counts is described in the following section). For typical commute hours, the peak hour will fall between 7:00-9:00 AM and 4:00-6:00 PM.
- For areas in the Coastal Overlay Zone near the shoreline, major coastal access routes, regional public parks, beaches or Mission Bay the peak hours are during summer months (between Memorial Day and Labor Day, when public schools are not in session) and include weekdays and weekends during heaviest coastal visitation hours (typically late morning and early afternoon), unless the project has no potential to affect public access and an alternate/additional study period is identified by City Staff.
- Other timeframes may be required based on the project land uses and unique characteristics of the project.

CONDUCTING THE LOCAL MOBILITY ANALYSIS

Identifying Existing Conditions

A project is required to document the existing conditions of the local mobility system in the study area as identified in the "Extents of Study" section above, including field observations of biking, walking, transit, and roadway conditions/operations during study periods.

Existing conditions may include, but are not limited to, the following areas:

- Field Reconnaissance of:
    - Pedestrian facilities and observations on use of facilities
    - Bicycle facilities and observations on use of facilities
    - Location of nearby transit stops and observations of use of facilities
    - Roadway configurations, geometric features, sight distance, intersection lane configurations, intersection operations, presence of closely spaced or offset driveways or intersections, uneven lane utilization
    - Length of available turn lane storage and observations of typical maximum vehicle queues
    - Confirmation of traffic signal phasing and timing (from plans obtained from the City or Caltrans)
    - Adjacent land uses
    - Ramp meter queues and spill back onto local streets
- Transportation Data Collection
    - New transportation data is required if available data is older than two years, or if warranted by other changes in built environment conditions.
    - Pedestrian Counts: For each crosswalk leg at each study intersection.
    - Bicycle Counts: Turning movement counts at each study intersection.
    - Transit stations, routes, provision of bus-only lanes and/or turn-outs, and schedules.
    - Study period traffic counts: For typical commute hours, intersection turning movement data should be collected on Tuesday, Wednesday, or Thursday between 7:00-9:00 AM and 4:00-6:00 PM during non-holiday periods and not on the week of a holiday under fair

weather conditions. Counts should be taken when school is in session. Any intersection counts should include pedestrian and bicycle counts. For areas in the Coastal Overlay Zone near the shoreline, major coastal access routes, regional public parks, beaches or Mission Bay, counts should be taken during summer months (between Memorial Day and Labor Day when public school is not in session) and include both typical commute hours and weekends during heaviest coastal visitation hours, or should be adjusted to reflect typical summer conditions. Any deviation should be discussed with City Staff.

- If the project is a redevelopment project of which the existing uses are in operation at the time that the transportation data is collected, the trips associated with the existing use should be calculated by conducting driveway counts at all existing site driveways. The site trips should then be distributed to the study intersections and subtracted from the intersection traffic counts to represent the traffic volumes that would be present if the existing use were not in operation.

Analysis Methodology

Pedestrian Analysis

Pedestrian analysis should primarily focus on pedestrian connectivity, walkshed analysis, presence of adequate facilities, etc. However, in dense, urban environments featuring substantial pedestrian volumes, analysis of pedestrian facilities (i.e., sidewalks and crosswalks) may be required in accordance with the latest version of the HCM. Mid-block pedestrian crossing treatments should also be evaluated using available research and recommendations. Applicants should coordinate with the Development Services Department's Transportation Development Section on the need to perform HCM pedestrian analysis.

Bicycle Analysis

Project effects on existing and proposed bicycle facilities should be reviewed in consideration of the following:

- Bicycle analysis should primarily focus on bicycle connectivity, bikeshed analysis, presence of adequate facilities, etc.
- Consistency with the City's Bicycle Master Plan and the Community's Bicycle Mobility Element
- On-site bike parking supply as well as bikeshare bicycles that may be parked/stored on public sidewalks

Transit Analysis

Project effects on the transportation system should be evaluated in consideration of the following:

- Increased travel time for buses that could adversely affect on-time performance (intersection delay, corridor delay, movement delay (for transit))
- Conflicts (e.g., weaving, sight distance, etc.) involving buses at stop due to nearby driveways
- Planned and/or proposed transit improvements and stops identified in community plans, the RTIP and/or RTP within the study area

Project effects on transit system ridership is not typically considered an issue but may be evaluated under special circumstances (e.g., new office building along a bus line that already has substantial peak period ridership).

Systemic Safety Review

Study intersections should be compared to the City of San Diego Systemic Safety: The Data-Driven Path to Vision Zero [7] report to determine if a study intersection meets any hot spot criteria identified in Appendix C: Identification of Systemic Hotspots of the report. If a study intersection meets any of the criteria, the applicant should evaluate any potential countermeasures and coordinate with the Development Services Department Transportation Development Section staff to determine appropriate intersection improvements.

Signalized Intersections

Traffic operational impacts at signalized intersections shall be analyzed using standard or state-of-the-practice procedures consistent with the latest edition of the Highway Capacity Manual (HCM) published by the Transportation Research Board.

The following provides general guidelines for the parameters necessary to perform the analysis. For existing and opening year conditions within five years of commencement of the LMA, the parameters should generally be based on field measurements taken during traffic data collection or field

[7] https://www.sandiego.gov/sites/default/files/systemic-safety-the-data-driven-path-to-vision-zero.pdf

Appendix E

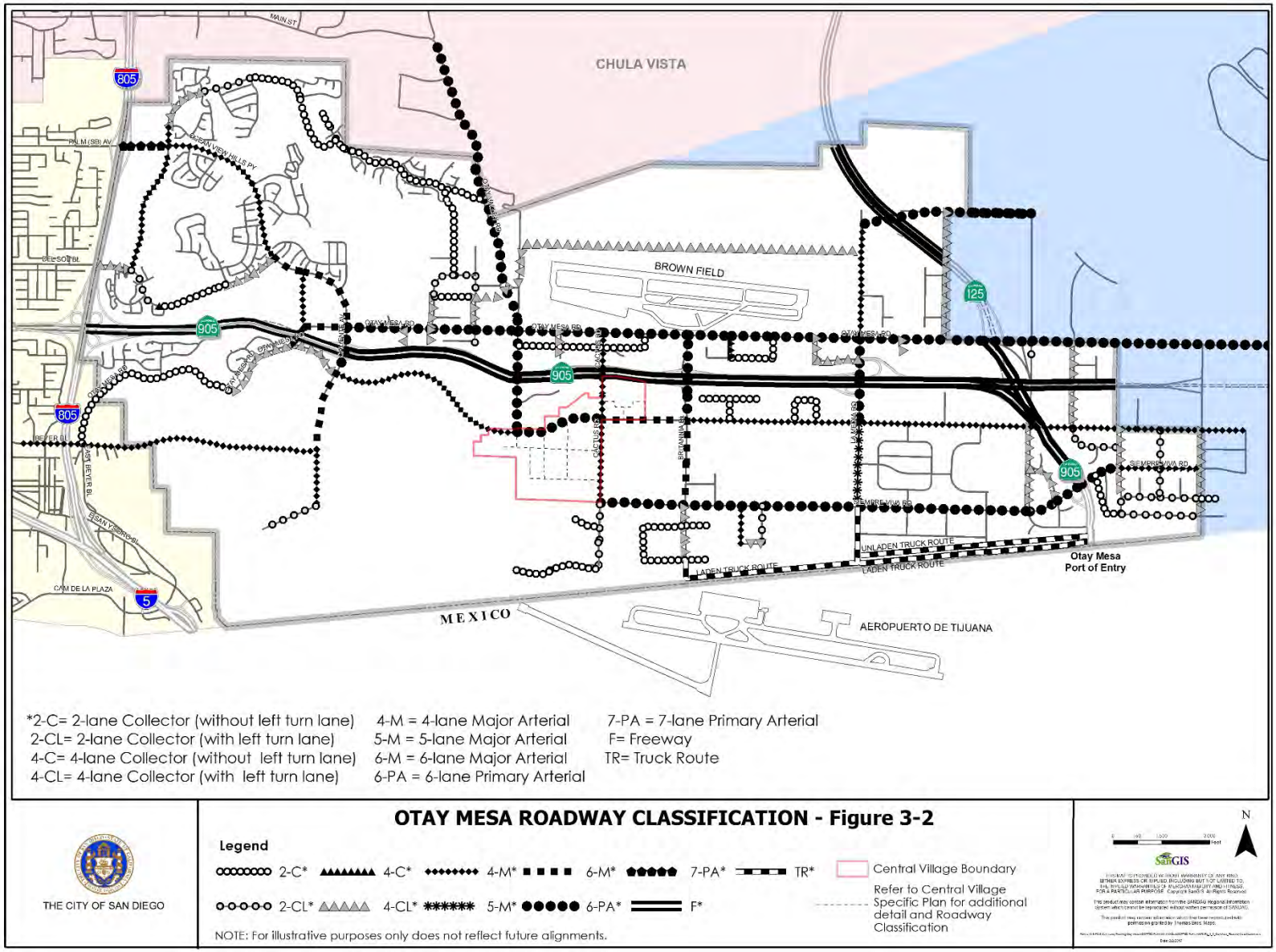
City of San Diego Community Roadway Classification Map

Attachment 2 Otay Village VTM-1 LMA Appendix

OTAY MESA COMMUNITY PLAN

Amendment	Date Approved by Planning Commission	Resolution Number	Date Adopted by City Council	Resolution Number
Otay Mesa Community Plan Adopted	February 13, 2014		March 11, 2014	R-308810
Corrections to address inconsistencies between the Land Use and Zoning Map. Minor map and text corrections to show land use and the removal of paper streets from map figures	April 30, 2015	R-4685	June 2, 2015	R-309773
Otay Mesa Central Village Specific Plan Adopted	February 23, 2017		April 13, 2017	R-311020

Editor's note: After the adoption of the Otay Mesa Community Plan, it was noticed that Figure 3-2 depicted the street classifications for Otay Pacific Drive, Otay Pacific Place, and Las Californias incorrectly; these streets were classified pursuant to City Council Resolution R-307235 on January 10, 2012, which the reclassification was not captured in all places in the Otay Mesa Community Update documents, including Figure 3-2; and therefore, Figure 3-2 in Document Number R-308810 is replaced with Figure 3-2.


CHULA VISTA
MEXICO
BROWN FIELD
Otay Mesa
Port of Entry
AEROPUERTO DE TIJUANA
805
905
125
5
MAIN ST
PALM (SB) AV
OLYMPIC PKWY
DEL SOL BL
OTAY VALLEY RD
OTAY MESA RD
HEATHER RD
CACTUS RD
PIONEER WAY
LA MESA BL
SIEMPRE VIVA RD
UNLADEN TRUCK ROUTE
LADEN TRUCK ROUTE
PIONEER PL
WEST BEYER BL
EAST BEYER BL
SAN YSIDRO BL
CAM DE LA PLAZA
*2-C= 2-lane Collector (without left turn lane)
2-CL= 2-lane Collector (with left turn lane)
4-C= 4-lane Collector (without left turn lane)
4-CL= 4-lane Collector (with left turn lane)
4-M = 4-lane Major Arterial
5-M = 5-lane Major Arterial
6-M = 6-lane Major Arterial
6-PA = 6-lane Primary Arterial
7-PA = 7-lane Primary Arterial
F= Freeway
TR= Truck Route
OTAY MESA ROADWAY CLASSIFICATION - Figure 3-2
THE CITY OF SAN DIEGO
Legend
2-C*
4-C*
4-M*
6-M*
7-PA*
TR*
2-CL*
4-CL*
5-M*
6-PA*
F*
Central Village Boundary
Refer to Central Village Specific Plan for additional detail and Roadway Classification
NOTE: For illustrative purposes only does not reflect future alignments.
N
SanGIS

Appendix F

Count Data

PO Box 1178
Corona, CA 92880
951-268-6268

Location: San Diego
N/S: Ocean View / Caliente
E/W: Otay Mesa Road

Date: 2/10/2022
Day: THURSDAY
Project # 143-22119

TURNING MOVEMENT COUNT

Count Period: **7:00 AM to 9:00 AM**
Peak Hour: **7:45 AM to 8:45 AM**

Vehicle Counts

	Ocean View / Caliente Northbound			Ocean View / Caliente Southbound			Otay Mesa Road Eastbound			Otay Mesa Road Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
7:00 AM	5	40	86	20	57	0	0	5	29	49	4	16	311
7:15 AM	7	48	95	22	101	1	1	2	36	50	2	16	381
7:30 AM	6	94	117	33	107	0	0	4	23	46	3	19	452
7:45 AM	5	92	157	35	117	1	0	2	18	62	3	30	522
8:00 AM	6	112	152	45	152	0	3	4	22	68	1	25	590
8:15 AM	14	168	126	49	153	0	0	1	25	81	3	31	651
8:30 AM	11	94	132	71	124	0	0	2	20	76	6	26	562
8:45 AM	7	43	129	35	48	0	0	3	16	90	2	24	397
TOTAL VOLUMES:	61	691	994	310	859	2	4	23	189	522	24	187	3866

AM Peak Hr Begins at: 745 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	36	466	567	200	546	1	3	9	85	287	13	112	2325

PEAK HR FACTOR:	0.868	0.925	0.836	0.896	0.893

Bicycle Counts

	Ocean View / Caliente Northbound			Ocean View / Caliente Southbound			Otay Mesa Road Eastbound			Otay Mesa Road Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
7:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	2
7:15 AM	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	1	1
7:45 AM	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
8:15 AM	0	0	0	0	1	0	0	0	2	0	0	0	3
8:30 AM	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
TOTAL VOLUMES:	0	0	0	0	1	2	0	0	2	0	0	1	6

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	0	0	0	0	1	0	0	0	2	0	0	0	3

Pedestrian Counts

	Ocean View / Caliente North Leg	Ocean View / Caliente South Leg	Otay Mesa Road East Leg	Otay Mesa Road West Leg	TOTAL
7:00 AM	1	0	0	1	2
7:15 AM	0	0	0	1	1
7:30 AM	3	0	0	6	9
7:45 AM	2	0	0	3	5
8:00 AM	9	0	0	10	19
8:15 AM	11	0	0	19	30
8:30 AM	4	0	0	5	9
8:45 AM	1	0	0	1	2
TOTAL VOLUMES:	31	0	0	46	77

	North Leg	South Leg	East Leg	West Leg	TOTAL
PEAK VOLUMES:	26	0	0	37	63

PO Box 1178
Corona, CA 92880
951-268-6268

Location: San Diego
N/S: Ocean View / Caliente
E/W: Otay Mesa Road

Date: 2/10/2022
Day: THURSDAY
Project # 143-22119

TURNING MOVEMENT COUNT

Count Period: **4:00 PM to 6:00 PM**
Peak Hour: **4:45 PM to 5:45 PM**

Vehicle Counts

	Ocean View / Caliente Northbound			Ocean View / Caliente Southbound			Otay Mesa Road Eastbound			Otay Mesa Road Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
4:00 PM	29	82	83	31	71	0	0	1	15	135	4	53	504
4:15 PM	16	72	79	31	70	1	1	3	10	143	5	44	475
4:30 PM	16	65	77	20	49	0	1	2	14	141	7	41	433
4:45 PM	11	92	87	33	67	1	1	3	4	130	3	38	470
5:00 PM	14	107	56	29	64	0	2	2	12	147	14	77	524
5:15 PM	16	96	76	39	65	1	2	2	18	145	3	53	516
5:30 PM	20	84	57	38	66	0	2	2	13	165	3	54	504
5:45 PM	18	89	55	31	59	1	1	1	18	114	8	44	439
TOTAL VOLUMES:	140	687	570	252	511	4	10	16	104	1120	47	404	3865

PM Peak Hr Begins at: 445 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	61	379	276	139	262	2	7	9	47	587	23	222	2014

PEAK HR FACTOR:	0.942	0.960	0.716	0.874	0.961

Bicycle Counts

	Ocean View / Caliente Northbound			Ocean View / Caliente Southbound			Otay Mesa Road Eastbound			Otay Mesa Road Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	1	0	0	0	1	0	0	0	0	1	3
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	1	2
5:15 PM	0	0	1	0	0	0	0	0	0	2	0	0	3
5:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	2	1	0	0	1	0	0	2	0	3	10

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	0	1	2	1	0	0	1	0	0	2	0	2	9

Pedestrian Counts

	Ocean View / Caliente North Leg	Ocean View / Caliente South Leg	Otay Mesa Road East Leg	Otay Mesa Road West Leg	TOTAL
4:00 PM	5	0	0	9	14
4:15 PM	4	0	0	6	10
4:30 PM	0	0	0	4	4
4:45 PM	3	0	0	6	9
5:00 PM	3	0	0	2	5
5:15 PM	5	0	0	9	14
5:30 PM	2	0	0	3	5
5:45 PM	0	0	0	2	2
TOTAL VOLUMES:	22	0	0	41	63

	North Leg	South Leg	East Leg	West Leg	TOTAL
PEAK VOLUMES:	13	0	0	20	33

PO Box 1178
Corona, CA 92880
951-268-6268

Location: San Diego
N/S: Caliente Avenue
E/W: SR-905 WB Ramps

Date: 2/10/2022
Day: THURSDAY
Project # 143-22119

TURNING MOVEMENT COUNT

Count Period: **7:00 AM to 9:00 AM**
Peak Hour: **7:45 AM to 8:45 AM**

Vehicle Counts

	Caliente Avenue Northbound			Caliente Avenue Southbound			SR-905 WB Ramps Eastbound			SR-905 WB Ramps Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
7:00 AM	67	135	0	0	36	101	0	0	0	6	0	3	348
7:15 AM	65	132	0	0	69	103	0	0	0	10	0	9	388
7:30 AM	83	217	0	0	60	102	0	0	0	7	0	8	477
7:45 AM	72	255	0	0	96	114	0	0	0	11	0	9	557
8:00 AM	112	253	0	0	132	101	0	0	0	5	1	15	619
8:15 AM	120	302	0	0	156	106	0	0	0	13	0	16	713
8:30 AM	115	211	0	0	77	148	0	0	0	5	2	12	570
8:45 AM	45	166	0	0	57	110	0	0	0	12	1	12	403
TOTAL VOLUMES:	679	1671	0	0	683	885	0	0	0	69	4	84	4075

AM Peak Hr Begins at: 745 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	419	1021	0	0	461	469	0	0	0	34	3	52	2459

PEAK HR FACTOR:	0.853	0.887	0.000	0.767	0.862

Bicycle Counts

	Caliente Avenue Northbound			Caliente Avenue Southbound			SR-905 WB Ramps Eastbound			SR-905 WB Ramps Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	1	2
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	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
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	3	0	0	0	0	0	0	0	3
8:30 AM	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
TOTAL VOLUMES:	0	2	0	0	3	0	0	0	0	0	0	1	6

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	0	0	0	0	3	0	0	0	0	0	0	0	3

Pedestrian Counts

	Caliente Avenue North Leg	Caliente Avenue South Leg	SR-905 WB Ramps East Leg	SR-905 WB Ramps West Leg	TOTAL
7:00 AM	0	0	0	2	2
7:15 AM	0	0	0	5	5
7:30 AM	0	0	0	5	5
7:45 AM	0	0	0	4	4
8:00 AM	0	0	0	36	36
8:15 AM	0	0	0	38	38
8:30 AM	0	0	1	9	10
8:45 AM	0	0	0	15	15
TOTAL VOLUMES:	0	0	1	114	115

	North Leg	South Leg	East Leg	West Leg	TOTAL
PEAK VOLUMES:	0	0	1	87	88

PO Box 1178
Corona, CA 92880
951-268-6268

Location: San Diego
N/S: Caliente Avenue
E/W: SR-905 WB Ramps

Date: 2/10/2022
Day: THURSDAY
Project # 143-22119

TURNING MOVEMENT COUNT

Count Period: **4:00 PM to 6:00 PM**
Peak Hour: **4:45 PM to 5:45 PM**

Vehicle Counts

	Caliente Avenue Northbound			Caliente Avenue Southbound			SR-905 WB Ramps Eastbound			SR-905 WB Ramps Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
4:00 PM	73	166	0	0	73	144	0	0	0	16	2	22	496
4:15 PM	53	150	0	0	72	163	0	0	0	6	0	27	471
4:30 PM	41	145	0	0	65	154	0	0	0	17	0	17	439
4:45 PM	41	162	0	0	74	133	0	0	0	16	0	20	446
5:00 PM	63	157	0	0	75	144	0	0	0	11	0	23	473
5:15 PM	57	175	0	0	61	179	0	0	0	16	0	15	503
5:30 PM	47	150	0	0	87	170	0	0	0	7	0	10	471
5:45 PM	50	144	0	0	64	125	0	0	0	7	0	25	415
TOTAL VOLUMES:	425	1249	0	0	571	1212	0	0	0	96	2	159	3714

PM Peak Hr Begins at: 445 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	208	644	0	0	297	626	0	0	0	50	0	68	1893

PEAK HR FACTOR:	0.918	0.898	0.000	0.819	0.941

Bicycle Counts

	Caliente Avenue Northbound			Caliente Avenue Southbound			SR-905 WB Ramps Eastbound			SR-905 WB Ramps Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
5:30 PM	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
TOTAL VOLUMES:	0	2	0	0	2	0	0	0	0	0	0	0	4

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	0	2	0	0	2	0	0	0	0	0	0	0	4

Pedestrian Counts

	Caliente Avenue North Leg	Caliente Avenue South Leg	SR-905 WB Ramps East Leg	SR-905 WB Ramps West Leg	TOTAL
4:00 PM	0	0	0	25	25
4:15 PM	0	0	0	30	30
4:30 PM	1	0	0	16	17
4:45 PM	0	0	1	8	9
5:00 PM	0	0	0	26	26
5:15 PM	0	0	0	12	12
5:30 PM	0	0	0	6	6
5:45 PM	0	0	0	6	6
TOTAL VOLUMES:	1	0	1	129	131

	North Leg	South Leg	East Leg	West Leg	TOTAL
PEAK VOLUMES:	0	0	1	52	53

PO Box 1178
Corona, CA 92880
951-268-6268

Location: San Diego
N/S: Caliente Avenue
E/W: SR-905 EB Ramps

Date: 2/10/2022
Day: THURSDAY
Project # 143-22119

TURNING MOVEMENT COUNT

Count Period: **7:00 AM to 9:00 AM**
Peak Hour: **7:45 AM to 8:45 AM**

Vehicle Counts

	Caliente Avenue Northbound			Caliente Avenue Southbound			SR-905 EB Ramps Eastbound			SR-905 EB Ramps Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
7:00 AM	0	92	4	23	19	0	99	0	24	0	0	0	261
7:15 AM	0	92	21	20	57	0	109	0	60	0	0	0	359
7:30 AM	0	135	21	25	53	0	156	0	55	0	0	0	445
7:45 AM	0	119	24	38	63	0	202	1	65	0	0	0	512
8:00 AM	0	182	18	27	115	0	170	0	137	0	0	0	649
8:15 AM	0	259	18	26	133	0	151	0	145	0	0	0	732
8:30 AM	0	190	19	17	54	0	135	0	61	0	0	0	476
8:45 AM	0	72	14	28	39	0	142	0	36	0	0	0	331
TOTAL VOLUMES:	0	1141	139	204	533	0	1164	1	583	0	0	0	3765

AM Peak Hr Begins at: 745 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	0	750	79	108	365	0	658	1	408	0	0	0	2369

PEAK HR FACTOR:	0.748	0.744	0.869	0.000	0.809

Bicycle Counts

	Caliente Avenue Northbound			Caliente Avenue Southbound			SR-905 EB Ramps Eastbound			SR-905 EB Ramps Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	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
7:45 AM	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
8:15 AM	0	0	0	0	3	0	0	0	0	0	0	0	3
8:30 AM	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
TOTAL VOLUMES:	0	1	0	0	3	0	0	0	0	0	0	0	4

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	0	0	0	0	3	0	0	0	0	0	0	0	3

Pedestrian Counts

	Caliente Avenue North Leg	Caliente Avenue South Leg	SR-905 EB Ramps East Leg	SR-905 EB Ramps West Leg	TOTAL
7:00 AM	0	0	0	2	2
7:15 AM	0	0	0	3	3
7:30 AM	0	0	0	6	6
7:45 AM	0	0	0	4	4
8:00 AM	0	0	0	33	33
8:15 AM	0	0	0	46	46
8:30 AM	0	1	0	10	11
8:45 AM	0	0	0	14	14
TOTAL VOLUMES:	0	1	0	118	119

	North Leg	South Leg	East Leg	West Leg	TOTAL
PEAK VOLUMES:	0	1	0	93	94

PO Box 1178
Corona, CA 92880
951-268-6268

Location: San Diego
N/S: Caliente Avenue
E/W: SR-905 EB Ramps

Date: 2/10/2022
Day: THURSDAY
Project # 143-22119

TURNING MOVEMENT COUNT

Count Period: **4:00 PM to 6:00 PM**
Peak Hour: **4:45 PM to 5:45 PM**

Vehicle Counts

	Caliente Avenue Northbound			Caliente Avenue Southbound			SR-905 EB Ramps Eastbound			SR-905 EB Ramps Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
4:00 PM	0	92	13	31	54	0	153	0	58	0	0	0	401
4:15 PM	0	67	6	27	52	0	127	1	60	0	0	0	340
4:30 PM	0	64	11	23	51	0	131	0	51	0	0	0	331
4:45 PM	0	64	4	30	62	0	129	0	75	0	0	0	364
5:00 PM	0	101	8	17	67	0	119	2	71	0	0	0	385
5:15 PM	0	71	2	23	54	0	164	0	67	0	0	0	381
5:30 PM	0	71	7	29	62	0	126	0	70	0	0	0	365
5:45 PM	0	80	7	21	50	0	109	0	74	0	0	0	341
TOTAL VOLUMES:	0	610	58	201	452	0	1058	3	526	0	0	0	2908

PM Peak Hr Begins at: 445 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	0	307	21	99	245	0	538	2	283	0	0	0	1495

PEAK HR FACTOR:	0.752	0.935	0.891	0.000	0.971

Bicycle Counts

	Caliente Avenue Northbound			Caliente Avenue Southbound			SR-905 EB Ramps Eastbound			SR-905 EB Ramps Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
5:30 PM	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
TOTAL VOLUMES:	0	3	0	0	2	0	0	0	0	0	0	0	5

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	0	3	0	0	2	0	0	0	0	0	0	0	5

Pedestrian Counts

	Caliente Avenue North Leg	Caliente Avenue South Leg	SR-905 EB Ramps East Leg	SR-905 EB Ramps West Leg	TOTAL
4:00 PM	0	0	0	30	30
4:15 PM	0	0	0	20	20
4:30 PM	0	0	0	12	12
4:45 PM	0	0	0	8	8
5:00 PM	0	0	0	30	30
5:15 PM	0	2	0	7	9
5:30 PM	0	0	0	7	7
5:45 PM	0	0	0	6	6
TOTAL VOLUMES:	0	2	0	120	122

	North Leg	South Leg	East Leg	West Leg	TOTAL
PEAK VOLUMES:	0	2	0	52	54

PO Box 1178
Corona, CA 92880
951-268-6268

Location: San Diego
N/S: Caliente Avenue
E/W: Airway Road

Date: 2/10/2022
Day: THURSDAY
Project # 143-22119

TURNING MOVEMENT COUNT

Count Period: **7:00 AM to 9:00 AM**
Peak Hour: **7:45 AM to 8:45 AM**

Vehicle Counts

	Caliente Avenue Northbound			Caliente Avenue Southbound			Airway Road Eastbound			Airway Road Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
7:00 AM	1	3	0	6	5	32	63	0	1	2	0	39	152
7:15 AM	1	19	1	5	31	84	79	1	2	1	0	27	251
7:30 AM	1	13	0	17	18	71	96	0	1	1	3	33	254
7:45 AM	1	21	1	8	45	77	90	2	1	0	3	42	291
8:00 AM	5	59	1	19	102	127	111	1	5	0	2	38	470
8:15 AM	14	92	0	20	124	133	136	1	12	0	0	36	568
8:30 AM	7	68	0	12	40	66	112	3	8	0	1	24	341
8:45 AM	1	8	0	24	7	43	45	0	1	0	0	19	148
TOTAL VOLUMES:	31	283	3	111	372	633	732	8	31	4	9	258	2475

AM Peak Hr Begins at: 745 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	27	240	2	59	311	403	449	7	26	0	6	140	1670

PEAK HR FACTOR:	0.634	0.698	0.809	0.811	0.735

Bicycle Counts

	Caliente Avenue Northbound			Caliente Avenue Southbound			Airway Road Eastbound			Airway Road Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
7:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
7:15 AM	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
7:45 AM	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
8:15 AM	0	0	0	0	2	1	0	0	0	0	0	0	3
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	1
TOTAL VOLUMES:	0	0	0	0	2	1	2	0	0	0	0	0	5

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	0	0	0	0	2	1	0	0	0	0	0	0	3

Pedestrian Counts

	Caliente Avenue North Leg	Caliente Avenue South Leg	Airway Road East Leg	Airway Road West Leg	TOTAL
7:00 AM	1	5	1	6	13
7:15 AM	1	2	0	17	20
7:30 AM	0	3	0	27	30
7:45 AM	2	1	0	33	36
8:00 AM	1	5	1	60	67
8:15 AM	2	15	7	129	153
8:30 AM	2	5	1	28	36
8:45 AM	0	0	1	25	26
TOTAL VOLUMES:	9	36	11	325	381

	North Leg	South Leg	East Leg	West Leg	TOTAL
PEAK VOLUMES:	7	26	9	250	292

PO Box 1178
Corona, CA 92880
951-268-6268

Location: San Diego
N/S: Caliente Avenue
E/W: Airway Road

Date: 2/10/2022
Day: THURSDAY
Project # 143-22119

TURNING MOVEMENT COUNT

Count Period: **4:00 PM to 6:00 PM**
Peak Hour: **5:00 PM to 6:00 PM**

Vehicle Counts

	Caliente Avenue Northbound			Caliente Avenue Southbound			Airway Road Eastbound			Airway Road Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
4:00 PM	3	21	0	37	8	71	54	1	1	1	3	27	227
4:15 PM	1	9	1	30	6	70	50	3	1	0	1	22	194
4:30 PM	1	4	0	24	5	78	38	1	0	0	0	24	175
4:45 PM	0	7	0	36	4	96	40	1	0	1	3	24	212
5:00 PM	0	5	0	28	4	103	73	1	1	0	2	20	237
5:15 PM	2	7	0	37	3	87	44	0	0	0	4	18	202
5:30 PM	1	4	0	32	3	94	57	0	2	0	2	19	214
5:45 PM	2	3	0	43	2	81	58	4	0	0	3	29	225
TOTAL VOLUMES:	10	60	1	267	35	680	414	11	5	2	18	183	1686

PM Peak Hr Begins at: 500 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	5	19	0	140	12	365	232	5	3	0	11	86	878

PEAK HR FACTOR:	0.667	0.957	0.800	0.758	0.926

Bicycle Counts

	Caliente Avenue Northbound			Caliente Avenue Southbound			Airway Road Eastbound			Airway Road Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	2
5:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	2
5:30 PM	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
TOTAL VOLUMES:	0	0	0	0	0	3	3	0	0	0	0	0	6

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	0	0	0	0	0	2	2	0	0	0	0	0	4

Pedestrian Counts

	Caliente Avenue North Leg	Caliente Avenue South Leg	Airway Road East Leg	Airway Road West Leg	TOTAL
4:00 PM	0	7	0	34	41
4:15 PM	1	6	2	14	23
4:30 PM	0	6	1	11	18
4:45 PM	0	9	1	8	18
5:00 PM	2	7	4	37	50
5:15 PM	1	3	3	5	12
5:30 PM	2	3	5	5	15
5:45 PM	0	3	0	2	5
TOTAL VOLUMES:	6	44	16	116	182

	North Leg	South Leg	East Leg	West Leg	TOTAL
PEAK VOLUMES:	5	16	12	49	82

PO Box 1178
Corona, CA 92880
951-268-6268

Location: San Diego
N/S: Otay Mesa / Beyer
E/W: Beyer Boulevard

Date: 2/10/2022
Day: THURSDAY
Project # 143-22119

TURNING MOVEMENT COUNT

Count Period: **7:00 AM to 9:00 AM**
Peak Hour: **7:30 AM to 8:30 AM**

Vehicle Counts

	Otay Mesa / Beyer Northbound			Otay Mesa / Beyer Southbound			Beyer Boulevard Eastbound			Beyer Boulevard Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
7:00 AM	14	19	1	0	24	14	19	0	18	2	1	0	112
7:15 AM	17	36	1	0	20	42	50	1	27	2	2	0	198
7:30 AM	19	42	1	0	33	66	81	1	25	3	4	3	278
7:45 AM	29	89	1	0	52	96	135	5	53	2	1	1	464
8:00 AM	22	61	1	0	46	97	141	3	37	2	7	1	418
8:15 AM	23	46	1	0	40	95	125	3	28	4	3	1	369
8:30 AM	16	12	3	3	42	79	47	3	26	2	0	2	235
8:45 AM	10	13	1	1	21	39	21	3	17	1	5	0	132
TOTAL VOLUMES:	150	318	10	4	278	528	619	19	231	18	23	8	2206

AM Peak Hr Begins at: 730 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	93	238	4	0	171	354	482	12	143	11	15	6	1529

PEAK HR FACTOR:	0.704	0.887	0.825	0.800	0.824

Bicycle Counts

	Otay Mesa / Beyer Northbound			Otay Mesa / Beyer Southbound			Beyer Boulevard Eastbound			Beyer Boulevard Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	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
7:45 AM	0	0	1	0	0	0	1	0	0	0	0	0	2
8:00 AM	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
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	2
TOTAL VOLUMES:	0	0	1	0	1	0	3	0	0	0	0	0	5

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	0	0	1	0	0	0	1	0	0	0	0	0	2

Pedestrian Counts

	Otay Mesa / Beyer North Leg	Otay Mesa / Beyer South Leg	Beyer Boulevard East Leg	Beyer Boulevard West Leg	TOTAL
7:00 AM	0	2	2	0	4
7:15 AM	5	5	6	1	17
7:30 AM	7	16	19	4	46
7:45 AM	9	5	7	2	23
8:00 AM	3	4	4	5	16
8:15 AM	0	2	5	1	8
8:30 AM	0	0	2	1	3
8:45 AM	6	1	0	2	9
TOTAL VOLUMES:	30	35	45	16	126

	North Leg	South Leg	East Leg	West Leg	TOTAL
PEAK VOLUMES:	19	27	35	12	93

PO Box 1178
Corona, CA 92880
951-268-6268

Location: San Diego
N/S: Otay Mesa / Beyer
E/W: Beyer Boulevard

Date: 2/10/2022
Day: THURSDAY
Project # 143-22119

TURNING MOVEMENT COUNT

Count Period: **4:00 PM to 6:00 PM**
Peak Hour: **4:45 PM to 5:45 PM**

Vehicle Counts

	Otay Mesa / Beyer Northbound			Otay Mesa / Beyer Southbound			Beyer Boulevard Eastbound			Beyer Boulevard Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
4:00 PM	14	14	5	0	26	43	48	0	38	4	2	0	194
4:15 PM	23	10	5	0	27	36	42	2	24	2	3	1	175
4:30 PM	20	23	3	0	19	27	24	3	44	2	2	0	167
4:45 PM	20	14	0	0	22	39	36	6	44	4	1	1	187
5:00 PM	20	23	2	0	38	66	37	3	47	0	1	0	237
5:15 PM	17	11	1	0	26	36	25	3	49	3	1	0	172
5:30 PM	18	23	2	1	23	28	32	6	38	2	4	0	177
5:45 PM	21	10	4	0	20	27	30	3	37	3	1	0	156
TOTAL VOLUMES:	153	128	22	1	201	302	274	26	321	20	15	2	1465

PM Peak Hr Begins at: 445 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	75	71	5	1	109	169	130	18	178	9	7	1	773

PEAK HR FACTOR:	0.839	0.671	0.937	0.708	0.815

Bicycle Counts

	Otay Mesa / Beyer Northbound			Otay Mesa / Beyer Southbound			Beyer Boulevard Eastbound			Beyer Boulevard Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
4:00 PM	0	0	0	0	0	2	0	0	0	1	0	0	3
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	1	0	0	0	0	2	0	0	0	0	0	3
5:00 PM	0	0	0	0	0	1	0	1	0	0	0	1	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	2	0	0	0	5	2	1	0	1	0	1	12

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	0	1	0	0	0	3	2	1	0	0	0	1	8

Pedestrian Counts

	Otay Mesa / Beyer North Leg	Otay Mesa / Beyer South Leg	Beyer Boulevard East Leg	Beyer Boulevard West Leg	TOTAL
4:00 PM	2	1	1	1	5
4:15 PM	3	1	2	0	6
4:30 PM	0	0	2	0	2
4:45 PM	1	1	4	0	6
5:00 PM	1	3	3	0	7
5:15 PM	4	0	0	0	4
5:30 PM	0	1	1	1	3
5:45 PM	1	0	1	0	2
TOTAL VOLUMES:	12	7	14	2	35

	North Leg	South Leg	East Leg	West Leg	TOTAL
PEAK VOLUMES:	6	5	8	1	20

PO Box 1178
Corona, CA 92880
951-268-6268

Location: San Diego
N/S: Enright Drive
E/W: Beyer Boulevard

Date: 2/10/2022
Day: THURSDAY
Project # 143-22119

TURNING MOVEMENT COUNT

Count Period: **7:00 AM to 9:00 AM**
Peak Hour: **7:00 AM to 8:00 AM**

Vehicle Counts

	Enright Drive Northbound			Enright Drive Southbound			Beyer Boulevard Eastbound			Beyer Boulevard Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	2	0	0	0	0	0	0	0	1	0	0	0	3
7:45 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	2	0	0	0	0	0	0	0	1	0	0	0	3
8:30 AM	1	0	0	0	0	0	0	0	2	0	0	0	3
8:45 AM	0	0	0	0	0	0	0	0	2	0	0	0	2
TOTAL VOLUMES:	7	0	0	0	0	0	0	0	7	0	0	0	14

AM Peak Hr Begins at: 800 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	4	0	0	0	0	0	0	0	5	0	0	0	9

PEAK HR FACTOR:	0.500	0.000	0.625	0.000	0.750

Bicycle Counts

	Enright Drive Northbound			Enright Drive Southbound			Beyer Boulevard Eastbound			Beyer Boulevard Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	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
7:45 AM	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
8:15 AM	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
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrian Counts

	Enright Drive North Leg	Enright Drive South Leg	Beyer Boulevard East Leg	Beyer Boulevard West Leg	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg	South Leg	East Leg	West Leg	TOTAL
PEAK VOLUMES:	0	0	0	0	0

PO Box 1178
Corona, CA 92880
951-268-6268

Location: San Diego
N/S: Enright Drive
E/W: Beyer Boulevard

Date: 2/10/2022
Day: THURSDAY
Project # 143-22119

TURNING MOVEMENT COUNT

Count Period: **4:00 PM to 6:00 PM**
Peak Hour: **4:00 PM to 5:00 PM**

Vehicle Counts

	Enright Drive Northbound			Enright Drive Southbound			Beyer Boulevard Eastbound			Beyer Boulevard Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
4:15 PM	1	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	0
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	2	0	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
TOTAL VOLUMES:	1	0	0	0	0	0	0	0	5	0	0	0	6

PM Peak Hr Begins at: 415 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	1	0	0	0	0	0	1	0	3	0	0	0	5

PEAK HR FACTOR:	0.250	0.000	0.333	0.000	0.417

Bicycle Counts

	Enright Drive Northbound			Enright Drive Southbound			Beyer Boulevard Eastbound			Beyer Boulevard Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	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	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	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
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrian Counts

	Enright Drive North Leg	Enright Drive South Leg	Beyer Boulevard East Leg	Beyer Boulevard West Leg	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg	South Leg	East Leg	West Leg	TOTAL
PEAK VOLUMES:	0	0	0	0	0

PO Box 1178
Corona, CA 92880
951-268-6268

Location: San Diego
N/S: Hill St / Center St
E/W: Beyer Boulevard

Date: 4/28/2022
Day: THURSDAY
Project # 143-22383

TURNING MOVEMENT COUNT

Count Period: **7:00 AM to 9:00 AM**
Peak Hour: **7:45 AM to 8:45 AM**

Vehicle Counts

	Hill Street Northbound			Center Street Southbound			Beyer Boulevard Eastbound			Beyer Boulevard Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
7:00 AM	21	1	2	0	0	0	1	9	35	5	16	0	90
7:15 AM	27	0	1	0	1	0	0	12	33	1	10	0	85
7:30 AM	37	0	3	0	0	1	1	10	41	4	18	0	115
7:45 AM	62	0	6	0	5	1	1	28	59	7	28	1	198
8:00 AM	42	0	6	1	1	0	0	36	52	1	26	1	166
8:15 AM	37	0	2	0	0	1	1	31	31	1	24	0	128
8:30 AM	26	1	5	0	1	1	2	37	28	4	16	0	121
8:45 AM	9	0	4	0	0	0	0	26	20	6	10	0	75
TOTAL VOLUMES:	261	2	29	1	8	4	6	189	299	29	148	2	978

AM Peak Hr Begins at: 745 AM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	167	1	19	1	7	3	4	132	170	13	94	2	613

PEAK HR FACTOR:	0.688	0.458	0.869	0.757	0.774

Bicycle Counts

	Hill Street Northbound			Center Street Southbound			Beyer Boulevard Eastbound			Beyer Boulevard Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
7:15 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
7:30 AM	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
8:00 AM	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
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL VOLUMES:	0	0	0	0	0	0	0	2	0	0	3	0	5

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

Pedestrian Counts

	Hill Street North Leg	Center Street South Leg	Beyer Boulevard East Leg	Beyer Boulevard West Leg	TOTAL
7:00 AM	0	1	0	0	1
7:15 AM	0	2	0	0	2
7:30 AM	0	1	1	1	3
7:45 AM	0	0	0	1	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	2	0	0	2
8:45 AM	0	1	0	0	1
TOTAL VOLUMES:	0	7	1	2	10

	North Leg	South Leg	East Leg	West Leg	TOTAL
PEAK VOLUMES:	0	2	0	1	3

PO Box 1178
Corona, CA 92880
951-268-6268

Location: San Diego
N/S: Hill St / Center St
E/W: Beyer Boulevard

Date: 4/28/2022
Day: THURSDAY
Project # 143-22383

TURNING MOVEMENT COUNT

Count Period: **4:00 PM to 6:00 PM**
Peak Hour: **4:00 PM to 5:00 PM**

Vehicle Counts

	Hill Street Northbound			Center Street Southbound			Beyer Boulevard Eastbound			Beyer Boulevard Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
4:00 PM	32	1	5	0	1	1	2	39	31	20	23	0	155
4:15 PM	28	2	5	1	2	0	1	41	23	11	24	0	138
4:30 PM	24	0	9	0	1	1	1	21	33	5	15	0	110
4:45 PM	22	5	2	1	1	2	1	41	24	10	18	1	128
5:00 PM	23	4	7	0	1	2	1	33	33	7	18	0	129
5:15 PM	25	2	6	0	0	0	1	32	30	7	17	1	121
5:30 PM	27	2	12	0	0	0	0	32	18	9	18	1	119
5:45 PM	15	2	7	0	3	0	0	43	24	10	13	0	117
TOTAL VOLUMES:	196	18	53	2	9	6	7	282	216	79	146	3	1017

PM Peak Hr Begins at: 400 PM

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	106	8	21	2	5	4	5	142	111	46	80	1	531

PEAK HR FACTOR:	0.888	0.688	0.896	0.738	0.856

Bicycle Counts

	Hill Street Northbound			Center Street Southbound			Beyer Boulevard Eastbound			Beyer Boulevard Westbound			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:15 PM	0	0	0	1	0	0	0	2	0	0	1	0	4
4:30 PM	1	0	0	0	0	0	0	1	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
5:15 PM	0	0	0	0	0	0	0	1	1	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL VOLUMES:	1	0	0	1	0	0	0	9	2	0	2	0	15

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
PEAK VOLUMES:	1	0	0	1	0	0	0	6	0	0	1	0	9

Pedestrian Counts

	Hill Street North Leg	Center Street South Leg	Beyer Boulevard East Leg	Beyer Boulevard West Leg	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	1	1	1	3
5:00 PM	1	1	1	0	3
5:15 PM	0	0	2	0	2
5:30 PM	0	1	0	1	2
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	3	4	2	10

	North Leg	South Leg	East Leg	West Leg	TOTAL
PEAK VOLUMES:	0	1	1	1	3

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

City of San Diego
Caliente Avenue
B/ Otay Mesa Road - State Route 905 Westbound Ramps

File Name 001
Site Code: 143-22119
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
2/10/2022	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	10	176			11	169				
12:15	24	161			14	197				
12:30	17	169			15	187				
12:45	14	151	65	657	9	183	49	736	114	1393
1:00	12	169			19	172				
1:15	8	188			9	194				
1:30	8	165			7	187				
1:45	13	193	41	715	5	184	40	737	81	1452
2:00	9	185			3	182				
2:15	18	205			8	188				
2:30	11	182			6	250				
2:45	12	199	50	771	10	198	27	818	77	1589
3:00	13	202			8	269				
3:15	18	203			6	326				
3:30	10	244			13	290				
3:45	12	289	53	938	14	240	41	1125	94	2063
4:00	16	188			23	217				
4:15	24	187			20	235				
4:30	27	162			28	219				
4:45	28	182	95	719	40	207	111	878	206	1597
5:00	25	180			44	219				
5:15	32	190			50	240				
5:30	47	160			77	257				
5:45	79	169	183	699	101	189	272	905	455	1604
6:00	72	139			86	172				
6:15	105	121			99	137				
6:30	100	126			99	131				
6:45	145	99	422	485	113	110	397	550	819	1035
7:00	138	98			137	117				
7:15	141	92			172	105				
7:30	225	98			162	74				
7:45	264	89	768	377	210	70	681	366	1449	743
8:00	268	93			233	77				
8:15	318	69			262	69				
8:30	223	74			225	59				
8:45	178	68	987	304	167	63	887	268	1874	572
9:00	137	55			127	46				
9:15	143	63			135	63				
9:30	147	56			133	59				
9:45	154	41	581	215	158	40	553	208	1134	423
10:00	134	60			134	29				
10:15	154	59			115	39				
10:30	140	35			158	44				
10:45	151	31	579	185	151	22	558	134	1137	319
11:00	131	24			158	24				
11:15	164	19			140	15				
11:30	181	29			142	13				
11:45	136	11	612	83	153	13	593	65	1205	148
Totals	4436	6148			4209	6790				
Combined Totals		10584				10999				
ADT										21583
AM Peak Hour	730	AM			745	AM				
Volume	1075				930					
P.H.F.	0.845				0.887					
PM Peak Hour		300	PM			300	PM			
Volume		938				1125				
P.H.F.		0.811				0.863				
Percentage	41.9%	58.1%			38.3%	61.7%				

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City of San Diego
Caliente Avenue
B/ SR-905 Westbound Ramps - SR-905 Eastbound Ramps

File Name 002
Site Code: 143-22119
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
2/10/2022	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	8	196			5	40				
12:15	25	165			1	58				
12:30	18	175			3	53				
12:45	13	148	64	684	4	44	13	195	77	879
1:00	11	192			7	56				
1:15	9	191			3	57				
1:30	9	179			2	46				
1:45	14	211	43	773	4	53	16	212	59	985
2:00	7	195			3	63				
2:15	20	216			3	58				
2:30	10	203			0	71				
2:45	13	213	50	827	3	52	9	244	59	1071
3:00	12	201			4	102				
3:15	21	218			2	150				
3:30	17	305			5	133				
3:45	15	405	65	1129	7	131	18	516	83	1645
4:00	18	239			4	89				
4:15	29	213			5	78				
4:30	30	186			6	82				
4:45	30	203	107	841	2	90	17	339	124	1180
5:00	37	220			14	86				
5:15	47	232			13	77				
5:30	77	197			17	94				
5:45	100	194	261	843	22	71	66	328	327	1171
6:00	99	164			13	54				
6:15	134	145			20	47				
6:30	144	149			22	57				
6:45	182	120	559	578	27	35	82	193	641	771
7:00	202	117			42	41				
7:15	197	125			79	29				
7:30	300	136			67	37				
7:45	327	104	1026	482	107	33	295	140	1321	622
8:00	365	170			137	29				
8:15	422	83			169	28				
8:30	326	85			82	20				
8:45	211	70	1324	408	69	23	457	100	1781	508
9:00	156	54			39	19				
9:15	159	70			45	22				
9:30	173	55			35	19				
9:45	168	46	656	225	38	19	157	79	813	304
10:00	155	62			25	17				
10:15	166	53			26	20				
10:30	148	38			48	17				
10:45	170	35	639	188	34	9	133	63	772	251
11:00	142	24			44	14				
11:15	168	21			44	3				
11:30	194	23			33	4				
11:45	156	16	660	84	38	5	159	26	819	110
Totals	5454	7062			1422	2435				
Combined Totals		12516				3857				
ADT										16373
AM Peak Hour	745	AM			745	AM				
Volume	1440				495					
P.H.F.	0.853				0.732					
PM Peak Hour		315	PM			300	PM			
Volume		1167				516				
P.H.F.		0.720				0.860				
Percentage	43.6%	56.4%			36.9%	63.1%				

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City of San Diego
Caliente Avenue
B/ SR-905 Eastbound Ramps - Airway Road

File Name 003
Site Code: 143-22119
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
2/10/2022	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	3	46			7	45				
12:15	1	52			7	57				
12:30	3	37			4	66				
12:45	0	42	7	177	9	64	27	232	34	409
1:00	2	74			5	67				
1:15	3	53			4	64				
1:30	1	71			2	42				
1:45	2	55	8	253	2	56	13	229	21	482
2:00	2	56			5	69				
2:15	3	65			4	72				
2:30	2	81			2	84				
2:45	4	65	11	267	5	78	16	303	27	570
3:00	2	66			2	160				
3:15	10	84			2	205				
3:30	9	216			1	177				
3:45	7	218	28	584	2	197	7	739	35	1323
4:00	11	102			3	116				
4:15	8	81			3	106				
4:30	13	66			3	107				
4:45	10	71	42	320	2	136	11	465	53	785
5:00	25	98			9	135				
5:15	32	69			9	127				
5:30	56	80			6	129				
5:45	32	90	145	337	8	126	32	517	177	854
6:00	45	66			18	98				
6:15	50	72			13	83				
6:30	82	72			24	96				
6:45	66	57	243	267	35	57	90	334	333	601
7:00	105	39			43	62				
7:15	125	56			120	64				
7:30	142	66			106	62				
7:45	153	45	525	206	130	54	399	242	924	448
8:00	238	26			248	43				
8:15	264	33			277	46				
8:30	194	22			118	41				
8:45	72	11	768	92	74	41	717	171	1485	263
9:00	46	15			36	32				
9:15	49	17			47	38				
9:30	47	12			48	26				
9:45	44	15	186	59	51	21	182	117	368	176
10:00	42	13			42	26				
10:15	39	7			33	29				
10:30	47	12			40	26				
10:45	55	5	183	37	41	25	156	106	339	143
11:00	40	7			43	9				
11:15	35	2			51	7				
11:30	61	4			39	10				
11:45	50	7	186	20	44	15	177	41	363	61
Totals	2332	2619			1827	3496				
Combined Totals		4951				5323				
ADT										10274
AM Peak Hour	745	AM			745	AM				
Volume	849				773					
P.H.F.	0.804				0.698					
PM Peak Hour		315	PM			300	PM			
Volume		620				739				
P.H.F.		0.711				0.901				
Percentage	47.1%	52.9%			34.3%	65.7%				

Phone: 951-268-6268 counts@countsunlimited.com Fax: 951-268-6267

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

City of San Diego
Caliente Avenue
S/ Airway Road

File Name 004
Site Code: 143-22119
24 Hour Directional Volume Count

Date:	Northbound				Southbound					
2/10/2022	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	2	4			1	3				
12:15	1	5			1	7				
12:30	0	4			0	5				
12:45	0	6	3	19	0	2	2	17	5	36
1:00	0	7			0	4				
1:15	0	9			0	6				
1:30	0	8			0	3				
1:45	0	2	0	26	0	3	0	16	0	42
2:00	1	4			2	6				
2:15	0	5			0	6				
2:30	0	7			1	6				
2:45	0	5	1	21	0	8	3	26	4	47
3:00	0	6			0	26				
3:15	0	17			0	48				
3:30	0	126			0	57				
3:45	0	78	0	227	0	43	0	174	0	401
4:00	0	24			0	10				
4:15	0	11			0	7				
4:30	0	5			0	5				
4:45	1	7	1	47	0	5	0	27	1	74
5:00	0	5			0	5				
5:15	2	9			2	3				
5:30	1	5			0	5				
5:45	1	5	4	24	1	2	3	15	7	39
6:00	2	7			0	4				
6:15	2	5			0	1				
6:30	1	1			2	1				
6:45	0	3	5	16	4	3	6	9	11	25
7:00	4	1			8	1				
7:15	21	4			34	7				
7:30	14	1			20	3				
7:45	23	3	62	9	46	3	108	14	170	23
8:00	75	2			107	1				
8:15	106	1			136	1				
8:30	65	0			48	4				
8:45	9	3	255	6	8	3	299	9	554	15
9:00	2	3			7	3				
9:15	3	3			4	4				
9:30	4	0			4	2				
9:45	6	2	15	8	2	2	17	11	32	19
10:00	2	1			2	1				
10:15	1	1			2	2				
10:30	4	0			3	0				
10:45	1	0	8	2	2	0	9	3	17	5
11:00	3	0			3	0				
11:15	2	0			1	2				
11:30	5	3			7	0				
11:45	3	1	13	4	2	1	13	3	26	7
Totals	367	409			460	324				
Combined Totals		776				784				
ADT										1560
AM Peak Hour	745	AM			745	AM				
Volume	269				337					
P.H.F.	0.634				0.619					
PM Peak Hour		315	PM			300	PM			
Volume		245				174				
P.H.F.		0.486				0.763				
Percentage	47.3%	52.7%			58.7%	41.3%				

Phone: 951-268-6268 counts@countsunlimited.com Fax: 951-268-6267

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878

City of San Diego
Beyer Boulevard
B/ Beyer Boulevard - Fantasy Lane

File Name 005
Site Code: 143-22119
24 Hour Directional Volume Count

Date:	Eastbound				Westbound					
2/10/2022	15 Minute Totals		Hourly Totals		15 Minute Totals		Hourly Totals		Combined Totals	
Time	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00	2	3			0	4				
12:15	0	9			1	4				
12:30	0	4			0	1				
12:45	1	0	3	16	0	6	1	15	4	31
1:00	0	3			0	1				
1:15	1	1			1	2				
1:30	0	3			0	5				
1:45	0	6	1	13	0	2	1	10	2	23
2:00	0	8			1	5				
2:15	0	14			0	18				
2:30	0	6			0	12				
2:45	2	6	2	34	0	6	1	41	3	75
3:00	0	9			0	3				
3:15	1	10			0	9				
3:30	1	9			3	2				
3:45	0	9	2	37	0	3	3	17	5	54
4:00	0	5			2	6				
4:15	0	7			0	6				
4:30	0	6			5	4				
4:45	0	6	0	24	0	6	7	22	7	46
5:00	0	5			2	1				
5:15	1	4			1	4				
5:30	0	9			1	6				
5:45	0	7	1	25	3	4	7	15	8	40
6:00	0	7			3	6				
6:15	0	6			3	6				
6:30	1	6			6	6				
6:45	1	4	2	23	1	1	13	19	15	42
7:00	1	4			3	3				
7:15	2	4			4	2				
7:30	2	4			10	5				
7:45	6	5	11	17	4	4	21	14	32	31
8:00	4	2			10	2				
8:15	4	5			8	5				
8:30	9	5			4	5				
8:45	5	2	22	14	6	0	28	12	50	26
9:00	2	3			6	0				
9:15	3	2			2	2				
9:30	1	0			6	1				
9:45	3	2	9	7	3	0	17	3	26	10
10:00	5	2			2	2				
10:15	2	2			2	1				
10:30	2	1			3	1				
10:45	5	2	14	7	4	1	11	5	25	12
11:00	2	3			3	1				
11:15	7	2			4	1				
11:30	4	0			4	0				
11:45	6	0	19	5	5	2	16	4	35	9
Totals	86	222			126	177				
Combined Totals		308				303				
ADT										611
AM Peak Hour	745	AM			730	AM				
Volume	23				32					
P.H.F.	0.639				0.800					
PM Peak Hour		300	PM			200	PM			
Volume		37				41				
P.H.F.		0.925				0.569				
Percentage	27.9%	72.1%			41.6%	58.4%				

Phone: 951-268-6268 counts@countsunlimited.com Fax: 951-268-6267

Appendix G

Signal Timing Sheets

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LOCATION: RTE 905 @ CALIENTE AVE./OCEAN VIEW HILLS PARKWAY
CALTR[illegible] C8 Version 3 DATE: 3/3/[illegible]
F PAG[illegible] PA[illegible] #3 6

	INTERVAL	PHASE TIMING 1	2	3	4	5	6	7	8
0	WALK	1	1	1	7	1	7	1	7
1	DONT WALK	1	1	1	39	1	45	1	42
2	MIN GREEN	11	11	11	11	11	11	11	11
3	TYPE 3 DET	0	0	0	0	0	0	0	0
4	ADD/VEH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	PASSAGE	2.0	3.0	3.0	2.0	2.0	3.0	2.0	2.0
6	MAX GAP	2.0	3.0	3.0	2.0	2.0	3.0	2.0	2.0
7	MIN GAP	2.0	3.0	3.0	2.0	2.0	3.0	2.0	2.0
8	MAX EXT	20	35	20	25	15	35	20	25
9	MAX 2			35					
A	MAX 3								
B									
C	REDUCE BY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
D	EVERY	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
E	YELLOW	3.7	4.8	3.7	4.1	3.7	4.8	3.7	5.2
F	RED	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
3.5'	PED XING FT				137'		156'		146'
	BIKE XING FT	132'	158'	113'	146'	131'	161'	136'	147'

NOTES:

CLK RST	
YR	
MO	
DAY	
DOW	
HR	
MIN	
SEC	

PRE-EMPTION E		F FLAGS	1	2	3	4	5	6	7	8	
EV SEL	0	PERMIT	1	2	3	4	5	6	7	8	0
RR1 CLR	5	RED LOCK									1
EVA DLY	0	YEL LOCK									2
EVA CLR	5	V RECALL		2				6			3
EVB DLY	0	P RECALL									4
EVB CLR	5	PED PHASES				4		6		8	5
EVC DLY	0	RT OLA									6
EVC CLR	5	RT OLB									7
EVD DLY	0	DBL ENTRY									8
EVD CLR	5	MAX 2 PHASES			3						9
MAX EV	255	LAG PHASES	READ ONLY								A
RR2 CLR	5	RED REST									B
		REST-IN-WALK									C
		MAX 3 PHASES									D
		YEL START UP				4				8	E
		FIRST PHASE		2				6			F
			1	2	3	4	5	6	7	8	

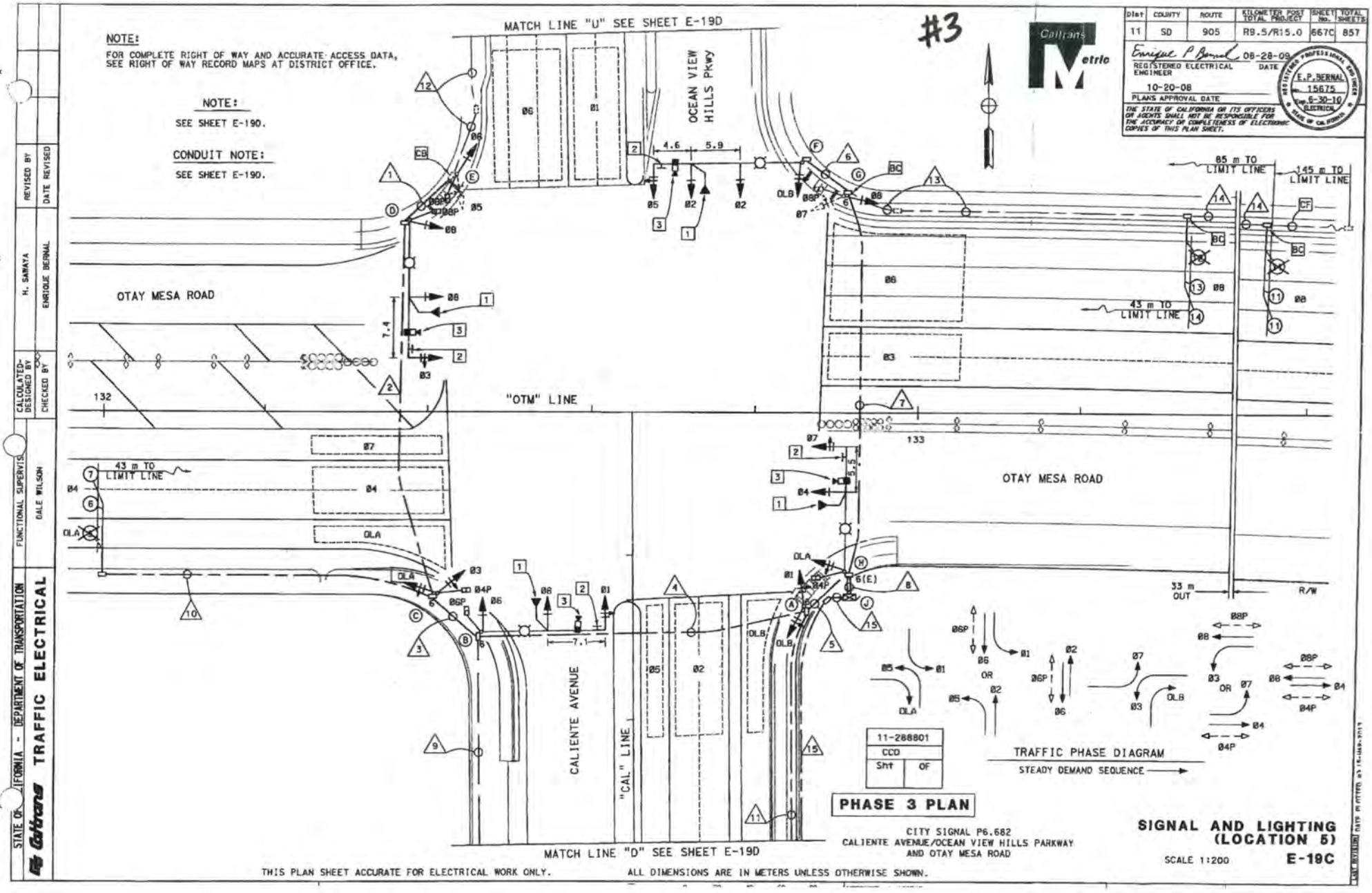
FOC LONG FAILURE	
FOD SHORT FAILURE	
FOE	0
FOF	5

FCO	3
FC1	3
FC2	10
FCA	0.0
FCB	0.0
FCC	0.0
FCD	0.0

FD0 TB SELECT	1
FD3 PED SELECT	0
FD4 7 WIRE	0
FD5 PERMISSIVE	0
FD8 OS SEEKING	1

CO5 FLASH TYPE	1
CC2 DOWNLOAD	1

ENTRIES IN THESE LOCATIONS CAN BE CHANGED IN CC1 FLASH ONLY


#3
MATCH LINE "U" SEE SHEET E-19D
NOTE:
FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.
NOTE:
SEE SHEET E-190.
CONDUIT NOTE:
SEE SHEET E-190.
OCEAN VIEW HILLS Pkwy
OTAY MESA ROAD
"OTM" LINE
CALIENTE AVENUE
"CAL" LINE
85 m TO LIMIT LINE
145 m TO LIMIT LINE
43 m TO LIMIT LINE
33 m OUT
R/W
MATCH LINE "D" SEE SHEET E-19D
TRAFFIC PHASE DIAGRAM
STEADY DEMAND SEQUENCE
PHASE 3 PLAN
CITY SIGNAL P6.682
CALIENTE AVENUE/OCEAN VIEW HILLS PARKWAY AND OTAY MESA ROAD
SIGNAL AND LIGHTING (LOCATION 5)
SCALE 1:200
E-19C
THIS PLAN SHEET ACCURATE FOR ELECTRICAL WORK ONLY.
ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
TRAFFIC ELECTRICAL
FUNCTIONAL SUPERVISOR: DALE WILSON
CALCULATED-DESIGNED BY: H. SARAYA
CHECKED BY: ENRIQUE BERNAL
REVISED BY
DATE REVISED
Dist 11 | COUNTY SD | ROUTE 905 | KILOMETER POST TOTAL PROJECT R9.5/R15.0 | SHEET NO. 667C | TOTAL SHEETS 857
Enrique P Bernal 08-28-08
REGISTERED ELECTRICAL ENGINEER
DATE
10-20-08
PLANS APPROVAL DATE
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.
E.P. BERNAL 15675 6-30-10 ELECTRICAL
11-288801
CCO
Sht
OF

LOCATION: 905 WB @ Caliente Ave
CAL[illegible]NS C8 Version 3
F PAGE

3/4/[illegible]

#4

	INTERVAL	PHASE TIMING 1	2	3	4	5	6	7	8	9
0	WALK	1	7	1	1	1	7	1	1	CLK RST
1	DON'T WALK	1	14	1	1	1	18	1	1	
2	MIN GREEN	1	7	1	1	5	7	1	5	
3	TYPE 3 DET	0	0	0	0	0	0	0	0	
4	ADD/VEH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	PASSAGE	0.9	3.0	0.9	0.9	2.0	3.0	0.9	3.0	
6	MAX GAP	0.9	3.0	0.9	0.9	2.0	3.0	0.9	3.0	
7	MIN GAP	0.9	3.0	0.9	0.9	2.0	3.0	0.9	3.0	
8	MAX EXT	9	30	9	9	25	30	9	30	
9	MAX 2									YR
A	MAX 3									MO
B										DAY
C	REDUCE BY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	DOW
D	EVERY	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	HR
E	YELLOW	3.0	4.1	3.0	3.0	3.7	4.1	3.0	4.1	MIN
F	RED	0.0	1.0	0.0	0.0	1.0	1.0	0.0	1.0	SEC
3.5'	PED XING FT		50'				50'			
	BIKE XING FT		57'				81'			

PRE-EMPTION E	
EV SEL	0
RR1 CLR	15
EVA DLY	0
EVA CLR	5
EVB DLY	0
EVB CLR	5
EVC DLY	0
EVC CLR	5
EVD DLY	0
EVD CLR	5
MAX EV	255
RR2 CLR	15

F FLAGS	1	2	3	4	5	6	7	8	
PERMIT		2			5	6		8	0
RED LOCK									1
YEL LOCK									2
V RECALL		2				6			3
P RECALL									4
PED PASS		2				6			5
RT OLA									6
RT OLB									7
DBL ENTRY									8
MAX 2 PHASES									9
LAG PHASES	READ ONLY								A
RED REST									B
REST-IN-WALK									C
MAX 3 PHASES									D
YEL START UP		2				6			E
FIRST PHASE								8	F
	1	2	3	4	5	6	7	8	

FOC LONG FAILURE	
FOD SHORT FAILURE	
FOE	30
FOF	5

FC0	3
FC1	3
FC2	10
FCA	0.0
FCB	0.0
FCC	0.0
FCD	0.0

FD0 TB SELECT	1
FD3 PED SELECT	0
FD4 7 WIRE	0
FD5 PERMISSIVE	0
FD8 OS SEEKING	1

C05 FLASH TYPE	1
CC2 DOWNLOAD	1

ENTRIES IN THESE LOCATIONS CAN BE CHANGED IN CC1 FLASH ONLY

#4

Bagley Ave Bridge-VTM-1 LMA Appendix
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Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	SD	905	R9.5/R15.0	667	857

Enrique P Bernal 08-28-09
REGISTERED ELECTRICAL ENGINEER — DATE

10-20-08
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

E.P. BERNAL — 15675 — 6-30-10 — ELECTRICAL — REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

Caltrans Metric

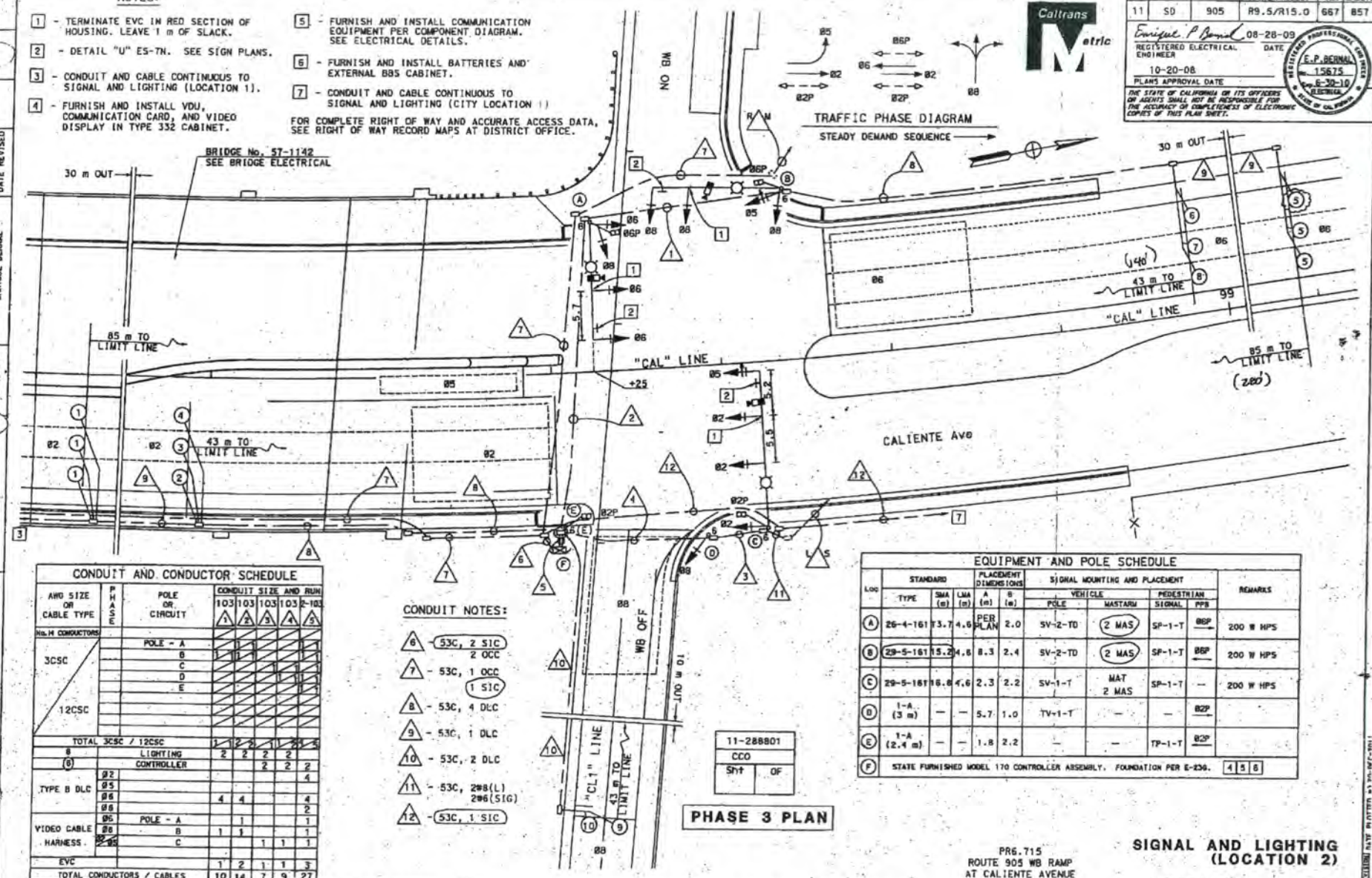
CALCULATED-DESIGNED BY: H. SARAYA
CHECKED BY: ENRIQUE BERNAL
FUNCTIONAL SUPERVISOR: DALE WILSON
DATE REVISED:

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
TRAFFIC ELECTRICAL

NOTES:

1. TERMINATE EVC IN RED SECTION OF HOUSING. LEAVE 1 m OF SLACK.
2. DETAIL "U" ES-7N. SEE SIGN PLANS.
3. CONDUIT AND CABLE CONTINUOUS TO SIGNAL AND LIGHTING (LOCATION 1).
4. FURNISH AND INSTALL VDU, COMMUNICATION CARD, AND VIDEO DISPLAY IN TYPE 332 CABINET.
5. FURNISH AND INSTALL COMMUNICATION EQUIPMENT PER COMPONENT DIAGRAM. SEE ELECTRICAL DETAILS.
6. FURNISH AND INSTALL BATTERIES AND EXTERNAL BBS CABINET.
7. CONDUIT AND CABLE CONTINUOUS TO SIGNAL AND LIGHTING (CITY LOCATION 1)

FOR COMPLETE RIGHT OF WAY AND ACCURATE ACCESS DATA, SEE RIGHT OF WAY RECORD MAPS AT DISTRICT OFFICE.



CONDUIT AND CONDUCTOR SCHEDULE

AWG SIZE OR CABLE TYPE	PHASE	POLE OR CIRCUIT	CONDUIT SIZE AND RUN 103 (1)	103 (2)	103 (3)	103 (4)	2-103 (5)
No. H CONDUCTORS							
3CSC / 12CSC		POLE - A					
		B	1	1	1		1
		C				1	1
		D					
		E					
TOTAL 3CSC / 12CSC			1	1	1	1	2
(8)		LIGHTING	2	2	2	2	
(6)		CONTROLLER			2	2	2
TYPE B DLC	Ø2						4
	Ø5						
	Ø6		4	4			4
	Ø8						2
VIDEO CABLE HARNESS	Ø6	POLE - A		1			1
	Ø8 Ø2	B	1	1			1
		C			1	1	1
EVC			1	2	1	1	3
TOTAL CONDUCTORS / CABLES			10	14	7	9	27

CONDUIT NOTES:

6. 53C, 2 SIC, 2 OCC
7. 53C, 1 OCC, 1 SIC
8. 53C, 4 DLC
9. 53C, 1 DLC
10. 53C, 2 DLC
11. 53C, 2#8(L), 2#6(SIG)
12. 53C, 1 SIC

11-288801	
CCO	
Sht	OF

PHASE 3 PLAN

EQUIPMENT AND POLE SCHEDULE

Loc	STANDARD TYPE	SMA (m)	LMA (m)	PLACEMENT DIMENSIONS A (m)	S (m)	SIGNAL MOUNTING AND PLACEMENT VEHICLE POLE	VEHICLE MASTARM	PEDESTRIAN SIGNAL	PEDESTRIAN PPB	REMARKS
(A)	26-4-161	13.7	14.6	PER PLAN	2.0	SV-2-TD	(2 MAS)	SP-1-T	Ø6P →	200 W HPS
(B)	29-5-161	15.2	14.8	8.3	2.4	SV-2-TD	(2 MAS)	SP-1-T	Ø6P ←	200 W HPS
(C)	29-5-161	16.8	17.6	2.3	2.2	SV-1-T	MAT 2 MAS	SP-1-T	--	200 W HPS
(D)	1-A (3 m)	—	—	5.7	1.0	TV-1-T	—	—	Ø2P	
(E)	1-A (2.4 m)	—	—	1.8	2.2	—	—	TP-1-T	Ø2P	
(F)	STATE FURNISHED MODEL 170 CONTROLLER ASSEMBLY. FOUNDATION PER E-23G.									4 5 6

PR6.715
ROUTE 905 WB RAMP
AT CALIENTE AVENUE

SIGNAL AND LIGHTING (LOCATION 2)

SCALE 1:200

E-19

THIS PLAN SHEET ACCURATE FOR ELECTRICAL WORK ONLY.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

LOC[illegible]ON: 905 EB @ Caliente Ave
CAL[illegible]NS C8 Version 3
F PAGE

3/4/19

#5 8

	INTERVAL	PHASE TIMING 1	2	3	4	5	6	7	8
0	WALK	1	7	1	1	1	7	1	1
1	DONT WALK	1	14	1	1	1	14	1	1
2	MIN GREEN	5	7	1	5	1	7	1	1
3	TYPE 3 DET	0	0	0	0	0	0	0	0
4	ADD/VEH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	PASSAGE	2.0	3.0	0.9	3.0	0.9	3.0	0.9	0.9
6	MAX GAP	2.0	3.0	0.9	3.0	0.9	3.0	0.9	0.9
7	MIN GAP	2.0	3.0	0.9	3.0	0.9	3.0	0.9	0.9
8	MAX EXT	15	30	9	30	9	30	9	9
9	MAX 2								
A	MAX 3								
B									
C	REDUCE BY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
D	EVERY	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
E	YELLOW	3.7	4.1	3.0	4.1	3.0	4.1	3.0	3.0
F	RED	1.0	1.0	0.0	1.0	0.0	1.0	0.0	0.0
3.5'	PED XING FT		48'				48'		
	BIKE XING FT		67'				60'		

CLK RST	
YR	
MO	
DAY	
DOW	
HR	
MIN	
SEC	

	PRE-EMPTION E	
[illegible]	[illegible]	0
RR1 CLR		15
EVA DLY		0
EVA CLR		5
EVB DLY		0
EVB CLR		5
EVC DLY		0
EVC CLR		5
EVD DLY		0
EVD CLR		5
MAX EV		255
RR2 CLR		15

F FLAGS	1	2	3	4	5	6	7	8	
[illegible]	[illegible]								0
RED LOCK									1
YEL LOCK									2
V RECALL		2				6			3
P RECALL									4
[illegible]	[illegible]								5
RT OLA									6
RT OLB									7
DBL ENTRY									8
MAX 2 PHASES									9
LAG PHASES	READ ONLY								A
RED REST									B
REST-IN-WALK									C
MAX 3 PHASES									D
YEL START UP		2				6			E
FIRST PHASE				4					F
	1	2	3	4	5	6	7	8	

FOC LONG FAILURE	
FOD SHORT FAILURE	
FOE	30
FOF	5

FCO	3
FC1	3
FC2	10
FCA	0.0
FCB	0.0
FCC	0.0
FCD	0.0

FD0 TB SELECT	1
FD3 PED SELECT	0
FD4 7 WIRE	0
FD5 PERMISSIVE	0
FD8 OS SEEKING	1

CO5 FLASH TYPE	1
CC2 DOWNLOAD	1

ENTRIES IN THESE LOCATIONS CAN BE CHANGED IN CC1 FLASH ONLY

#5

Bag 1 of 2008 Page VTM-1 LMA Appendix

Dist	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET TOTAL No.	SHEETS
11	SD	905	R9.5/R15.0	666	857

Enrique P Bernal 08-28-09
REGISTERED ELECTRICAL ENGINEER — DATE
10-20-08
PLANS APPROVAL DATE

E. P. BERNAL No. 15675 E-30-10 ELECTRICAL

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

CONDUIT AND CONDUCTOR SCHEDULE

AWG SIZE OR CABLE TYPE	PHASE	POLE OR CIRCUIT	CONDUIT SIZE AND RUN 1	2	3	4	5	6	7	8
No. H CONDUCTORS			103	103	103	103	103	103	53	2-103
3CSC		POLE - A			1	1				1
		B			1	1				1
		C			1	1				1
		D					1	1		1
		E					1	1		1
12CSC		F							1	1
TOTAL 3CSC / 12CSC			1	2	3	3	2	2	1	5
8		LIGHTING CONTROLLER (F)			2 2 2	2 2	2	2	2	2
TYPE B DLC	#1									
	#2					4				4
	#4				2	2	2			2
	#6		4	4	4	4				4
VIDEO CABLE HARNESS	#2	POLE - B					1	1		1
	#4	F							1	1
	#6	A			1	1				1
EVC					1	1	1	1	1	3
TOTAL CONDUCTORS / CABLES			6	10	20	22	6	7	5	28

CONDUIT NOTES:

9 - 27C, 1 FO12
27C, 1 OCC

10 - 53C, (1 OCC, 1 SIC)

11 - (53C) 1 DLC

12 - 53C, 4 DLC

13 - (53C) 2 DLC

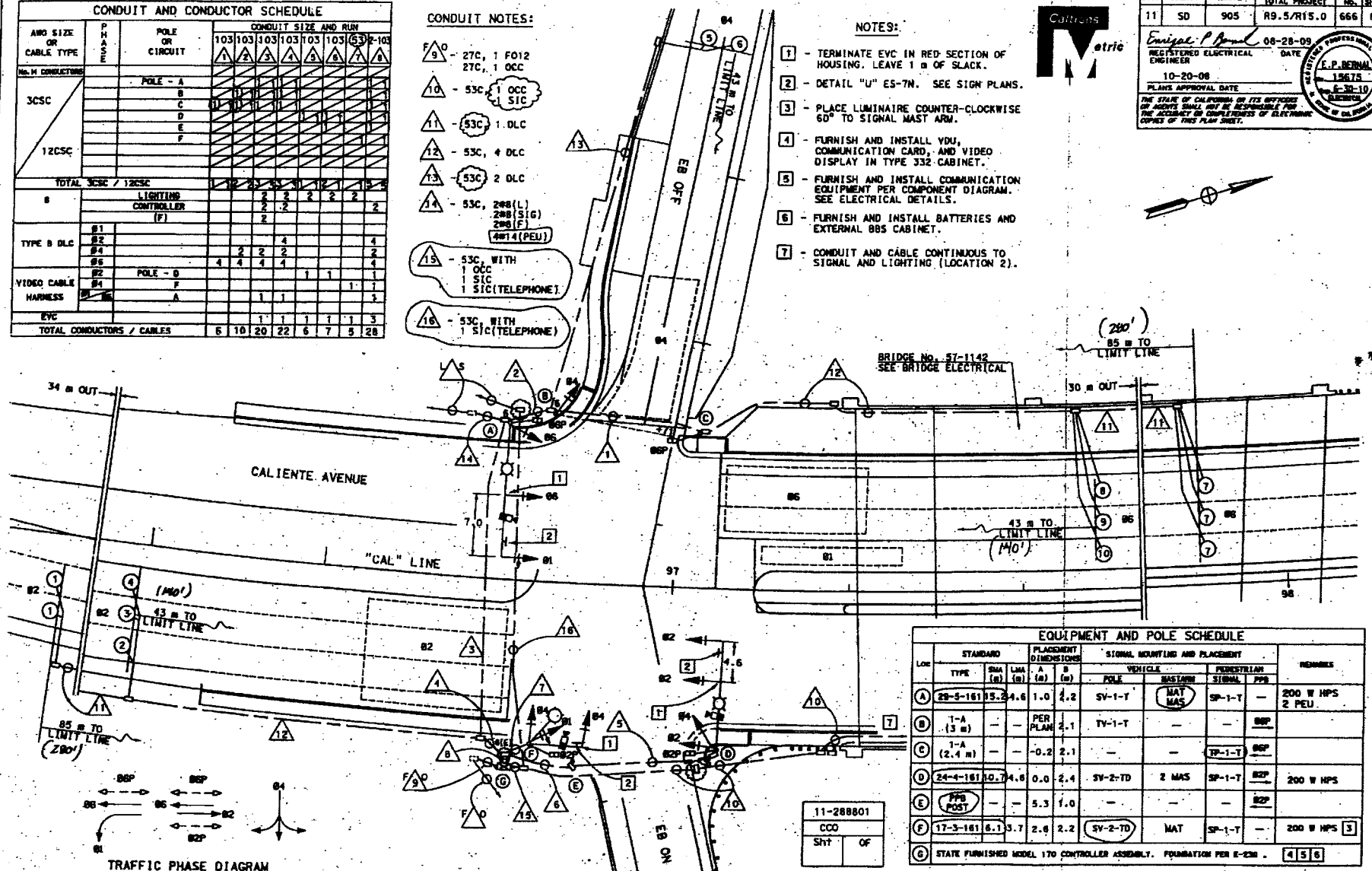
14 - 53C, 2#8(L), 2#8(SIG), 2#8(F), 4#14(PEU)

15 - 53C, WITH 1 OCC, 1 SIC, 1 SIC(TELEPHONE)

16 - 53C, WITH 1 SIC(TELEPHONE)

NOTES:

1. TERMINATE EVC IN RED SECTION OF HOUSING. LEAVE 1 m OF SLACK.
2. DETAIL "U" ES-7N. SEE SIGN PLANS.
3. PLACE LUMINAIRE COUNTER-CLOCKWISE 60° TO SIGNAL MAST ARM.
4. FURNISH AND INSTALL VDU, COMMUNICATION CARD, AND VIDEO DISPLAY IN TYPE 332 CABINET.
5. FURNISH AND INSTALL COMMUNICATION EQUIPMENT PER COMPONENT DIAGRAM. SEE ELECTRICAL DETAILS.
6. FURNISH AND INSTALL BATTERIES AND EXTERNAL BBS CABINET.
7. CONDUIT AND CABLE CONTINUOUS TO SIGNAL AND LIGHTING (LOCATION 2).



EQUIPMENT AND POLE SCHEDULE

Loc	STANDARD TYPE	SMA (m)	LMA (m)	PLACEMENT DIMENSIONS A (m)	B (m)	SIGNAL MOUNTING AND PLACEMENT VEHICLE POLE	VEHICLE MAST ARM	PEDESTRIAN SIGNAL	PEDESTRIAN PPB	REMARKS
A	29-5-161	15.2	24.6	1.0	2.2	SV-1-T	MAT MAS	SP-1-T	—	200 W HPS 2 PEU
B	1-A (3 m)	—	—	PER PLAN	2.1	TV-1-T	—	—	BSP	
C	1-A (2.4 m)	—	—	-0.2	2.1	—	—	TP-1-T	BSP	
D	24-4-161	10.7	24.6	0.0	2.4	SV-2-TD	2 MAS	SP-1-T	BZP	200 W HPS
E	PPB POST	—	—	5.3	1.0	—	—	—	BZP	
F	17-3-161	6.1	3.7	2.6	2.2	SV-2-TD	MAT	SP-1-T	—	200 W HPS 3
G	STATE FURNISHED MODEL 170 CONTROLLER ASSEMBLY. FOUNDATION PER E-23B .									4 5 6

TRAFFIC PHASE DIAGRAM
STEADY DEMAND SEQUENCE

11-288801	
CCO	
Sht	OF

PHASE 3 PLAN

THIS PLAN SHEET ACCURATE FOR ELECTRICAL WORK ONLY. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN.

PR6:714
ROUTE 905 EB RAMP AT CALIENTE AVENUE

SIGNAL AND LIGHTING (LOCATION 1)

SCALE 1:200

E-18

DEPARTMENT OF TRANSPORTATION - STATE OF CALIFORNIA
TRAFFIC ELECTRICAL
FUNCTIONAL SUPERVISOR: DALE WILSON
CALCULATED-DESIGNED BY: H. SARAYA
CHECKED BY: ENRIQUE BERNAL
REVISED BY
DATE REVISED

INTERSECTION: Airway Rd & Caliente Av

Group Assignment:
Field Master Assignment:
System Reference Number:

N/S Street: **Caliente Av**
E/W Street: **Airway Rd/San Virgilio**

Last Database Change:

Timing sheets by: **VV**
Approved by:
Timing implemented on:

Caliente Av | **Caliente Av** | **Airway Rd** | **San Virgilio**

Row	Phase Numbers---->	1	2	3	4	5	6	7	8
0	Ped Walk		7				7	7	7
1	Ped FDW		26				14	30	28
2	Min Green	4	10			4	10	7	7
3	Type 3 Disconnect								
4	Added per Vehicle								
5	Veh Extension	2.0	3.8			2.0	3.8	2.3	3.3
6	Max Gap	2.0	3.8			2.0	3.8	2.3	3.3
7	Min Gap	2.0	0.2			2.0	0.2	0.2	0.2
8	Max Limit	30	60			30	60	40	40
9	Max Limit 2								
A	Adv. / Delay Walk								
B	PE Min Ped FDW		1				1	1	1
C	Cond Serv Check								
D	Reduce Every		0.8				0.8	1.4	1.0
E	Yellow Change	3.4	3.9			3.4	3.9	3.4	3.9
F	Red Clear	1.0	1.0			1.0	1.0	1.0	1.0

Row		E
0	RR-1 Delay	
1	RR-1 Clear	
2	EV-A Delay	0
3	EV-A Clear	0
4	EV-B Delay	0
5	EV-B Clear	0
6	EV-C Delay	0
7	EV-C Clear	0
8	EV-D Delay	0
9	EV-D Clear	0
A	RR-2 Delay	
B	RR-2 Clear	
C	*View EV Delay*	- - -
D	*View EV Clear*	- - -
E	*View RR Delay*	- - -
F	*View RR Clear*	- - -

Row		F
0	Permit	12__5678
1	Red Lock	
2	Yellow Lock	
3	Min Recall	_2___6__
4	Ped Recall	
5	*View Set Peds*	_2___678
6	Rest In Walk	
7	Red Rest	
8	Double Entry	
9	Max Recall	
A	Soft Recall	
B	Max 2	
C	Cond. Service	
D	Man Cntrl Calls	
E	Yellow Start	_2___6__
F	First Phases	_____7_

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

Preempt Timing <F/1+E+Row>

Phase Functions <F/1+F+Row>

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

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

Alternate Timing <F/1+Column+Phase>

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

Communication Addresses

Flash Start	0	<F/1+0+E>
Red Revert	5.0	<F/1+0+F>
All Red Start	0.0	<F/1+C+0>
FYA Red Rev	0.0	<F/1+0+5>
OVLP CHG R	0.0	<F/1+0+3>

Start / Revert Times

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

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

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

Exclusive Walk	0	<F/1+0+0>
Exclusive FDW	0	<F/1+0+1>
All Red Clear	0.0	<F/1+0+2>

Exclusive Ped Phase

Manual Plan	14	<C/0+A+1>
Manual Offset	0	<C/0+B+1>

Manual Selection

Free Lag	_2___67_	<C/1+F+0>

How to Set Page Access Code:
F/1 --C + 0 + F = 1
F + 9 + E = 1

Notes: 41669-16-D

II ECTION: BEYER BL / E BEYER BL / OTAY MESA RD

#1

2' ogram.

Group Assignment:
Field Master Assignment: None

N/S Street Na...: Otay Mesa Rd/E Beyer Bl
E/W Street Name: E Beyer Bl/Beyer Bl

Last Change: 06/26/02
Timing Sheet By: DRH
Approved By:

Drawing Number: 883-1-D
System Ref. Number:
Timing Implemented on:: 03/15/00

Row	Column # →	E. Beyer	Beyer		Otay Mesa				Otay Mesa
	Phase # →	1	2	3	4	5	6	7	8
	N	←	→		↓				↑
0	Ped Walk	7	7		7				7
1	Ped FDW	11	12		21				10
2	Min Green	4	7		7				7
3	Type 3 Limit								
4	Add/Veh				①				
5	Veh Extn	2.9	2.9		4.5 ~~3.7~~				3.8
6	Max Gap	2.9	2.9		4.5 ~~3.7~~				3.8
7	Min Gap	0.2	0.2		0.2				0.2
8	Max Limit	30	50		40				40
9	Max Limit 2								
A	Bus Adv								
B	Call to Phs								
C	Reduce By	0.1	0.1		0.1				0.1
D	Every	① 1.1	1.1		0.9				0.8
E	Yellow	3.9 ~~3.7~~	3.9 ~~3.7~~		4.2				3.9
F	Red Clear	1.0	1.0		1.0				1.0

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

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

Preempt Timing
F + E + Row

Row	F
Permit	12_4__8
Red Lock	
Yellow Lock	
Min Recall	_2_____
Ped Recall	
Peds (View)	
Rest In Walk	
Red Rest	
Dbl Entry	__4__8
Max Recall	
Soft Recall	
Max 2	
Cond Serv	
Ped Lock	12345678
Yellow Start	__4__8
1st Phases	1_____

Phase Functions
<F Page>
F + F + Row

Max Initial	0
Red Revert	5.0
All Red Start	0.0

Start / Revert Times
F + 0 + E
F + 0 + F
F + C + O

Drop Number	
Zone Number	
Area Number	
Area Address	
QuicNet Channel	

Communication Addresses
C + 0 + 0
C + 0 + 1
C + 0 + 2
C + 0 + 3
(QuicNet)

Row		9 Green Clear	C Yellow Change	D Red Clear	8 Load-Switch #
A	Overlap A				
B	Overlap B				
C	Overlap C				
D	Overlap D				

Overlap Timing <F Page>
F + COLOR +
<D Page>
D + 0 + OVERLAP

Manual Plan	14
Manual Offset	0

C + A + 1
C + B + 1

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

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

C + F + O	F / Row
Free Lag	_2_4__8 / 0

Lag Phases <C Page>

Downtime Flash	255 (minutes)

Downtime Before Auto Manual Flash
F + 0 + 8

Disable Ports	234

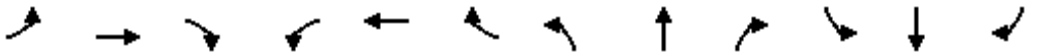
Disable Communications Ports
D + D + 9

pg. 1

Appendix H

Existing LOS and Queuing Worksheets

Page 18 of 208 Page 52 of 208



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	9	85	287	13	112	36	466	567	200	546	1
Future Volume (veh/h)	3	9	85	287	13	112	36	466	567	200	546	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.95	1.00		0.99	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	4	11	101	319	14	124	41	536	652	215	587	1
Peak Hour Factor	0.84	0.84	0.84	0.90	0.90	0.90	0.87	0.87	0.87	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	20	695	349	366	543	439	53	1613	877	265	1780	745
Arrive On Green	0.01	0.20	0.20	0.11	0.29	0.29	0.03	0.46	0.46	0.08	0.50	0.50
Sat Flow, veh/h	1767	3526	1533	3428	1856	1501	1767	3526	1550	3428	3526	1474
Grp Volume(v), veh/h	4	11	101	319	14	124	41	536	652	215	587	1
Grp Sat Flow(s),veh/h/ln	1767	1763	1533	1714	1856	1501	1767	1763	1550	1714	1763	1474
Q Serve(g_s), s	0.3	0.4	7.9	13.3	0.8	9.2	3.3	14.1	45.9	9.0	14.3	0.0
Cycle Q Clear(g_c), s	0.3	0.4	7.9	13.3	0.8	9.2	3.3	14.1	45.9	9.0	14.3	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	20	695	349	366	543	439	53	1613	877	265	1780	745
V/C Ratio(X)	0.20	0.02	0.29	0.87	0.03	0.28	0.78	0.33	0.74	0.81	0.33	0.00
Avail Cap(c_a), veh/h	134	1118	533	397	649	525	73	1613	877	357	1780	745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	71.0	46.9	46.4	63.8	36.6	39.6	69.9	25.2	23.8	65.9	21.3	17.8
Incr Delay (d2), s/veh	4.8	0.0	0.5	17.7	0.0	0.3	28.3	0.5	5.5	9.9	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.2	3.0	6.6	0.4	3.4	1.9	5.9	17.1	4.2	5.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.9	46.9	46.8	81.5	36.6	39.9	98.2	25.7	29.3	75.8	21.8	17.8
LnGrp LOS	E	D	D	F	D	D	F	C	C	E	C	B
Approach Vol, veh/h		116			457			1229			803	
Approach Delay, s/veh		47.8			68.9			30.0			36.2	
Approach LOS		D			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.4	72.6	20.7	35.3	9.5	79.5	6.8	49.1
Change Period (Y+Rc), s	* 5.2	6.3	* 5.2	* 6.7	* 5.2	6.3	* 5.2	6.7
Max Green Setting (Gmax), s	* 15	44.8	* 17	* 46	* 6	53.9	* 11	50.7
Max Q Clear Time (g_c+I1), s	11.0	47.9	15.3	9.9	5.3	16.3	2.3	11.2
Green Ext Time (p_c), s	0.2	0.0	0.2	0.4	0.0	4.0	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	39.5
HCM 6th LOS	D

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	34	0	52	419	1021	0	0	461	469
Future Volume (veh/h)	0	0	0	34	0	52	419	1021	0	0	461	469
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		0.92
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				44	0	68	493	1201	0	0	518	527
Peak Hour Factor				0.77	0.77	0.77	0.85	0.85	0.85	0.89	0.89	0.89
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				116	0	100	515	4088	0	0	1543	664
Arrive On Green				0.07	0.00	0.07	0.58	1.00	0.00	0.00	0.46	0.46
Sat Flow, veh/h				1767	0	1527	1767	5233	0	0	3544	1454
Grp Volume(v), veh/h				44	0	68	493	1201	0	0	518	527
Grp Sat Flow(s),veh/h/ln				1767	0	1527	1767	1689	0	0	1689	1454
Q Serve(g_s), s				1.9	0.0	3.5	21.1	0.0	0.0	0.0	7.9	24.7
Cycle Q Clear(g_c), s				1.9	0.0	3.5	21.1	0.0	0.0	0.0	7.9	24.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				116	0	100	515	4088	0	0	1543	664
V/C Ratio(X)				0.38	0.00	0.68	0.96	0.29	0.00	0.00	0.34	0.79
Avail Cap(c_a), veh/h				340	0	294	537	4088	0	0	1543	664
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.46	0.46	0.00	0.00	0.94	0.94
Uniform Delay (d), s/veh				35.8	0.0	36.6	16.2	0.0	0.0	0.0	13.9	18.5
Incr Delay (d2), s/veh				2.1	0.0	7.9	16.8	0.1	0.0	0.0	0.6	8.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.8	0.0	1.4	6.6	0.0	0.0	0.0	2.7	8.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				37.9	0.0	44.4	33.0	0.1	0.0	0.0	14.5	27.4
LnGrp LOS				D	A	D	C	A	A	A	B	C
Approach Vol, veh/h					112			1694			1045	
Approach Delay, s/veh					41.9			9.7			21.0	
Approach LOS					D			A			C	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	69.7		28.0	41.7		10.3
Change Period (Y+Rc), s	5.1		* 4.7	5.1		5.1
Max Green Setting (Gmax), s	54.4		* 24	25.4		15.4
Max Q Clear Time (g_c+I1), s	2.0		23.1	26.7		5.5
Green Ext Time (p_c), s	10.3		0.2	0.0		0.2

Intersection Summary	
HCM 6th Ctrl Delay	15.1
HCM 6th LOS	B

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	658	1	408	0	0	0	0	750	79	108	365	0
Future Volume (veh/h)	658	1	408	0	0	0	0	750	79	108	365	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	613	201	469				0	1000	105	146	493	0
Peak Hour Factor	0.87	0.87	0.87				0.75	0.75	0.75	0.74	0.74	0.74
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	759	212	495				0	1314	138	181	1563	0
Arrive On Green	0.43	0.43	0.43				0.00	0.28	0.28	0.07	0.30	0.00
Sat Flow, veh/h	1767	494	1154				0	4824	488	1767	3618	0
Grp Volume(v), veh/h	613	0	670				0	725	380	146	493	0
Grp Sat Flow(s),veh/h/ln	1767	0	1648				0	1689	1768	1767	1763	0
Q Serve(g_s), s	24.3	0.0	31.3				0.0	15.7	15.7	6.5	8.7	0.0
Cycle Q Clear(g_c), s	24.3	0.0	31.3				0.0	15.7	15.7	6.5	8.7	0.0
Prop In Lane	1.00		0.70				0.00		0.28	1.00		0.00
Lane Grp Cap(c), veh/h	759	0	707				0	953	499	181	1563	0
V/C Ratio(X)	0.81	0.00	0.95				0.00	0.76	0.76	0.81	0.32	0.00
Avail Cap(c_a), veh/h	771	0	719				0	953	499	183	1563	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.67	0.67	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.88	0.88	0.83	0.83	0.00
Uniform Delay (d), s/veh	20.0	0.0	22.0				0.0	26.2	26.3	36.5	18.7	0.0
Incr Delay (d2), s/veh	6.3	0.0	21.4				0.0	5.0	9.4	19.3	0.4	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
%ile BackOfQ(50%),veh/ln	9.9	0.0	14.5				0.0	6.4	7.3	3.7	3.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	0.0	43.4				0.0	31.3	35.6	55.8	19.1	0.0
LnGrp LOS	C	A	D				A	C	D	E	B	A
Approach Vol, veh/h		1283						1105			639	
Approach Delay, s/veh		35.2						32.8			27.5	
Approach LOS		D						C			C	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	12.9	27.7	39.4	40.6
Change Period (Y+Rc), s	7.4	5.1	5.1	5.1
Max Green Setting (Gmax), s	*8.3	21.9	34.9	34.9
Max Q Clear Time (g_c+I1), s	8.5	17.7	33.3	10.7
Green Ext Time (p_c), s	0.0	2.4	1.1	3.0

Intersection Summary	
HCM 6th Ctrl Delay	32.7
HCM 6th LOS	C

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	449	7	26	0	6	140	27	240	2	59	311	403
Future Volume (veh/h)	449	7	26	0	6	140	27	240	2	59	311	403
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.98	1.00		0.78
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	590	0	0	0	7	173	43	381	3	84	444	576
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.63	0.63	0.63	0.70	0.70	0.70
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	801	420	0	521	282	230	55	2124	17	106	773	540
Arrive On Green	0.23	0.00	0.00	0.00	0.15	0.15	0.03	0.41	0.41	0.06	0.44	0.44
Sat Flow, veh/h	3534	1856	0	3428	1856	1512	1767	5183	41	1767	1763	1230
Grp Volume(v), veh/h	590	0	0	0	7	173	43	248	136	84	444	576
Grp Sat Flow(s),veh/h/ln	1767	1856	0	1714	1856	1512	1767	1689	1847	1767	1763	1230
Q Serve(g_s), s	19.0	0.0	0.0	0.0	0.4	13.4	3.0	5.7	5.8	5.8	23.2	53.8
Cycle Q Clear(g_c), s	19.0	0.0	0.0	0.0	0.4	13.4	3.0	5.7	5.8	5.8	23.2	53.8
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.02	1.00		1.00
Lane Grp Cap(c), veh/h	801	420	0	521	282	230	55	1383	757	106	773	540
V/C Ratio(X)	0.74	0.00	0.00	0.00	0.02	0.75	0.78	0.18	0.18	0.79	0.57	1.07
Avail Cap(c_a), veh/h	1014	533	0	923	499	407	63	1383	757	196	773	540
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.0	0.0	0.0	0.0	44.3	49.8	59.0	23.1	23.1	56.9	25.8	34.4
Incr Delay (d2), s/veh	2.1	0.0	0.0	0.0	0.0	4.9	41.0	0.1	0.1	12.2	1.0	57.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.8	0.0	0.0	0.0	0.2	5.3	1.9	2.2	2.4	2.9	9.4	23.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.2	0.0	0.0	0.0	44.3	54.7	100.0	23.1	23.2	69.1	26.9	92.4
LnGrp LOS	D	A	A	A	D	D	F	C	C	E	C	F
Approach Vol, veh/h		590			180			427			1104	
Approach Delay, s/veh		46.2			54.3			30.9			64.2	
Approach LOS		D			D			C			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.8	55.1		32.2	8.2	58.7		23.5
Change Period (Y+Rc), s	4.4	4.9		4.4	4.4	4.9		4.9
Max Green Setting (Gmax), s	13.6	44.6		35.2	4.4	53.8		33.0
Max Q Clear Time (g_c+I1), s	7.8	7.8		21.0	5.0	55.8		15.4
Green Ext Time (p_c), s	0.1	2.3		1.9	0.0	0.0		0.5

Intersection Summary	
HCM 6th Ctrl Delay	52.6
HCM 6th LOS	D

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	482	12	143	11	15	6	93	238	4	0	171	354
Future Volume (veh/h)	482	12	143	11	15	6	93	238	4	0	171	354
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.92	1.00		0.94	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	591	0	172	14	19	8	133	340	6	0	192	398
Peak Hour Factor	0.83	0.83	0.83	0.80	0.80	0.80	0.70	0.70	0.70	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1019	0	421	51	69	29	214	861	15	0	249	515
Arrive On Green	0.29	0.00	0.29	0.09	0.09	0.09	0.47	0.47	0.47	0.00	0.47	0.47
Sat Flow, veh/h	3534	0	1459	591	802	337	820	1815	32	0	524	1087
Grp Volume(v), veh/h	591	0	172	41	0	0	133	0	346	0	0	590
Grp Sat Flow(s),veh/h/ln	1767	0	1459	1730	0	0	820	0	1847	0	0	1612
Q Serve(g_s), s	13.9	0.0	9.3	2.2	0.0	0.0	15.7	0.0	11.8	0.0	0.0	29.6
Cycle Q Clear(g_c), s	13.9	0.0	9.3	2.2	0.0	0.0	45.3	0.0	11.8	0.0	0.0	29.6
Prop In Lane	1.00		1.00	0.34		0.20	1.00		0.02	0.00		0.67
Lane Grp Cap(c), veh/h	1019	0	421	150	0	0	214	0	876	0	0	764
V/C Ratio(X)	0.58	0.00	0.41	0.27	0.00	0.00	0.62	0.00	0.40	0.00	0.00	0.77
Avail Cap(c_a), veh/h	1019	0	421	461	0	0	214	0	876	0	0	771
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00
Uniform Delay (d), s/veh	29.6	0.0	28.0	41.6	0.0	0.0	40.0	0.0	16.6	0.0	0.0	21.3
Incr Delay (d2), s/veh	2.4	0.0	2.9	0.9	0.0	0.0	7.0	0.0	0.5	0.0	0.0	4.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.9	0.0	3.4	0.9	0.0	0.0	3.4	0.0	4.7	0.0	0.0	11.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.0	0.0	30.9	42.6	0.0	0.0	47.0	0.0	17.1	0.0	0.0	26.1
LnGrp LOS	C	A	C	D	A	A	D	A	B	A	A	C
Approach Vol, veh/h		763			41			479			590	
Approach Delay, s/veh		31.8			42.6			25.4			26.1	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	33.0	51.1	13.3	51.1
Change Period (Y+Rc), s	4.9	* 4.9	4.9	4.9
Max Green Setting (Gmax), s	28.1	* 47	26.0	46.2
Max Q Clear Time (g_c+I1), s	15.9	31.6	4.2	47.3
Green Ext Time (p_c), s	2.2	3.4	0.1	0.0

Intersection Summary	
HCM 6th Ctrl Delay	28.6
HCM 6th LOS	C

LOS Engineering, Inc.

Intersection	
Int Delay, s/veh	4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	5	0	0	4	0
Future Vol, veh/h	0	5	0	0	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-
Peak Hour Factor	63	63	92	92	50	50
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	8	0	0	8	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	8	0	5	-
Stage 1	-	-	-	-	4	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.13	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	-
Pot Cap-1 Maneuver	-	-	1606	-	1014	0
Stage 1	-	-	-	-	1017	0
Stage 2	-	-	-	-	1020	0
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1606	-	1014	-
Mov Cap-2 Maneuver	-	-	-	-	1014	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	1020	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1014	-	-	1606	-
HCM Lane V/C Ratio	0.008	-	-	-	-
HCM Control Delay (s)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

LOS Engineering, Inc.

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	167	1	19	1	7	3	13	94	2	4	132	170
Future Vol, veh/h	167	1	19	1	7	3	13	94	2	4	132	170
Peak Hour Factor	0.69	0.69	0.69	0.46	0.46	0.46	0.76	0.76	0.76	0.87	0.87	0.87
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	242	1	28	2	15	7	17	124	3	5	152	195
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.8	8.7	9.6	11.4
HCM LOS	B	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	89%	9%	1%
Vol Thru, %	86%	1%	64%	43%
Vol Right, %	2%	10%	27%	56%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	109	187	11	306
LT Vol	13	167	1	4
Through Vol	94	1	7	132
RT Vol	2	19	3	170
Lane Flow Rate	143	271	24	352
Geometry Grp	1	1	1	1
Degree of Util (X)	0.206	0.394	0.037	0.449
Departure Headway (Hd)	5.172	5.24	5.5	4.595
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	686	678	655	777
Service Time	3.264	3.335	3.5	2.665
HCM Lane V/C Ratio	0.208	0.4	0.037	0.453
HCM Control Delay	9.6	11.8	8.7	11.4
HCM Lane LOS	A	B	A	B
HCM 95th-tile Q	0.8	1.9	0.1	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	9	47	587	23	222	61	379	276	139	262	2
Future Volume (veh/h)	7	9	47	587	23	222	61	379	276	139	262	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	10	12	65	675	26	255	65	403	294	145	273	2
Peak Hour Factor	0.72	0.72	0.72	0.87	0.87	0.87	0.94	0.94	0.94	0.96	0.96	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	44	483	277	703	589	484	76	1611	1031	188	1652	704
Arrive On Green	0.02	0.14	0.14	0.20	0.32	0.32	0.04	0.46	0.46	0.05	0.47	0.47
Sat Flow, veh/h	1767	3526	1524	3428	1856	1526	1767	3526	1550	3428	3526	1502
Grp Volume(v), veh/h	10	12	65	675	26	255	65	403	294	145	273	2
Grp Sat Flow(s),veh/h/ln	1767	1763	1524	1714	1856	1526	1767	1763	1550	1714	1763	1502
Q Serve(g_s), s	0.9	0.5	5.8	31.2	1.6	21.9	5.8	11.2	12.7	6.7	7.1	0.1
Cycle Q Clear(g_c), s	0.9	0.5	5.8	31.2	1.6	21.9	5.8	11.2	12.7	6.7	7.1	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	44	483	277	703	589	484	76	1611	1031	188	1652	704
V/C Ratio(X)	0.23	0.02	0.24	0.96	0.04	0.53	0.85	0.25	0.29	0.77	0.17	0.00
Avail Cap(c_a), veh/h	121	1014	506	703	774	636	76	1611	1031	255	1652	704
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.99	0.99	1.00	1.00	1.00
Uniform Delay (d), s/veh	76.5	59.8	56.2	63.0	37.8	44.8	76.0	26.6	11.3	74.6	24.5	22.6
Incr Delay (d2), s/veh	2.6	0.0	0.4	24.5	0.0	0.9	56.3	0.4	0.7	9.5	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.2	2.3	15.7	0.7	8.3	3.8	4.8	4.4	3.2	3.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	79.2	59.8	56.6	87.5	37.9	45.7	132.4	27.0	12.0	84.2	24.7	22.6
LnGrp LOS	E	E	E	F	D	D	F	C	B	F	C	C
Approach Vol, veh/h		87			956			762			420	
Approach Delay, s/veh		59.6			75.0			30.2			45.2	
Approach LOS		E			E			C			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	79.4	38.0	28.6	12.1	81.3	9.1	57.5
Change Period (Y+Rc), s	* 5.2	6.3	* 5.2	* 6.7	* 5.2	6.3	* 5.2	6.7
Max Green Setting (Gmax), s	* 12	47.0	* 33	* 46	* 6.9	52.0	* 11	66.7
Max Q Clear Time (g_c+I1), s	8.7	14.7	33.2	7.8	7.8	9.1	2.9	23.9
Green Ext Time (p_c), s	0.1	3.6	0.0	0.2	0.0	1.7	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	53.4
HCM 6th LOS	D

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	50	0	68	208	644	0	0	297	626
Future Volume (veh/h)	0	0	0	50	0	68	208	644	0	0	297	626
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.97	1.00		1.00	1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				61	0	83	226	700	0	0	330	696
Peak Hour Factor				0.82	0.82	0.82	0.92	0.92	0.92	0.90	0.90	0.90
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				145	0	125	256	3856	0	0	1838	821
Arrive On Green				0.08	0.00	0.08	0.14	0.76	0.00	0.00	0.54	0.54
Sat Flow, veh/h				1767	0	1532	1767	5233	0	0	3544	1508
Grp Volume(v), veh/h				61	0	83	226	700	0	0	330	696
Grp Sat Flow(s),veh/h/ln				1767	0	1532	1767	1689	0	0	1689	1508
Q Serve(g_s), s				2.1	0.0	3.4	8.2	2.5	0.0	0.0	3.2	25.4
Cycle Q Clear(g_c), s				2.1	0.0	3.4	8.2	2.5	0.0	0.0	3.2	25.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				145	0	125	256	3856	0	0	1838	821
V/C Ratio(X)				0.42	0.00	0.66	0.88	0.18	0.00	0.00	0.18	0.85
Avail Cap(c_a), veh/h				419	0	363	256	3856	0	0	1838	821
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.83	0.83	0.00	0.00	0.73	0.73
Uniform Delay (d), s/veh				28.4	0.0	29.0	27.3	2.1	0.0	0.0	7.5	12.5
Incr Delay (d2), s/veh				2.0	0.0	5.9	24.8	0.1	0.0	0.0	0.2	8.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				0.9	0.0	1.3	4.8	0.2	0.0	0.0	0.9	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.3	0.0	34.8	52.1	2.2	0.0	0.0	7.6	20.5
LnGrp LOS				C	A	C	D	A	A	A	A	C
Approach Vol, veh/h					144			926			1026	
Approach Delay, s/veh					32.9			14.4			16.4	
Approach LOS					C			B			B	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	54.6		14.1	40.5		10.4
Change Period (Y+Rc), s	5.1		* 4.7	5.1		5.1
Max Green Setting (Gmax), s	39.4		* 9.4	25.3		15.4
Max Q Clear Time (g_c+I1), s	4.5		10.2	27.4		5.4
Green Ext Time (p_c), s	4.9		0.0	0.0		0.3

Intersection Summary	
HCM 6th Ctrl Delay	16.6
HCM 6th LOS	B

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	538	2	283	0	0	0	0	307	21	99	245	0
Future Volume (veh/h)	538	2	283	0	0	0	0	307	21	99	245	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.99	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	462	201	318				0	409	28	105	261	0
Peak Hour Factor	0.89	0.89	0.89				0.75	0.75	0.75	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	628	230	364				0	1853	125	134	1824	0
Arrive On Green	0.36	0.36	0.36				0.00	0.38	0.38	0.08	0.52	0.00
Sat Flow, veh/h	1767	647	1024				0	5007	327	1767	3618	0
Grp Volume(v), veh/h	462	0	519				0	284	153	105	261	0
Grp Sat Flow(s),veh/h/ln	1767	0	1671				0	1689	1791	1767	1763	0
Q Serve(g_s), s	18.3	0.0	23.2				0.0	4.5	4.6	4.7	3.1	0.0
Cycle Q Clear(g_c), s	18.3	0.0	23.2				0.0	4.5	4.6	4.7	3.1	0.0
Prop In Lane	1.00		0.61				0.00		0.18	1.00		0.00
Lane Grp Cap(c), veh/h	628	0	594				0	1293	685	134	1824	0
V/C Ratio(X)	0.74	0.00	0.87				0.00	0.22	0.22	0.78	0.14	0.00
Avail Cap(c_a), veh/h	749	0	708				0	1293	685	205	1824	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.95	0.95	0.91	0.91	0.00
Uniform Delay (d), s/veh	22.5	0.0	24.1				0.0	16.6	16.7	36.3	10.1	0.0
Incr Delay (d2), s/veh	3.1	0.0	10.4				0.0	0.4	0.7	9.4	0.1	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
%ile BackOfQ(50%),veh/ln	7.8	0.0	9.8				0.0	1.6	1.8	2.2	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	0.0	34.5				0.0	17.0	17.4	45.7	10.2	0.0
LnGrp LOS	C	A	C				A	B	B	D	B	A
Approach Vol, veh/h		981						437			366	
Approach Delay, s/veh		30.3						17.1			20.4	
Approach LOS		C						B			C	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	10.8	35.7		33.5		46.5						
Change Period (Y+Rc), s	4.7	5.1		5.1		5.1						
Max Green Setting (Gmax), s	9.3	21.9		33.9		35.9						
Max Q Clear Time (g_c+I1), s	6.7	6.6		25.2		5.1						
Green Ext Time (p_c), s	0.0	2.1		3.2		1.5						

Intersection Summary	
HCM 6th Ctrl Delay	25.1
HCM 6th LOS	C

LOS Engineering, Inc.

Attachment 2 Village VTM-1 LMA Appendix

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	232	5	3	0	11	86	5	19	0	140	12	365
Future Volume (veh/h)	232	5	3	0	11	86	5	19	0	140	12	365
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		1.00	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	298	0	0	0	14	113	7	28	0	146	12	380
Peak Hour Factor	0.80	0.80	0.80	0.76	0.76	0.76	0.67	0.67	0.67	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	670	352	0	454	245	199	13	1501	0	177	686	558
Arrive On Green	0.19	0.00	0.00	0.00	0.13	0.13	0.01	0.30	0.00	0.10	0.39	0.39
Sat Flow, veh/h	3534	1856	0	3428	1856	1506	1767	5233	0	1767	1763	1435
Grp Volume(v), veh/h	298	0	0	0	14	113	7	28	0	146	12	380
Grp Sat Flow(s),veh/h/ln	1767	1856	0	1714	1856	1506	1767	1689	0	1767	1763	1435
Q Serve(g_s), s	4.9	0.0	0.0	0.0	0.4	4.6	0.3	0.3	0.0	5.4	0.3	14.5
Cycle Q Clear(g_c), s	4.9	0.0	0.0	0.0	0.4	4.6	0.3	0.3	0.0	5.4	0.3	14.5
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	670	352	0	454	245	199	13	1501	0	177	686	558
V/C Ratio(X)	0.44	0.00	0.00	0.00	0.06	0.57	0.54	0.02	0.00	0.83	0.02	0.68
Avail Cap(c_a), veh/h	1874	984	0	1714	928	753	110	2440	0	177	916	746
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	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	0.0	0.0	0.0	25.0	26.9	32.7	16.4	0.0	29.1	12.4	16.8
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.0	0.1	2.5	31.1	0.0	0.0	26.4	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	0.0	0.0	0.2	1.6	0.2	0.1	0.0	3.4	0.1	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.1	0.0	0.0	0.0	25.1	29.4	63.7	16.4	0.0	55.5	12.4	18.3
LnGrp LOS	C	A	A	A	C	C	E	B	A	E	B	B
Approach Vol, veh/h		298			127			35			538	
Approach Delay, s/veh		24.1			28.9			25.9			28.3	
Approach LOS		C			C			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.9	24.5		16.9	4.9	30.6		13.6
Change Period (Y+Rc), s	4.4	4.9		4.4	4.4	4.9		4.9
Max Green Setting (Gmax), s	6.6	31.8		35.0	4.1	34.3		33.0
Max Q Clear Time (g_c+I1), s	7.4	2.3		6.9	2.3	16.5		6.6
Green Ext Time (p_c), s	0.0	0.1		1.0	0.0	2.4		0.4

Intersection Summary	
HCM 6th Ctrl Delay	27.0
HCM 6th LOS	C

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	18	178	9	7	1	75	71	5	1	109	169
Future Volume (veh/h)	130	18	178	9	7	1	75	71	5	1	109	169
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.94	1.00		0.96	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	152	0	189	13	10	1	89	85	6	1	163	252
Peak Hour Factor	0.94	0.94	0.94	0.71	0.71	0.71	0.84	0.84	0.84	0.67	0.67	0.67
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1512	0	655	53	41	4	264	503	35	55	190	293
Arrive On Green	0.43	0.00	0.43	0.05	0.05	0.05	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	3534	0	1531	968	745	74	963	1708	121	1	646	994
Grp Volume(v), veh/h	152	0	189	24	0	0	89	0	91	416	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	1531	1788	0	0	963	0	1828	1641	0	0
Q Serve(g_s), s	1.7	0.0	5.3	0.8	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.7	0.0	5.3	0.8	0.0	0.0	12.3	0.0	2.4	15.8	0.0	0.0
Prop In Lane	1.00		1.00	0.54		0.04	1.00		0.07	0.00		0.61
Lane Grp Cap(c), veh/h	1512	0	655	98	0	0	264	0	538	538	0	0
V/C Ratio(X)	0.10	0.00	0.29	0.24	0.00	0.00	0.34	0.00	0.17	0.77	0.00	0.00
Avail Cap(c_a), veh/h	1512	0	655	705	0	0	361	0	724	714	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	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	11.3	0.0	12.3	29.8	0.0	0.0	20.8	0.0	17.3	22.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.1	1.2	0.0	0.0	1.3	0.0	0.3	3.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	1.7	0.4	0.0	0.0	1.1	0.0	0.9	5.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.4	0.0	13.4	31.1	0.0	0.0	22.0	0.0	17.5	25.8	0.0	0.0
LnGrp LOS	B	A	B	C	A	A	C	A	B	C	A	A
Approach Vol, veh/h		341			24			180			416	
Approach Delay, s/veh		12.5			31.1			19.8			25.8	
Approach LOS		B			C			B			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	33.1	24.3	8.5	24.3
Change Period (Y+Rc), s	4.9	* 4.9	4.9	4.9
Max Green Setting (Gmax), s	28.2	* 27	26.0	26.1
Max Q Clear Time (g_c+I1), s	7.3	17.8	2.8	14.3
Green Ext Time (p_c), s	1.0	1.6	0.1	1.0

Intersection Summary	
HCM 6th Ctrl Delay	20.1
HCM 6th LOS	C

LOS Engineering, Inc.

Intersection	
Int Delay, s/veh	2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	3	0	0	1	0
Future Vol, veh/h	0	3	0	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-
Peak Hour Factor	33	33	92	92	25	25
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	9	0	0	4	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	9	0	6	-
Stage 1	-	-	-	-	5	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.13	-	6.43	-
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	-
Pot Cap-1 Maneuver	-	-	1604	-	1013	0
Stage 1	-	-	-	-	1016	0
Stage 2	-	-	-	-	1020	0
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1604	-	1013	-
Mov Cap-2 Maneuver	-	-	-	-	1013	-
Stage 1	-	-	-	-	1016	-
Stage 2	-	-	-	-	1020	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1013	-	-	1604	-
HCM Lane V/C Ratio	0.004	-	-	-	-
HCM Control Delay (s)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

LOS Engineering, Inc.

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	106	8	21	2	5	4	46	80	1	5	142	111
Future Vol, veh/h	106	8	21	2	5	4	46	80	1	5	142	111
Peak Hour Factor	0.89	0.89	0.89	0.69	0.69	0.69	0.74	0.74	0.74	0.90	0.90	0.90
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	119	9	24	3	7	6	62	108	1	6	158	123
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.5	8.2	9.2	9.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	36%	79%	18%	2%
Vol Thru, %	63%	6%	45%	55%
Vol Right, %	1%	16%	36%	43%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	127	135	11	258
LT Vol	46	106	2	5
Through Vol	80	8	5	142
RT Vol	1	21	4	111
Lane Flow Rate	172	152	16	287
Geometry Grp	1	1	1	1
Degree of Util (X)	0.227	0.213	0.022	0.345
Departure Headway (Hd)	4.76	5.057	5.015	4.331
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	752	707	709	828
Service Time	2.801	3.108	3.081	2.366
HCM Lane V/C Ratio	0.229	0.215	0.023	0.347
HCM Control Delay	9.2	9.5	8.2	9.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.9	0.8	0.1	1.5

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa rd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	T	R	L	L	T	R	L	T	T	R	L
Maximum Queue (ft)	26	29	113	332	341	22	85	74	181	266	195	160
Average Queue (ft)	3	10	44	74	201	4	23	29	93	105	78	88
95th Queue (ft)	15	30	82	211	336	17	56	66	164	200	163	161
Link Distance (ft)		1246		1445	1445	1445		506	506	506		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	230		230				500				170	250
Storage Blk Time (%)										0	2	
Queuing Penalty (veh)										1	4	

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa rd

Movement	SB	SB	SB
Directions Served	L	T	T
Maximum Queue (ft)	194	180	256
Average Queue (ft)	121	55	149
95th Queue (ft)	174	135	251
Link Distance (ft)		449	449
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	250		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Caliente Ave & SR-905 WB Ramp

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	51	60	124	350	201	143	120	245	506
Average Queue (ft)	25	19	120	140	16	44	39	86	236
95th Queue (ft)	52	44	129	317	80	113	85	183	416
Link Distance (ft)	998			418	418	418	506	506	506
Upstream Blk Time (%)									0
Queuing Penalty (veh)									1
Storage Bay Dist (ft)		820	100						
Storage Blk Time (%)			26	0					
Queuing Penalty (veh)			87	0					

Intersection: 3: Caliente Ave & SR-905 EB Ramp

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	T	TR	L	T	T
Maximum Queue (ft)	855	1014	200	373	408	138	51	96
Average Queue (ft)	848	982	106	93	190	72	26	49
95th Queue (ft)	890	1001	176	196	305	131	51	100
Link Distance (ft)		962	441	441	441	418	418	418
Upstream Blk Time (%)		66						
Queuing Penalty (veh)		0						
Storage Bay Dist (ft)	830							
Storage Blk Time (%)	1	65						
Queuing Penalty (veh)	5	213						

Intersection: 4: Caliente Ave & Airway Rd

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	R	L	T	T	TR	L	T	TR
Maximum Queue (ft)	218	304	30	137	46	113	71	116	88	152	278
Average Queue (ft)	87	166	5	43	17	35	35	50	36	73	152
95th Queue (ft)	170	267	23	85	42	88	68	95	79	139	246
Link Distance (ft)	499	499	570			765	765	765		441	441
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)				250	250				240		
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 10: E Beyer Blvd/Old Otay Mesa Rd & Beyer Blvd

Movement	EB	EB	EB	WB	NB	NB	SB
Directions Served	L	LT	R	LTR	L	TR	LTR
Maximum Queue (ft)	288	194	95	93	124	673	500
Average Queue (ft)	174	121	42	22	81	184	212
95th Queue (ft)	266	219	71	53	149	469	363
Link Distance (ft)	514	514		866		842	698
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			325		100		
Storage Blk Time (%)					21	10	
Queuing Penalty (veh)					51	9	

Intersection: 11: Enright Dr & Beyer Blvd

Movement	NB
Directions Served	L
Maximum Queue (ft)	30
Average Queue (ft)	3
95th Queue (ft)	17
Link Distance (ft)	281
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: E Beyer Blvd & Center St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	80	30	79	99
Average Queue (ft)	51	9	37	45
95th Queue (ft)	74	31	59	74
Link Distance (ft)	158	237	168	618
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 431

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	27	72	28	74	1454	1460	1456	146	160	228	204	194
Average Queue (ft)	4	13	1	28	735	878	57	50	75	111	104	39
95th Queue (ft)	18	44	11	56	1453	1470	486	109	141	191	183	109
Link Distance (ft)		1246	1246		1445	1445	1445		506	506	506	
Upstream Blk Time (%)					0	2	0					
Queuing Penalty (veh)					0	0	0					
Storage Bay Dist (ft)	230			230				500				170
Storage Blk Time (%)											1	
Queuing Penalty (veh)											3	

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa rd

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	148	172	163	192	14
Average Queue (ft)	68	97	33	111	1
95th Queue (ft)	145	158	113	199	8
Link Distance (ft)			449	449	449
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	250	250			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: Caliente Ave & SR-905 WB Ramp

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	92	48	124	207	76	116	52	132	490
Average Queue (ft)	36	22	96	31	23	43	16	38	239
95th Queue (ft)	75	45	134	132	60	101	45	96	433
Link Distance (ft)	998			418	418	418	506	506	506
Upstream Blk Time (%)									0
Queuing Penalty (veh)									0
Storage Bay Dist (ft)		820	100						
Storage Blk Time (%)			12						
Queuing Penalty (veh)			25						

Intersection: 3: Caliente Ave & SR-905 EB Ramp

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	T	TR	L	T	T
Maximum Queue (ft)	854	977	93	98	164	156	111	140
Average Queue (ft)	274	393	53	45	83	63	25	53
95th Queue (ft)	646	743	88	89	145	116	71	105
Link Distance (ft)		962	441	441	441	418	418	418
Upstream Blk Time (%)		0						
Queuing Penalty (veh)		0						
Storage Bay Dist (ft)	830							
Storage Blk Time (%)	0	1						
Queuing Penalty (veh)	0	2						

Intersection: 4: Caliente Ave & Airway Rd

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	R	L	T	T	TR	L	T	TR
Maximum Queue (ft)	143	160	31	87	20	26	64	46	165	43	142
Average Queue (ft)	37	80	10	39	1	5	6	5	76	3	59
95th Queue (ft)	83	137	32	65	7	20	30	26	140	21	111
Link Distance (ft)	499	499	570			765	765	765		441	441
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)				250	250				240		
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 10: E Beyer Blvd/Old Otay Mesa Rd & Beyer Blvd

Movement	EB	EB	EB	WB	NB	NB	SB
Directions Served	L	LT	R	LTR	L	TR	LTR
Maximum Queue (ft)	116	52	115	48	122	84	257
Average Queue (ft)	51	14	40	12	50	26	108
95th Queue (ft)	93	44	75	36	95	55	199
Link Distance (ft)	514	514		836		842	698
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			325		100		
Storage Blk Time (%)					3	0	
Queuing Penalty (veh)					2	0	

Intersection: 11: Enright Dr & Beyer Blvd

Movement
Directions Served
Maximum Queue (ft)
Average Queue (ft)
95th Queue (ft)
Link Distance (ft)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (ft)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 12: E Beyer Blvd & Center St

Movement	EB	NB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	56	56	56
Average Queue (ft)	40	41	50
95th Queue (ft)	60	59	65
Link Distance (ft)	184	180	606
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 26

Appendix I

SANDAG Select Zone Assignment

SANDAG
Series13

Regional Model
Year 2012

Otay Mesa

Select Zone Run
TAZ 4948

Version 13.3.3
Scenario ID1315

join

ifc

10

1; 2; 3; 4; 5; 6; 7; 8; 9

Selected Zone(s)

\# **Select Zone Vol and %**

\# **Model Estimated ADT**

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0 0.045 0.09 0.135
Miles

SANDAG servicebureau

Date: July 2, 2021

Appendix J

Cumulative Project Information

1) OtayMesa/Caliente/Oceanview

	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM TOTAL	**73**	**18**	**130**	**90**	**46**	**0**	**28**	**16**	**44**	**101**	**28**	**86**
7-11	71			14	36		28	14	36		28	
Arco+Marijuana			25	6						2		1
Azul Playa Del Sol	2							2	8			
Candlelight & Southwind		14	61		4					15		
Beyer Park												
CA Terraces PA61			19	3						77		12
Festival												
Lumina Phase 1				9								24
Lumina III				1								1
Plaza La Media				16								11
Plaza La Media S.				4								3
Sunroads			9	22						4		9
MetropolitanAir			16	1	1			0		3	0	0
SD-TJ Xborder Phase 2		4		9	5							7
Otay Mesa Floreo				5								18
PM TOTAL	**(73)**	**(12)**	**(124)**	**(147)**	**(55)**	**()**	**(25)**	**(14)**	**(36)**	**(142)**	**(27)**	**(117)**
7-11	(64)			(13)	(32)		(25)	(13)	(32)		(25)	
Arco+Marijuana			(6)	(1)						(22)		(6)
Azul Playa Del Sol	(9)							(1)	(4)		(2)	
Candlelight & Southwind		(6)	(26)		(14)					(61)		
Beyer Park												
CA Terraces PA61			(79)	(12)						(34)		(5)
Festival												
Lumina Phase 1				(32)								(20)
Lumina III				(1)								(1)
Plaza La Media				(37)								(36)
Plaza La Media S.				(9)								(9)
Sunroads			(5)	(14)						(8)		(20)
MetropolitanAir		(1)	(8)	(1)						(17)		(2)
SD-TJ Xborder Phase 2		(5)		(8)	(9)							(9)
Otay Mesa Floreo				(19)								(9)

2) Caliente/SR905 WB Ramp	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM TOTAL	**98**	**164**	**0**	**0**	**65**	**77**	**0**	**0**	**0**	**85**	**0**	**10**
7-11		22	x	x	10	14	x	x	x			2
Arco+Marijuana		25	x	x		2	x	x	x			
Azul Playa Del Sol		2	x	x	2	6	x	x	x			0
Candlelight & Southwind	98	75	x	x	19		x	x	x	7		
Beyer Park			x	x			x	x	x			
CA Terraces PA61		15	x	x	24	53	x	x	x			4
Festival			x	x			x	x	x			
Lumina Phase 1			x	x			x	x	x	34		
Lumina III			x	x			x	x	x	4		
Plaza La Media			x	x			x	x	x	4		
Plaza La Media S.			x	x			x	x	x	1		
Sunroads		9	x	x	4		x	x	x			
MetropolitanAir		16	x	x	1	2	x	x	x			
SD-TJ Xborder Phase 2			x	x	5		x	x	x	10		4
Otay Mesa Floreo			x	x			x	x	x	25		
PM TOTAL	**(42)**	**(138)**	**()**	**()**	**(110)**	**(75)**	**()**	**()**	**()**	**(101)**	**()**	**(27)**
7-11		(19)	x	x	(9)	(12)	x	x	x			(2)
Arco+Marijuana		(6)	x	x		(22)	x	x	x			
Azul Playa Del Sol		(7)	x	x	(1)	(3)	x	x	x			(2)
Candlelight & Southwind	(42)	(33)	x	x	(75)		x	x	x	(31)		
Beyer Park			x	x			x	x	x			
CA Terraces PA61		(60)	x	x	(10)	(23)	x	x	x			(18)
Festival			x	x			x	x	x			
Lumina Phase 1			x	x			x	x	x	(28)		
Lumina III			x	x			x	x	x			
Plaza La Media			x	x			x	x	x	(12)		
Plaza La Media S.			x	x			x	x	x	(3)		
Sunroads		(5)	x	x	(8)		x	x	x			
MetropolitanAir		(8)	x	x	(2)	(15)	x	x	x			
SD-TJ Xborder Phase 2			x	x	(5)		x	x	x	(14)		(5)
Otay Mesa Floreo			x	x			x	x	x	(13)		

3) Caliente/SR905 EB Ramp	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM TOTAL	**0**	**193**	**75**	**28**	**123**	**0**	**68**	**0**	**25**	**0**	**0**	**0**
7-11	x	8		2	8	x	14			x	x	x
Arco+Marijuana	x					x	25			x	x	x
Azul Playa Del Sol	x			2		x	2			x	x	x
Candlelight & Southwind	x	173	30		26	x			25	x	x	x
Beyer Park	x					x				x	x	x
CA Terraces PA61	x	1		18	6	x	13			x	x	x
Festival	x					x				x	x	x
Lumina Phase 1	x		13		34	x				x	x	x
Lumina III	x		5		4	x				x	x	x
Plaza La Media	x		5		4	x				x	x	x
Plaza La Media S.	x		1		1	x				x	x	x
Sunroads	x	9			4	x				x	x	x
MetropolitanAir	x	2	1	1	1	x	14			x	x	x
SD-TJ Xborder Phase 2	x		13	5	10	x				x	x	x
Otay Mesa Floreo	x		7		25	x				x	x	x
PM TOTAL	**()**	**(94)**	**(115)**	**(17)**	**(197)**	**()**	**(86)**	**()**	**(99)**	**()**	**()**	**()**
7-11	x	(7)		(2)	(7)	x	(12)			x	x	x
Arco+Marijuana	x					x	(6)			x	x	x
Azul Playa Del Sol	x			(1)		x	(7)			x	x	x
Candlelight & Southwind	x	(75)	(13)		(106)	x			(99)	x	x	x
Beyer Park	x					x				x	x	x
CA Terraces PA61	x	(6)		(8)	(3)	x	(54)			x	x	x
Festival	x					x				x	x	x
Lumina Phase 1	x		(45)		(28)	x				x	x	x
Lumina III	x					x				x	x	x
Plaza La Media	x		(12)		(12)	x				x	x	x
Plaza La Media S.	x		(3)		(3)	x				x	x	x
Sunroads	x	(5)			(8)	x				x	x	x
MetropolitanAir	x	(1)			(3)	x	(7)			x	x	x
SD-TJ Xborder Phase 2	x		(15)	(6)	(14)	x				x	x	x
Otay Mesa Floreo	x		(27)		(13)	x				x	x	x

4) Caliente/Airway	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM TOTAL	**30**	**203**	**0**	**25**	**51**	**72**	**48**	**0**	**12**	**0**	**0**	**11**
7-11				4		4	4					4
Arco+Marijuana												
Azul Playa Del Sol												
Candlelight & Southwind	30	203			51				8			
Beyer Park												
CA Terraces PA61						6	1					
Festival												
Lumina Phase 1				15		19	7					6
Lumina III						4	5					
Plaza La Media						4	5					
Plaza La Media S.						1	1					
Sunroads				2		2	5		4			
MetropolitanAir						1	1					
SD-TJ Xborder Phase 2						10	13					
Otay Mesa Floreo				4		21	6					1
PM TOTAL	**(13)**	**(88)**	**()**	**(31)**	**(205)**	**(60)**	**(94)**	**()**	**(33)**	**()**	**()**	**(27)**
7-11				(4)		(3)	(3)					(4)
Arco+Marijuana												
Azul Playa Del Sol												
Candlelight & Southwind	(13)	(88)			(205)				(31)			
Beyer Park												
CA Terraces PA61						(3)	(6)					
Festival												
Lumina Phase 1				(12)		(16)	(26)					(19)
Lumina III												
Plaza La Media						(12)	(12)					
Plaza La Media S.						(3)	(3)					
Sunroads				(4)		(4)	(3)		(2)			
MetropolitanAir						(3)	(3)					
SD-TJ Xborder Phase 2						(14)	(15)					
Otay Mesa Floreo				(11)		(2)	(23)					(4)

5) Caliente/Central	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM TOTAL	**0**	**0**	**0**	**41**	**0**	**13**	**70**	**0**	**0**	**0**	**0**	**164**
7-11	x	x	x		x				x	x		
Arco+Marijuana	x	x	x		x				x	x		
Azul Playa Del Sol	x	x	x		x				x	x		
Candlelight & Southwind	x	x	x	41	x	13	70		x	x		164
Beyer Park	x	x	x		x				x	x		
CA Terraces PA61	x	x	x		x				x	x		
Festival	x	x	x		x				x	x		
Lumina Phase 1	x	x	x		x				x	x		
Lumina III	x	x	x		x				x	x		
Plaza La Media	x	x	x		x				x	x		
Plaza La Media S.	x	x	x		x				x	x		
Sunroads	x	x	x		x				x	x		
MetropolitanAir	x	x	x		x				x	x		
SD-TJ Xborder Phase 2	x	x	x		x				x	x		
Otay Mesa Floreo	x	x	x		x				x	x		
PM TOTAL	**()**	**()**	**()**	**(162)**	**()**	**(56)**	**(32)**	**()**	**()**	**()**	**()**	**(69)**
7-11	x	x	x		x				x	x		
Arco+Marijuana	x	x	x		x				x	x		
Azul Playa Del Sol	x	x	x		x				x	x		
Candlelight & Southwind	x	x	x	162	x	56	32		x	x		69
Beyer Park	x	x	x		x				x	x		
CA Terraces PA61	x	x	x		x				x	x		
Festival	x	x	x		x				x	x		
Lumina Phase 1	x	x	x		x				x	x		
Lumina III	x	x	x		x				x	x		
Plaza La Media	x	x	x		x				x	x		
Plaza La Media S.	x	x	x		x				x	x		
Sunroads	x	x	x		x				x	x		
MetropolitanAir	x	x	x		x				x	x		
SD-TJ Xborder Phase 2	x	x	x		x				x	x		
Otay Mesa Floreo	x	x	x		x				x	x		

6) Central/PA8-9-10	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7-11												
Arco+Marijuana												
Azul Playa Del Sol												
Candlelight & Southwind												
Beyer Park												
CA Terraces PA61												
Festival												
Lumina Phase 1												
Lumina III												
Plaza La Media												
Plaza La Media S.												
Sunroads												
MetropolitanAir												
SD-TJ Xborder Phase 2												
Otay Mesa Floreo												
PM TOTAL	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**
7-11												
Arco+Marijuana												
Azul Playa Del Sol												
Candlelight & Southwind												
Beyer Park												
CA Terraces PA61												
Festival												
Lumina Phase 1												
Lumina III												
Plaza La Media												
Plaza La Media S.												
Sunroads												
MetropolitanAir												
SD-TJ Xborder Phase 2												
Otay Mesa Floreo												

7) Beyer/Central	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7-11	x	x	x		x				x	x		
Arco+Marijuana	x	x	x		x				x	x		
Azul Playa Del Sol	x	x	x		x				x	x		
Candlelight & Southwind	x	x	x		x				x	x		
Beyer Park	x	x	x		x				x	x		
CA Terraces PA61	x	x	x		x				x	x		
Festival	x	x	x		x				x	x		
Lumina Phase 1	x	x	x		x				x	x		
Lumina III	x	x	x		x				x	x		
Plaza La Media	x	x	x		x				x	x		
Plaza La Media S.	x	x	x		x				x	x		
Sunroads	x	x	x		x				x	x		
MetropolitanAir	x	x	x		x				x	x		
SD-TJ Xborder Phase 2	x	x	x		x				x	x		
Otay Mesa Floreo	x	x	x		x				x	x		
PM TOTAL	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**
7-11	x	x	x		x				x	x		
Arco+Marijuana	x	x	x		x				x	x		
Azul Playa Del Sol	x	x	x		x				x	x		
Candlelight & Southwind	x	x	x		x				x	x		
Beyer Park	x	x	x		x				x	x		
CA Terraces PA61	x	x	x		x				x	x		
Festival	x	x	x		x				x	x		
Lumina Phase 1	x	x	x		x				x	x		
Lumina III	x	x	x		x				x	x		
Plaza La Media	x	x	x		x				x	x		
Plaza La Media S.	x	x	x		x				x	x		
Sunroads	x	x	x		x				x	x		
MetropolitanAir	x	x	x		x				x	x		
SD-TJ Xborder Phase 2	x	x	x		x				x	x		
Otay Mesa Floreo	x	x	x		x				x	x		

8) Beyer/West Ave	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7-11		x		x	x	x	x					x
Arco+Marijuana		x		x	x	x	x					x
Azul Playa Del Sol		x		x	x	x	x					x
Candlelight & Southwind		x		x	x	x	x					x
Beyer Park		x		x	x	x	x					x
CA Terraces PA61		x		x	x	x	x					x
Festival		x		x	x	x	x					x
Lumina Phase 1		x		x	x	x	x					x
Lumina III		x		x	x	x	x					x
Plaza La Media		x		x	x	x	x					x
Plaza La Media S.		x		x	x	x	x					x
Sunroads		x		x	x	x	x					x
MetropolitanAir		x		x	x	x	x					x
SD-TJ Xborder Phase 2		x		x	x	x	x					x
Otay Mesa Floreo		x		x	x	x	x					x
PM TOTAL	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**
7-11		x		x	x	x	x					x
Arco+Marijuana		x		x	x	x	x					x
Azul Playa Del Sol		x		x	x	x	x					x
Candlelight & Southwind		x		x	x	x	x					x
Beyer Park		x		x	x	x	x					x
CA Terraces PA61		x		x	x	x	x					x
Festival		x		x	x	x	x					x
Lumina Phase 1		x		x	x	x	x					x
Lumina III		x		x	x	x	x					x
Plaza La Media		x		x	x	x	x					x
Plaza La Media S.		x		x	x	x	x					x
Sunroads		x		x	x	x	x					x
MetropolitanAir		x		x	x	x	x					x
SD-TJ Xborder Phase 2		x		x	x	x	x					x
Otay Mesa Floreo		x		x	x	x	x					x

9) West/Street A	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
7-11			x	x				x		x	x	x
Arco+Marijuana			x	x				x		x	x	x
Azul Playa Del Sol			x	x				x		x	x	x
Candlelight & Southwind			x	x				x		x	x	x
Beyer Park			x	x				x		x	x	x
CA Terraces PA61			x	x				x		x	x	x
Festival			x	x				x		x	x	x
Lumina Phase 1			x	x				x		x	x	x
Lumina III			x	x				x		x	x	x
Plaza La Media			x	x				x		x	x	x
Plaza La Media S.			x	x				x		x	x	x
Sunroads			x	x				x		x	x	x
MetropolitanAir			x	x				x		x	x	x
SD-TJ Xborder Phase 2			x	x				x		x	x	x
Otay Mesa Floreo			x	x				x		x	x	x
PM TOTAL	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**()**
7-11			x	x				x		x	x	x
Arco+Marijuana			x	x				x		x	x	x
Azul Playa Del Sol			x	x				x		x	x	x
Candlelight & Southwind			x	x				x		x	x	x
Beyer Park			x	x				x		x	x	x
CA Terraces PA61			x	x				x		x	x	x
Festival			x	x				x		x	x	x
Lumina Phase 1			x	x				x		x	x	x
Lumina III			x	x				x		x	x	x
Plaza La Media			x	x				x		x	x	x
Plaza La Media S.			x	x				x		x	x	x
Sunroads			x	x				x		x	x	x
MetropolitanAir			x	x				x		x	x	x
SD-TJ Xborder Phase 2			x	x				x		x	x	x
Otay Mesa Floreo			x	x				x		x	x	x

10) Beyer/E Beyer	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM TOTAL	**2**	**1**	**2**	**1**	**2**	**0**	**0**	**7**	**3**	**3**	**7**	**1**
7-11												
Arco+Marijuana												
Azul Playa Del Sol												
Candlelight & Southwind												
Beyer Park			1	1				7		1	7	1
CA Terraces PA61												
Festival	2	1	1		2				3	2		
Lumina Phase 1												
Lumina III												
Plaza La Media												
Plaza La Media S.												
Sunroads												
MetropolitanAir												
SD-TJ Xborder Phase 2												
Otay Mesa Floreo												
PM TOTAL	**(5)**	**(3)**	**(4)**	**(3)**	**(3)**	**()**	**()**	**(15)**	**(5)**	**(4)**	**(14)**	**(3)**
7-11												
Arco+Marijuana												
Azul Playa Del Sol												
Candlelight & Southwind												
Beyer Park			(1)	(3)				(15)		(1)	(14)	(3)
CA Terraces PA61												
Festival	(5)	(3)	(3)		(3)				(5)	(3)		
Lumina Phase 1												
Lumina III												
Plaza La Media												
Plaza La Media S.												
Sunroads												
MetropolitanAir												
SD-TJ Xborder Phase 2												
Otay Mesa Floreo												

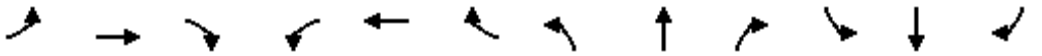
11) Beyer/Enright	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM TOTAL	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**
7-11		x		x	x	x	x					x
Arco+Marijuana		x		x	x	x	x					x
Azul Playa Del Sol		x		x	x	x	x					x
Candlelight & Southwind		x		x	x	x	x					x
Beyer Park	4	x		x	x	x	x		4			x
CA Terraces PA61		x		x	x	x	x					x
Festival	1	x		x	x	x	x		1			x
Lumina Phase 1		x		x	x	x	x					x
Lumina III		x		x	x	x	x					x
Plaza La Media		x		x	x	x	x					x
Plaza La Media S.		x		x	x	x	x					x
Sunroads		x		x	x	x	x					x
MetropolitanAir		x		x	x	x	x					x
SD-TJ Xborder Phase 2		x		x	x	x	x					x
Otay Mesa Floreo		x		x	x	x	x					x
PM TOTAL	**(10)**	**()**	**()**	**()**	**()**	**()**	**()**	**()**	**(10)**	**()**	**()**	**()**
7-11		x		x	x	x	x					x
Arco+Marijuana		x		x	x	x	x					x
Azul Playa Del Sol		x		x	x	x	x					x
Candlelight & Southwind		x		x	x	x	x					x
Beyer Park	9	x		x	x	x	x		(9)			x
CA Terraces PA61		x		x	x	x	x					x
Festival	1	x		x	x	x	x		(1)			x
Lumina Phase 1		x		x	x	x	x					x
Lumina III		x		x	x	x	x					x
Plaza La Media		x		x	x	x	x					x
Plaza La Media S.		x		x	x	x	x					x
Sunroads		x		x	x	x	x					x
MetropolitanAir		x		x	x	x	x					x
SD-TJ Xborder Phase 2		x		x	x	x	x					x
Otay Mesa Floreo		x		x	x	x	x					x

12) E. Beyer/Center St	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR
AM TOTAL	**0**	**3**	**0**	**0**	**4**	**57**	**86**	**0**	**0**	**0**	**0**	**0**
7-11												
Arco+Marijuana												
Azul Playa Del Sol												
Candlelight & Southwind												
Beyer Park		1			1							
CA Terraces PA61												
Festival		2			3	57	86					
Lumina Phase 1												
Lumina III												
Plaza La Media												
Plaza La Media S.												
Sunroads												
MetropolitanAir												
SD-TJ Xborder Phase 2												
Otay Mesa Floreo												
PM TOTAL	**()**	**(4)**	**()**	**()**	**(9)**	**(143)**	**(143)**	**()**	**()**	**()**	**()**	**()**
7-11												
Arco+Marijuana												
Azul Playa Del Sol												
Candlelight & Southwind												
Beyer Park		1			1							
CA Terraces PA61												
Festival		3			8	143	143					
Lumina Phase 1												
Lumina III												
Plaza La Media												
Plaza La Media S.												
Sunroads												
MetropolitanAir												
SD-TJ Xborder Phase 2												
Otay Mesa Floreo												

Cumulative in Year:	2024														
Roadway Segment	**Cumulative TOTAL**	7-11	Azul Playa DelSol	Arco + Marijuna Prod.	Cndlight +S.wind	Beyer Park	CA Terraces PA 61	Lumina Phase I & Lumina III	Festival	Metro-politan airpark	Otay Mesa Floreo	Plaza La Media	Plaza La Media South	Sun roads	SD-TJ Xborder Air fac.
Beyer Boulevard															
(Old) Otay Mesa Rd to Enright Dr	538					458			80						
Enright Dr to West Ave	0														
West Ave to Central Ave	0														
Central Ave to Caliente Ave	0														
Caliente Avenue															
Otay Mesa Rd to SR-905 WB Ramps	3,757	543	120	138	1,168		1,203			300				85	200
SR-905 WB Ramps to SR-905 EB Ramps	4,470	354	72	69	2,190		555	390		170	220	130	35	85	200
SR-905 EB Ramp to Airway Rd	5,512	184			3,176		93	780		30	439	260	65	85	400
Airway Rd to Southern Terminus	3,650				3,650										
Southern Terminus to Central Ave	3,650				3,650										
Central Ave															
West of Caliente Ave	1,085				1,085										
Caliente Ave Curve to PA 8-9-10 Access	0														
PA 8-9-10 Access to Beyer Blvd	0														
West Ave															
Beyer Blvd to Street A	0														
Street A to Street B	0														

Appendix K

Opening Year 2024 without Project LOS and Queueing Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	25	129	388	41	198	109	484	697	290	592	1
Future Volume (veh/h)	31	25	129	388	41	198	109	484	697	290	592	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.99	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	37	30	154	431	46	220	125	556	801	312	637	1
Peak Hour Factor	0.84	0.84	0.84	0.90	0.90	0.90	0.87	0.87	0.87	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	104	747	399	326	461	370	83	1498	808	366	1709	713
Arrive On Green	0.06	0.21	0.21	0.10	0.25	0.25	0.05	0.42	0.42	0.11	0.48	0.48
Sat Flow, veh/h	1767	3526	1535	3428	1856	1491	1767	3526	1550	3428	3526	1472
Grp Volume(v), veh/h	37	30	154	431	46	220	125	556	801	312	637	1
Grp Sat Flow(s),veh/h/ln	1767	1763	1535	1714	1856	1491	1767	1763	1550	1714	1763	1472
Q Serve(g_s), s	2.9	1.0	12.0	13.8	2.8	18.9	6.8	15.6	61.6	13.0	16.5	0.1
Cycle Q Clear(g_c), s	2.9	1.0	12.0	13.8	2.8	18.9	6.8	15.6	61.6	13.0	16.5	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	747	399	326	461	370	83	1498	808	366	1709	713
V/C Ratio(X)	0.36	0.04	0.39	1.32	0.10	0.59	1.51	0.37	0.99	0.85	0.37	0.00
Avail Cap(c_a), veh/h	134	1150	574	326	627	504	83	1498	808	482	1709	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.6	45.4	44.3	65.6	42.0	48.1	69.1	28.5	34.6	63.6	23.5	19.3
Incr Delay (d2), s/veh	2.1	0.0	0.6	164.4	0.1	1.5	278.0	0.7	28.5	10.9	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.4	4.6	13.4	1.3	7.1	9.4	6.6	32.5	6.1	6.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.7	45.4	44.9	230.0	42.1	49.6	347.1	29.1	63.1	74.6	24.1	19.3
LnGrp LOS	E	D	D	F	D	D	F	C	E	E	C	B
Approach Vol, veh/h		221			697			1482			950	
Approach Delay, s/veh		48.8			160.6			74.3			40.7	
Approach LOS		D			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.7	67.9	19.0	37.4	12.0	76.6	13.7	42.7
Change Period (Y+Rc), s	* 5.2	6.3	* 5.2	* 6.7	* 5.2	6.3	* 5.2	6.7
Max Green Setting (Gmax), s	* 20	41.2	* 14	* 47	* 6.8	54.8	* 11	49.0
Max Q Clear Time (g_c+I1), s	15.0	63.6	15.8	14.0	8.8	18.5	4.9	20.9
Green Ext Time (p_c), s	0.5	0.0	0.0	0.7	0.0	4.3	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	81.0
HCM 6th LOS	F

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	119	0	62	517	1185	0	0	526	546
Future Volume (veh/h)	0	0	0	119	0	62	517	1185	0	0	526	546
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.91
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				155	0	81	608	1394	0	0	591	613
Peak Hour Factor				0.77	0.77	0.77	0.85	0.85	0.85	0.89	0.89	0.89
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				205	0	178	537	3833	0	0	1331	567
Arrive On Green				0.12	0.00	0.12	0.61	1.00	0.00	0.00	0.39	0.39
Sat Flow, veh/h				1767	0	1539	1767	5233	0	0	3544	1438
Grp Volume(v), veh/h				155	0	81	608	1394	0	0	591	613
Grp Sat Flow(s),veh/h/ln				1767	0	1539	1767	1689	0	0	1689	1438
Q Serve(g_s), s				6.8	0.0	3.9	24.3	0.0	0.0	0.0	10.3	31.5
Cycle Q Clear(g_c), s				6.8	0.0	3.9	24.3	0.0	0.0	0.0	10.3	31.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				205	0	178	537	3833	0	0	1331	567
V/C Ratio(X)				0.76	0.00	0.45	1.13	0.36	0.00	0.00	0.44	1.08
Avail Cap(c_a), veh/h				340	0	296	537	3833	0	0	1331	567
HCM Platoon Ratio				1.00	1.00	1.00	2.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.09	0.09	0.00	0.00	0.83	0.83
Uniform Delay (d), s/veh				34.3	0.0	33.0	15.7	0.0	0.0	0.0	17.8	24.2
Incr Delay (d2), s/veh				5.6	0.0	1.8	62.2	0.0	0.0	0.0	0.9	58.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.1	0.0	1.5	13.6	0.0	0.0	0.0	3.7	18.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				39.9	0.0	34.8	77.9	0.0	0.0	0.0	18.7	82.8
LnGrp LOS				D	A	C	F	A	A	A	B	F
Approach Vol, veh/h					236			2002			1204	
Approach Delay, s/veh					38.1			23.7			51.3	
Approach LOS					D			C			D	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	65.6		29.0	36.6		14.4
Change Period (Y+Rc), s	5.1		* 4.7	5.1		5.1
Max Green Setting (Gmax), s	54.4		* 24	25.4		15.4
Max Q Clear Time (g_c+I1), s	2.0		26.3	33.5		8.8
Green Ext Time (p_c), s	13.0		0.0	0.0		0.5

Intersection Summary		
HCM 6th Ctrl Delay	34.3	
HCM 6th LOS	C	

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	726	1	433	0	0	0	0	943	154	136	488	0
Future Volume (veh/h)	726	1	433	0	0	0	0	943	154	136	488	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	666	235	498				0	1257	205	184	659	0
Peak Hour Factor	0.87	0.87	0.87				0.75	0.75	0.75	0.74	0.74	0.74
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	771	231	490				0	1201	196	183	1538	0
Arrive On Green	0.44	0.44	0.44				0.00	0.27	0.27	0.10	0.44	0.00
Sat Flow, veh/h	1767	530	1123				0	4555	716	1767	3618	0
Grp Volume(v), veh/h	666	0	733				0	967	495	184	659	0
Grp Sat Flow(s),veh/h/ln	1767	0	1653				0	1689	1727	1767	1763	0
Q Serve(g_s), s	27.3	0.0	34.9				0.0	21.9	21.9	8.3	10.4	0.0
Cycle Q Clear(g_c), s	27.3	0.0	34.9				0.0	21.9	21.9	8.3	10.4	0.0
Prop In Lane	1.00		0.68				0.00		0.41	1.00		0.00
Lane Grp Cap(c), veh/h	771	0	721				0	924	473	183	1538	0
V/C Ratio(X)	0.86	0.00	1.02				0.00	1.05	1.05	1.00	0.43	0.00
Avail Cap(c_a), veh/h	771	0	721				0	924	473	183	1538	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.83	0.83	0.60	0.60	0.00
Uniform Delay (d), s/veh	20.4	0.0	22.6				0.0	29.1	29.1	35.8	15.6	0.0
Incr Delay (d2), s/veh	10.0	0.0	37.6				0.0	39.9	50.4	52.4	0.5	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
%ile BackOfQ(50%),veh/ln	11.7	0.0	19.0				0.0	13.1	14.8	6.0	3.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.4	0.0	60.2				0.0	69.0	79.5	88.2	16.2	0.0
LnGrp LOS	C	A	F				A	F	F	F	B	A
Approach Vol, veh/h		1399						1462			843	
Approach Delay, s/veh		46.0						72.5			31.9	
Approach LOS		D						E			C	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	13.9	27.0	40.0	40.0
Change Period (Y+Rc), s	4.7	5.1	5.1	5.1
Max Green Setting (Gmax), s	9.3	21.9	34.9	34.9
Max Q Clear Time (g_c+I1), s	10.3	23.9	36.9	12.4
Green Ext Time (p_c), s	0.0	0.0	0.0	4.1

Intersection Summary	
HCM 6th Ctrl Delay	53.3
HCM 6th LOS	D

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	497	7	38	0	6	151	57	443	2	84	362	475
Future Volume (veh/h)	497	7	38	0	6	151	57	443	2	84	362	475
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.98	1.00		0.77
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	664	0	0	0	7	186	90	703	3	120	517	679
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.63	0.63	0.63	0.70	0.70	0.70
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	834	438	0	541	293	239	92	1964	8	146	719	496
Arrive On Green	0.24	0.00	0.00	0.00	0.16	0.16	0.05	0.38	0.38	0.08	0.41	0.41
Sat Flow, veh/h	3534	1856	0	3428	1856	1514	1767	5206	22	1767	1763	1215
Grp Volume(v), veh/h	664	0	0	0	7	186	90	456	250	120	517	679
Grp Sat Flow(s),veh/h/ln	1767	1856	0	1714	1856	1514	1767	1689	1851	1767	1763	1215
Q Serve(g_s), s	22.4	0.0	0.0	0.0	0.4	15.0	6.5	12.3	12.4	8.5	31.2	51.8
Cycle Q Clear(g_c), s	22.4	0.0	0.0	0.0	0.4	15.0	6.5	12.3	12.4	8.5	31.2	51.8
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	834	438	0	541	293	239	92	1274	698	146	719	496
V/C Ratio(X)	0.80	0.00	0.00	0.00	0.02	0.78	0.98	0.36	0.36	0.82	0.72	1.37
Avail Cap(c_a), veh/h	974	511	0	891	482	393	92	1274	698	252	719	496
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.7	0.0	0.0	0.0	45.2	51.3	60.1	28.5	28.5	57.3	31.5	37.6
Incr Delay (d2), s/veh	4.1	0.0	0.0	0.0	0.0	5.4	87.1	0.2	0.3	10.9	3.5	179.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	10.0	0.0	0.0	0.0	0.2	5.9	5.1	4.9	5.4	4.2	13.4	39.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.7	0.0	0.0	0.0	45.2	56.8	147.2	28.6	28.8	68.2	35.0	216.7
LnGrp LOS	D	A	A	A	D	E	F	C	C	E	C	F
Approach Vol, veh/h		664			193			796			1316	
Approach Delay, s/veh		49.7			56.4			42.1			131.8	
Approach LOS		D			E			D			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.9	52.8		34.4	11.0	56.7		24.9
Change Period (Y+Rc), s	4.4	4.9		4.4	4.4	4.9		4.9
Max Green Setting (Gmax), s	18.1	40.3		35.0	6.6	51.8		33.0
Max Q Clear Time (g_c+I1), s	10.5	14.4		24.4	8.5	53.8		17.0
Green Ext Time (p_c), s	0.1	4.3		1.9	0.0	0.0		0.5

Intersection Summary	
HCM 6th Ctrl Delay	84.5
HCM 6th LOS	F

LOS Engineering, Inc.

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	70	0	0	164	41	13
Future Vol, veh/h	70	0	0	164	41	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	76	0	0	178	45	14
Number of Lanes	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	7.9	7.3	8.3
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%
Vol Thru, %	0%	0%	0%	0%
Vol Right, %	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	70	164	41	13
LT Vol	70	0	41	0
Through Vol	0	0	0	0
RT Vol	0	164	0	13
Lane Flow Rate	76	178	45	14
Geometry Grp	2	2	7	7
Degree of Util (X)	0.093	0.174	0.068	0.017
Departure Headway (Hd)	4.389	3.511	5.489	4.285
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	807	1004	648	826
Service Time	2.466	1.594	3.266	2.061
HCM Lane V/C Ratio	0.094	0.177	0.069	0.017
HCM Control Delay	7.9	7.3	8.7	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.3	0.6	0.2	0.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	482	19	146	14	22	7	95	239	6	1	173	354
Future Volume (veh/h)	482	19	146	14	22	7	95	239	6	1	173	354
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.92	1.00		0.93	0.98		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	597	0	176	18	28	9	136	341	9	1	194	398
Peak Hour Factor	0.83	0.83	0.83	0.80	0.80	0.80	0.70	0.70	0.70	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	1172	0	488	55	85	27	210	747	20	39	220	449
Arrive On Green	0.33	0.00	0.33	0.10	0.10	0.10	0.42	0.42	0.42	0.42	0.42	0.42
Sat Flow, veh/h	3534	0	1470	572	890	286	818	1796	47	0	529	1080
Grp Volume(v), veh/h	597	0	176	55	0	0	136	0	350	593	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	1470	1748	0	0	818	0	1843	1610	0	0
Q Serve(g_s), s	12.7	0.0	8.5	2.8	0.0	0.0	7.1	0.0	12.8	0.0	0.0	0.0
Cycle Q Clear(g_c), s	12.7	0.0	8.5	2.8	0.0	0.0	39.0	0.0	12.8	31.9	0.0	0.0
Prop In Lane	1.00		1.00	0.33		0.16	1.00		0.03	0.00		0.67
Lane Grp Cap(c), veh/h	1172	0	488	167	0	0	210	0	767	708	0	0
V/C Ratio(X)	0.51	0.00	0.36	0.33	0.00	0.00	0.65	0.00	0.46	0.84	0.00	0.00
Avail Cap(c_a), veh/h	1172	0	488	563	0	0	210	0	767	715	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	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	25.2	0.0	23.8	39.6	0.0	0.0	33.1	0.0	19.7	25.3	0.0	0.0
Incr Delay (d2), s/veh	1.6	0.0	2.1	1.1	0.0	0.0	8.3	0.0	0.7	8.6	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.0	3.0	1.2	0.0	0.0	3.5	0.0	5.2	12.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	0.0	25.9	40.7	0.0	0.0	41.4	0.0	20.5	33.9	0.0	0.0
LnGrp LOS	C	A	C	D	A	A	D	A	C	C	A	A
Approach Vol, veh/h		773			55			486			593	
Approach Delay, s/veh		26.6			40.7			26.3			33.9	
Approach LOS		C			D			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	36.0	43.9	13.9	43.9
Change Period (Y+Rc), s	4.9	* 4.9	4.9	4.9
Max Green Setting (Gmax), s	31.1	* 39	30.2	39.0
Max Q Clear Time (g_c+I1), s	14.7	33.9	4.8	41.0
Green Ext Time (p_c), s	2.5	1.8	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	29.2
HCM 6th LOS	C

LOS Engineering, Inc.

Intersection	
Int Delay, s/veh	3.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	10	0	0	9	0
Future Vol, veh/h	0	10	0	0	9	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #0		-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	11	0	0	10	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	11	0	7	6
Stage 1	-	-	-	-	6	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1602	-	1011	1074
Stage 1	-	-	-	-	1014	-
Stage 2	-	-	-	-	1020	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1602	-	1011	1074
Mov Cap-2 Maneuver	-	-	-	-	1011	-
Stage 1	-	-	-	-	1014	-
Stage 2	-	-	-	-	1020	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1011	-	-	1602	-
HCM Lane V/C Ratio	0.01	-	-	-	-
HCM Control Delay (s)	8.6	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

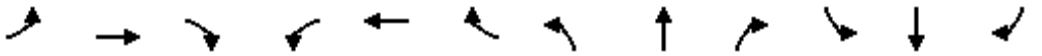
LOS Engineering, Inc.

Intersection	
Intersection Delay, s/veh	15.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	253	1	19	1	7	3	13	97	2	4	136	227
Future Vol, veh/h	253	1	19	1	7	3	13	97	2	4	136	227
Peak Hour Factor	0.69	0.69	0.69	0.46	0.46	0.46	0.76	0.76	0.76	0.87	0.87	0.87
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	367	1	28	2	15	7	17	128	3	5	156	261
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	17.6	9.4	10.8	15.4
HCM LOS	C	A	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	93%	9%	1%
Vol Thru, %	87%	0%	64%	37%
Vol Right, %	2%	7%	27%	62%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	112	273	11	367
LT Vol	13	253	1	4
Through Vol	97	1	7	136
RT Vol	2	19	3	227
Lane Flow Rate	147	396	24	422
Geometry Grp	1	1	1	1
Degree of Util (X)	0.24	0.621	0.041	0.596
Departure Headway (Hd)	5.867	5.651	6.1	5.084
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	610	637	584	709
Service Time	3.928	3.692	4.172	3.132
HCM Lane V/C Ratio	0.241	0.622	0.041	0.595
HCM Control Delay	10.8	17.6	9.4	15.4
HCM Lane LOS	B	C	A	C
HCM 95th-tile Q	0.9	4.3	0.1	4



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	23	83	729	50	339	134	391	400	286	317	2
Future Volume (veh/h)	32	23	83	729	50	339	134	391	400	286	317	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	44	32	115	838	57	390	143	416	426	298	330	2
Peak Hour Factor	0.72	0.72	0.72	0.87	0.87	0.87	0.94	0.94	0.94	0.96	0.96	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	104	593	353	596	525	431	108	1448	910	346	1589	676
Arrive On Green	0.06	0.17	0.17	0.17	0.28	0.28	0.06	0.41	0.41	0.10	0.45	0.45
Sat Flow, veh/h	1767	3526	1530	3428	1856	1523	1767	3526	1549	3428	3526	1501
Grp Volume(v), veh/h	44	32	115	838	57	390	143	416	426	298	330	2
Grp Sat Flow(s),veh/h/ln	1767	1763	1530	1714	1856	1523	1767	1763	1549	1714	1763	1501
Q Serve(g_s), s	3.8	1.2	10.0	27.8	3.6	39.5	9.8	12.6	25.2	13.7	9.1	0.1
Cycle Q Clear(g_c), s	3.8	1.2	10.0	27.8	3.6	39.5	9.8	12.6	25.2	13.7	9.1	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	593	353	596	525	431	108	1448	910	346	1589	676
V/C Ratio(X)	0.42	0.05	0.33	1.41	0.11	0.91	1.32	0.29	0.47	0.86	0.21	0.00
Avail Cap(c_a), veh/h	121	1014	536	596	716	587	108	1448	910	452	1589	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.6	55.9	51.4	66.1	42.5	55.3	75.1	31.5	19.0	70.8	26.6	24.2
Incr Delay (d2), s/veh	2.7	0.0	0.5	193.0	0.1	14.2	194.0	0.5	1.7	12.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.5	3.9	27.9	1.7	16.5	10.2	5.4	9.2	6.5	3.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.3	55.9	51.9	259.1	42.5	69.5	269.1	32.0	20.7	83.2	26.9	24.2
LnGrp LOS	E	E	D	F	D	E	F	C	C	F	C	C
Approach Vol, veh/h		191			1285			985			630	
Approach Delay, s/veh		58.0			191.9			61.5			53.6	
Approach LOS		E			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.4	72.0	33.0	33.6	15.0	78.4	14.6	52.0
Change Period (Y+Rc), s	* 5.2	6.3	* 5.2	* 6.7	* 5.2	6.3	* 5.2	6.7
Max Green Setting (Gmax), s	* 21	42.8	* 28	* 46	* 9.8	54.1	* 11	61.7
Max Q Clear Time (g_c+I1), s	15.7	27.2	29.8	12.0	11.8	11.1	5.8	41.5
Green Ext Time (p_c), s	0.5	3.7	0.0	0.5	0.0	2.1	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	113.9
HCM 6th LOS	F

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	151	0	95	250	782	0	0	407	701
Future Volume (veh/h)	0	0	0	151	0	95	250	782	0	0	407	701
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				184	0	116	272	850	0	0	452	779
Peak Hour Factor				0.82	0.82	0.82	0.92	0.92	0.92	0.90	0.90	0.90
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				249	0	217	256	3556	0	0	1638	729
Arrive On Green				0.14	0.00	0.14	0.14	0.70	0.00	0.00	0.49	0.49
Sat Flow, veh/h				1767	0	1541	1767	5233	0	0	3544	1503
Grp Volume(v), veh/h				184	0	116	272	850	0	0	452	779
Grp Sat Flow(s),veh/h/ln				1767	0	1541	1767	1689	0	0	1689	1503
Q Serve(g_s), s				6.5	0.0	4.5	9.4	3.9	0.0	0.0	5.2	31.5
Cycle Q Clear(g_c), s				6.5	0.0	4.5	9.4	3.9	0.0	0.0	5.2	31.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				249	0	217	256	3556	0	0	1638	729
V/C Ratio(X)				0.74	0.00	0.53	1.06	0.24	0.00	0.00	0.28	1.07
Avail Cap(c_a), veh/h				419	0	365	256	3556	0	0	1638	729
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.73	0.73	0.00	0.00	0.09	0.09
Uniform Delay (d), s/veh				26.8	0.0	25.9	27.8	3.5	0.0	0.0	9.9	16.7
Incr Delay (d2), s/veh				4.2	0.0	2.0	66.2	0.1	0.0	0.0	0.0	34.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.8	0.0	1.6	8.2	0.7	0.0	0.0	1.5	15.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				31.0	0.0	28.0	94.0	3.6	0.0	0.0	10.0	50.8
LnGrp LOS				C	A	C	F	A	A	A	A	F
Approach Vol, veh/h					300			1122			1231	
Approach Delay, s/veh					29.8			25.5			35.8	
Approach LOS					C			C			D	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	50.7		14.1	36.6		14.3
Change Period (Y+Rc), s	5.1		* 4.7	5.1		5.1
Max Green Setting (Gmax), s	39.4		* 9.4	25.3		15.4
Max Q Clear Time (g_c+I1), s	5.9		11.4	33.5		8.5
Green Ext Time (p_c), s	6.1		0.0	0.0		0.7

Intersection Summary	
HCM 6th Ctrl Delay	30.8
HCM 6th LOS	C

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	624	2	382	0	0	0	0	401	136	116	442	0
Future Volume (veh/h)	624	2	382	0	0	0	0	401	136	116	442	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	566	191	429				0	535	181	123	470	0
Peak Hour Factor	0.89	0.89	0.89				0.75	0.75	0.75	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	717	206	463				0	1202	394	155	1645	0
Arrive On Green	0.41	0.41	0.41				0.00	0.32	0.32	0.09	0.47	0.00
Sat Flow, veh/h	1767	508	1142				0	3923	1232	1767	3618	0
Grp Volume(v), veh/h	566	0	620				0	479	237	123	470	0
Grp Sat Flow(s),veh/h/ln	1767	0	1650				0	1689	1611	1767	1763	0
Q Serve(g_s), s	22.4	0.0	28.6				0.0	9.0	9.4	5.5	6.6	0.0
Cycle Q Clear(g_c), s	22.4	0.0	28.6				0.0	9.0	9.4	5.5	6.6	0.0
Prop In Lane	1.00		0.69				0.00		0.76	1.00		0.00
Lane Grp Cap(c), veh/h	717	0	670				0	1081	516	155	1645	0
V/C Ratio(X)	0.79	0.00	0.93				0.00	0.44	0.46	0.79	0.29	0.00
Avail Cap(c_a), veh/h	749	0	699				0	1081	516	205	1645	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.93	0.93	0.80	0.80	0.00
Uniform Delay (d), s/veh	20.8	0.0	22.6				0.0	21.5	21.7	35.8	13.1	0.0
Incr Delay (d2), s/veh	5.5	0.0	17.9				0.0	1.2	2.7	11.8	0.3	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
%ile BackOfQ(50%),veh/ln	9.1	0.0	12.9				0.0	3.4	3.6	2.7	2.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.2	0.0	40.5				0.0	22.8	24.4	47.5	13.5	0.0
LnGrp LOS	C	A	D				A	C	C	D	B	A
Approach Vol, veh/h		1186						716			593	
Approach Delay, s/veh		33.7						23.3			20.5	
Approach LOS		C						C			C	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	11.7	30.7	37.6	42.4
Change Period (Y+Rc), s	4.7	5.1	5.1	5.1
Max Green Setting (Gmax), s	7.0	21.9	33.9	35.9
Max Q Clear Time (g_c+I1), s	7.5	11.4	30.6	8.6
Green Ext Time (p_c), s	0.0	3.2	1.9	2.9

Intersection Summary	
HCM 6th Ctrl Delay	27.6
HCM 6th LOS	C

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	326	5	36	0	11	113	18	107	0	171	217	425
Future Volume (veh/h)	326	5	36	0	11	113	18	107	0	171	217	425
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		1.00	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	454	0	0	0	14	149	27	160	0	178	226	443
Peak Hour Factor	0.80	0.80	0.80	0.76	0.76	0.76	0.67	0.67	0.67	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	778	408	0	527	285	232	40	1415	0	178	629	509
Arrive On Green	0.22	0.00	0.00	0.00	0.15	0.15	0.02	0.28	0.00	0.10	0.36	0.36
Sat Flow, veh/h	3534	1856	0	3428	1856	1513	1767	5233	0	1767	1763	1426
Grp Volume(v), veh/h	454	0	0	0	14	149	27	160	0	178	226	443
Grp Sat Flow(s),veh/h/ln	1767	1856	0	1714	1856	1513	1767	1689	0	1767	1763	1426
Q Serve(g_s), s	8.7	0.0	0.0	0.0	0.5	7.0	1.1	1.8	0.0	7.6	7.1	21.9
Cycle Q Clear(g_c), s	8.7	0.0	0.0	0.0	0.5	7.0	1.1	1.8	0.0	7.6	7.1	21.9
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	778	408	0	527	285	232	40	1415	0	178	629	509
V/C Ratio(X)	0.58	0.00	0.00	0.00	0.05	0.64	0.67	0.11	0.00	1.00	0.36	0.87
Avail Cap(c_a), veh/h	1638	860	0	1498	811	661	98	2066	0	178	798	646
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	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.3	0.0	0.0	0.0	27.3	30.0	36.6	20.2	0.0	34.0	17.9	22.6
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.0	0.1	2.9	17.3	0.0	0.0	67.7	0.3	10.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	0.0	0.0	0.2	2.5	0.7	0.6	0.0	6.4	2.6	7.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.0	0.0	0.0	0.0	27.3	32.9	53.9	20.3	0.0	101.6	18.2	32.9
LnGrp LOS	C	A	A	A	C	C	D	C	A	F	B	C
Approach Vol, veh/h		454			163			187			847	
Approach Delay, s/veh		27.0			32.5			25.1			43.4	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.9	26.0		21.0	6.1	31.9		16.5
Change Period (Y+Rc), s	4.4	4.9		4.4	4.4	4.9		4.9
Max Green Setting (Gmax), s	7.6	30.8		35.0	4.2	34.2		33.0
Max Q Clear Time (g_c+I1), s	9.6	3.8		10.7	3.1	23.9		9.0
Green Ext Time (p_c), s	0.0	0.9		1.6	0.0	3.1		0.5

Intersection Summary	
HCM 6th Ctrl Delay	35.8
HCM 6th LOS	D

LOS Engineering, Inc.

Intersection	
Intersection Delay, s/veh	8.6
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	32	0	0	69	162	56
Future Vol, veh/h	32	0	0	69	162	56
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	35	0	0	75	176	61
Number of Lanes	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	8.1	7.4	9.1
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%
Vol Thru, %	0%	0%	0%	0%
Vol Right, %	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	69	162	56
LT Vol	32	0	162	0
Through Vol	0	0	0	0
RT Vol	0	69	0	56
Lane Flow Rate	35	75	176	61
Geometry Grp	2	2	7	7
Degree of Util (X)	0.047	0.083	0.256	0.068
Departure Headway (Hd)	4.826	3.989	5.243	4.041
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	746	903	681	878
Service Time	2.83	1.991	3.005	1.802
HCM Lane V/C Ratio	0.047	0.083	0.258	0.069
HCM Control Delay	8.1	7.4	9.8	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.3	1	0.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	33	183	13	21	4	80	74	9	4	112	169
Future Volume (veh/h)	130	33	183	13	21	4	80	74	9	4	112	169
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.94	1.00		0.96	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	86	107	195	18	30	6	95	88	11	6	167	252
Peak Hour Factor	0.94	0.94	0.94	0.71	0.71	0.71	0.84	0.84	0.84	0.67	0.67	0.67
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	734	771	636	42	70	14	257	478	60	56	197	290
Arrive On Green	0.42	0.42	0.42	0.07	0.07	0.07	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1767	1856	1530	592	987	197	960	1609	201	7	662	974
Grp Volume(v), veh/h	86	107	195	54	0	0	95	0	99	425	0	0
Grp Sat Flow(s),veh/h/ln	1767	1856	1530	1776	0	0	960	0	1810	1642	0	0
Q Serve(g_s), s	2.0	2.4	5.8	2.0	0.0	0.0	0.0	0.0	2.8	2.4	0.0	0.0
Cycle Q Clear(g_c), s	2.0	2.4	5.8	2.0	0.0	0.0	14.3	0.0	2.8	16.6	0.0	0.0
Prop In Lane	1.00		1.00	0.33		0.11	1.00		0.11	0.01		0.59
Lane Grp Cap(c), veh/h	734	771	636	125	0	0	257	0	538	542	0	0
V/C Ratio(X)	0.12	0.14	0.31	0.43	0.00	0.00	0.37	0.00	0.18	0.78	0.00	0.00
Avail Cap(c_a), veh/h	734	771	636	680	0	0	341	0	696	694	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	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	12.2	12.3	13.3	30.2	0.0	0.0	21.8	0.0	17.7	22.6	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.4	1.2	2.2	0.0	0.0	1.5	0.0	0.3	4.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.9	1.9	0.9	0.0	0.0	1.3	0.0	1.1	6.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.5	12.7	14.5	32.5	0.0	0.0	23.3	0.0	18.0	27.1	0.0	0.0
LnGrp LOS	B	B	B	C	A	A	C	A	B	C	A	A
Approach Vol, veh/h		388			54			194			425	
Approach Delay, s/veh		13.6			32.5			20.6			27.1	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	33.1	25.1	9.7	25.1
Change Period (Y+Rc), s	4.9	* 4.9	4.9	4.9
Max Green Setting (Gmax), s	28.2	* 27	26.0	26.1
Max Q Clear Time (g_c+I1), s	7.8	18.6	4.0	16.3
Green Ext Time (p_c), s	1.3	1.6	0.2	0.9

Intersection Summary	
HCM 6th Ctrl Delay	21.2
HCM 6th LOS	C

LOS Engineering, Inc.

Intersection	
Int Delay, s/veh	3.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	13	0	0	11	0
Future Vol, veh/h	0	13	0	0	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #0		-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	14	0	0	12	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	14	0	8	7
Stage 1	-	-	-	-	7	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1598	-	1010	1072
Stage 1	-	-	-	-	1013	-
Stage 2	-	-	-	-	1020	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1598	-	1010	1072
Mov Cap-2 Maneuver	-	-	-	-	924	-
Stage 1	-	-	-	-	1013	-
Stage 2	-	-	-	-	1020	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	924	-	-	1598	-
HCM Lane V/C Ratio	0.013	-	-	-	-
HCM Control Delay (s)	8.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

LOS Engineering, Inc.

Intersection	
Intersection Delay, s/veh	14.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	249	8	21	2	5	4	46	84	1	5	151	254
Future Vol, veh/h	249	8	21	2	5	4	46	84	1	5	151	254
Peak Hour Factor	0.89	0.89	0.89	0.69	0.69	0.69	0.74	0.74	0.74	0.90	0.90	0.90
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	280	9	24	3	7	6	62	114	1	6	168	282
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	14.3	9.3	10.9	15.4
HCM LOS	B	A	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	35%	90%	18%	1%
Vol Thru, %	64%	3%	45%	37%
Vol Right, %	1%	8%	36%	62%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	131	278	11	410
LT Vol	46	249	2	5
Through Vol	84	8	5	151
RT Vol	1	21	4	254
Lane Flow Rate	177	312	16	456
Geometry Grp	1	1	1	1
Degree of Util (X)	0.278	0.496	0.027	0.614
Departure Headway (Hd)	5.649	5.72	6.025	4.856
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	636	631	592	743
Service Time	3.694	3.756	4.084	2.892
HCM Lane V/C Ratio	0.278	0.494	0.027	0.614
HCM Control Delay	10.9	14.3	9.3	15.4
HCM Lane LOS	B	B	A	C
HCM 95th-tile Q	1.1	2.8	0.1	4.3

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	64	72	28	166	1460	1460	1460	219	265	248	250	195
Average Queue (ft)	21	19	1	78	813	910	255	56	110	138	135	118
95th Queue (ft)	57	55	11	140	1551	1579	1117	138	189	215	217	209
Link Distance (ft)		1246	1246		1445	1445	1445		506	506	506	
Upstream Blk Time (%)					2	8	2					
Queuing Penalty (veh)					0	0	0					
Storage Bay Dist (ft)	230			230				500				170
Storage Blk Time (%)											1	1
Queuing Penalty (veh)											6	3

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa rd

Movement	SB	SB	SB	SB	SB	B9
Directions Served	L	L	T	T	R	T
Maximum Queue (ft)	233	275	422	538	12	68
Average Queue (ft)	133	173	182	281	0	3
95th Queue (ft)	206	245	383	480	4	25
Link Distance (ft)			449	449	449	625
Upstream Blk Time (%)				3		
Queuing Penalty (veh)				0		
Storage Bay Dist (ft)	250	250				
Storage Blk Time (%)	0	0	2			
Queuing Penalty (veh)	0	1	6			

Intersection: 2: Caliente Ave & SR-905 WB Ramp

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	137	73	125	438	121	178	202	505	515
Average Queue (ft)	66	28	123	252	27	95	59	238	444
95th Queue (ft)	123	58	128	440	67	153	134	548	582
Link Distance (ft)	998			418	418	418	506	506	506
Upstream Blk Time (%)				2				0	8
Queuing Penalty (veh)				9				0	31
Storage Bay Dist (ft)		820	100						
Storage Blk Time (%)			35						
Queuing Penalty (veh)			138						

Intersection: 3: Caliente Ave & SR-905 EB Ramp

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	T	TR	L	T	T
Maximum Queue (ft)	855	1014	405	440	462	314	139	165
Average Queue (ft)	854	988	176	183	445	126	44	86
95th Queue (ft)	857	1008	299	361	461	242	93	156
Link Distance (ft)		962	441	441	441	418	418	418
Upstream Blk Time (%)		60		0	20			
Queuing Penalty (veh)		0		0	72			
Storage Bay Dist (ft)	830							
Storage Blk Time (%)	0	62						
Queuing Penalty (veh)	4	226						

Intersection: 4: Caliente Ave & Airway Rd

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	R	L	T	T	TR	L	T	TR
Maximum Queue (ft)	514	551	31	267	94	131	130	240	130	232	425
Average Queue (ft)	410	519	4	110	48	71	49	112	49	120	226
95th Queue (ft)	656	535	20	245	89	124	96	213	89	208	366
Link Distance (ft)	499	499	570			765	765	765		441	441
Upstream Blk Time (%)	14	89									0
Queuing Penalty (veh)	0	0									0
Storage Bay Dist (ft)				250	250				240		
Storage Blk Time (%)				4						0	
Queuing Penalty (veh)				0						0	

Intersection: 5: Central Ave & Caliente Ave

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	51	56	76
Average Queue (ft)	29	33	29
95th Queue (ft)	46	52	51
Link Distance (ft)	450	366	371
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: E Beyer Blvd/Old Otay Mesa Rd & Beyer Blvd

Movement	EB	EB	EB	WB	NB	NB	SB
Directions Served	L	LT	R	LTR	L	TR	LTR
Maximum Queue (ft)	247	213	92	90	124	601	410
Average Queue (ft)	161	110	37	31	112	351	229
95th Queue (ft)	236	212	65	74	159	693	375
Link Distance (ft)	514	514		1056		586	698
Upstream Blk Time (%)						9	
Queuing Penalty (veh)						33	
Storage Bay Dist (ft)			325		100		
Storage Blk Time (%)					61	15	
Queuing Penalty (veh)					150	14	

Intersection: 11: Enright Dr & Beyer Blvd

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	10
95th Queue (ft)	33
Link Distance (ft)	240
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: E Beyer Blvd & Center St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	242	30	119	116
Average Queue (ft)	91	16	40	65
95th Queue (ft)	196	40	72	103
Link Distance (ft)	214	225	200	586
Upstream Blk Time (%)	9			
Queuing Penalty (veh)	0			
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 621

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	96	74	28	73	1479	1484	1460	525	284	173	176	189
Average Queue (ft)	33	28	2	30	1426	1460	1458	115	140	109	103	69
95th Queue (ft)	78	65	14	62	1593	1471	1466	271	235	161	154	146
Link Distance (ft)		1246	1246		1445	1445	1445		506	506	506	
Upstream Blk Time (%)					40	90	70					
Queuing Penalty (veh)					0	0	0					
Storage Bay Dist (ft)	230			230				500				170
Storage Blk Time (%)											0	1
Queuing Penalty (veh)											1	1

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa rd

Movement	SB	SB	SB	SB
Directions Served	L	L	T	T
Maximum Queue (ft)	252	273	298	317
Average Queue (ft)	135	175	52	123
95th Queue (ft)	225	252	159	239
Link Distance (ft)			449	449
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	250	250		
Storage Blk Time (%)	0	1		
Queuing Penalty (veh)	0	2		

Intersection: 2: Caliente Ave & SR-905 WB Ramp

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	181	69	125	336	88	120	124	226	506
Average Queue (ft)	74	29	109	92	31	55	29	65	226
95th Queue (ft)	129	53	137	262	72	106	81	157	408
Link Distance (ft)	998			418	418	418	506	506	506
Upstream Blk Time (%)									0
Queuing Penalty (veh)									2
Storage Bay Dist (ft)		820	100						
Storage Blk Time (%)			21	0					
Queuing Penalty (veh)			54	0					

Intersection: 3: Caliente Ave & SR-905 EB Ramp

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	T	TR	L	T	T
Maximum Queue (ft)	855	996	172	114	226	160	120	199
Average Queue (ft)	502	671	74	57	131	77	51	79
95th Queue (ft)	966	1005	139	91	210	137	111	147
Link Distance (ft)		962	441	441	441	418	418	418
Upstream Blk Time (%)		3						
Queuing Penalty (veh)		0						
Storage Bay Dist (ft)	830							
Storage Blk Time (%)	0	6						
Queuing Penalty (veh)	1	18						

Intersection: 4: Caliente Ave & Airway Rd

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	R	L	T	T	TR	L	T	TR
Maximum Queue (ft)	133	273	50	89	67	70	50	97	216	127	381
Average Queue (ft)	48	123	9	36	12	22	18	32	113	49	140
95th Queue (ft)	95	200	33	66	40	59	48	74	189	105	289
Link Distance (ft)	499	499	570			765	765	765		441	441
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)				250	250				240		
Storage Blk Time (%)											
Queuing Penalty (veh)											

Intersection: 5: Central Ave & Caliente Ave

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	78	55	91
Average Queue (ft)	24	25	47
95th Queue (ft)	55	46	76
Link Distance (ft)	309	314	338
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 10: E Beyer Blvd/Old Otay Mesa Rd & Beyer Blvd

Movement	EB	EB	EB	WB	NB	NB	SB
Directions Served	L	LT	R	LTR	L	TR	LTR
Maximum Queue (ft)	122	75	76	72	105	64	196
Average Queue (ft)	46	26	38	28	42	30	93
95th Queue (ft)	90	66	67	64	74	54	161
Link Distance (ft)	514	514		906		581	698
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			325		100		
Storage Blk Time (%)					0		
Queuing Penalty (veh)					0		

Intersection: 11: Enright Dr & Beyer Blvd

Movement	NB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	6
95th Queue (ft)	26
Link Distance (ft)	258
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: E Beyer Blvd & Center St

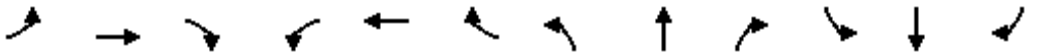
Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	146	31	77	180
Average Queue (ft)	56	13	36	76
95th Queue (ft)	92	38	62	140
Link Distance (ft)	236	210	205	581
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 240

Appendix L

Opening Year 2024 Plus Project Phase 1a LOS and Queueing Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	25	129	389	41	198	109	493	701	290	594	1
Future Volume (veh/h)	31	25	129	389	41	198	109	493	701	290	594	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.99	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	37	30	154	432	46	220	125	567	806	312	639	1
Peak Hour Factor	0.84	0.84	0.84	0.90	0.90	0.90	0.87	0.87	0.87	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	104	747	399	326	461	370	83	1498	808	366	1709	713
Arrive On Green	0.06	0.21	0.21	0.10	0.25	0.25	0.05	0.42	0.42	0.11	0.48	0.48
Sat Flow, veh/h	1767	3526	1535	3428	1856	1491	1767	3526	1550	3428	3526	1472
Grp Volume(v), veh/h	37	30	154	432	46	220	125	567	806	312	639	1
Grp Sat Flow(s),veh/h/ln	1767	1763	1535	1714	1856	1491	1767	1763	1550	1714	1763	1472
Q Serve(g_s), s	2.9	1.0	12.0	13.8	2.8	18.9	6.8	16.0	61.6	13.0	16.5	0.1
Cycle Q Clear(g_c), s	2.9	1.0	12.0	13.8	2.8	18.9	6.8	16.0	61.6	13.0	16.5	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	747	399	326	461	370	83	1498	808	366	1709	713
V/C Ratio(X)	0.36	0.04	0.39	1.32	0.10	0.59	1.51	0.38	1.00	0.85	0.37	0.00
Avail Cap(c_a), veh/h	134	1150	574	326	627	504	83	1498	808	482	1709	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.6	45.4	44.3	65.6	42.0	48.1	69.1	28.6	34.8	63.6	23.5	19.3
Incr Delay (d2), s/veh	2.1	0.0	0.6	165.6	0.1	1.5	278.5	0.7	30.1	10.9	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.4	4.6	13.4	1.3	7.1	9.4	6.8	33.2	6.1	6.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.7	45.4	44.9	231.2	42.1	49.6	347.6	29.3	64.9	74.6	24.1	19.3
LnGrp LOS	E	D	D	F	D	D	F	C	E	E	C	B
Approach Vol, veh/h		221			698			1498			952	
Approach Delay, s/veh		48.8			161.5			75.0			40.7	
Approach LOS		D			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.7	67.9	19.0	37.4	12.0	76.6	13.7	42.7
Change Period (Y+Rc), s	* 5.2	6.3	* 5.2	* 6.7	* 5.2	6.3	* 5.2	6.7
Max Green Setting (Gmax), s	* 20	41.2	* 14	* 47	* 6.8	54.8	* 11	49.0
Max Q Clear Time (g_c+I1), s	15.0	63.6	15.8	14.0	8.8	18.5	4.9	20.9
Green Ext Time (p_c), s	0.5	0.0	0.0	0.7	0.0	4.4	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	81.5
HCM 6th LOS	F

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	120	0	62	583	1198	0	0	529	546
Future Volume (veh/h)	0	0	0	120	0	62	583	1198	0	0	529	546
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.90
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				156	0	81	686	1409	0	0	594	613
Peak Hour Factor				0.77	0.77	0.77	0.85	0.85	0.85	0.89	0.89	0.89
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				190	0	166	723	4050	0	0	1175	495
Arrive On Green				0.11	0.00	0.11	0.41	0.80	0.00	0.00	0.35	0.35
Sat Flow, veh/h				1767	0	1537	1767	5233	0	0	3544	1423
Grp Volume(v), veh/h				156	0	81	686	1409	0	0	594	613
Grp Sat Flow(s),veh/h/ln				1767	0	1537	1767	1689	0	0	1689	1423
Q Serve(g_s), s				9.5	0.0	5.5	41.3	8.5	0.0	0.0	15.3	38.3
Cycle Q Clear(g_c), s				9.5	0.0	5.5	41.3	8.5	0.0	0.0	15.3	38.3
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				190	0	166	723	4050	0	0	1175	495
V/C Ratio(X)				0.82	0.00	0.49	0.95	0.35	0.00	0.00	0.51	1.24
Avail Cap(c_a), veh/h				247	0	215	840	4050	0	0	1175	495
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.15	0.15	0.00	0.00	0.83	0.83
Uniform Delay (d), s/veh				48.0	0.0	46.2	31.4	3.1	0.0	0.0	28.4	35.9
Incr Delay (d2), s/veh				15.2	0.0	2.2	4.2	0.0	0.0	0.0	1.3	120.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.9	0.0	2.1	17.1	1.7	0.0	0.0	6.1	29.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				63.3	0.0	48.5	35.6	3.1	0.0	0.0	29.7	156.8
LnGrp LOS				E	A	D	D	A	A	A	C	F
Approach Vol, veh/h					237			2095			1207	
Approach Delay, s/veh					58.2			13.7			94.2	
Approach LOS					E			B			F	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	93.1		49.7	43.4		16.9
Change Period (Y+Rc), s	5.1		* 4.7	5.1		5.1
Max Green Setting (Gmax), s	84.4		* 52	27.4		15.4
Max Q Clear Time (g_c+I1), s	10.5		43.3	40.3		11.5
Green Ext Time (p_c), s	13.7		1.7	0.0		0.3

Intersection Summary		
HCM 6th Ctrl Delay	44.2	
HCM 6th LOS	D	

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	726	1	450	0	0	0	0	1022	158	136	492	0
Future Volume (veh/h)	726	1	450	0	0	0	0	1022	158	136	492	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	676	222	517				0	1363	211	184	665	0
Peak Hour Factor	0.87	0.87	0.87				0.75	0.75	0.75	0.74	0.74	0.74
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	660	185	431				0	1543	239	161	1758	0
Arrive On Green	0.37	0.37	0.37				0.00	0.35	0.35	0.09	0.50	0.00
Sat Flow, veh/h	1767	495	1153				0	4592	685	1767	3618	0
Grp Volume(v), veh/h	676	0	739				0	1040	534	184	665	0
Grp Sat Flow(s),veh/h/ln	1767	0	1648				0	1689	1732	1767	1763	0
Q Serve(g_s), s	29.9	0.0	29.9				0.0	23.2	23.2	7.3	9.3	0.0
Cycle Q Clear(g_c), s	29.9	0.0	29.9				0.0	23.2	23.2	7.3	9.3	0.0
Prop In Lane	1.00		0.70				0.00		0.40	1.00		0.00
Lane Grp Cap(c), veh/h	660	0	616				0	1178	604	161	1758	0
V/C Ratio(X)	1.02	0.00	1.20				0.00	0.88	0.88	1.14	0.38	0.00
Avail Cap(c_a), veh/h	660	0	616				0	1178	604	161	1758	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.80	0.80	0.48	0.48	0.00
Uniform Delay (d), s/veh	25.0	0.0	25.1				0.0	24.5	24.5	36.4	12.4	0.0
Incr Delay (d2), s/veh	41.1	0.0	104.9				0.0	8.0	14.2	93.0	0.3	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
%ile BackOfQ(50%),veh/ln	18.5	0.0	28.1				0.0	9.5	10.8	7.1	3.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.2	0.0	130.0				0.0	32.5	38.7	129.4	12.7	0.0
LnGrp LOS	F	A	F				A	C	D	F	B	A
Approach Vol, veh/h		1415						1574			849	
Approach Delay, s/veh		99.5						34.6			38.0	
Approach LOS		F						C			D	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	12.9	33.0	35.0	45.0
Change Period (Y+Rc), s	7.4	5.1	5.1	5.1
Max Green Setting (Gmax), s	*7.8	27.9	29.9	39.9
Max Q Clear Time (g_c+I1), s	9.3	25.2	31.9	11.3
Green Ext Time (p_c), s	0.0	2.1	0.0	4.4

Intersection Summary	
HCM 6th Ctrl Delay	59.3
HCM 6th LOS	E

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	497	7	39	0	6	151	62	526	2	84	383	475
Future Volume (veh/h)	497	7	39	0	6	151	62	526	2	84	383	475
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.98	1.00		0.76
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	665	0	0	0	7	186	98	835	3	120	547	679
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.63	0.63	0.63	0.70	0.70	0.70
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	843	443	0	544	295	240	108	1932	7	145	691	469
Arrive On Green	0.24	0.00	0.00	0.00	0.16	0.16	0.06	0.37	0.37	0.08	0.39	0.39
Sat Flow, veh/h	3534	1856	0	3428	1856	1514	1767	5210	19	1767	1763	1196
Grp Volume(v), veh/h	665	0	0	0	7	186	98	541	297	120	547	679
Grp Sat Flow(s),veh/h/ln	1767	1856	0	1714	1856	1514	1767	1689	1852	1767	1763	1196
Q Serve(g_s), s	21.9	0.0	0.0	0.0	0.4	14.6	6.9	14.9	14.9	8.3	34.0	48.7
Cycle Q Clear(g_c), s	21.9	0.0	0.0	0.0	0.4	14.6	6.9	14.9	14.9	8.3	34.0	48.7
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	843	443	0	544	295	240	108	1252	687	145	691	469
V/C Ratio(X)	0.79	0.00	0.00	0.00	0.02	0.77	0.91	0.43	0.43	0.83	0.79	1.45
Avail Cap(c_a), veh/h	1024	537	0	941	509	415	108	1252	687	186	691	469
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	0.0	0.0	0.0	44.1	50.1	58.0	29.3	29.3	56.2	33.3	37.8
Incr Delay (d2), s/veh	3.5	0.0	0.0	0.0	0.0	5.3	58.1	0.2	0.4	20.7	6.3	213.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.7	0.0	0.0	0.0	0.2	5.8	4.7	5.9	6.5	4.5	15.0	41.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.8	0.0	0.0	0.0	44.2	55.4	116.1	29.5	29.7	76.8	39.6	251.3
LnGrp LOS	D	A	A	A	D	E	F	C	C	E	D	F
Approach Vol, veh/h		665			193			936			1346	
Approach Delay, s/veh		47.8			55.0			38.6			149.7	
Approach LOS		D			E			D			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.6	51.0		34.1	12.0	53.6		24.6
Change Period (Y+Rc), s	4.4	4.9		4.4	4.4	4.9		4.9
Max Green Setting (Gmax), s	13.1	43.2		36.0	7.6	48.7		34.1
Max Q Clear Time (g_c+I1), s	10.3	16.9		23.9	8.9	50.7		16.6
Green Ext Time (p_c), s	0.1	5.3		2.0	0.0	0.0		0.5

Intersection Summary	
HCM 6th Ctrl Delay	89.2
HCM 6th LOS	F

LOS Engineering, Inc.

Intersection	
Intersection Delay, s/veh	8.1
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	158	0	0	164	41	35
Future Vol, veh/h	158	0	0	164	41	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	172	0	0	178	45	38
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.7	7.6	8.1
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	54%
Vol Thru, %	0%	0%	0%
Vol Right, %	0%	100%	46%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	158	164	76
LT Vol	158	0	41
Through Vol	0	0	0
RT Vol	0	164	35
Lane Flow Rate	172	178	83
Geometry Grp	1	1	1
Degree of Util (X)	0.211	0.185	0.104
Departure Headway (Hd)	4.432	3.731	4.52
Convergence, Y/N	Yes	Yes	Yes
Cap	799	966	796
Service Time	2.519	1.739	2.529
HCM Lane V/C Ratio	0.215	0.184	0.104
HCM Control Delay	8.7	7.6	8.1
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.8	0.7	0.3

Intersection	
Int Delay, s/veh	0

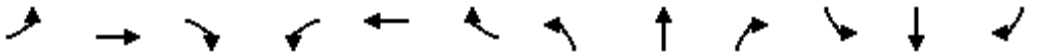
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	28	0	0	0	0	60	0	0	0	15	0	7
Future Vol, veh/h	28	0	0	0	0	60	0	0	0	15	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	30	0	0	0	0	65	0	0	0	16	0	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	69	36	4	36	40	0	8	0	0	0	0	0
Stage 1	36	36	-	0	0	-	-	-	-	-	-	-
Stage 2	33	0	-	36	40	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	921	854	1077	967	850	-	1606	-	-	-	-	-
Stage 1	977	863	-	-	-	-	-	-	-	-	-	-
Stage 2	981	-	-	977	860	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	854	1077	967	850	-	1606	-	-	-	-	-
Mov Cap-2 Maneuver	-	854	-	967	850	-	-	-	-	-	-	-
Stage 1	977	863	-	-	-	-	-	-	-	-	-	-
Stage 2	981	-	-	977	860	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0	
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1606	-	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	-	-	-	-
HCM Lane LOS	A	-	-	-	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-

LOS Engineering, Inc.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	23	83	734	50	339	134	395	402	286	326	2
Future Volume (veh/h)	32	23	83	734	50	339	134	395	402	286	326	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	44	32	115	844	57	390	143	420	428	298	340	2
Peak Hour Factor	0.72	0.72	0.72	0.87	0.87	0.87	0.94	0.94	0.94	0.96	0.96	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	104	593	353	596	525	431	108	1448	910	346	1589	676
Arrive On Green	0.06	0.17	0.17	0.17	0.28	0.28	0.06	0.41	0.41	0.10	0.45	0.45
Sat Flow, veh/h	1767	3526	1530	3428	1856	1523	1767	3526	1549	3428	3526	1501
Grp Volume(v), veh/h	44	32	115	844	57	390	143	420	428	298	340	2
Grp Sat Flow(s),veh/h/ln	1767	1763	1530	1714	1856	1523	1767	1763	1549	1714	1763	1501
Q Serve(g_s), s	3.8	1.2	10.0	27.8	3.6	39.5	9.8	12.7	25.4	13.7	9.4	0.1
Cycle Q Clear(g_c), s	3.8	1.2	10.0	27.8	3.6	39.5	9.8	12.7	25.4	13.7	9.4	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	593	353	596	525	431	108	1448	910	346	1589	676
V/C Ratio(X)	0.42	0.05	0.33	1.42	0.11	0.91	1.32	0.29	0.47	0.86	0.21	0.00
Avail Cap(c_a), veh/h	121	1014	536	596	716	587	108	1448	910	452	1589	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.6	55.9	51.4	66.1	42.5	55.3	75.1	31.5	19.1	70.8	26.7	24.2
Incr Delay (d2), s/veh	2.7	0.0	0.5	197.4	0.1	14.2	194.0	0.5	1.7	12.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.5	3.9	28.3	1.7	16.5	10.2	5.5	9.2	6.5	4.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.3	55.9	51.9	263.5	42.5	69.5	269.1	32.0	20.8	83.2	27.0	24.2
LnGrp LOS	E	E	D	F	D	E	F	C	C	F	C	C
Approach Vol, veh/h		191			1291			991			640	
Approach Delay, s/veh		58.0			195.1			61.4			53.2	
Approach LOS		E			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.4	72.0	33.0	33.6	15.0	78.4	14.6	52.0
Change Period (Y+Rc), s	* 5.2	6.3	* 5.2	* 6.7	* 5.2	6.3	* 5.2	6.7
Max Green Setting (Gmax), s	* 21	42.8	* 28	* 46	* 9.8	54.1	* 11	61.7
Max Q Clear Time (g_c+I1), s	15.7	27.4	29.8	12.0	11.8	11.4	5.8	41.5
Green Ext Time (p_c), s	0.5	3.7	0.0	0.5	0.0	2.2	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	114.9
HCM 6th LOS	F

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	155	0	95	278	788	0	0	421	701
Future Volume (veh/h)	0	0	0	155	0	95	278	788	0	0	421	701
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.96
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				189	0	116	302	857	0	0	468	779
Peak Hour Factor				0.82	0.82	0.82	0.92	0.92	0.92	0.90	0.90	0.90
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				254	0	222	256	3542	0	0	1629	724
Arrive On Green				0.14	0.00	0.14	0.14	0.70	0.00	0.00	0.48	0.48
Sat Flow, veh/h				1767	0	1541	1767	5233	0	0	3544	1502
Grp Volume(v), veh/h				189	0	116	302	857	0	0	468	779
Grp Sat Flow(s),veh/h/ln				1767	0	1541	1767	1689	0	0	1689	1502
Q Serve(g_s), s				6.7	0.0	4.5	9.4	4.0	0.0	0.0	5.4	31.3
Cycle Q Clear(g_c), s				6.7	0.0	4.5	9.4	4.0	0.0	0.0	5.4	31.3
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				254	0	222	256	3542	0	0	1629	724
V/C Ratio(X)				0.74	0.00	0.52	1.18	0.24	0.00	0.00	0.29	1.08
Avail Cap(c_a), veh/h				419	0	365	256	3542	0	0	1629	724
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.68	0.68	0.00	0.00	0.09	0.09
Uniform Delay (d), s/veh				26.7	0.0	25.8	27.8	3.5	0.0	0.0	10.1	16.8
Incr Delay (d2), s/veh				4.3	0.0	1.9	105.8	0.1	0.0	0.0	0.0	36.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.8	0.0	1.6	11.1	0.7	0.0	0.0	1.6	15.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.9	0.0	27.7	133.6	3.7	0.0	0.0	10.2	53.6
LnGrp LOS				C	A	C	F	A	A	A	B	F
Approach Vol, veh/h					305			1159			1247	
Approach Delay, s/veh					29.7			37.5			37.3	
Approach LOS					C			D			D	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	50.5		14.1	36.4		14.5
Change Period (Y+Rc), s	5.1		* 4.7	5.1		5.1
Max Green Setting (Gmax), s	39.4		* 9.4	25.3		15.4
Max Q Clear Time (g_c+I1), s	6.0		11.4	33.3		8.7
Green Ext Time (p_c), s	6.2		0.0	0.0		0.7

Intersection Summary		
HCM 6th Ctrl Delay		36.5
HCM 6th LOS		D

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	624	2	450	0	0	0	0	436	138	116	459	0
Future Volume (veh/h)	624	2	450	0	0	0	0	436	138	116	459	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	604	137	506				0	581	184	123	488	0
Peak Hour Factor	0.89	0.89	0.89				0.75	0.75	0.75	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	738	145	534				0	1178	364	155	1604	0
Arrive On Green	0.42	0.42	0.42				0.00	0.31	0.31	0.09	0.45	0.00
Sat Flow, veh/h	1767	346	1279				0	3986	1179	1767	3618	0
Grp Volume(v), veh/h	604	0	643				0	512	253	123	488	0
Grp Sat Flow(s),veh/h/ln	1767	0	1625				0	1689	1621	1767	1763	0
Q Serve(g_s), s	24.2	0.0	30.5				0.0	9.9	10.2	5.5	7.0	0.0
Cycle Q Clear(g_c), s	24.2	0.0	30.5				0.0	9.9	10.2	5.5	7.0	0.0
Prop In Lane	1.00		0.79				0.00		0.73	1.00		0.00
Lane Grp Cap(c), veh/h	738	0	679				0	1042	500	155	1604	0
V/C Ratio(X)	0.82	0.00	0.95				0.00	0.49	0.51	0.79	0.30	0.00
Avail Cap(c_a), veh/h	749	0	689				0	1042	500	205	1604	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.93	0.93	0.79	0.79	0.00
Uniform Delay (d), s/veh	20.6	0.0	22.5				0.0	22.5	22.7	35.8	13.8	0.0
Incr Delay (d2), s/veh	7.1	0.0	22.1				0.0	1.5	3.4	11.6	0.4	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
%ile BackOfQ(50%),veh/ln	10.1	0.0	14.2				0.0	3.8	4.0	2.7	2.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.7	0.0	44.6				0.0	24.1	26.0	47.4	14.2	0.0
LnGrp LOS	C	A	D				A	C	C	D	B	A
Approach Vol, veh/h		1247						765			611	
Approach Delay, s/veh		36.4						24.7			20.9	
Approach LOS		D						C			C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.7	29.8		38.5		41.5
Change Period (Y+Rc), s	4.7	5.1		5.1		5.1
Max Green Setting (Gmax), s	7.0	21.9		33.9		35.9
Max Q Clear Time (g_c+I1), s	7.5	12.2		32.5		9.0
Green Ext Time (p_c), s	0.0	3.2		0.9		3.0

Intersection Summary	
HCM 6th Ctrl Delay	29.4
HCM 6th LOS	C

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	326	5	42	0	11	113	20	144	0	171	302	425
Future Volume (veh/h)	326	5	42	0	11	113	20	144	0	171	302	425
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		1.00	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	461	0	0	0	14	149	30	215	0	178	315	443
Peak Hour Factor	0.80	0.80	0.80	0.76	0.76	0.76	0.67	0.67	0.67	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	780	410	0	525	284	232	44	1505	0	152	632	511
Arrive On Green	0.22	0.00	0.00	0.00	0.15	0.15	0.02	0.30	0.00	0.09	0.36	0.36
Sat Flow, veh/h	3534	1856	0	3428	1856	1512	1767	5233	0	1767	1763	1426
Grp Volume(v), veh/h	461	0	0	0	14	149	30	215	0	178	315	443
Grp Sat Flow(s),veh/h/ln	1767	1856	0	1714	1856	1512	1767	1689	0	1767	1763	1426
Q Serve(g_s), s	9.0	0.0	0.0	0.0	0.5	7.1	1.3	2.4	0.0	6.6	10.7	22.1
Cycle Q Clear(g_c), s	9.0	0.0	0.0	0.0	0.5	7.1	1.3	2.4	0.0	6.6	10.7	22.1
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	780	410	0	525	284	232	44	1505	0	152	632	511
V/C Ratio(X)	0.59	0.00	0.00	0.00	0.05	0.64	0.69	0.14	0.00	1.17	0.50	0.87
Avail Cap(c_a), veh/h	1614	847	0	1476	799	651	104	2102	0	152	780	631
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	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.8	0.0	0.0	0.0	27.7	30.5	37.1	19.8	0.0	35.0	19.2	22.9
Incr Delay (d2), s/veh	0.7	0.0	0.0	0.0	0.1	3.0	17.6	0.0	0.0	125.8	0.6	10.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	0.0	0.0	0.2	2.6	0.7	0.9	0.0	8.0	4.0	8.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.5	0.0	0.0	0.0	27.8	33.5	54.7	19.8	0.0	160.8	19.8	33.2
LnGrp LOS	C	A	A	A	C	C	D	B	A	F	B	C
Approach Vol, veh/h		461			163			245			936	
Approach Delay, s/veh		27.5			33.0			24.1			53.0	
Approach LOS		C			C			C			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.9	27.7		21.3	6.3	32.4		16.6
Change Period (Y+Rc), s	4.4	4.9		4.4	4.4	4.9		4.9
Max Green Setting (Gmax), s	6.6	31.8		35.0	4.5	33.9		33.0
Max Q Clear Time (g_c+I1), s	8.1	4.4		11.0	3.3	24.1		9.1
Green Ext Time (p_c), s	0.0	1.3		1.6	0.0	3.3		0.5

Intersection Summary		
HCM 6th Ctrl Delay	40.7	
HCM 6th LOS	D	

LOS Engineering, Inc.

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	71	0	0	69	162	147
Future Vol, veh/h	71	0	0	69	162	147
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	77	0	0	75	176	160
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.6	7.6	9.7
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	52%
Vol Thru, %	0%	0%	0%
Vol Right, %	0%	100%	48%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	71	69	309
LT Vol	71	0	162
Through Vol	0	0	0
RT Vol	0	69	147
Lane Flow Rate	77	75	336
Geometry Grp	1	1	1
Degree of Util (X)	0.107	0.087	0.387
Departure Headway (Hd)	4.977	4.19	4.143
Convergence, Y/N	Yes	Yes	Yes
Cap	721	855	873
Service Time	3.003	2.216	2.143
HCM Lane V/C Ratio	0.107	0.088	0.385
HCM Control Delay	8.6	7.6	9.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.4	0.3	1.8

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	12	0	0	0	0	27	0	0	0	62	0	29
Future Vol, veh/h	12	0	0	0	0	27	0	0	0	62	0	29
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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	13	0	0	0	0	29	0	0	0	67	0	32

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	165	150	16	150	166	0	32	0	0	0	0	0
Stage 1	150	150	-	0	0	-	-	-	-	-	-	-
Stage 2	15	0	-	150	166	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	797	740	1060	815	725	-	1574	-	-	-	-	-
Stage 1	850	771	-	-	-	-	-	-	-	-	-	-
Stage 2	1002	-	-	850	759	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	-	740	1060	815	725	-	1574	-	-	-	-	-
Mov Cap-2 Maneuver	-	740	-	815	725	-	-	-	-	-	-	-
Stage 1	850	771	-	-	-	-	-	-	-	-	-	-
Stage 2	1002	-	-	850	759	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0	
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1574	-	-	-	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	-	-	-	-
HCM Lane LOS	A	-	-	-	-	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-	-	-	-

LOS Engineering, Inc.

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	68	96	26	179	1483	1460	1461	525	182	230	380	195
Average Queue (ft)	24	23	1	88	901	1066	550	66	110	128	146	136
95th Queue (ft)	56	67	10	160	1568	1697	1691	237	180	211	279	226
Link Distance (ft)		1246	1246		1445	1445	1445		506	506	506	
Upstream Blk Time (%)					8	32	24					
Queuing Penalty (veh)					0	0	0					
Storage Bay Dist (ft)	230			230				500				170
Storage Blk Time (%)											1	8
Queuing Penalty (veh)											9	20

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa rd

Movement	SB	SB	SB	SB	B23
Directions Served	L	L	T	T	T
Maximum Queue (ft)	223	253	448	520	155
Average Queue (ft)	121	152	187	307	5
95th Queue (ft)	189	214	395	484	51
Link Distance (ft)			449	449	625
Upstream Blk Time (%)			0	4	
Queuing Penalty (veh)			0	0	
Storage Bay Dist (ft)	250	250			
Storage Blk Time (%)		0	0		
Queuing Penalty (veh)		1	1		

Intersection: 2: Caliente Ave & SR-905 WB Ramp

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	140	85	124	439	373	256	412	500	520
Average Queue (ft)	77	29	122	300	52	100	73	197	459
95th Queue (ft)	140	61	128	450	166	224	231	408	601
Link Distance (ft)	998			418	418	418	506	506	506
Upstream Blk Time (%)				2				0	15
Queuing Penalty (veh)				15				0	54
Storage Bay Dist (ft)		820	100						
Storage Blk Time (%)			40	0					
Queuing Penalty (veh)			161	0					

Intersection: 3: Caliente Ave & SR-905 EB Ramp

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	T	TR	L	T	T
Maximum Queue (ft)	855	1014	244	373	442	157	108	159
Average Queue (ft)	854	990	159	116	252	77	37	70
95th Queue (ft)	855	1012	230	238	427	125	90	142
Link Distance (ft)		962	441	441	441	418	418	418
Upstream Blk Time (%)		70			0			
Queuing Penalty (veh)		0			2			
Storage Bay Dist (ft)	830							
Storage Blk Time (%)	1	71						
Queuing Penalty (veh)	4	257						

Intersection: 4: Caliente Ave & Airway Rd

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	R	L	T	T	TR	L	T	TR
Maximum Queue (ft)	274	337	31	116	130	154	94	232	132	238	320
Average Queue (ft)	99	174	4	53	57	79	51	113	45	103	185
95th Queue (ft)	194	280	19	92	115	134	99	187	92	195	295
Link Distance (ft)	499	499	570			765	765	765		441	441
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)				250	250				240		
Storage Blk Time (%)										0	
Queuing Penalty (veh)										0	

Intersection: 5: Central Ave & Caliente Ave

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	79	79	64
Average Queue (ft)	36	39	30
95th Queue (ft)	56	63	51
Link Distance (ft)	450	366	371
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Central Ave & PA 8-9-10 Access

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	55	77
Average Queue (ft)	26	24
95th Queue (ft)	50	54
Link Distance (ft)	279	253
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 524

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	71	64	31	94	1460	1484	1484	525	268	198	201	195
Average Queue (ft)	27	17	4	41	1313	1380	1078	78	143	110	115	88
95th Queue (ft)	66	45	20	77	1695	1649	2126	237	219	168	186	164
Link Distance (ft)		1246	1246		1445	1445	1445		506	506	506	
Upstream Blk Time (%)					26	67	61					
Queuing Penalty (veh)					0	0	0					
Storage Bay Dist (ft)	230			230				500				170
Storage Blk Time (%)							0				1	0
Queuing Penalty (veh)							0				5	0

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa rd

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	259	269	320	349	14
Average Queue (ft)	143	170	49	158	1
95th Queue (ft)	215	236	169	264	6
Link Distance (ft)			449	449	449
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	250	250			
Storage Blk Time (%)	0	1			
Queuing Penalty (veh)	0	2			

Intersection: 2: Caliente Ave & SR-905 WB Ramp

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	177	66	125	289	86	142	76	239	472
Average Queue (ft)	80	31	112	85	29	67	22	65	219
95th Queue (ft)	131	55	140	243	68	131	58	152	416
Link Distance (ft)	998			418	418	418	506	506	506
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		820	100						
Storage Blk Time (%)			24						
Queuing Penalty (veh)			64						

Intersection: 3: Caliente Ave & SR-905 EB Ramp

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	T	TR	L	T	T
Maximum Queue (ft)	855	1014	177	128	245	114	133	200
Average Queue (ft)	824	977	70	49	115	56	52	74
95th Queue (ft)	1034	1029	131	98	196	93	106	142
Link Distance (ft)		962	441	441	441	418	418	418
Upstream Blk Time (%)		60						
Queuing Penalty (veh)		0						
Storage Bay Dist (ft)	830							
Storage Blk Time (%)	1	60						
Queuing Penalty (veh)	7	188						

Intersection: 4: Caliente Ave & Airway Rd

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	R	L	T	T	TR	L	T	TR
Maximum Queue (ft)	169	227	52	75	82	68	97	93	232	249	318
Average Queue (ft)	64	124	10	37	18	22	22	35	98	82	165
95th Queue (ft)	131	203	34	67	47	54	66	74	178	191	288
Link Distance (ft)	499	499	570			765	765	765		441	441
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)				250	250				240		
Storage Blk Time (%)									0	0	
Queuing Penalty (veh)									0	0	

Intersection: 5: Central Ave & Caliente Ave

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	73	31	124
Average Queue (ft)	32	25	58
95th Queue (ft)	51	39	90
Link Distance (ft)	309	314	338
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Central Ave & PA 8-9-10 Access

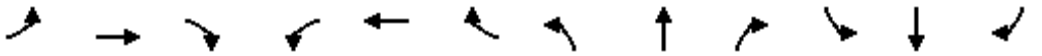
Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	30	49
Average Queue (ft)	14	15
95th Queue (ft)	38	42
Link Distance (ft)	170	211
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 266

Appendix M

Opening Year 2024 Plus Project Phases 1a & 1b LOS and Queueing Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	25	129	394	41	198	109	529	720	290	603	1
Future Volume (veh/h)	31	25	129	394	41	198	109	529	720	290	603	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.99	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	37	30	154	438	46	220	125	608	828	312	648	1
Peak Hour Factor	0.84	0.84	0.84	0.90	0.90	0.90	0.87	0.87	0.87	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	104	747	399	326	461	370	83	1498	808	366	1709	713
Arrive On Green	0.06	0.21	0.21	0.10	0.25	0.25	0.05	0.42	0.42	0.11	0.48	0.48
Sat Flow, veh/h	1767	3526	1535	3428	1856	1491	1767	3526	1550	3428	3526	1472
Grp Volume(v), veh/h	37	30	154	438	46	220	125	608	828	312	648	1
Grp Sat Flow(s),veh/h/ln	1767	1763	1535	1714	1856	1491	1767	1763	1550	1714	1763	1472
Q Serve(g_s), s	2.9	1.0	12.0	13.8	2.8	18.9	6.8	17.4	61.6	13.0	16.8	0.1
Cycle Q Clear(g_c), s	2.9	1.0	12.0	13.8	2.8	18.9	6.8	17.4	61.6	13.0	16.8	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	747	399	326	461	370	83	1498	808	366	1709	713
V/C Ratio(X)	0.36	0.04	0.39	1.34	0.10	0.59	1.51	0.41	1.02	0.85	0.38	0.00
Avail Cap(c_a), veh/h	134	1150	574	326	627	504	83	1498	808	482	1709	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.6	45.4	44.3	65.6	42.0	48.1	69.1	29.0	34.9	63.6	23.6	19.3
Incr Delay (d2), s/veh	2.1	0.0	0.6	173.3	0.1	1.5	278.5	0.8	37.2	10.9	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.4	4.6	13.8	1.3	7.1	9.4	7.4	35.0	6.1	7.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.7	45.4	44.9	238.9	42.1	49.6	347.6	29.8	72.0	74.6	24.2	19.3
LnGrp LOS	E	D	D	F	D	D	F	C	F	E	C	B
Approach Vol, veh/h		221			704			1561			961	
Approach Delay, s/veh		48.8			166.9			77.6			40.6	
Approach LOS		D			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.7	67.9	19.0	37.4	12.0	76.6	13.7	42.7
Change Period (Y+Rc), s	* 5.2	6.3	* 5.2	* 6.7	* 5.2	6.3	* 5.2	6.7
Max Green Setting (Gmax), s	* 20	41.2	* 14	* 47	* 6.8	54.8	* 11	49.0
Max Q Clear Time (g_c+I1), s	15.0	63.6	15.8	14.0	8.8	18.8	4.9	20.9
Green Ext Time (p_c), s	0.5	0.0	0.0	0.7	0.0	4.4	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	83.7
HCM 6th LOS	F

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	124	0	62	753	1253	0	0	543	546
Future Volume (veh/h)	0	0	0	124	0	62	753	1253	0	0	543	546
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.88
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				161	0	81	886	1474	0	0	610	613
Peak Hour Factor				0.77	0.77	0.77	0.85	0.85	0.85	0.89	0.89	0.89
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				195	0	170	840	4037	0	0	941	388
Arrive On Green				0.11	0.00	0.11	0.48	0.80	0.00	0.00	0.28	0.28
Sat Flow, veh/h				1767	0	1538	1767	5233	0	0	3544	1391
Grp Volume(v), veh/h				161	0	81	886	1474	0	0	610	613
Grp Sat Flow(s),veh/h/ln				1767	0	1538	1767	1689	0	0	1689	1391
Q Serve(g_s), s				9.8	0.0	5.4	52.3	9.2	0.0	0.0	17.5	30.7
Cycle Q Clear(g_c), s				9.8	0.0	5.4	52.3	9.2	0.0	0.0	17.5	30.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				195	0	170	840	4037	0	0	941	388
V/C Ratio(X)				0.83	0.00	0.48	1.05	0.37	0.00	0.00	0.65	1.58
Avail Cap(c_a), veh/h				247	0	215	840	4037	0	0	941	388
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.09	0.09	0.00	0.00	0.83	0.83
Uniform Delay (d), s/veh				47.9	0.0	46.0	28.9	3.2	0.0	0.0	34.9	39.7
Incr Delay (d2), s/veh				16.4	0.0	2.1	27.8	0.0	0.0	0.0	2.9	271.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.1	0.0	2.1	26.4	1.8	0.0	0.0	7.3	39.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				64.3	0.0	48.0	56.7	3.2	0.0	0.0	37.8	311.3
LnGrp LOS				E	A	D	F	A	A	A	D	F
Approach Vol, veh/h					242			2360			1223	
Approach Delay, s/veh					58.8			23.3			174.9	
Approach LOS					E			C			F	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	92.8		57.0	35.8		17.2
Change Period (Y+Rc), s	5.1		* 4.7	5.1		5.1
Max Green Setting (Gmax), s	84.4		* 52	27.4		15.4
Max Q Clear Time (g_c+I1), s	11.2		54.3	32.7		11.8
Green Ext Time (p_c), s	14.9		0.0	0.0		0.3

Intersection Summary		
HCM 6th Ctrl Delay		74.0
HCM 6th LOS		E

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	726	1	492	0	0	0	0	1247	172	136	510	0
Future Volume (veh/h)	726	1	492	0	0	0	0	1247	172	136	510	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	700	188	566				0	1663	229	184	689	0
Peak Hour Factor	0.87	0.87	0.87				0.75	0.75	0.75	0.74	0.74	0.74
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	660	152	459				0	1571	215	161	1758	0
Arrive On Green	0.37	0.37	0.37				0.00	0.35	0.35	0.09	0.50	0.00
Sat Flow, veh/h	1767	408	1227				0	4671	618	1767	3618	0
Grp Volume(v), veh/h	700	0	754				0	1245	647	184	689	0
Grp Sat Flow(s),veh/h/ln	1767	0	1635				0	1689	1744	1767	1763	0
Q Serve(g_s), s	29.9	0.0	29.9				0.0	27.9	27.9	7.3	9.7	0.0
Cycle Q Clear(g_c), s	29.9	0.0	29.9				0.0	27.9	27.9	7.3	9.7	0.0
Prop In Lane	1.00		0.75				0.00		0.35	1.00		0.00
Lane Grp Cap(c), veh/h	660	0	611				0	1178	608	161	1758	0
V/C Ratio(X)	1.06	0.00	1.23				0.00	1.06	1.06	1.14	0.39	0.00
Avail Cap(c_a), veh/h	660	0	611				0	1178	608	161	1758	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.67	0.67	0.13	0.13	0.00
Uniform Delay (d), s/veh	25.0	0.0	25.1				0.0	26.0	26.1	36.4	12.5	0.0
Incr Delay (d2), s/veh	51.9	0.0	119.1				0.0	38.5	48.1	73.6	0.1	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
%ile BackOfQ(50%),veh/ln	20.4	0.0	30.3				0.0	16.1	18.3	6.2	3.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.0	0.0	144.1				0.0	64.5	74.1	109.9	12.6	0.0
LnGrp LOS	F	A	F				A	F	F	F	B	A
Approach Vol, veh/h		1454						1892			873	
Approach Delay, s/veh		111.8						67.8			33.1	
Approach LOS		F						E			C	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	12.9	33.0	35.0	45.0
Change Period (Y+Rc), s	7.4	5.1	5.1	5.1
Max Green Setting (Gmax), s	*7.8	27.9	29.9	39.9
Max Q Clear Time (g_c+I1), s	9.3	29.9	31.9	11.7
Green Ext Time (p_c), s	0.0	0.0	0.0	4.6

Intersection Summary	
HCM 6th Ctrl Delay	75.8
HCM 6th LOS	E

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	497	7	44	0	6	151	80	765	2	84	443	475
Future Volume (veh/h)	497	7	44	0	6	151	80	765	2	84	443	475
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.98	1.00		0.76
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	671	0	0	0	7	186	127	1214	3	120	633	679
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.63	0.63	0.63	0.70	0.70	0.70
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	847	444	0	544	294	240	108	1932	5	145	690	468
Arrive On Green	0.24	0.00	0.00	0.00	0.16	0.16	0.06	0.37	0.37	0.08	0.39	0.39
Sat Flow, veh/h	3534	1856	0	3428	1856	1514	1767	5217	13	1767	1763	1196
Grp Volume(v), veh/h	671	0	0	0	7	186	127	786	431	120	633	679
Grp Sat Flow(s),veh/h/ln	1767	1856	0	1714	1856	1514	1767	1689	1853	1767	1763	1196
Q Serve(g_s), s	22.2	0.0	0.0	0.0	0.4	14.7	7.6	23.8	23.8	8.3	42.4	48.7
Cycle Q Clear(g_c), s	22.2	0.0	0.0	0.0	0.4	14.7	7.6	23.8	23.8	8.3	42.4	48.7
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	847	444	0	544	294	240	108	1250	686	145	690	468
V/C Ratio(X)	0.79	0.00	0.00	0.00	0.02	0.77	1.18	0.63	0.63	0.83	0.92	1.45
Avail Cap(c_a), veh/h	1022	537	0	939	508	415	108	1250	686	186	690	468
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	0.0	0.0	0.0	44.2	50.2	58.4	32.2	32.2	56.2	36.0	37.9
Incr Delay (d2), s/veh	3.6	0.0	0.0	0.0	0.0	5.3	141.9	1.0	1.8	20.7	17.3	214.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	0.0	0.0	0.0	0.2	5.8	7.6	9.5	10.6	4.5	20.6	41.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.0	0.0	0.0	0.0	44.2	55.5	200.3	33.2	34.0	77.0	53.3	252.3
LnGrp LOS	D	A	A	A	D	E	F	C	C	E	D	F
Approach Vol, veh/h		671			193			1344			1432	
Approach Delay, s/veh		48.0			55.1			49.2			149.6	
Approach LOS		D			E			D			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.6	51.0		34.2	12.0	53.6		24.6
Change Period (Y+Rc), s	4.4	4.9		4.4	4.4	4.9		4.9
Max Green Setting (Gmax), s	13.1	43.2		36.0	7.6	48.7		34.1
Max Q Clear Time (g_c+I1), s	10.3	25.8		24.2	9.6	50.7		16.7
Green Ext Time (p_c), s	0.1	7.1		2.0	0.0	0.0		0.5

Intersection Summary	
HCM 6th Ctrl Delay	88.8
HCM 6th LOS	F

LOS Engineering, Inc.

Intersection	
Intersection Delay, s/veh	12.2
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	415	0	0	164	41	100
Future Vol, veh/h	415	0	0	164	41	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	451	0	0	178	45	109
Number of Lanes	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	14.6	8.5	9.2
HCM LOS	B	A	A

Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%
Vol Thru, %	0%	0%	0%	0%
Vol Right, %	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	415	164	41	100
LT Vol	415	0	41	0
Through Vol	0	0	0	0
RT Vol	0	164	0	100
Lane Flow Rate	451	178	45	109
Geometry Grp	2	2	5	5
Degree of Util (X)	0.595	0.212	0.08	0.159
Departure Headway (Hd)	4.749	4.29	6.485	5.27
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	758	832	550	676
Service Time	2.791	2.343	4.255	3.04
HCM Lane V/C Ratio	0.595	0.214	0.082	0.161
HCM Control Delay	14.6	8.5	9.8	9
HCM Lane LOS	B	A	A	A
HCM 95th-tile Q	4	0.8	0.3	0.6

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	66	0	0	0	0	127	0	152	0	32	38	17
Future Vol, veh/h	66	0	0	0	0	127	0	152	0	32	38	17
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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	72	0	0	0	0	138	0	165	0	35	41	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	354	285	50	285	294	165	59	0	0	165	0	0
Stage 1	120	120	-	165	165	-	-	-	-	-	-	-
Stage 2	234	165	-	120	129	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	599	623	1015	665	615	877	1538	-	-	1407	-	-
Stage 1	882	794	-	835	760	-	-	-	-	-	-	-
Stage 2	767	760	-	882	787	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	495	607	1015	652	599	877	1538	-	-	1407	-	-
Mov Cap-2 Maneuver	495	607	-	652	599	-	-	-	-	-	-	-
Stage 1	882	773	-	835	760	-	-	-	-	-	-	-
Stage 2	646	760	-	859	767	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.5	9.9	0	2.8
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1538	-	-	495	877	1407	-	-
HCM Lane V/C Ratio	-	-	-	0.145	0.157	0.025	-	-
HCM Control Delay (s)	0	-	-	13.5	9.9	7.6	0	-
HCM Lane LOS	A	-	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.6	0.1	-	-

LOS Engineering, Inc.

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	148	0	0	4	1	37
Future Vol, veh/h	148	0	0	4	1	37
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	161	0	0	4	1	40
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	8.2	6.6	6.9
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	3%
Vol Thru, %	0%	0%	0%
Vol Right, %	0%	100%	97%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	148	4	38
LT Vol	148	0	1
Through Vol	0	0	0
RT Vol	0	4	37
Lane Flow Rate	161	4	41
Geometry Grp	1	1	1
Degree of Util (X)	0.189	0.004	0.042
Departure Headway (Hd)	4.228	3.544	3.658
Convergence, Y/N	Yes	Yes	Yes
Cap	853	1002	962
Service Time	2.237	1.593	1.747
HCM Lane V/C Ratio	0.189	0.004	0.043
HCM Control Delay	8.2	6.6	6.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.7	0	0.1

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	37	0	0	148
Future Vol, veh/h	0	0	37	0	0	148
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	40	0	0	161
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	0	7.7	7.1
HCM LOS	-	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	100%
Vol Thru, %	0%	100%	0%
Vol Right, %	100%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	148	0	37
LT Vol	0	0	37
Through Vol	0	0	0
RT Vol	148	0	0
Lane Flow Rate	161	0	40
Geometry Grp	1	1	1
Degree of Util (X)	0.153	0	0.05
Departure Headway (Hd)	3.421	4.265	4.433
Convergence, Y/N	Yes	Yes	Yes
Cap	1046	0	809
Service Time	1.449	2.298	2.452
HCM Lane V/C Ratio	0.154	0	0.049
HCM Control Delay	7.1	7.3	7.7
HCM Lane LOS	A	N	A
HCM 95th-tile Q	0.5	0	0.2

Intersection	
Int Delay, s/veh	6.9

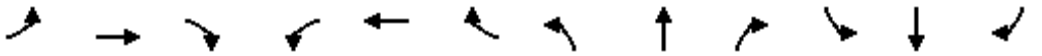
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	138	0	0	10	2	35
Future Vol, veh/h	138	0	0	10	2	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #0		-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	150	0	0	11	2	38

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	32	21	40	0	-	0
Stage 1	21	-	-	-	-	-
Stage 2	11	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	979	1054	1563	-	-	-
Stage 1	999	-	-	-	-	-
Stage 2	1009	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	979	1054	1563	-	-	-
Mov Cap-2 Maneuver	979	-	-	-	-	-
Stage 1	999	-	-	-	-	-
Stage 2	1009	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1563	-	979	-	-
HCM Lane V/C Ratio	-	-	0.153	-	-
HCM Control Delay (s)	0	-	9.3	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

LOS Engineering, Inc.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	23	83	753	50	339	134	412	410	286	365	2
Future Volume (veh/h)	32	23	83	753	50	339	134	412	410	286	365	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	44	32	115	866	57	390	143	438	436	298	380	2
Peak Hour Factor	0.72	0.72	0.72	0.87	0.87	0.87	0.94	0.94	0.94	0.96	0.96	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	104	593	353	596	525	431	108	1448	910	346	1589	676
Arrive On Green	0.06	0.17	0.17	0.17	0.28	0.28	0.06	0.41	0.41	0.10	0.45	0.45
Sat Flow, veh/h	1767	3526	1530	3428	1856	1523	1767	3526	1549	3428	3526	1501
Grp Volume(v), veh/h	44	32	115	866	57	390	143	438	436	298	380	2
Grp Sat Flow(s),veh/h/ln	1767	1763	1530	1714	1856	1523	1767	1763	1549	1714	1763	1501
Q Serve(g_s), s	3.8	1.2	10.0	27.8	3.6	39.5	9.8	13.4	26.0	13.7	10.6	0.1
Cycle Q Clear(g_c), s	3.8	1.2	10.0	27.8	3.6	39.5	9.8	13.4	26.0	13.7	10.6	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	593	353	596	525	431	108	1448	910	346	1589	676
V/C Ratio(X)	0.42	0.05	0.33	1.45	0.11	0.91	1.32	0.30	0.48	0.86	0.24	0.00
Avail Cap(c_a), veh/h	121	1014	536	596	716	587	108	1448	910	452	1589	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.6	55.9	51.4	66.1	42.5	55.3	75.1	31.7	19.2	70.8	27.1	24.2
Incr Delay (d2), s/veh	2.7	0.0	0.5	213.5	0.1	14.2	194.0	0.5	1.8	12.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.5	3.9	29.6	1.7	16.5	10.2	5.8	9.5	6.5	4.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.3	55.9	51.9	279.6	42.5	69.5	269.1	32.2	21.0	83.2	27.4	24.2
LnGrp LOS	E	E	D	F	D	E	F	C	C	F	C	C
Approach Vol, veh/h		191			1313			1017			680	
Approach Delay, s/veh		58.0			206.9			60.7			51.9	
Approach LOS		E			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.4	72.0	33.0	33.6	15.0	78.4	14.6	52.0
Change Period (Y+Rc), s	* 5.2	6.3	* 5.2	* 6.7	* 5.2	6.3	* 5.2	6.7
Max Green Setting (Gmax), s	* 21	42.8	* 28	* 46	* 9.8	54.1	* 11	61.7
Max Q Clear Time (g_c+I1), s	15.7	28.0	29.8	12.0	11.8	12.6	5.8	41.5
Green Ext Time (p_c), s	0.5	3.7	0.0	0.5	0.0	2.4	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	118.6
HCM 6th LOS	F

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	170	0	95	358	813	0	0	480	701
Future Volume (veh/h)	0	0	0	170	0	95	358	813	0	0	480	701
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				207	0	116	389	884	0	0	533	779
Peak Hour Factor				0.82	0.82	0.82	0.92	0.92	0.92	0.90	0.90	0.90
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				272	0	237	256	3491	0	0	1595	709
Arrive On Green				0.15	0.00	0.15	0.14	0.69	0.00	0.00	0.47	0.47
Sat Flow, veh/h				1767	0	1542	1767	5233	0	0	3544	1501
Grp Volume(v), veh/h				207	0	116	389	884	0	0	533	779
Grp Sat Flow(s),veh/h/ln				1767	0	1542	1767	1689	0	0	1689	1501
Q Serve(g_s), s				7.3	0.0	4.5	9.4	4.3	0.0	0.0	6.4	30.7
Cycle Q Clear(g_c), s				7.3	0.0	4.5	9.4	4.3	0.0	0.0	6.4	30.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				272	0	237	256	3491	0	0	1595	709
V/C Ratio(X)				0.76	0.00	0.49	1.52	0.25	0.00	0.00	0.33	1.10
Avail Cap(c_a), veh/h				419	0	365	256	3491	0	0	1595	709
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.63	0.63	0.00	0.00	0.09	0.09
Uniform Delay (d), s/veh				26.4	0.0	25.2	27.8	3.8	0.0	0.0	10.7	17.2
Incr Delay (d2), s/veh				4.4	0.0	1.6	247.3	0.1	0.0	0.0	0.1	46.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.1	0.0	1.6	21.1	0.8	0.0	0.0	1.9	17.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.7	0.0	26.7	275.1	3.9	0.0	0.0	10.8	64.1
LnGrp LOS				C	A	C	F	A	A	A	B	F
Approach Vol, veh/h					323			1273			1312	
Approach Delay, s/veh					29.3			86.8			42.4	
Approach LOS					C			F			D	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	49.9		14.1	35.8		15.1
Change Period (Y+Rc), s	5.1		* 4.7	5.1		5.1
Max Green Setting (Gmax), s	39.4		* 9.4	25.3		15.4
Max Q Clear Time (g_c+I1), s	6.3		11.4	32.7		9.3
Green Ext Time (p_c), s	6.4		0.0	0.0		0.7

Intersection Summary		
HCM 6th Ctrl Delay		60.4
HCM 6th LOS		E

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	624	2	634	0	0	0	0	540	144	116	534	0
Future Volume (veh/h)	624	2	634	0	0	0	0	540	144	116	534	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	701	2	712				0	720	192	123	568	0
Peak Hour Factor	0.89	0.89	0.89				0.75	0.75	0.75	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	749	2	665				0	1202	316	155	1582	0
Arrive On Green	0.42	0.42	0.42				0.00	0.30	0.30	0.09	0.45	0.00
Sat Flow, veh/h	1767	4	1569				0	4145	1047	1767	3618	0
Grp Volume(v), veh/h	701	0	714				0	610	302	123	568	0
Grp Sat Flow(s),veh/h/ln	1767	0	1573				0	1689	1647	1767	1763	0
Q Serve(g_s), s	30.3	0.0	33.9				0.0	12.3	12.5	5.5	8.5	0.0
Cycle Q Clear(g_c), s	30.3	0.0	33.9				0.0	12.3	12.5	5.5	8.5	0.0
Prop In Lane	1.00		1.00				0.00		0.64	1.00		0.00
Lane Grp Cap(c), veh/h	749	0	667				0	1021	498	155	1582	0
V/C Ratio(X)	0.94	0.00	1.07				0.00	0.60	0.61	0.79	0.36	0.00
Avail Cap(c_a), veh/h	749	0	667				0	1021	498	205	1582	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.92	0.92	0.75	0.75	0.00
Uniform Delay (d), s/veh	22.0	0.0	23.1				0.0	23.8	23.8	35.8	14.5	0.0
Incr Delay (d2), s/veh	19.1	0.0	55.4				0.0	2.4	5.0	11.1	0.5	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
%ile BackOfQ(50%),veh/ln	14.7	0.0	21.0				0.0	4.8	5.1	2.7	3.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	0.0	78.5				0.0	26.1	28.8	46.9	15.0	0.0
LnGrp LOS	D	A	F				A	C	C	D	B	A
Approach Vol, veh/h		1415						912			691	
Approach Delay, s/veh		60.0						27.0			20.6	
Approach LOS		E						C			C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.7	29.3		39.0		41.0
Change Period (Y+Rc), s	4.7	5.1		5.1		5.1
Max Green Setting (Gmax), s	7.0	21.9		33.9		35.9
Max Q Clear Time (g_c+I1), s	7.5	14.5		35.9		10.5
Green Ext Time (p_c), s	0.0	3.2		0.0		3.6

Intersection Summary	
HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	326	5	60	0	11	113	28	255	0	171	561	425
Future Volume (veh/h)	326	5	60	0	11	113	28	255	0	171	561	425
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		1.00	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	482	0	0	0	14	149	42	381	0	178	584	443
Peak Hour Factor	0.80	0.80	0.80	0.76	0.76	0.76	0.67	0.67	0.67	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	783	411	0	519	281	229	53	1616	0	143	674	511
Arrive On Green	0.22	0.00	0.00	0.00	0.15	0.15	0.03	0.32	0.00	0.08	0.37	0.37
Sat Flow, veh/h	3534	1856	0	3428	1856	1512	1767	5233	0	1767	1824	1382
Grp Volume(v), veh/h	482	0	0	0	14	149	42	381	0	178	564	463
Grp Sat Flow(s),veh/h/ln	1767	1856	0	1714	1856	1512	1767	1689	0	1767	1763	1443
Q Serve(g_s), s	10.0	0.0	0.0	0.0	0.5	7.6	1.9	4.5	0.0	6.6	24.3	24.3
Cycle Q Clear(g_c), s	10.0	0.0	0.0	0.0	0.5	7.6	1.9	4.5	0.0	6.6	24.3	24.3
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		0.96
Lane Grp Cap(c), veh/h	783	411	0	519	281	229	53	1616	0	143	651	533
V/C Ratio(X)	0.62	0.00	0.00	0.00	0.05	0.65	0.79	0.24	0.00	1.25	0.87	0.87
Avail Cap(c_a), veh/h	1513	794	0	1384	749	610	89	1971	0	143	740	606
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	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	0.0	0.0	0.0	29.7	32.7	39.4	20.5	0.0	37.6	23.9	23.9
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.1	3.1	22.3	0.1	0.0	156.6	9.7	11.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	0.0	0.0	0.2	2.8	1.1	1.6	0.0	8.9	10.7	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.5	0.0	0.0	0.0	29.7	35.8	61.7	20.6	0.0	194.2	33.6	35.5
LnGrp LOS	C	A	A	A	C	D	E	C	A	F	C	D
Approach Vol, veh/h		482			163			423			1205	
Approach Delay, s/veh		29.5			35.2			24.7			58.1	
Approach LOS		C			D			C			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.9	31.0		22.5	6.9	35.1		17.3
Change Period (Y+Rc), s	4.4	4.9		4.4	4.4	4.9		4.9
Max Green Setting (Gmax), s	8.6	31.8		35.0	4.1	34.3		33.0
Max Q Clear Time (g_c+I1), s	11.6	6.5		12.0	3.9	26.3		9.6
Green Ext Time (p_c), s	0.0	2.3		1.7	0.0	3.9		0.5

Intersection Summary	
HCM 6th Ctrl Delay	44.1
HCM 6th LOS	D

LOS Engineering, Inc.

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	190	0	0	69	162	424
Future Vol, veh/h	190	0	0	69	162	424
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	207	0	0	75	176	461
Number of Lanes	0	1	1	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	11.3	8.7	13
HCM LOS	B	A	B

Lane	EBLn1	WBLn1	SBLn1	SBLn2
Vol Left, %	100%	0%	100%	0%
Vol Thru, %	0%	0%	0%	0%
Vol Right, %	0%	100%	0%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	190	69	162	424
LT Vol	190	0	162	0
Through Vol	0	0	0	0
RT Vol	0	69	0	424
Lane Flow Rate	207	75	176	461
Geometry Grp	2	2	5	5
Degree of Util (X)	0.32	0.104	0.284	0.589
Departure Headway (Hd)	5.577	4.998	5.805	4.597
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	640	709	616	779
Service Time	3.648	3.086	3.564	2.356
HCM Lane V/C Ratio	0.323	0.106	0.286	0.592
HCM Control Delay	11.3	8.7	10.9	13.8
HCM Lane LOS	B	A	B	B
HCM 95th-tile Q	1.4	0.3	1.2	3.9

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	30	0	0	0	0	58	0	70	0	136	162	70
Future Vol, veh/h	30	0	0	0	0	58	0	70	0	136	162	70
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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	33	0	0	0	0	63	0	76	0	148	176	76

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	618	586	214	586	624	76	252	0	0	76	0	0
Stage 1	510	510	-	76	76	-	-	-	-	-	-	-
Stage 2	108	76	-	510	548	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	400	421	823	420	400	982	1307	-	-	1517	-	-
Stage 1	544	536	-	931	830	-	-	-	-	-	-	-
Stage 2	895	830	-	544	515	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	341	373	823	383	354	982	1307	-	-	1517	-	-
Mov Cap-2 Maneuver	341	373	-	383	354	-	-	-	-	-	-	-
Stage 1	544	474	-	931	830	-	-	-	-	-	-	-
Stage 2	838	830	-	481	456	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.7	8.9	0	2.8
HCM LOS	C	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1307	-	-	341	982	1517	-	-
HCM Lane V/C Ratio	-	-	-	0.096	0.064	0.097	-	-
HCM Control Delay (s)	0	-	-	16.7	8.9	7.6	0	-
HCM Lane LOS	A	-	-	C	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.2	0.3	-	-

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Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	68	0	0	2	4	158
Future Vol, veh/h	68	0	0	2	4	158
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	74	0	0	2	4	172
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	7.9	6.8	7.3
HCM LOS	A	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	2%
Vol Thru, %	0%	0%	0%
Vol Right, %	0%	100%	98%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	68	2	162
LT Vol	68	0	4
Through Vol	0	0	0
RT Vol	0	2	158
Lane Flow Rate	74	2	176
Geometry Grp	1	1	1
Degree of Util (X)	0.092	0.002	0.171
Departure Headway (Hd)	4.463	3.718	3.503
Convergence, Y/N	Yes	Yes	Yes
Cap	803	955	1016
Service Time	2.491	1.769	1.553
HCM Lane V/C Ratio	0.092	0.002	0.173
HCM Control Delay	7.9	6.8	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.3	0	0.6

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	0	158	0	0	68
Future Vol, veh/h	0	0	158	0	0	68
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	0	172	0	0	74
Number of Lanes	1	0	0	1	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	1	1
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	1	0	1
HCM Control Delay	0	8.4	7.1
HCM LOS	-	A	A

Lane	NBLn1	EBLn1	WBLn1
Vol Left, %	0%	0%	100%
Vol Thru, %	0%	100%	0%
Vol Right, %	100%	0%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	68	0	158
LT Vol	0	0	158
Through Vol	0	0	0
RT Vol	68	0	0
Lane Flow Rate	74	0	172
Geometry Grp	1	1	1
Degree of Util (X)	0.077	0	0.204
Departure Headway (Hd)	3.75	4.213	4.281
Convergence, Y/N	Yes	Yes	Yes
Cap	961	0	840
Service Time	1.75	2.28	2.303
HCM Lane V/C Ratio	0.077	0	0.205
HCM Control Delay	7.1	7.3	8.4
HCM Lane LOS	A	N	A
HCM 95th-tile Q	0.2	0	0.8

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	63	0	0	5	11	147
Future Vol, veh/h	63	0	0	5	11	147
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #0		-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	68	0	0	5	12	160

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	97	92	172	0	-	0
Stage 1	92	-	-	-	-	-
Stage 2	5	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	900	963	1399	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	1016	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	900	963	1399	-	-	-
Mov Cap-2 Maneuver	900	-	-	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	1016	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1399	-	900	-	-
HCM Lane V/C Ratio	-	-	0.076	-	-
HCM Control Delay (s)	0	-	9.3	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

LOS Engineering, Inc.

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	78	69	144	204	1455	1473	1471	193	225	304	391	195
Average Queue (ft)	28	22	14	98	1093	1177	627	41	107	137	162	140
95th Queue (ft)	66	55	118	199	1717	1752	1787	125	195	240	307	236
Link Distance (ft)		1246	1246		1445	1445	1445		506	506	506	
Upstream Blk Time (%)					20	37	32				0	
Queuing Penalty (veh)					0	0	0				0	
Storage Bay Dist (ft)	230			230				500				170
Storage Blk Time (%)			0	3			0				4	5
Queuing Penalty (veh)			0	0			0				25	12

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa Rd

Movement	SB	SB	SB	SB	SB	B23	B23
Directions Served	L	L	T	T	R	T	T
Maximum Queue (ft)	241	274	523	536	7	358	431
Average Queue (ft)	129	170	321	400	0	75	115
95th Queue (ft)	217	265	592	618	3	353	420
Link Distance (ft)			449	449	449	625	625
Upstream Blk Time (%)			9	32		2	3
Queuing Penalty (veh)			0	0		0	0
Storage Bay Dist (ft)	250	250					
Storage Blk Time (%)	0	1	5				
Queuing Penalty (veh)	0	4	16				

Intersection: 2: Caliente Ave & SR-905 WB Ramp

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	208	79	124	445	418	278	387	508	525
Average Queue (ft)	94	28	123	393	95	99	109	274	491
95th Queue (ft)	170	61	131	495	311	211	275	512	587
Link Distance (ft)	998			418	418	418	506	506	506
Upstream Blk Time (%)				11	0	0	0	0	25
Queuing Penalty (veh)				75	1	0	0	0	95
Storage Bay Dist (ft)		820	100						
Storage Blk Time (%)			43	0					
Queuing Penalty (veh)			179	0					

Intersection: 3: Caliente Ave & SR-905 EB Ramp

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	T	TR	L	T	T
Maximum Queue (ft)	855	1025	464	441	462	176	178	204
Average Queue (ft)	854	988	368	220	384	102	48	86
95th Queue (ft)	855	1012	553	437	505	156	112	178
Link Distance (ft)		962	441	441	441	418	418	418
Upstream Blk Time (%)		68	14	0	9			
Queuing Penalty (veh)		0	65	2	43			
Storage Bay Dist (ft)	830							
Storage Blk Time (%)	1	68						
Queuing Penalty (veh)	6	247						

Intersection: 4: Caliente Ave & Airway Rd

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	R	L	T	T	TR	L	T	TR
Maximum Queue (ft)	551	533	30	157	129	300	365	463	265	440	456
Average Queue (ft)	430	478	6	78	63	171	137	211	82	146	238
95th Queue (ft)	608	596	25	135	121	273	267	381	181	291	390
Link Distance (ft)	499	499	570			765	765	765		441	441
Upstream Blk Time (%)	16	57								0	1
Queuing Penalty (veh)	0	0								0	5
Storage Bay Dist (ft)				250	250				240		
Storage Blk Time (%)						1				2	
Queuing Penalty (veh)						1				1	

Intersection: 5: Central Ave & Caliente Ave

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	207	78	64
Average Queue (ft)	73	44	37
95th Queue (ft)	140	71	58
Link Distance (ft)	450	366	371
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	83	71	34	85	1481	1484	1482	461	258	219	230	182
Average Queue (ft)	30	21	4	35	1362	1400	1197	95	125	108	108	74
95th Queue (ft)	69	56	21	71	1682	1665	2100	273	219	186	191	152
Link Distance (ft)		1246	1246		1445	1445	1445		506	506	506	
Upstream Blk Time (%)					33	69	58					
Queuing Penalty (veh)					0	0	0					
Storage Bay Dist (ft)	230			230				500				170
Storage Blk Time (%)							1	0			1	0
Queuing Penalty (veh)							3	0			5	0

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa Rd

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	253	268	286	310	12
Average Queue (ft)	141	173	66	153	1
95th Queue (ft)	222	248	190	265	6
Link Distance (ft)			449	449	449
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	250	250			
Storage Blk Time (%)	0	1	0		
Queuing Penalty (veh)	0	2	0		

Intersection: 2: Caliente Ave & SR-905 WB Ramp

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	176	77	125	412	213	131	110	278	460
Average Queue (ft)	87	28	116	173	39	55	28	81	243
95th Queue (ft)	151	57	140	401	118	109	77	192	428
Link Distance (ft)	998			418	418	418	506	506	506
Upstream Blk Time (%)				1	0				0
Queuing Penalty (veh)				4	0				1
Storage Bay Dist (ft)		820	100						
Storage Blk Time (%)			38	0					
Queuing Penalty (veh)			103	1					

Intersection: 3: Caliente Ave & SR-905 EB Ramp

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	T	TR	L	T	T
Maximum Queue (ft)	855	1018	195	155	259	141	139	166
Average Queue (ft)	850	986	95	64	138	63	67	84
95th Queue (ft)	930	1015	163	120	232	119	123	146
Link Distance (ft)		962	441	441	441	418	418	418
Upstream Blk Time (%)		67						
Queuing Penalty (veh)		0						
Storage Bay Dist (ft)	830							
Storage Blk Time (%)	0	66						
Queuing Penalty (veh)	4	207						

Intersection: 4: Caliente Ave & Airway Rd

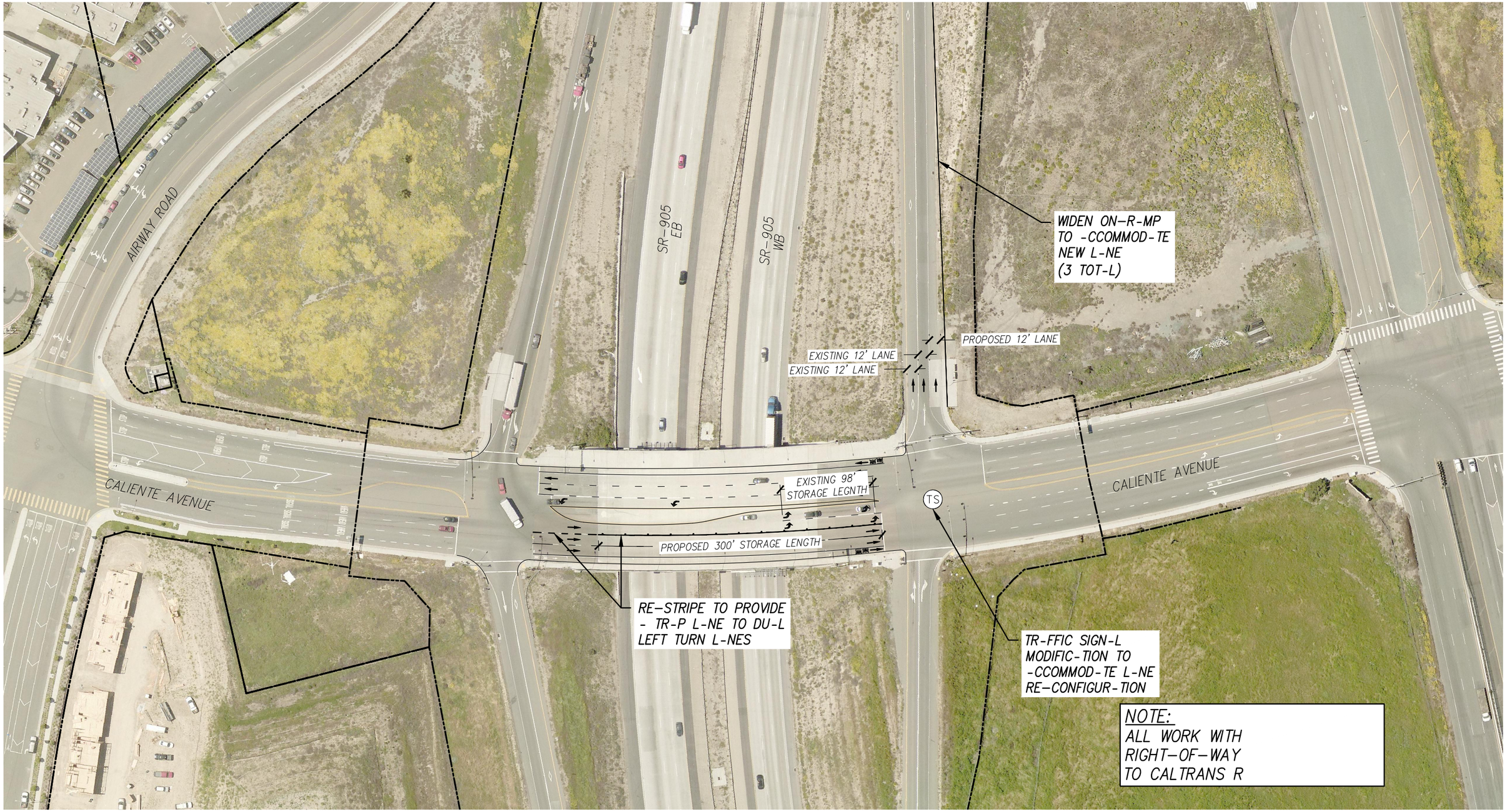
Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	R	L	T	T	TR	L	T	TR
Maximum Queue (ft)	161	277	50	86	62	104	91	129	225	263	328
Average Queue (ft)	62	124	8	38	21	38	31	52	112	112	171
95th Queue (ft)	128	220	33	65	54	81	69	104	207	216	287
Link Distance (ft)	499	499	570			765	765	765		441	441
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)				250	250				240		
Storage Blk Time (%)									1	0	
Queuing Penalty (veh)									3	0	

Intersection: 5: Central Ave & Caliente Ave

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	80	61	242
Average Queue (ft)	45	28	100
95th Queue (ft)	71	48	178
Link Distance (ft)	309	314	338
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Appendix N

Off-Site Improvement Concept Drawings



0 50 100 200 300

1 inch = 100 ft.

NOTE:
THIS EXHIBIT IS CONCEPTU-L -ND DOES NOT CONSTITUTE -N -PPROVED DESIGN OR -LIGNMENT. FIN-L DESIGN M-Y DIFFER FROM THE L-YOUT SHOWN, HOWEVER, NOT TO THE EXTENT TH-T WOULD RESULT IN INFE-SIBILITY OR GENER-TE SIGNIFIC-NT IMP-CTS.

EXHIBIT 1

CALIENTE AVENUE OVER SR-905
SOUTHWEST VILLAGE SPECIFIC PLAN VTM 1 LOCAL MOBILTY ANALYSIS

LEGEND

———— = -

— - - — = -

— — — = -

—·———·— L-

CIVIL SENSE INC
13475 Danielson Street, Suite 150 | Poway, CA 92064
Office: 858-842-4353

SAN YSIDRO SCHOOL DISTRICT
APN 638-070-68

OTAY MESA ROAD

EAST BEYER BLVD.

BEYER BLVD.

FANTASY LANE

DELANY DRIVE

ENRIGHT DRIVE

EXISTING STRIPING

EXISTING R/W

PROPOSED STRIPING (TYP)

MATCH EXISTING CURB

PROPOSED CURB & GUTTER

EXISTING SIDEWALK

EXISTING R/W

EXISTING CURB, GUTTER & SIDEWALK

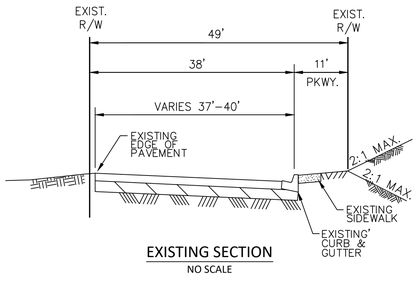
EXISTING R/W

EXISTING CURB, GUTTER & SIDEWALK

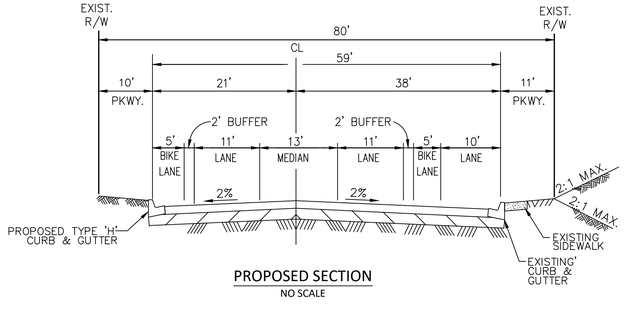
EXISTING R/W

EXISTING R/W

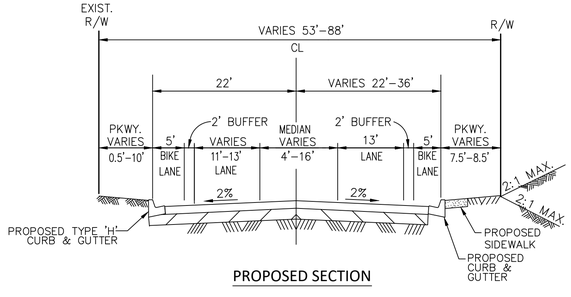
EXISTING CURB, GUTTER & SIDEWALK



EXISTING SECTION
NO SCALE



PROPOSED SECTION
NO SCALE



PROPOSED SECTION

BEYER BOULEVARD WEST
EAST OF OTAY MESA ROAD

BEYER BOULEVARD WEST
INTERIM CONDITION WITHIN EXISTING RIGHT-OF-WAY
BETWEEN ENRIGHT DRIVE AND DELANY DRIVE

BEYER BOULEVARD WEST
EAST OF ENRIGHT DRIVE

NO.	DATE	BY	DESCRIPTION
6			
5			
4	10/3/23	MO	REVISED PER CITY COMMENTS
3	3/30/23	MO	REVISED PER CITY COMMENTS
2	6/13/22	MO	REVISED
1	6/7/22	MO	ORIGINAL

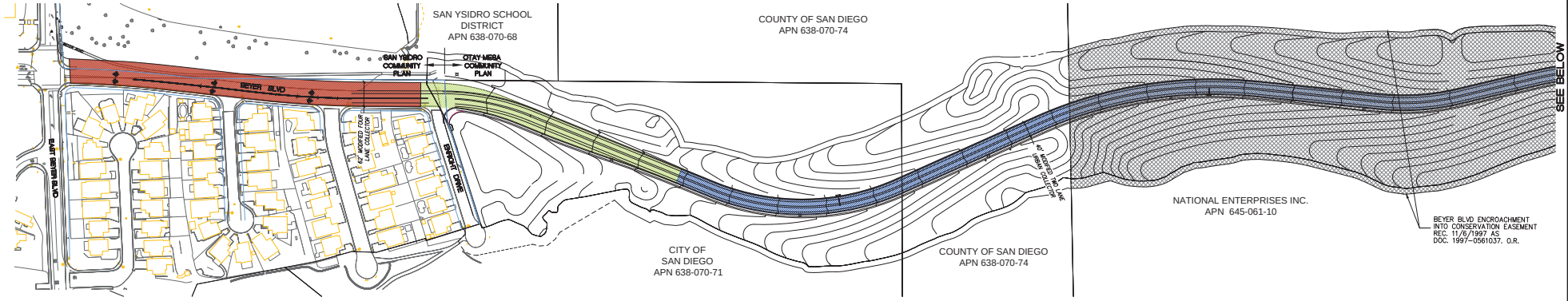
NO.	DATE	BY	DESCRIPTION
12			
11			
10			
9			
8			
7			

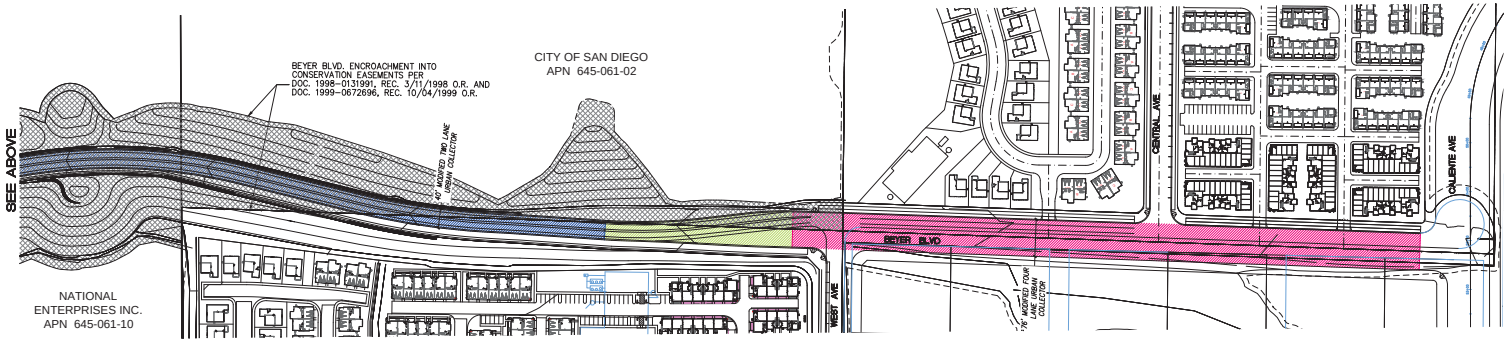
Leppert Engineering CORPORATION
5190 Governor Drive, Suite 205, San Diego, Ca. 92122-2848
Phone: (858) 597-2001 Fax: (858) 597-2009

APPROVED BY ENGINEER OF WORK
REGISTRATION R C E
FILE CODE OM23.02–06.22
DATE

PREPARATION AND REVISION LOG

SCALE: 1"= 40'





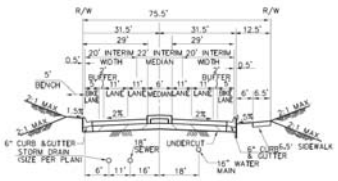
LEGEND

- FOUR LANE COLLECTOR WITHIN SAN YSIDRO COMMUNITY PLAN
- TRANSITION AREA TO FOUR LANES WHEN WARRANTED
- CONSTRUCTED WITH TWO LANES
- MODIFIED FOUR LANE URBAN COLLECTOR
- APPROXIMATE LIMITS OF CONSERVATION EASEMENT VACATION

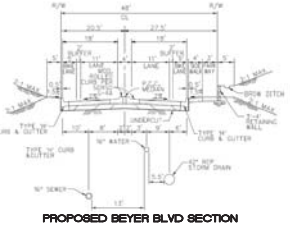
TOTAL LENGTH OF BEYER BLVD (FROM EAST BEYER BLVD TO CALIENTE AVE) = 6,800 FEET

TOTAL LENGTH OF 2 LANE SECTION (FROM END OF TRANSITION EAST OF ENRIGHT DRIVE TO START OF TRANSITION WEST OF WEST AVE) = 3,500 FEET

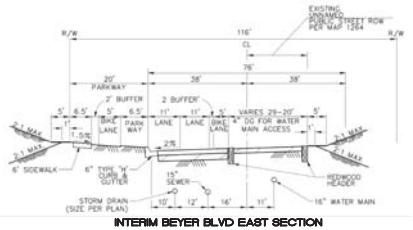
0 30 60 120 180



CITY SUPPORTED MODIFIED BEYER BLVD SECTION
(FROM ENRIGHT DRIVE TO WEST AVE)
NOT TO SCALE



PROPOSED BEYER BLVD SECTION
(FROM ENRIGHT DRIVE TO WEST AVE)
NOT TO SCALE



INTERIM BEYER BLVD EAST SECTION
(FROM WEST AVE TO CALIENTE AVE)
NOT TO SCALE

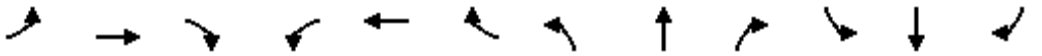
CIVIL SENSE INC
13475 Danielson Street, Suite 150 | Poway, CA 92064
Office: 858-842-4333

SOUTHWEST VILLAGE
BEYER BOULEVARD

REVISED DATE 5/23/2022

Appendix O

Opening Year 2024 Plus Project Phases 1a, 1b & 1c LOS and Queueing Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	25	129	394	41	198	109	529	720	290	603	1
Future Volume (veh/h)	31	25	129	394	41	198	109	529	720	290	603	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.99	1.00		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	37	30	154	438	46	220	125	608	828	312	648	1
Peak Hour Factor	0.84	0.84	0.84	0.90	0.90	0.90	0.87	0.87	0.87	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	104	747	399	326	461	370	83	1498	808	366	1709	713
Arrive On Green	0.06	0.21	0.21	0.10	0.25	0.25	0.05	0.42	0.42	0.11	0.48	0.48
Sat Flow, veh/h	1767	3526	1535	3428	1856	1491	1767	3526	1550	3428	3526	1472
Grp Volume(v), veh/h	37	30	154	438	46	220	125	608	828	312	648	1
Grp Sat Flow(s),veh/h/ln	1767	1763	1535	1714	1856	1491	1767	1763	1550	1714	1763	1472
Q Serve(g_s), s	2.9	1.0	12.0	13.8	2.8	18.9	6.8	17.4	61.6	13.0	16.8	0.1
Cycle Q Clear(g_c), s	2.9	1.0	12.0	13.8	2.8	18.9	6.8	17.4	61.6	13.0	16.8	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	747	399	326	461	370	83	1498	808	366	1709	713
V/C Ratio(X)	0.36	0.04	0.39	1.34	0.10	0.59	1.51	0.41	1.02	0.85	0.38	0.00
Avail Cap(c_a), veh/h	134	1150	574	326	627	504	83	1498	808	482	1709	713
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.94	0.94	1.00	1.00	1.00
Uniform Delay (d), s/veh	65.6	45.4	44.3	65.6	42.0	48.1	69.1	29.0	34.9	63.6	23.6	19.3
Incr Delay (d2), s/veh	2.1	0.0	0.6	173.3	0.1	1.5	278.5	0.8	37.2	10.9	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.4	4.6	13.8	1.3	7.1	9.4	7.4	35.0	6.1	7.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	67.7	45.4	44.9	238.9	42.1	49.6	347.6	29.8	72.0	74.6	24.2	19.3
LnGrp LOS	E	D	D	F	D	D	F	C	F	E	C	B
Approach Vol, veh/h		221			704			1561			961	
Approach Delay, s/veh		48.8			166.9			77.6			40.6	
Approach LOS		D			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.7	67.9	19.0	37.4	12.0	76.6	13.7	42.7
Change Period (Y+Rc), s	* 5.2	6.3	* 5.2	* 6.7	* 5.2	6.3	* 5.2	6.7
Max Green Setting (Gmax), s	* 20	41.2	* 14	* 47	* 6.8	54.8	* 11	49.0
Max Q Clear Time (g_c+I1), s	15.0	63.6	15.8	14.0	8.8	18.8	4.9	20.9
Green Ext Time (p_c), s	0.5	0.0	0.0	0.7	0.0	4.4	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	83.7
HCM 6th LOS	F

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	124	0	62	753	1253	0	0	543	546
Future Volume (veh/h)	0	0	0	124	0	62	753	1253	0	0	543	546
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.88
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				161	0	81	886	1474	0	0	610	613
Peak Hour Factor				0.77	0.77	0.77	0.85	0.85	0.85	0.89	0.89	0.89
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				195	0	170	840	4037	0	0	941	388
Arrive On Green				0.11	0.00	0.11	0.48	0.80	0.00	0.00	0.28	0.28
Sat Flow, veh/h				1767	0	1538	1767	5233	0	0	3544	1391
Grp Volume(v), veh/h				161	0	81	886	1474	0	0	610	613
Grp Sat Flow(s),veh/h/ln				1767	0	1538	1767	1689	0	0	1689	1391
Q Serve(g_s), s				9.8	0.0	5.4	52.3	9.2	0.0	0.0	17.5	30.7
Cycle Q Clear(g_c), s				9.8	0.0	5.4	52.3	9.2	0.0	0.0	17.5	30.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				195	0	170	840	4037	0	0	941	388
V/C Ratio(X)				0.83	0.00	0.48	1.05	0.37	0.00	0.00	0.65	1.58
Avail Cap(c_a), veh/h				247	0	215	840	4037	0	0	941	388
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.09	0.09	0.00	0.00	0.83	0.83
Uniform Delay (d), s/veh				47.9	0.0	46.0	28.9	3.2	0.0	0.0	34.9	39.7
Incr Delay (d2), s/veh				16.4	0.0	2.1	27.8	0.0	0.0	0.0	2.9	271.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.1	0.0	2.1	26.4	1.8	0.0	0.0	7.3	39.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				64.3	0.0	48.0	56.7	3.2	0.0	0.0	37.8	311.3
LnGrp LOS				E	A	D	F	A	A	A	D	F
Approach Vol, veh/h					242			2360			1223	
Approach Delay, s/veh					58.8			23.3			174.9	
Approach LOS					E			C			F	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	92.8		57.0	35.8		17.2
Change Period (Y+Rc), s	5.1		* 4.7	5.1		5.1
Max Green Setting (Gmax), s	84.4		* 52	27.4		15.4
Max Q Clear Time (g_c+I1), s	11.2		54.3	32.7		11.8
Green Ext Time (p_c), s	14.9		0.0	0.0		0.3

Intersection Summary		
HCM 6th Ctrl Delay		74.0
HCM 6th LOS		E

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	726	1	492	0	0	0	0	1247	172	136	510	0
Future Volume (veh/h)	726	1	492	0	0	0	0	1247	172	136	510	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	700	188	566				0	1663	229	184	689	0
Peak Hour Factor	0.87	0.87	0.87				0.75	0.75	0.75	0.74	0.74	0.74
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	660	152	459				0	1571	215	161	1758	0
Arrive On Green	0.37	0.37	0.37				0.00	0.35	0.35	0.09	0.50	0.00
Sat Flow, veh/h	1767	408	1227				0	4671	618	1767	3618	0
Grp Volume(v), veh/h	700	0	754				0	1245	647	184	689	0
Grp Sat Flow(s),veh/h/ln	1767	0	1635				0	1689	1744	1767	1763	0
Q Serve(g_s), s	29.9	0.0	29.9				0.0	27.9	27.9	7.3	9.7	0.0
Cycle Q Clear(g_c), s	29.9	0.0	29.9				0.0	27.9	27.9	7.3	9.7	0.0
Prop In Lane	1.00		0.75				0.00		0.35	1.00		0.00
Lane Grp Cap(c), veh/h	660	0	611				0	1178	608	161	1758	0
V/C Ratio(X)	1.06	0.00	1.23				0.00	1.06	1.06	1.14	0.39	0.00
Avail Cap(c_a), veh/h	660	0	611				0	1178	608	161	1758	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.67	0.67	0.13	0.13	0.00
Uniform Delay (d), s/veh	25.0	0.0	25.1				0.0	26.0	26.1	36.4	12.5	0.0
Incr Delay (d2), s/veh	51.9	0.0	119.1				0.0	38.5	48.1	73.6	0.1	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
%ile BackOfQ(50%),veh/ln	20.4	0.0	30.3				0.0	16.1	18.3	6.2	3.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	77.0	0.0	144.1				0.0	64.5	74.1	109.9	12.6	0.0
LnGrp LOS	F	A	F				A	F	F	F	B	A
Approach Vol, veh/h		1454						1892			873	
Approach Delay, s/veh		111.8						67.8			33.1	
Approach LOS		F						E			C	

Timer - Assigned Phs	1	2	4	6
Phs Duration (G+Y+Rc), s	12.9	33.0	35.0	45.0
Change Period (Y+Rc), s	7.4	5.1	5.1	5.1
Max Green Setting (Gmax), s	*7.8	27.9	29.9	39.9
Max Q Clear Time (g_c+I1), s	9.3	29.9	31.9	11.7
Green Ext Time (p_c), s	0.0	0.0	0.0	4.6

Intersection Summary	
HCM 6th Ctrl Delay	75.8
HCM 6th LOS	E

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	497	7	44	0	6	151	80	765	2	84	443	475
Future Volume (veh/h)	497	7	44	0	6	151	80	765	2	84	443	475
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.98	1.00		0.76
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	671	0	0	0	7	186	127	1214	3	120	633	679
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81	0.63	0.63	0.63	0.70	0.70	0.70
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	847	444	0	544	294	240	108	1932	5	145	690	468
Arrive On Green	0.24	0.00	0.00	0.00	0.16	0.16	0.06	0.37	0.37	0.08	0.39	0.39
Sat Flow, veh/h	3534	1856	0	3428	1856	1514	1767	5217	13	1767	1763	1196
Grp Volume(v), veh/h	671	0	0	0	7	186	127	786	431	120	633	679
Grp Sat Flow(s),veh/h/ln	1767	1856	0	1714	1856	1514	1767	1689	1853	1767	1763	1196
Q Serve(g_s), s	22.2	0.0	0.0	0.0	0.4	14.7	7.6	23.8	23.8	8.3	42.4	48.7
Cycle Q Clear(g_c), s	22.2	0.0	0.0	0.0	0.4	14.7	7.6	23.8	23.8	8.3	42.4	48.7
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	847	444	0	544	294	240	108	1250	686	145	690	468
V/C Ratio(X)	0.79	0.00	0.00	0.00	0.02	0.77	1.18	0.63	0.63	0.83	0.92	1.45
Avail Cap(c_a), veh/h	1022	537	0	939	508	415	108	1250	686	186	690	468
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	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	0.0	0.0	0.0	44.2	50.2	58.4	32.2	32.2	56.2	36.0	37.9
Incr Delay (d2), s/veh	3.6	0.0	0.0	0.0	0.0	5.3	141.9	1.0	1.8	20.7	17.3	214.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.8	0.0	0.0	0.0	0.2	5.8	7.6	9.5	10.6	4.5	20.6	41.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.0	0.0	0.0	0.0	44.2	55.5	200.3	33.2	34.0	77.0	53.3	252.3
LnGrp LOS	D	A	A	A	D	E	F	C	C	E	D	F
Approach Vol, veh/h		671			193			1344			1432	
Approach Delay, s/veh		48.0			55.1			49.2			149.6	
Approach LOS		D			E			D			F	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.6	51.0		34.2	12.0	53.6		24.6
Change Period (Y+Rc), s	4.4	4.9		4.4	4.4	4.9		4.9
Max Green Setting (Gmax), s	13.1	43.2		36.0	7.6	48.7		34.1
Max Q Clear Time (g_c+I1), s	10.3	25.8		24.2	9.6	50.7		16.7
Green Ext Time (p_c), s	0.1	7.1		2.0	0.0	0.0		0.5

Intersection Summary	
HCM 6th Ctrl Delay	88.8
HCM 6th LOS	F

LOS Engineering, Inc.

Intersection	
Intersection Delay, s/veh	12.1
Intersection LOS	B

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	415	0	0	164	41	100
Future Vol, veh/h	415	0	0	164	41	100
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	451	0	0	178	45	109
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	14.4	8.5	9.4
HCM LOS	B	A	A

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	29%
Vol Thru, %	0%	0%	0%
Vol Right, %	0%	100%	71%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	415	164	141
LT Vol	415	0	41
Through Vol	0	0	0
RT Vol	0	164	100
Lane Flow Rate	451	178	153
Geometry Grp	1	1	1
Degree of Util (X)	0.592	0.211	0.213
Departure Headway (Hd)	4.722	4.259	5.005
Convergence, Y/N	Yes	Yes	Yes
Cap	762	838	713
Service Time	2.767	2.312	3.063
HCM Lane V/C Ratio	0.592	0.212	0.215
HCM Control Delay	14.4	8.5	9.4
HCM Lane LOS	B	A	A
HCM 95th-tile Q	3.9	0.8	0.8

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	68	0	23	9	0	68	6	209	2	17	52	17
Future Vol, veh/h	68	0	23	9	0	68	6	209	2	17	52	17
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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	74	0	25	10	0	74	7	227	2	18	57	18

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	381	345	66	357	353	228	75	0	0	229	0	0
Stage 1	102	102	-	242	242	-	-	-	-	-	-	-
Stage 2	279	243	-	115	111	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	575	576	995	596	570	809	1518	-	-	1333	-	-
Stage 1	902	809	-	759	704	-	-	-	-	-	-	-
Stage 2	725	703	-	887	802	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	515	565	995	573	559	809	1518	-	-	1333	-	-
Mov Cap-2 Maneuver	515	565	-	573	559	-	-	-	-	-	-	-
Stage 1	897	798	-	755	700	-	-	-	-	-	-	-
Stage 2	655	699	-	853	791	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.4	10.2	0.2	1.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1518	-	-	587	772	1333	-	-
HCM Lane V/C Ratio	0.004	-	-	0.169	0.108	0.014	-	-
HCM Control Delay (s)	7.4	0	-	12.4	10.2	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.4	0	-	-

LOS Engineering, Inc.

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	217	2	13	0	0	84
Future Vol, veh/h	217	2	13	0	0	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	236	2	14	0	0	91

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	14	0	-	0	488	14
Stage 1	-	-	-	-	14	-
Stage 2	-	-	-	-	474	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1598	-	-	-	537	1063
Stage 1	-	-	-	-	1006	-
Stage 2	-	-	-	-	624	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1598	-	-	-	458	1063
Mov Cap-2 Maneuver	-	-	-	-	458	-
Stage 1	-	-	-	-	857	-
Stage 2	-	-	-	-	624	-

Approach	EB	WB	SB
HCM Control Delay, s	7.6	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1598	-	-	-	1063
HCM Lane V/C Ratio	0.148	-	-	-	0.086
HCM Control Delay (s)	7.6	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.5	-	-	-	0.3

LOS Engineering, Inc.

Intersection	
Int Delay, s/veh	8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	11	16	52	45	64	209
Future Vol, veh/h	11	16	52	45	64	209
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	12	17	57	49	70	227

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	29	0	184	21
Stage 1	-	-	-	-	21	-
Stage 2	-	-	-	-	163	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1578	-	803	1054
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	864	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1578	-	773	1054
Mov Cap-2 Maneuver	-	-	-	-	773	-
Stage 1	-	-	-	-	999	-
Stage 2	-	-	-	-	832	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.9	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	971	-	-	1578	-
HCM Lane V/C Ratio	0.306	-	-	0.036	-
HCM Control Delay (s)	10.3	-	-	7.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	1.3	-	-	0.1	-

LOS Engineering, Inc.

Intersection	
Int Delay, s/veh	5.6

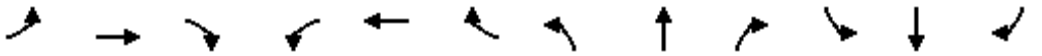
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	182	0	0	91	23	46
Future Vol, veh/h	182	0	0	91	23	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #0		-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	198	0	0	99	25	50

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	149	50	75	0	-	0
Stage 1	50	-	-	-	-	-
Stage 2	99	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	841	1015	1518	-	-	-
Stage 1	970	-	-	-	-	-
Stage 2	922	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	841	1015	1518	-	-	-
Mov Cap-2 Maneuver	841	-	-	-	-	-
Stage 1	970	-	-	-	-	-
Stage 2	922	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1518	-	841	-	-
HCM Lane V/C Ratio	-	-	0.235	-	-
HCM Control Delay (s)	0	-	10.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.9	-	-

LOS Engineering, Inc.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	482	32	146	64	72	12	95	239	19	2	173	354
Future Volume (veh/h)	482	32	146	64	72	12	95	239	19	2	173	354
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.95	1.00		0.93	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	609	0	176	80	90	15	136	341	27	2	194	398
Peak Hour Factor	0.83	0.83	0.83	0.80	0.80	0.80	0.70	0.70	0.70	0.89	0.89	0.89
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	951	0	391	119	134	22	220	735	58	35	231	470
Arrive On Green	0.27	0.00	0.27	0.16	0.16	0.16	0.44	0.44	0.44	0.44	0.44	0.44
Sat Flow, veh/h	3534	0	1453	771	867	144	818	1687	134	1	530	1079
Grp Volume(v), veh/h	609	0	176	185	0	0	136	0	368	594	0	0
Grp Sat Flow(s),veh/h/ln	1767	0	1453	1782	0	0	818	0	1820	1611	0	0
Q Serve(g_s), s	15.9	0.0	10.6	10.3	0.0	0.0	8.7	0.0	15.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	15.9	0.0	10.6	10.3	0.0	0.0	43.3	0.0	15.0	34.5	0.0	0.0
Prop In Lane	1.00		1.00	0.43		0.08	1.00		0.07	0.00		0.67
Lane Grp Cap(c), veh/h	951	0	391	276	0	0	220	0	793	736	0	0
V/C Ratio(X)	0.64	0.00	0.45	0.67	0.00	0.00	0.62	0.00	0.46	0.81	0.00	0.00
Avail Cap(c_a), veh/h	951	0	391	442	0	0	224	0	801	749	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	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	33.8	0.0	31.8	41.7	0.0	0.0	35.5	0.0	20.9	26.4	0.0	0.0
Incr Delay (d2), s/veh	3.3	0.0	3.7	2.7	0.0	0.0	6.5	0.0	0.7	6.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.9	0.0	3.9	4.5	0.0	0.0	3.7	0.0	6.1	13.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.1	0.0	35.5	44.4	0.0	0.0	42.0	0.0	21.7	32.9	0.0	0.0
LnGrp LOS	D	A	D	D	A	A	D	A	C	C	A	A
Approach Vol, veh/h		785			185			504			594	
Approach Delay, s/veh		36.8			44.4			27.1			32.9	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	33.1	50.5	21.1	50.5
Change Period (Y+Rc), s	4.9	* 4.9	4.9	4.9
Max Green Setting (Gmax), s	28.2	* 47	26.0	46.1
Max Q Clear Time (g_c+I1), s	17.9	36.5	12.3	45.3
Green Ext Time (p_c), s	2.1	2.8	0.7	0.4

Intersection Summary	
HCM 6th Ctrl Delay	34.0
HCM 6th LOS	C

LOS Engineering, Inc.

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	26	10	5	104	9	1
Future Vol, veh/h	26	10	5	104	9	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	75	-	0	-
Veh in Median Storage, #0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	28	11	5	113	10	1

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	39	0	157	34
Stage 1	-	-	-	-	34	-
Stage 2	-	-	-	-	123	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1565	-	832	1036
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	900	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1565	-	830	1036
Mov Cap-2 Maneuver	-	-	-	-	830	-
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	897	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	847	-	-	1565	-
HCM Lane V/C Ratio	0.013	-	-	0.003	-
HCM Control Delay (s)	9.3	-	-	7.3	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

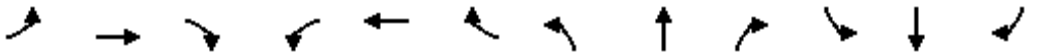
LOS Engineering, Inc.

Intersection	
Intersection Delay, s/veh	17.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	258	1	19	1	7	3	13	105	2	4	168	245
Future Vol, veh/h	258	1	19	1	7	3	13	105	2	4	168	245
Peak Hour Factor	0.69	0.69	0.69	0.46	0.46	0.46	0.76	0.76	0.76	0.87	0.87	0.87
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	374	1	28	2	15	7	17	138	3	5	193	282
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	19.4	9.8	11.3	19.1
HCM LOS	C	A	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	93%	9%	1%
Vol Thru, %	88%	0%	64%	40%
Vol Right, %	2%	7%	27%	59%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	120	278	11	417
LT Vol	13	258	1	4
Through Vol	105	1	7	168
RT Vol	2	19	3	245
Lane Flow Rate	158	403	24	479
Geometry Grp	1	1	1	1
Degree of Util (X)	0.265	0.655	0.042	0.691
Departure Headway (Hd)	6.04	5.852	6.388	5.193
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	591	616	556	695
Service Time	4.115	3.906	4.484	3.251
HCM Lane V/C Ratio	0.267	0.654	0.043	0.689
HCM Control Delay	11.3	19.4	9.8	19.1
HCM Lane LOS	B	C	A	C
HCM 95th-tile Q	1.1	4.8	0.1	5.5



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	23	83	753	50	339	134	412	410	286	365	2
Future Volume (veh/h)	32	23	83	753	50	339	134	412	410	286	365	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.99	1.00		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	44	32	115	866	57	390	143	438	436	298	380	2
Peak Hour Factor	0.72	0.72	0.72	0.87	0.87	0.87	0.94	0.94	0.94	0.96	0.96	0.90
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	104	593	353	596	525	431	108	1448	910	346	1589	676
Arrive On Green	0.06	0.17	0.17	0.17	0.28	0.28	0.06	0.41	0.41	0.10	0.45	0.45
Sat Flow, veh/h	1767	3526	1530	3428	1856	1523	1767	3526	1549	3428	3526	1501
Grp Volume(v), veh/h	44	32	115	866	57	390	143	438	436	298	380	2
Grp Sat Flow(s),veh/h/ln	1767	1763	1530	1714	1856	1523	1767	1763	1549	1714	1763	1501
Q Serve(g_s), s	3.8	1.2	10.0	27.8	3.6	39.5	9.8	13.4	26.0	13.7	10.6	0.1
Cycle Q Clear(g_c), s	3.8	1.2	10.0	27.8	3.6	39.5	9.8	13.4	26.0	13.7	10.6	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	104	593	353	596	525	431	108	1448	910	346	1589	676
V/C Ratio(X)	0.42	0.05	0.33	1.45	0.11	0.91	1.32	0.30	0.48	0.86	0.24	0.00
Avail Cap(c_a), veh/h	121	1014	536	596	716	587	108	1448	910	452	1589	676
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.97	0.97	1.00	1.00	1.00
Uniform Delay (d), s/veh	72.6	55.9	51.4	66.1	42.5	55.3	75.1	31.7	19.2	70.8	27.1	24.2
Incr Delay (d2), s/veh	2.7	0.0	0.5	213.5	0.1	14.2	194.0	0.5	1.8	12.4	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.5	3.9	29.6	1.7	16.5	10.2	5.8	9.5	6.5	4.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.3	55.9	51.9	279.6	42.5	69.5	269.1	32.2	21.0	83.2	27.4	24.2
LnGrp LOS	E	E	D	F	D	E	F	C	C	F	C	C
Approach Vol, veh/h		191			1313			1017			680	
Approach Delay, s/veh		58.0			206.9			60.7			51.9	
Approach LOS		E			F			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.4	72.0	33.0	33.6	15.0	78.4	14.6	52.0
Change Period (Y+Rc), s	* 5.2	6.3	* 5.2	* 6.7	* 5.2	6.3	* 5.2	6.7
Max Green Setting (Gmax), s	* 21	42.8	* 28	* 46	* 9.8	54.1	* 11	61.7
Max Q Clear Time (g_c+I1), s	15.7	28.0	29.8	12.0	11.8	12.6	5.8	41.5
Green Ext Time (p_c), s	0.5	3.7	0.0	0.5	0.0	2.4	0.0	1.6

Intersection Summary	
HCM 6th Ctrl Delay	118.6
HCM 6th LOS	F

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	170	0	95	358	813	0	0	480	701
Future Volume (veh/h)	0	0	0	170	0	95	358	813	0	0	480	701
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				207	0	116	389	884	0	0	533	779
Peak Hour Factor				0.82	0.82	0.82	0.92	0.92	0.92	0.90	0.90	0.90
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				272	0	237	256	3491	0	0	1595	709
Arrive On Green				0.15	0.00	0.15	0.14	0.69	0.00	0.00	0.47	0.47
Sat Flow, veh/h				1767	0	1542	1767	5233	0	0	3544	1501
Grp Volume(v), veh/h				207	0	116	389	884	0	0	533	779
Grp Sat Flow(s),veh/h/ln				1767	0	1542	1767	1689	0	0	1689	1501
Q Serve(g_s), s				7.3	0.0	4.5	9.4	4.3	0.0	0.0	6.4	30.7
Cycle Q Clear(g_c), s				7.3	0.0	4.5	9.4	4.3	0.0	0.0	6.4	30.7
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				272	0	237	256	3491	0	0	1595	709
V/C Ratio(X)				0.76	0.00	0.49	1.52	0.25	0.00	0.00	0.33	1.10
Avail Cap(c_a), veh/h				419	0	365	256	3491	0	0	1595	709
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.63	0.63	0.00	0.00	0.09	0.09
Uniform Delay (d), s/veh				26.4	0.0	25.2	27.8	3.8	0.0	0.0	10.7	17.2
Incr Delay (d2), s/veh				4.4	0.0	1.6	247.3	0.1	0.0	0.0	0.1	46.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.1	0.0	1.6	21.1	0.8	0.0	0.0	1.9	17.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.7	0.0	26.7	275.1	3.9	0.0	0.0	10.8	64.1
LnGrp LOS				C	A	C	F	A	A	A	B	F
Approach Vol, veh/h					323			1273			1312	
Approach Delay, s/veh					29.3			86.8			42.4	
Approach LOS					C			F			D	

Timer - Assigned Phs	2		5	6		8
Phs Duration (G+Y+Rc), s	49.9		14.1	35.8		15.1
Change Period (Y+Rc), s	5.1		* 4.7	5.1		5.1
Max Green Setting (Gmax), s	39.4		* 9.4	25.3		15.4
Max Q Clear Time (g_c+I1), s	6.3		11.4	32.7		9.3
Green Ext Time (p_c), s	6.4		0.0	0.0		0.7

Intersection Summary		
HCM 6th Ctrl Delay		60.4
HCM 6th LOS		E

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	624	2	634	0	0	0	0	540	144	116	534	0
Future Volume (veh/h)	624	2	634	0	0	0	0	540	144	116	534	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		0.98	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856				0	1856	1856	1856	1856	0
Adj Flow Rate, veh/h	701	2	712				0	720	192	123	568	0
Peak Hour Factor	0.89	0.89	0.89				0.75	0.75	0.75	0.94	0.94	0.94
Percent Heavy Veh, %	3	3	3				0	3	3	3	3	0
Cap, veh/h	749	2	665				0	1202	316	155	1582	0
Arrive On Green	0.42	0.42	0.42				0.00	0.30	0.30	0.09	0.45	0.00
Sat Flow, veh/h	1767	4	1569				0	4145	1047	1767	3618	0
Grp Volume(v), veh/h	701	0	714				0	610	302	123	568	0
Grp Sat Flow(s),veh/h/ln	1767	0	1573				0	1689	1647	1767	1763	0
Q Serve(g_s), s	30.3	0.0	33.9				0.0	12.3	12.5	5.5	8.5	0.0
Cycle Q Clear(g_c), s	30.3	0.0	33.9				0.0	12.3	12.5	5.5	8.5	0.0
Prop In Lane	1.00		1.00				0.00		0.64	1.00		0.00
Lane Grp Cap(c), veh/h	749	0	667				0	1021	498	155	1582	0
V/C Ratio(X)	0.94	0.00	1.07				0.00	0.60	0.61	0.79	0.36	0.00
Avail Cap(c_a), veh/h	749	0	667				0	1021	498	205	1582	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.92	0.92	0.75	0.75	0.00
Uniform Delay (d), s/veh	22.0	0.0	23.1				0.0	23.8	23.8	35.8	14.5	0.0
Incr Delay (d2), s/veh	19.1	0.0	55.4				0.0	2.4	5.0	11.1	0.5	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
%ile BackOfQ(50%),veh/ln	14.7	0.0	21.0				0.0	4.8	5.1	2.7	3.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.1	0.0	78.5				0.0	26.1	28.8	46.9	15.0	0.0
LnGrp LOS	D	A	F				A	C	C	D	B	A
Approach Vol, veh/h		1415						912			691	
Approach Delay, s/veh		60.0						27.0			20.6	
Approach LOS		E						C			C	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	11.7	29.3		39.0		41.0
Change Period (Y+Rc), s	6.7	5.1		5.1		5.1
Max Green Setting (Gmax), s	5.0	21.9		33.9		35.9
Max Q Clear Time (g_c+I1), s	7.5	14.5		35.9		10.5
Green Ext Time (p_c), s	0.0	3.2		0.0		3.6

Intersection Summary	
HCM 6th Ctrl Delay	41.0
HCM 6th LOS	D

LOS Engineering, Inc.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	326	5	60	0	11	113	28	255	0	171	561	425
Future Volume (veh/h)	326	5	60	0	11	113	28	255	0	171	561	425
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		1.00	1.00		0.91
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	482	0	0	0	14	149	42	381	0	178	584	443
Peak Hour Factor	0.80	0.80	0.80	0.76	0.76	0.76	0.67	0.67	0.67	0.96	0.96	0.96
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	783	411	0	519	281	229	53	1616	0	143	674	511
Arrive On Green	0.22	0.00	0.00	0.00	0.15	0.15	0.03	0.32	0.00	0.08	0.37	0.37
Sat Flow, veh/h	3534	1856	0	3428	1856	1512	1767	5233	0	1767	1824	1382
Grp Volume(v), veh/h	482	0	0	0	14	149	42	381	0	178	564	463
Grp Sat Flow(s),veh/h/ln	1767	1856	0	1714	1856	1512	1767	1689	0	1767	1763	1443
Q Serve(g_s), s	10.0	0.0	0.0	0.0	0.5	7.6	1.9	4.5	0.0	6.6	24.3	24.3
Cycle Q Clear(g_c), s	10.0	0.0	0.0	0.0	0.5	7.6	1.9	4.5	0.0	6.6	24.3	24.3
Prop In Lane	1.00		0.00	1.00		1.00	1.00		0.00	1.00		0.96
Lane Grp Cap(c), veh/h	783	411	0	519	281	229	53	1616	0	143	651	533
V/C Ratio(X)	0.62	0.00	0.00	0.00	0.05	0.65	0.79	0.24	0.00	1.25	0.87	0.87
Avail Cap(c_a), veh/h	1513	794	0	1384	749	610	89	1971	0	143	740	606
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	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	0.0	0.0	0.0	29.7	32.7	39.4	20.5	0.0	37.6	23.9	23.9
Incr Delay (d2), s/veh	0.8	0.0	0.0	0.0	0.1	3.1	22.3	0.1	0.0	156.6	9.7	11.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	0.0	0.0	0.2	2.8	1.1	1.6	0.0	8.9	10.7	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.5	0.0	0.0	0.0	29.7	35.8	61.7	20.6	0.0	194.2	33.6	35.5
LnGrp LOS	C	A	A	A	C	D	E	C	A	F	C	D
Approach Vol, veh/h		482			163			423			1205	
Approach Delay, s/veh		29.5			35.2			24.7			58.1	
Approach LOS		C			D			C			E	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.9	31.0		22.5	6.9	35.1		17.3
Change Period (Y+Rc), s	4.4	4.9		4.4	4.4	4.9		4.9
Max Green Setting (Gmax), s	8.6	31.8		35.0	4.1	34.3		33.0
Max Q Clear Time (g_c+I1), s	11.6	6.5		12.0	3.9	26.3		9.6
Green Ext Time (p_c), s	0.0	2.3		1.7	0.0	3.9		0.5

Intersection Summary	
HCM 6th Ctrl Delay	44.1
HCM 6th LOS	D

LOS Engineering, Inc.

Intersection	
Intersection Delay, s/veh	17.4
Intersection LOS	C

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	190	0	0	69	162	424
Future Vol, veh/h	190	0	0	69	162	424
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	207	0	0	75	176	461
Number of Lanes	0	1	1	0	1	0

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	1	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	1	1
HCM Control Delay	11.6	8.9	20.3
HCM LOS	B	A	C

Lane	EBLn1	WBLn1	SBLn1
Vol Left, %	100%	0%	28%
Vol Thru, %	0%	0%	0%
Vol Right, %	0%	100%	72%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	190	69	586
LT Vol	190	0	162
Through Vol	0	0	0
RT Vol	0	69	424
Lane Flow Rate	207	75	637
Geometry Grp	1	1	1
Degree of Util (X)	0.332	0.109	0.767
Departure Headway (Hd)	5.791	5.231	4.337
Convergence, Y/N	Yes	Yes	Yes
Cap	624	689	828
Service Time	3.794	3.238	2.406
HCM Lane V/C Ratio	0.332	0.109	0.769
HCM Control Delay	11.6	8.9	20.3
HCM Lane LOS	B	A	C
HCM 95th-tile Q	1.5	0.4	7.5

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	31	0	10	4	0	31	24	96	10	73	223	73
Future Vol, veh/h	31	0	10	4	0	31	24	96	10	73	223	73
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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	34	0	11	4	0	34	26	104	11	79	242	79

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	619	607	282	607	641	110	321	0	0	115	0	0
Stage 1	440	440	-	162	162	-	-	-	-	-	-	-
Stage 2	179	167	-	445	479	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	400	410	755	407	392	941	1233	-	-	1468	-	-
Stage 1	594	576	-	838	762	-	-	-	-	-	-	-
Stage 2	820	758	-	590	553	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	360	374	755	374	358	941	1233	-	-	1468	-	-
Mov Cap-2 Maneuver	360	374	-	374	358	-	-	-	-	-	-	-
Stage 1	580	538	-	819	744	-	-	-	-	-	-	-
Stage 2	772	741	-	543	517	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.8	9.7	1.5	1.5
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1233	-	-	413	802	1468	-	-
HCM Lane V/C Ratio	0.021	-	-	0.108	0.047	0.054	-	-
HCM Control Delay (s)	8	0	-	14.8	9.7	7.6	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	0.1	0.2	-	-

LOS Engineering, Inc.

Intersection	
Int Delay, s/veh	8.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	130	14	7	0	0	238
Future Vol, veh/h	130	14	7	0	0	238
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	141	15	8	0	0	259

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	8	0	-	0	305	8
Stage 1	-	-	-	-	8	-
Stage 2	-	-	-	-	297	-
Critical Hdwy	4.13	-	-	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.227	-	-	-	3.527	3.327
Pot Cap-1 Maneuver	1606	-	-	-	685	1071
Stage 1	-	-	-	-	1012	-
Stage 2	-	-	-	-	752	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1606	-	-	-	624	1071
Mov Cap-2 Maneuver	-	-	-	-	624	-
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	752	-

Approach	EB	WB	SB
HCM Control Delay, s	6.7	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1606	-	-	-	1071
HCM Lane V/C Ratio	0.088	-	-	-	0.242
HCM Control Delay (s)	7.5	0	-	-	9.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0.3	-	-	-	0.9

LOS Engineering, Inc.

Intersection	
Int Delay, s/veh	6.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	48	68	223	21	29	96
Future Vol, veh/h	48	68	223	21	29	96
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	52	74	242	23	32	104

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	126	0	596	89
Stage 1	-	-	-	-	89	-
Stage 2	-	-	-	-	507	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1454	-	465	966
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	603	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1454	-	386	966
Mov Cap-2 Maneuver	-	-	-	-	386	-
Stage 1	-	-	-	-	932	-
Stage 2	-	-	-	-	501	-

Approach	EB	WB	NB
HCM Control Delay, s	0	7.3	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	716	-	-	1454	-
HCM Lane V/C Ratio	0.19	-	-	0.167	-
HCM Control Delay (s)	11.2	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.6	-

LOS Engineering, Inc.

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	83	0	0	42	97	194
Future Vol, veh/h	83	0	0	42	97	194
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #0		-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	90	0	0	46	105	211

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	257	211	316	0	-	0
Stage 1	211	-	-	-	-	-
Stage 2	46	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.227	-	-	-
Pot Cap-1 Maneuver	730	827	1239	-	-	-
Stage 1	822	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	730	827	1239	-	-	-
Mov Cap-2 Maneuver	730	-	-	-	-	-
Stage 1	822	-	-	-	-	-
Stage 2	974	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1239	-	730	-	-
HCM Lane V/C Ratio	-	-	0.124	-	-
HCM Control Delay (s)	0	-	10.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

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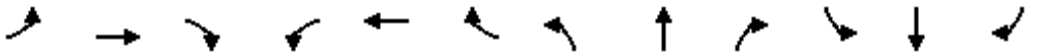

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	130	86	183	36	44	6	80	74	62	9	112	169
Future Volume (veh/h)	130	86	183	36	44	6	80	74	62	9	112	169
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.96	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	114	124	195	51	62	8	95	88	74	13	167	252
Peak Hour Factor	0.94	0.94	0.94	0.71	0.71	0.71	0.84	0.84	0.84	0.67	0.67	0.67
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	682	717	591	87	106	14	240	271	228	57	197	284
Arrive On Green	0.39	0.39	0.39	0.12	0.12	0.12	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1767	1856	1530	755	918	118	960	914	768	20	663	956
Grp Volume(v), veh/h	114	124	195	121	0	0	95	0	162	432	0	0
Grp Sat Flow(s),veh/h/ln	1767	1856	1530	1791	0	0	960	0	1682	1638	0	0
Q Serve(g_s), s	3.1	3.2	6.5	4.7	0.0	0.0	0.0	0.0	5.5	5.4	0.0	0.0
Cycle Q Clear(g_c), s	3.1	3.2	6.5	4.7	0.0	0.0	16.7	0.0	5.5	18.3	0.0	0.0
Prop In Lane	1.00		1.00	0.42		0.07	1.00		0.46	0.03		0.58
Lane Grp Cap(c), veh/h	682	717	591	207	0	0	240	0	499	537	0	0
V/C Ratio(X)	0.17	0.17	0.33	0.58	0.00	0.00	0.40	0.00	0.32	0.80	0.00	0.00
Avail Cap(c_a), veh/h	682	717	591	638	0	0	298	0	601	644	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	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	14.7	14.7	15.8	30.6	0.0	0.0	23.9	0.0	20.0	24.5	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.5	1.5	2.5	0.0	0.0	1.8	0.0	0.6	6.2	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(50%),veh/ln	1.2	1.3	2.2	2.0	0.0	0.0	1.5	0.0	2.0	7.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.2	15.3	17.3	33.1	0.0	0.0	25.7	0.0	20.6	30.7	0.0	0.0
LnGrp LOS	B	B	B	C	A	A	C	A	C	C	A	A
Approach Vol, veh/h		433			121			257			432	
Approach Delay, s/veh		16.2			33.1			22.5			30.7	
Approach LOS		B			C			C			C	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	33.1	26.6	13.3	26.6
Change Period (Y+Rc), s	4.9	* 4.9	4.9	4.9
Max Green Setting (Gmax), s	28.2	* 27	26.0	26.1
Max Q Clear Time (g_c+I1), s	8.5	20.3	6.7	18.7
Green Ext Time (p_c), s	1.4	1.3	0.5	1.1

Intersection Summary	
HCM 6th Ctrl Delay	24.2
HCM 6th LOS	C

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Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	111	13	2	48	11	5
Future Vol, veh/h	111	13	2	48	11	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	75	-	0	-
Veh in Median Storage, #0	-	-	0	0	-	
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	121	14	2	52	12	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	135	0	184	128
Stage 1	-	-	-	-	128	-
Stage 2	-	-	-	-	56	-
Critical Hdwy	-	-	4.13	-	6.43	6.23
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.227	-	3.527	3.327
Pot Cap-1 Maneuver	-	-	1443	-	803	919
Stage 1	-	-	-	-	895	-
Stage 2	-	-	-	-	964	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1443	-	802	919
Mov Cap-2 Maneuver	-	-	-	-	786	-
Stage 1	-	-	-	-	895	-
Stage 2	-	-	-	-	963	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	823	-	-	1443	-
HCM Lane V/C Ratio	0.021	-	-	0.002	-
HCM Control Delay (s)	9.5	-	-	7.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

LOS Engineering, Inc.

Intersection	
Intersection Delay, s/veh	16.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	268	8	21	2	5	4	46	118	1	5	166	262
Future Vol, veh/h	268	8	21	2	5	4	46	118	1	5	166	262
Peak Hour Factor	0.89	0.89	0.89	0.69	0.69	0.69	0.74	0.74	0.74	0.90	0.90	0.90
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	301	9	24	3	7	6	62	159	1	6	184	291
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	16.1	9.7	12.1	18.1
HCM LOS	C	A	B	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	28%	90%	18%	1%
Vol Thru, %	72%	3%	45%	38%
Vol Right, %	1%	7%	36%	61%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	165	297	11	433
LT Vol	46	268	2	5
Through Vol	118	8	5	166
RT Vol	1	21	4	262
Lane Flow Rate	223	334	16	481
Geometry Grp	1	1	1	1
Degree of Util (X)	0.36	0.551	0.028	0.676
Departure Headway (Hd)	5.812	5.945	6.374	5.055
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	615	604	557	712
Service Time	3.873	3.998	4.465	3.106
HCM Lane V/C Ratio	0.363	0.553	0.029	0.676
HCM Control Delay	12.1	16.1	9.7	18.1
HCM Lane LOS	B	C	A	C
HCM 95th-tile Q	1.6	3.3	0.1	5.3

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	78	69	144	204	1455	1473	1471	193	225	304	391	195
Average Queue (ft)	28	22	14	98	1093	1177	627	41	107	137	162	140
95th Queue (ft)	66	55	118	199	1717	1752	1787	125	195	240	307	236
Link Distance (ft)		1246	1246		1445	1445	1445		506	506	506	
Upstream Blk Time (%)					20	37	32				0	
Queuing Penalty (veh)					0	0	0				0	
Storage Bay Dist (ft)	230			230				500				170
Storage Blk Time (%)			0	3			0				4	5
Queuing Penalty (veh)			0	0			0				25	12

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa Rd

Movement	SB	SB	SB	SB	SB	B23	B23
Directions Served	L	L	T	T	R	T	T
Maximum Queue (ft)	241	274	523	536	7	358	431
Average Queue (ft)	129	170	321	400	0	75	115
95th Queue (ft)	217	265	592	618	3	353	420
Link Distance (ft)			449	449	449	625	625
Upstream Blk Time (%)			9	32		2	3
Queuing Penalty (veh)			0	0		0	0
Storage Bay Dist (ft)	250	250					
Storage Blk Time (%)	0	1	5				
Queuing Penalty (veh)	0	4	16				

Intersection: 2: Caliente Ave & SR-905 WB Ramp

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	208	79	124	445	418	278	387	508	525
Average Queue (ft)	94	28	123	393	95	99	109	274	491
95th Queue (ft)	170	61	131	495	311	211	275	512	587
Link Distance (ft)	998			418	418	418	506	506	506
Upstream Blk Time (%)				11	0	0	0	0	25
Queuing Penalty (veh)				75	1	0	0	0	95
Storage Bay Dist (ft)		820	100						
Storage Blk Time (%)			43	0					
Queuing Penalty (veh)			179	0					

Intersection: 3: Caliente Ave & SR-905 EB Ramp

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	T	TR	L	T	T
Maximum Queue (ft)	855	1025	464	441	462	176	178	204
Average Queue (ft)	854	988	368	220	384	102	48	86
95th Queue (ft)	855	1012	553	437	505	156	112	178
Link Distance (ft)		962	441	441	441	418	418	418
Upstream Blk Time (%)		68	14	0	9			
Queuing Penalty (veh)		0	65	2	43			
Storage Bay Dist (ft)	830							
Storage Blk Time (%)	1	68						
Queuing Penalty (veh)	6	247						

Intersection: 4: Caliente Ave & Airway Rd

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	R	L	T	T	TR	L	T	TR
Maximum Queue (ft)	551	533	30	157	129	300	365	463	265	440	456
Average Queue (ft)	430	478	6	78	63	171	137	211	82	146	238
95th Queue (ft)	608	596	25	135	121	273	267	381	181	291	390
Link Distance (ft)	499	499	570			765	765	765		441	441
Upstream Blk Time (%)	16	57								0	1
Queuing Penalty (veh)	0	0								0	5
Storage Bay Dist (ft)				250	250				240		
Storage Blk Time (%)						1				2	
Queuing Penalty (veh)						1				1	

Intersection: 5: Central Ave & Caliente Ave

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	207	78	64
Average Queue (ft)	73	44	37
95th Queue (ft)	140	71	58
Link Distance (ft)	450	366	371
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Central Ave & PA 8-9-10 Access

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	56	54	28
Average Queue (ft)	32	28	3
95th Queue (ft)	50	51	16
Link Distance (ft)	279	253	365
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Beyer Blvd & Central Ave

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	31	49
Average Queue (ft)	2	29
95th Queue (ft)	15	38
Link Distance (ft)	544	447
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: West Ave & Beyer Blvd

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (ft)	26	80
Average Queue (ft)	1	37
95th Queue (ft)	8	57
Link Distance (ft)	544	413
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: West Ave & Street A

Movement	EB
Directions Served	LR
Maximum Queue (ft)	55
Average Queue (ft)	38
95th Queue (ft)	54
Link Distance (ft)	442
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 10: E Beyer Blvd/Old Otay Mesa Rd & Beyer Blvd

Movement	EB	EB	EB	WB	NB	NB	SB
Directions Served	L	LT	R	LTR	L	TR	LTR
Maximum Queue (ft)	294	263	114	224	124	328	289
Average Queue (ft)	183	136	45	100	70	108	160
95th Queue (ft)	268	231	83	167	137	227	264
Link Distance (ft)	514	514		1056		573	698
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			325		100		
Storage Blk Time (%)					11	9	
Queuing Penalty (veh)					29	8	

Intersection: 11: Enright Dr & Beyer Blvd

Movement	NB
Directions Served	LR
Maximum Queue (ft)	54
Average Queue (ft)	11
95th Queue (ft)	37
Link Distance (ft)	234
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: E Beyer Blvd & Center St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	198	32	137	139
Average Queue (ft)	99	9	54	69
95th Queue (ft)	247	31	127	112
Link Distance (ft)	266	204	211	573
Upstream Blk Time (%)	14		1	
Queuing Penalty (veh)	0		0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 906

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	83	71	34	85	1481	1484	1482	461	258	219	230	182
Average Queue (ft)	30	21	4	35	1362	1400	1197	95	125	108	108	74
95th Queue (ft)	69	56	21	71	1682	1665	2100	273	219	186	191	152
Link Distance (ft)		1246	1246		1445	1445	1445		506	506	506	
Upstream Blk Time (%)					33	69	58					
Queuing Penalty (veh)					0	0	0					
Storage Bay Dist (ft)	230			230				500				170
Storage Blk Time (%)							1	0			1	0
Queuing Penalty (veh)							3	0			5	0

Intersection: 1: Caliente Ave/Ocean View Hills Pkwy & Otay Mesa Rd

Movement	SB	SB	SB	SB	SB
Directions Served	L	L	T	T	R
Maximum Queue (ft)	253	268	286	310	12
Average Queue (ft)	141	173	66	153	1
95th Queue (ft)	222	248	190	265	6
Link Distance (ft)			449	449	449
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	250	250			
Storage Blk Time (%)	0	1	0		
Queuing Penalty (veh)	0	2	0		

Intersection: 2: Caliente Ave & SR-905 WB Ramp

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	176	77	125	412	213	131	110	278	460
Average Queue (ft)	87	28	116	173	39	55	28	81	243
95th Queue (ft)	151	57	140	401	118	109	77	192	428
Link Distance (ft)	998			418	418	418	506	506	506
Upstream Blk Time (%)				1	0				0
Queuing Penalty (veh)				4	0				1
Storage Bay Dist (ft)		820	100						
Storage Blk Time (%)			38	0					
Queuing Penalty (veh)			103	1					

Intersection: 3: Caliente Ave & SR-905 EB Ramp

Movement	EB	EB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	T	TR	L	T	T
Maximum Queue (ft)	855	1018	195	155	259	141	139	166
Average Queue (ft)	850	986	95	64	138	63	67	84
95th Queue (ft)	930	1015	163	120	232	119	123	146
Link Distance (ft)		962	441	441	441	418	418	418
Upstream Blk Time (%)		67						
Queuing Penalty (veh)		0						
Storage Bay Dist (ft)	830							
Storage Blk Time (%)	0	66						
Queuing Penalty (veh)	4	207						

Intersection: 4: Caliente Ave & Airway Rd

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	LTR	T	R	L	T	T	TR	L	T	TR
Maximum Queue (ft)	161	277	50	86	62	104	91	129	225	263	328
Average Queue (ft)	62	124	8	38	21	38	31	52	112	112	171
95th Queue (ft)	128	220	33	65	54	81	69	104	207	216	287
Link Distance (ft)	499	499	570			765	765	765		441	441
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)				250	250				240		
Storage Blk Time (%)									1	0	
Queuing Penalty (veh)									3	0	

Intersection: 5: Central Ave & Caliente Ave

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	80	61	242
Average Queue (ft)	45	28	100
95th Queue (ft)	71	48	178
Link Distance (ft)	309	314	338
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Central Ave & PA 8-9-10 Access

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	66	50	46	46
Average Queue (ft)	27	22	7	8
95th Queue (ft)	53	47	30	32
Link Distance (ft)	170	211	478	359
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Beyer Blvd & Central Ave

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	14	78
Average Queue (ft)	1	41
95th Queue (ft)	7	64
Link Distance (ft)	596	478
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: West Ave & Beyer Blvd

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	4	66	76
Average Queue (ft)	0	21	36
95th Queue (ft)	3	54	63
Link Distance (ft)	414	596	366
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 9: West Ave & Street A

Movement	EB
Directions Served	LR
Maximum Queue (ft)	66
Average Queue (ft)	31
95th Queue (ft)	53
Link Distance (ft)	362
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 10: E Beyer Blvd/Old Otay Mesa Rd & Beyer Blvd

Movement	EB	EB	EB	WB	NB	NB	SB
Directions Served	L	LT	R	LTR	L	TR	LTR
Maximum Queue (ft)	132	113	97	116	118	124	246
Average Queue (ft)	51	40	43	49	50	43	108
95th Queue (ft)	102	88	77	95	98	92	200
Link Distance (ft)	514	514		906		587	698
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)			325		100		
Storage Blk Time (%)					2	1	
Queuing Penalty (veh)					2	1	

Intersection: 11: Enright Dr & Beyer Blvd

Movement	WB	NB
Directions Served	L	LR
Maximum Queue (ft)	6	33
Average Queue (ft)	0	13
95th Queue (ft)	5	37
Link Distance (ft)		252
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)	75	
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 12: E Beyer Blvd & Center St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	127	30	101	153
Average Queue (ft)	63	10	48	70
95th Queue (ft)	103	32	80	116
Link Distance (ft)	228	220	199	587
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 336

Appendix P

Estimated Stop Sign Warrant Worksheets

The 4-hour volumes were forecasted up from Phase 1 & 2 AM & PM peak hour volumes based on ITE 24-hour distribution of residential housing traffic (next page or so). ITE lists 6.5% for the 7-8 AM peak and 5.8% for the 8-9 AM peak, thus the adjacent 8-9 AM hour is at 89% of the 7-8 AM peak hour (5.8%/6.5% = 89%). Similarly, the 5-6 PM peak is 9.5% and the 6-7 PM peak is 8.2% resulting in the adjacent 6-7 PM hour being at 86% of the 5-6 PM peak (8.2%/9.5% = 86%).

The all way stop control warrants are based on the volumes by Phase 1a, 1b, and 1c as follows.

5) Caliente Ave at Central Ave Both Approaches One Approach

Peak Hour (Phase 1a)	Major Caliente Ave	Minor Central Ave
AM Peak Hour (Fig 13)	22	88
Adjacent hour is 89% of AM Pk Hr	20	78
PM Peak Hour (Fig 13)	91	39
Adjacent hour is 88% of PM Pk Hr	78	34
Four Hour Total:	**211**	**239**

Peak Hour (Phase 1a & 1b)	Major Caliente Ave	Minor Central Ave
AM Peak Hour (Fig 15)	87	345
Adjacent hour is 89% of AM Pk Hr	77	307
PM Peak Hour (Fig 15)	368	158
Adjacent hour is 88% of PM Pk Hr	316	136
Four Hour Total:	**848**	**946**

Peak Hour (Phases 1a, 1b, & 1c)	Major Caliente Ave	Minor Central Ave
AM Peak Hour (Fig 17)	87	345
Adjacent hour is 89% of AM Pk Hr	77	307
PM Peak Hour (Fig 17)	368	158
Adjacent hour is 88% of PM Pk Hr	316	136
Four Hour Total:	**848**	**946**

7) Beyer Blvd at Central Ave Both Approaches One Approach

Peak Hour (Phase 1a & 1b)	Major Beyer Blvd	Minor Central Ave
AM Peak Hour (Fig 15)	152	38
Adjacent hour is 89% of AM Pk Hr	135	34
PM Peak Hour (Fig 15)	70	162
Adjacent hour is 88% of PM Pk Hr	60	139
Four Hour Total:	**417**	**373**

Peak Hour (Phases 1a, 1b, & 1c)	Major Beyer Blvd	Minor Central Ave
AM Peak Hour (Fig 17)	232	84
Adjacent hour is 89% of AM Pk Hr	206	75
PM Peak Hour (Fig 17)	151	238
Adjacent hour is 88% of PM Pk Hr	130	205
Four Hour Total:	**719**	**602**

8) Beyer Blvd at West Ave (Phase 1a & 1b) Both Approaches One Approach

Peak Hour (Phases 1a & 1b)	Major Beyer Blvd	Minor West Ave
AM Peak Hour (Fig 15)	37	148
Adjacent hour is 89% of AM Pk Hr	33	132
PM Peak Hour (Fig 15)	158	68
Adjacent hour is 88% of PM Pk Hr	136	58
Four Hour Total:	**364**	**406**

Peak Hour (Phases 1a, 1b, & 1c)	Major Beyer Blvd	Minor West Ave
AM Peak Hour (Fig 17)	124	273
Adjacent hour is 89% of AM Pk Hr	110	243
PM Peak Hour (Fig 17)	360	125
Adjacent hour is 88% of PM Pk Hr	310	108
Four Hour Total:	**904**	**749**

9) West Ave at Street A Both Approaches One Approach

Peak Hour (Phases 1a & 1b)	Major West Ave	Minor Street A
AM Peak Hour (Fig 15)	47	138
Adjacent hour is 89% of AM Pk Hr	42	123
PM Peak Hour (Fig 15)	163	63
Adjacent hour is 88% of PM Pk Hr	140	54
Four Hour Total:	**392**	**378**

Peak Hour (Phases 1a, 1b & 1c)	Major West Ave	Minor Street A
AM Peak Hour (Fig 17)	160	182
Adjacent hour is 89% of AM Pk Hr	142	162
PM Peak Hour (Fig 17)	333	83
Adjacent hour is 88% of PM Pk Hr	286	71
Four Hour Total:	**921**	**498**

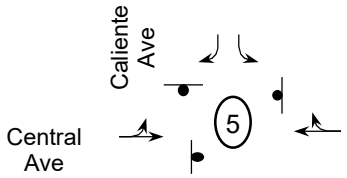
Hourly Distribution of Entering and Exiting Vehicle Trips by Land Use

Source: ITE *Trip Generation Manual*, 11th Edition

Land Use Code	220			220		
Land Use	Multifamily Housing (Low-Rise)			Multifamily Housing (Low-Rise)		
Subcategory	Not Close to Rail Transit			Close to Rail Transit		
Setting	General Urban/Suburban			General Urban/Suburban		
Time Period	Weekday			Weekday		
# Data Sites	6			1		
	% of 24-Hour Vehicle Trips			% of 24-Hour Vehicle Trips		
Time	Total	Entering	Exiting	Total	Entering	Exiting
12:00 - 1:00 AM	0.7%	0.9%	0.4%	0.4%	0.4%	0.3%
1:00 - 2:00 AM	0.4%	0.5%	0.3%	0.2%	0.1%	0.2%
2:00 - 3:00 AM	0.4%	0.4%	0.4%	0.1%	0.2%	0.0%
3:00 - 4:00 AM	0.4%	0.4%	0.3%	0.2%	0.1%	0.2%
4:00 - 5:00 AM	0.9%	0.3%	1.4%	0.2%	0.2%	0.1%
5:00 - 6:00 AM	1.6%	0.5%	2.6%	2.4%	0.9%	4.0%
6:00 - 7:00 AM	4.2%	1.4%	6.9%	4.4%	2.0%	6.7%
7:00 - 8:00 AM	6.5%	2.0%	10.8%	7.2%	4.2%	10.3%
8:00 - 9:00 AM	5.8%	3.1%	8.5%	5.2%	3.4%	6.9%
9:00 - 10:00 AM	3.9%	2.9%	4.9%	4.4%	3.1%	5.7%
10:00 - 11:00 AM	3.6%	2.4%	4.8%	3.9%	3.4%	4.4%
11:00 - 12:00 PM	4.3%	3.8%	4.7%	5.4%	6.4%	4.4%
12:00 - 1:00 PM	4.3%	4.5%	4.1%	6.1%	5.8%	6.5%
1:00 - 2:00 PM	4.2%	4.0%	4.4%	4.7%	4.1%	5.4%
2:00 - 3:00 PM	5.2%	5.6%	4.9%	6.8%	7.5%	6.1%
3:00 - 4:00 PM	6.1%	6.9%	5.3%	6.5%	7.6%	5.4%
4:00 - 5:00 PM	7.9%	10.1%	5.6%	9.5%	11.6%	7.5%
5:00 - 6:00 PM	9.5%	11.4%	7.6%	11.2%	13.5%	8.9%
6:00 - 7:00 PM	8.2%	9.7%	6.7%	7.2%	7.7%	6.6%
7:00 - 8:00 PM	6.4%	8.1%	4.7%	6.1%	7.5%	4.7%
8:00 - 9:00 PM	5.9%	7.7%	4.2%	3.2%	4.2%	2.2%
9:00 - 10:00 PM	4.4%	6.0%	2.7%	2.4%	3.3%	1.5%
10:00 - 11:00 PM	3.5%	4.7%	2.4%	1.3%	1.5%	1.0%
11:00 - 12:00 AM	1.9%	2.5%	1.4%	1.1%	1.2%	1.0%

Stop Sign Control Installation Criteria (All-Way Stop Control)
City of San Diego Policy 200-08

5) Caliente Ave at Central Ave
Phase 1a



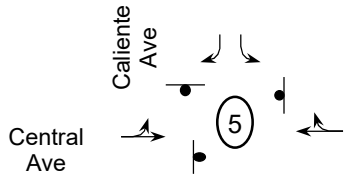
Proposed Conditions

No Scale

Criteria (requires 20 or more points out of 50 possible points)					**Points**
1) Accident Experience (15 points possible) Three points for each accident				Number of Accidents 0	0
2) Special Conditions (5 points possible) Proximity to schools, fire stations, playgrounds, steep hills, bus routes, strip commercial districts, parks, libraries, hospitals, post offices, pedestrians, bicycle, and vehicle circulation.				Special Conditions 5 Route to High School	5
3) Traffic Volumes (15 points possible)				4 Hour Volume	
Total Main Street 4-Hour Traffic Volume	Points	Highest Side Street 4-Hour Traffic Volume	Points	Total Main Street Approach Volumes	
0-400	0	0-200	0	211	0
401-600	1	201-300	1	Highest Side St Approach	
601-800	2	301-400	2	239	8
801-1000	3	401-500	3		
1001-1200	4	501-600	4		
1201-2600	5	601-700	5		
2601-2900	4	701-800	6		
2901-3200	3	801-900	7		
3201-3500	2	901-1000	8		
3501-3800	1	1001-1100	9		
3801-over	0	1101-over	10		
4) Traffic Volume Difference (10 points possible)				24 Hour Volumes	
Traffic Volume Difference	Points			Highest Side Street Approach Volume: 692	
0-150	10			Double Side Street Volume: 1,384	
151-300	9			Total Main Street Approaches: 692	
301-450	8				
451-600	7			Traffic Volume Difference	
601-750	6			(subtracting double the side	
751-900	5			street from main street): -692	10
901-1050	4				
1051-1200	3			If negative, use volume difference of zero to assign points	
1201-1350	2				
1351-1500	1				
1501-over	0				
5) Pedestrian Volumes (5 points possible)				4 Hour Volumes	
Pedestrians Crossing Main Street 4-hrs	Points			Pedestrians Crossing Main Street Appoaches	
0	0			0	0
1-50	1				
51-100	2				
101-150	3				
151-200	4				
201-over	5				
				Point Total:	**23**
				All-Way Stop Control (if 20 or more points):	**Meets AWSC Criteria**

Stop Sign Control Installation Criteria (All-Way Stop Control)
City of San Diego Policy 200-08

5) Caliente Ave at Central Ave
Phase 1a & 1b



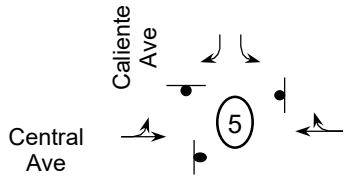
Proposed Conditions

No Scale

Criteria (requires 20 or more points out of 50 possible points)					**Points**
1) Accident Experience (15 points possible) Three points for each accident				Number of Accidents 0	0
2) Special Conditions (5 points possible) Proximity to schools, fire stations, playgrounds, steep hills, bus routes, strip commercial districts, parks, libraries, hospitals, post offices, pedestrians, bicycle, and vehicle circulation.				Special Conditions 5 Route to High School	5
3) Traffic Volumes (15 points possible)				4 Hour Volume	
Total Main Street 4-Hour Traffic Volume	Points	Highest Side Street 4-Hour Traffic Volume	Points	Total Main Street Approach Volumes	
0-400	0	0-200	0	848	3
401-600	1	201-300	1	Highest Side St Approach	
601-800	2	301-400	2	946	8
801-1000	3	401-500	3		
1001-1200	4	501-600	4		
1201-2600	5	601-700	5		
2601-2900	4	701-800	6		
2901-3200	3	801-900	7		
3201-3500	2	901-1000	8		
3501-3800	1	1001-1100	9		
3801-over	0	1101-over	10		
4) Traffic Volume Difference (10 points possible)				24 Hour Volumes	
Traffic Volume Difference	Points			Highest Side Street Approach Volume: 2,692	
0-150	10			Double Side Street Volume: 5,384	
151-300	9			Total Main Street Approaches: 2,692	
301-450	8				
451-600	7			Traffic Volume Difference	
601-750	6			(subtracting double the side	
751-900	5			street from main street): -2,692	10
901-1050	4				
1051-1200	3			If negative, use volume difference of zero to assign points	
1201-1350	2				
1351-1500	1				
1501-over	0				
5) Pedestrian Volumes (5 points possible)				4 Hour Volumes	
Pedestrians Crossing Main Street 4-hrs	Points			Pedestrians Crossing Main Street Appoaches	
0	0			0	0
1-50	1				
51-100	2				
101-150	3				
151-200	4				
201-over	5				
				Point Total:	**26**
				All-Way Stop Control (if 20 or more points):	**Meets AWSC Criteria**

Stop Sign Control Installation Criteria (All-Way Stop Control)
City of San Diego Policy 200-08

5) Caliente Ave at Central Ave
Phase 1a, 1b & 1c



Proposed Conditions

No Scale

Criteria (requires 20 or more points out of 50 possible points)					**Points**
1) Accident Experience (15 points possible) Three points for each accident				Number of Accidents 0	0
2) Special Conditions (5 points possible) Proximity to schools, fire stations, playgrounds, steep hills, bus routes, strip commercial districts, parks, libraries, hospitals, post offices, pedestrians, bicycle, and vehicle circulation.				Special Conditions 5 Route to High School	5
3) Traffic Volumes (15 points possible)				4 Hour Volume	
Total Main Street 4-Hour Traffic Volume	Points	Highest Side Street 4-Hour Traffic Volume	Points	Total Main Street Approach Volumes	
0-400	0	0-200	0	848	3
401-600	1	201-300	1	Highest Side St Approach	
601-800	2	301-400	2	946	8
801-1000	3	401-500	3		
1001-1200	4	501-600	4		
1201-2600	5	601-700	5		
2601-2900	4	701-800	6		
2901-3200	3	801-900	7		
3201-3500	2	901-1000	8		
3501-3800	1	1001-1100	9		
3801-over	0	1101-over	10		
4) Traffic Volume Difference (10 points possible)				24 Hour Volumes	
Traffic Volume Difference	Points			Highest Side Street Approach Volume:	
0-150	10			2,692	
151-300	9			Double Side Street Volume:	
301-450	8			5,384	
451-600	7			Total Main Street Approaches:	
601-750	6			2,692	
751-900	5				
901-1050	4			Traffic Volume Difference (subtracting double the side street from main street):	
1051-1200	3			-2,692	10
1201-1350	2				
1351-1500	1			If negative, use volume difference of zero to assign points	
1501-over	0				
5) Pedestrian Volumes (5 points possible)				4 Hour Volumes	
Pedestrians Crossing Main Street 4-hrs	Points			Pedestrians Crossing Main Street Appoaches	
0	0			0	0
1-50	1				
51-100	2				
101-150	3				
151-200	4				
201-over	5				
				Point Total:	**26**
				All-Way Stop Control (if 20 or more points):	**Meets AWSC Criteria**

Stop Sign Control Installation Criteria (All-Way Stop Control)
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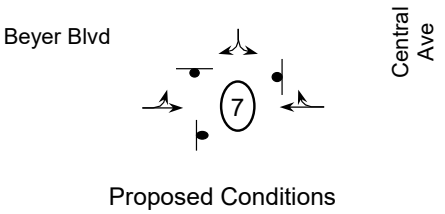
7) Beyer Blvd at Central Ave
Phase 1a & 1b



Proposed Conditions

No Scale

Criteria (requires 20 or more points out of 50 possible points)		Points
1) Accident Experience (15 points possible) Three points for each accident	Number of Accidents 0	0
2) Special Conditions (5 points possible) Proximity to schools, fire stations, playgrounds, steep hills, bus routes, strip commercial districts, parks, libraries, hospitals, post offices, pedestrians, bicycle, and vehicle circulation.	Special Conditions 5 Route to High School	5
3) Traffic Volumes (15 points possible)	4 Hour Volume Total Main Street Approach Volumes 417 Highest Side St Approach 373	1 2
4) Traffic Volume Difference (10 points possible)	24 Hour Volumes Highest Side Street Approach Volume: 1,185 Double Side Street Volume: 2,369 Total Main Street Approaches: 2,369 Traffic Volume Difference (subtracting double the side street from main street): 0 If negative, use volume difference of zero to assign points	10
5) Pedestrian Volumes (5 points possible)	4 Hour Volumes Pedestrians Crossing Main Street Appoaches 53 Based on 303 dwelling units in PA 11-14. Please see note*	2
	Point Total:	**20**
	All-Way Stop Control (if 20 or more points):	**Meets AWSC Criteria**

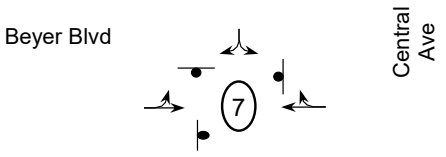
Traffic Volume Difference	Points
0-150	10
151-300	9
301-450	8
451-600	7
601-750	6
751-900	5
901-1050	4
1051-1200	3
1201-1350	2
1351-1500	1
1501-over	0

Pedestrians Crossing Main Street 4-hrs	Points
0	0
1-50	1
51-100	2
101-150	3
151-200	4
201-over	5

*Students crossing Main St based on San Ysidro High School District student generation rate of 0.174 students per dwelling unit. Total students doubled to represent going to and returning from school. Students potentially crossing Main Street taken at half of total due to unknown variability in which leg they will cross.

Stop Sign Control Installation Criteria (All-Way Stop Control)
City of San Diego Policy 200-08

7) Beyer Blvd at Central Ave
Phase 1a, 1b & 1c



Proposed Conditions

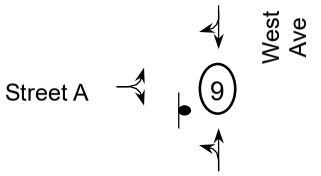
No Scale

Criteria (requires 20 or more points out of 50 possible points)					Points
1) Accident Experience (15 points possible) Three points for each accident				Number of Accidents 0	0
2) Special Conditions (5 points possible) Proximity to schools, fire stations, playgrounds, steep hills, bus routes, strip commercial districts, parks, libraries, hospitals, post offices, pedestrians, bicycle, and vehicle circulation.				Special Conditions 5 Route to High School	5
3) Traffic Volumes (15 points possible)				4 Hour Volume	
Total Main Street 4-Hour Traffic Volume	Points	Highest Side Street 4-Hour Traffic Volume	Points	Total Main Street Approach Volumes	
0-400	0	0-200	0	719	2
401-600	1	201-300	1	Highest Side St Approach	
601-800	2	301-400	2	602	5
801-1000	3	401-500	3		
1001-1200	4	501-600	4		
1201-2600	5	601-700	5		
2601-2900	4	701-800	6		
2901-3200	3	801-900	7		
3201-3500	2	901-1000	8		
3501-3800	1	1001-1100	9		
3801-over	0	1101-over	10		
4) Traffic Volume Difference (10 points possible)				24 Hour Volumes	
Traffic Volume Difference	Points			Highest Side Street Approach Volume:	
0-150	10			1,736	
151-300	9			Double Side Street Volume:	
301-450	8			3,471	
451-600	7			Total Main Street Approaches:	
601-750	6			3,826	
751-900	5			Traffic Volume Difference (subtracting double the side street from main street):	
901-1050	4			355	8
1051-1200	3				
1201-1350	2			If negative, use volume difference of zero to assign points	
1351-1500	1				
1501-over	0				
5) Pedestrian Volumes (5 points possible)				4 Hour Volumes	
Pedestrians Crossing Main Street 4-hrs	Points			Pedestrians Crossing Main Street Appoaches	
0	0			89	2
1-50	1				
51-100	2			Based on 510 dwelling units in PA 11-14.	
101-150	3			Please see note*	
151-200	4				
201-over	5				
				Point Total:	**22**
				All-Way Stop Control (if 20 or more points):	**Meets AWSC Criteria**

*Students crossing Main St based on San Ysidro High School District student generation rate of 0.174 students per dwelling unit. Total students doubled to represent going to and returning from school. Students potentially crossing Main Street taken at half of total due to unknown variability in which leg they will cross.

Stop Sign Control Installation Criteria (All-Way Stop Control)
City of San Diego Policy 200-08

9) West Ave at Street A
Phase 1a & 1b



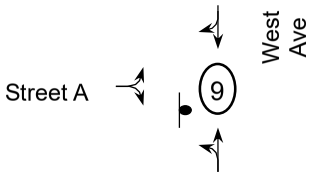
Proposed Conditions

No Scale

Criteria (requires 20 or more points out of 50 possible points)					Points
1) Accident Experience (15 points possible) Three points for each accident				Number of Accidents 0	0
2) Special Conditions (5 points possible) Proximity to schools, fire stations, playgrounds, steep hills, bus routes, strip commercial districts, parks, libraries, hospitals, post offices, pedestrians, bicycle, and vehicle circulation.				Special Conditions	0
3) Traffic Volumes (15 points possible)				4 Hour Volume	
Total Main Street 4-Hour Traffic Volume	Points	Highest Side Street 4-Hour Traffic Volume	Points	Total Main Street Approach Volumes	
0-400	0	0-200	0	392	0
401-600	1	201-300	1	Highest Side St Approach	
601-800	2	301-400	2	378	2
801-1000	3	401-500	3		
1001-1200	4	501-600	4		
1201-2600	5	601-700	5		
2601-2900	4	701-800	6		
2901-3200	3	801-900	7		
3201-3500	2	901-1000	8		
3501-3800	1	1001-1100	9		
3801-over	0	1101-over	10		
4) Traffic Volume Difference (10 points possible)				24 Hour Volumes	
Traffic Volume Difference	Points			Highest Side Street Approach Volume: 1,077	
0-150	10			Double Side Street Volume: 2,154	
151-300	9			Total Main Street Approaches: 1,239	
301-450	8				
451-600	7			Traffic Volume Difference	
601-750	6			(subtracting double the side	
751-900	5			street from main street): -915	10
901-1050	4				
1051-1200	3			If negative, use volume	
1201-1350	2			difference of zero to	
1351-1500	1			assign points	
1501-over	0				
5) Pedestrian Volumes (5 points possible)				4 Hour Volumes	
Pedestrians Crossing Main Street 4-hrs	Points			Pedestrians Crossing Main Street Appoaches	
0	0			0	0
1-50	1				
51-100	2				
101-150	3				
151-200	4				
201-over	5				
				Point Total:	**12**
				All-Way Stop Control (if 20 or more points):	**Does Not Meet AWSC Criteria**

Stop Sign Control Installation Criteria (All-Way Stop Control)
City of San Diego Policy 200-08

9) West Ave at Street A
Phase 1a, 1b & 1c



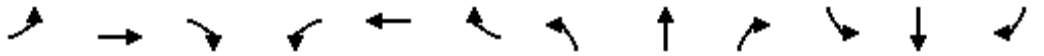
Proposed Conditions

No Scale

Criteria (requires 20 or more points out of 50 possible points)					Points
1) Accident Experience (15 points possible) Three points for each accident				Number of Accidents 0	0
2) Special Conditions (5 points possible) Proximity to schools, fire stations, playgrounds, steep hills, bus routes, strip commercial districts, parks, libraries, hospitals, post offices, pedestrians, bicycle, and vehicle circulation.				Special Conditions	0
3) Traffic Volumes (15 points possible)				4 Hour Volume	
Total Main Street 4-Hour Traffic Volume	Points	Highest Side Street 4-Hour Traffic Volume	Points	Total Main Street Approach Volumes	
0-400	0	0-200	0	921	3
401-600	1	201-300	1	Highest Side St Approach	
601-800	2	301-400	2	498	3
801-1000	3	401-500	3		
1001-1200	4	501-600	4		
1201-2600	5	601-700	5		
2601-2900	4	701-800	6		
2901-3200	3	801-900	7		
3201-3500	2	901-1000	8		
3501-3800	1	1001-1100	9		
3801-over	0	1101-over	10		
4) Traffic Volume Difference (10 points possible)				24 Hour Volumes	
Traffic Volume Difference	Points			Highest Side Street Approach Volume:	
0-150	10			1,523	
151-300	9			Double Side Street Volume:	
301-450	8			3,046	
451-600	7			Total Main Street Approaches:	
601-750	6			2,444	
751-900	5				
901-1050	4			Traffic Volume Difference (subtracting double the side street from main street):	
1051-1200	3			-602	10
1201-1350	2				
1351-1500	1			If negative, use volume difference of zero to assign points	
1501-over	0				
5) Pedestrian Volumes (5 points possible)				4 Hour Volumes	
Pedestrians Crossing Main Street 4-hrs	Points			Pedestrians Crossing Main Street Appoaches	
0	0			0	0
1-50	1				
51-100	2				
101-150	3				
151-200	4				
201-over	5				
				Point Total:	**16**
				All-Way Stop Control (if 20 or more points):	**Does Not Meet AWSC Criteria**

Appendix Q

Opening Year 2024 Plus Project Phases 1a, 1b & 1c Improvement LOS Worksheets



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	124	0	62	756	1254	0	0	543	546
Future Volume (veh/h)	0	0	0	124	0	62	756	1254	0	0	543	546
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.92
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				161	0	81	889	1475	0	0	610	613
Peak Hour Factor				0.77	0.77	0.77	0.85	0.85	0.85	0.89	0.89	0.89
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				195	0	170	1014	2810	0	0	1548	667
Arrive On Green				0.11	0.00	0.11	0.30	0.80	0.00	0.00	0.46	0.46
Sat Flow, veh/h				1767	0	1538	3428	3618	0	0	3544	1454
Grp Volume(v), veh/h				161	0	81	889	1475	0	0	610	613
Grp Sat Flow(s),veh/h/ln				1767	0	1538	1714	1763	0	0	1689	1454
Q Serve(g_s), s				9.8	0.0	5.4	27.1	16.1	0.0	0.0	13.1	43.4
Cycle Q Clear(g_c), s				9.8	0.0	5.4	27.1	16.1	0.0	0.0	13.1	43.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				195	0	170	1014	2810	0	0	1548	667
V/C Ratio(X)				0.83	0.00	0.48	0.88	0.52	0.00	0.00	0.39	0.92
Avail Cap(c_a), veh/h				247	0	215	1630	2810	0	0	1548	667
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.09	0.09	0.00	0.00	0.83	0.83
Uniform Delay (d), s/veh				47.9	0.0	46.0	36.8	3.9	0.0	0.0	19.7	27.9
Incr Delay (d2), s/veh				16.4	0.0	2.1	0.3	0.1	0.0	0.0	0.6	17.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.1	0.0	2.1	10.8	3.4	0.0	0.0	5.0	16.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				64.3	0.0	48.0	37.2	4.0	0.0	0.0	20.3	45.2
LnGrp LOS				E	A	D	D	A	A	A	C	D
Approach Vol, veh/h					242			2364			1223	
Approach Delay, s/veh					58.8			16.4			32.8	
Approach LOS					E			B			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	92.8		37.2	55.5		17.2						
Change Period (Y+Rc), s	5.1		* 4.7	5.1		5.1						
Max Green Setting (Gmax), s	84.4		* 52	27.4		15.4						
Max Q Clear Time (g_c+I1), s	18.1		29.1	45.4		11.8						
Green Ext Time (p_c), s	15.8		3.4	0.0		0.3						

Intersection Summary		
HCM 6th Ctrl Delay	24.3	
HCM 6th LOS	C	

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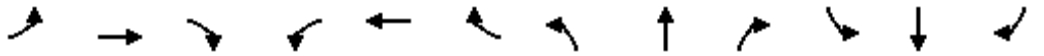

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	171	0	95	360	814	0	0	481	701
Future Volume (veh/h)	0	0	0	171	0	95	360	814	0	0	481	701
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		0.98	1.00		1.00	1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	1856	1856	1856	1856	0	0	1856	1856
Adj Flow Rate, veh/h				209	0	116	391	885	0	0	534	779
Peak Hour Factor				0.82	0.82	0.82	0.92	0.92	0.92	0.90	0.90	0.90
Percent Heavy Veh, %				3	3	3	3	3	0	0	3	3
Cap, veh/h				274	0	239	486	2426	0	0	1601	712
Arrive On Green				0.16	0.00	0.16	0.14	0.69	0.00	0.00	0.47	0.47
Sat Flow, veh/h				1767	0	1542	3428	3618	0	0	3544	1501
Grp Volume(v), veh/h				209	0	116	391	885	0	0	534	779
Grp Sat Flow(s),veh/h/ln				1767	0	1542	1714	1763	0	0	1689	1501
Q Serve(g_s), s				7.4	0.0	4.5	7.2	6.8	0.0	0.0	6.4	30.8
Cycle Q Clear(g_c), s				7.4	0.0	4.5	7.2	6.8	0.0	0.0	6.4	30.8
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				274	0	239	486	2426	0	0	1601	712
V/C Ratio(X)				0.76	0.00	0.49	0.80	0.36	0.00	0.00	0.33	1.09
Avail Cap(c_a), veh/h				419	0	365	496	2426	0	0	1601	712
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.63	0.63	0.00	0.00	0.09	0.09
Uniform Delay (d), s/veh				26.3	0.0	25.1	27.0	4.2	0.0	0.0	10.7	17.1
Incr Delay (d2), s/veh				4.4	0.0	1.5	6.0	0.3	0.0	0.0	0.1	45.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.1	0.0	1.6	3.0	1.3	0.0	0.0	1.9	16.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				30.7	0.0	26.6	33.0	4.5	0.0	0.0	10.7	62.1
LnGrp LOS				C	A	C	C	A	A	A	B	F
Approach Vol, veh/h					325			1276			1313	
Approach Delay, s/veh					29.2			13.2			41.2	
Approach LOS					C			B			D	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	49.8		13.9	35.9		15.2						
Change Period (Y+Rc), s	5.1		* 4.7	5.1		5.1						
Max Green Setting (Gmax), s	39.4		* 9.4	25.3		15.4						
Max Q Clear Time (g_c+I1), s	8.8		9.2	32.8		9.4						
Green Ext Time (p_c), s	6.4		0.0	0.0		0.7						

Intersection Summary		
HCM 6th Ctrl Delay		27.6
HCM 6th LOS		C

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Intersection: 2: Caliente Ave & SR-905 WB Ramp

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	L	T	T	T	T	TR
Maximum Queue (ft)	136	93	125	435	52	273	270	505	509
Average Queue (ft)	83	26	120	219	9	134	62	126	322
95th Queue (ft)	138	61	130	389	33	255	150	336	556
Link Distance (ft)	1000			418	418	418	506	506	506
Upstream Blk Time (%)				1				0	3
Queuing Penalty (veh)				6				0	13
Storage Bay Dist (ft)		820	100						
Storage Blk Time (%)			28	30					
Queuing Penalty (veh)			107	114					

Intersection: 2: Caliente Ave & SR-905 WB Ramp

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LT	R	L	L	T	T	T	T	TR
Maximum Queue (ft)	179	65	124	219	72	229	94	309	422
Average Queue (ft)	91	32	71	82	18	84	24	72	212
95th Queue (ft)	148	54	116	153	52	169	65	177	372
Link Distance (ft)	1000			418	418	418	506	506	506
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		820	100						
Storage Blk Time (%)			3	5					
Queuing Penalty (veh)			5	9					